

EXCAVATIONS AT LINCOLN, 1955-58

THE SOUTHERN DEFENCES OF THE LEGIONARY FORTRESS AND THE UPPER COLONIA, AT THE SUB-DEANERY AND THE OLD BISHOP'S PALACE

By D. F. PETCH

INTRODUCTION (see Site Plan, Fig. 1)

The problems presented by the defences of *Lindum colonia*, and of the legionary fortress which preceded the town, have commanded the attention of the Lincoln Archaeological Research Committee from its foundation, when it was accepted that excavations on the defences should form a primary item in the Committee's programme of work. Undertaken as opportunity offered, a series of excavations had by 1955 defined the defences of the upper (or early) *colonia* on the west,¹ north,² and east³ sides, and in each case it had been shown that these embodied the legionary defences. Of the south wall of the upper enclosure comparatively little was known,⁴ although it had long been held that between the south gate and the south-east corner the Roman wall underlay (in part, at least) the medieval Close Wall,⁵ which appears to occupy the edge of the escarpment. To test this assumption a trench was excavated on the north side of the Close Wall at the Sub-Deanery in 1955,⁶ and it was conclusively demonstrated that the medieval wall was not related in any way to the defences of the Roman town. However, the section revealed successive streets which were almost certainly situated within the defences, and careful study of an account of the discovery in 1899 of part of the south wall of the *colonia* in Wordsworth Street suggested that this might be more profitably sought some twenty-five feet south of the Close Wall.⁷

For this reason the search for the southern defences was transferred to the Old Bishop's Palace where two trenches were excavated in 1956-8. The first was placed close to the south-east corner of the *colonia*, while the second was in effect a continuation on the south side of the Close Wall of the section begun at the Sub-Deanery. In each case the trench occupied ground which now slopes steeply from north to south with a gradient of between 1:2 and 1:3.

¹ G. Webster, *The Legionary Fortress at Lincoln* (J.R.S., XXXIX, 57), referred to here as 'Westgate'.

² *Ibid.*, p. 66, referred to as 'North Row'. The line of the *colonia* wall on the north side has been determined by the excavation at Newport Arch (J.R.S., XLV, 131).

³ F. H. Thompson, *Defences of the Legionary Fortress and Colonia in East Bight* (J.R.S., XLVI, 22), referred to as 'East Bight'.

⁴ Presumably because the south wall had less relevance to the defence of the medieval city.

⁵ *Arch. J.*, CIII, 30, *et al.*

⁶ The supervision of the excavation was undertaken in turn by Mr. F. H. Thompson, Mr. F. T. Baker and the writer.

⁷ *Lincs. Notes & Queries*, VII, p. 129 and plate facing. I am indebted to Mr. Baker for this reference, and for demonstrating how the position of the wall could still be determined with reasonable accuracy with the help of deed plans. The conjectured line of the wall (see J.R.S., XLVI, Fig. 26) was subsequently proved to be substantially correct.

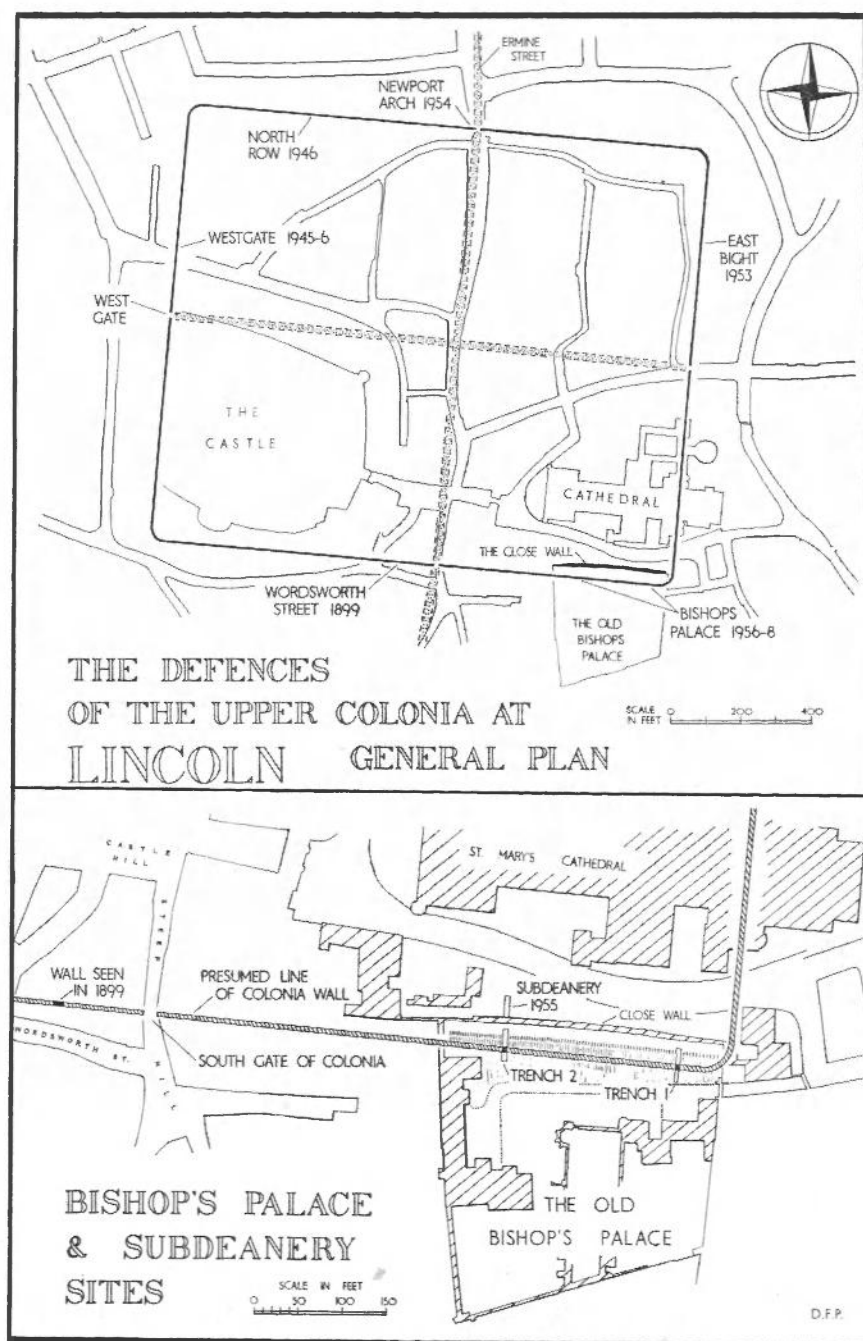


Fig. 1. The Defences of the Upper Colonia, site plan

THE EXCAVATION

The Old Bishop's Palace: Trench 1 (see Section, Fig. 2)

The eastern of the two trenches was thirty-eight feet long and between four feet and six feet six inches wide. It spanned both legionary and colonial defences, of which the former will be described first. The legionary rampart was found to consist of stiff red clay alternating on the outer side with layers of stony brash. A few scraps of coarse pottery and pieces of wall-plaster were recovered from a thin streak of ash some eighteen inches long at the back of the rampart, but apart from these the only finds it yielded were three small sherds of prehistoric pottery, probably Iron Age in period. Traces of a timber corduroy were found at the base of the rampart and were particularly clear in a three-foot strip under its centre. At the toe of the rampart there was a U-shaped trench two feet six inches wide and three feet six inches deep which had received the timber uprights of the front revetment. The lower fill of this trench consisted of stiff clay and stone, followed by stone rubble, capped in its turn by a layer of red clay containing a small group of first-century pottery. No trace of the front timber-work survived, but on the inner side of the rampart the socket of one of the rear revetment timbers was discovered close to the west side of the trench. Assuming that the front timbers were placed in the middle of the bedding trench, as seems to have been invariably the case, the full width of the rampart may be estimated at eleven feet. There were indications that the rampart tail had been pared back to obtain a vertical face for the rear revetment, but this had not been carried down to ground level, and a step remained at the heel of the rampart to indicate that the original width had been two feet greater. This feature implies that here the rear timber-work came later than the front revetment, although not necessarily much later. Situated immediately behind the inner lip of the palisade trench, and sealed beneath the rampart, there was an empty funnel-shaped post-hole five inches wide at the top and slightly over a foot deep.

The rampart survived to a height of only five feet, the upper part having apparently been removed in the post-legionary period, and its front profile had also been damaged by a stone robbers' trench behind the *colonia* wall. The inner lip of the legionary ditch was preserved beneath the core of the wall, and this was separated from the rampart by a narrow berm less than three feet wide. By analogy with Westgate¹ it may be supposed that this ditch was filled to allow of the addition of interval towers to the timber defences, but its existence was nevertheless recognised by the builders of the stone wall. This is attested by a small wall two feet thick and two feet six inches high, consisting of five dry-laid courses, which had clearly been intended to under-pin the front of the *colonia* wall. To this end it had been inserted through the upper fill of the ditch (of which a remnant was preserved behind the under-pinning) and based on a step cut into its inner lip. Built of stones of irregular size and shape, the appearance of the wall was very poor in comparison to that which the

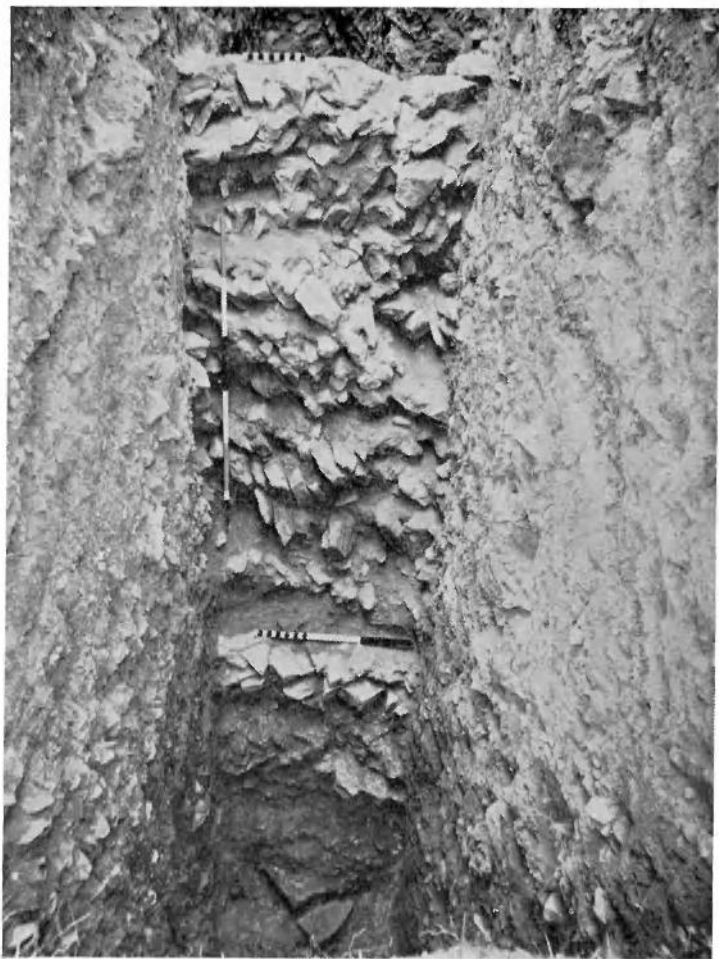
¹ J.R.S., XXXIX, 64.



A. The under-pinning and ditch, Trench 1



B. Trench 1, the wall behind the rampart, from the east



A. The core of the *colonia* wall, Trench 2.
The yard scale marks its base; below this is the *colonia* ditch



B. The inner face of the *colonia* wall, Trench 2

main part of the wall would have presented (Pl. VIIA), and this may indicate that in the first instance it was concealed below ground level, its outer face being eventually bared by the digging (or perhaps the enlargement) of the accompanying ditch. A streak of dirty soil under the lowest course of the underpinning produced a sherd of samian in early Central Gaulish fabric, most probably of the Trajanic period.

Neither the front nor the rear face of the *colonia* wall survived, but its width was nevertheless clearly indicated by the distance from the front face of the apron wall to the inner edge of the wall core, which was a little over six feet. Since the wall overlapped the outer half of the palisade trench it would seem that its construction had begun while the front revetment of the earlier timber defences was still in position and substantially intact. Only the lowest part of the core had survived, consisting of two courses of pitched limestone rubble grouted with mortar. From immediately below the core there came a sherd from the base of a dish in black cooking-pot fabric. The inner lip of a largely rock-cut ditch fell steeply from the foot of the underpinning, the upper part of the lip apparently formed from the re-cut legionary ditch. The fill of the ditch, which consisted of dark soil and stone, yielded a few sherds of medieval pottery of 13th or 14th-century date.

The lowest fill behind the legionary rampart consisted of layers of grey clay containing pottery assignable to the legionary period¹ and a brooch of the Hod Hill type. Mixed with the clay there were iron nails and scraps of carbonised wood, probably resulting from the repair of the rear timbers. The upper part of the fill, which was approximately two feet thick, was cut by the trench for a wall built of dry-laid limestone slabs two feet thick at the base. It survived to a height of three feet six inches, where it was three inches narrower. On the west side of the trench it joined another wall, perhaps an internal wall, or alternatively the west wall of the building. Its width was not tested, but it protruded a foot from the west side of the trench (Pl. VIIb). Within the building, layers of grey clay make-up yielded mainly first-century pottery, but there were a few pieces probably second-century in date. A layer of soil and broken stone which capped this fill, perhaps resulting from the demolition of the building, produced one sherd in cooking-pot fabric. No floor level was identified within the building. The cavity between wall and rampart was filled successively with gravel, broken wall-plaster, and sand: the gravel contained a quantity of charcoal and burnt bones and much of a large gritted storage jar, as well as a sherd from a pie-dish in cooking-pot fabric which is unlikely to be earlier than the Hadrianic period. The profile of the top of the legionary rampart strongly suggests that it was at this time reduced in height, its upper surface being now lightly gravelled. It was to this level that the building was ultimately razed to make way for a rampart to accompany the stone defences.

¹ *Legio II Ad.p.f.* may be assumed to have been transferred to *Deva* before A.D. 79, perhaps as early as A.D. 76 or 77. The fortress was established by

Legio IX Hispana, possibly before A.D. 47, and it therefore had a life of about thirty years.

The *colonia* rampart consisted of layers of dirty sandy soil, with intervening layers of stone rubble, containing much pottery and other rubbish. The uppermost layer also yielded a number of pieces of painted wall-plaster. The introduction of this material raised the height of the rampart by at least six feet and the effective height of the rampart was therefore at least eleven feet. The tip-lines of the rampart material sloped downwards towards the tail, although not very steeply. Much of the pottery from the rampart proved to be residual in character, for most of the samian pottery was South Gaulish and first century, and some layers produced a quantity of rusticated sherds. Every layer produced sherds of Trajanic or Hadrianic samian, but that of the Antonine period was notably absent save from a group which was almost certainly intrusive. Colour-coated pottery was also absent from the rampart but was well represented in a group lying on its upper surface. On the other hand, all layers yielded plenty of sherds from jars and dishes in cooking-pot fabric of the Hadrianic-Antonine period. Rough-cast beakers were also represented, but none seemed to be of the type produced at the South Carlton kilns,¹ nor were other South Carlton wares (such as the distinctive painted vessels) present. Dating evidence of a more substantial nature was provided by a coin of Commodus which was found well down in the rampart (see Fig. 2). Its condition could hardly be described as fresh, and indeed the degree of wear implied that it could have been withdrawn from circulation no earlier than the end of the second century.

Overlying the upper surface of the *colonia* rampart there was a scatter of third-century pottery including several sherds from Castor-ware vessels. The profile of the rampart top demonstrates that its upper levels have been removed, and it may be that this pottery ultimately derives from the rampart, indicating that further material was added to it during the course of the third century.²

The Old Bishop's Palace: Trench 2 (see Section, Fig. 3)

This trench, two hundred feet to the west of Trench 1, was exactly opposite to that on the north side of the Close Wall at the Sub-Deanery. Its length was thirty-six feet and its width six feet.

In most respects the legionary rampart was identical in the two trenches, consisting of red clay reinforced with layers of glacial stony brash particularly towards the front of the rampart. It was clear, however, that at this point the rampart had been erected on a step or platform cut into ground falling from north to south, and the usual traces of timber strapwork were apparently absent, the base of the rampart being indicated by a thin spread of red clay. The palisade trench, which had a regular U-shaped profile, was three feet deep and two feet wide, and was filled with smooth clayey soil. Upon removing the fill immediately over the top of the palisade trench the empty socket of an

¹ *Ant. J.*, XXIV, 129-143.

² It is interesting to note that at both North Row and East Bight pottery of a similar character has

been found immediately over the top of the *colonia* rampart.

THE OLD BISHOP'S PALACE

EAST SECTION

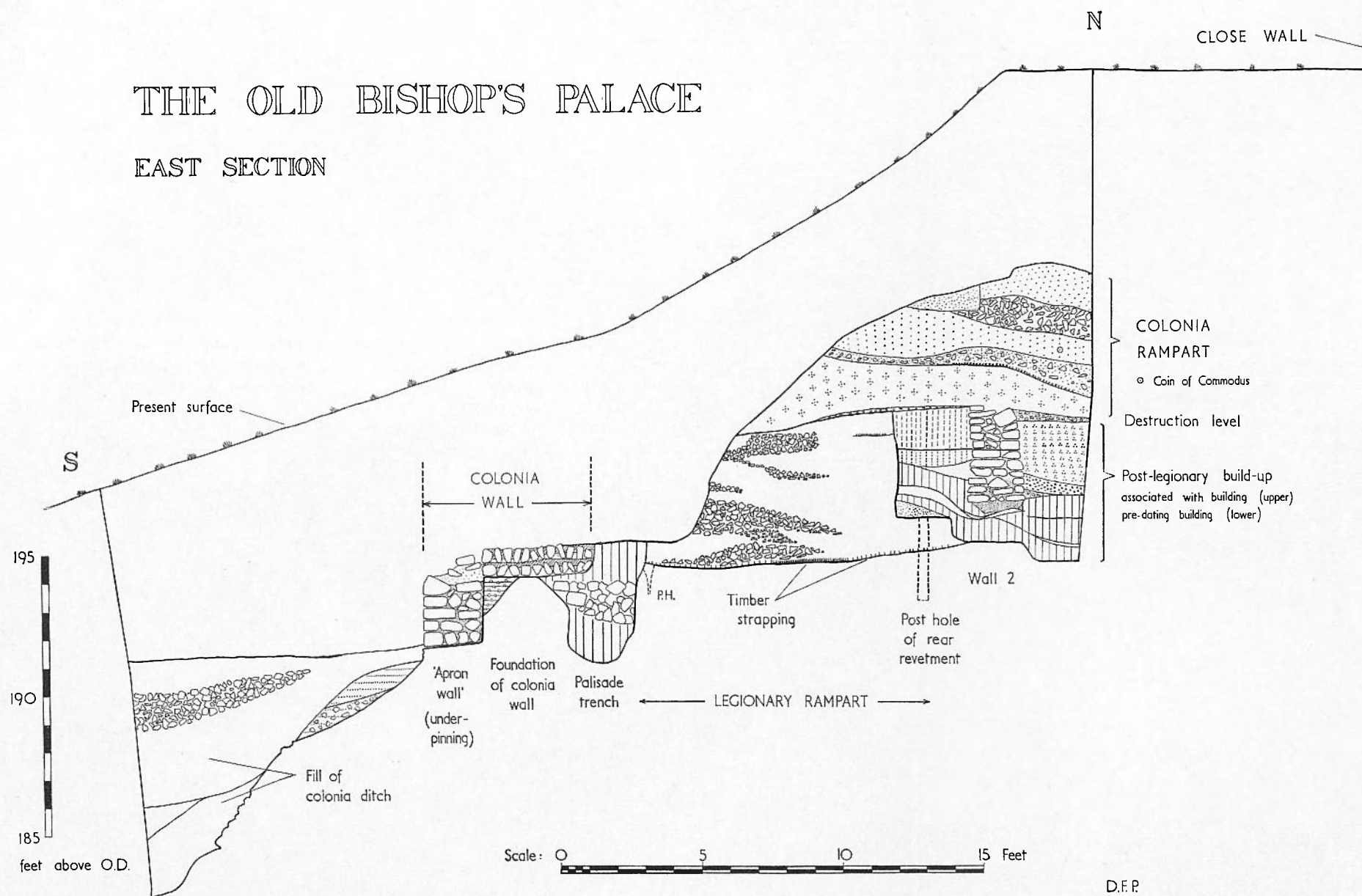


Fig. 2. Trench 1, the east face (reversed)

upright timber eight inches square was revealed in the centre of the trench. This post had been driven six inches into the floor of its bedding trench and when withdrawn had been leaning outwards by some ten degrees from the vertical. At the front of the rampart added material exhibiting clear horizontal layering represented the packing behind the timber front, presumably placed there after the timbers had been repaired. Since the front of the primary rampart presented a relatively soft profile it would seem that the timber-work was refurbished only after a period when the timber defences had been neglected and the front of the rampart exposed to weathering. The packing, which consisted of sand and clay, yielded a sherd of early Flavian samian and a small group of coarse pottery which included a sherd almost certainly of the Hadrianic period. From the section it would appear that some of this packing had fallen forward before the construction of the wall began, since it is cut by the wall foundation. On the other hand, the fill behind the post cavity was markedly vertical, indicating that the collapse had taken place before the main timbers of the revetment had been removed. The uppermost layer of the packing had spilled out over the top of the rampart, which stood to a height of five feet six inches.

Another post socket was encountered on the inner side of the rampart, its position almost exactly matching that of the front post (Pl. IXA). In this case the timber had been four inches square, but the shape of its socket had been distorted when the timber was rocked to loosen it prior to withdrawal. The post was set back nine inches from the back of the rampart and had been placed in a post-hole two feet six inches across and three feet deep. The space between post and rampart had been packed with stone and clay, and from this fill came an imitation *as* of the Claudian period. The survival of both front and rear post sockets made it possible to determine the rampart width accurately at ten feet.

The post of the rear revetment was still in position when a quantity of clayey material was placed behind the rampart raising the level to that of the rampart top. This fill produced pottery which was mainly of the Flavian period, but a few pieces suggested a date early in the second century. After the withdrawal of the post both rampart and fill behind it were cut by the trench for a slight wall two feet wide consisting of dry-laid limestone blocks of irregular shape (Pl. IXA). This, from its appearance, is most likely to have supported a timber superstructure: no floor level associated with the building had survived.

The appearance of the *colonia* wall in this trench was entirely different from that revealed in Trench 1, or indeed in earlier sections across the defences. In the first place, the wall had been based on the underlying rock, with the result that its toe was nearly six feet lower than its heel, which was at the same level as the base of the legionary rampart. It was interesting to find, however, that the level of the base of the wall in the two trenches differed by only a foot. The core of the wall, exposed by the robbing of its front face (Pl. VIIIA), consisted of courses of limestone pitching grouted with lime mortar which

still possessed considerable strength. The absence of the outer face made it possible only to estimate its width, but this must have been between eight and eight and a half feet at the base. A series of four eight-inch offsets on the inner face (Pl. VIIIb) reduced the thickness to six feet at a height of eight feet above the base. The rock-cut ditch fell away from the foot of the wall without any intervening berm, its fill consisting of dark soil and stone containing sherds of medieval pottery of the 13th or 14th century. No trace was seen of a legionary ditch and this was presumably removed during the construction of the wall.

Between the inner face of the *colonia* wall and the legionary rampart was a fill consisting in the main of loose sandy soil which clearly could not long post-date the erection of the wall. Most of the pottery found in this context was first century, but from a thin streak of dark soil came a large piece of a samian bowl of Hadrianic or early Antonine date.

Overlying the legionary rampart and the building behind it, and sealing the fill just described, was the *colonia* rampart. The upper part of this consisted of builders' rubbish containing broken mortar, stone rubble, and many pieces of painted wall-plaster.¹ Below this material the rampart consisted of stiffer clayey soil and tipped rubble. At a later date, although presumably still within the Roman period, the rampart had been truncated and was covered over in the western part of the trench by a cobbled surface (Pl. IXb)². The insertion of this surface had reduced the height of the rampart at the north end of the trench by at least two feet, and the loss in height would have been appreciably more closer to the *colonia* wall, since the metalling sloped downwards towards the wall with a fall of approximately 1:7.

As before, much of the pottery yielded by the rampart was of a residual nature. Two sherds of samian exhibited mid-second century characteristics, however, and some of the coarse pottery was also undoubtedly Antonine. From the builders' rubbish in the upper part of the rampart came one sherd of colour-coated pottery of a type not normally encountered before the closing years of the second century.

The Trench at the Sub-Deanery (see Section, Fig. 3).

On the north side of the Close Wall, at a point opposite to the trench just described, was situated the section excavated in the Sub-Deanery garden during 1955. The trench was thirty feet long and six feet wide, and attained the unusual depth of no less than twenty-four feet. Situated too far to the north to uncover any part of the defences, the trench revealed as its earliest feature a flat-bottomed U-shaped ditch four feet six inches wide and eighteen inches deep which had been dug through layers containing a small quantity of coarse pottery and two sherds of samian of the period c. A.D. 60-80. This feature is most probably the northern ditch of the rampart road laid out at the foundation of the *colonia*.

¹ Plaster from at least two rooms was found including pieces bearing decorative details, but very few pieces could be fitted together.

² A layer of red-brown sandy soil lying on the cobbled surface yielded four glazed Stamford ware sherds.

THE SUB-DEANERY AND OLD BISHOP'S PALACE WEST SECTION

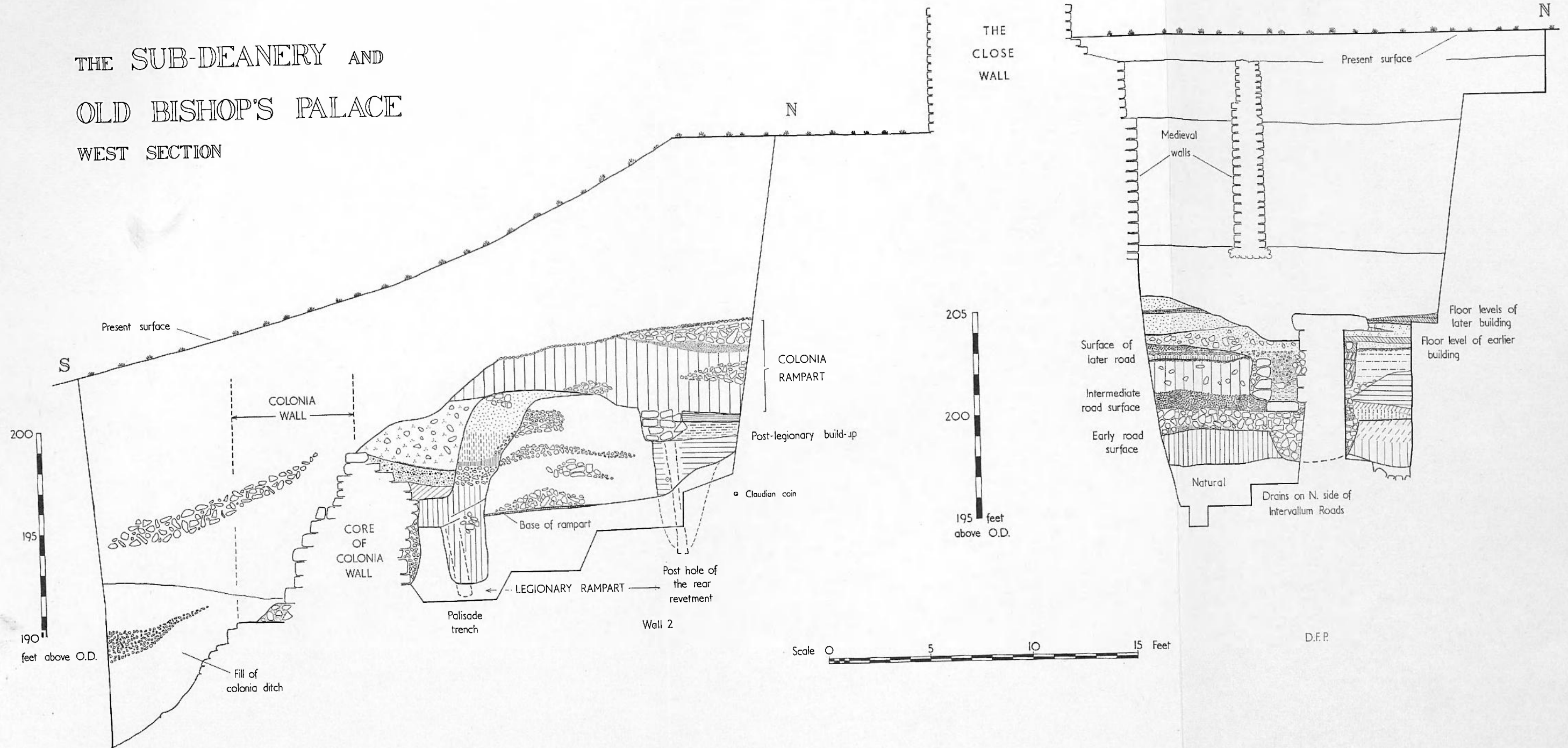


Fig. 3. Trench 2 and Sub-Deanery, west face

The road does not seem to have been surfaced at this stage, however, and when road bottoming was introduced the ditch was obliterated. The foundation for the second road consisted of sterile limestone rubble, and above it was a spread of gravel up to a foot thick which formed the road surface. From an associated fill at the side of the road came two sherds of Domitianic or early Trajanic samian, and it is therefore probable that the road was surfaced early in the second century. Subsequently a further eighteen inches or more of occupation material was introduced to raise the ground to a uniform level. Inserted into this make-up was a stone-lined drain sixteen inches wide and two feet deep, its sides consisting of four courses of dry-laid masonry and its floor of stone slabs four inches thick. To the south of the drain was a gravel surfaced street, while on the north side the footway was also lightly metalled. The pottery contained in this make-up included sherds of vessels in cooking-pot fabric, and one sherd of Castor pottery, but the samian was no later than the Flavian period.

The drain was half-filled with silt when the two upper courses on its north side were destroyed by the foundation of the outer wall of a building erected on the north side of the street, and at this stage the drain went completely out of use, being filled to surface level with sand and stone. The foundation was three feet wide and two feet deep, and consisted of pitched limestone rubble, the upper courses being grouted with mortar. The lowest course of the wall survived on the south side, but it was not possible to estimate its width beyond noting that this must have been less than two feet three inches since a spread of hard yellow mortar over-rode the north edge of the foundation. This floor, which was found to consist of two layers of mortar totalling four inches in thickness, contained small scraps of pottery in black cooking-pot fabric. The building to which these features belonged was later completely demolished and was succeeded by a second whose south wall was based on large stone slabs placed over the earlier foundation, the two buildings thus sharing the same street line. The base slab contained by the trench was no less than three feet ten inches wide, nine inches thick, and over five feet in length. On its inner side there was a levelling-up layer of brown soil and stone eight inches thick capped by a two-inch spread of mortar which on the west side of the trench still retained *tesserae*. Two further layers of mortar sealed this floor, between each a thin spread of dirty sand. Whereas the tessellated floor had been laid up to the base slab, the floor above it had clearly run up to the wall of the building. Above the base slab the wall had been completely robbed away, however, and it was impossible to estimate its width, although the size of its base would suggest that it was more substantial than that of the earlier building. From the make-up below the tessellated floor there came a few scraps of coarse pottery of the later second century, presumably residual. Outside the building, layers of builders' rubbish consisting of sand containing stone

and mortar sealed the street and it would seem that this had fallen out of use when the second building was erected. Unfortunately the layers over the street yielded no evidence of the date at which this took place. The debris of broken stone and tile left by the robbing of the building contained a quantity of pottery ranging in date from the second to the fourth century.

DISCUSSION

The Legionary Defences

With the definition of its southern defences the size of the fortress may now be determined with reasonable precision at 41.5 acres, the distance over the ramparts from north to south being 1,230 feet, while that from east to west is 1,470 feet. The area is substantially smaller than that covered by other fortresses in Britain,¹ and for this phenomenon there seems to be no immediate explanation. Certainly the size of the fortress is not dictated by the physical nature of the site, for it is limited only on the south side. It has been suggested that the disparity in size between the fortresses at Caerleon and Chester may be explained as resulting from a difference in the strength of their original garrisons,² and a similar explanation may also apply at Lincoln. This would imply that the fortress was deliberately built to accommodate a legion below its normal strength, or alternatively for a full-strength legion of which part was permanently stationed elsewhere on detached garrison duty.³ It must be realised, however, that no basis of comparison is available between Lincoln and the other Claudian fortresses at Colchester⁴ and Gloucester⁵ and it might therefore turn out that these were also of smaller size if, for example, there was a less generous arrangement of internal buildings than in the Flavian period, to which Caerleon, Chester and Inchtuthil belong. At present it is not possible to do more than indicate the various possibilities, between which our present state of knowledge does not permit us to choose. The shape of the fortress proves to be completely regular, and it would appear to have been orientated towards the east, with Ermine Street forming the *via principalis*.⁶

The earliest feature on the site was the post-hole sealed beneath the rampart in Trench 1. Since this manifestly pre-dates the fortress it is possible that it is comparable with the post-holes of the Iron Age period noted at Westgate.⁷ At the latter site, however, the post-holes were numerous, and were on quite a different alignment from the fortress, whereas in this case the post-hole appeared to be related to the palisade trench. Indeed, its position suggests the possibility that it may well represent the position of a sighting pole employed

¹ Compare Caerleon (49 acres); Chester (59 a.); and Inchtuthil (53 a.).

² V. E. Nash-Williams, *The Roman Frontier in Wales*, 15 and 113.

³ The first of these alternatives seems the less likely, since the legion would presumably expect to be made up to its full strength eventually. Since the fortress is four-fifths of the size of Caerleon and Inchtuthil this may imply that two cohorts were absent.

⁴ M. R. Hull, *Roman Colchester* (Reports of the Research Committee of the Society of Antiquaries of London, XX), xxv.

⁵ *J.R.S.*, XXXII, 39; XXXIII, 15.

⁶ This is to assume that Ermine Street is Claudian in date, but on the evidence available the assumption seems a reasonable one. See *Arch.J.*, CXV, 49.

⁷ *J.R.S.*, XXXIX, 60-62.

by the legionary *mensores* in laying out not only the rampart but also the interior of the fortress, since it is situated exactly sixty feet from the east rampart and six hundred feet from the north-south axis of the fortress—*i.e.*, half an *actus* and five *actus* respectively. The withdrawal of such a pole would certainly well account for the shape of the post-hole.

The form and dimensions of the rampart conformed closely to the pattern revealed by earlier excavations. Its front and rear faces were both vertical, being supported by campshedding¹ similar to that employed in the defences of the *castellum* at Valkenburg during the Claudian period.² Although the posts of the rear revetment were not observed at Westgate, it is difficult to evade the conclusion that the rampart back was consistently vertical and had been so *ab initio*, since without a vertical inner face a rampart only ten or eleven feet wide would hardly provide an adequate fighting platform. The apparently secondary nature of the rear timbers in Trench 1 is most probably due to the employment of different working parties on the front and rear of the rampart, the latter having arrived at this point after the rampart had been piled up behind the front revetment. In Trench 2 the traces of both front and rear uprights revealed that the width of the rampart was ten feet, precisely the figure estimated at Westgate.³ In Trench 1 the rampart was a little wider, closely approximating to the measurement of eleven feet recorded at East Bight.⁴ The opposition of front and rear posts at the Old Bishop's Palace and at East Bight suggests the possibility that, as at Valkenburg,⁵ the rampart may have been laced by transverse beams through the thickness of the rampart. No positive indication of this, however, was seen in either of the sections, and it is by no means impossible that the lacing was done only at the top of the rampart, at rampart-walk level.

In contrast to the posts of the rear revetment, which were set in individual post-holes, the uprights of the rampart front were bedded in a trench: since the post examined had penetrated the floor of the trench it cannot have been set in a sole plate. The packing in front of the rampart indicated that the front timbers had been replaced, probably after a period of neglect, since the front of the rampart seems to have been exposed to weathering. The date of the stone defences must now be revised (see below), and since it is known that the rampart front continued to stand until the stone wall was erected, it is clear that the legionary defences were utilised by the *colonia*. As the life of the timbers would be comparatively short it becomes not merely likely but inevitable that the front revetment would be repaired several times during its century and a half of use, and the pottery from the packing demonstrates that the ultimate repair is no earlier than the Hadrianic period. The outward tilt of the front upright can be paralleled at Westgate⁶ where it was noted that all the front timbers leaned outwards in a similar manner. This tilt is probably the result of rocking the post to ease its withdrawal, as at the back of the rampart.

¹ *i.e.*, a facing of piles and boarding.

² A. E. van Giffen, *De Romeinse Castella in de dorpsbeugel te Valkenburg aan de Rijn* (Z.H.), II, Pl. 7, periode 2.

³ J.R.S., XXXIX, 63.

⁴ J.R.S., XLVI, 24.

⁵ In period 2 (Claudian), van Giffen *op. cit.*, I, 305.

⁶ J.R.S., XXXIX, 63.

The posts of the rear revetment were nine inches distant from the inner face of the rampart, and since the rampart is not likely to have been retained by anything more substantial than boarding this implies that here again the revetment had been renewed, the new timbers no doubt being erected as the old were dismantled. The packing behind the rear campshedding yielded a coin of the Claudian period, and as the rear face of the rampart ceased to be exposed quite soon after c. A.D. 100 it is likely that this repair work was done during the legionary period. The rear posts were about half the thickness of the front timbers, whereas at East Bight they were only slightly smaller.

Some of the fill behind the front boarding had spilled over the top of the rampart in Trench 2, and this indicated its height at the time of the ultimate repair. However, it wanted eighteen inches of the seven feet recorded at both North Row and East Bight, and it would appear that the rampart had been reduced in height, perhaps by weathering during a period of neglect. In Trench 1 the rampart had clearly been truncated by post-legionary activity.

In the western of the two sections the rampart was seen to have been built on a shelf cut into the slope of the hill-side,¹ and the implication of this is that the fortress defences were placed as close as possible to the edge of the escarpment, even if this resulted in the rampart being below the crest at a few points. Tactically this was no disadvantage, indeed rather to the contrary, but such a siting may have made it difficult to provide a ditch, since the ground falls quite steeply from the escarpment edge.² The legionary ditch, however, was certainly not omitted, for its inner lip was recognised under the *colonia* wall in Trench 1, its position closely similar to that of the ditch at East Bight.

The Stone Defences of the Colonia

While the timber defences were still in commission, albeit possibly in need of repair, they were superseded by a stone wall. It had already been demonstrated at East Bight³ that the front of the rampart remained in position until the *colonia* wall had been built to a height of four feet, at which stage the front timbers were withdrawn. This was confirmed in Trench 1, where it was clear from the position of the wall that its construction had been begun while the rampart front was still retained. On the other hand, the lower part of the wall in Trench 2 had been cut through some of the packing which had fallen forward before the main uprights had been withdrawn, and this suggested that the front boarding had decayed, allowing the packing behind it to spill forward.

Primary evidence for the date of the stone wall came from its core, from the wall which underpinned it, and from the fill between wall and rampart, which was undoubtedly contemporary with the completion of the lower courses of the inner face. In the first two cases the pottery, although consisting only of scraps, suggested a date in the second century rather than the first, and this

¹ An interesting parallel is to be found on the Antonine Wall at Cadder. See Sir George Macdonald, *The Roman Wall in Scotland* (1934), 303.

² Between Castle Hill and the lower end of the Strait there is a drop of one hundred and twenty

feet in under a quarter of a mile, the steepest gradient at present being 1:4 at the upper end of the slope (K. C. Edwards, *Lincoln: A Geographical Excursion*).

³ *J.R.S.*, XLVI, 24.

was upheld by the pottery from the infilling. This was a larger group, and included part of a samian bowl of the period c. A.D. 130-170, on the basis of which a *terminus post quem* for the wall could be set in c. A.D. 150. However, the evidence from the *colonia* rampart suggests that even this revised date is still too conservative. The mass of occupation material and stone rubble¹ which forms the rampart need no longer be held to be later in date than the wall it accompanies, and there is in fact every reason to suppose that the two features are of one and the same period. As in the case of the fill between wall and legionary rampart, much of the pottery from the *colonia* rampart is residual, and only a minority of the samian and coarse sherds belong to the Hadrianic or Antonine periods. All the groups from the various levels were homogeneous, strongly suggesting that all of the rampart had been erected at the same time, rather than piecemeal.² At both North Row and East Bight it was concluded that the rampart should be assigned to the closing years of the second century, and this date has been amply confirmed by the coin of Commodus yielded by Trench 1. The degree of wear exhibited by this coin is such that no earlier period than that of Severus is acceptable, while on the other hand the virtual absence of Castor pottery³ makes it unlikely that the date is long after c. A.D. 200.⁴

Comparison with other *coloniae* in Roman Britain brings confirmatory evidence. At *Camulodunum*,⁵ for example, sections across the defences have produced samian of the Antonine period from the rampart, accompanied by the Castor pottery which is so sparsely represented at Lincoln. At *Glevum*, even more closely comparable with *Lindum*, the wall has recently been shown to be no earlier than the second half of the second century.⁶ It has recently been demonstrated that the defences of other urban centres⁷ may be assigned to a similar period, and there would appear to have been a wave of wall building in the closing years of the second century or the early third century which affected towns of all classes and sizes from the largest to the smallest. In his review of the defences of Romano-British towns⁸ the late Dr. Corder suggested that, in view of Severus's heavy commitments in rebuilding Hadrian's Wall and the forts of the north, there are strong grounds for supposing that the policy of providing town walls was initiated by Clodius Albinus, and that this measure was a reflection of Albinus's insecure position as Caesar. In support of this theory he adduced the indisputable fact that so far no town in Roman Britain has yielded evidence of its destruction in the disaster of A.D. 196-7, and this apparent immunity he attributed to the existence of town walls at that date. Arguing from the same original premise, Mr. A. L. F. Rivet has put forward the contrary view⁹ that by A.D. 211 the position on the northern frontier had

¹ Termed 'rampart strengthening' in earlier reports.

² This is equally true of the pottery from the different layers of the rampart at East Bight, which the writer has re-examined with this in mind.

³ The sections at the Old Bishop's Palace and East Bight produced only two sherds.

⁴ At Leicester Castor ware begins to appear before A.D. 180: on the other hand it is absent from pre-Severan levels on Hadrian's Wall. See K.

Kenyon, *Jewry Wall Site, Leicester* (Society of Antiquaries Research Report No. 15), 119-120.

⁵ M. R. Hull, *op. cit.*, Sections Ia and VII.

⁶ *J.R.S.*, XLIX, 126.

⁷ As for example at *Verulamium*, where the wall has been shown to be no earlier than c. A.D. 180-190. Cf. *Ant. J.*, XXXVI, 6.

⁸ *Arch. J.*, CXII, 24.

⁹ A. L. F. Rivet, *Town and Country in Roman Britain*, 92-3.

been restored, and the termination of the war in Scotland permitted Caracalla to undertake the defence of the towns as a safeguard against similar irruptions in the future. In the light of the site-evidence under discussion neither of the alternative periods suggested appears to be acceptable, for the striking rarity of Castor ware does not seem compatible with a date after A.D. 211, while the worn condition of the coin of Commodus is hardly commensurate with a life of only a little over ten years. On balance, therefore, a date within the reign of Severus is the most acceptable for the stone defences of *Lindum colonia*.

The form of the wall in the two sections was found to be quite distinct, and in each case the wall exhibited unexpected features. For example, the underpinning of the wall in the eastern section is so far un-paralleled, possibly because opportunities for examining this point have been limited.¹ Although it is most likely to be coeval with the wall it supports, the two walls are quite dissimilar in build and appearance, and it may be that the underpinning is a secondary feature made necessary by signs of settlement here or elsewhere on the south side. No less than eight and a half feet wide, and based on the underlying rock, the wall in the western section gave an impression of exceptional strength and stability, qualities without doubt made necessary by its cramped position below the crest of the hill. Its width was reduced to six feet by a series of offsets on the inner face, and a parallel may here be drawn with the south wall of the lower *colonia* exposed during the rebuilding of the Falcon Inn, Saltergate, where the thickness of the wall was found to have been reduced by a series of five offsets from ten and a half feet to seven feet.² In other respects, however, the walls of the upper and lower enclosures differ fundamentally, for while the latter is ten feet or more thick³ and contains numbers of tombstones and no doubt other re-used material,⁴ the wall at the Old Bishop's Palace contained only fresh stone, and there is no evidence from either section that the width of six feet was exceeded or the wall rebuilt at an enlarged thickness. The stretch of wall revealed in Wordsworth Street⁵ is said to have been 'some eight feet thick' and it seems likely that this was the normal width at the base of the wall on the south side, the width of six feet being found only near the corners. The width of twelve feet recorded on the north side is presumably the result of a later rebuilding.⁶

The position of the southern rampart of the legionary fortress therefore created problems which the builders of the stone defences surmounted by modifying the form of the wall in two distinct ways. An added difficulty stemming from the same source came in providing a ditch to accompany the wall. It might be thought that the slope of the hill-side would itself have provided

¹ It was absent, however, from a section cut across the eastern defences in 1959, where the circumstances were very similar, and this strengthens the conclusion that the feature is confined to the south side, where it is made necessary by the relatively precarious position of the wall.

² *Arch. J.*, CIII, 41. I am grateful to Mr. Baker for bringing this to my notice, and placing a drawing of the feature at my disposal.

³ *Ibid.*, p. 40.

⁴ *Ibid.*, p. 42.

⁵ *Lincs. Notes & Queries*, VII, p. 129.

⁶ *J.R.S.*, XXVIII, 182; *Discovery* (1938); *Arch. J.*, CIII, 30 and 40.

sufficient additional protection, and rendered the digging of a ditch unnecessary, but this labour was manifestly not omitted. Since it may be supposed that the ditch on the south side of the upper enclosure pre-dates the walling of the lower *colonia*, the date assigned to the latter on the basis of the excavation at Beaumont Fee¹ suggests that wall and ditch are contemporary. On the other hand, the differences in character between the walls of early and extended *colonia* have just been emphasised, and these strongly suggest that the wall surrounding the latter has been assigned too early a date.

Features within the Defences

Of the intervallum road of the fortress nothing was seen, possibly because the Sub-Deanery section was situated too far north of the rampart, nor were any features of the legionary period recognised immediately behind the rampart. In the post-legionary period, however, the ground between the rampart and the rampart road was utilised for stone and timber buildings, and this may imply that space within the *colonia* was at a premium. The structural differences between the two buildings perhaps reflect a difference in date, since the timber building need be no later than the late-Flavian or Trajanic period, while the stone building was associated with the introduction of levelling-up material containing pottery no earlier than the Hadrianic period. The section in the Sub-Deanery indicated that to the north of these buildings a road ran parallel to the rampart, and if a width of fifteen feet is assumed for this² then the western building cannot have been more than twelve feet wide.

The earliest of the rampart-roads uncovered at the Sub-Deanery was apparently of the colonial period, since its north drain was dug through layers containing legionary material. The road does not appear to have been metalled, but the surface north of the drain was lightly gravelled. The drain was later obliterated by the stone bedding for a later road, which was in its turn buried beneath a considerable amount of soil introduced to level up the site. On this new surface was placed a third road accompanied by a stone-lined drain. The pottery yielded by the make-up suggests that the laying out of the third road may well be associated with the construction of the stone defences and the erection of the rampart, and the similarity in levels is indicated by the section (Fig. 3).

Two substantial stone buildings, both demonstrably later in date than this rebuild, subsequently covered the ground to the north of the road. The first of these obliterated the drain, while the rampart-road itself seems to have dropped out of use when the second building replaced the first. There was evidence of successive floors within these buildings, but neither these nor the structures as a whole could be dated.

¹ *J.R.S.*, XL, 99. The rampart at Beaumont Fee appeared to have been erected in the later second century, further material being added in the early third century. Since the walls of the upper and lower enclosures are hardly likely to be contemporary the postulated division of the rampart no longer

seems acceptable, and the lower wall must presumably date from the early third century at the earliest.

² By analogy with the roads uncovered at North Row (*J.R.S.*, XXXIX, Fig. 9).

SUMMARY OF CONCLUSIONS

The legionary fortress was rectangular in shape, covered an area of $41\frac{1}{2}$ acres, and was sited in such a way as to place the southern rampart on (or slightly below) the crest of the escarpment overlooking the river crossing. Its defences consisted of an earth bank between ten and eleven feet wide accompanied on the south side, as elsewhere, by at least one ditch. Both front and inner faces of the rampart were vertical, the uprights of the front revetment being bedded in a trench, while those at the rear were set in individual post-holes. The campshedding on each face had been repaired.

The stone defences, hitherto assigned to the Domitianic period,¹ now prove to be Severan, and *Lindum colonia* no longer occupies an anomalous position in this respect. The timber defences were still virtually intact when the stone wall was built, and the legionary defences therefore served the *colonia* in a modified form for about a century. It is for this reason, coupled with the legalities of land possession, that the stone defences follow those of the fortress so closely, and the area enclosed by the Severan wall is therefore exactly that of the fortress. Because of the declivity the south wall of the upper *colonia* was eight feet thick at the base, or a little more, except at the south-east corner where it reverted to the normal thickness of six feet. The wider-based wall was reduced to the normal width by offsets on the inner face, and at the point excavated the narrower wall was underpinned at the front. A ditch accompanied the wall and this necessarily pre-dates the extension of the *colonia* defences, although it does not necessarily follow that wall and ditch are contemporary.

Between the early rampart and the rampart-road were situated narrow buildings which served an unknown purpose. These second-century buildings were demolished to make way for the *colonia* rampart which was without doubt coeval with the wall it accompanied. Three phases of rampart-road building were recognised, all within the colonial period, and the latest road had fallen out of use before the end of the Roman period. On the inner side of the street there were two successive stone buildings, of which the earlier can by inference be dated to the period after c. A.D. 200.

THE OBJECTS FOUND

COINS By R. A. G. CARSON

- 1 *From the Colonia Rampart, Trench 1*: A *sestertius* of Commodus, obverse COMMODVS ANTONIN [VS AVG], head laureate right; reverse ?*Salus*. Perhaps B.M.C.² 474 (A.D. 181-2). The wear of the coin would be consistent with a life of some twenty years.
- 2 *Packing between rear revetment and Legionary Rampart, Trench 2*: A local imitation of an *as* with an obverse of Antonia struck in the reign of Claudius, the reverse showing standing figure of Claudius (cf. B.M.C. Claudius 166). It does not show a great deal of wear and I imagine that such local imitations probably disappeared to a large extent with the appearance of the large bronze issues towards the end of the reign of Nero.

¹ J.R.S., XLVI, 24-5.

² *British Museum Catalogue of the Coins of the Roman Empire*.



A. Trench 2, the wall behind the rampart partly removed to reveal the post-hole of the inner revetment. The foot scale marks the inner edge of the legionary rampart



B. Trench 2, the upper surface of the *colonia* rampart from the south

THE SAMIAN WARE By B. R. HARTLEY (Fig. 4)

A *From the Colonia Rampart*

- 1 An unusual dish with some of the characteristics of Drag. form 15, including the internal ridge below the lip. The dish is deeper than normal, however, and has a straighter side with feeble grooves replacing the fluting of the original. Finally, it is in Central Gaulish fabric, not South Gaulish, and is likely to be a Trajanic product of Martres de Veyre.
- 2 Form 36, Central Gaulish, first half of the second century.
- 3 One of three similar dishes of form 18/31. All three are in fabric of the kind used at Martres de Veyre rather than Lezoux. Although the kilns at Martres seem to have worked throughout the second century, their main output was in the period A.D. 100-130 and the dishes in this group would fit typologically with such a date.
- 4 Stamp OF VIRIL (or VIRILI) on form 27. This is the stamp of the prolific late South Gaulish potter VIRILIS,¹ here on a coarse and clumsy base. *c.* A.D. 80-105.
- 5 Stamp L.COSII (retrograde) on base of form 18. L.COSIVS was probably the same man as L.COSIVS VIRILIS;² in any event, the date would be *c.* A.D. 80-105.
- 6 Part of a stamp beginning DIOI, probably on form 27. Of the potters with names beginning with these letters the Central Gaulish DIOGENES seems to be the strongest candidate. A stamp from Martres de Veyre³ appears to be from the same die, though it is perhaps not certain that his kilns were there. He was probably a Trajanic-Hadrianic potter, as a stamp from the burnt deposit at Regis House implies that he was working by *c.* A.D. 125.⁴
- 7 Stamp CRISPI on base of form 27. The site evidence certainly demands both pre-Flavian and Domitianic activity, and it is possible that more than one potter is involved.
- 8 Stamp of DOMITVS, an early Central Gaulish potter, most probably of Martres de Veyre.⁵ Probably Trajanic or Trajanic-Hadrianic, though the site evidence is meagre.
- 9 Stamp LVPPA F on form 33. Antonine, judging by the form, and this date is in agreement with the potter's use of form 38. This piece, the only one certainly of the Antonine period from either section, came from a layer which may perhaps have been intrusive into the upper surface of the rampart.
- 10 Form 37, Central Gaulish. Style of DRVSVS I (Stanfield's X-3), *c.* A.D. 100-120.
- 11 Form 37, Central Gaulish. Probably the work of ATTIANVS, who sometimes used seven-beaded rosettes and, more often, the small four-leafed motif, here a pendant in a saltire. The hare is Déch. 950a. ATTIANVS is perhaps dated a little too late in *Central Gaulish Potters*,⁶ since his work is comparatively uncommon in Scotland though widely distributed in Britain generally. *c.* A.D. 125-150 is to be preferred.⁷

B *Filling between Colonia Wall and Legionary Rampart*

- 12 A variant form which may best be described as a 44/81. There are no dated parallels, but the fabric is quite certainly Central Gaulish and it may best be matched in Lezoux ware of the mid-second century. This piece was almost certainly made under Hadrian or in the early Antonine period.
- 13 Rim of form 18 or 18/31 of the Trajanic period.

¹ Oswald, F., *Index of Potters' Stamps on Terra Sigillata*, 337-8, 422.

² Oswald, *op. cit.*, 89-90, 376-7.

³ *Germania*, XXXII, 172.

⁴ *Ant. J.*, XXV, 75.

⁵ *Germania*, XXII, 174.

⁶ J. A. Stanfield and Grace Simpson, *Central Gaulish Potters*.

⁷ In addition to the pieces listed, the Colonia Rampart also yielded a number of other sherds in Central Gaulish fabric belonging to the first half of the second century.

C *Beneath the Under-pinning*

Rim of form 35/36 (not drawn). The fabric suggests that it is early Central Gaulish and probably Trajanic.

D *Lower fill behind Legionary Rampart, Trench 1*

- 14 Form 29. The general style and individual motifs recall the work of the BASSVS-COELVS firm¹ and of MODESTVS.² c. A.D. 55-70. The group also yielded three sherds of Flavian date.

E *Fill behind Legionary Rampart, Trench 2*

All apparently South Gaulish ware, ranging in date from the Claudian period to the Flavian.

F *Fill associated with second street, Sub-Deanery*

- 15 Form 37 with stag (O.1745) and conventional tree, as in the work of MERCATO,³ c. A.D. 85-105.
16 Form 37: panel decoration with O.704⁴. c. A.D. 80-100.

G *At bottom of rubble fill of ditch, Sub-Deanery*

- 17 Form 37 with zone of festoons of the type used by GERMANVS and his successors.⁵ The good quality of the glaze and the moulding strongly suggests that this is the work of GERMANVS himself, c. A.D. 70-85.

THE COARSE POTTERY

A *Lower fill behind the Legionary Rampart, Trench 1* (Fig. 5)

- 1 Mortar, cream fabric and surface, small white grits. Short thick flange slightly hooked as in *Jewry Wall*⁶ type B.1, rim slightly higher than the bead. A first-century type which could be pre-Flavian.
- 2 Grey jar, possibly rusticated, with two grooves on the shoulder.
- 3 Globular jar in white fabric with grey exterior surface, the body decorated with rouletting. The group also included the base of a similar jar in grey fabric.
- 4 & 5 Jars in dark gritted fabric, surface dark brown.
- 6 Flagon in a soft 'chalky' self-coloured pink fabric. It has a red painted design on the neck and upper part of the body and rouletting on the shoulder. The flagon had been shattered, fragments being found throughout the fill, but sufficient of it was recovered to restore the upper half, whereas the height is conjectural. Part of the handle was found, but as there was no indication of how this had been attached to the body it has been omitted.

In addition to the pieces listed above, the group also included sherds of rusticated pottery, including several large fragments of a jar with unusually vigorous rustication with a pink surface. Other sherds were in the more normal grey fabric, and included rustication similar to that shown on Gillam's form 96.⁷ Large gritted storage jars were also represented, and one sherd from such a vessel bore combed decoration.⁸

¹ Knorr, R., *Die Terra Sigillata Gefässe von Aislingen* (1912), Pl. VIII, 4.

² Knorr, R., *Terra Sigillata-Gefässe des ersten Jahrhunderts mit Töpfernamen* (1952), Pls. 33 and 43.

³ Bushe-Fox, J.P., *The Roman Fort at Richborough*, II, Pl. XXVII, 11.

⁴ Oswald, F., *Index of Figure-types on Terra Sigillata*.

⁵ Knorr, R., *Töpfer und Fabriken verzierter Terra-Sigillata des ersten Jahrhunderts* (1919), Taf. 36.

⁶ K. M. Kenyon, *Excavations at the Jewry Wall Site, Leicester* (referred to as 'Jewry Wall').

⁷ J. P. Gillam, *Types of Roman Coarse Pottery Vessels in Northern Britain* (*Archaeologia Aeliana*, 4th series, XXXV).

⁸ Cf. *Jewry Wall*, Fig. 34, 12-14.

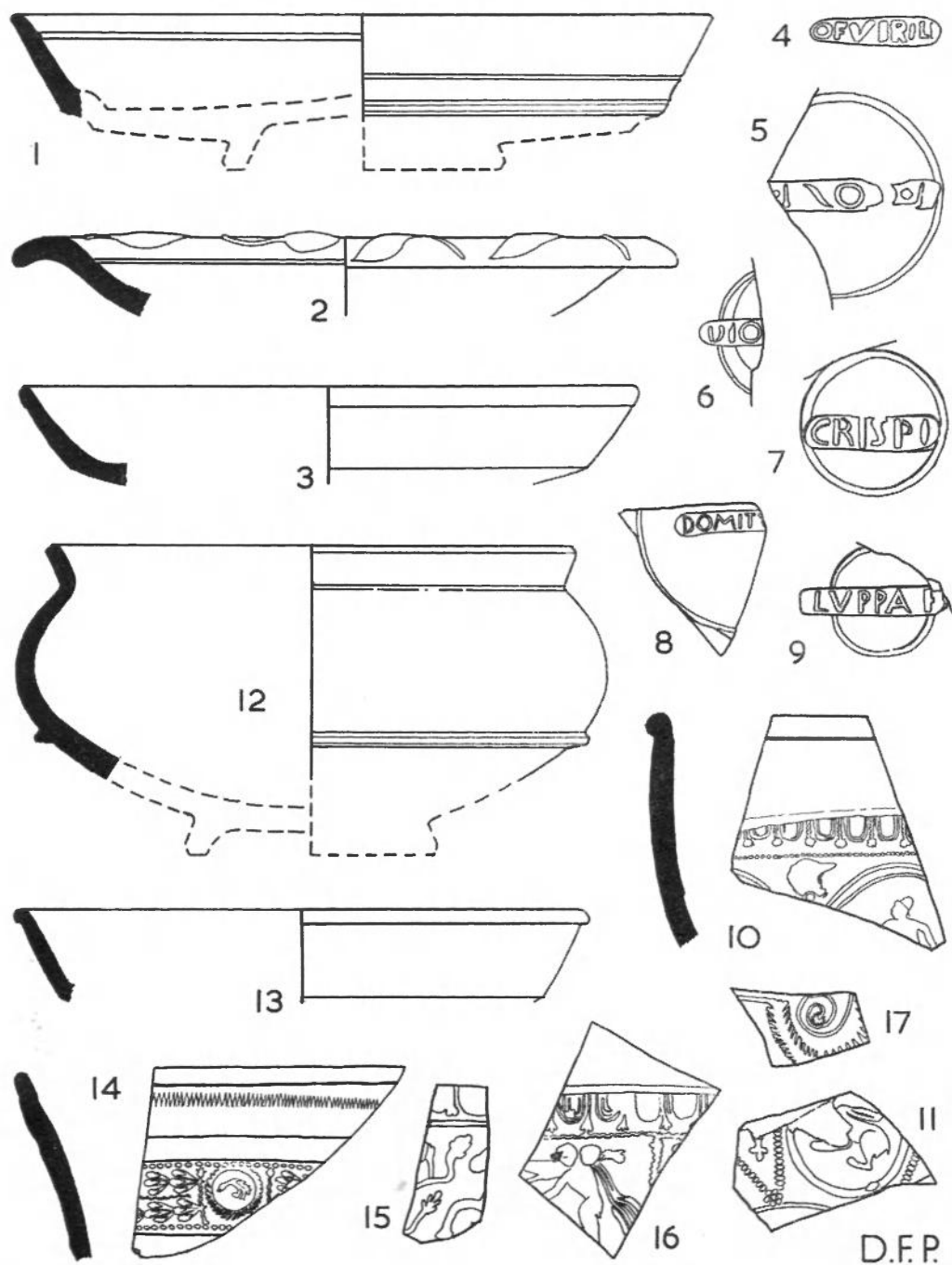


Fig. 4. Samian ware from the Bishop's Palace and Sub-Deanery sites, Lincoln (see pp. 55-6).
(Actual size; except 1-3, 12 and 13, $\frac{1}{2}$)

B *Layers associated with the Building behind the Legionary Rampart, Trench 1* (Figs. 5 and 6)

- 7 Small jar in cream self-coloured fabric.
- 8 Necked bowl in grey fabric. Similar bowls were produced at the North Hykeham kiln (Group E):¹ also *Brough IV*, Fig. 12, 58;² *Langton*, Fig. 7, 17;³ and *Jewry Wall*, Fig. 42, 14. The form derives from a Belgic prototype and survives into the second half of the second century: for a sufficiently close parallel see *Verulamium*, Fig. 28, 18 (c. A.D. 160-190).⁴
- 9 & 10 Two bowls identical in form and fabric with (8), diameters 6½ in. and 5½ in. respectively.
- 11 Dish with grooved rim in grey fabric, decorated with acute close latticing. The type is not likely to be pre-Hadrianic.
- 12 Globular jar with linear rustication. Brown fabric, exterior grey/brown. Other sherds of rusticated ware in the group were in grey fabric, and were decorated in a more vigorous style of rustication.
- 13 Rim of tazza in light self-coloured fabric. The type is not closely datable.
- 14 Jar in buff gritted fabric, exterior smoothed particularly in a narrow zone on the shoulder.
- 15 Sharply moulded rim in buff fabric, white surface. Presumably from an amphora.
- 16 Carinated bowl with flat rim in a red fabric with brown surface. The type is of the period c. A.D. 80-130.
- 17 Large storage jar in dark grey 'native' fabric heavily charged with gritting, surface black. The high shoulder is reminiscent of the Iron Age situlate jar which is the prototype for this form of vessel. Very similar jars are found in the immediately pre-Roman period, cf. for example *Ingoldmells*,⁵ and on first-century Roman sites, as at *Jewry Wall*, Fig. 36, 24, and *Brough IV*, Fig. 10, 18, the latter with the characteristic internal overhanging lip.

C *Fill behind the Legionary Rampart, Trench 2* (Fig. 6)

- 18 Neck and shoulder of flagon in tile-coloured fabric.
- 19 Amphora rim in buff fabric, white surface.
- 20 Jar in coarse gritted fabric, brown surface.
- 21 Bowl, probably imitating Drag. form 24/25. Cream self-coloured fabric, red colour-coating on the exterior, including the underside of the base, and also on the upper part of the interior. The upper part of the body also bears a painted white line, and this may be part of a representation of the handle found on the samian prototype in the Augustan period.⁶ Similar bowls were found at *Camulodunum*⁷ (form 58), but these were normally Gallo-Belgic products. The samian form 24/25 is mainly Claudian in date, and it is probable that this bowl is pre-Flavian. The group included sherds from other vessels similarly colour-coated, in one case on the interior surface only.
- 22 Screw-neck flagon rim of first-century type in white fabric, diameter c. 3½ in.
- 23 Flagon in light pink self-coloured fabric. The rings of the screw-neck are of approximately equal size, indicating a first-century type.

¹ F. H. Thompson, *A Romano-British Pottery Kiln at North Hykeham, Lincolnshire* (*Ant. J.*, XXXVIII).

² P. Corder, *Excavations at Brough, East Yorkshire* (*East Riding Ant. Soc.* XXVIII).

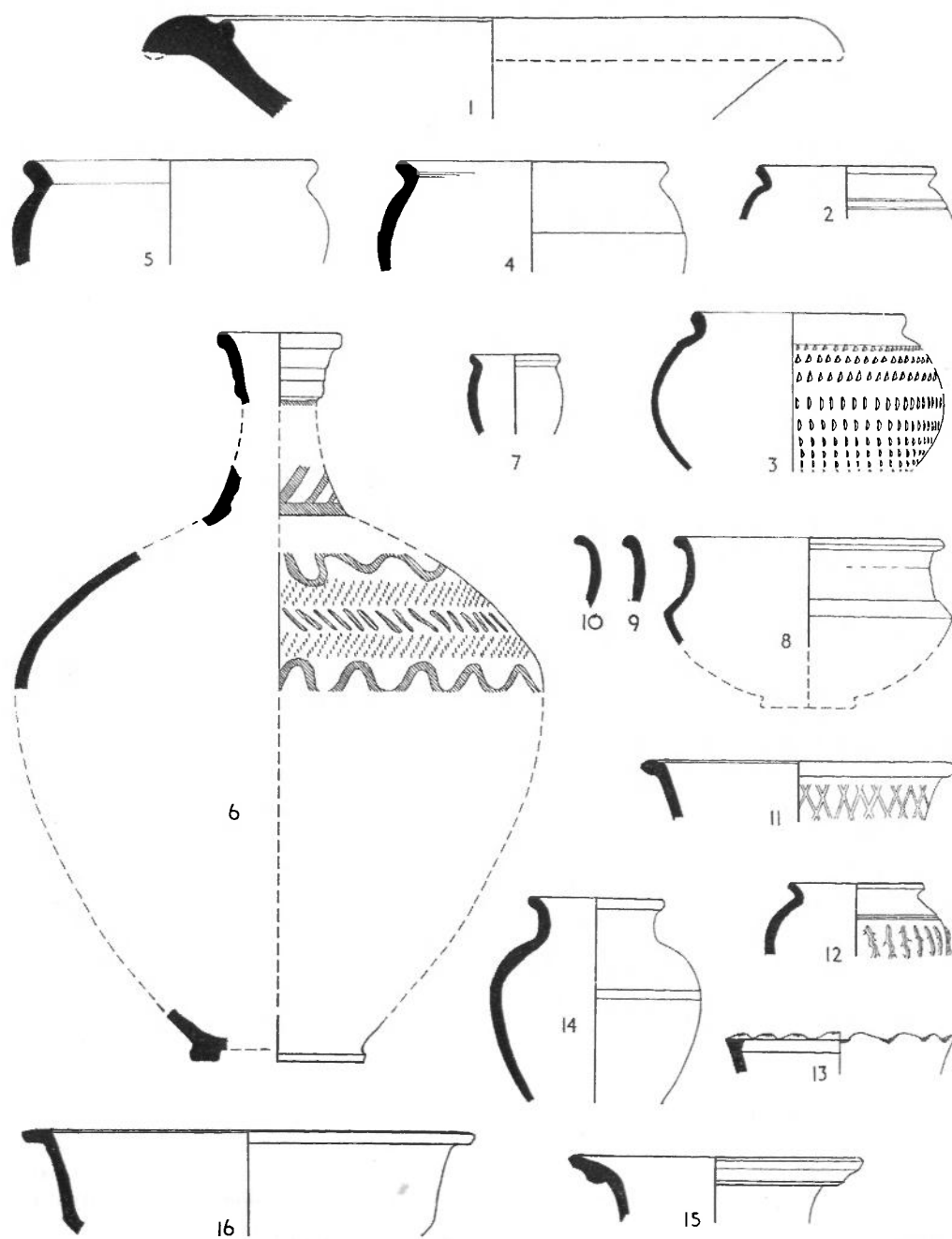
³ P. Corder & J. L. Kirk, *A Roman Villa at Langton*.

⁴ R.E.M. & T.V. Wheeler, *Verulamium, A Belgic and two Roman Cities*.

⁵ F. T. Baker, *The Iron Age Salt Industry in Lincolnshire* (*Lincs. Arch. & Arch. Soc. Reports & Papers*, 8 n.s.), Fig. 4.

⁶ I am indebted to Mr. Brian Hartley for this suggestion.

⁷ C. F. C. Hawkes & M. R. Hull, *Camulodunum*.



D.F.P.

Fig. 5. Coarse pottery from the Bishop's Palace, Lincoln (pp. 56, 58) (4)

- 24 Globular jar with short upright rim in grey fabric with orange surface, smoothed externally and on the inside of the rim. *Cf. Jewry Wall*, Fig 42, 39 (period I, to A.D. 125-130).
- 25 Small jar in grey ware with upright rim thickened externally, grooved on the shoulder. The type does not seem to appear before the closing years of the first century, and is particularly common at Leicester in period I. *Cf. Jewry Wall*, Fig. 27, 25 & 26.
- 26—28 Three jars similar in form to (25). (27) is in a tile-coloured fabric, and the others in grey. Diameters $4\frac{1}{2}$ in., c. 5 in., and 4 in.

D *From the foundations of the Building behind the Legionary Rampart, Trench 2* (Fig. 6)

- 29 Jar in grey fabric, similar in form to (25)—(28) above, but with the addition of rouletted decoration on the body.

E *Fill associated with the renewal of the front timber-work of the Rampart* (Fig. 6)

- 30 Jar in black fabric, apparently identical with cooking-pot fabric, burnished on rim and shoulder. Below the shoulder-groove there is a zone of linear rustication which is encrusted with soot. The combination of rustication with a black-burnished fabric is unusual, but not without parallel,¹ and vessels of this type are presumably among the latest of the rusticated series, since they are unlikely to be earlier than the Hadrianic period. In form and decoration this example may be compared with Gillam's form 99 (c. A.D. 110-130).²

F *Fill between Colonia Wall and Legionary Rampart* (Fig. 6)

- 31 Jar in black fabric, burnished on shoulder and rim. The piece is similar in fabric and general appearance to (30) above, and it is very probable that like the latter it was decorated with rustication, as in fabric and rim form it is closely comparable with a rusticated jar from Doncaster.³ The latter has been assigned to the Trajanic period, but is perhaps more likely to be Hadrianic.
- 32 Flagon neck of unusual form, white fabric with buff surface. On typological grounds it might be assigned to the second half of the second century.
- 33 Jar in dark grey fabric, grooved on the shoulder.

G *Pottery overlying the Colonia Rampart, Trench 1* (Fig. 6)

- 34 Dish with plain rim in light grey fabric, lattice decoration. A third-century type, quite likely to be a product of the Racecourse kiln (*cf.* type 1).⁴
- 35 Wide-mouthed jar in grey fabric.
- 36 Jar with high flaring rim in cooking-pot fabric, presumably latticed. A rim of this form indicates a date in the third century at the earliest.
- 37 Dish in cooking-pot fabric with slender pointed rim.
- 38 Dish in grey ware with a heavy rim forming a sharp angle at the junction with the wall.
- 39 Dish similar in form and fabric to (38), with latticing.

H *Colonia Rampart* (Figs. 7 and 8)

- 1 Mortarium in a hard pale-buff fabric with orangy-buff slip: abundant medium-sized brown, grey, white and black grit. Only the end of the stamp remains, including part of one letter and a distinctive border. Fortunately these are just sufficient to identify it as

¹ *Ant. J.*, XXXVIII, 28.

² Mr. J. P. Gillam and Mr. F. H. Thompson have very kindly examined the two sherds (30) and (31), and agree with the writer's conclusions concerning them.

³ *Ant. J.*, XXXVIII, Fig. 5, 9.

⁴ P. Corder, *A Romano-British pottery kiln on the Lincoln Racecourse*.

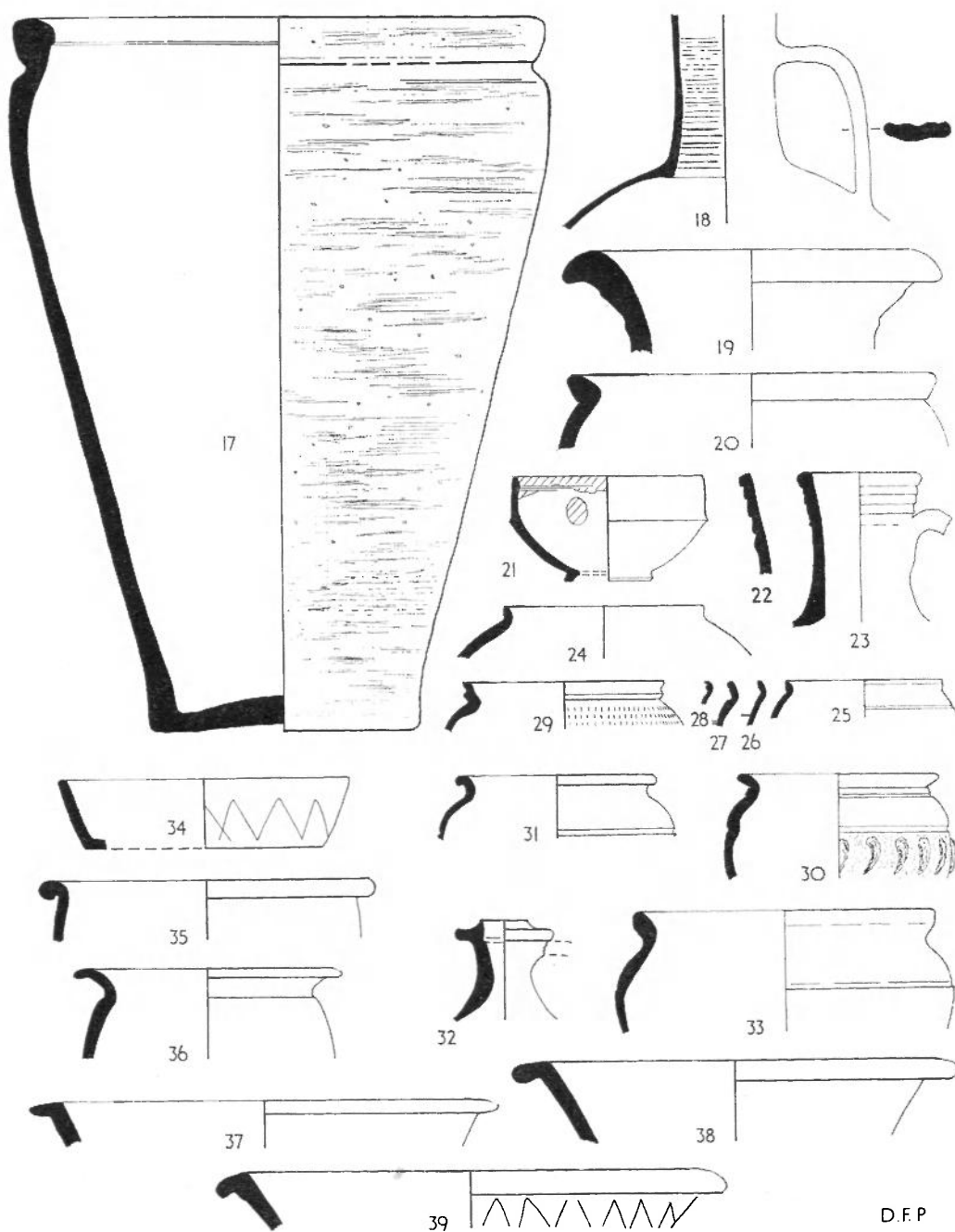


Fig. 6. Coarse pottery from the Bishop's Palace, Lincoln (pp. 58, 60) (4)

part of a rather rare stamp reading FIICITHDA. The only other examples known are from near Pontefract and from South Ferriby (Lincs.), both unpublished. As for the reading, FECIT at the beginning is certain, and the rest of the stamp, which is quite clear, could be read either as HDA or ACH (retrograde), but neither could well be explained as the initials of a man with *tria nomina*. There is no dating evidence for the Pontefract and Ferriby stamps, but the fabric and forms suggest a connection with known Midland potters of the first half of the second century.¹

- 2 Bowl of mortar-like form in an orange fabric with a few grits: the surface is buff. Cf. *Jewry Wall*, Fig. 22, 1 and Fig. 46, 19. A typical second-century form until at least A.D. 180.
- 3 Small bowl in grey fabric with incised looped decoration.
- 4 Small bowl in cooking-pot fabric. The rim is burnished and the body latticed. The bowl is probably related to those illustrated in *Jewry Wall*, Fig. 46, 13 & 14 (period III, to A.D. 180).
- 5 Dish in brown fabric.
- 6 & 7 Dishes in grey fabric.
- 8 Dish with plain rim in sandy pink fabric, the surface mica-dusted. A first or early second century form.
- 9-16 Pie-dishes in cooking-pot fabric. The surface of the vessel is almost invariably burnished and black in colour, but in two examples, (9) and (10), the surface is mottled grey, though still glossy. (11), an unusually shallow form, varied in surface colour from light to dark brown, while (14), the only dish with a grooved rim, was black inside and matt grey outside. Lattice decoration is the rule except in the case of (15), where it is absent. It is uncertain to what degree the various rim forms are chronologically significant: the type is first encountered in the Hadrianic period, but is particularly abundant in the Antonine period, and of this series (9), (10) and (16) are probably the latest—cf. Gillam's form 225 (c. A.D. 190-240), *Jewry Wall*, Fig. 46, 6 (period III), and *Benwell*, Fig. 2, 16-20 and Fig. 5, 44-51.²
- 17 Bead-rim bowl in cooking-pot fabric. The surface is burnished, and midway between rim and base there is an incised wavy line similar to that found on second-century tankards.
- 18 Latticed pie-dish in grey fabric with matt light-grey surface. Cf. *Jewry Wall*, Fig. 50, 9 (period VII, first half of the third century).
- 19 Campanulate bowl in grey fabric with a divided rim grooved internally. The lower part of the bowl is restored by analogy with Gillam's form 301. It is probable that the form is derived ultimately from Drag. form 36, and it had a long life, appearing in a barely modified form in the fourth century among the products of the Swanpool kiln (form D.25),³ and at the Great Casterton villa.⁴
- 20 & 21 Two bowls of the same form and fabric as (19), 8½ in. and 6½ in. in diameter respectively. Three other similar rims were not drawn, and one of these lacked the internal groove.
- 22 Bowl of atypical conical form. The internal grooving and divided rim are reminiscent of the bowls (19)-(21) above, and it would seem that the two forms are related. Cf. also Gillam's form 300.
- 23 Carinated bowl with everted rim in grey ware. Two body sherds from similar vessels were found.

¹ The report on this mortarium and stamp has been very kindly contributed by Mrs. K. Hartley.

² B. Swinbank, *Pottery from levels covering the Vallum at Benwell* (*Arch. Aeliana*, 4 ser., XXXIII).

³ G. Webster & N. Booth, *A Romano-British pottery kiln at Swanpool* (*Ant. J.*, XXVII).

⁴ P. Corder (ed.), *The Roman Town and Villa at Great Casterton*, 1950, fig. 10, 46.

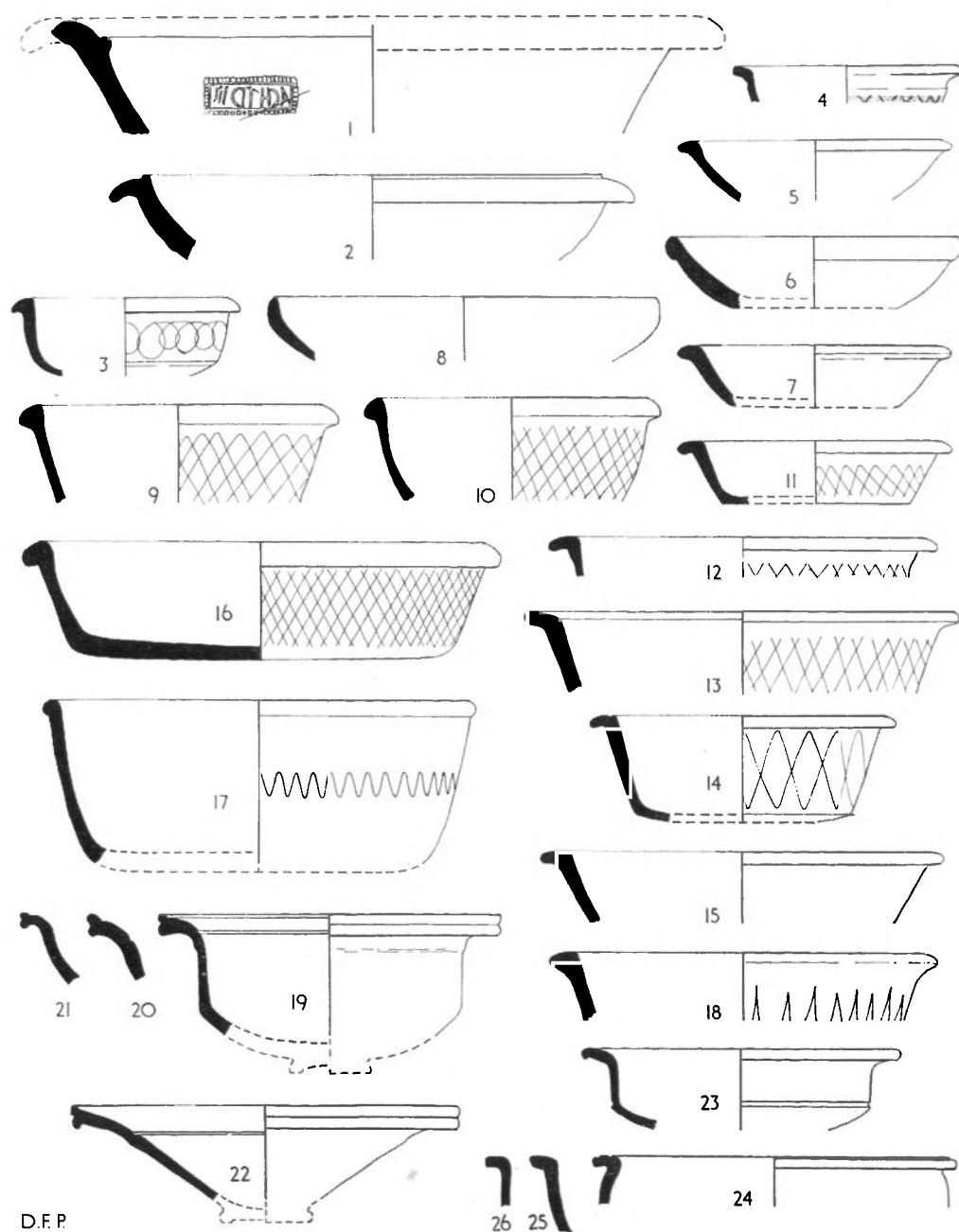


Fig. 7. Coarse pottery from the Colonia Rampart, Bishop's Palace, Lincoln (pp. 60, 62, 64) (1)

- 24 Reeded-rim bowl in grey fabric, *cf. Jewry Wall*, Fig. 21, 9. A common form in the early second century, surviving in diminishing numbers into the second half of the century.
- 25 & 26 Flat-rimmed carinated bowls in grey fabric, tile-coloured and brown externally. Diameters 8 in. and 6 in. respectively.
- 27 Beaker in grey fabric with light grey polished surface, decorated with diagonal rows of barbotine spots. The form, with nearly vertical sides and a plain zone below the rim, suggests a probable derivation from Drag. form 30. *Cf. Brough IV*, Fig. 14, 134; *Jewry Wall*, Fig. 42, 45 (period I) and Fig. 21, 5 (periods V and VI), in the latter case decorated with incised dots. Vessels in this fabric, and decorated in this manner, are found throughout the second century from the Trajanic period onwards.
- 28 'Poppy-head' beaker, fabric as (27), with dark grey polished surface and horizontal rows of barbotine dots. *Cf. Gillam's* form 70, on which the reconstruction is based, and *Verulamium* 1949,¹ Fig. 8, 4 (*c. A.D. 170-190*). A number of sherds from similar vessels were found, and in comparison with Leicester the form was relatively common.²
- 29 Jar in grey fabric polished externally: the interior is brown. The high shoulder and angular rim profile indicate affinities with Gillam's form 65, and the jar was possibly handled. *Cf. also Holt*,³ Fig. 64, 75 and 76; and *Newstead*,⁴ Fig. 31. Antonine.
- 30 & 31 Latticed jars in grey ware.
- 32 Latticed jar in cooking-pot fabric, surface orange/black.
- 33 Jar in hard grey fabric, grooved on the shoulder. The rim and shoulder have been smoothed.
- 34 Jar, fabric as (33).
- 35 Small jar in grey ware with upright grooved rim similar to Fig. 6, nos. 25-29 above. Another similar not drawn.
- 36 Jar with short everted rim in light grey fabric, polished externally.
- 37 Bead-rim jar in cooking-pot fabric with polished mottled-grey surface. *Cf. Jewry Wall*, Fig. 44, 35 (period II, to A.D. 150-160).
- 38 Large jar in unusually hard grey fabric, light brown externally.
- 39 Jar with wide mouth in grey fabric. *Cf. Jewry Wall*, Fig. 46, 45 (period III).
- 40 Lid-seated jar in coarse grey gritted fabric with a scored design on the shoulder.
- 41-43 Grey ware jars, grooved on the shoulder.
- 44 Jar in coarse grey fabric, double groove on the shoulder.
- 45 Narrow-mouthed jar in grey fabric.
- 46 Jar in grey gritted fabric with high angular shoulder and flat rim.
- 47 Rim and base of rough-cast beaker in grey fabric with dark brown colour-coating.
- 48 Rim of similar beaker in cream fabric, diameter 4½ in. Other sherds from rough-cast beakers were found, but rather surprisingly none matched the fabric produced at the South Carlton kilns.⁵
- 49 Screw-neck flagon in red fabric with buff surface.
- 50 Flagon neck, cream fabric with buff/brown slip. Top ring predominant, lower rings vestigial, a characteristically second-century form. Another similar neck in grey fabric not drawn.

¹ M. Aylwin Cotton & R. E. M. Wheeler, *Verulamium* 1949 (*St. Alban's Arch. & Arch. Soc. Trans.*, 1953).

² *Jewry Wall*, 103.

³ W. F. Grimes, *Holt, Denbighshire; the works-depot of the Twentieth Legion (Y Cymmrodor, XLI)*.

⁴ J. Curle, *A Roman Frontier Post and its People*.

⁵ G. Webster, *A Roman Pottery at South Carlton* (*Ant. J.*, XXIV).

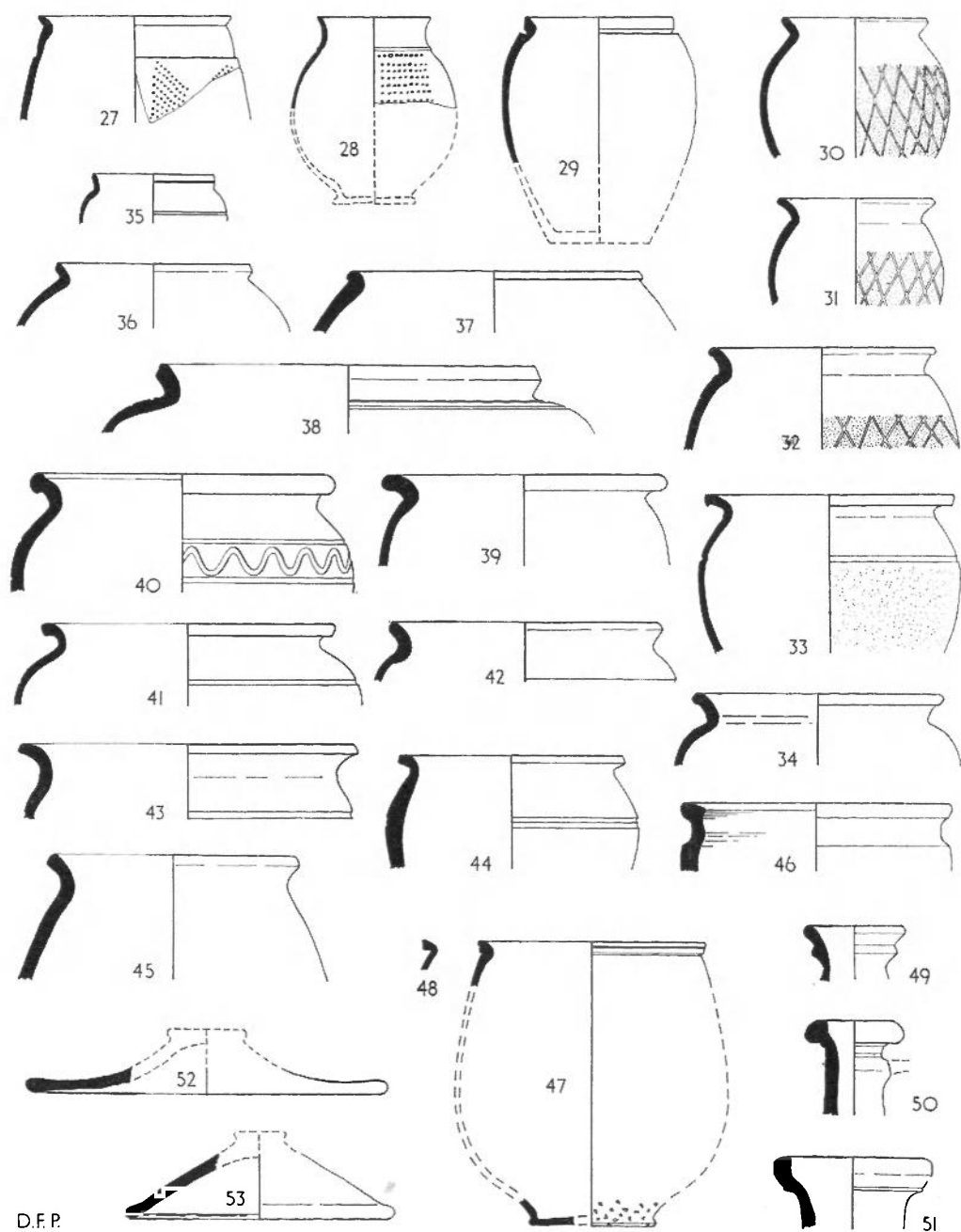


Fig. 8. Coarse pottery from the Colonia Rampart, Bishop's Palace, Lincoln (pp. 64, 66) (4)

- 51 Neck of a two-handled(?) flagon in cream fabric, buff slip.
- 52 Lid in white self-coloured fabric. The flat profile may indicate a first-century date.
- 53 Lid in cooking-pot fabric.

THE GLASS By DOROTHY CHARLESWORTH

Only small fragments of glass were found in the excavations and the majority of pieces cannot be dated except by their context. About two-thirds of the material is natural green glass from flasks and bottles. The remainder is better quality glass, mostly thin, colourless metal. There is one piece of millefiori. Most of the glass is heavily iridescent. The pieces described were all found in the Colonia Rampart.

- 1 Fragment of amber and white marbled millefiori pillar-moulded bowl. The piece comes from near the base of the vessel and has an X incised on it on the inside.

This type of metal and of vessel was most common in the mid first century A.D. and probably ceased to be made in both Alexandria and Italy c. A.D. 70. A few pieces survive in use after this date but they are infrequent. The monochrome pillar-moulded bowl, usually in natural green glass, was produced in larger quantities and seems to have continued in production for some years after the millefiori. Such bowls are quite common until the end of the first century A.D. and the piece found here in a late second-century context is probably a survivor from an earlier period on the site.

- 2 Two fragments of the base and one of the rim of a plate in good colourless glass, mould-pressed and rotary polished. The rim fragment is too badly damaged to give the details of the profile.

This vessel is related to the Flavian/Trajanic plate type but differs from it in that its base ring is much shallower and is formed by grinding out the thick base of the vessel to make the ring whereas on the typical plate the base ring is high in proportion to the vessel¹ and is a true ring added to the vessel.

- 3 Fragment of a beaker rim, knocked off and ground with faint wheel-cut lines below, in blue greenish glass. Diameter c. 8 cms. ($3\frac{1}{8}$ ins.).

The fragment is part of a tall beaker which certainly occurs in 1st-century contexts² but which cannot be closely dated nor is it possible from a rim fragment alone to suggest a reconstruction of the vessel, for the Camulodunum example has a thick pad base but a closely similar example from Hartlip villa, Kent, has a pushed-in base ring. (Fig. 9, 1).

- 4 Small fragment of a beaker in colourless glass decorated with faint wheel-cut lines (Fig. 9, 2).
- 5 Fragment of a beaker in colourless glass with a bevelled cut band in the centre of which a rib has been left upstanding (Fig. 9, 3).
- 6 Outplayed rim, knocked off and ground, part of a straight undecorated side of a beaker, in colourless glass. Diameter c. 7 cms. ($2\frac{3}{4}$ ins.) (Fig. 9, 4).
- 7 Infolded rim in colourless glass of a jar or bulbous beaker. Diameter c. 6 cms. ($2\frac{3}{8}$ ins.) (Fig. 9, 5).

THE OTHER SMALL FINDS (Figs. 9 and 10)

- 1 Bronze brooch of the winged-bow or Hod Hill type (Collingwood group P) with traces of silvering. The head of the brooch is missing, but it is probably of the variety with a nearly flat bow, cf. *Verulamium*, Fig. 43, 7. The type is most common in the Claudian period, although it survives into the Flavian period, and this brooch will be a relic of the legionary occupation. From the lower fill behind the Legionary Rampart, Trench 1 (Fig. 10, 1).

¹ R. E. M. Wheeler, *London in Roman Times*, Fig. 42, 4.

² *Camulodunum*, p. 303, no. 77.

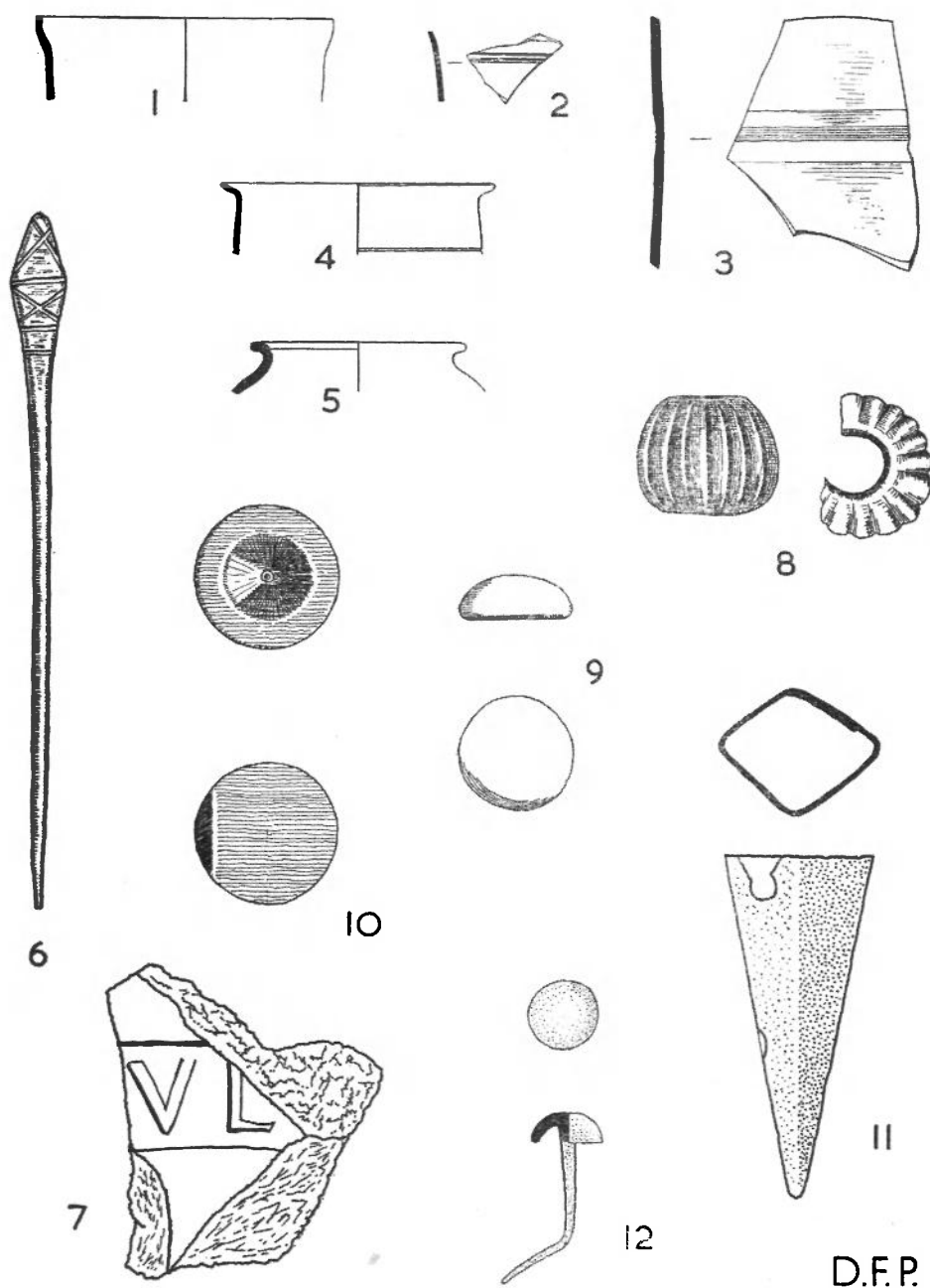


Fig. 9. Finds from the Bishop's Palace, Lincoln (pp. 66, 68). (8-12 actual size; remainder $\frac{1}{2}$)

The drawings of the glass are by Mrs. Fry-Stone

- 2 A bronze socketed object of pyramidal form with four faces. When submitted for laboratory treatment the socket was found to contain traces of wood, and the two perforations situated one near the upper edge and the other approximately halfway down still retained the remains of iron nails which had held it to the wooden shaft. The object was therefore some sort of terminal or spike, and the context suggests that it may have been part of a piece of military equipment, but it may equally well have decorated a piece of furniture or a vehicle. An object of similar size and pattern is known from Mainz,¹ and other similar iron objects have been found at Saalburg.² From the lower fill behind the Legionary Rampart, Trench 1 (Fig. 9, 11).
- 3 A bronze stud with silvered head, from the Colonia Rampart (Fig. 9, 12).
- 4 Melon bead in blue glass, cf. *Jewry Wall* type E.2 Fig. 93, 9. From the fill between Colonia Wall and Legionary Rampart, Trench 2 (Fig. 9, 8). Another similar in green glass from the Colonia Rampart not drawn.
- 5 Bun-shaped counter in white opaque glass, a common Roman type. Fill of rear revetment post-hole, Trench 1 (Fig. 9, 9).
- 6 Bone counter, one side dished, the other plain with a chamfered edge. Cf. *Jewry Wall* type A.2 Fig. 91, 10. Unstratified (Fig. 9, 10).
- 7 Bone pin with simple incised design on the lozenge-shaped head. From the Colonia Rampart (Fig. 9, 6).
- 8 Small pottery lamp-holder in light grey fabric: the upper surface nearest the nozzle of the lamp is much burned. From the fill behind the Legionary Rampart, Trench 2 (Fig. 10, 2).
- 9 Tile fragment with part of a stamp .JVL[. Comparison with the stamp reading LVLE on a tile from St. Benedict's Square, Lincoln, suggests that both were made with the same die. An extensive series of stamped tiles was found during the excavation of a bath-building at Cottesford Place, Lincoln, in 1957,³ and each stamp was found to consist of four letters of which the first three were invariably LVL. In twelve cases the last letter was found to be A, while on thirteen tiles the stamp read LVLD. On the other hand, LVLE was represented by only two (or perhaps three) tiles, and the impression on these compares quite closely with that on the tile under discussion (Fig. 9, 7). The meaning of the stamp is obscure, but it may be suggested that the last letter was changed to indicate either the kiln of origin or alternatively the different batches of tiles from one kiln, while the first three letters may be the *tria nomina* of the owner of the kiln. A series of similarly stamped tiles is known from *Glevum*, and while some of these tiles come from the public tileries and others mention the *duoviri aediles*, there are five tiles reading L H S, T C M, T P F, T P F A, and T P L F respectively which are apparently the products of private contractors making tiles for public use, and these are comparable with the tiles from Lincoln.⁴ The first three letters on one of the Gloucester stamps are found again on two stamped tiles from nearby *Corinium* which read T P F C and T P F P.⁵ From the Colonia Rampart.⁶
- 10 Part of the upper stone of a rotary quern. It has a raised lip on the outer side, and the upper surface and outer edge are scored in addition to the grinding surface. The quern has obviously been much used, as the grooving on the lower surface has been almost completely worn away. Analysis of a section cut from the stone indicates that it is lava

¹ *Mainzer Zeitschrift*, VII (1912), Abb. 3, p. 87, no. 23. I am indebted to Mr. Graham Webster for this reference, and for that following.

² *Das Römerkastell Saalburg*, Taf. xl, nos. 12-15.

³ *J.R.S.*, XLVIII, 153-4.

⁴ *Arch. J.*, CIII, 71-2; *C.I.L.*, VII, 1242 b-g.

⁵ *Archaeologia*, LXIX, 197.

⁶ For a tile bearing the personal stamp C.VIB.[EXO] from Welton, near Lincoln, see *Lincol. Arch. & Arch. Soc. Reports & Papers*, vol. 7, pt. II, note 21 and Fig. 3, 1; and *J.R.S.*, XLVIII, p. 153.

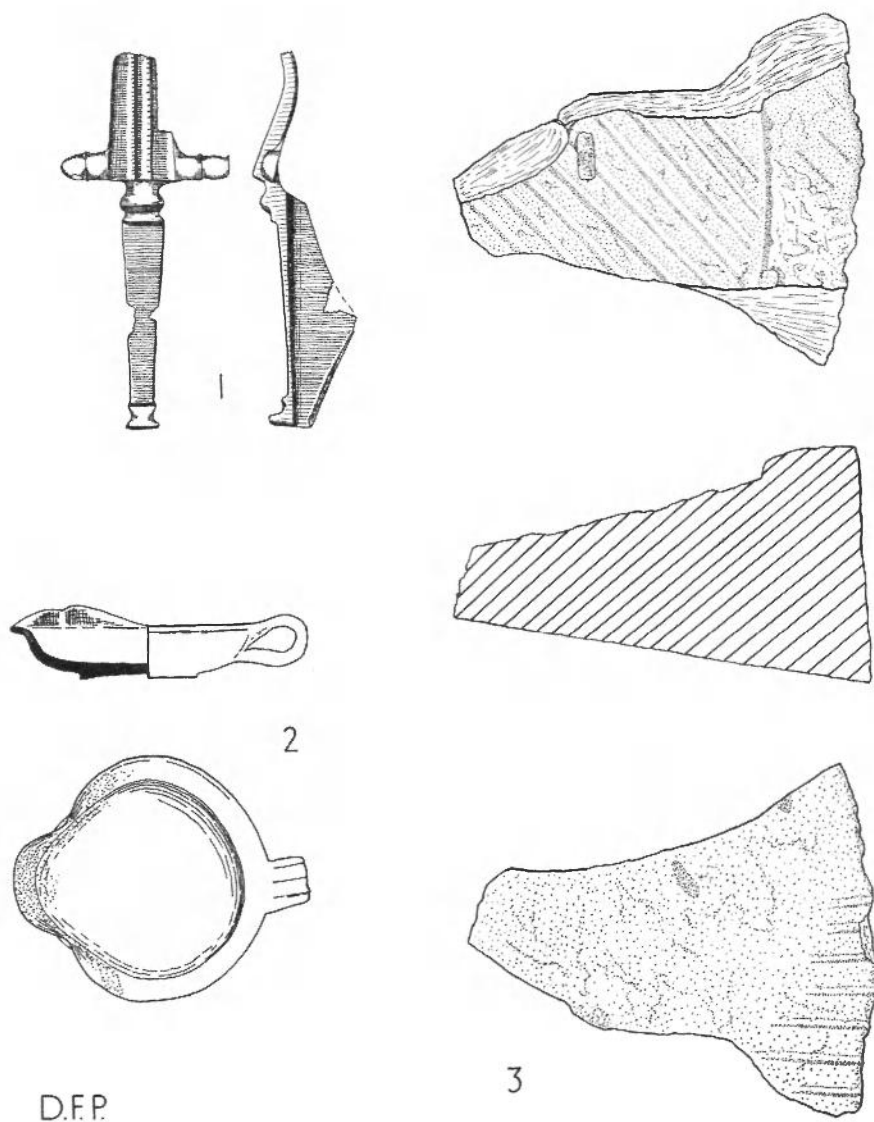


Fig. 10. Finds from the Bishop's Palace, Lincoln (pp. 66, 68, 70). (1 actual size; 2 and 3, $\frac{1}{3}$)

of the type known as 'leucite-nepheline-tephnite' and that it can be closely matched with the 'millstone lava' of the Niedermendig-Mayen district in the Rhineland, a well-known source of querns for Roman Britain.¹ From the fill associated with the building behind the Legionary Rampart, Trench 1 (Fig. 10, 3).

ACKNOWLEDGEMENTS

The Committee is deeply indebted to Canon G. M. Cook and to the Lincoln Diocesan Trust and Board of Finance (through Captain Sheppard) for permission to excavate at the Sub-Deanery and Old Bishop's Palace respectively, and our thanks are particularly due to the latter body for permitting the Committee to pursue its researches for a longer period than was originally envisaged. It is also appropriate to acknowledge here with gratitude the help provided by those who took part in the work. These are too numerous to name individually, but we are particularly grateful to Mr. P. Washbourn for undertaking much of the photographic work and to Mr. H. Priestley for his consistent support during the course of the excavation. For the ability to employ paid labour, without which sections as large as these could not have been excavated, the Committee is very grateful to the Haverfield Trust of the University of Oxford for its generous assistance. The writer of this report would like to record his own gratitude to Professor I. A. Richmond for his advice during the course of the excavation and after its conclusion, and in particular for reading through this report and offering many helpful suggestions which have been incorporated in it; and to Mr. F. T. Baker whose encouragement and co-operation during the work were invaluable. Finally, he is much indebted to Miss Dorothy Charlesworth for contributing notes on some of the Roman glass found during the excavations, and to Mr. Brian Hartley and Mr. R. A. G. Carson for the sections on the samian pottery and the coins respectively.

*The Institute wishes to express its gratitude to the Council for British Archaeology
for a grant towards the cost of this paper.*

¹ I am indebted to Mr. S. E. Ellis of the British Museum (Natural History) for the determination of the stone.