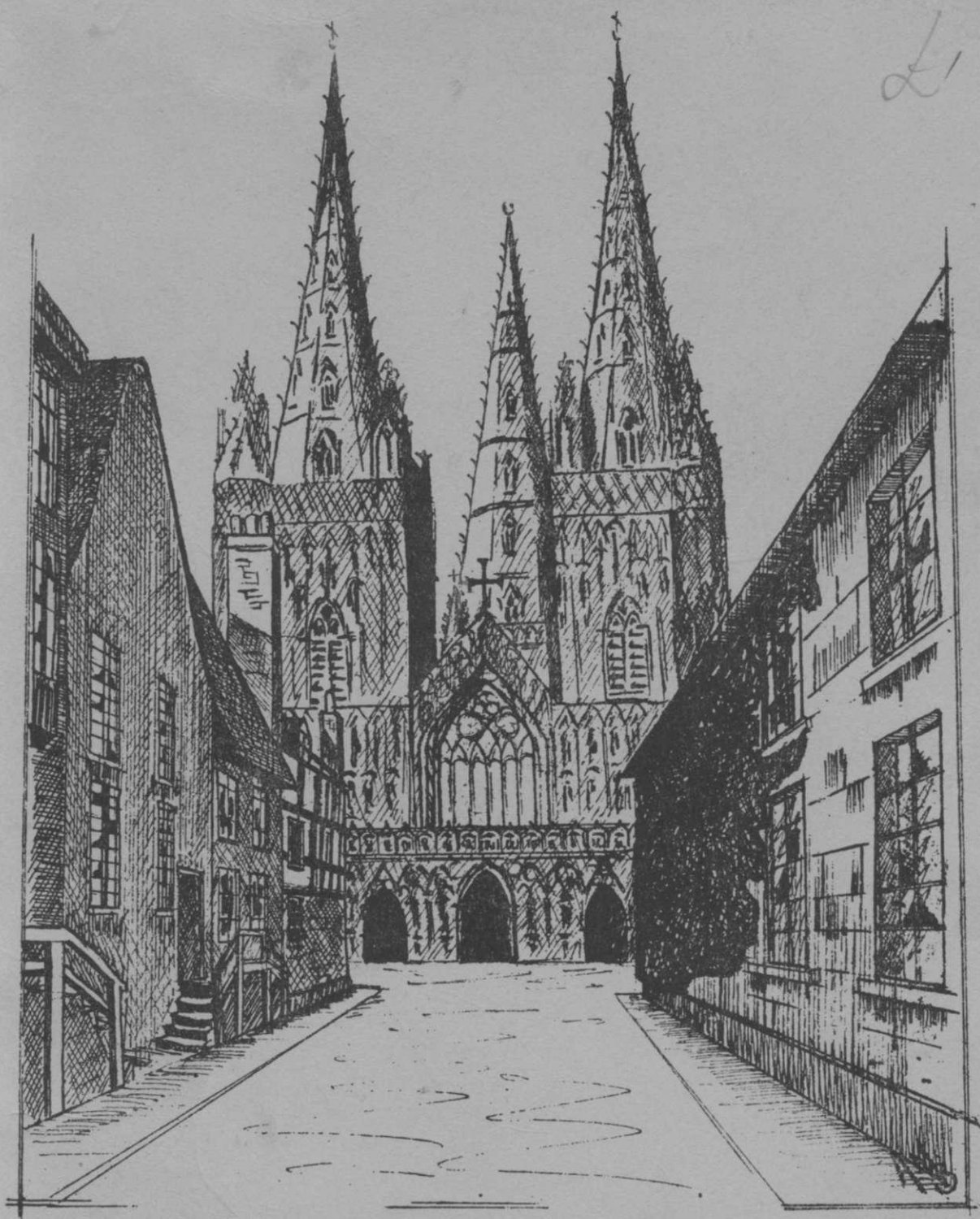




LICHFIELD AND SOUTH STAFFORDSHIRE
ARCHAEOLOGICAL & HISTORICAL SOCIETY

TRANSACTIONS 1963-64 VOLUME V

LICHFIELD AND SOUTH STAFFORDSHIRE
ARCHAEOLOGICAL AND HISTORICAL
SOCIETY

TRANSACTIONS

FOR 1963-64

VOLUME V

Printed for Subscribers only

BY

PRESS OF GEOFF. J. CLARK LTD.

183 HIGH STREET, BLOXWICH, WALSALL, STAFFS.

1964

ACKNOWLEDGEMENT

The major part of the cost of publication of the Wall report has been borne by the Council for British Archaeology. The Society gratefully acknowledges this generous contribution, also contributions to the cost of publication made by

A. HAMIL WESTWOOD

R. E. HEBDEN

Printed in Great Britain

CONTENTS

	<i>Page</i>
EXCAVATIONS AT WALL (STAFFORDSHIRE), 1961-3, ON THE SITE OF THE EARLY ROMAN FORTS AND OF THE LATE ROMAN DEFENCES,	
J. GOULD	1
The Coins, DR. J. RENT, F.S.A.	17
Coins not from the present excavations, MISS M. ARCHIBALD	20
The Samian Ware, B. R. HARTLEY, F.S.A.	23
The Coarse Pottery, J. GOULD	31
Post-Medieval Pottery, D. B. WHITEHOUSE	40
The Clay Tobacco-pipes, A. OSWALD, F.S.A.	40
The Glass, DR. D. B. HARDEN, F.S.A.	41
Bronze, Lead and other non-Ferrous Articles, J. GOULD	43
Military bronzes and the bronze-working hearth	44
Two Enamelled Brooches, DR. G. WEBSTER, F.S.A.	45
Scientific Report on an Enamelled Brooch, A. E. WERNER and ROBERT ORGAN of British Museum Research Laboratory	46
Outline Metallurgical Report on the material from the Bronze-working Hearth and on pieces of Lead from Site N.O.P., DR. H. T. HALL, B.SC.TECH., PH.D., M.I.M.M., F.I.M., M.I.B.F., A.M.C.S.T. and D. J. ASHBY, B.SC. TECH., A.I.M., A.M.C.S.T.	48
Metallurgical Report on Ferrous Articles, M. M. HALLETT, M.SC, F.I.M.	49
LETOCETUM - THE NAME OF THE ROMAN SETTLEMENT AT WALL (STAFFS.)	
J. GOULD	51
THE DEVELOPMENT OF THE GOLDSMITHS' TRADE IN THE MIDLANDS	
A. H. WESTWOOD, Assay Master, Birmingham	55
THE TITHE MAPS (1840-1) OF ALDRIDGE, GREAT BARR AND SHENSTONE	
R. E. HEBDEN, M.A.	65
LOWER FARM, BLOXWICH (STAFFS.) A CRUCK-TRUSS HOUSE	
V. F. PENN	69
OFFICERS AND COMMITTEE OF THE SOCIETY.	75
PROGRAMME, 1963-4	77

LIST OF PLATES AND FIGURES

Page

EXCAVATIONS AT WALL (STAFFS.), 1961-3

Plate I	Northern foundations of the wall, site K	} facing page	4
Plate II	The western defensive wall, site L		
Fig. 1	Map of the late defended enclosure showing areas of excavation	facing page	1
Fig. 2	Section through the northern defences, site K		3
Fig. 3	Section through the western defences, site L		4
Fig. 4	Plan and section of the south-west corner of the defensive wall, site M		5
Fig. 5	Plan of the well sealed by the defensive wall, site T		6
Fig. 6	Plan of the granary construction trenches, site K		8
Fig. 7	Plan of a military building, south of the Watling Street, site S		8
Fig. 8	Plan of the Watling Street, early construction trenches, unfinished well and foddering crib, site N. O. P.		9
Fig. 9	Plan of the clay floor and early buildings, site R		10
Fig. 10	Watling Street, part section N.A., site N. O. P.		12
Fig. 11	Watling Street, part section N.F.-O.F., site N. O. P.		12
Fig. 12	Map of Roman Wall		14
Fig. 13	Samian pottery and tobacco-pipe stamps		22
Fig. 14	Coarse pottery associated with the late defences, the well and early buildings. Inset:- Patterns from roller-stamped jars		26
Fig. 15	Coarse pottery from the early military period		28
Fig. 16	Coarse pottery from the Antonine drainage ditch		30
Fig. 17	Coarse pottery from the Antonine drainage ditch and examples of fourth-century pottery		32
Fig. 18	Small finds.		42
	<i>Dipinto</i> ; coarse pottery, item No. 113		35

THE TITHE MAPS OF ALDRIDGE, GREAT BARR AND SHENSTONE

Fig. 1	Land use, 1840-1 (from tithe maps).	66
Fig. 2	Relationship between farming and geology, 1840-1	67

LOWER FARM, BLOXWICH (STAFFS.) A CRUCK-TRUSS HOUSE

Plate I	Ceiling beams	facing page	69
Fig. 1	Plan		70
Fig. 2	Cruck-truss		71
Fig. 3	Details of ceiling beams		72

REFERENCES

For brevity repeated references have been abbreviated as follows, all other references are given in full:

- | | |
|---------------------------------------|---|
| <i>Ant. J.</i> | <i>Antiquaries Journal</i> |
| <i>Astley</i> | C. I. Walker, Excavations on a Romano-British Site at Astley, 1956-58, <i>Worcestershire Arch.Soc.Trans.</i> ,xxxv, 1958,pp. 29-58 |
| <i>Arch. .</i> | <i>Archaeologia</i> |
| <i>Arch. J.</i> | <i>Archaeological Journal</i> |
| <i>Balmuidy</i> | S. N. Miller, <i>The Roman Fort at Balmuidy</i> , 1922 |
| <i>B.M.C.</i> | <i>British Museum Catalogue</i> (Coins of the Roman Empire) |
| <i>Camulodunum</i> | C. F. C. Hawkes and M. R. Hull, <i>Camulodunum</i> . Report of the Research Committee of the Society of Antiquaries of London, No. 14, 1947 |
| <i>C.G.P.</i> | J. A. Stanfield and G. Simpson, <i>Central Gaulish Potters</i> , 1958 |
| <i>C.I.L.</i> | <i>Corpus Inscriptionum Latinarum</i> |
| <i>Colchester</i> | M. R. Hull, <i>Roman Colchester</i> . Report of the Research Committee of the Society of Antiquaries of London, No. 20, 1958 |
| <i>Curie .</i> | J. Curie, <i>A Roman Frontier Post and its People: The Fort of New stead</i> , 1911 |
| <i>D.A.J.</i> | <i>Derbyshire Archaeological Journal</i> |
| <i>Drag.</i> | Dragendorff, Terra Sigillata, <i>Bonner Jahrbücher</i> , xcvi, xcvii, 1895, 1896 |
| <i>Gillam</i> | J. P. Gillam, The Roman Coarse Pottery of the North of Britain, <i>Archwologia Aeliana</i> , 4th Series, xxxv, 1957, pp. 180-251 |
| <i>Gt. Casterton I and III</i> | P. Corder, ed., <i>The Roman Town and Villa at Gt. Casterton, Rutland</i> , 1951, and Third Report, 1961 |
| <i>Isings</i> | C. Isings, <i>Roman Glass from Dated Finds</i> |
| <i>Jewry Wall.</i> | K. Kenyon, <i>Excavations at the Jewry Wall Site, Leicester</i> .
Report of the Research Committee of the Society of Antiquaries of London, No. 15, 1948 |
| <i>J.R.S.</i> | <i>Journal of Roman Studies</i>
R. Knorr, <i>To'pfer und Fabriken Verzierter des Terra Sigillata des ersten Jahrhunderts</i> , 1919 |
| <i>Knorr, 1919</i> | R. Knorr, <i>Terra Sigillata - Gefasse des ersten Jahrhunderts mit Topfernamen</i> , 1952 |
| <i>Knorr, 1952</i> | P. Corder and J. L. Kirk, <i>A Roman Villa at Langton, near Malton</i> , 1932 |
| <i>Langton Villa</i> | |

- Little Chester* Graham Webster, Excavation on the Roman Site at Little Chester, Derby, *Derbyshire Archaeological Journal*, lxxxi, 1961, pp. 85-110
- L.R.B.C.* . Carson, Kent and Hill, *Late Roman Bronze Coinage*, 1960
- Malton* P. Corder, *The Defences of the Roman Fort at Malton*, 1930
- Margidunum C. H,* F. Oswald, *The Commandant's House at Margidunum*, 1948
- Margidunum T.* F. Oswald, *Excavation of a Traverse of Margidunum*, 1948
- Nene Valley* B. R. Hartley, *Notes on the Roman Pottery Industry in the Nene Valley*, 1960
- Oswald F. Oswald, *Index of Potters' Stamps on Terra Sigillata*, 1931
- O. and P. . F. Oswald and T. Davies Pryce, *An Introduction to the Study of Terra Sigillata*, 1920
- P. S. A. S.* . *Proceedings of the Society of Antiquaries of Scotland*
- R.I.C.* H. Mattingly and E. A. Sydenham, *The Roman Imperial Coinage*, 1923-1951
- Richborough I, III and IV* J. P. Bushe-Fox, *First, Third and Fourth Reports on the Excavations of the Roman Fort at Richborough, Kent*. Reports of the Research Committee of the Society of Antiquaries of London, Nos. 6, 10, 16, 1926, 1932, 1949
- Ritterling E. Ritterling, Das Friihromische Lager bei Hofheim im Taunus, *Annalen des Vereins für Nassauische Altertumskunde und Geschichtsforschung*, xl, 1913
- Silchester* . T. May, *The Pottery Found at Silchester*, 1916
- Sydenham . E. A. Sydenham, *The Coinage of the Roman Republic*, 1952
- T.B.A.S.* . *Transactions of the Birmingham Archaeological Society*
- Verulamium* R. E. M. and T. V. Wheeler, *Verulamium: A Belgic and Two Roman Cities*. Report of the Research Committee of the Society of Antiquaries of London, No. 11, 1936
- V.C.H.* *Victoria County History*
- Wroxeter III* J. P. Bushe-Fox, *Excavations on the Site of the Roman Town at Wroxeter, Shropshire*, 1914. Report of the Research Committee of the Society of Antiquaries of London, No. 4, 1916

EXCAVATIONS AT WALL (STAFFS.), 1961-3

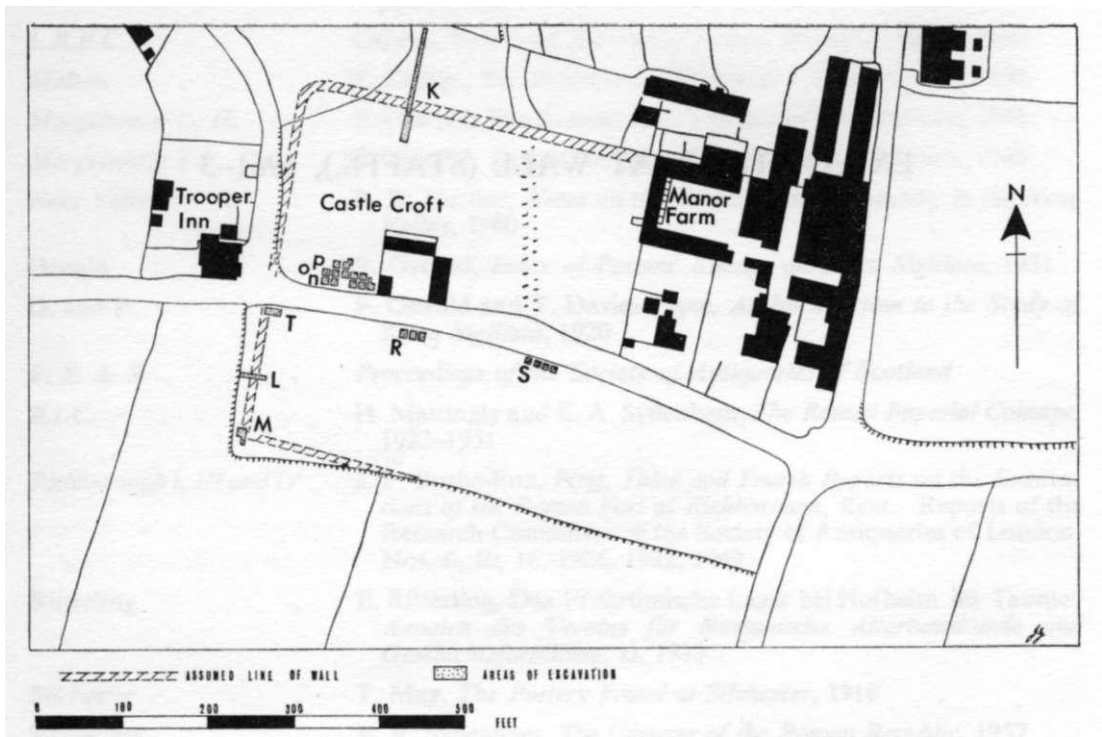


Fig. 1 Map of the late defended enclosure showing areas of excavation

WALL (Staffs.) is situated near the junction of the Roman roads, Watling Street and Ryknield Street.

The National Grid reference of the site of the excavations is SK101065.

EXCAVATIONS AT WALL (Staffordshire), 1961-3 ON THE SITE OF THE EARLY ROMAN FORTS AND OF THE LATE ROMAN DEFENCES

By J. GOULD

INTRODUCTION

One of the earliest references to Wall is by the great eighteenth-century antiquary, John Horsley, who noted that 'It had its name from certain walls which encompass about two acres of ground called Castle Croft.'¹ In Stukeley's day these walls, which he refers to as 'the castle', were already being demolished,² the process continued³ though parts of them were still standing in 1817,⁴ but by 1872 nothing remained above ground and only the foundations were left to be discovered by Colonel Bagnall who recorded a wall 11 ft. thick and 150 ft. long.⁵

During the winter 1960-1961, it was observed that a ridge ran from east to west across the northern side of Castle Croft (fig. 1), that a walnut tree growing on the ridge leaned precariously, and that the ridge ended in a large rockery incorporating many tons of sandstone within the grounds of the White House. In 1961, a trench (fig. 1, K) was put across the ridge cutting it at right angles. This revealed massive dry-stone foundations and on the northern side, a system of defensive ditches. Surface contours indicated the western line of these defences and a further section (fig. 1, L) was cut and the south-west corner located (fig. 1, M).

Work in 1962 and 1963 was confined to the area within these defences (fig. 1, N, O, P, R, S and T). The only land available for excavation was that immediately adjacent to the present Watling Street and work there was undertaken on Saturdays from March to October each year, with more continuous work at holiday times.

Although the investigation was aimed primarily at investigating the defended enclosure, the main discovery was that of large, very early and hitherto unsuspected military buildings outside the area of the forts whose defences were sectioned in 1959 and 1960.⁶ Some light was also thrown on the pattern of settlement and the road system.

The geology of the site has been described by Dr. Thorpe.⁷

¹ *Britannia Romana*, 1732, p. 420.

² *Itinerarium Curiosum*, ii, 1776, p. 22.

³ W. Hutton, *History of Birmingham*, 3rd ed., 1793, p. 218.

⁴ W. Pitt, *A Topographical History of Staffordshire*, 1817, pp. 128-129.

⁵ *T.B.A.S.*, iv, 1874, p. 38.

⁶ *Ibid.*, lxxix, 1964, pp. 11-23.

⁷ *Ibid.*, lxxiv, 1958, p. 26.

ACKNOWLEDGEMENTS

Thanks are due to many people who have assisted over the three years of excavation. Especially are they due to Mr. W. J. Ryman who willingly allowed excavation on his land, and to Mr. and Mrs. K. Cutler who allowed the storage of tools etc. on their property. Their prolonged help and forbearance are greatly appreciated. The Carnegie United Kingdom Fund made a generous grant of £64 towards the cost of tools and equipment. The actual digging involved many helpers and it is impossible to mention them all. Messrs. M. Baker, J. Brangan, Rev. S. B. Coley, B. Haywood, F. H. Lyon, A. A. Round and J. W. Whiston (who also helped with the photography) together with Miss M. Attwood, Miss G. K. Mills, Miss H. Moore and Mrs. D. Gould helped throughout whilst other workers included Messrs. T. Cameron, A. J. Davies, D. Emery, J. Inglis, J. Lees, M. Lyon, W. J. Orton, D. and H. Smallwood, D. Williams, Mr. and Mrs. Blunt, Mr. and Mrs. Ball, Miss E. Silverthorne, Miss R. McCallum, Miss E. Reed and Miss R. Moore. Mr. Linney, curator of the bath site, helped in various ways, in particular in drawing attention to local surface finds. Mrs. M. Stanley has assisted with typing.

Specialist help also was given by many people. Mr. B. R. Hartley, F.S.A. gave detailed and invaluable comments on all samian found, Mrs. K. F. Hartley examined the mortarium stamps, some of the other mortarium fragments and also commented on the roller-stamped and rouletted pottery; Mr. R. P. Wright, F.S.A. examined and commented on the *dipinto*. Dr. J. Kent, F.S.A. identified all the coins found in the excavations whilst Miss M. Archibald commented on surface finds of coins by the local villagers. Dr. H. T. Hall and Mr. D. J. Ashby of the County Technical College, Wednesbury made a detailed examination of non-ferrous objects, and Mr. M. M. Hallett, M.Sc, F.I.M. has examined and commented on the iron, slags and ironstone. Dr. D. B. Harden, F.S.A. commented on the glass fragments and Mr. A. Oswald, F.S.A. identified the makers of clay-pipes. Miss M. Attwood checked the drawings of coarse pottery and drew the decorated samian. Mr. S. O. Kay commented on the Derbyshire ware, Mr. D. Whitehouse on the post-medieval sherds and Dr. Thorpe on the limestone, shale etc.

Finally, mention must be made of Dr. Graham Webster, F.S.A. who frequently visited the site and from whom there has been a constant flow of advice, suggestions and encouragement.

THE DEFENCES AND THE WELL SEALED BY THEM

SITE K (figs. 1 and 2)

This section revealed the dry-stone footings of Keuper sandstone (plate I) standing 4 ft. above their base which rested on soft red sand. At the base, the footings were 8 ft. 9 in. wide but the upper levels had spread to give a width of 9 ft. 6 in. The lower stones were pitched. The core consisted of slightly smaller pieces of sandstone and a little sand with a few chips. Above the footings ran a robber trench which yielded no datable evidence for the robbing. Cutting this robber trench were two shallow trenches following the northern and southern upper edges of the footings and which may have been the work of Col. Bagnall who 'had the ground excavated on each side of the wall for a considerable distance . . . in order to see if any building branched off from it.'

¹ *T.B.A.S.*, iv, 1874, p. 38.

North of the wall were three defensive ditches, separated from the wall by a berm of some 6 ft. Below the berm were the remains of a bronze-working hearth (discussed below) which in turn was cut by a small pit containing second-century pottery (Nos. 83-88). Above was a quantity of turfy, sandy soil, possibly part of the ditch upcast, crowned by a thin scatter of sandstone chips which may represent the construction level, though the scatter was not easily separated from the destruction debris overlying the filling of the inner ditch. Below the presumed construction level were sherds (Nos. 89 and 90) suggesting a third-century or later date for the construction of the wall. In the top of this layer was a much corroded chisel-like iron object which may have been used for dressing the upper courses (for an analysis of this object see p. 50).

The inner ditch was 14 ft. wide, 9 ft. deep and clay lined. In the bottom were clean sand and clay from the collapse of the sides with a thick layer of black silt above. The upper filling was of sand, soil and pebbles with some packed broken clay. The high water-table and the soft lower filling made it difficult to empty this ditch as the sides of the excavation trench were undermined by the quick inflow of water and soon collapsed. Because of this difficulty the centre and outer ditches were not completely emptied, but the upper filling of these was identical with that of the inner ditch. In the secondary silt of the centre ditch was a scrap of white pottery with a green glaze, showing the ditches to have been open in medieval times. The centre ditch was 14 ft. wide by a probable 8 ft. deep, and the outer ditch was 12 ft. wide. The clay lining of the ditches and the present high water level suggest that the ditches were wet in Roman times. Beyond the outer ditch the ground rises rapidly to the hill-top making the northern side weak defensively.

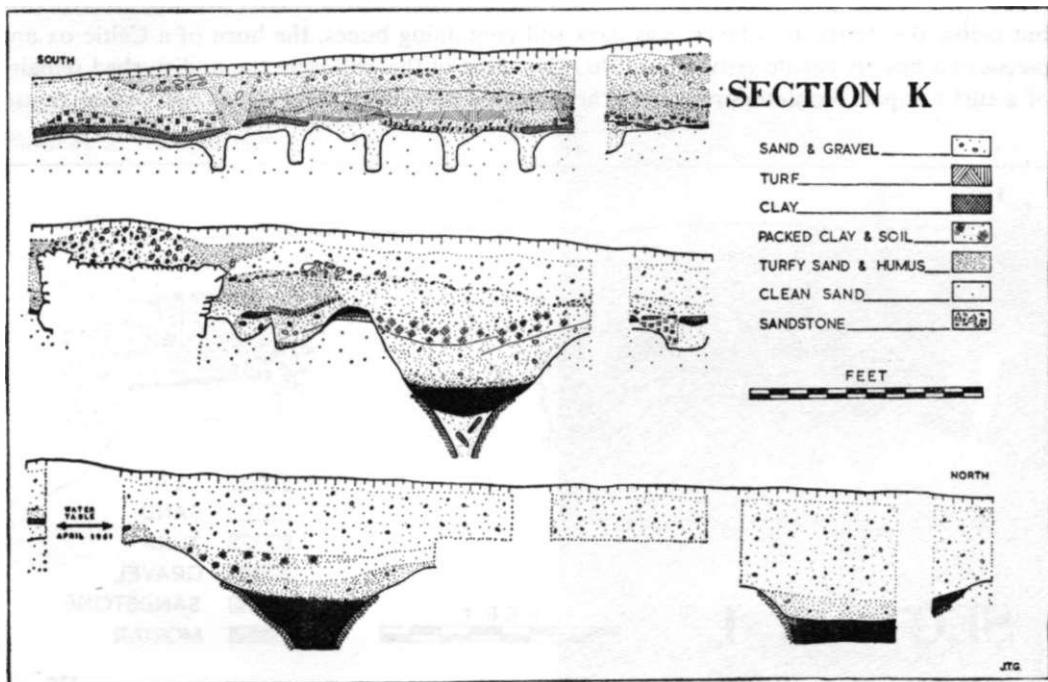


Fig. 2 Section through the northern defences, site K.

(By courtesy of the *Journal of Roman Studies*)

To the south of the wall, the excavation trench was widened from 4 ft. to 8 ft. to examine the rampart contemporary with the wall and to secure dating evidence from below it. Unfortunately the top three feet of soft turfy soil was much disturbed, probably due in part to the carrying away of stone to the near-by Watling Street, and possibly due to the hurdling of sheep in the shelter afforded to the south of the wall in the post-Roman period. This was suggested by the finding of hundreds of small stake-holes. Below the disturbance were many battered sherds of the first and second centuries together with some of a later date (Nos. 92-94).

At the tail of the rampart was a clay floor, immediately above which were two late sherds (Nos. 95 and 96). Below the rampart were the six construction trenches of the granary referred to below.

SITE L (figs. 1 and 3)

This section across the line of the western defences revealed the wall (plate II) still standing 5 ft. high above its footings, 9 ft. wide at the base but narrowing to 8 ft. The foundations were again of dry sandstone (Keuper) but incorporating some large cobbles. The upper six courses were mortared and the western face dressed, the lower three courses each being offset. To the east the foundations cut into a rubbish pit which possibly caused the subsidence leading to the latitudinal crack along the centre of the wall. Cultivation above the wall had removed all traces of robbing. In front of the wall was a narrow berm, 5 ft. wide, separating the wall from the inner ditch. Only the inner lip of the ditch could be excavated owing to the proximity of the hedge. The construction level west of the wall overlay some 18 in. of mixed sand and soil containing first and second-century pottery together with one sherd of a possibly later date (No. 97), whilst in the construction level itself was a colour-coated sherd (No. 98). Above this, but below the destruction layer, was dark soil containing bones, the horn of a Celtic ox and pieces of a heavily calcite gritted pot (No. 99). East of the wall were the undisturbed remains of a turf rampart, contemporary with the wall and surprisingly free from occupation refuse.

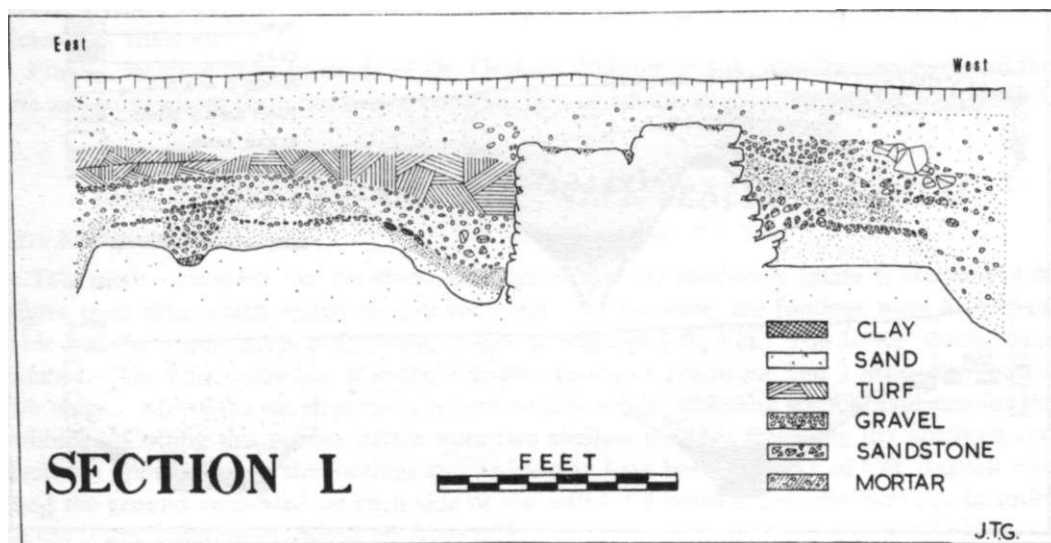


Fig. 3 Section through the western defences, site L



PLATE I

Northern foundations of the wall, Site K.
(Photo by J. W. Whiston)



PLATE II

The western defensive wall, Site L.
(Photo by J. W. Whiston)

This contained but three small sherds, one of them nondescript (Nos. 100 and 101). The gravel below the rampart contained many second-century pieces, not surprisingly since the foundations cut through a rubbish pit of that date in the undisturbed bottom of which was a coin of Trajan (No. 17). The post-hole below the rampart contained mortar and like the gravel above, was presumably associated with the building of the wall, when it may have held a scaffold pole. This suggests that the wall was built first as a free standing structure, and the rampart added later though this may merely represent the sequence of building.

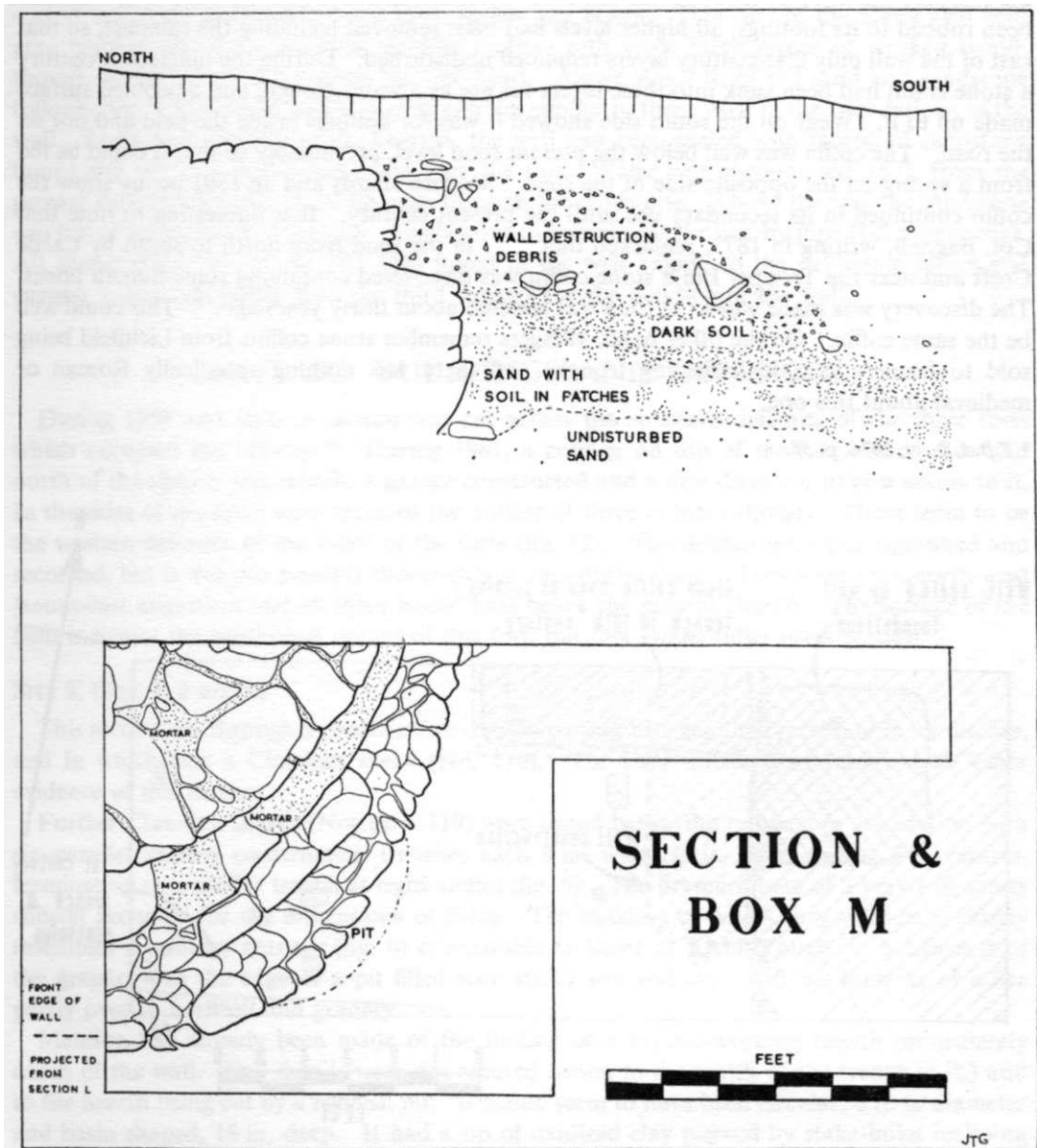


Fig. 4 Plan and section of the south-west corner of the defensive wall, site M

SITE M (figs. 1 and 4)

Here a short trench and an 8 ft. box were cut to test for the existence of a bastion on the south-west corner of the defensive wall. Both plan and section show conclusively that no bastion was ever built at that point.

SITE T (figs. 1 and 5)

This trench 8 ft. wide was opened in the hope of securing closer dating evidence from below the rampart which other sections had shown to be contemporary with the wall. The wall had been robbed to its footings, all higher levels had been removed including the rampart, so that east of the wall only first-century layers remained undisturbed. During the nineteenth century a stone coffin had been sunk into these layers for use as a water trough, and a pebbled surface made up to it. Wear on the south side showed it was for animals inside the field and not on the road. The coffin was well below the present road level, presumably so that it could be fed from a spring on the opposite side of the road. Modern sherds and an 1891 penny show the coffin continued in its secondary use until the present century. It is interesting to note that Col. Bagnall, writing in 1873, remarked that '... in the road from north to south by Castle Croft and near the Trooper Inn a stone coffin was discovered containing some human bones. The discovery was made when the road was lowered about thirty years ago.'⁹ This could well be the same coffin. On the other hand, villagers remember stone coffins from Lichfield being sold to farmers as animal feeding troughs and there was nothing specifically Roman or medieval about this one.

⁹ *T.B.A.S.*, iv, 1874, p. 38.

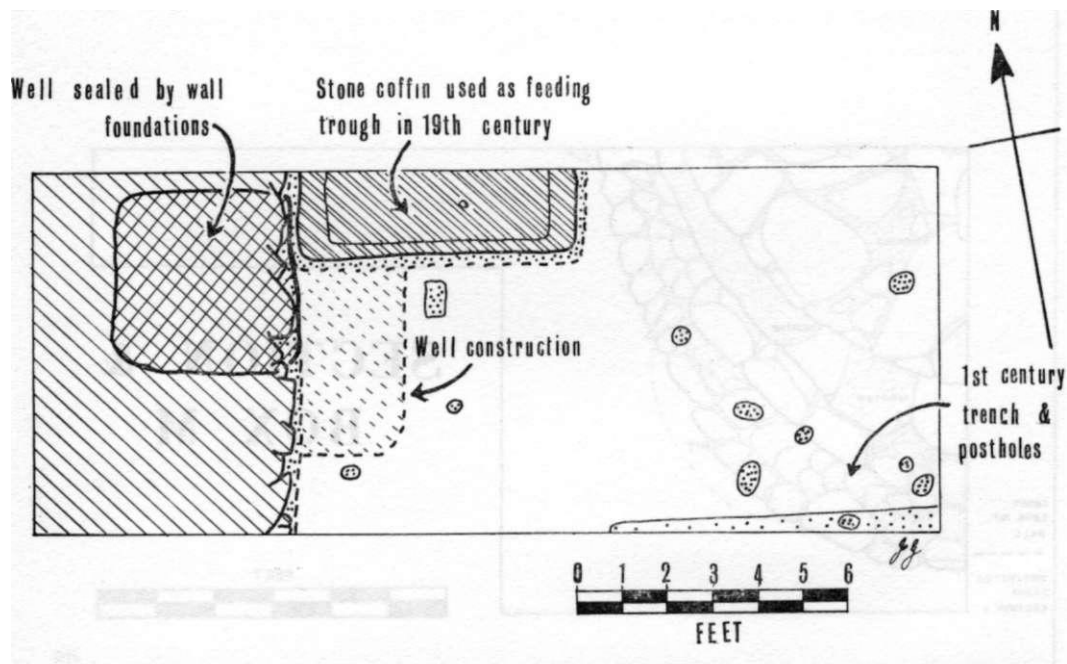


Fig. 5 Plan of the well sealed by the defensive wall, site T

Having failed to secure dating evidence from below the rampart, part of the undisturbed footings of the wall were removed for this purpose. The footings were of pitched Keuper sandstone with a large number of large cobbles. The construction trench for the wall had gone through the soft red sand subsoil to bedrock (Keuper sandstone) and the footings were laid on this. Below the wall and sealed by it was a well, roughly 4 ft. square with rounded corners. The bottom was 39 ft. from the present ground level, the lower 32 ft. being rock cut. The bottom 9 ft. were rounded and tapered to a diameter of 1 ft. 11 in.. The bottom filling consisted of 4 ft. of gravelly sand, well washed and clean. Above was 13 ft. of mixed filling - sand, soil, clay and pebbles with some sherds and bones. This part of the filling also held grey patches of an evil smelling silt-like matter, with some large pieces of worked wood, though not sufficient to represent the well-head. Above was 2 ft. of red sand and sandstone followed by 13 ft. of very tightly packed cobbles similar to those used in the foundations of the wall. Level with the top of the bedrock the well had been sealed with mortared sandstone lumps and the wall foundations laid over the top. Water was encountered 15 ft. from the present surface where bands of clay run through the sandstone. Above the clay the sandstone was full of water, below it was dry, possibly due to pumping at the nearby Pipe Hill waterworks. All sherds (Nos. 80-82 and 103-114) found in the well belong to the deliberate filling and suggest a date not earlier than the third century for the building of the wall.

MILITARY BUILDINGS AND DEFENCES

During 1959 and 1960, a section was cut across the southern defences of the three forts which occupied the hill-top.¹⁰ During 1961, a cottage on top of the hill, adjacent to and north of the church was rebuilt, a garage constructed and a new drive cut to give access to it. In the sides of the drive were revealed the outline of three military ditches. These seem to be the western defences of the latest of the forts (fig. 12). The ditches were photographed and recorded, but it was not possible thoroughly to investigate them. They were on a north-west/south-east alignment and all three would pass below the present church. The surface of the land indicates the north-west corner of this fort, but this awaits fuller investigation.

SITE K (figs. 1, 2 and 6)

This section cut through a construction trench running between the centre and inner ditches, and in which was a Claudian sherd (No. 116). The later ditches had removed all other evidence of this feature.

Further Claudian sherds (Nos. 117-119) were found below the rampart in association with six parallel narrow construction trenches each 9 in. wide, 18 in. deep and at 4 ft. centres, terminating in a similar trench at right angles (fig. 6). The presence here of a very soft sandy subsoil accounts for the dimensions of these. The building of which they were part, closely resembles a military granary (fig. 6) comparable to those at Richborough.¹¹ South-east of the granary was the edge of a pit filled with sticky soil and clay, and the remains of a fire partly overlay both pit and granary.

Mention has already been made of the finding of a bronze-working hearth immediately north of the wall. Full details were not secured owing to the width of the trench (4 ft.) and to the hearth being cut by a rubbish pit. It would seem to have been circular, 6 ft. in diameter and basin shaped, 18 in. deep. It had a lip of oxidized clay pierced by stake-holes inclining

¹⁰ *T.B.A.S.*, lxxix, 1964, pp. 11-23.

¹¹ *Richborough IV*, pp. 26-36.

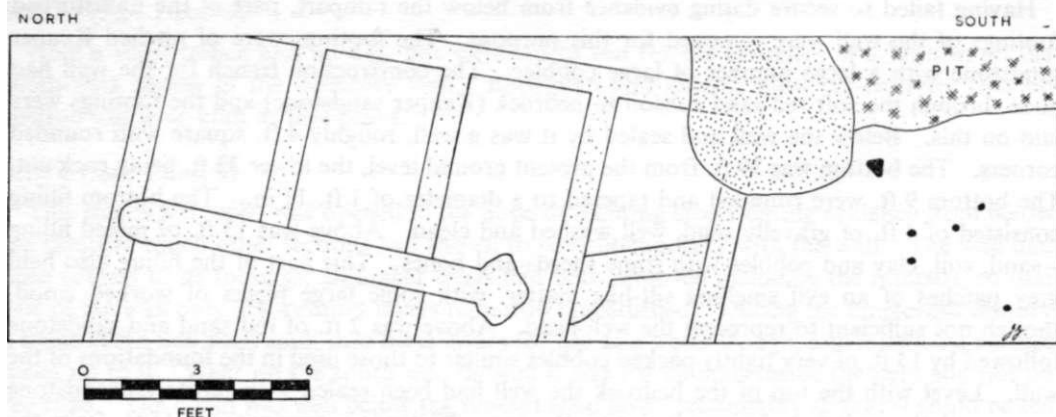


Fig. 6 Plan of the granary construction trenches, site K

inwards as though for support over the hearth. The hearth itself contained layers of charcoal, dirty sand, pieces of oxidized clay, crucible fragments, bronze clippings and droplets with some slag (analysis B). The crucibles were hemispherical with a thin pinched spout; one piece had bronze dross adhering to it. Altogether 3f oz. of badly corroded bronze and copper were found. Despite the corrosion and clipping, Dr. Webster has been able to identify several pieces of military equipment (see below). Also in the hearth was a clipped *as* of Claudius I (No. 3) and an undipped *as* of Vespasian (No. 12). This and the rubbish pit cutting the hearth suggest a date near the end of the first century for the melting down and recasting of military scrap prior to the departure of troops, or by scavengers later.

SITE S (figs. 1 and 7)

Here were found the construction trenches of a large timber building (fig. 7), at least 33 ft. in length. Before erection the turf had been removed from the site and a fire lit; oxidized clay with a few slender bones (deer?) with a potsherd (No. 120) suggest a cooking hearth. Trenches had then been cut into the sandy subsoil, one passing through the remains of the hearth. On the trampled red sand were a few sherds (including No. 121) and a brooch (fig. 18, No. 1). The construction trenches were cleanly filled but did contain some sherds (Nos. 122 and 123).

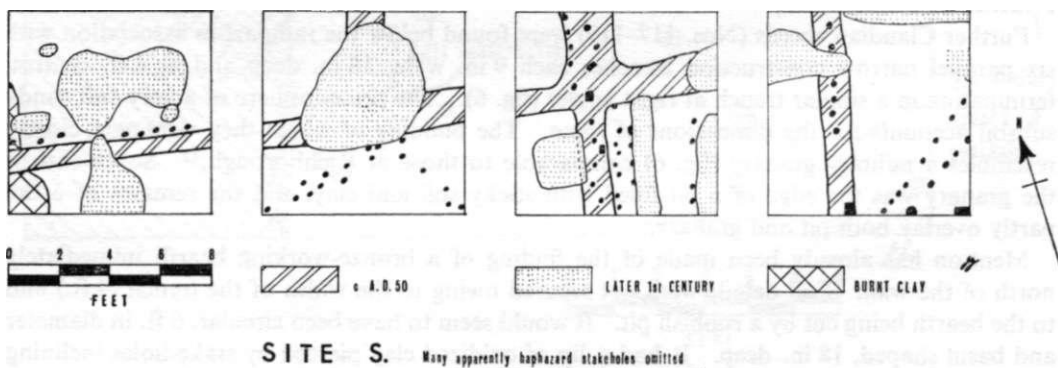


Fig. 7 Plan of a military building, south of the Watling Street, site S

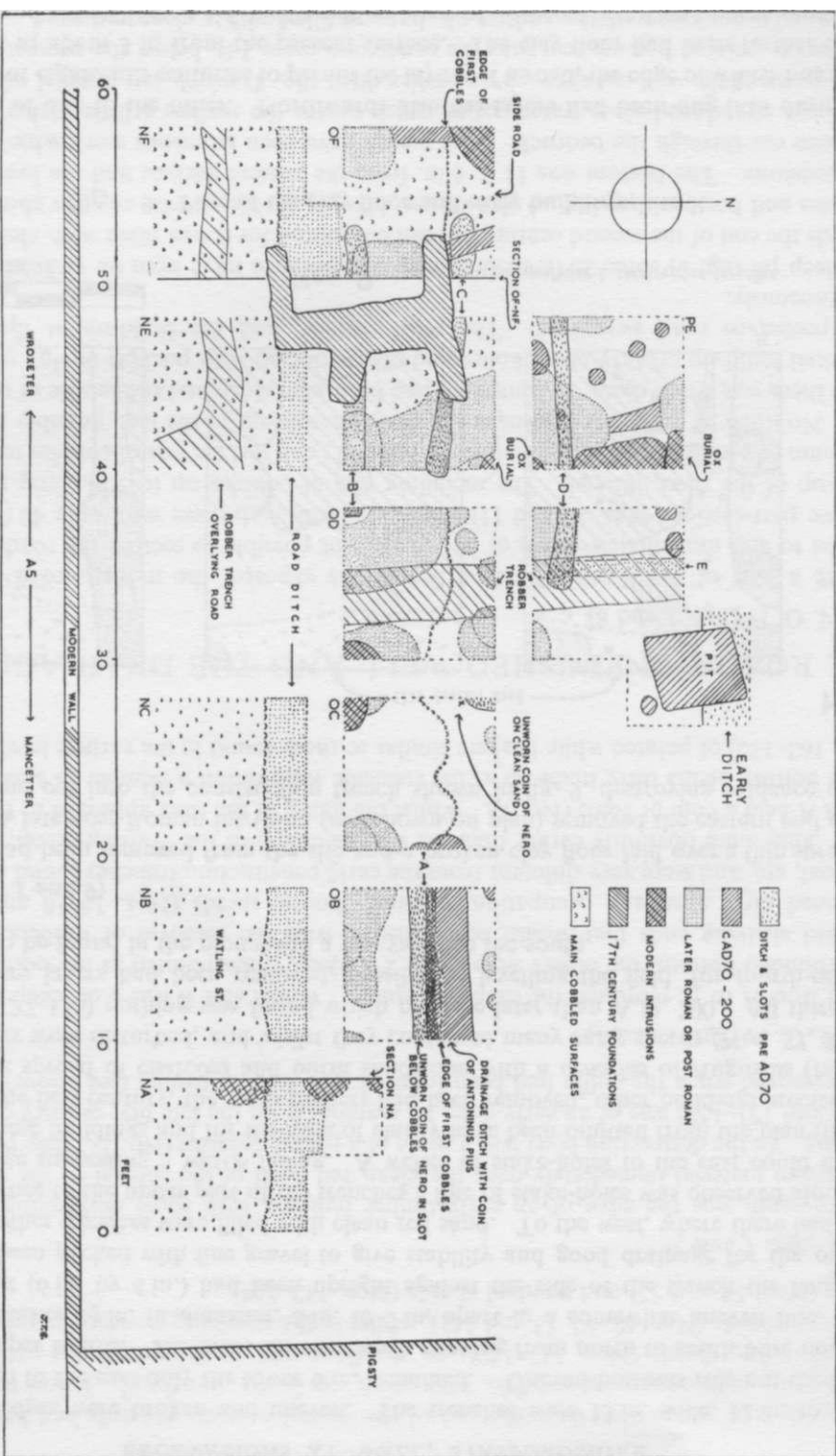


Fig. 8 Plan of the Watling Street, early construction trenches, unfinished well and foddering crib, site N. O. P.

The upper edges were broken and uneven. The trenches were 13 in. wide, 12 in. to 18 in. deep, though to the east only the lower 6 in. remained. Uneven bottoms rule out the likelihood of sleeper beams. The most eastern trench running from north to south bore imprints of upright stakes 2½ in. in diameter, 5 in. to 7 in. apart in a somewhat uneven line. One squared post (6 in. by 4 in.) had been upright against the side of the trench the length of which had been packed with fine gravel to give stability and good drainage for the outside wall. The other trenches were filled with clean red sand. To the west, where there had been less disturbance to the upper part of the trenches a line of stake-holes was observed along the northern edge suggesting a wattle facing. A welter of stake-holes to the east could not be related to these buildings and for the sake of clarity have been omitted from the plan (fig. 7).

Later in the first century, the main timbers had been removed, other buildings erected and above was a spread of charcoal and burnt sandstone with a *denarius* of Augustus (No. 1). Higher layers were disturbed, and whilst they contained many early sherds (Nos. 57, 59-61, 66-68 and 127-136) nothing was found which need be later than A.D. 200. All third and fourth-century layers had been removed, possibly in levelling the field, for fourth-century sherds are to be found in the ploughsoil a few yards to the south.

SITE R (figs. 1 and 9)

All turf had been removed from the site and a broken clay floor laid over a thin spread of charcoal. A late post-Roman intrusion (not shown on plan) removed the eastern end of the clay floor and cut into the construction trench shown in fig. 9, destroying evidence of the

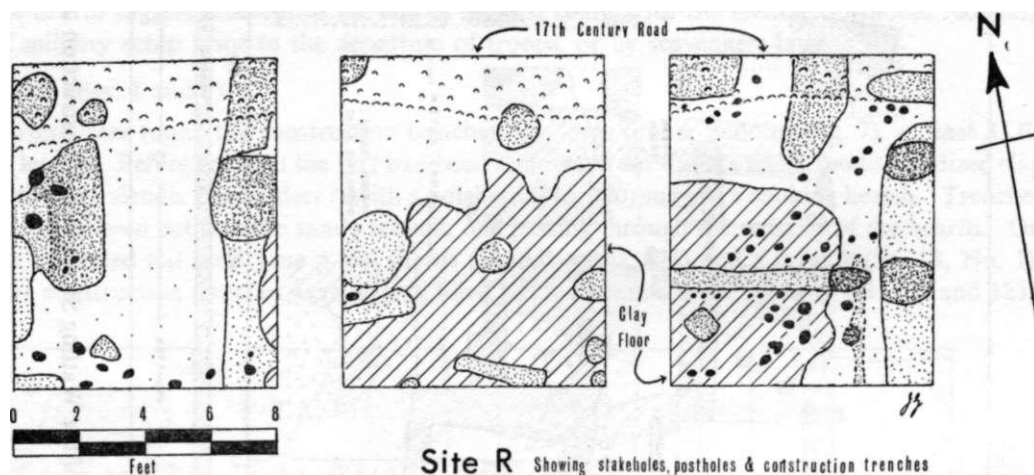


Fig. 9 Plan of the clay floor and early buildings, site R

relationship of one to the other. Northwards also the layers had been dug into during the seventeenth or eighteenth centuries to permit the laying of a road, the edge of which was found in the boxes at about 3 ft. from the present surface. The clay floor had been further cut by post-holes, and over all lay a thick destruction layer of charcoal, sand and burnt sandstone.

All evidence of occupation from the end of the second century onwards had been removed save for one colour-coated sherd (No. 148) which was in the ploughsoil. Below the clay floor were Claudian sherds (Nos. 137-140), on the floor and in the post-holes cutting it were Neronian sherds (Nos. 49, 52, 53 and 141), whilst in the overlying destruction were Antonine sherds (Nos. 54 and 55) and residual sherds (Nos. 142-144).

SITE T (figs. 1 and 5)

Here again was the edge of an early timber building with some destruction above and occupation material immediately over the clean red sand of the subsoil to the north of the building. In the destruction layer was a piece of a plated *denarius* (No. 2). The pottery (Nos. 73-78 and 151-158) was of an early date, all material from the late first century onwards had been removed when the coffin had been inserted as a feeding trough (see above).

SITE N. O. P. (figs. 1 and 8)

The slots A to E, represent the earliest features. Whilst slot E was 6 in. deep and had an even-rounded bottom, the others were up to 2 ft. deep, often pointed at the bottom and had rounded shelving ends that would be consistent with the removal of timbers. The slots contained dirty sand and occupation material - bones, sherds (Nos. 15-18 and 159-161), charcoal, etc. and were very different from the early construction trenches found on the other sites. They were obviously earlier than the first metalling of the Watling Street, and the top of slot A held a coin of Nero (No. 7). Whilst the filling of the slots appeared to be Neronian, at the bottom of the dirty build-up at the roadside were found a number of small fragments (Nos. 162-170) of painted white beakers similar to those found in the earliest levels elsewhere.

THE ROADS, UNFINISHED WELL AND THE DRAINAGE DITCH

SITE N. O. P. (figs. 1 and 8)

Here a part of the Roman Watling Street was exposed, the modern road A5 running parallel to and immediately south of it. It was not possible to section the road completely, but two part-sections (figs. 10 and 11) were cut. Although these were only 42 ft. apart, the make-up of the road differed. The metalling was of cobbles up to 9 in. long used with a minimum of sand, though in section NF-OF (fig. 11) one surface was of cobbles set in puddled clay. No ditch or kerb was present in the early phases, but in the last, possibly post-Roman phase there was a side ditch. All surfaces had been kept clean and to the side of the road was a gradual build-up of dirty sand, bones and other rubbish with pockets of tiny grit as would be expected in road sweepings. The road surface, and the build-up at the side, rose simultaneously.

A deep pit (fig. 8) some 20 ft. from the road appears to have been an unfinished well, cut towards the end of the second century but not completed for it was filled with clean red sand; the sides and bottom showing no sign of use, being quite clean with unworn chisel marks on the sandstone. The bottom was 11 ft. 6 in. from the present surface and the lower 5 ft. 6 in. had been cut through the bedrock. This would have been laborious work which might well have been abandoned since water occurs much nearer the surface a little higher up the hill. The diggers of the well cut through an earlier ditch (fig. 8) which ran parallel with the road. This had a pointed bottom, cut into the sandstone some 7 ft. below the present surface. It had no military characteristics and no silt, but was filled with a clean red sand. In the filling

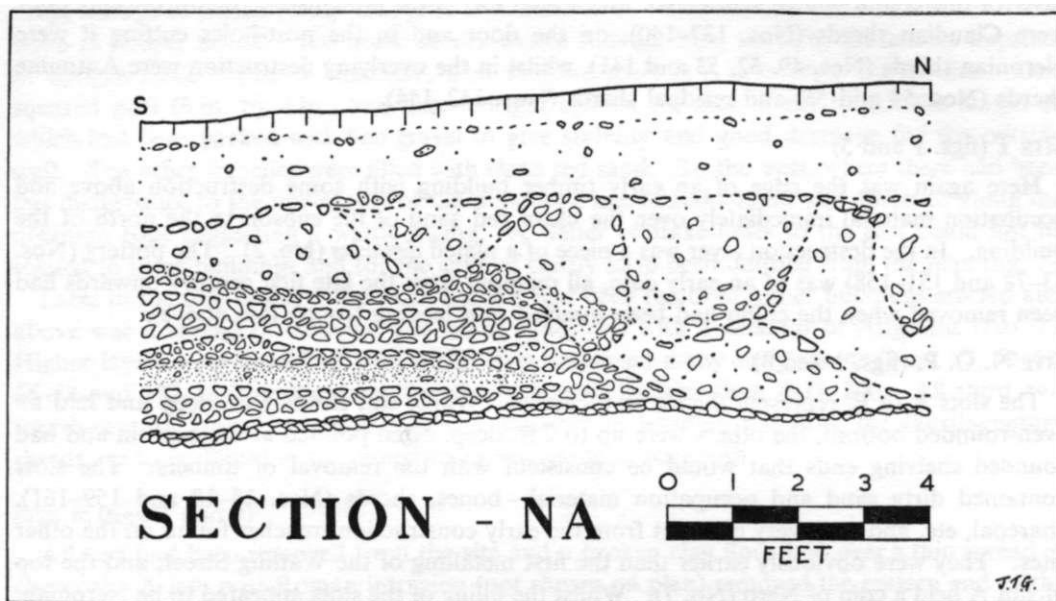


Fig. 10 Watling Street, part section N.A., site N. O. P.

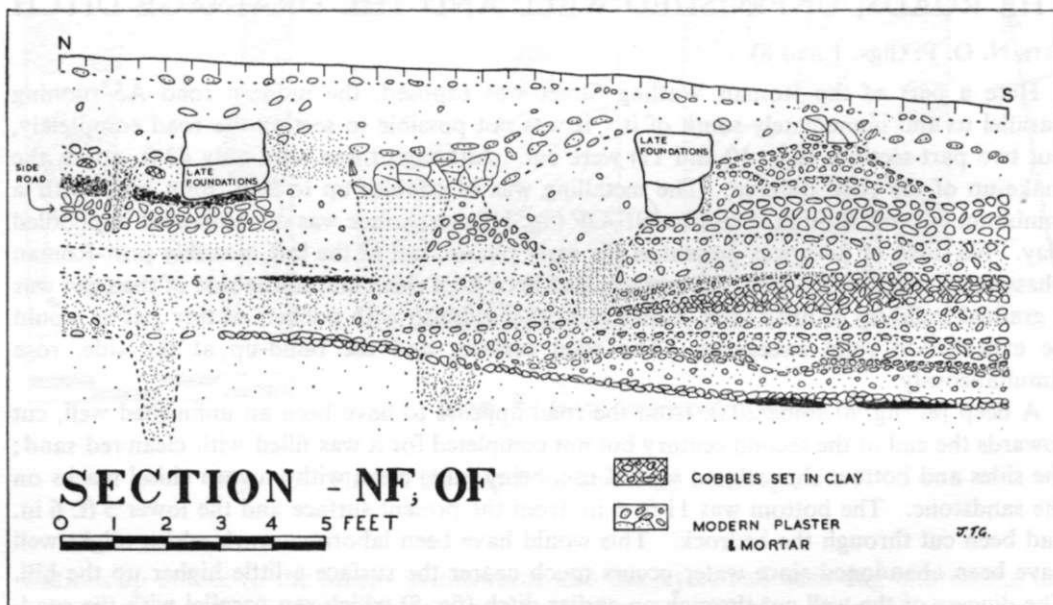


Fig. 11 Watling Street, part section N.F.-O.F., site N. O. P.

was an unusual enamelled brooch (fig. 18, No. 27) which is the subject of a separate note by Dr. Webster at p. 45. The ditch remains a problem, as it seems too big to be associated with construction of the road.

The first metalling of the Watling Street was a thin but very firm spread of small pebbles (with sherds Nos. 19-26, 171 and 172) laid directly on the clean red sand which had been levelled and compacted after the removal of turf and soil. The pebbles overlay slots A and B (fig. 8) and the coin (No. 7) in the top of slot A may well have been lost when the road was laid. A further coin of Nero (No. 5) rested directly on the clean sand 2 ft. north of the edge of the first pebble layer. Neither coin was worn and, with the associated samian ware (Nos. 15-26), they suggest a date for construction about A.D. 70. A third coin of Nero (No. 8), this time worn, was in the early build-up of sand and grit at the roadside.

Running into the Watling Street from the north was a side road, the eastern edge of which was cut by a late curving (robber?) trench. The western edge was not found. The late road ditch to the north of the Watling Street cut through this side road (figs. 8 and 11), which consisted of a single spread of pebbles (with sherds Nos. 35, 173 and 174) 6 in. thick on a layer of red sand. There were some signs of repair. Below the road were Antonine sherds but nothing later. It was built therefore in the later second century, and the level at which it joined the Watling Street (fig. 11) shows that most of the surviving Watling Street had been built by that date.

On the top of the side road, but not of the Watling Street, was a layer of burnt debris, 4 in. to 5 in. thick, mostly of charcoal but with a few small pieces of flue tiles, *tegulae*, *imbrices*, window glass and roofing slate (calcareous shale of the Wenlock series) and a little limestone (Silurian). These were only scraps and not in quantity, suggesting the burning or spreading of building rubbish rather than the collapse of a building. Above was fourth-century pottery (Nos. 175 and 176) and a coin of Carausius (No. 23).

Cut into the dirty build-up at the side of the Watling Street and parallel to it (fig. 8) was a ditch containing many large and unabraded sherds (Nos. 177-203) which seem to have been deliberately placed there, presumably to aid drainage. The pieces of the large storage-jar (No. 177) were at the western end and the others strewn along the bottom. Since the storage jar lacked its base, the ditch may conceivably have been a urinal, and there was some black humus amongst the sherds. The Antonine date of the sherds was confirmed by the presence with them of a coin of Antoninus Pius (No. 19).

When the Roman road went out of use, a building with crude uneven foundations was built over the road ditch, and rested just on the road surface. This was surrounded by a wall now represented by the robber trenches (fig. 8) one of which runs along the Watling Street. The building was associated with the clay-pipes (see p. 40), seventeenth-century pottery and a worn coin of William III dated 1697. Presumably it was about this time that the course of the road moved over to that of the present road A5, and the brow was taken off the hill by lowering the road. It would seem that the new road was wider than the present one since the southern edge was found in the boxes of site R (figs. 1 and 9). The rough foundations (fig. 8) had two short arms protruding to both east and west from the central wall, and may have supported low lean-to roofs. These would be too shallow for the structure to be other than a foddering crib, erected to protect animal food from the weather whilst the feeding beasts remained exposed. Such cribs have been described by Pitt in his survey of Staffordshire agriculture.¹²

¹² W. Pitt, *A Topographical History of Staffordshire*, (Part 2), 1817, p. 23.

thick forest. This has been seen by Prof. Richmond as the border between Cornovii and Coritani.¹⁶ South of Wall, peat-bogs reached out to present-day Shenstone and on to Little Aston. To the east and north, richer Keuper sandstone with its associated marls probably gave rise to what agriculture there was. By the second century the settlement stretched in an intermittent ribbon along the Watling Street (fig. 12). Except in the area of the forts, no finds have been made more than 100 yds. from the Watling Street.¹⁷ At the north-west corner of an arm of the peat-bog (Nat. Grid SK 108062) the plough has revealed a heavy scatter of worn broken millstones together with pottery (mainly second and third century). Mr. Foden of Shenstone Hall has second and third-century pottery which he collected from alongside the Watling Street when a trench was dug some years ago, parallel to the road and on the southern side, 1½ miles east of the cross-roads with the Ryknield Street. This has been confirmed in 1963 by the trench for a gas pipe-line cutting through second-century layers and a rubbish pit immediately north of the Watling Street (Nat. Grid SK 123053). Pottery has also been found at the cross-roads (Nat. Grid SK 106062).¹⁸

On all sites excavated, ox teeth and the stubby down-turned horns of the Celtic ox have been plentiful but there has been very little evidence for any other domestic animals. Charcoal and slag were also found on all sites. Some slags had the appearance of tapslags and some had oxidized clay adhering to the bottom. Most slag was found on site N. O. P., where there were broken hearths but nothing suggestive of furnace or bloomery. Broken ironstone was found on site K (for analyses and discussion see p. 49). Lead dross and lead (often in the form of clippings from lead sheets) were found in most first and second-century layers. One piece of lead had been cast in a footprint. There was no evidence for cupellation or lead smelting though slag from site S had the black glassy appearance said to be characteristic of this. Analysis C (see p. 49) contradicts this.¹⁹

DISCUSSION

These excavations have demonstrated the presence at Wall of a series of first-century forts from c. A.D. 50. The earliest of these is apparently the largest as its buildings have been found to the south of the defences of the later and smaller series occupying the high ground. As no defences have yet been encountered of this early fort, it is impossible to estimate its size, but it would seem to be at least thirty acres. Such a large fort might have been needed for a group of units moving forward under the advance of Ostorius Scapula towards Wales,²⁰ or yet another possibility is that it was the fortress of the XIVth Legion before it was established at Wroxeter. This latter suggestion could not be considered seriously were it not for the results of recent work at Wroxeter itself. It has become evident in the last few years that large timber buildings of a military type of construction lie below the central buildings of the town and sufficient pottery has now been found to be reasonably confident that the starting date is

¹⁶ Foster and Alcock, ed., *Culture and Environment*, 1963, p. 254.

¹⁷ Pottery on the surface of field 162 (Nat. Grid SK 111065) should be ignored as soil from the centre of Wall has recently been spread there.

¹⁸ Hodgkinson. Unpublished manuscript in possession of the author.

Excavations near this site are at present in progress (1964).

¹⁹ Two pigs of lead have been found at near-by Hints, one is in the British Museum and the other in Tamworth Castle, there are some excellent lead pipes from Wall in the Lichfield Museum whilst in the Ministry of Works Museum is evidence of lead-working at the nearby farm-stead. See also *T.B.A.S.*, lxiii, 1944, p. 27 item No. 92 and p. 29.

²⁰ *Arch. J.*, cxv, 1960, pp. 49-98.

c. A.D. 60 rather than c. A.D. 50.²¹ It seems therefore that there is a possibility of the first military occupation of Wall ceasing when a similar phase started at Wroxeter. The few pieces of military equipment so far recovered do not go very far towards supporting this idea but there are two *pilum* heads and two inscribed tags bearing the names of centurions,²² but these officers are also found in auxiliary units.

As soon as the legion or group of units had advanced, a single holding force of an auxiliary detachment would remain and occupy the higher ground. The subsequent changes might be associated with the dramatic events of the Boudiccan Revolt of A.D. 60, when the Roman Army presumably used Watling Street as their main line of communication and Wall would have been well placed as a point of rendezvous with other units for the Foss frontier zone.²³

At the end of the second century, when most other towns received their defences, the intermittent ribbon settlement, two miles long, would have been most difficult to protect and no such defences have yet been found, though one would expect the central area at least to be protected. At various times a possible line of defence has been suggested.²⁴ This ran from the brook, which has a mound to the north, along curving field boundaries to the ridge (fig. 1) which runs from north to south across Castle Croft, to the point where the Watling Street changes direction. Permission to excavate across this line could not be obtained, but a resistivity survey failed to find any suggestion of ditches, which in any case would have been revealed in site S. Except in its immediate vicinity, the plough has failed to reveal any occupation north of the bath site; further the ditches of the last fort on the hill-top (which is within the above circuit) were not filled until the third or fourth century²⁵ and excavations in that area found little trace of settlement after the close of the military period. The bath-house, dominated by the hill-top, would be most difficult to protect and nowhere else has a sufficient concentration of settlement been found to justify defences. Nevertheless, the existence of such defences must remain a possibility until much more work has been done.

In the troubled fourth century, Watling Street would be an obvious route for marauders, and such a settlement as that at Wall would be in a most unenviable position. The small defended enclosure across the Watling Street leaves the bath-house outside, whilst significantly clinging to the road and ignoring the much stronger hill-top. As no substantial late building has been found within the defended area (though the area excavated is small) it would seem, in the light of present knowledge of the site that the defences were more in the nature of a refuge into which travellers and settlers could retire at the onset of danger. Fourth-century pottery and coins are found both on the bath site and within the defences, but appear to be absent from the roadside settlements by the cross-roads and beyond, though the farm-stead at Shenstone²⁶ was still in use. The Watling Street would ensure quick and easy access to the defended area for both man and beast whilst denying the use of the road at that point to their enemies.

The situation is not so exceptional as at first appears. At neighbouring Manduessedum were late defences, without bastions, enclosing a similar area also across the Watling Street and having a straggle of settlement without.²⁷ The main difference lies in the provision of

²¹ I am most grateful to Dr. Graham Webster for discussing this problem and allowing me to anticipate his published report.

²² *J.R.S.*, xv, 1925, p. 248; xlvii, 1957, p. 231.

²³ D. R. Dudley and Graham Webster, *The Rebellion of Boudicca*, 1962, p. 63.

²⁴ *V.C.H., Staffs.*, i, 1908, p. 194.

²⁵ *T.B.A.S.*, lxxix, 1964, pp. 13-14.

²⁶ *Ibid.*, lxiii, 1944, pp. 1-32.

²⁷ *Ibid.*, lxxiv, 1958, p. 30.

a wide berm between wall and inner ditch. At Pennocrucium too, there is a similarity, though excavation there failed to find either wall or rampart.²⁸ Rectangular enclosures exist across the Stane Street at Hardham²⁹ and Afoldean.³⁰ However, excavation at the former found only one ditch and the report on the latter does not include a section across the defences. Similar defences at Iping³¹ have not been excavated. A like situation may have existed along the Foss at Brough³² and at Thorpe³³ and Dr. Webster suggests the addition of Uxacona to the list of possible parallels.

THE COINS

DR. J. KENT, F.S.A.

All Roman coins from the excavations (1961-1963) have been seen and identified as follows:

1. Augustus (?) (30 B.C.-A.D. 14) *Denarius*
Much worn and corroded.
From the destruction layer over the later first-century buildings,
site S.
2. Augustus or Tiberius (?) (c. A.D. 1-40) Piece of a plated *denarius*.
From the destruction overlying the early construction trench, site T.
3. Claudius I (A.D. 41-54) *As*
Badly worn and clipped.
Rev. Minerva.
From bronze-working hearth, site K.
See fig. 18.
4. Claudius I (A.D. 41-54) Imitation *as*.
Badly worn and corroded.
Minerva type.
Unstratified, site R.
5. Nero (A.D. 64-66) *Dupondius*
Obv. NERO CLAVD C/ESAR AVG GER PM
TR P IMP PP
Rev. SECVRITAS AVGVSTI
Found resting on clean subsoil, near first surface of Watling
Street, site N. O. P.
Not more than five years wear.
6. Nero (A.D. 64-68) *As*
Worn and corroded.
Rev. Victory with globe.
From the destruction layer over the later first-century buildings,
site S.

²⁸ Ibid., lxxiv, 1958, p. 1.

²⁹ *Sussex Archaeological Collections*, lxxviii, 1927,
p. 89.

³⁰ Ibid., lxxiv, 1923, p. 81.

³¹ *Sussex Archaeological Collections*, xci, 1953, p. 3.

³² *J.R.S.*, li, 1961, p. 132

³³ Ibid., xliii, 1953, p. 91.

7. Nero (A.D. 66-68) *As*
 Obv. IMP NERO CESAR AVG P MAX TR P PP
 Rev. Victory and shield.
 From top of slot A below first metalling of Watling Street, site N. O. P.
 Very little wear, details of the hair are unworn.
8. Nero (A.D. 64-66) *As*
 Worn.
 Rev. Victory and shield.
 From build-up at side of Watling Street, site N. O. P.
9. Nero (A.D. 64-68) Contemporary plated copy of a *denarius*.
 Obv. NERO CESAR AVGVSTVS
 Rev. CONCORDIA AVGVSTA
 Unstratified, site S.
B.M.C., 63.
10. Vespasian (A.D. 69-79) *As*
 Worn.
 Unstratified, site S.
11. Vespasian (A.D. 69-79) *As*
 Obv. IMP CAES VESPASIANVS . . .
 Rev. FORTVNA AVGVSTI
 Unstratified, site N. O. P.
12. Vespasian (A.D. 69-79) *As*
 Badly corroded.
 Rev. eagle on globe.
 From bronze-working hearth, site K.
13. Vespasian (A.D. 69-79) *As*
 Corroded.
 Rev. probably Victoria Navatis.
 From later first-century construction trench, site S.
14. Vespasian (A.D. 69-79) *As*
 Badly worn and corroded.
 Rev. illegible.
 Unstratified, site S.
15. Domitian (A.D. 81-96) *Sestertius*
 Worn.
 Unstratified, site N. O. P.
16. Domitian (A.D. 81-96) *As*
 Rev. FORTVNAE AVGVSTI COS XIII
R.I.C., 353
 Unstratified, site R.
17. Trajan (A.D. 98-117) *As*
 Worn.
 From rubbish-pit cut by wall foundations, site L.
18. Trajan (A.D. 98-117) *As*
 Worn and countermarked.
 This is probably a Greek imperial coin of Trajan. The countermark was probably applied somewhere in the east Mediterranean.
 It is quite exceptional to find such a coin authentically on a Romano-British site.
 Late post-hole alongside Watling Street, site N. O. P.

19. Antoninus Pius (A.D. 154-155) *Dupondius*
 Unworn.
 Obv. ANTONINVS AVG PI-VS PP TR P XVIII
 Rev. LIBERTAS COS IIH
B.M.C., No. 1970.
 From drainage ditch, site N. O. P.
 20. Illegible. First or second century.
 Unstratified, site S.
 21. Illegible. First or second century
 From disturbed rampart, site K.
 22. Claudius II deified, (c. A.D. 270)
 Worn and corroded.
 Unstratified, site N. O. P.
 23. Carausius (A.D. 287-293)
 Fragmentary, but the following can be read, PAX AVG

BjE

MLXXI (London Mint)

 Above burnt layer on side road, site N. O. P.
 24. Carausius (A.D. 287-293)
 Corroded.
 Rev. perhaps Aquitas or Fortuna.
 Unstratified, site N. O. P.
 25. Illegible. Third century - barbarous.
 Unstratified, site N. O. P.
 26. Probably House of Constantine (c. A.D. 337-345)
 Corroded.
 Unstratified, site N. O. P.
 27. Valentinian (A.D. 364-375)
 Rev. SECVRITAS REPVBLICE

C

AjE

R SISC MI (Siscia Mint)

L.R.B.C., ii, 1414f.
 Unstratified, site N. O. P.
 28. Probably House of Valentinian (A.D. 364-378)
 Corroded.
 Unstratified, site N. O. P.
 29. Gratian (A.D. 381)
 Rev. VOT XV MVCT XX
 Unstratified, site N. O. P.
 30. Three illegibles. Third or fourth century.
 All unstratified, site N. O. P.
- MODERN COINS
31. William III (1697) Halfpenny
 From robber trench associated with the foddering crib, site N. O. P.
 32. Queen Victoria (1891) Penny
 From the pebbled layer associated with the coffin, site T.

COINS NOT FROM THE PRESENT EXCAVATIONS

MISS M. ARCHIBALD

The following coins are mainly surface finds and have not previously been published. They have been examined over a period of years by Miss M. Archibald, then of the Birmingham Museum.

33. Q Curtius M (Junius) Silanus (c. 108-107 B.C.) *Denarius*
 Obv. Head of Roma Q CVRT
 Rev. Jupiter in quadriga M.SIA ROMA
 Sydenham, 537
 Surface find by Mr. F. H. Linney.
34. D Junius Silanus (c. 90-89 B.C.) *Denarius*
 Obv. head of Roma (letter to left illegible)
 Rev. Victory in biga XVIII D SILANVS ROMA
 Rome Mint.
 Sydenham, 646A
 Mr. F. H. Lyon from the paddock of the White House.
35. C Coelius Calvus (c. 62 B.C.) *Denarius*
 Obv. head of consul C Coelius Calvus
 C COEL CALDVS, below, COS; on left, tablet inscribed LD
 Rev. head of Sol radiate, oval shield to left, round shield to right
 CALDVS IIIVIR
 Sydenham, 891
 Mr. F. H. Lyon from the paddock of the White House.
36. L MarciusPhilippus (c. 56 B.C.) *Denarius*
 Obv. head of Ancus Marcius; below (ANCVS)
 Rev. equestrian statue on an arcade of five arches within which is
 the inscription A Q V A MR above PHILIPPVS
 Sydenham, 919.
 Mr. F. H. Lyon from the paddock of the White House.
37. Claudius I (A.D. 41-54) *As*
 Worn.
 Rev. Minerva.
 Mr. F. H. Lyon from the paddock of the White House.
38. Galba (A.D. 68-69) *Denarius*
 Obv. head laureate right. Globe below neck. GALBA IMP
 Rev. Roma advancing holding Victory and transverse spear
 ROMA RENASCENS (almost illegible).
 Tarraco (Spain)
R.I.C., 1
 Mr. F. H. Lyon from the paddock of the White House.
39. Vespasian (A.D. 69-79) *Sestertius*
 Too worn for exact reference.
 Surface find by Mr. F. H. Linney.
40. Domitian (A.D. 81-96) *Denarius*
 Obv. IMP CAES DOMIT AVG GERM PM TR P XV
 Rev. Minerva left with thunderbolt and spear; at her feet a shield
 IMP XXII COS XVII CENS PPP
R.I.C., 192
 Found by Mr. D. Smallwood at crossing of Watling Street and
 Ashcroft Lane.

41. Trajan (A.D. 98-117) *As*
 Obv. [IMP CAE]S NERVA TRAIANAFVG GERM PM]
 Rev. [TR POT] COS II PP SC. Victory with shield SPQR
R.I.C., 402
 Surface find by Mr. F. H. Linney.
42. Hadrian (A.D. 117-138) *As*
 Too worn for exact identification.
 Surface find by Mr. F. H. Linney.
43. Marcus Aurelius (A.D. 161-180) *Sestertius*
 Worn.
 Obv. [M ANTONINVS AVG] TR P XXVI
 Rev. [IMP VI COS III SC] Roma seated with shield behind.
R.I.C., 1033
 Mr. F. H. Linney, surface find near bath site.
44. Tetricus I (c. A.D. 270-273)
 Corroded and identification is only probable.
 Mr. F. H. Linney, surface find near bath site.

Note: Coins Nos. 33, 34 and 35 were not found in juxtaposition. The paddock attached to the White House is near the hill-top, well inside the military forts.

Details of coins found at Wall are scattered over a number of publications. The following chart includes all published coins except those found prior to the middle of last century and whose identification and provenance may be doubtful. The list illustrates the continuity of the settlement at Wall. It is interesting to note that as early as 1719, E. Arblaster was writing to Thomas Hearne of Oxford ' . . . I reviewed the old Etocetum where I met with three more coins of that place, which the people of Wall have a notion are Csezers. They are somewhat dear. Mear ignorant people being now apprized of the value of such antiquities.'³⁴

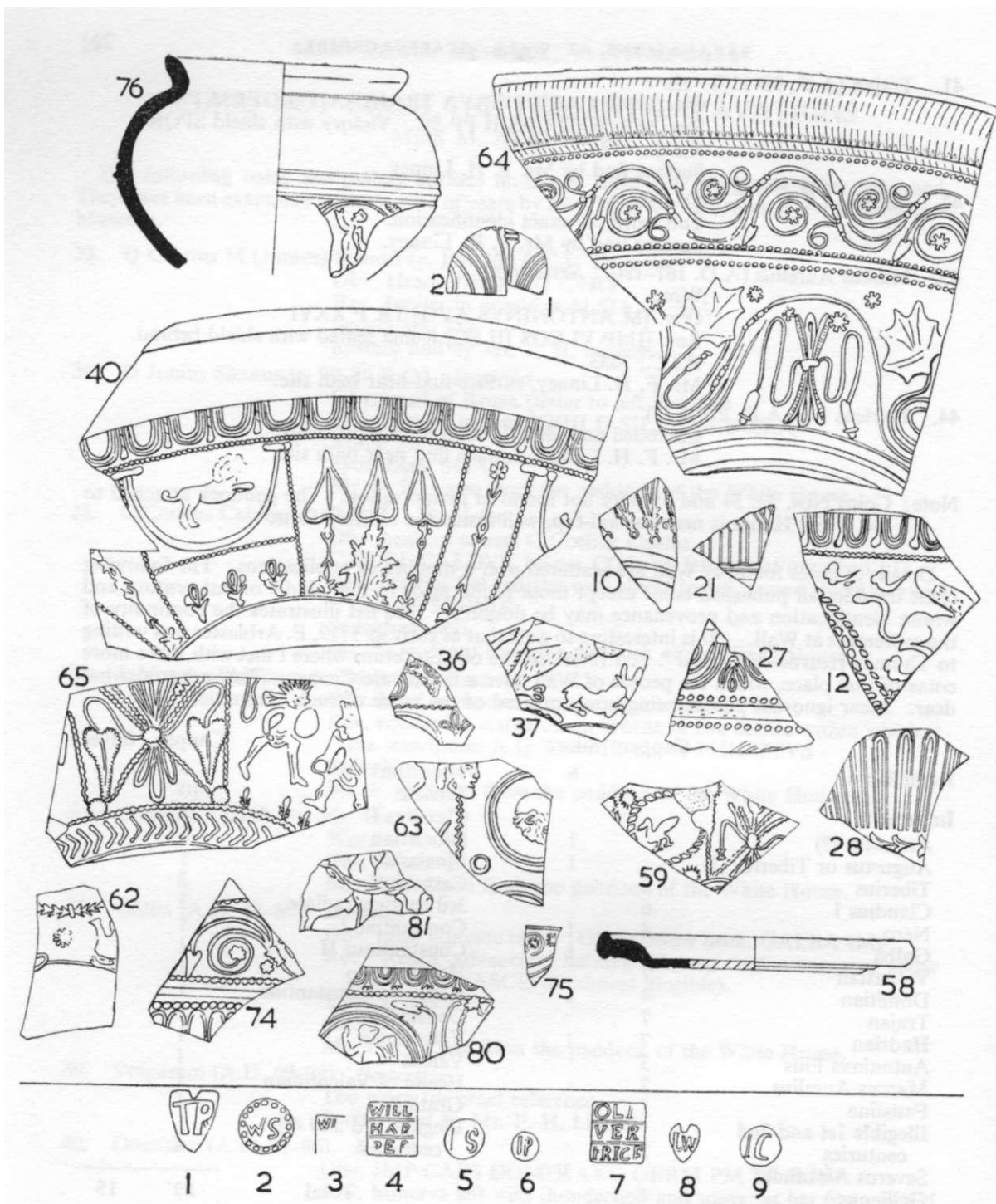


Fig. 13 Samian pottery (£) and tobacco-pipe stamps (1/1)

THE SAMIAN WARE

B. R. HARTLEY, F.S.A.

(Many pieces are not drawn, being fragments of well known plain forms. All decorated pieces are illustrated in fig. 13, except those too small or too worn.)

SITE K.

Bronze-working hearth

1. Form Drag. 29, South Gaulish, c. A.D. 60-80. Same vessel as 2.

Below construction level in front of wall

2. See (1) above.
3. Form Drag. 15/17, riveted, South Gaulish, c. A.D. 60-80.
4. Rim of a bowl form Drag. 30 or 37. This appears to be early Central Gaulish ware and is probably Trajanic.

Filling of inner ditch

5. Form Drag. 18. The rather coarse orangey fabric and orange micaceous glaze, and the slightly abnormal form of the rim, suggest that this is a Central Gaulish piece belonging to the period before exports from Lezoux had seriously got under way (about the end of Trajan's reign).

Wall has now produced sherds from several first-century Central Gaulish vessels (see Nos. 7, 30, 31, 51 and 78), and is in fact the northernmost site from which they have been recorded. These vessels are common at Lezoux, and most were probably made there, but they are relatively rare in Britain (examples have been noted from London, Verulamium, Fishbourne, Silchester, Winchester, Exeter, Cirencester and Walltown). Some of the pieces are stamped by ATEPOMARVS of Lezoux or are from pre-Flavian moulded bowls in his style, but products of other potters are involved as well. Unfortunately it is difficult to date the plain forms, since it is not yet certain that they had the same currency as the equivalent South Gaulish ones, but the rather meagre evidence suggests that most of them are pre-Flavian, though a few may be Vespasianic. In other words, there seems to have been a short period in the third quarter of the first century when Central Gaulish potters made a bid for some of the expanding British trade. They clearly had indifferent success, no doubt because the quality of their fabrics and glazes was poor in comparison with contemporary South Gaulish samian, then at its optimum technically.

Granted the validity of comparison with South Gaulish forms, this particular piece is likely to be Neronian or Vespasianic.

6. Form Drag. 29, South Gaulish. Perhaps by MOMMO: for a stamped bowl of his with alternating panels with an animal and series of vertical wavy lines in this manner, see *J.R.S.*, iv, 1914, pi. 2, No. 6—from the Pompeii Hoard of A.D. 79. c. A.D. 70-85. (Too worn to illustrate.)

Silt of outer ditch

7. Form Drag. 22, Central Gaulish (?). The light paste and the orangey micaceous glaze suggest Central Gaulish origin. First century. See Nos. 5, 30, 31, 51 and 78.

Rampart

8. Form Drag. 37, Central Gaulish (Martres de Veyre fabric). Ram's-horn wreath as used by DRVSVS I and the Rosette Potter c. A.D. 100-120.

Unstratified

9. A scrap from a vessel with rouletted decoration. This is almost certainly from one of the cups imitating form Drag. 30 in shape, but always smaller and with rouletting instead of moulded decoration (O. and P., pi. 75). The type seems to have been introduced in the first half of the second century, since it occurs in the Erd-Kastell at Saalburg and at Haltwhistle Burn, and has more recently been found at Lezoux associated with the early work of SACER and ATTIANVS.

10. Form Drag. 29, South Gaulish. This is a fragment from the lower zone with a volute of a type only recorded on a bowl stamped OFIC.CANTI (*Ant. J.*, xxxi, 1951, fig. 1, No. 27). This workshop was active under Tiberius and Claudius (Oswald, p. 58) and typologically this piece would be put c. A.D. 40-55.
11. Form Drag. 18, South Gaulish. Part of a potter's stamp, almost certainly to be read VAC[. If so, this should be VACER (Oswald, p. 322), Oswald's dating 'Claudius-Nero' does not seem to be required by the rather meagre site-dating evidence. This dish appears to be Neronian or early Flavian.

SITE L

Below the rampart

12. Form Drag. 37, Central Gaulish. This is by ATTIANVS. Bowls from the same mould or a closely similar one are known from London, Leicester, Wroxeter (*C.G.P.*, pi. 87, No. 26) and from Castleford (unpublished). They clearly belong to the early part of his career c. A.D. 125-140.
13. Scrap from a jar of form Drag. 68, Central Gaulish. This unusual form was made by both BVTRIO and PATERNVS, and therefore spanned parts at least of the Hadrianic and Antonine periods.

Undisturbed bottom of the pit

14. Form Drag. 18, South Gaulish with the stamp OF.VITA of the well known late South Gaulish potter VITALIS, c. A.D. 80-105.

SITE N. O. P

From the early construction trenches (fig. 9, A-E)

15. Form Drag. 18R, South Gaulish, pre-Flavian or early Flavian.
16. Form Drag. 15/17, South Gaulish, probably Neronian.
17. Form Drag. 18, South Gaulish, pre-Flavian or early Flavian.
18. Form Drag. 29 (no decoration), South Gaulish, probably Neronian.

From below the first metallised surface of the Watling Street

19. Form Drag. 15/17, South Gaulish, c. A.D. 55-70.
20. Form Drag. 29, rim, South Gaulish, probably pre-Flavian.
21. Form Drag. 29, South Gaulish, part of the lower zone with plain straight gadroons. The fabric suggests a Neronian date.
22. Uncertain form in South Gaulish fabric. This is from a very thick vessel, possibly a dish of form Drag. 18R. If so, it could be pre-Flavian.

From the first metallised surface of the Watling Street

Some scraps of South Gaulish ware consistent in date with the following:

23. Several joining fragments of form Drag. 27, Claudian or Neronian.
24. Form Drag. 15/17 or 18, Neronian or early Flavian.
25. Form Drag. 18, Neronian or early Flavian.
26. Form Drag. 18, Neronian.

From the early occupation layers north of the Watling Street

A number of South Gaulish scraps, Neronian to Trajanic and the following:

27. Form Drag. 29, South Gaulish. Part of the upper zone with festoons. The general style occurs in the Boudiccan burning at Colchester (*Colchester*, fig. 102, No. 16) and the fabric is consistent with manufacture c. A.D. 50-65.
28. Form Drag. 29, South Gaulish. Lower zone with straight gadroons and a straight wreath below. This style was used chiefly by Neronian and early Flavian potters such as MEDDILLVS, NIGER and PASSIENVS (Knorr, 1919 and Knorr, 1952).
29. Form Drag. 24/25, South Gaulish, Claudian or Neronian.

- 30 and 31. Two form Drag. 18's, in brown micaceous fabric with dull-orange slip. These two pieces are typical first-century products of Lezoux. They are likely to belong to the Neronian period. See Nos. 5, 7, 51 and 78.
32. Form Drag. 37, Central Gaulish. This has a fabric suggesting manufacture at Les Martres, where Stanfield's X-2 Potter worked and frequently used the cross-gartered column preserved on this piece, c. A.D. 110-120.

From the gradual build-up at the side of the Watling Street

Various scraps from the time of Nero to the Antonine period inclusive and including:

33. Form Drag. 29, with the stamp OF.IVCVN of the South Gaulish IVCVNDVS (Oswald, pi. 48). This form of the stamp is common on sites first occupied under the Flavians, and occurs for instance at Rottweil, Ilkley and Corbridge. The bowl is very thick and clumsy and entirely consistent with manufacture c. A.D. 70-85.
34. Form Drag. 27 with the stamp OSABIN, from one of the rarer dies used by SABINVS of South Gaul (Oswald p. 272) who is assigned by Oswald to the 'Nero-Domitian' period. This piece is likely to be early Flavian.

From occupation layers below the side road

All the strictly datable material is South Gaulish ware of the first century. There are a few fragments of the Neronian period-forms Drag. 15/17 and 29, Ritterling 12 and Drag. 18R (with stamp joining a fragment from the metalling of the Watling Street to give the full reading OFMODEST). The rest is all Flavian.

The only possible exception to the general statement is one burnt sherd, probably form Drag. 42, with a rosette stamp, but the burning makes it impossible to assess the fabric. The form is common to South and Central Gaul, and rosette stamps are also known for both, though they are much more common in the second century.

The metalling of the side road

35. Form Drag. 31, Central Gaulish, Antonine.

The destruction on the side road

36. Form Drag. 37 in a style used by the Trajanic and early Hadrianic potters of Les Martres de Veyre (cf. *C.G.P.*, pi. 27).
37. Form Drag. 37, Central Gaulish, free-style decoration typical of the Antonine period.

The drainage ditch

38. Form Drag. 18/31 with rivet holes. The beginning of the stamp gives the letters AV[but there are too many potters with stamps beginning with those letters for identification to be possible. However, the form is a standard Central Gaulish one of the Hadrianic and early Antonine periods.

A late post-hole by the Watling Street

39. Form Drag. 79, Central Gaulish with the stamp]ARTIN[. This is probably to be ascribed to the Lezoux potter MARTINVS who is recorded as making form Drag. 79 (Oswald, pi. 90) though it could just possibly belong to the Antonine MARTIALIS who is not recorded by Oswald. In any event, the piece is late Antonine.

***From later Roman levels* (i.e. post A.D. 200 and not securely stratified)**

40. Form Drag. 37, Central Gaulish. Eight fragments from the same bowl in the style of CASVRIVS (*C.G.P.*, pi. 132-137) c. A.D. 160-190.
41. Form Drag. 37, East Gaulish. The style suggests the work of one of the earlier Rheinzabern potters such as COBNERTVS or IANVS, probably late Antonine.
42. Form Drag. 33, a small cup, Central Gaulish, Antonine.
43. Form Drag. 79, Central Gaulish. This is an interesting and unusual early variant of the form similar to examples found recently at Lezoux in a Hadrianic pit in association with the early work of SACER, ATTIANVS and DRVSVS. This piece is therefore likely to be Hadrianic or early Antonine rather than late Antonine, the usual date for form Drag. 79.

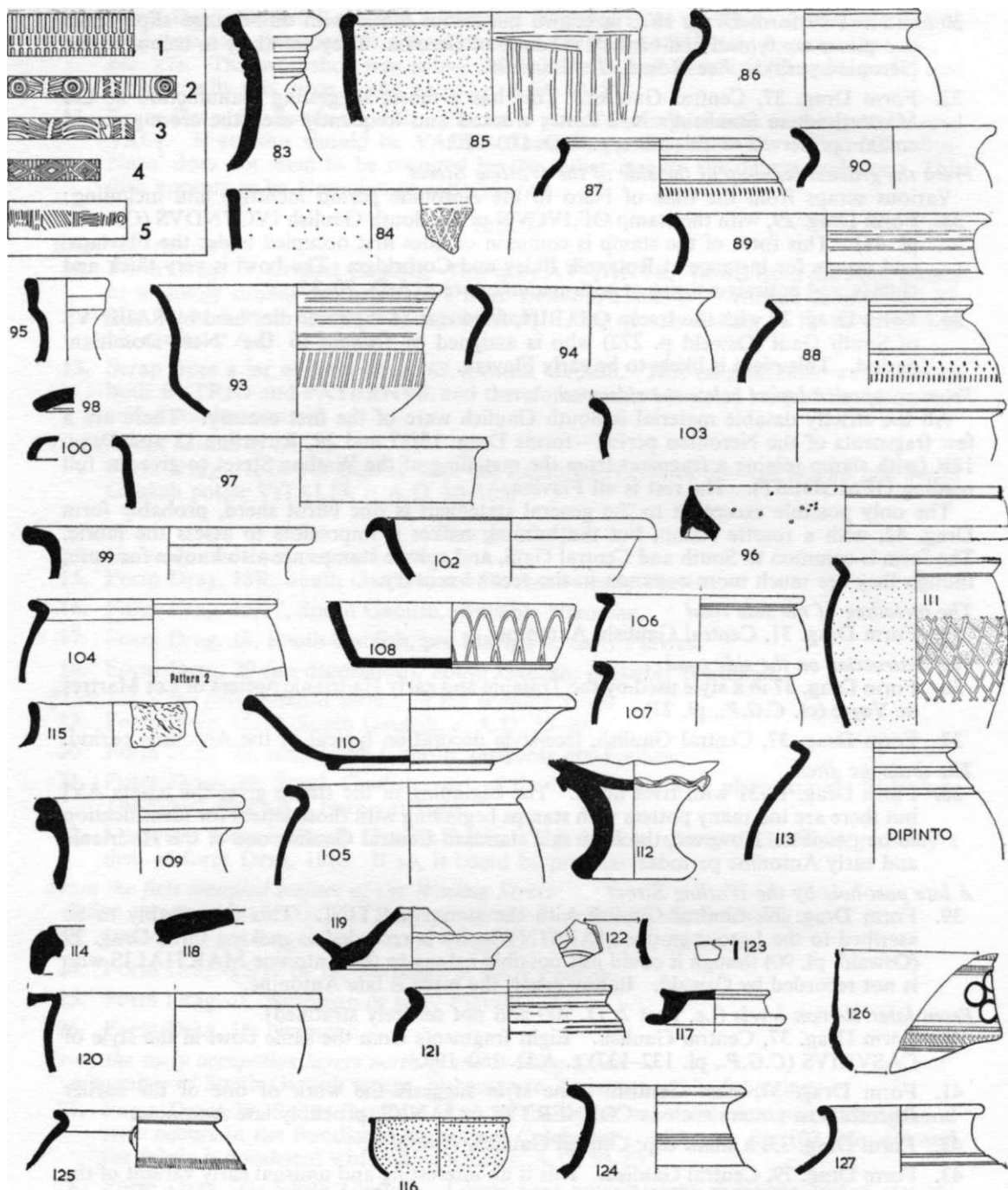


Fig. 14
Coarse pottery associated with the late defences, the well and early buildings (i)
Inset: Patterns from roller-stamped jars (^)

44. Form Drag. 37, Central Gaulish. The ovolo is used by members of the PAVLLVS group, for whom see *D.A.J.*, lxxxi, 1961, p. 97, Nos. 22-24 and *P.S.A.S.*, xciv, 1963, p. 103, Nos. 5-8. These bowls appear all to be Antonine, but their precise date within the period requires closer definition.
45. Form Drag. 37, Central Gaulish, in the unmistakable style of CASVRIVS (cf. *C.G.P.*, pi. 132-137) CASVRIVS certainly worked in the late Antonine period, probably not before A.D. 160.

Unstratified

46. Form Drag. 27, South Gaulish with the stamp OFBASSI (BASSVS of La Graufesenque), Neronian or early Flavian.
47. Form Drag. 37 in East Gaulish fabric. It could be third-century but there is insufficient for precise identification.

SITE R

Here were many pieces of samian ware in the disturbed soil, mostly Flavian but ranging from the Neronian to the Antonine period together with one piece that is probably Claudian.

48. Form Drag. 18, South Gaulish, probably Claudian.

From the surface of the clay floor

49. Form Drag. 27, South Gaulish, Neronian.

Construction trench west of the clay floor

50. Form Drag. 27, South Gaulish, probably pre-Flavian.

Post-holes cutting the clay floor

51. Form doubtful, perhaps Ritterling 12, Curie 11, etc. The fabric and glaze are both slightly unusual but could be matched in first-century contexts at Lezoux. In view of other early Lezoux pieces at Wall, this is not an improbable origin. See Nos. 5, 7, 30, 31 and 78.
52. Form doubtful, South Gaulish, probably Neronian.
53. Form Drag. 18, South Gaulish, Neronian.

Thick destruction covering clay floor and post-holes

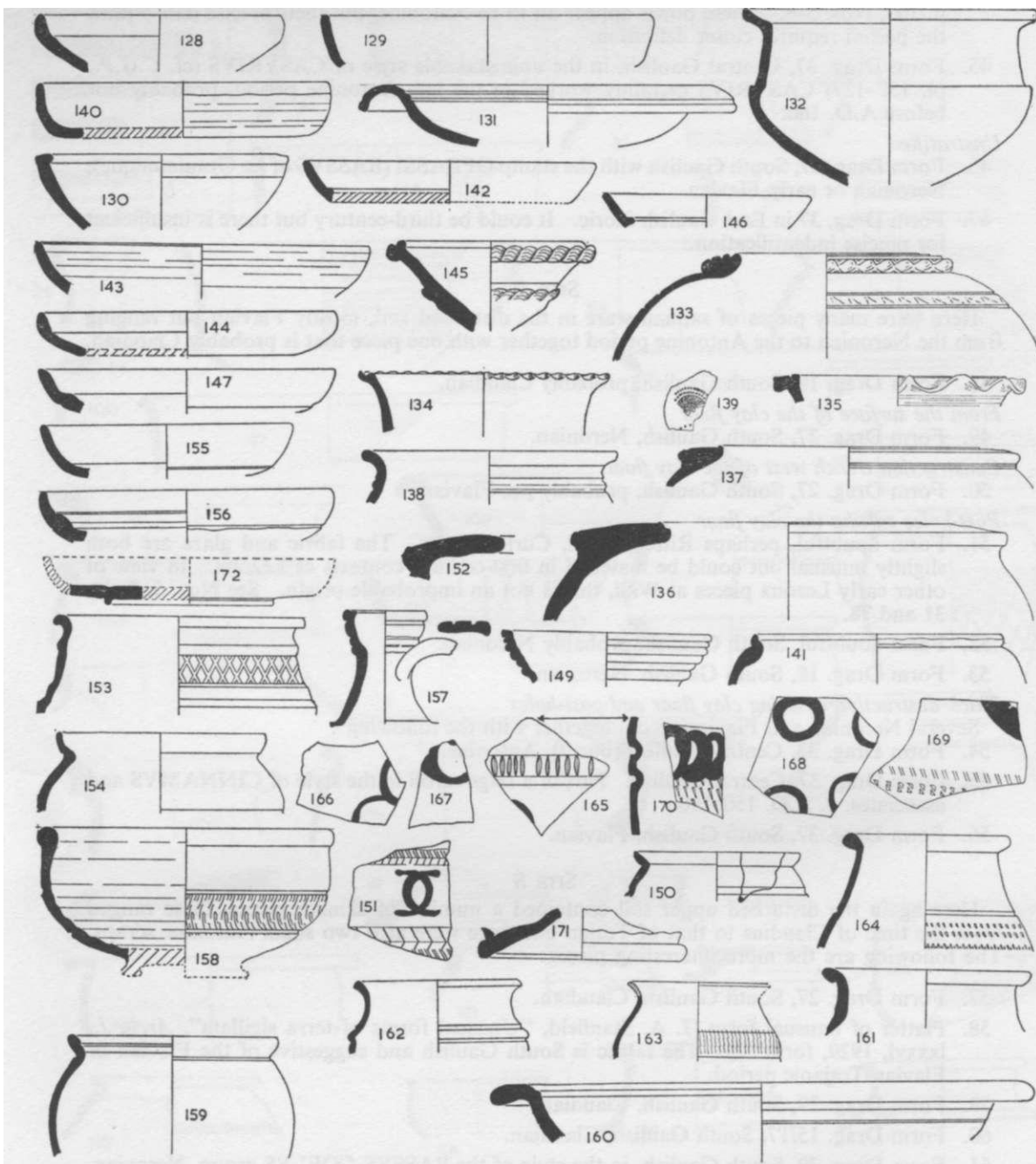
Several Neronian and Flavian pieces together with the following :

54. Form Drag. 33, Central Gaulish (burnt), Antonine.
55. Form Drag. 37, Central Gaulish. Part of a large scroll in the style of CINNAMVS and associates, c. A.D. 150-190.
56. Form Drag. 37, South Gaulish, Flavian.

SITE S

Here again the disturbed upper soil contained a number of samian pieces, these ranged from the time of Claudius to that of Trajan but there were also two small Antonine scraps. The following are the more interesting pieces:

57. Form Drag. 27, South Gaulish, Claudian.
58. Platter of unusual form (J. A. Stanfield, "Unusual forms of terra sigillata", *Arch. J.*, lxxxvi, 1929, form 52). The fabric is South Gaulish and suggestive of the Flavian or Flavian-Trajanic period.
59. Form Drag. 29, South Gaulish, Claudian.
60. Form Drag. 15/17, South Gaulish, Claudian.
61. Form Drag. 29, South Gaulish, in the style of the BASSVS-COELVS group, Neronian.
62. Form Drag. 37, Central Gaulish. Festoon as used by LAXTVCISSA (cf. *C.G.P.*, pi. 97, No. 4). Antonine, c. A.D. 150-190.



63. Form Drag. 37, Central Gaulish. In the style of Stanfield's X-5 Potter (*C.G.P.*, pi. 67), c. A.D. 125-145.
64. Form Drag. 29, South Gaulish. The winding scroll of the upper zone is not particularly distinctive, the large scroll of the lower zone is similar to the work of IVCVNDVS (Knorr, 1952, *Taf.* 31A), while the unusual astragalus binding in the scroll was used by COSIVS RVFINVS (Knorr, 1919, *Taf.* 24A). Both the individual motifs and the general style point to manufacture by one of the Vespasianic potters of La Graufesenque, c. A.D. 70-85.
65. Form Drag. 37, South Gaulish. Panels with saltires and gladiators (D.588 and 589) used commonly by CRVCVRO to whom this piece may tentatively be assigned, c. A.D. 75-100.
66. Form Ritterling 9, South Gaulish, Claudian or early Neronian.
67. Form Drag. 18, South Gaulish, an unusual cornice rim, probably Claudian.
68. Form Drag. 24/25, South Gaulish, Claudian or early Neronian.

From the construction trenches of the later first-century buildings

In addition to the following, there were small fragments from forms Drag. 29, 18, 27 and 15/17. Fabrics and glazes suggest a Neronian date.

69. Form Drag. 30, South Gaulish, Neronian.
70. Form Drag. 18, South Gaulish, probably Claudian.

From the disturbance probably associated with the removal of timbers from the construction trenches at the end of the first century and from the destruction layer above.

71. Form Drag. 18/31, South Gaulish, Flavian or early Trajanic.
72. Form Drag. 44/81 rim, Central Gaulish (cf. *Arch.*, xcii, 1947, p. 152). Probably from Martres de Veyre, and early second century.

SITE T

The disturbed upper layers here held Flavian and Flavian-Trajanic samian together with a little pre-Flavian material.

From the occupation layer immediately above the natural subsoil

73. Form Drag. 27, South Gaulish, Neronian or early Flavian.

Destruction overlaying the early construction trench

Here were a number of Flavian pieces including :

74. Form Drag. 29, South Gaulish, c. A.D. 50-70.
75. Form Drag. 29, South Gaulish, c. A.D. 70-85.

Occupation layer above the destruction

76. Form Drag. 67, South Gaulish, pre-Flavian.
77. Form Drag. 27 (several) South Gaulish, Neronian.
78. Form Ritterling 8 with coarse fabric and orange glaze. Another first-century Lezoux piece. The form is almost exclusively pre-Flavian when from South Gaul and is perhaps likely to be so when from Lezoux. See Nos. 5, 7, 30, 31 and 51.

Associated with the construction of the well

79. Form Drag. 35, South Gaulish, Flavian.

The deliberate filling of the well. (Fig. 14)

The only pieces of samian found in the well were a few tiny South Gaulish scraps and the following:

80. Form Drag. 37, South Gaulish. This is the style used by potters associated with the Pompeii Hoard. (*J.R.S.*, iv, 1914, pi. 12, No. 60) c. A.D. 75-85.
81. Form Drag. 37 with danseuse (D.219 = 0.347), recorded only on Central Gaulish bowls. Second century, probably pre-Antonine.
82. Form Drag. 18/31, South Gaulish, Flavian-Trajanic.

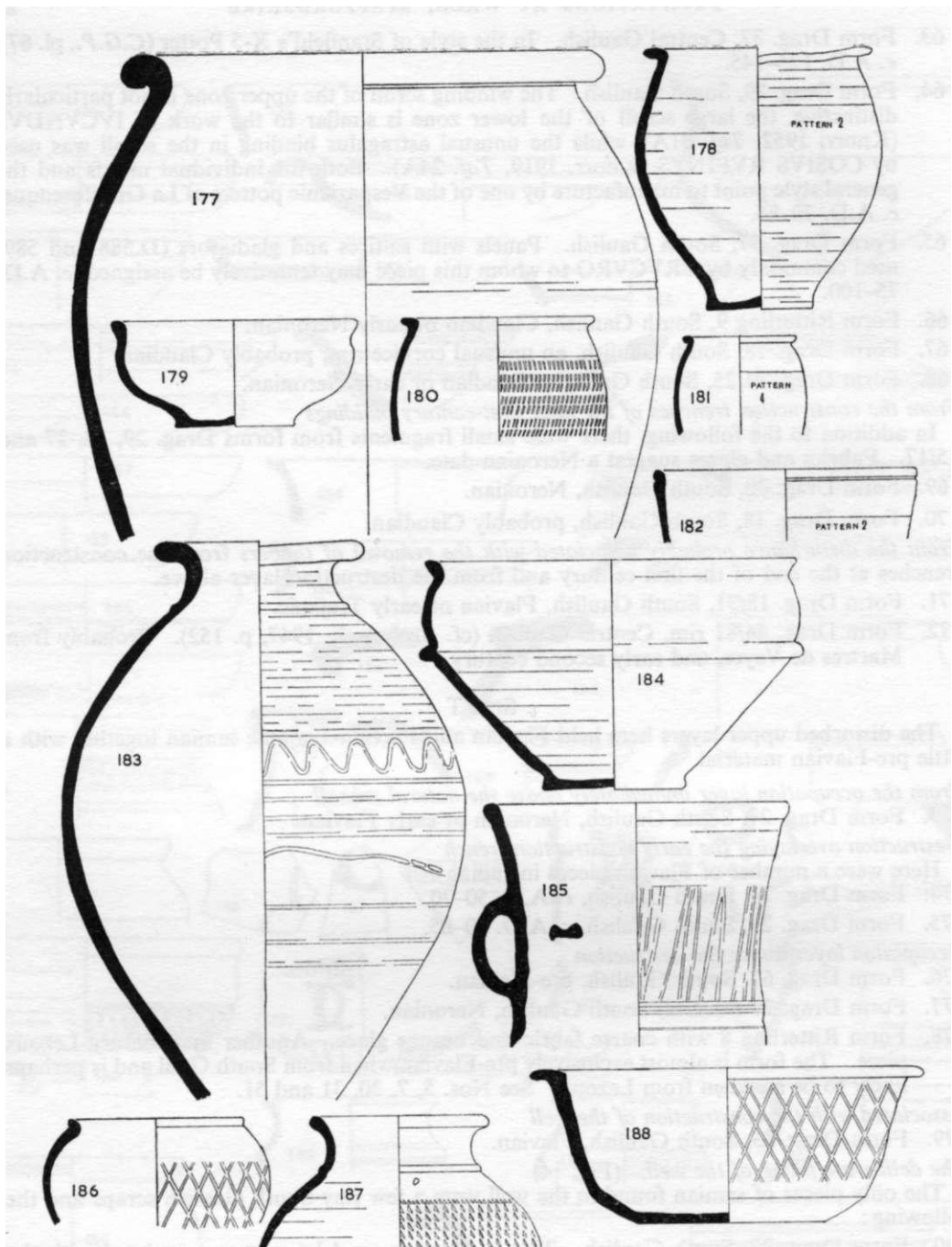


Fig. 16 Coarse pottery from the Antonine drainage ditch (£)

THE COARSE POTTERY

J. GOULD

Two types of vessel found are particularly interesting - the white beakers with rouletted or painted decoration (Nos. 125, 126, 150, 151 and 162-170) and the brown rouletted or roller-stamped jars (Nos. 104, 178, 180-182, 190, 191 and 200-202). Of the former, no complete pot was found. Some fragments suggest the shape of a butt-beaker whilst other pieces are more suggestive of the girth-beaker. With one exception (No. 168), the fabric is a good white, the rouletting fine, and the paint in the form of red-brown circles. Such beakers without the painted decoration are discussed at length in *Camulodunum* (p. 237) though the Wall pieces lack the internal offset which is typical of the Colchester beakers. Fragments have also been found at Verulamium.³⁵ The painted fragments should be compared with the painted urn found at Margidunum.³⁶

A number of the roller-stamped jars were found in the drainage ditch (see above) in a fabric ranging from dull light-brown to orange. Usually these had a horizontal curving rim (but see No. 182) and burnished shoulders. Sometimes the rim was slightly undercut. The bases were small and the general form similar to that of the better known rough-cast jars³⁷ a few pieces of which were also found at Wall, but are not here illustrated. When the jars were rouletted the decoration was separated from the burnished shoulder by a shallow groove which had a clear-cut upper edge whilst the lower edge was usually rounded. Both stamping and rouletting appear to have been done with a roller, circular in cross-section. On some jars the roller was applied much more firmly than on others, and in these cases the bulging patterned body is really a series of narrow flat bands. The patterns (especially No. 4) are far from being geometrically perfect. Except where pattern No. 5 was used, the bands of pattern overlap, sometimes leaving a mere $\frac{1}{2}$ in. of the previous band clear. Sometimes the pattern was blurred as if applied when the clay was too damp.

No sherds of this ware were found in levels earlier than that of the drainage ditch. None was under the side road (though one was on the surface above) and one sherd (No. 104) was in the well sealed by the wall. The ware thus appeared on the site about A.D. 160, rouletted and patterned, horizontal and bead rims, appearing simultaneously. At Wall the ware had a short life. One or two sherds were associated with pieces of colour-coated ware which need not be later than the end of the second century and only two pieces were in the upper disturbed levels. It is unlikely that the ware was used much after the beginning of the third century and so must not be related to the similarly stamped imitation samian³⁸ or late beakers.³⁹ Comparison should be made between pattern No. 4 and that on the folded grey ware beaker found at Colchester.⁴⁰ It seems that the Midland stamped jars may have been derived ultimately from Gaul where similarly stamped pottery, in a grey-blue fabric with a black slip

35 *Verulamium*, pi. 55, Nos. 3-6.

³⁶ *Margidunum C. H.*, pi. 16, No. 6.

³⁷ *Jewry Wall*, fig. 27, No. 39.

³⁸ *Richborough I*, pi. 27, No. 95.

³⁹ *Colchester*, fig. 63, No. 65.

⁴⁰ *Ibid.*, fig. 71, No. 148.

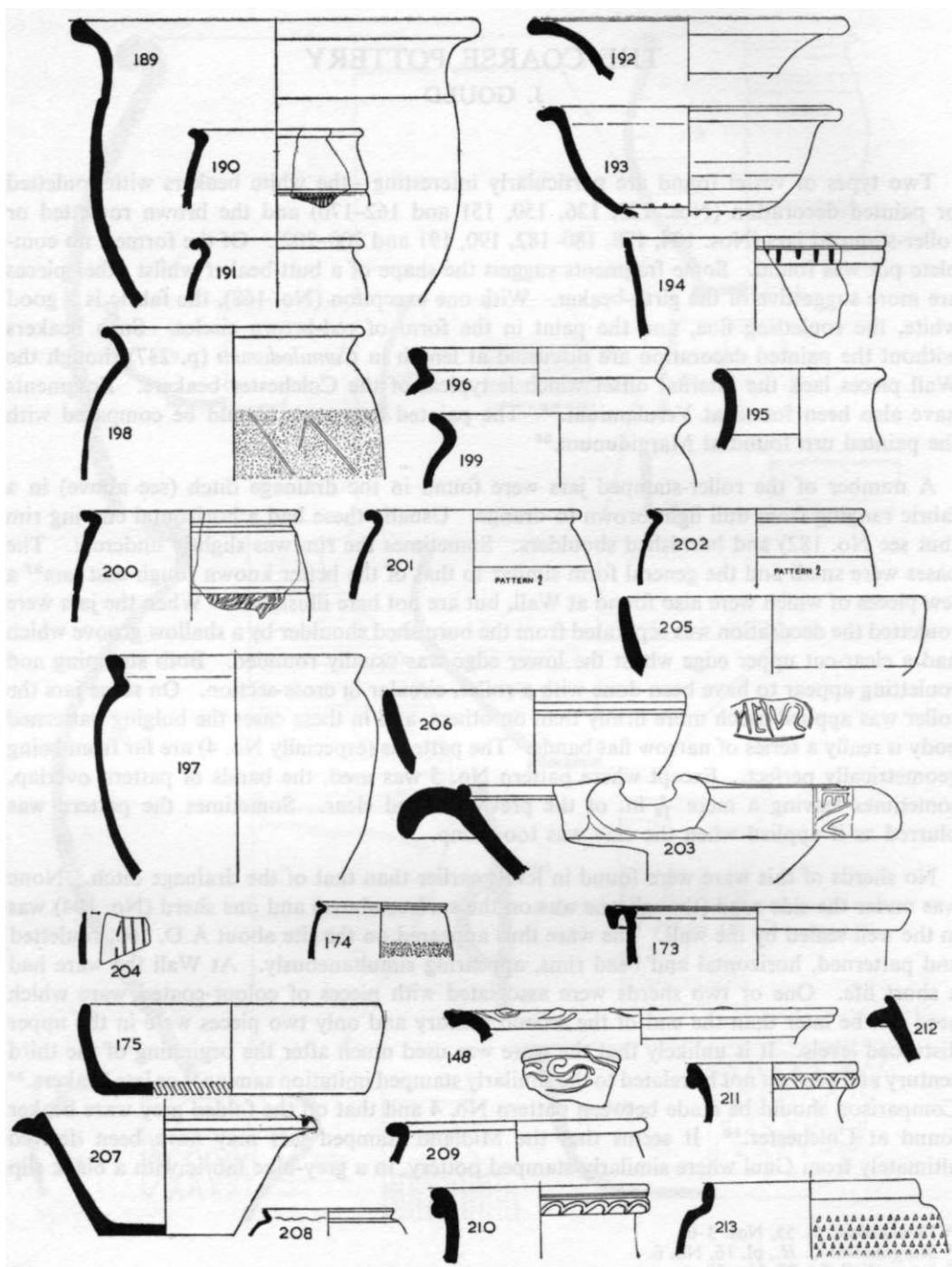


Fig. 17 Coarse pottery from the Antonine drainage ditch and examples of fourth-century pottery (£)

and of a different form, was made from the first century onwards.⁴¹ The ware is also found at Pennocrucium,⁴² Leicester,⁴³ Margidunum⁴⁴ and Manduessedum.⁴⁵ At Leicester it was used in the period A.D. 160-220 with two stray sherds in Period IX, whilst at Margidunum the ware is associated with Antonine pottery.

Mrs. K. F. Hartley has recently excavated a kiln producing this type of ware; she writes:

The roller-stamped and rouletted pottery from Wall is identical in form and fabric, and is closely similar in decoration with pottery produced at a kiln excavated in 1963 at Hartshill, near Nuneaton. This kiln was used by the mortarium makers BRVSCIVS and IVNIVS, who seem also to have been making beakers of this type. Site-evidence for these two potters and the overlap in their careers demonstrated at Hartshill suggests use of the kiln within the period A.D. 150-175, and more probably in the first half of this period.

The apparently short life of roller-stamped ware at Wall chimes well with the small quantities found elsewhere at sites like Shenstone, Margidunum, Pennocrucium and Leicester. As one would expect, it seems most common at Manduessedum, which was part and parcel of the same pottery manufacturing complex as Hartshill. A date of c. A.D. 150-200 might well be found to cover its life. It is, however, particularly noteworthy that the patterned ware resembles very closely some produced at Rossington Bridge, near Doncaster, and found in a kiln used by SARRIVS, who had moved there from Hartshill about the time when the BRVSCIVS and IVNIVS kiln was active.

Similar roller-stamped and rouletted beakers were almost certainly made also at Wilderspool, since there is a large homogeneous collection of them from the site and there were second-century kilns there at which the rouletted pottery was recorded by May (*Trans. Historic Soc. of Lancashire and Cheshire*, lvi, 1904, p. 30). The date of the kilns is not firmly established, but they are more likely to be Hadrianic-Antonine than later.

The small pit cutting the bronze-working hearth. Site K. Antonine. (Fig. 14)

83. Ring-necked flagon, Antonine.
84. Coarse bowl in gritted fabric, black surface with burnished lattice. (*See Astley*, fig. 6, No. 3).
85. Similar bowl with different lip and vertical decoration.
86. Jar in a hard grey well-fired fabric with traces of black on the surface. The form is typical of several pots from the pit (see *Jewry Wall*, fig. 39, No. 5).
87. Rouletted jar in hard grey fabric.
88. Rouletted jar with everted lip, typical of several other jars from this pit, all in hard, medium-grey fabric.

Below construction level, in front of wall. Site K. (Fig. 14)

89. Necked bowl in hard grey light fabric, horizontally burnished. See *Jewry Wall*, fig. 55, No. 11 for this rim is a fourth-century context.
90. Cooking pot in black-burnished ware, typical third-century form.

⁴¹ Georges Chenet and Guy Gaudron, *La Ceramique Sigillee d'Argonne - des I^{er} et II^e siecles. Supplement a Gallia*, 6, 1955, see especially fig. 48B, vases Gallo-Belges de Lavoye, Nos. 1-5, first-century. On p. 39 is an illustration of two bronze roller-stamps, one probably first-century and now in the museum at Chatillon-sur-Seine, and the other of uncertain date in the museum of the Department of Seine-Inferieure, Rouen. There the stamps were used to decorate moulds for hemispherical bowls as well as being applied directly to the pot. Further, the bands were distinct, not overlapping, and the decoration did not include curves or circles.

⁴² *T.B.A.S.*, lxxiv, 1958, pp. 10-11.

⁴³ *Jewry Wall*, fig. 27, Nos. 34-38, 40, and fig. 50, Nos. 39-44.

⁴⁴ *Margidunum T.*, pi. 19, Nos. 3, 4, 6 and 7.

⁴⁵ *T.B.A.S.*, liii, 1931, pi. 24, No. 12; pi. 25, No. 18, and pi. 26, No. 37.

Bottom of the rampart, south of the wall. Site K. (Fig. 14)

The sherds found here were very mixed and included many battered first and second-century pieces. There were also some good quality grey sherds, ornamented with fine rouletting and small neat barbotine dots and lines. No rims of these were found but they narrowed to a small base as if (in the opinion of Dr. G. Webster) imitating colour-coated forms. There were also scraps (no rim or base) of an indented beaker in grey ware with a darker surface.

91. Small scrap of black-coated, stamp-impressed, Parisian ware (too small to illustrate).
92. Fragment from the body of a colour-coated jar; $\frac{1}{8}$ in. thick chalky-white fabric with black surface. Not illustrated.
93. Carinated bowl in grey fabric with a black surface, burnished horizontally on the neck and obliquely on the body (see *Langton Villa*, fig. 26, No. 98).
94. Black-burnished cooking pot, third-century form.

Above the clay floor at the tail of the rampart. Site K. (Fig. 14)

95. Neck of a flagon in buff fabric, very battered and showing signs of burnishing (see *Colchester*, fig. 6, 21).
96. Mortarium with an almost vertical flange and bead rim of Midland manufacture, considered by Mrs. K. F. Hartley to be not earlier than the third century. For similar examples from Manduessedum see *T.B.A.S.*, lxxvii, 1961, fig. 7.

Below construction level in front of wall. Site L. (Fig. 14)

97. Bowl in a hard grey fabric, horizontally burnished (see No. 89 above).

Construction level in front of wall. Site L. (Fig. 14)

98. A small sherd in a hard white paste $\frac{1}{8}$ in. thick with a metallic grey colour-coat. Mr. B. R. Hartley states this is very similar to Nene Valley grey ware from some of the kilns recently excavated. The sherd appears to be part of a down-turned flange, probably from a bowl imitating form Drag. 38 such as was popular in the third and fourth centuries. The sherd is too small to estimate the diameter.

Between construction and destruction levels before the wall. Site L. (Fig. 14)

99. Heavily calcite gritted jar in a light-brown fabric, blackened on rim. The form is not closely datable but would best fit a third or early fourth-century context.

Body of the turf rampart. Site L. (Fig. 14)

100. Flange from a bowl in sandy fabric containing fine brown grit with one tiny spot of reddish-brown paint or slip remaining.
101. A thick sherd in pinkish buff fabric, $\frac{1}{2}$ in. thick with dark grey colour-coat, from the body of a jar. Neither Mr. B. R. Hartley nor Dr. G. Webster, excavators of the Nene Valley kilns, would place this earlier than the second half of the third century. Not illustrated.

Between construction and destruction layers, before the wall. Site M. (Fig. 14)

102. Bowl with a bead and flange rim, in reddish-orange fabric, blackened on rim.

Deliberate filling of the well. Site T. (Fig. 14)

103. Well-fired, medium-grey bowl in a lumpy paste (see *Jewry Wall*, fig. 52, No. 18).
104. Roller-stamped jar in an orange fabric (see remarks above).
105. Jar in light-brown gritty fabric, with traces of burning (see *Jewry Wall*, fig. 27, No. 34).
106. Jar in brownish-orange fabric (see *Jewry Wall*, fig. 50, No. 53 and fig. 52, No. 53).
107. Dull-brown jar with burnished shoulder (see *Jewry Wall*, fig. 50, No. 41).
108. Heavily burnt pie-dish with pinky-brown interior. The groove at the foot of the wall is unusual. Burnishings are very faint but the intersecting arcs suggest a third-century date.
109. Jar with a grooved lip and possibly cordoned neck. The piece is too small to be certain whether or not there were handles. The paste is light-grey with a black surface.
110. Dish in red burnished ware probably imitating samian form Curie 15.

111. Cooking pot of black-burnished fabric though the rim is everted and not cavetto. The burnishings are uneven and curved so that in places they are acute at the top and obtuse at the bottom.
112. Hollow base of a tazza, pink paste with lighter buff surface (see *Richborough I*, pi. 22, No. 30.)
113. White jar with red painted lettering on the shoulder, 'The two points where the handle had been attached can be seen at the right-hand end of the main fragment. It is probable that the text terminated here. There is one fragment reading]CA[, which does not join, and came earlier in the text. The last four letters in line one are rather worn along the lower part. The text may be read as:]LLISETDVAT/SVS, with a stop inserted by chance in the middle of the letter D. It can also be interpreted as:]LLISETL-VAT/SVS⁴⁶. This regards the stop as intentional and the vertical which immediately precedes it as L, although very dissimilar from the LL at the beginning of the line. The nearest parallel for Duatsus is Duatus (*CIL*, II, 6275a).⁴⁷



Dipinto (^); coarse pottery, item 113

114. Mrs. K. F. Hartley comments: 'An unusually small mortarium of Midland manufacture. Third century.'

Below the footings of the wall. Site T. (Fig. 14)

115. Rim of a small hand-made jar in coarse black fabric, reminiscent of Iron Age pottery.

Associated with the early beam-slot between inner and centre ditch. Site K. (Fig. 14)

116. A small bowl with a bead rim in buff fabric, rough-cast inside and out with traces of red colour-coat on the surface (see *Camulodunum*, pi. 53, No. 63 and *Colchester*, fig. 78, Nos. 1-2).

Associated with the construction trenches of the early granary. Site K. (Fig. 14)

117. Base of a pedestal beaker in good quality, hard grey fabric (see *Camulodunum*, fig. 49, No. 3).
118. Coarse orange in-bent rim of a storage jar (see *Camulodunum*, type 275, fig. 57, No. 4).
119. Base of a Gallo-Belgic bowl or plate with a large *omphalos*. In a smooth white paste, with traces of black on the surface (see *Camulodunum*, pi. 51, No. 50c).

⁴⁶ Dr. G. Webster provided infra-red photographs and put forward this interpretation, with another alternative]LLISETL.VAT[SVS

⁴⁷ Comments on the *dipinto* contributed by Mr. R. P. Wright F.S.A. of Durham

From the oxidized clay, cut by early construction trench. Site S. (Fig. 14)

120. Flat rim of a grey globular bowl (see *Richborough IV*, pi. 91, No. 447 and *Camulodunum*, pi. 80, No. 244).

Trampled top of the undisturbed subsoil. Site S. (Fig. 14)

A number of thick, heavily-gritted sherds from the body of a typically Claudian storage jar and;

121. Rim in a brown fabric with a brownish-apricot exterior and slight external rilling (see *Margidunum T.*, pi. 7, No. 10).

Construction trenches of the first building. Site S. (Fig. 14)

A few thick pieces from the body of a heavily-gritted storage jar, body sherds from a thin walled, heavily-rusticated globular jar and;

122. Buff fabric with a warm-brown metallic glaze over barbotine foliage (see *Richborough IV*, pi. 90, Nos. 411-412, and discussion on p. 263). This type of pottery had almost disappeared by Claudian times.
123. Similar but without the barbotine.

Construction trenches of later first-century buildings. Site S. (Fig. 14)

124. Dark-grey burnished rim from a narrow-necked jar (see *Camulodunum*, pi. 79, No. 233).
125. White, smooth girth-beaker.
126. White sherd from the body of a painted girth-beaker of approximately 5 in. diameter. The circles are in dull light-brown (see *Camulodunum*, pi. 51, No. 52A and *Margidunum C. H.*, pi. 16, No. 6).

Disturbed layers. Site S. (Figs. 14 and 15)

The following is a selection of the early sherds. A few later first-century sherds with one or two pieces of black-burnished ware were also found.

127. Smooth white jar with burnished shoulder (see *Camulodunum*, pi. 79, No. 231C).
128. Imitation Gallo-Belgic platter in coarse grey ware with burnished exterior (see *Silchester*, pi. 74, No. 186).
129. Imitation Gallo-Belgic platter, grey fabric with traces of chocolate-coloured varnish on the exterior (see *Richborough I*, pi. 34, No. 237, which has a purplish slip).
130. Hard dark-grey bowl of a form which occurs at Camulodunum in *terra rubra* (*Camulodunum*, fig. 57, No. 16 and see also *Margidunum C. H.*, pi. 5, No. 10).
131. Good quality bowl in smooth medium-grey fabric and darker surface imitating form Drag. 35 (see *Colchester*, fig. 55, No. 33).
132. Carinated bowl in medium-grey fabric, darker surface (see *Richborough IV*, pi. 91, No. 447).
133. Large jar with in-bent, flrilled rim in hard cream fabric. (Probably related to *Camulodunum*, pi. 81, No. 252; pi. 83, No. 255B and fig. 56, No. 15.)
134. Unusual tazza in hard medium-grey fabric (see *Richborough I*, pi. 24, No. 44, there in pipe-clay).
135. Tazza in pinky-red fabric.
136. Storage jar with in-bent rim (see *Camulodunum*, fig. 57, No. 2).

Trampled sand on top of undisturbed subsoil. Site R. (Fig. 15)

137. In-bent rim of a well-fired jar in grey fabric, red in the centre, drab brown exterior (see *Camulodunum*, fig. 56, No. 1).
138. Gritty black sherd probably from a squat carinated bowl similar to *Camulodunum*, types 214-217.
139. Part of a black base bearing a Gallo-Belgic stamp.
140. Imitation Gallo-Belgic platter in light-grey paste with a darker surface (see *Camulodunum*, pi. 49, No. 17A and fig. 47, No. 12).

The clay floor. Site R. (Fig. 15)

141. Jar in light-brown native ware, with traces of black on the exterior (see *Camulodunum*, pi. 52, No. 249A).

Thick destruction layer over clay floor. Site R. (Fig. 15)

142. Imitation Gallo-Belgic platter (see *Richborough I*, pi. 25, No. 58).
 143. Imitation Gallo-Belgic platter in coarse light-brown fabric (see *Camulodunum*, fig. 47, No. 12).
 144. Imitation Gallo-Belgic platter, pinkish-brown burnished fabric (see *Gt. Casterton I*, fig. 5, No. 12).

Unstratified. Site R. (Fig. 15)

145. Tazza or lid (see *Colchester*, fig. 119, No. 198D).
 146. Gallo-Belgic platter.
 147. Imitation Gallo-Belgic platter in grey ware.
 148. Rim of a bowl in a light-grey fabric with dark colour-coat (see *Nene Valley*, fig. 4, No. 7).

Trampled sand on the top of undisturbed subsoil. Site T. (Fig. 15)

149. Wide ring-necked flagon rim in hard red fabric. (Related to *Camulodunum*, fig. 51, No. 5.)
 150. Rim of a white beaker with brown paint on the tip (see discussion above, p. 00).

Destruction overlaying the early construction trench. Site T. (Fig. 15)

151. Body sherd from a girth-beaker in cream fabric with light-brown paint.
 152. In-bent rim of a storage jar, in a gritty grey fabric with a brown surface (see *Richborough IV*, pi. 94, No. 485).
 153. Grey carinated jar (see *Camulodunum*, pi. 52, No. 209).
 154. Burnished black jar with lid seating.

Occupation layers overlaying destruction. Site T. (Fig. 15)

155. Imitation Gallo-Belgic platter in smooth pink fabric (see *Margidunum C. H.*, pi. 14, No. 7).
 156. Imitation Gallo-Belgic platter in coarse, brown burnished fabric (see *Margidunum C. H.*, pi. 8, Nos. 7-8).
 157. Ring-necked flagon with a sharply-cut upper groove.
 158. Bowl in good quality smooth light-brown fabric imitating form Drag. 37.

Early construction trenches. Site N. O. P. (Fig. 15)

159. A well-fired white pot with burnt grey patches. The paste is hard and gritty with a pimpled surface. Three similar rims and a number of body fragments were also found. No parallel has been found for either the rim form or the fabric.
 160. Mortarium in a deep dull-red fabric containing large white grits. On the inner surface and over the flange appear to be rather more grits than in the fabric, but all the grits are covered with a white slip (see *Camulodunum*, type 193 and discussion on p. 254).
 161. Jar in hard, dark-grey paste with a pinkish surface burnished to a soapy texture-Romanizing native ware (see *Camulodunum*, pi. 79, No. 231B).

Bottom of the dirty build-up at the side of the Watling Street. Site N. O. P. (Fig. 15)

162. Beaker in smooth white clay with burnished neck.
 163. Neck of rouletted beaker in smooth white clay.
 164. Rim of similar beaker.
 165. Rouletted sherd, in a smooth white fabric with chocolate paint.
 166. Chocolate coloured rings on a smooth white sherd.
 167. White sherd with reddish-brown paint.

- 168. Fine brown fabric with white rings.
- 169. White rouletted sherd with red-brown paint.
- 170. A similar sherd.

First metallised surface of the Watling Street. Site N. O. P. (Fig. 15)

- 171. Hard pinkish-cream base in fabric similar to No. 119.
- 172. Base in grey Roman fabric imitating Gallo-Belgic platter.

Metalling of the side road. Site N. O. P. (Fig. 17)

- 173. Reeded rim in gritty white paste, black exterior (see *Jewry Wall*, fig. 44, No. 18).
- 174. Light-brown beaker, rough-cast in clay (see *Jewry Wall*, fig. 27, No. 43).

Destruction on the surface of the side road. Site N. O. P. (Fig. 17)

- 175. Dish in pink fabric with metallic brown colour-coat (see *Jewry Wall*, fig. 32, No. 2).
- 176. Similar but in white fabric with brown colour-coat. Not illustrated.

Drainage ditch parallel to the Watling Street. Site N. O. P. (Figs. 16 and 17)

- 177. Large storage jar with a rolled rim in gritty, medium-grey fabric, hard and well-fired. Slight intermittent girth groove, probably unintentional, and possibly due to the top being thrown separately to the bottom as in the case of the much larger jar of the fourth century found at Great Casterton (see *Gt. Casterton III*, Appendix 9).
- 178. Stamp-impressed jar, pattern 2 (fig. 14), (see above, p. 31).
- 179. Dish in coarse, brown fabric with black surfaces (see *Balmuidy*, pi. 48, No. 32 and *Richborough III*, pi. 34, No. 223).
- 180. Rouletted jar in orange fabric (see above, p. 31).
- 181. Buff jar, pattern blurred and worn (see above, p. 31).
- 182. Stamp-impressed jar or bowl in orange-brown fabric, pattern 2 (fig. 14), (see above, p. 31).
- 183. Jar in dark-grey burnished ware and a rim of one other.
- 184. Bowl in light-grey fabric with traces of black on the exterior of the upper zone. This should be compared with the smaller bowl which May records at Silchester (see *Silchester*, pi. 73, No. 177) and which he considered derived from a samian form.
- 185. Tankard in pink fabric, burnished (see Gillam, type 182). This tankard lacks the two grooves which were characteristic of those made at the nearby Perry Barr kilns (*T.B.A.S.*, lxxvii, 1961, p. 37).
- 186. Jar in soft gritty brown fabric with traces of black on the exterior (see Gillam, type 118; *Little Chester*, fig. 11, No. 20, and *Jewry Wall*, fig. 26, No. 25).
- 187. Jar with a constricted neck and careful triangular-rouletted pattern, in a hard cream fabric containing at least one large grit.
- 188. Black-burnished dish (see Gillam, type 221).
- 189. Wide-mouthed jar in an orange fabric, burnished externally. Rims of two others. The rim being slightly wider than the body suggests a date later than the Antonine period but there is here no doubt as to the stratification (see *Wroxeter III*, p. 64, Nos. 78-79 for similar rims found by Bushe-Fox in ill-defined second-century deposits; also *Astley*, fig. 10, Nos. 48-49).
- 190. Rouletted brown jar (see above).
- 191. Light-brown jar, burnished on shoulder (see above).
- 192. Buff platter or lid, possibly imitating samian forms *Curie* 15 or *Ludowici* T5 (see Gillam, type 338).
- 193. Colander in medium-grey fabric with internal and external offsets. Offsets cannot be to fit over another vessel as the perforations are right on the offset.

194. Jar in burnished red fabric with small white painted stripes on rim. Badly battered. (See *Malton*, fig. 15, No. 1, for similar rim form but without the stripes.)
195. Brownish-orange jar with constricted neck.
196. Jar in Derbyshire ware, a grey paste with light-orange surface (see *Little Chester*, fig. 11, Nos. 26-27). Mr. S. O. Kay, excavator of the Derbyshire ware kilns at Hazelwood and Holbrook comments that this is typical Derbyshire ware in surface texture, fracture and the presence of silica particles in the matrix. Whilst the rim form is not one of the commonest it can be closely paralleled from the rim variants he has found.
The Antonine date of some Derbyshire ware has now been confirmed by Prof. R. M. Cook who has dated the Holbrook kiln magnetically to the second half of the second century (see *D.A.J.*, lxxxii, 1962, 42).
197. Similar to No. 196 above.
198. Black-burnished cooking pot, burnishings on body are faint, typically Antonine.
199. Black-burnished cooking pot.
200. This jar was probably rouletted but the roulette was applied to a surface which was too wet and so blurred (see above).
201. Roller-stamped jar (see above, p. 31), pattern No. 2 (fig. 14).
202. Stamp-impressed jar (see above, p.31) die lightly applied and pattern worn, probably pattern No. 2 (fig. 14).
203. Mortarium, complete save for the base and lower wall with traces of deep buff slip on the flange. Mrs. K. F. Hartley comments that this is stamped MELVS on each side of the spout, the initial letter slightly defective as usual. This is the stamp of a potter (MELVS II) who worked in the West Midlands as one of a group including DECANIVS and DOCILIS. The available evidence suggests that the group was active c. A.D. 110-150.

Upper disturbed levels. Site N. O. P. (Fig. 17)

Here were a number of fourth-century sherds including pieces of imitation samian, possibly from the Oxfordshire region, and the following:

204. Glazed sherd in grey Roman fabric, with a brownish-yellow glaze on both sides. The grooves are unusual.
205. Bowl in cream paste with brown colour-coat (see *Jewry Wall*, fig. 32, No. 3).
206. Bowl in similar fabric.
207. Flanged jar in hard white paste, with black colour-coat (see *Jewry Wall*, fig. 32, Nos. 5-8).
208. Rim of a well-made, well-fired jar delicately made in pink fabric with a pimpled surface, as if a very fine form of Derbyshire ware. Mr. S. O. Kay states that the fabric is similar to that of one or two segmental bowls found at Hazelwood and could have been made on that site, though he has found nothing resembling this fine vessel.
209. Jar in pink fabric with brown colour-coat.
210. Jar in light-grey fabric with the typical fourth-century frill below the rim.
211. Similar jar in hard grey ware.
212. Fourth-century flanged jar typical of several others.
213. Coarse version of the well-known Castor box in buff fabric with brown colour-coat (see *Jewry Wall*, fig. 32, No. 12).

POST-MEDIEVAL POTTERY

SITE N. O. P.

These sherds have been examined by Mr. David B. Whitehouse and most fall into the period A.D. 1650-1750, including a number of pieces of tygs. There was also a scatter of late eighteenth and nineteenth-century sherds.

THE CLAY TOBACCO-PIPES (Fig. 13)

A. OSWALD, F.S.A.

A number of clay tobacco-pipes were found associated with the foddering crib and its surrounding walls (pp. 13 and fig. 8). They were identified as follows:

1. Probably T R in a heart	Broseley type	Either Thomas Roberts 1624-1678 or Thomas Roden b. 1654.
2. W S in a circle of dots	Broseley type 5 but not a usual Broseley mark	Either Wm. Sheffill of Cleobury Mortimer d. 1699 or Wm. Savage of Broseley working c. 1700.
3. W I worn, only initial two letters legible	Broseley type 5	Uncertain. Latter part of seventeenth century.
4. WILL HAR PER	Broseley type 5	1696-1736
5. I S in a circle	Broseley type	No record.
6. I P in a circle	Broseley type 4	Probably John Partridge who had children between 1711 and 1718.
7. OLIVER • PRICE square	Broseley type 5	1684-1694.
8. L W in a heart	Midland type	No record unless Luke Williams who was working at Leicester before 1723.
9. I C in a circle	London or possibly Bristol type	Probably 1630-1650 and possible makers are John Calloway of Bristol d. 1641, or Joseph Crumpton of London d. 1659.
10. Stamp uncertain	Broseley type 2	c. 1650-1690.

THE GLASS

DR. D. B. HARDEN, F.S.A.

All glass fragments have been examined and the following picked out as of special interest:

1. Three contiguous fragments of a colourless bowl or goblet, strain-cracked and very fragile. Late first or early second-century. (East lip of ditch. Site L.)
2. Part of the shoulder of a flask with trailing of similar glass: fine work. First-century. (Ditch filling. Site K.)
3. Part of a ribbed handle of a cylindrical or prismatic bottle. Late first or early second-century. (Rampart. Site K.)
4. Part of the side of a beaker or bowl with horizontal wheel-cut bands. First century. (Unstratified. Site K.)
5. Fragment of the bottom of the side and base of a piriform flask, yellowish buff: on the body raised dots in quincunx formation, mould-blown. Probably second or third-century. (Unstratified. Site N. O. P.)
6. Four fragments of prismatic bottles, green, one fragment shows two concentric moulded circles on the bottom. Late first or second century. (Build-up of dirty sand and grit at the side of the Watling Street. Site N. O. P.)
7. Two fragments of the bodies of flasks, clear green with vertical (or sloping ?) ribs. The ribs made by blowing the gob of glass into a ribbed mould before final fashioning of the body took place. Late first or early second century. (Build-up at the side of the Watling Street. Site N. O. P.)
8. Fragment of the side of a shallow pillar-moulded bowl, blue, part of one rib extant. Fragment distorted in a fire. Same type in general as No. 11. Second half of first century. (Destruction over clay floor. Site R.)
9. Fragment of the base of an olla, greenish-yellow, bottom concave with an open 'ring'-base. No weathering. Diameter 3 in. See Isings, form 67c. Late first or early second century. (Unstratified. Site S.)
10. Fragment of the rim of an olla, dark blue, folded outwards and downwards. See Isings, form 67c. Late first or early second century. (Unstratified. Site S.)
11. Fragment from the side of a shallow, pillar-moulded bowl, marbled glass of transparent brown and opaque yellow: parts of two ribs extant. No weathering. Diameter uncertain but perhaps 6 in. (See *Camulodunum*, p. 294, type D, and p. 301.) Third quarter of first century. (Unstratified. From paddock of White House.)

There were also a number of scraps of window glass (early matt-glossy variety), fragments of jugs (Isings, forms 50 and 51), and of pillar-moulded bowls.

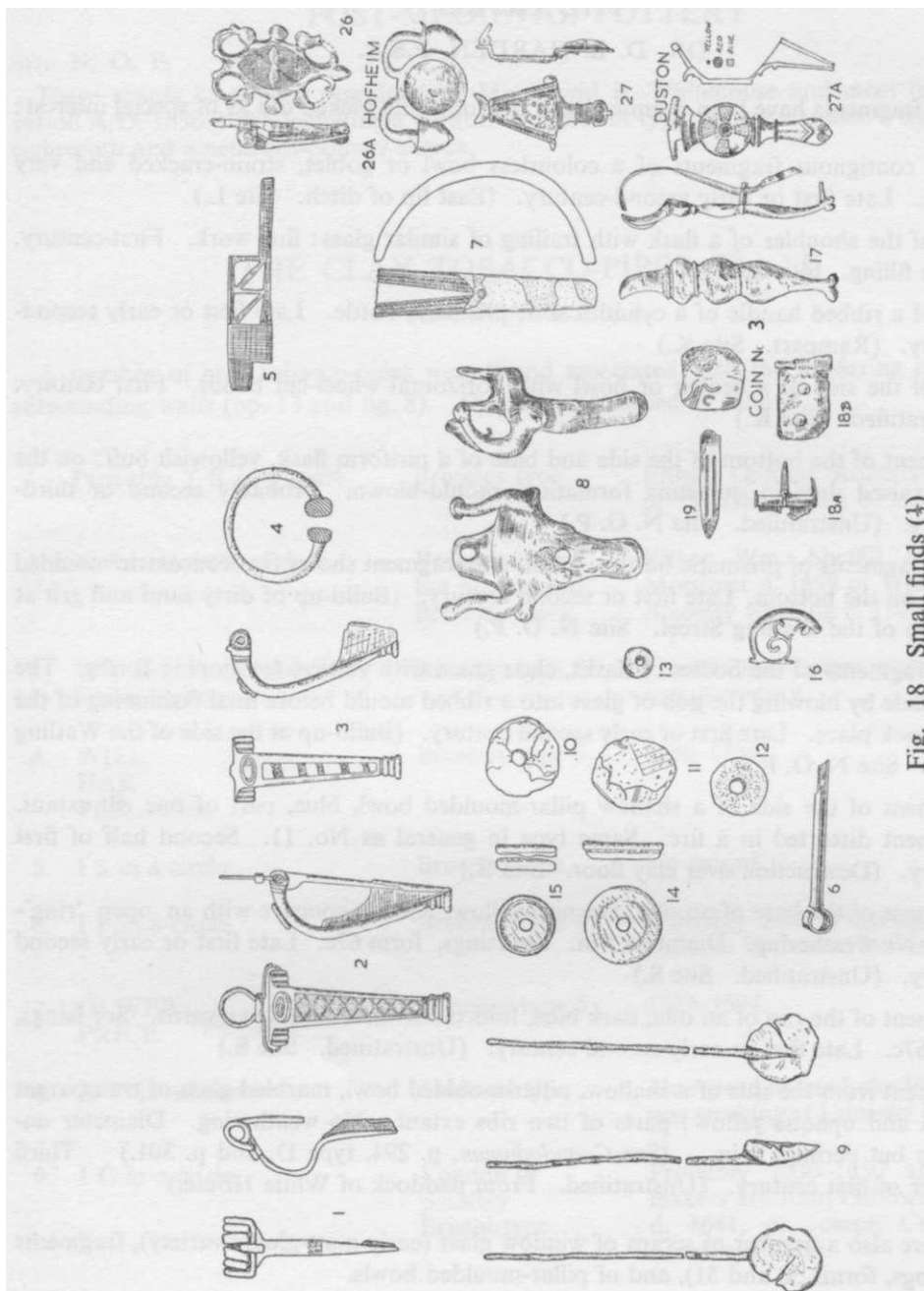


Fig. 18 Small finds (4)

BRONZE, LEAD AND OTHER NON-FERROUS ARTICLES (Fig. 18)

J. GOULD

1. Claudian P-shaped brooch without the bow-angle moulding. (See *Camulodunum*, pi. 95, No. 119 and pi. 96, No. 120.) (Trampled top of otherwise undisturbed subsoil. Site S.)
2. Head-stud brooch with red and blue enamelled lozenges and triangles. For discussion of this type of brooch see *Richborough IV*, p. 114; *Arch.*, lxxx, 1930, p. 40 and *T.B.A.S.*, lxxiii, 1957, p. 102. (In front of wall but below construction level. Site M.)
3. Head-stud brooch, white enamel with narrower black bands. See No. 2 above. (Occupation deposit over the destruction associated with the early construction trench. Site T.)
4. Penannular brooch. (Unstratified.)
5. Part of a bronze lock. (Site M in association with No. 2.)
6. Broken bronze tweezers. (Rampart. Site L.)
7. Part of a bronze armlet. (Unstratified.)
8. Animal mask bucket-handle mount in base metal alloy. The use of ox heads as decorative symbols was wide-spread in the Iron Age. Often the horns were knobbed. The use of these Celtic ornaments appears to have continued throughout the Roman period. This example was found in the disturbed upper levels associated with fourth-century pottery. Prof. C. F. C. Hawkes has examined such masks in detail in his essay 'Bronze-Workers, Cauldrons and Bucket-Animals in Iron Age and Roman Britain', (*Aspects of Archaeology in Britain and Beyond*, edited by W. F. Grimes, 1951).
9. Fragments of a silvered bronze spoon, found unstratified near site S, drawn by and in the possession of Mr. B. Haywood.
10. Lead disk, pierced, clipped from folded lead sheet. (Unstratified with first-century pottery. Site S.)
11. Lead 'weight' also from folded lead sheet. (Build-up at the side of the Watling Street. Site N. O. P.)
12. Lead disk, pierced. (Unstratified.)
13. Lead whorl. (Unstratified.)
14. Whorl made from pot base. (Unstratified.)
15. Whorls from pot base - probably split into two deliberately. (Unstratified.)

MILITARY BRONZES AND THE CONTENTS OF THE BRONZE-WORKING HEARTH (Fig. 18)

These were examined and drawn by DR. G. WEBSTER, F.S.A. who comments as follows:

16. Fragment of a bronze decorated mount, rather too small to allow full identification. There are elaborate open-work mounts and buckles with this type of decoration (see *Obergermanisch-Raetische Limes*, Kastell Pfiinz, *Taf.* xiii, 55-56 and 59, and Kastell Weissenberg, *Taf.* vi, 26 and 44) or it could have been part of the open-work scabbard mounts for daggers (*O-R.L.*, Kastell Zugmantel, *Taf.* xi, 6, 9 and 10; Kastel Kapersberg, *Taf.* vii, 7; Kastell Ruckingen, *Taf.* ii, 2, and Kastell Feldberg, *Taf.* vi, 55.) In either event it is unlikely to have come from the first-century forts as the style of decoration did not become fashionable until the middle of the second century.
17. A belt or harness hook of military type, consisting of a decorated front with two tangs, for attaching the hook to a leather strap. The hook with two or three others is usually attached to a bronze ring in the manner shown in the examples from Hofheim (Ritterling, *Taf.* xiii), Lincoln (*J.R.S.*, xxxix, 1949, pi. 10) and Cambodum (*Materialhefte zur Bayerischen Vorgeschichte*, ix, 1957, *Taf.* xvi, 23).
These hooks vary in size and it is possible that the larger ones may be pieces of horse harness for which this method of fastening seems most suitable, while the smaller ones may have been for a soldier's baldric. This example, one of the smaller types, resembles some of the Hofheim specimens.
18. Four pieces of belt buckles similar to those used for the cuirass (*lorica segmentata*). Two illustrated.
19. A flat piece of bronze decorated with two grooves.
20. Four small bronze studs with domed heads varying in size from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. diameter.
21. Two small flat-headed studs.
22. A thick piece of bronze with a circular recess.
23. At least eight small pieces of thin bronze sheeting.
24. At least five droplets of bronze which had been melted down.
25. Four fragments of bronze pins.

No. 16 was unstratified. Nos. 17-25 were in the bronze-working hearth (site K) with a number of indeterminate and corroded fragments.

An outline metallurgical report on the material from the bronze-working hearth and on pieces of lead from site N. O. P. is on p. 48.

TWO ENAMELLED BROOCHES (Fig. 18)

DR. G. WEBSTER, F.S.A.

This brooch found in 1960⁴⁸ is oval in shape with round projections at the centre and looped extensions at both ends. The centre of the brooch is divided into small panels forming a part triangular and part leaf-shaped pattern with red and blue enamels. This area has been examined by Dr. Werner of the British Museum who reports that 'the depressions forming the design have been cast into the brooch and then filled with red and transparent-blue enamels, the former having the appearance of sealing wax. It has been verified experimentally in the laboratory that clear blue enamel can be fused on to bronze containing 10% tin without loss of transparency.' It has therefore been made with the *champlevé* technique. It is a very unusual type of plate brooch which in this period are normally circular or pelta-shaped. Examples with open-work are occasionally found in first-century levels like the circular one from Cambodum⁴⁹ and the pelta type from *Bagendon*.⁵⁰ There are also the cruciform and diamond shapes from Hod Hill⁵¹ and Camulodunum⁵². The nearest parallels are from the fortresses at Hofheim⁵³ (see fig. 18, No. 26A) and Novaesium⁵⁴ but the commonest form is circular with glass or enamel fillings. (Those from Hofheim are almost identical to some from Novaesium.)

This brooch has a triangular centre part with a lunate attachment at the head, a knobbed projection at the wider part of the base and a foot terminating in two finely incised groups of concentric circles, surmounted by a zigzag pattern. The central part is covered with a blue enamel laid on to the bronze without any border and into which have been placed vertically a pattern of small silver-like 'studs' which have been coloured by manganese. This is also a very unusual brooch but basically the Hod Hill type (the type was first isolated and discussed by C. A. R. Radford⁵⁵) with elaborate decoration. The almost zoomorphic form of terminal is similar but by no means identical with one from Duston near Northampton (fig. 18, No. 27A) and now in the Northampton City Museum with a great deal of other early material from the site.

A scientific report on this brooch by the Research Laboratory of the British Museum follows.

Both these brooches have been kindly presented by the landowners to the British Museum. I am grateful to their Department of Conservation for the technical reports.

T.B.A.S., lxxix, 1964, p. 13, Period IV.

Material hefte zur Bayerischen Vorgeschichte, ix, 1957, *Taf.* xv, 20.

M. Clifford, *Bagendon - A Belgic Oppidum*. *Excavations 1954-6*, 1961, fig. 36, No. 6.

J. W. Brailsford, *Antiquities from Hod Hill in the Durden Collection*, 1962, fig. 11, F3 and F5.

Camulodunum, pi. xcvi, Nos. 165, 167-9.

Ritterling, *Taf.* x, 258-9.

Bonner Jahrbücher, cxi, cxii, 1904, *Taf.* xxiv, 64.

Richborough III, p. 76.

THE BRITISH MUSEUM

RESEARCH LABORATORY

LONDON, W.C.1

SCIENTIFIC REPORT ON AN ENAMELLED BROOCH
FROM WALL, STAFFS. (Fig. 18, No. 27)

METHOD OF CONSTRUCTION

Although metal is no longer visible, even on the fracture of the stump of the pin, the brooch appears to have been cast into shape. Nevertheless, there remains extensive evidence of hand-work in the form of stoning marks and of metal displaced by the punch which inserted decoration down the two long sides of the face. It is noteworthy that the shape of the brooch is made up of flat planes and concave or convex cylindrical surfaces that are perfectly adapted to cleaning up by abrasion with stones of suitable shape.

The evidence that the brooch was probably made by casting was derived from an examination of the surface only. It may be summarized as follows - (i) other methods of construction would necessitate the cutting away of a considerable volume of metal unless the brooch had been stamped out or the hinge and catch components had been soldered on; however, there is no evidence for the presence of solder in the mineralized surfaces that remain and it is improbable that stamping would have been adopted at that early date (ii) a flash of metal is still present along a short length of one edge at the probable position of a joint between two moulds (iii) examination under the microscope suggests the presence of a triangular depression beneath the now lifted enamel. This observation was confirmed by radiography (No. 246). The formation of such a depression would be most readily explained by a casting technique.

Lines indicating surface abrasion have been preserved in the mineral crust and run along the length of two channels bounding the triangular depression along the length of the upper edge and across the length of the side edges.

ENAMEL DECORATION

The central triangular area of the brooch has been enamelled with a blue-green frit inset with small circles of light-brown glass. Both frit and glass contain lead. The blue colour is due to copper and the light-brown colour to manganese (Spectro 489, X-ray diffraction 572, 573, 581).

The shape of the fire-polished surface of the enamel immediately surrounding the circles is consistent with the circles having been inserted as solid flat buttons into the still viscous but cooling blue enamel, no doubt while they were stuck to a support in the required formation. When cold, the surfaces were stoned down, each circle being given a substantially flat surface, as is shown by the way in which each now reflects light, rather like sequins.

The stoned-down surfaces of both blue enamel and brown glass have weathered severely and are now iridescent. In addition, the blue enamel has cracked extensively and has lifted from its support. The under surface of the enamel which had originally been in contact with the support has also weathered, thus indicating that the lifting of the enamel occurred in antiquity, but the cause of the lifting is obscure.

NATURE OF MINERALIZATION

The metal surface has been mineralized to a considerable depth, as is clearly evident from a cross-section visible at the fracture on the stump of the pin and at an edge from which mineral has broken away. Observation under the microscope indicates that there are two mineral layers, the inner one being of cuprous oxide and the outer of an olive-green material which appears to be a basic cupric nitrate (D 573). Tests of a fragment with dilute nitric acid, silver nitrate and ammonia indicate that it also contains soil, carbonates, chlorides, and copper. The thickness of the mineral crust on each surface is 0.6-0.7 mm., the olive-green layer penetrating to a depth varying from 0.2 to 0.5 mm. Since the greatest thickness of the flat area of the brooch only amounts to about 15 mm., that is, the thickness of two mineral crusts, it is clear that very little metal remains. However, the metal detector reveals that some metal still remains in the metallic condition.

In addition to the crust of mineral that preserves the shape of the object, there has been a growth of blue mineral on the back of the brooch and another in association with the blue enamel. Both growths incorporate quartz grains from the soil and have been shown by chemical tests to contain both copper and carbonate. An attempt has been made to determine the nature of these blue growths by X-ray diffraction analysis. This has shown that the material is closely allied to malachite and azurite, both basic copper carbonates.

NATURE OF THE METAL

No metal is visible on the surface and no attempt has been made to obtain a sample from what little remains within the mass of mineral. The nature of the original metal can, therefore, only be inferred from the products of mineralization. These have not been shown to contain any metal other than copper, but the tests applied do not exclude the possibility that tin is also present, and it is probable that the original material was bronze.

CLEANING AND CONSOLIDATION

As a preliminary to the examination described above, the surface of the brooch was lightly cleaned by means of a glass bristle brush, and some of the more lightly attached growths removed gently by means of a needle point. The surface has now been consolidated by an application of Maranyl soluble nylon.

A. E. WERNER
ROBERT ORGAN

8th June, 1964.

OUTLINE METALLURGICAL REPORT ON THE MATERIAL FROM THE BRONZE-WORKING HEARTH AND ON PIECES OF LEAD FROM SITE N. O. P.

INTRODUCTION

The specimens available for examination consisted of:

- a. A baldric clip in a good state of preservation,
- b. A clipped coin (octagonal) of Claudius I,
- c. Many fragments of bronze,
- d. Pieces of crucible,
- e. Various samples of lead.

EXAMINATION

1. *Samples of Bronze*

Lack of suitable spectrographic standards precluded the spectrographic analyses of these samples. Therefore, analysis by wet methods was carried out on the various types of fragments and very variable compositions were shown to obtain. Copper contents of from 77.85% to 97.15% were found. Zinc was present in nearly all specimens in variable quantities, tin was present in many samples usually in trace or small amounts, only in one sample was it present in large quantity. The analytical values indicate that the articles are genuine and that they were made by the Roman process of calamizing, i.e. the addition of zinc ore to basically copper material. Certain of the fragments consisted of dross and from the very variable colours exhibited by the micro-sections, as with the other fragments, it could be concluded that the compositions were very variable.

Micro-examination indicated the association of iron-oxide, mechanically attached to parts of hinge pieces etc., suggesting that such pieces had been hinge and clip pieces of armour. Micro-examination also indicated that certain of the studs were probably purely decorative. Many samples showed cold-working following hot-working, but the samples of dross showed an 'as cast' with coring, micro-porosity and a large grain size.

2. *Lead Samples*

The lead samples were examined by a substandard flashpoint test (adapted from a British Standards Institution test for chemical lead) and these showed very variable resistances to acid attack. The purest samples were equivalent in purity and acid resistance to British Standards Institute's specification for chemical lead, whereas the most impure examples were approximately equivalent to lead which today would be used in domestic plumbing and building work. The samples of lead contain traces of the impurities which would normally be found in samples of chemical and domestic lead of current time.

CONCLUSIONS

These results show that whilst the Romans of this period had the selective oxidization of impurities from lead completely mastered, they were by no means so competent in making consistent samples of bronze, although they did understand the principles of hot and cold-working. The absence of analytical methods and the variability of zinc ores were the main features responsible for the very variable compositions of the bronzes examined.

A full metallurgical report will be issued in due course.

Thanks are due to Mr. H. Billingham for analytical determinations and Mr. G. Clarke for his work on micro-sections.

H. T. HALL, B.Sc.Tech., Ph.D., M.I.M.M., F.I.M., M.I.B.F., A.M.C.S.T.
Head of Department of Metallurgy

D. J. ASHBY, B.Sc.Tech., A.I.M., A.M.C.S.T.
Lecturer in Metallurgy

27th August, 1964

COUNTY TECHNICAL COLLEGE, Wednesbury, Staffs.

METALLURGICAL REPORT ON FERROUS ARTICLES

M. M. HALLETT, M.Sc., F.I.M.

SLAGS AND ALLIED MATERIALS

The slags, slag-containing materials and ironstone found on three sites were subjected to complete chemical analysis with the following results:

		Slags		Ironstone	
		Sample A	Sample B	Sample C	
		Site N. O. P.	Site K (Bronze hearth)	Site S	Site K
		$\frac{V}{\%}$	$\frac{V}{\%}$	$\frac{\%}{\%}$	$\frac{V}{\%}$
Total Iron		38-50	13-0	16-90	42-5
Iron present as:					
Ferrous Oxide	FeO	40-90	8-74	13-29	Nil
Ferric Oxide	Fe ₂ O ₃	9-71	8-86	9-43	60-00
Ferrous Carbonate	FeCO ₃	Nil	Nil	Nil	1-04
Silica	SiO ₂	38-30	65-00	56-50	16-00
Alumina	Al ₂ O ₃	7-40	8-62	14-80	7-78
Phosphorus Pentoxide	P ₂ O ₅	0-30	0-37	1-10	1-31
Titanium Oxide	TiO ₂	Nil	0-44	Nil	Nil
Manganese Oxide	MnO	trace	Nil	trace	0-20
Magnesia	MgO	Nil	2-51	trace	Nil
Magnesium Carbonate	MgCO ₃	Nil	Nil	Nil	1-50
Calcium Carbonate	CaCO ₃	Nil	Nil	Nil	0-36
Lime	CaO	1-20	3-00	0-80	Nil
Soda	Na ₂ O	Nil	0-47	Nil	Nil
Potash	K ₂ O	Nil	0-54	Nil	Nil
Sulphur	S	0-15	Nil	0-01	trace
Carbon	C	0-20	Nil	0-51	Nil
Chromium	Cr	Nil	Nil	Nil	trace
Lead	Pb	Nil	Nil	Nil	Nil
Copper	Cu	Nil	Nil	Nil	trace
Nickel	Ni	Nil	Nil	Nil	trace
Zinc	Zn	Nil	Nil	Nil	Nil
Loss on ignition		1-90	1-47	3-70	12-90

Sample A from site N. O. P. is a ferrous silicate slag of normal composition. The two samples B and C from site K and site S probably represent refractory material from the furnace lining contaminated with ferrous silicate slag. This accords with the descriptions, since sample B was described as not being of uniform appearance but containing some glassy matter. Sample C showed a definite black, smooth, glassy layer with some adhering clay. Unfortunately all the three samples were consumed in the chemical analysis and it was not possible to submit the samples to petrographic examination which would have shown much more clearly the constitution.

The ironstone is typical of the phosphoric iron ore widely distributed throughout England, though the iron content is much higher than that of the remaining ore which is worked today.

These samples, although partly found in association with bronze smelting, are not typical of bronze foundry operations. They suggest rather that iron smelting was in progress on a local small scale. There is some evidence from other sources that particularly in the third and fourth centuries iron smelting had become a cottage industry. The skilled Roman blacksmiths would have been well able to set up bloomery furnaces and engage in local smelting operations. The evidence suggests that Wall was a typical example of this practice.

IRON TOOL (see p. 3)

The iron tool found in the top of the construction layer just outside the wall of the late defences was a roughly chisel-shaped object with remains of a tang at one end. Although rusted, the total amount of rusting was less than might have been expected. Chemical analysis gave the following results:

This is a typical analysis for a steel-like material produced by smelting with charcoal in Roman and early medieval times.

Sections were cut for metallographic examination and showed that the material was not uniform and varied considerably in carbon content from almost pure iron to a steel material with about 0.6% carbon. The slag was elongated and unevenly distributed. Unfortunately, as with the slags noted above, the working end had been completely used up in the chemical analysis and the metallographic examination was based on the material from the centre of the blade. It was noted that at the remaining end, closest to the lost working end, there were traces of the constituent known as martensite which is typical of high carbon material hardened by quenching. Deliberate hardening could not be proved positively but the examination does give the impression that there may have been an attempt to strengthen the cutting end by welding on a high carbon steel material followed by subsequent heat treatment. Apart from this the article is typical of hand-forged iron made in Roman and later times.

ACKNOWLEDGEMENTS

Thanks are due to Mr. G. T. Brown, M.Sc., L.I.M., for undertaking the metallographic examination and to Mr. H. F. Cleere, B.A., of the Iron and Steel Institute for helpful discussions and comment.

LETOCETUM
THE NAME OF THE ROMAN SETTLEMENT
AT WALL, STAFFS.

J. GOULD

One of the questions frequently asked by visitors to the excavations conducted by this Society at Wall (Staffs.) concerns the name *Letocetum*. The third century Roman road-book usually known as the Antonine Itinerary¹ refers to the settlement at Wall as *Etoceto* (i.e. to *Etocetum*) and since it is placed in that Itinerary which follows the line of the Watling Street and gives mileages to the adjoining settlements, there is no doubt as to the identification. Until the end of the last century *Etocetum* was the name commonly used for the Roman settlement at Wall.

The seventh century list known as the Ravenna Cosmography² based on much earlier Roman material, refers in its British section to *Lectoceto* and this is accepted as being a reference to Wall on the grounds of its similarity to *Etoceto*. The choice between the two names is difficult since philologists regard both as corrupt. The strange compilation of the Welshman Nennius, *Historia Brittonum*, gives a list of the cities of Roman Britain in their Welsh form. The list includes *Cair Loitcoit*, at one time thought to be a reference to Lincoln, but more recently considered to be either Wall or Lichfield.

In 1886, Henry Bradley wrote a letter to *The Academy* (Oct. 30th No. 756) arguing that *Cair Loitcoit* in modern Welsh would be *Caer Lwytcoed* (literally 'City of the Gray Wood') and that in Bede's reference to *Lyccidfelth* (Lichfield) in his *History**, *Lyccid* is a natural contraction of *Loitcoit*. On the other hand, Duignan⁴ sees *Lyccidfelth* as of Saxon derivation and meaning the 'boggy field', which would indeed be an apt description of Lichfield. Bradley also claimed that the Celtic form of the Welsh *Loitcoit* would be *Letoceton*, which when Latinised, would give *Letocetum*. Most reputable philologists support him in this. There is no known town in Roman Britain of this name, and so it is argued this must be the name of the town whose corrupt form appears in the Itinerary as *Etoceto* and in the Cosmography as *Lectoceto*. Hence the Roman settlement at Wall is today known as *Letocetum*. In 1889 Bradley carried his argument much further. He again wrote to *The Academy* (Nov. 9th No. 914) citing a number of references to *Llwyd Koet*, *Llwytcoed*, *Loytcoyt*, etc. In some cases his argument is specious and unconvincing. Two of the references are reconstructed to give '*civitate quae vocatur Loytcoyt*'. This appears to be the source of the story that the settlement at Wall was a *civitas* (i.e. an administrative tribal centre) as in *V.C.H.*, Staffs., i, 1908, p. 193.

¹ *Itineraria Romana*, i, ed., O. Cuntz, Leipzig, 1919.

² *Arch.*, xciii, 1949, p. 37

³ *History of the English Church and People*, book IV, chap. 3, para. 1.

⁴ W. H. Duignan, *Notes on Staffordshire Place Names*, 1902, pp. 91-5.

Archaeologically to call Wall a *civitas* is nonsense. Nevertheless the story persists and visitors to the site periodically refer to this.

In his 1889 letter, Bradley also refers to a Welsh poem *Marwnad Cynddylan* attributed to the seventh-century author, Meigant. This was published in 1870 in a collection entitled *The Myvyrian Archaiology of Wales* and should not be confused with *Marwnad Cynddylan ap Cyndrwyn* which appears in the same volume. The former poem is sometimes quoted as illustrating events at Wall, but the poem is in reference to the deeds of a seventh century prince of Powys. There is no archaeological evidence of occupation at Wall beyond the end of the fourth century. The latest coin to be found there is one of Gratian dated by Dr. Kent of the British Museum to A.D. 381. No evidence of Saxon occupation has yet been found, though such evidence is notoriously elusive.

On the other hand, if the Celtic scholars are correct in recognising *Lyccidfelth* as *Llwytcoed*, the poem could well refer to events at Lichfield, the name of the old settlement persisting in that of the new. Duignan in the work referred to above, claimed that the internal evidence of the poem was against this. As the matter is of great interest not only to those concerned with excavations at Wall, but also with the early history of Lichfield a recent translation of the whole poem by Prof. Thomas Jones, M.A., D.Litt. of the University College of Wales, Aberystwyth, has been obtained through the good offices of Mr. D. Smallwood and Miss L. Williams. Prof. Jones writes as follows:

'ELEGY FOR CYNDDYLAN'

'This poem appears to be an authentic elegy to Cynddylan ap Cyndrwyn, a seventh century prince of Powys. The earliest text extant belongs to the eighteenth century, but it contains orthographical evidence that a much earlier copy was once in existence. Because of errors in transcription, the extant text is faulty in many places and many emendations are necessary. Even then there are many difficult words and phrases in the poem, and at present any translation can only be tentative in many places.'

'For the original text edited with notes by Sir Ifor Williams, see *Bulletin of the Board of Celtic Studies*, vi, 1933, pp. 134-141.'

'For a reconstructed text, see Ifor Williams, *Canu Llywarch Hen*, University of Wales Press, Cardiff, 1935, pp. 50-52.'

'For the reconstructed text presented in modern orthography, see T. Parry, 77re *Oxford Book of Welsh Verse*, pp. 4-8.'

'My translation is based on the reconstructed text by Sir Ifor Williams, but occasionally my interpretation of details differs from his.'

'Battle of invincible men . . .
Rhiau and Rhirid and Rhiosedd
And generous Rhygyfarch, pillars of battle.
I will lament, until I be in my oaken grave,
The slaying of Cynddylan in his might.'

'Conflict of might, I thought
Of going to the Menai, though there were no ford for me.
I love him who greets me from the land of Cemais",
Lord of Dogfeiling', strength of Cadelling'.
I will lament, until I be in my quiet oaken [chest],
The slaying of Cynddylan, a grievous loss.'

'Conflict of might, to think
Of going to the Menai, though I could not swim.
I love him who greets me from Aberffraw,
Lord of Dogfeiling, glory of Cadelling.
I will lament, until I be in my silent oaken [chest],
The slaying of Cynddylan, and his hosting.'

'Conflict of might, succouring with wine,
I am bereft of a smile, old, full of longing.
I lost, when he seized the cattle of Pennawg,
A man brave, fierce [and] unsparing.
He would attack oppression beyond the Tern, an arrogant land.
I will lament, until I be in the unmoving earth,
The slaying of Cynddylan of dear good name'.

'Conflict of might, how good was the fate
Cynddylan enjoyed, hero in battle;
Seven hundred warriors in his company;
When a youth wished for danger, how ready he was!
He did not die at a wedding feast, he was not married.
God, with what other folk, where did he fall?
I will lament, until I be at the end of my course,
The slaying of Cynddylan, renowned for nobility.'

'Conflict of might, how common I am,
Every fish and beast is fairest.
Through treachery I lost, bravest men,
Rhiau and Rhirid and Rhiadaf,
And generous Rhygyfarch, lord of every border.
They drove their spoils from the meadows of the Taf';
Captives lamented; cattle lowed [and] bellowed.
I will lament, until I be in a lowly acre,
The slaying of Cynddylan, renowned on every border.'

'Conflict of might, seest thou this?
My heart is burning like a brand.
I praised the possessions of their men and their women,
Refuse me they could not.
Brothers I had it were better that they were alive,
Whelps of the great Arthur, unyielding protection,
Who fought before Lichfield.
There was blood under ravens and a rude attack.
The sons of Cyndrwynyn shattered shields on guard'
I will lament until I be in the long resting place,
The slaying of Cynddylan, renowned chieftain'.

- i.e. in Anglesey
- i.e. the cantref of Dyffryn Clwd
- i.e. the land of Cadell (Powys)
- which river of this name is uncertain
- lit. 'before the nose'

'Conflict of might, great plunder
 Before Lichfield did Morfael seize -
 Fifteen hundred head of cattle and five litters [?],
 Four score steeds and trappings for mounting.
 All bishops with but one swine anywhere
 He did not spare, nor book-grasping monks.
 Of all the renowned warriors who fell in their blood
 No brother escaped from the battle to his sister.
 They fled with their wounds inflicted [?] in battle.
 I will lament, until I be in the pressed earth,
 The slaying of Cynddylan, celebrated by each brave.'

'Conflict of might, how pleasant it was
 To my mind when I visited Pwll and Alun!
 Fresh rushes under my feet until time for sleep;
 Feathers under me to the top of my thigh.
 And though I go there to my own land,
 Kinsman there is none; there are birds to prevent it.
 And though God were not to take me to the hill of wrath,
 No one committed sin like to my own.'

Those interested in the philological argument are referred to *Arch* and to Kenneth Jackson's *Language and History in Early Britain*, 1953. I am grateful to Dr. Graham Webster, F.S.A. for drawing my attention to this last reference.

THE DEVELOPMENT OF THE GOLDSMITHS' TRADE IN THE MIDLANDS

A. HAMIL WESTWOOD, ASSAY MASTER, BIRMINGHAM

I am going to begin at the end of the story of the Midland Goldsmiths and to say a brief word about the craft and industry in the last hundred years. The development of the goldsmiths' trade of the Midlands in that period has been so great and complex that it is possible only to touch on it in this Paper, but I feel that properly to appreciate its growth in the earlier years in the Middle Ages and more especially in the eighteenth century, a grasp of where the industry stands today is helpful.

As late as the 1890's the great centre of the goldsmiths' trade in Great Britain had been from the earliest times the City and district of London. London was to about 1850 overwhelmingly the major producer of gold and silver articles and of jewellery but in the 1850's the Midlands, which had come into the picture about a hundred years earlier, began rapidly to increase production until in the 1890's its output equalled and then shot ahead of that of London. Not only was the total London trade exceeded but in the first ten years of the present century the output of the Midlands surpassed that of London and all the rest of Great Britain put together. This position of pre-eminence has remained until the present day and indeed seems likely to continue. Having made this point and established the position today of goldsmithing in the Midlands, I will return to the main subject of my Paper which falls naturally into two parts.

The first is what I will call the medieval period, since it began in those times and was brought to an end by the Civil War. This period should be considered complete and final in itself. It has virtually no relation to the second part of my Paper which deals with the rise and the growth in the eighteenth century of our present industry. Goldsmithing in the Midlands today is not a continuation of the craft of medieval goldsmiths. It is, in fact, an extension and development of the work of the Black Country nailers and other small wrought-iron workers who turned their skilled hands to similar small articles made in tin, copper, pewter, brass and finally to silver and then gold. In the Middle Ages, as I have said, the great centre of the trade was the City of London and control of the trade there was firmly in the hands of the powerful Guild of Goldsmiths who continue to the present day and are fifth in order of precedence of the City Livery Companies. I am myself privileged to be a Liveryman of the Company thus continuing in the steps of other members of my family. The first of us to become at Liveryman was Humphrey Westwood of Chaddesly Corbett in Worcestershire who was given the freedom of the Company in 1581 and later was elected a Warden. Hakluyt records him as assaying the gold brought back from the Orinoco by Sir Walter Raleigh.

In the year 1300, the London goldsmiths by a Statute of Edward I were empowered to assay and hallmark gold and silverwares and in 1327 a Royal Charter gave them the right over the whole of England to search goldsmiths' shops, to examine their wares, to seize any article that was unhallmarked or suspected to be fraudulent and to impose fines and penalties for breaches

of the law. These rights and formidable powers were bitterly resented by provincial goldsmiths who asserted that the Londoners misused them in order to damage and suppress the provincial trade. For example, Robert Shefford a goldsmith of Northampton, after the London Wardens had fined him and seized some of his stock in 1514, declared that 'The Wardens when they ride and search do nothing but rob men, and all that comes into their hands never comes out again'. He might well feel sore because, in earlier years, he had been caught in other malpractices, and had been fined at fairs at Bristol and Stourbridge (Cambs.). In several instances, we become aware of the existence of early Midland goldsmiths through their being caught out in wrongdoing, not I am sure that they were a dishonest lot but simply because in those days, like our own, it is the criminal who gets publicity; the honest men are never heard of.

One of the earliest records of dealing in precious metals in the Midlands is entered in the Chancery Patent Rolls for the year 1343 in the reign of Edward III. It reads in translation:

The King to the sheriffs and all other his bailiffs servants and lieges as well within the liberties as without to whom &c. greeting. Know ye that whereas Walter de Warrewyk John de Pershore & Roger le Barker de Birmyncham have been accused of making a certain metal, which they declared to be pure silver when it was not, and selling it to our people of England in divers ways as well to our own as to the deception and manifold loss of our said people. We, desiring to put a stop to the fraudulent practices of those men have commissioned in this matter our beloved and faithful Robert de Bereford Richard de Foxton and Adam de Pesale jointly and severally to pursue arrest and capture the said Walter, John and Roger wheresoever they may be found whether within the liberties or without and bring them safely and surely to our Tower of London there to deliver them to the Constable of the aforesaid Tower or any Lieutenant of his to be safely guarded in the prison of the said Tower until we order otherwise in the matter. And to that end we do strictly enjoin and direct you, all and individually, that you be diligent to further their endeavours and to aid them as often and at such time as they or any of them appeal to you on our behalf. In witness whereof. . . Witness the Keeper at Kenyngton on the fifth day of February.

It is a tantalising fragment and the absence of any sequel would seem to indicate that in those days as well as in our own, the forces of law and order did not always get their man. The passing off, too, of sub-standard silver is a crime not altogether unknown in our time.

Until recent years it had always been supposed that in the Middle Ages and after, the main source of supply of goldsmiths' works for the Midlands had been London. Researches in the last fifteen years have shown that this was not so. The evidence on this point obtained by Mr. S. A. Jeavons in his comprehensive surveys of Midland church plate¹, is the most conclusive of all. For instance during the great Elizabethan conversion of chalices into communion cups; in Warwickshire, 45 cups were provided by provincial makers and only five by Londoners; in Staffordshire, 14 cups were provincial and five from London; in Derbyshire, 17 were provincial and five from London. The overall picture for the then diocese of Lichfield (Mr. Jeavons concludes) is that over three-quarters of the communion cups were the work of local goldsmiths. As yet it has not been possible to establish exactly the sources of this local goldsmiths' work but the evidence points overwhelmingly to the ancient and wealthy city of Coventry as the main centre of the goldsmiths' craft in the Midlands until well on in the seventeenth century and up to the time of the Civil War.

In 1432 by a Statute of Henry VI, the seven towns of York, Newcastle-upon-Tyne, Lincoln, Norwich, Bristol, Salisbury and Coventry were authorized to assay and hallmark gold and silverwares. Plate by makers from all these towns except Coventry has been identified but

¹ See references, Item 3.

it would seem certain that none of these places would have been authorized to hallmark unless at the time the Statute was passed it had possessed a considerable number of manufacturing goldsmiths. We do indeed know the names of several Coventry goldsmiths, including those listed in the records of the Holy Trinity Guild. We are unfortunate only in not being able to identify the maker of any of those silver articles which are thought most probably to have originated in Coventry, but I do not think the problem is incapable of solution and have hopes that we shall before long find out. Besides Coventry, it is known that goldsmiths worked in many other Midland towns such as in Lichfield, Leicester, Stafford, Worcester and Birmingham but at none of these places were there so many as at Coventry. None of these places, too, possessed a guild so wealthy and so renowned as that of Coventry's.

The medieval tradition as regards goldsmiths' work in the Midlands came to an end in the Civil War. All over England the craft came to a halt, in some places such as Coventry it ended for good. Puritan teaching condemned the making and use of articles of luxury, the insecurity of the times rendered the trade precarious and, above all, both of the contending parties ruthlessly layed their hands on any gold or silver plate available. During this period vast quantities of fine plate were melted down to form the basis of coinage to finance the opposing armies. The destruction must have been far greater than that of Henry VIII's reign when most of our medieval ecclesiastical plate was consigned to the melting pot. Only in London did the goldsmiths continue; there they produced a small quantity of plate of a severe and utilitarian pattern until the Restoration of the monarchy in 1660, which restored their prosperity and released a veritable flood of fine and often highly ornamental work. The attitude of the London goldsmith of this period towards his provincial competitor is admirably shown in a passage of that noteworthy book *A Touchstone for Gold and Silver Wares* published in 1675 by William Badcock, both a goldsmith and a cutler of the City of London. He wrote as follows:

And for the sake of you the buyers of goldsmiths' work, that reside in the country or remote from London, I will cite you this observation worthy your notice (to wit) that by reason the magistrates in the Seven Touch Towns have been and now are very remiss in prosecuting their authority in making search and assaying and marking the goldsmiths' work, and that the Wardens of the goldsmiths of London, do very seldom make search in the country. Great part of the gold and silver works (especially the small works) made and sold remote from London, are notoriously known to be exceedingly adulterated and debased, and great part of what is made by the London workers and sent into the country to the traders there, are as notoriously known to be as bad as any. This deceit seems to take the more courage, by reason also of the country peoples' unskilfulness, and the difficulty of proceeding in course of law against the country offenders. Wherefore my advice is, that you buy these works at London only, either yourself or by some friend that lives there, or frequently comes thither; and if any deceit be found in such works, there be the Wardens of the Goldsmiths to complain to, who will assist you; there are the Assay-Masters to make your assays and give evidence of the value of the metal; there is the Sessions in London, and at Hixes-Hall, and the Courts at Westminster, that will understand your aggrievance, and give you recompense, and punish the offenders suitable to the offence and the ill-consequences thereof; but you will find it very chargeable to prosecute a country-offender in the country, if you be necessitated to have the testimony of the Assay Master of Goldsmiths Hall, or the Assay Master of the Tower of London.

In the century between 1640 and 1740, I do not know of any work at all by a Midland goldsmith although no doubt some small amount was produced somewhere in the district. It is known that at the end of the seventeenth century, Black Country and Birmingham people were beginning to make buttons, buckles and other small-wares, such as gun-furniture, in silver as well as base metal. By 1750 a large number were so engaged, some on a considerable scale

with a sizeable export trade. Among these latter was John Taylor, usually known as Squire Taylor as he was also a landowner. John Taylor in 1750 possessed the largest factory in Birmingham situated in High Street. There he made metal small-wares of all kinds and employed upwards of 500 workpeople. His activities included banking, and with Sampson Lloyd he was the co-founder of Taylor & Lloyds, later on Lloyds Bank. A clue to his character may be found in a letter of James Watt to Boulton, then in Cornwall. He wrote, 'Squire Taylor died last night, worth, it is said, upwards of £200,000. He never did a generous action in his life.'

A manufacturing rival of Taylor was Matthew Boulton senior, a button and buckle maker of Steelhouse Lane and Snow Hill, Birmingham. He had come to Birmingham as a child and had developed a prosperous business. When he died in 1759 he left the business to his son, Matthew. Matthew Boulton, junior, born in 1728 became one of the leading manufacturers and business men of his time and achieved international fame. A man of extraordinary versatility, he turned his mind to a succession of business enterprises and was more than once on the brink of ruin largely because he was attempting too much. He only achieved financial stability when his investment in the steam-engine finally prospered towards 1790. On his own admission, if he had liked to settle down merely to maintaining his family business he could have enjoyed a modest but easy competence all his life. To this he could never reconcile himself and, instead, he strove to develop and enlarge those businesses he was already engaged in and, at the same time, launched out into new ventures. On his father's death Boulton at once went ahead with expanding his business on a most ambitious scale. He planned not only to increase his output of buttons, buckles and other toys but also to develop the manufacture of all types of large silverware, a project never before attempted in the Birmingham district. To effect this, he built what was probably the largest factory in Great Britain erecting it at Soho on Hockley Heath, an area of waste land just outside the then northern boundary of the town. The site was chosen largely because a stream and chain of large pools provided a source of water-power to drive his machines. The enterprise was in part based on Lichfield money, the fortune of about £14,000 that Boulton's wife Mary brought him. She was the daughter of Luke Robinson, a wealthy Lichfield mercer. On Mary's death in 1760 Boulton married her younger sister Anne who brought with her another £14,000. Marriage to a deceased wife's sister was then unlawful and the second marriage took place in the greatest secrecy. Its place has never been revealed but may have been at Wapping in London which then had some sort of extra-territorial status, being a place resorted to by Scandinavian merchants and seamen. Some years later Richard Lovell Edgeworth of Lichfield was contemplating a similar unlawful union and wrote to Boulton for advice. Boulton in his reply mentioned Wapping but seemed rather to recommend 'secrecy and Scotland'.

In 1762, Boulton's new factory began production and he started to fulfil his plan to produce silver of the finest quality but at prices lower than could be achieved elsewhere. The taste of the age was for classical design and both Boulton's aesthetic standards and his business judgement led him to follow the fashion. In a letter to the Honourable Mrs. Montagu in January 1772, he wrote, 'The present age distinguishes itself by adopting the most elegant ornaments of the most refined Grecian artists. I am satisfied in conforming thereto, and humbly copying their style, and making new combinations of old ornaments without presuming to make new ones'. Boulton worked to the designs of many of the leading artists of the time, such as the Adam Brothers, the two Flaxmans, Athenian Stuart, Pidgeon, Angelica Kaufmann, John Eginton, Kiichler and others. But also he copied from classical objects in the collections

of his friends and patrons, sometimes these were sent to him from his agents abroad or from correspondents such as Sir William Hamilton the British Ambassador at Naples. Boulton was a collector of prints and engravings of classical subjects and bought numbers of these from Alderman Boydell the publisher. Boulton did not rely on design alone to sell his goods, he employed a number of other means. He possessed great charm and social gifts and at his house near his factory he entertained large numbers of distinguished people, British and foreign, who came to see his famous workplace. His acquaintance was enormous and extended from the King and Queen to Mrs. Siddons, from Lord Nelson to Joseph Priestley and to most of them he sold his products.

The holding of sales at Christies' sale rooms in London was another way of promoting business and the catalogues of these are still preserved by Christie, Manson and Woods. The private view day at Christies' was one of the features of the fashionable world at this period and the auction sales in the 'Great Room' were popular entertainment, just as they are today. Boulton prepared the sales very carefully. He had special display cabinets made and took great pains with the catalogues. He was very alive to the importance of newspaper advertisement and advertised in both the Tory and the Whig papers. In a letter to John Christie in 1771 he wrote, 'I would have the advertisement continued for a week together, and in about six days after, we will publish something else, and so soon as the day is fixed for the sale, we will publish that; for tis necessary, the Town should talk a little upon the subject, before the important week, and be brought into proper tune.' With newspaper advertisement, Boulton employed direct mailing to the aristocracy and gentry. Christie was asked to supply a list of potential customers 'as I think a letter directed from me to each of them, may induce each to think himself particularised more than could be done by anything printed.' In his private letter-book, Boulton drafted several forms of letter - one for Dukes, one for Duchesses, one for gentry and so on. In a letter to his wife, he tells her that he was 'so closely employed in directing and dispatching of my letters to the nobility, that I did not go to bed until past one o'clock'. With each letter tickets were enclosed for the private exhibition, 'by which means', said Boulton, 'I shall pay a compliment to so many persons and avoid the admission of all the dirty journeymen chasers, silversmiths, etc'. So great was the success of Boulton's first two sales that he told Christie that he thought his Great Room would not be big enough. Boulton wrote to his wife, 'Mr. Levett and Mr. William Robinson were there and seemed surprised to find that I had made so great a bussle amongst the Nobility even to such a degree as to stop up Pall Mall with coaches.' Even the Prince of Wales attended and bought a pair of wing-figured cassolettes. How extensive was Boulton's acquaintance, can be seen from a letter to his wife in April 1771, he said, 'I dined with Lord Shelburne's brother on Wednesday; with Garrick on Thursday; with Motteux (governor of the East India Company) and two foreign noblemen yesterday; with the Russian Ambassador today; with Madame Montagu tomorrow; with Fordyce (the banker) and Lady Margaret on Monday; with Dr. Benjamin Franklin on Tuesday; nowhere on Wednesday, and I sup with my own dear Wench on Thursday.' In spite of his distinguished acquaintances and in spite of his aspirations to make silver plate of the highest quality, Boulton never lost sight of the fact that bread-and-butter lines, such as buttons, buckles and other small toys were a mainstay of his business. Even in his later years when he was a wealthy man, he wrote to his London agent Richard Chippendall as follows, 'We think it of far more consequence to supply the People, than the Nobility only, and though you speak contemptuously of hawkers, pedlars and those who supply petty shops, yet we must own that we think they will do more towards supporting a great manufactory,

than all the Lords in the Nation, and however lofty your notions may be, we assure you we have no objection against pulling off our hats and thanking them four times a year and must beg you will allow us to do it.'

Before Boulton's new factory could make real progress and increase output to a really paying level, a further and formidable obstacle had to be surmounted. Then, as now, virtually all silver was obliged by law to be hallmarked before it could be sold. Birmingham, a new town, had no Assay Office, and as we have seen, the one at Coventry had closed a hundred years and more before. Boulton, therefore, to get his work assayed and hallmarked was obliged to send it to the Chester Assay Office; alternatively, there was the London Assay Office but that was even farther away. The delay and expense incurred in sending over the vile roads of that time the output of his large factory were great and there were other drawbacks. The first mention of this problem is in a note made in 1766 by Lord Shelburne after a visit to Birmingham. He wrote, 'Another thing they are in great want of is an Assay Master, which is allowed at Chester, London and York; but it is very hard on a manufacturer to be obliged to send every piece of plate to Chester to be hallmarked, without which no one will purchase it, when the first object of the whole trade is to make a quantity and then to reduce the profits as low as possible. It would be of infinite public advantage if silver plate came to be manufactured here, as watches lately are, and that it should be taken out of the imposing monopoly of London'. Lord Shelburne who became Prime Minister in 1782 was a friend and customer of Boulton. On 7th January 1771 Boulton wrote to Shelburne to apologize for the delay in finishing an order for two pairs of silver candlesticks (120 oz.) These were sent to the Chester Assay Office nine days before Christmas Day but were not received back until three days after Christmas Day. 'And what was still worse than the disappointment in time, the chasing was entirely destroyed by the wilful or careless bad packing of them at Chester. Some parts were so far injured that we have been obliged to substitute new ones . . . I am so exceeding vexed about the disappointment and loss which have attended the two pairs of candlesticks that although I am very desirous of becoming a great silversmith yet I am now determined never to take up that branch in the large way I intended, unless powers can be obtained to have a marking hall at Birmingham.'

The first news that active steps were being taken to obtain an Assay Office in Birmingham is contained in a letter dated December 1772 from Boulton to the Duke of Richmond. 'I am now manufacturing plate with a degree of elegance which, I flatter myself, your Grace would approve, and if Parliament would but grant us at Birmingham, the same indulgence as it hath granted to many towns in England, I think I should push that article into a cheaper and more elegant style than tis now in, and for that purpose I expect the Town of Birmingham will present a petition to Parliament this session praying for the establishment of an Office here, for the assaying and marking of wrought plate.' At this stage, Boulton's propaganda and energetic pursuit of the Assay Office project (so characteristic of the man) attracted influential support. The silversmiths of Sheffield suffered from the same disability as those of Birmingham, they had no Assay Office. Hearing of Boulton's activity, they instructed Gilbert Dixon, attorney and clerk to the Sheffield Cutlers' Company to write to Boulton as follows:

A report prevails here, and it is also said in some of the public papers, that the artificers in silverwares at Birmingham intend to apply to Parliament this session for an Act to establish an Assay Office in Birmingham for assaying and marking of silver, wrought to the standard required by law under proper regulations. The establishment of such an Office in Sheffield, has been much wished for by the artificers in silver here, who for some time past, had had such a project in contemplation for the convenience of having their goods assayed and marked, without the trouble, expense and delay of sending them to the

Goldsmiths' Hall in London. I am employed as Solicitor for the artists of this place to desire you would be so kind as to inform them, whether it would be agreeable to the gentlemen, concerned in this design, at Birmingham, to take the workers in plate at Sheffield into the scheme, so as to go hand in hand with you to Parliament.

I am glad to be able to draw attention to this letter as in recent years, claims have been made by patriotic Sheffield citizens that it was the Sheffield silversmiths who initiated the scheme to set up new Assay Offices and that it was they who graciously permitted the Birmingham trade to hang on behind their coat-tails. Boulton in replying, welcomed the co-operation of the Sheffield silversmiths and reported, 'We not only have had the honour of a long conference with the King upon the subject, but also with many of the Nobility, particularly some of the present Ministry, who all seem persuaded of the justness and propriety of the establishing an Office at Birmingham, and have promised their assistance'.

It is evident that Boulton made good use of the wide range of acquaintances he had established through his business. Nothing could be more important than to obtain the support of the King who at this period virtually controlled Parliament through Lord North's administration. In January 1773, Boulton wrote the following letter to Lord North:

Permit me to assure your Lordship, that it never was my intention to take any steps relative to obtaining an Office at Birmingham, for assaying and marking of silver plate, but such as should be first approved by your Lordship and the Treasury Board, flattering myself that the proper mode of proceeding in the House would be by Motion and not by Petition. But this being the last day of receiving Petitions, and as my Lord Dartmouth did me the honour to inform me that your Lordship thought that mode the most regular, I have therefore, prepared the enclosed (it now being too late to get one signed by the individual manufacturers at Birmingham) which I propose presenting to the House this day, unless your Lordship is pleased to show any disapprobation of my proceeding. But if not, I hope for the favour of your Lordship's countenance, as it is a matter, I presume will be tending to the good of the Community in general, but particularly to the Town and neighbourhood of Birmingham.

The petitions of Birmingham and Sheffield to the House were both composed in similar terms:

That the Petitioners and several others are engaged in a Manufacture of Wrought Silver Plate, of different kinds, at the Town of Birmingham, which might be considerably extended and improved, in case an Assay Office was established in the said Town, but that the inconvenience they labour under in sending their goods to Chester, being upwards of Seventy Miles distant from Birmingham, and the nearest Town where any Office for assaying plate is established, is attended with an expense, hazard and delay, greatly prejudicial to the said manufacture, and obstructing all such improvements, as might otherwise extend to the sale thereof, both at home and in foreign parts.

The London Press about this time began to sound an alarm and on 17th February a petition of the Wardens and Assistants of the Company or Mystery of Goldsmiths of the City of London was presented to the House of Commons and, at the same time, a petition from the goldsmiths, silversmiths and plateworkers of the City of London and places adjacent. The two petitions were in similar terms and at some length. The following extract is typical of their content:

The petitioners apprehend that the establishment of Assay Offices in Birmingham and Sheffield might open a door to deceit and uncertainty, in respect of the standards of gold and silver plate, and tend to destroy that credit and reputation which the Goldsmiths' manufacture in these Kingdoms has justly acquired, and consequently, impair the trade of the metropolis, diminish His Majesty's Revenue, and sensibly affect the honour and riches of the Kingdom: that the manufacture of plate is now carried on in the City of London, in all its variety of useful and curious branches, in much greater perfection than in any place in these kingdoms, and to an extent sufficient to supply the greatest demands - and the petitioners apprehend the granting of Assay Offices to Birmingham and Sheffield will ruin the goldsmiths' trade in the kingdom.

The various petitions were all referred to a Committee of the House, whose chairman was, and here one must suspect that Boulton's influence was proving effective, Thomas Skipwith, Member of Parliament for Warwickshire and in close touch with his constituents in Birmingham. On 1st March 1773 the *Birmingham Gazette* reported that:

We hear that the opposition of the Silversmiths of London against those of the Country grows very violent and that the former have deserted their shops and are patrolling over the Western part of the Tower, endeavouring to prejudice the minds of our Senators against country silver; the refining of which (as it is expressed in their petition) is a sacred mystery, and is nowhere understood but in London; nor are any good Workmen, or good taste, to be found but within the Bills of Mortality. Whereas the fact is, the greatest improvements that have been made in the separation of the base metals from gold and silver for this century past have been made and are practised in this Town which hath distinguished itself over the whole Globe by its various productions and that chiefly owing to its exceeding all other countries in machines and tools for working in metal. As to taste and elegance in forms, compare but the silversmiths' shops with the productions of Staffordshire.

We do not hear that the Country Petitioners want to curtail the privileges of the Goldsmiths' Company in London, or to use their mark, but want only the privilege of putting their own mark under such regulations, restrictions, penalties and punishments as may preserve the true standard and thereby establish a reputation in plate to themselves that shall have a pre-eminence over all other Assay Offices in the Kingdom. It is said that some instances may be produced of inaccuracy at the Offices in the country but we hear unquestionable proofs will be produced of the London Mark being put upon silver much below standard.

The charges and counter-charges of irregularities in the manufacture and assay of wrought plate led to the appointment of a Special Committee of the House on 26th February. This was ordered 'to enquire into the manner of conducting the several Assay Offices in London, York, Exeter, Bristol, Chester, Norwich and Newcastle-upon-Tyne, and the manner in which wrought plate is assayed and marked, and also into the frauds and abuses that have been committed, and attempted to be committed, by the manufacturers and vendors of gold and silver plate, and plated work, and that they do examine and report the same, with their observations, to the House.' The Committee met on 8th March, and the chairman was, by a further lucky coincidence, another friend and customer of Boulton's, Thomas Gilbert, Member of Parliament for Lichfield. On the 12th March, Mr. Skipwith, chairman of the first Committee presented his Committee's report, which was read and agreed to, and leave to bring in a Bill was given to establish Assay Offices at Birmingham and Sheffield. The Bill had already been drafted and it was submitted to Lord North by the hand of Boulton. It was read the first time on 26th March and the second time on the 7th April. On 29th April, Mr. Gilbert presented to the House the report of the second Committee. The report reflected most unfavourably on the conduct of the London Assay Office and the state of the London trade. It found that silverwares considerably below standard were quite generally, and even customarily, accepted for hallmarking there. A fact which can be verified today by any assayer who cares to sample London plate of that period.

On the 6th May, yet another petition of the London Goldsmiths' Company was presented to the House. Taking notice of the Bill for establishing Assay Offices at Birmingham and Sheffield, it set forth that:

most of the plate in those towns is made or stamped with dies; that their chief employment is in plating, or covering base metal with silver; that the power of assaying and marking wrought plate, is too great and important a trust to be committed to persons, in places where the same is likely to be abused, or be prejudicial to the public; that the petitioners are apprehensive, if the Bill should pass into law, it would greatly increase the number of frauds in wrought plate, and render the detection of such frauds more difficult.

On the 11th May, Boulton wrote to his partner, John Fothergill in Birmingham:

I was in hopes, that I should have been able by this post, to have informed you of a final decision of the House upon the Assay Bill, but as it did not break up before eleven last night, the members were so much fatigued that the House hath not sat today; and our affair is now adjourned till Thursday, the 13th, so that you may expect to hear on Saturday, what our fate will be. The Londoners have engaged two Counsellors to plead their shabby cause at the Bar of the House and are making all possible interest they can. However, I do not despair, as to the House of Lords, I have twice the interest in that House than in the lower House. I shall not employ any Counsel but as I have taken great pains to make proper impressions upon the members, I shall submit the case simply to their decision. Lord Derby took me about with him yesterday in his chariot, to several Ministerial members, pressing them to serve us. He says he has talked much to the King in my favour ... I am damned sick of London but can't leave it at present.

On the 13th May, the Bill at last was debated and a summary of the debate was published in the *Birmingham Gazette*. The two principale speakers against the motion were Mr. Alderman Harley and Mr. Alderman Sawbridge, both of the City of London. For the motion, Thomas Gilbert, Member of Parliament for Lichfield and Sir George Saville, a Yorkshire Member of Parliament made the most telling speeches. Alderman Harley complained of the partiality shown in the Bill in favour of the Birmingham and Sheffield artists by making the crime of counterfeiting the Office marks transportation for fourteen years, whilst the law which governed the Londoners made the same crime death. 'It is true', he said, 'that frauds are daily practised here and some of them escape all the care and circumspection of our Office; where we are not sparing of either pains or expense; even iron and other metals plated with silver have been marked at our Hall, so artfully are they covered with silver; and how these unexperienced gentlemen in the Country will prevent these things, I am at a loss to find out. Mr. Boulton comes and tells your Committee, that iron plated with silver may be detected by magnetism, and other plated metals by weighing in water. What! must every person who goes to buy plate at a silversmiths' shop carry with him magnets and a hydrostatical balance?'

Mr. Gilbert of Lichfield in speaking for the Bill stressed the clear evidence given to his Committee that very great frauds were common in the London Assay Office 'to a great regular amount'. For it was proved that instead of adhering punctually to the parliamentary standard of eleven ounces, two dwt., they had abated always the two dwt. and, in many cases even, much more; which upon their annual quantity of 100,000lb. (troy), was a fraud of £3,000 a year, and sometimes much more'. Alderman Sawbridge who followed said:

Mr. Speaker, I am entirely against this Bill, on the very principles, and for the very reasons which are urged in its favour. The Honourable Member for Lichfield has pointed out that frauds are committed at London. This is the very reason for confining it to London; for if frauds happen where they are guarded against with so much care - where the Officers have ample salaries - and where every measure is taken to prevent them, how much more likely will they be in places where they will not be half so well secured? Where Officers cannot even be sufficiently paid? And where every advantage will be given to the spirit of fraud? Another circumstance in which the Honourable Gentleman totally mistakes the matter is the loss to the public of £3,000 a year, from frauds in the London Office. Sir, the deduction of two dwt. is *not* a loss to the public; the plate is sold proportionally cheap. The higher the assay is set, the dearer it must be sold; and the lower it is set, the cheaper.

The speech which was generally acclaimed as the most effective in the debate was that of Sir George Saville, Member of Parliament for Yorkshire, he said:

The Honourable Gentleman who spoke last (Mr. Alderman Sawbridge) has really so confounded the argument that I scarce know what to think or believe. The Honourable Member of Lichfield pointed out the frauds in the Office of London. Oh ! says the worthy Alderman, if frauds are committed here,

it is proof enough they will be committed there. That is, I erect a scale, and when in any market abundance of frauds happens, and the scales are tried, and mine is found monstrously deficient, I immediately say, 'See how bad my weights are, it is plain enough others must be worse, therefore you shall all come to my beam'. This is no ridicule. It is the plain argument of the Honourable Member. It brings to my mind a story which I remember to have heard, when Jacobitism was more in fashion than at present. Two country folks had taken up a tall man on suspicion of his being the Pretender. Says one - 'But how shall we be sure that he is the Pretender?' 'Oh !' says the other, 'Let us ask him if he knows Jenny Cameron, and if it's him, he will be sure to deny it'. 'But suppose he shouldn't deny it?' 'Oh ! then it's certainly him if he knows her.' Then, Mr. Speaker, he used another argument, which added fresh perplexity, and which I know not what to make of. He remarked that the fraud of two dwts. in every pound was no fraud upon the public, for plate was sold the cheaper. Then, pray sir, why object to the Bill? For if this is true, the greater the fraud the better. Let the Birmingham and Sheffield Gentlemen go to work with their frauds, they will do good to the public. If they give us half brass, so much the better; plate will be cheaper. So much for an argument, that proving too much proves nothing. As to the smallness of the manufactory at present, the very contrary to the true conclusion is drawn; it is an infant one, surely, therefore, encourage it. Because it is an infant one, are you to *smother* it? in one word, Sir, I see *no* reason for agreeing with the Gentlemen on the other side of the House, but many for the contrary opinion.

The motion was carried without a division and on the 28th May, the Lords also agreed to the Bill. The same day the Royal Assent was given. In Boulton's diary for 1773, there is the following entry:

'Set out from London at two o'clock on Sunday, 30th May and arrived home on Monday before eight in the morning'. His triumphal return was marked by the ringing of the Handsworth Church bells.

REFERENCES

1. The Matthew Boulton collection of papers in the Library of the Assay Office, Birmingham.
2. A. Westwood, *The Assay Office at Birmingham*, 1936.
3. S. A. Jeavons, Midland Goldsmiths of the Elizabethan Period, *Transactions* (of this Society), iii (1961-2).
4. T. F. Reddaway, The London Goldsmiths *circa* 1500, *Trans. Royal Historical Society*, 5th series, xii, 1962.
5. Eric Robinson, Matthew Boulton, Patron of Arts, *Annals of Science*, xi, No. 4, 1953.
6. Eric Robinson, Commerce and Fashion: Matthew Boulton's Marketing Techniques, *Economic History Review*, 2nd series, xvi, No. 1, 1963.

THE TITHE MAPS (1840-1) OF ALDRIDGE, GREAT BARR AND SHENSTONE

R. E. HEBDEN, M.A.

The first complete set of tithe maps and apportionments for the parishes of Aldridge, Great Barr and Shenstone in the county of Stafford exist for the years 1840-1. It is possible from these sources to reconstruct a simplified land use map of the parishes for that period.

The two most extensive types of land use are arable and pasture. The apportionments list parish totals for certain crops, but it is not possible to relate these to individual fields. They also distinguish between pasture and meadow, but the basis of this distinction is not clear. Consequently it is only possible to map this information in terms of arable and pasture. The distribution of these two types is shown in map 1 and three main regions can be seen in map 2. A north - south central arable belt separates a western area of dispersed pasture from an eastern area of arable blocks with tongues of pasture.

This three-fold division corresponds closely with geological differences within the parishes. Region A (see map 2) is on palaeozoic rocks which have mixed soils; hence a mixed land use pattern occurs. Region B follows closely a belt of well-drained Bunter sandstones. Its continuity of farming pattern is broken by the valley of the Fotherley Brook in the centre, by the Pen Brook valley in the north, and in the south by the unenclosed eastern slopes of Barr Beacon. Although Region C is on mixed soils, there is a pattern in the pasture. The tongues of grassland follow the broad valleys of the Crane Brook and its tributaries within the Shenstone basin. The arable, however, is confined to the low interfluvies between these streams.

The uncultivated land is concentrated in the south-east of the parishes. This was once part of Sutton Coldfield and enclosure was not authorized until 1795. It may be presumed that these eastward slopes of Barr Beacon were still being enclosed in 1840-1. The woodland is shown by the apportionments to be mainly plantations and much of this development was around Little Aston Hall. The areas of water are related to two factors. Several water-mills are mentioned in the apportionments - Little Aston, Mill Green, Queslett and Shenstone - and the tithe maps show their mill-ponds. At Bourne Pool the mill-pond is associated with uncultivated land and the ironworks that were once here but had ceased to function by this date. The ornamental lakes of Great Barr Hall and Little Aston Hall account for the remaining areas of water.

The pattern of settlement is interesting when compared with the modern development. Great Barr has no village, just a few hamlets, Pheasey is a farm and Streetly is mere heathland. Aldridge is concentrated around its 'Croft' and High Street. The Stonnalls appear as several small hamlets and Shenstone shows a division based on its housing near the church and developments near the mill and turnpike road. Industry was hardly visible on the landscape

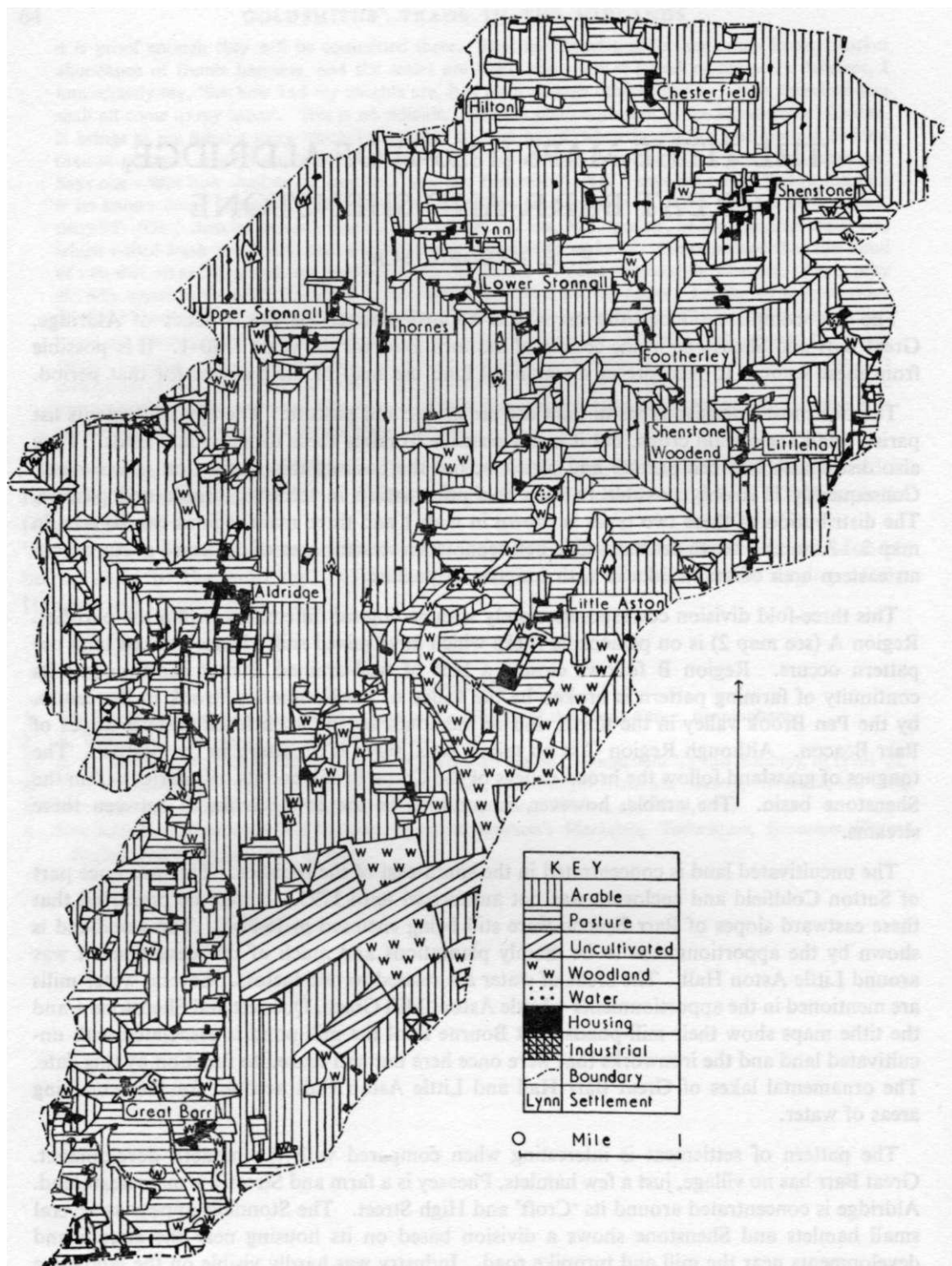


Fig. 1 Land use, 1840-1 (from Tithe Maps)

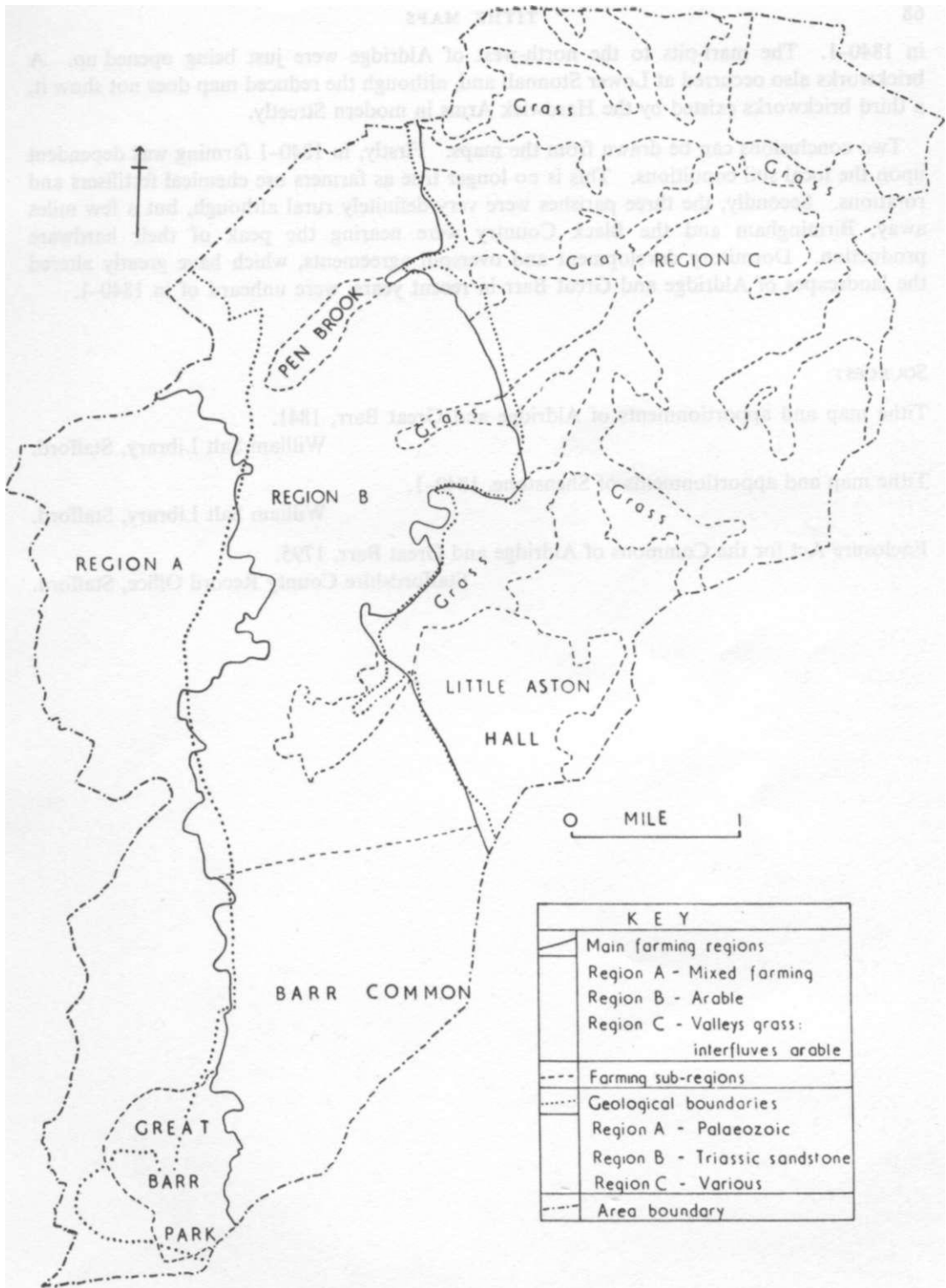


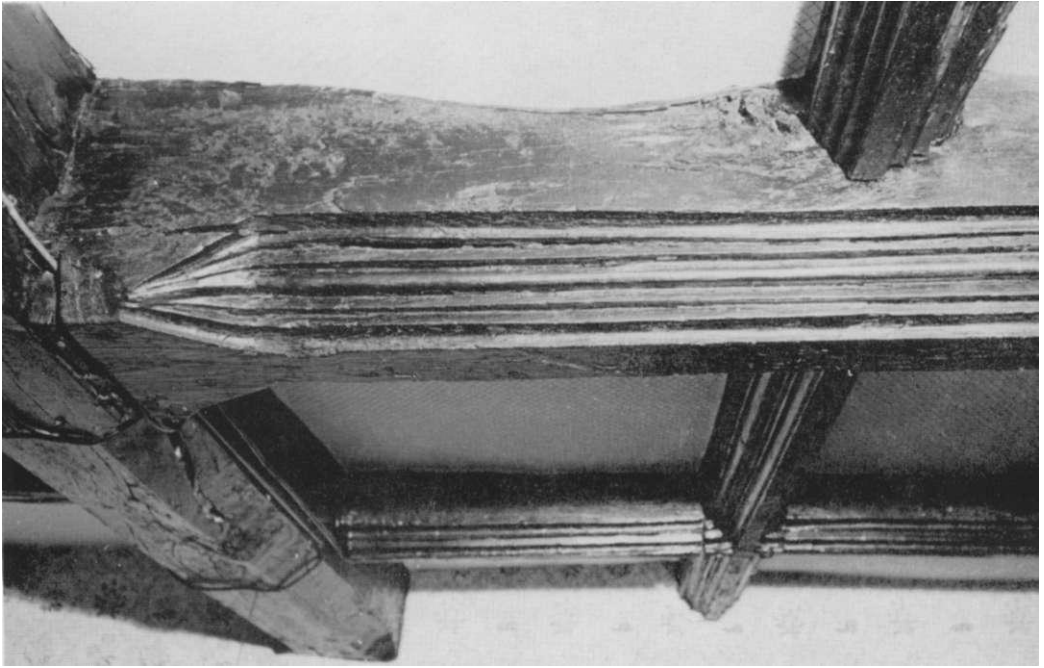
Fig. 2 Relationship between farming and geology, 1840-1

in 1840-1. The marl-pits to the north-west of Aldridge were just being opened up. A brickworks also occurred at Lower Stonnall and, although the reduced map does not show it, a third brickworks existed by the Hardwick Arms in modern Streetly.

Two conclusions can be drawn from the maps. Firstly, in 1840-1 farming was dependent upon the local soil conditions. This is no longer true as farmers use chemical fertilisers and rotations. Secondly, the three parishes were very definitely rural although, but a few miles away, Birmingham and the Black Country were nearing the peak of their hardware production. Dormitory development and overspill agreements, which have greatly altered the landscapes of Aldridge and Great Barr in recent years, were unheard of in 1840-1.

SOURCES :

- Tithe map and apportionments of Aldridge and Great Barr, 1841.
William Salt Library, Stafford.
- Tithe map and apportionments of Shenstone, 1840-1.
William Salt Library, Stafford.
- Enclosure Act for the Commons of Aldridge and Great Barr, 1795.
Staffordshire County Record Office, Stafford.



LOWER FARM, BLOXWICH (STAFFS.)

A CRUCK-TRUSS HOUSE

V. F. PENN

Lower Farm, Bloxwich was a small farm-house situated near the junction of Stoney Lane and Selman's Hill (National Grid reference SK 005032). It was demolished in April 1963 because the site was required for part of a new estate of houses which was being opened by the Walsall Corporation. The Town Council were not hasty in authorizing its demolition and they gave the matter full consideration before deciding that the architectural value and the very poor condition of the house did not justify its preservation. In recent years the farm buildings had been demolished and the building was in the ownership of the Walsall Corporation and let as a private dwelling. The original farm buildings surrounded a farm-yard in front of the house, access to which was gained through a wide carriage-way to the right of the principal barn.¹

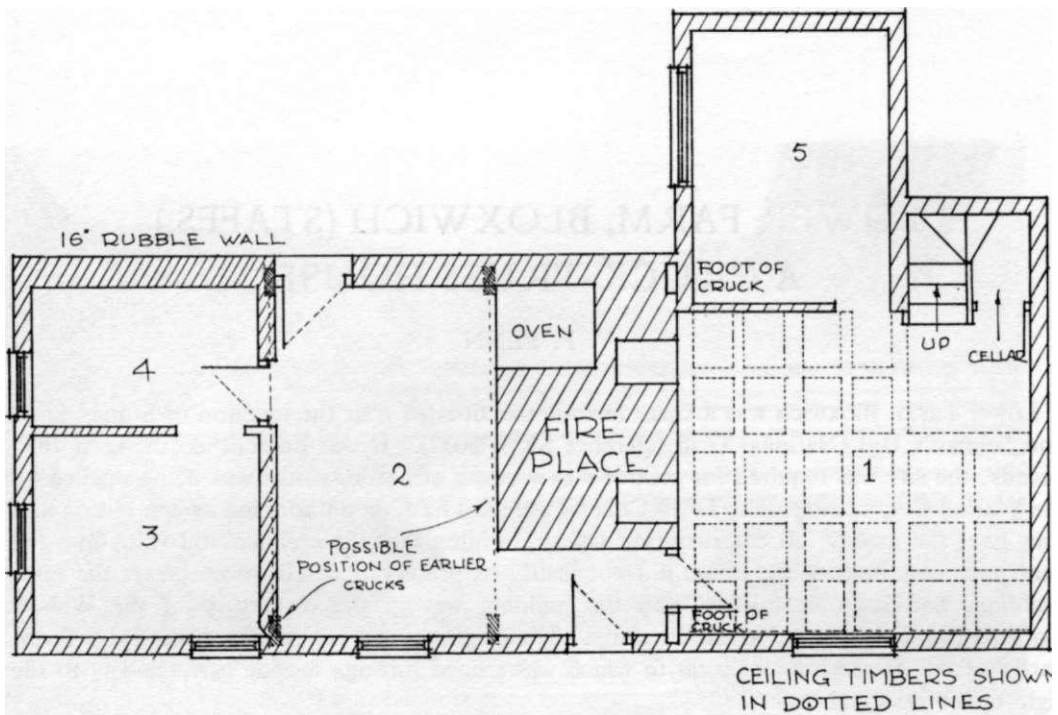
The house did not present a very inspiring picture to the casual observer; its pseudo-half-timbered walls painted black and white were topped by a sagging roof of recently laid modern clay-tiles. Only the front door gave an indication of its age, being surrounded by a handsome little portico of the type which was built in the first half of the nineteenth century. The structure was mainly of brick although part of the rear elevation was a rubble construction of brick and limestone and at this point was 16 in. thick (see plan, fig. 1). Part of the foundations of other walls were also found to be of limestone. However, the presence of a timbered ceiling and some other heavy timbers in the construction seemed to make it worthy of closer examination before the property was finally demolished.

Opportunities in Walsall to indulge in this sort of interest are few and when, I was able to encourage the Public Works Department to proceed with the demolition more cautiously than normal, I was pleased to make notes as the work proceeded.

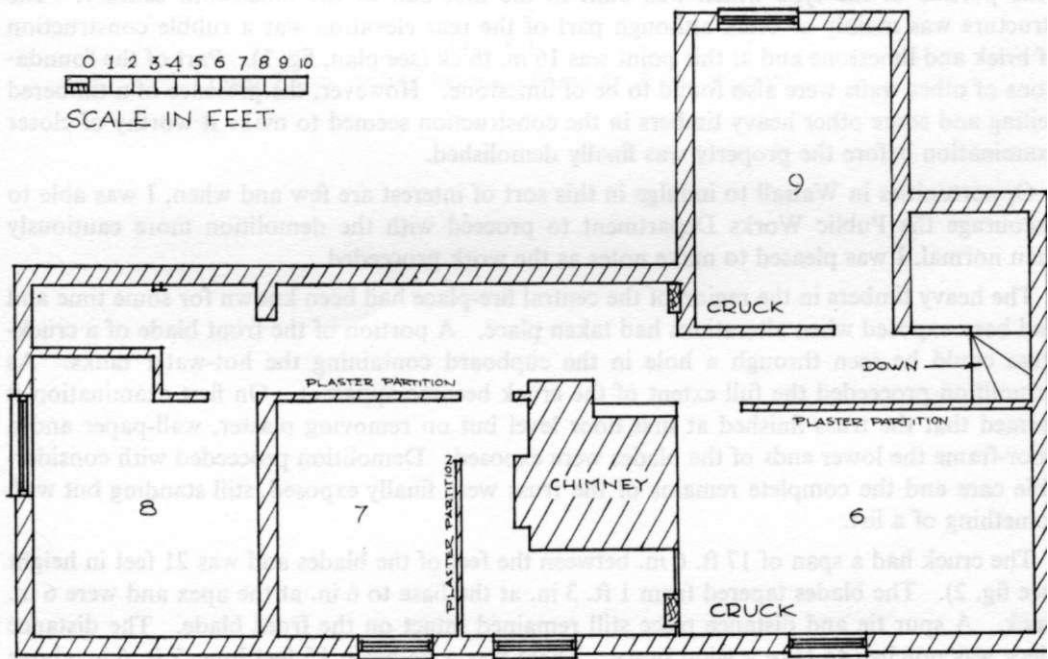
The heavy timbers in the region of the central fire-place had been known for some time and had been exposed when alterations had taken place. A portion of the front blade of a cruck-truss could be seen through a hole in the cupboard containing the hot-water tanks. As demolition proceeded the full extent of the cruck became apparent. On first examination it seemed that the truss finished at first floor level but on removing plaster, wall-paper and a door-frame the lower ends of the blades were exposed. Demolition proceeded with considerable care and the complete remains of the truss were finally exposed, still standing but with something of a list.

The cruck had a span of 17 ft. 6 in. between the feet of the blades and was 21 feet in height (see fig. 2). The blades tapered from 1 ft. 3 in. at the base to 6 in. at the apex and were 6 in. thick. A spur tie and distance piece still remained intact on the front blade. The distance piece was notched to take a wind brace. There was a tie-beam 15 feet long, 7 ft. 6 in. above

¹ There is a photograph in E. J. Homeshaw's *The Story of Bloxwich*, 1955, p. 128.



GROUND FLOOR

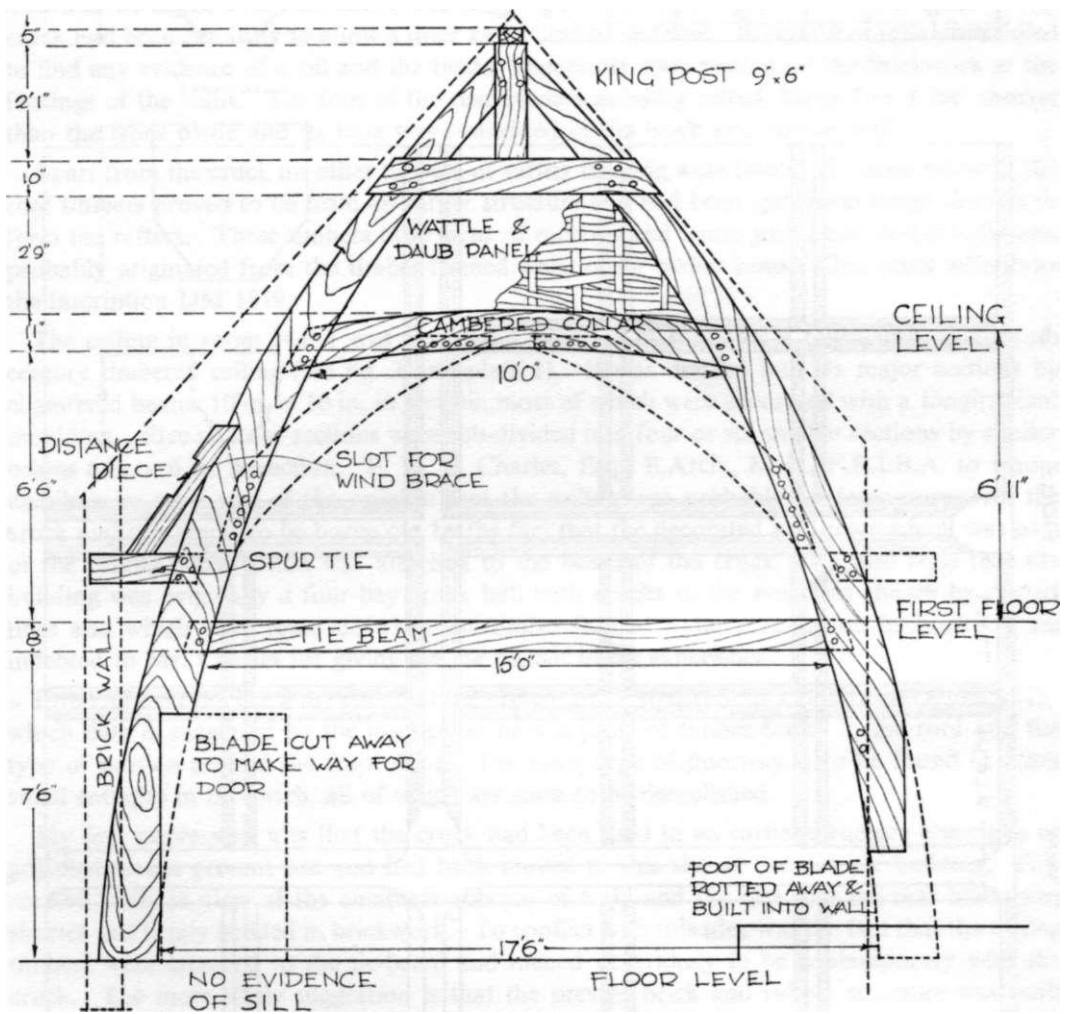


FIRST FLOOR

flqst

FLOOR 2

Fig. 1 Plan



0 1 2 3 4 5 6 7 8 9 10
 SCALE. IN FEET

Fig. 2 Cruck-truss

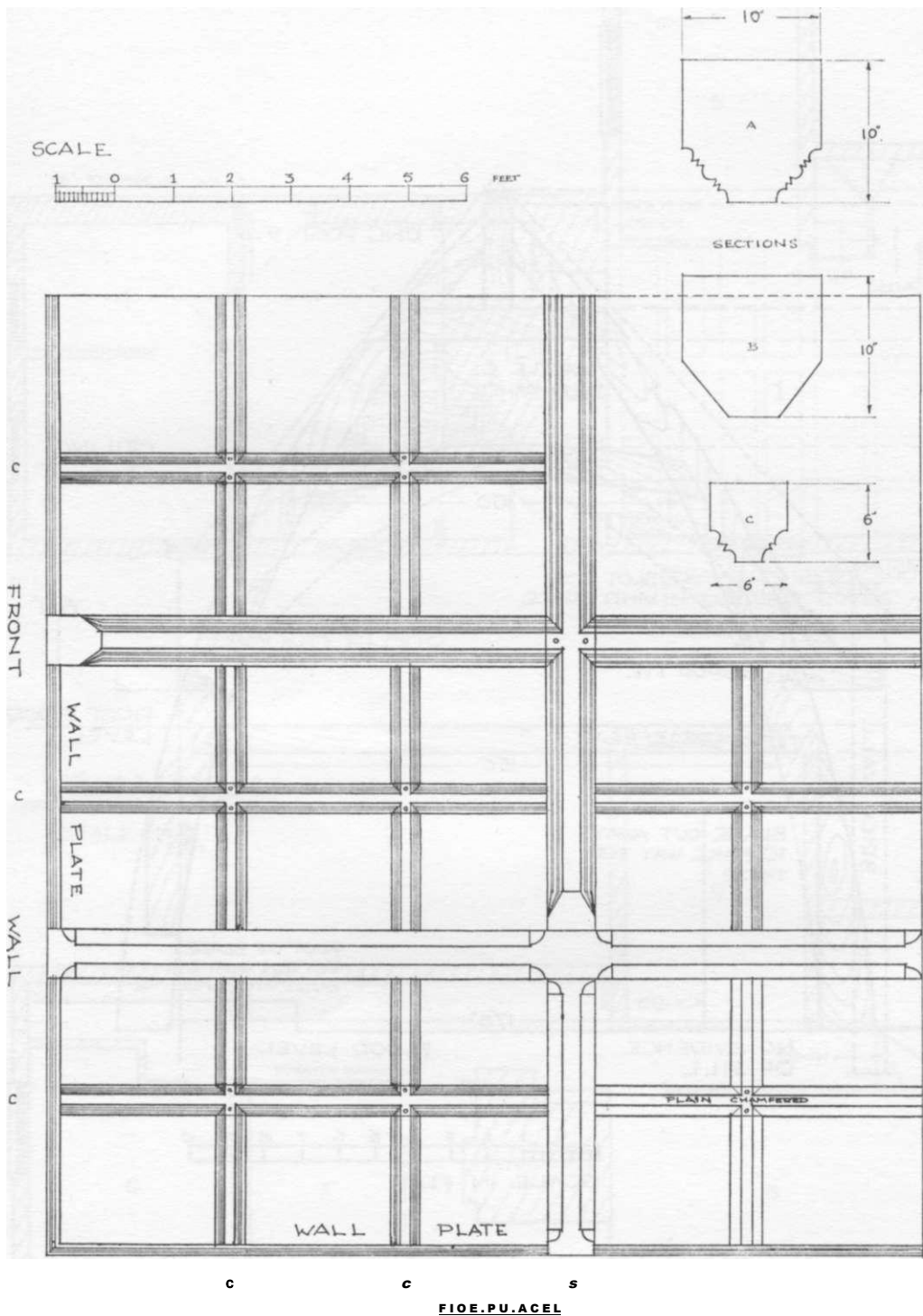


Fig. 3 Details of ceiling beams

ground floor level and 8 in. x 6 in. in section; 6 ft. 6 in. above this was a cambered collar-beam 10 feet long and 11 in. x 6 in. in section. Braces between the front and rear blades and the collar-beam had been removed when structural alterations had taken place but their previous existence were confirmed by the remaining dowel-holes. The space above the collar-beam and a further tie beam 2 ft. 9 in. above was filled with wattle and daub. The front blade of the cruck had been cut away to allow a door and frame to be fitted. A careful examination failed to find any evidence of a sill and the blades apparently were resting on the brickwork at the footings of the walls. The foot of the rear blade was badly rotted, being 2 or 3 feet shorter than the front blade and its base was embedded in the brick and rubble wall.

Apart from the cruck no other timbers of earlier framing were found, although many of the roof timbers proved to be from an earlier structure and had been split from larger timbers to form the rafters. These timbers bore signs of mortice and tenon joints and dowel-holes and probably originated from the timber-framed walls of an earlier house. One small billet bore the inscription DM 1819.

The ceiling in room No. 1 was a splendid example of probably a fourteenth or fifteenth century timbered ceiling (see fig. 3 and plate 1). It was divided into six major sections by chamfered beams 10 in. x 10 in. in section, most of which were decorated with a longitudinal moulding. Five of these sections were sub-divided into four or six smaller sections by similar beams 6 in. x 6 in. in section. F. W. B. Charles, Esq., B.Arch., M.A., F.R.I.B.A. to whom details were sent, was of the opinion that the ceiling was probably contemporary with the cruck and this seems to be borne out by the fact that the decorated wall-plate which was part of the ceiling construction was attached to the beam of the cruck. He also feels that the building was originally a four-bay cruck hall with crucks in the positions shown by dotted lines and which were removed when the timber-framed walls were rebuilt in brick. I am indebted to Mr. Charles for giving me the benefit of his experience.

From all the evidence it appears that the present brick structure was built round about 1819; which date is suggested by the inscription on the piece of timber found in the roof and the type of portico around the front door. The same type of doorway is to be found in other small cottages in Bloxwich, all of which are soon to be demolished.

My first impression was that the cruck had been used in an earlier structure elsewhere or adjacent to the present site and had been moved to this site at the time of building. This seemed likely in view of the complete absence of a sill and the fact that the rear blade was shorter and firmly bedded in brickwork. To conflict with this idea was the fact that the ceiling timbers were attached to the tie-beam and indeed were likely to be contemporary with the cruck. The more likely suggestion is that the present brick and rubble structure was built around the remains of the sole surviving cruck and that the ceiling was incorporated in the new building.

The cruck was burned on the site, the ceiling beams were removed to another site and all efforts to find them have failed, but the name survives. By a happy chance, the housing estate which now surrounds the site of the old farm-house has been called Lower Farm Estate, thus the oldest inhabited house on the estate has given its name to its successors.

LICHFIELD AND SOUTH STAFFORDSHIRE
ARCHAEOLOGICAL AND HISTORICAL
SOCIETY

OFFICERS AND COMMITTEE

1963-64

President: COUNCILLOR H. EBDON, C.C.

Vice-Presidents:

M. M. HALLETT

S. A. JEAVONS, F.S.A.

THE VERY REVEREND W. S. MACPHERSON, Dean of Lichfield

W. RICHARDS

J. N. W. ROBERTS

THE VENERABLE B. STRATTON, Archdeacon of Stafford

THE VENERABLE G. YOUELL, Archdeacon of Stoke-on-Trent

Hon. Secretary: J. GOULD, 307 Erdington Road, Aldridge, Walsall, Staffs.

Hon. Treasurer: A. A. ROUND, 95 Darnick Road, Sutton Coldfield, Warwickshire

Hon. Editor of Transactions: J. W. WHISTON, 58 Wednesbury Road, Walsall, Staffs.

Committee:

Miss H. DICK

Miss E. M. DYKE

Miss H. MOORE

M. A. K. PASCOE

J. P. M. YARDLEY

Editorial Committee:

COUNCILLOR H. EBDON, C.C.

J. GOULD

A. A. ROUND

J. W. WHISTON

PROGRAMME 1963-64



1963

- May 11 Day excursion to Austrey, Appleby Magna (Sir John Moore School), Ashby de la Zouch and Locko Park. Leader: S. A. JEAVONS, F.S.A.
- June 22 Day excursion to Longdon, King's Bromley and Hoar Cross Churches, Abbots Bromley, Hamstall Ridware Church and Hall, Mavesyn Ridware Church and Hall. Leader: S. A. JEAVONS, F.S.A.
- Oct. 4 Annual General Meeting.
Lichfield Election Petitions of the Nineteenth Century - COUNCILLOR H. EBDON, C.C.
Opportunity for Medieval Research - J. GOULD.
The Tithe Maps of Aldridge, Great Barr and Shenstone - R. E. HEBDEN, M.A.
Bee Boles - J. W. WHISTON.
- Nov. 1 Civic Evening at King's Hill School.
Our English Heritage - S. A. JEAVONS, F.S.A.
- Midland Goldsmiths - A. H. WESTWOOD, Assay Master, Birmingham.

- Oct. 25 Excavations at Wall - J. GOULD. (At Walsall Public Library).

- Dec. 6 Dudley Castle and Priory, a Re-assessment - J. S. ROPER, M.A.

1964

- Jan. 3 Dr. Richard Wilkes of Willenhall - N. W. TILDESLEY.

- Jan. 10 Travel Evening at St. Michael's Hall.
A Zoological Expedition to Lapland - D. SMALLWOOD.
Archaeology in Greece - BRIAN HAYWOOD.

- Feb. 7 The County Record Office - F. B. STITT, M.A., County Archivist.

- Mar. 6 Excavation of Roman Cirencester - J. WACHER, F.S.A.

- Mar. 13 Dudley Castle and Priory, a Re-assessment - J. S. ROPER, M.A. (At Walsall Public Library, a repeat of lecture of 6 December, 1963.)

- Mar. 20 Travel Evening at St. Michael's Hall.
The Cedars and Petra - J. P. M. YARDLEY.

- April 3 Lichfield Races - Miss A. KETTLE, M.A.