EYNSFORD CASTLE: THE MOAT AND BRIDGE*

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The first report on Eynsford Castle[1] did not cover excavations in the moat, which has not yet been completely cleared, nor any aspect of the bridge, which is in fact a succession of timber bridges, of exceptional interest and wide relevance. A brief structural and comparative study of these bridges, presented at the *Colloque du Château Gaillard* in 1972, is in the press and a fuller version is in preparation for *Medieval Archæology*. This aspect is therefore treated summarily in what follows, which concentrates on the excavations in the moat and the associated finds, in continuity with the previous report.

The Question of the Entrance

From the end of Phase X, that is from the construction of the Hall and Gate-tower, the entrance to the enclosure was at the south-east and, on all evidence, the curtain wall below the gateway was rebuilt from the ground at the same time. Since there was no trace of any bridge in this quarter assignable to Phase W, it was suggested that the original entrance had been elsewhere. The most likely position seemed to be the north-west, where the curtain was thickened inside and out and the moat appeared to be narrowest;[2] a possible alternative was at the north-east, where there is a narrow, but apparently primary, breach in the wall, below which it is disturbed by a brick-lined well of the kennel period (Phase K). In 1972 a section was dug by A. J. Fleming to test the 'north-western' hypothesis, from a point where, for reasons which will appear, the wall had been underpinned and buttressed in the time of E. D. Till (1897 onwards) and needed further stabilization when the buttress was removed. The results gave no positive support to the hypothesis and showed that the apparent narrowing of the moat was deceptive. The 'north-eastern' position has not yet been tested but a section previously cut across the moat a little to the south of it, at *v*, showed nothing in favour of this position save that the moat was relatively shallow in this sector and the same width in its bed, about 9 m., as in section *ι*, less than in the bridge-area. No cut ditch is now discernible on the west side, where the moat runs into the flood-plain.

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[1] *Arch. Cant.*, lxxxv (1971), 109–71.

[2] *Ibid.*, 122.

This report covers (Fig. 1):

1, the narrow north-eastern cutting at υ;
2, the whole environment of the south-eastern approach and bridge, with co-ordinate sections at π (continuing η) and σ;
3, the north-western section, ι, described by Mr. Fleming, with corrections to the description of the curtain at this point.

The North-East Cutting

Here the footings of the curtain had been exposed, presumably by flooding, and later masked by topsoil. The chalk raft on which the curtain is everywhere based (except where rebuilt at the south-east entrance, and on section ι) is here 30 cm. thick and below it is a slightly spread footing of two layers of flint bedded in gravel and lime. This lies on natural clay-with-flints ('brick-earth'), which is eroded to give the appearance of a flat berm about 3 m. wide but which would have sloped from the top of the footings at a gradient of about 1 in 9. Some 10 m. from the curtain what appears to be the rising profile of the original ditch, cut in the natural, crosses the horizon of the base of the footings and rises quite steeply, about 1 in 4, to a counterscarp about 1·5 m. above them. The bottom of the ditch was not sounded throughout but these measurements hardly allow it to have been much deeper than 36·3 m. (119 ft.) above O.D., i.e. rather higher than in the bridge area or in section ι, indicate a channel about 9 m. wide. The filling towards the bottom was loose and carbonaceous, but the dark silt seen in the other sections did not appear and there were no early finds. The channel, such as it was, had been filled up with flinty soil capped by a layer of flints and over this a lens of redeposited clay, making the bed practically level. There were no late finds either, but this may be the work of Phase K, as also, perhaps, a layer of flint 30 cm. deep which covered the counterscarp for at least 3 m. This limited test showed that the north-east approach had no advantage of defensive strength.

The Area of the Bridge (Figs. 2–6)

When the castle came into Guardianship access was by an earthen bank, rising gently, about 1 m. in 20 m. This was as 'improved' by E. D. Till. The upper soil (Fig. 6, 1) was removed to reveal a bank, sagging down to a point about 12 m. from the curtain and rising thence about 1·5 m. to the entrance-gap, which provided the approach in Phase K. It had a rough metalling, bedded on a mass of flint rubble of which the upper part was purposely thrown up rather than fallen (2), generally over 1 m. in depth but graded up towards the curtain and very shallow about 6 m. in advance of it, where a winged wall (Y)

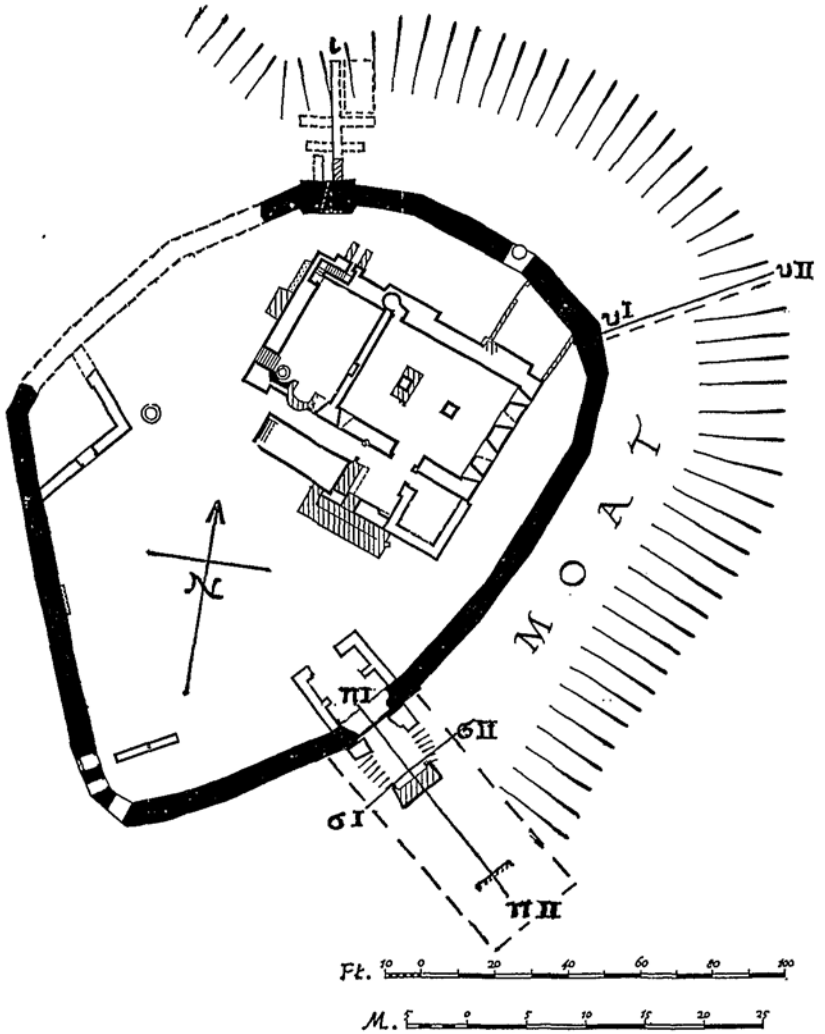


FIG. 1.

soon emerged, of small, well-coursed flintwork, similar to, but not identical with, that of the hall chimney-support (*u*). This was obviously a bridge-pier or the retaining wall of an earthen abutment. Miscellaneous loose soils were seen sloping up towards the curtain, but they did not form a compact promontory right up to wall Y, and none of it had been removed in Phase K, since not only the flint rubble (2) but two layers of earlier débris, 3a, yellow and mortary but with tile and flint,

and 3b, more compacted, containing much more tile, a little pottery and strictly comparable with the Phase D layers within,[2] dropped sharply down towards wall Y and piled in depth behind it. The abutment, then, was essentially hollow, and the upper parts of the sloping deposit were loose, mainly buff denatured mortar (4), looking more like a 'dump' deposited not long before the dismantling represented by 3a and 3b. Transversely, they were not evenly spread and a pile of crumbled Greensand (4a), breaking the surface in the northern half is

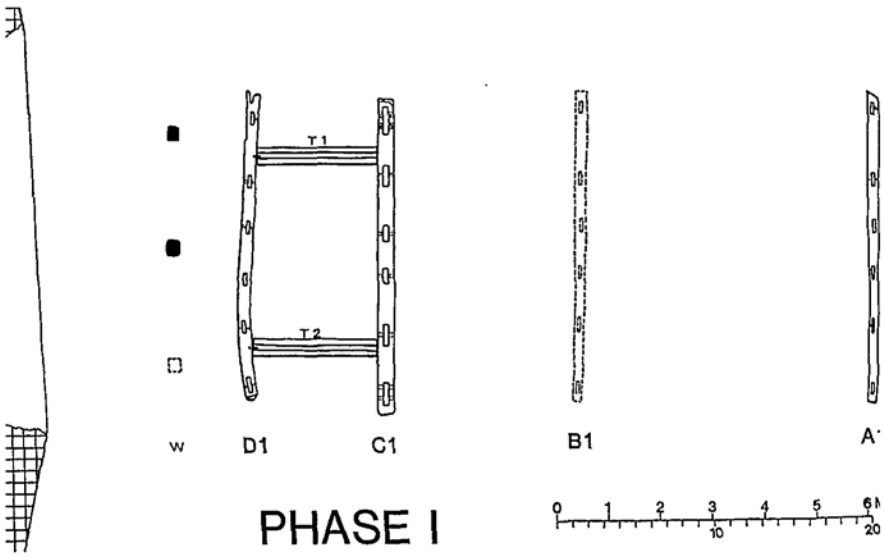


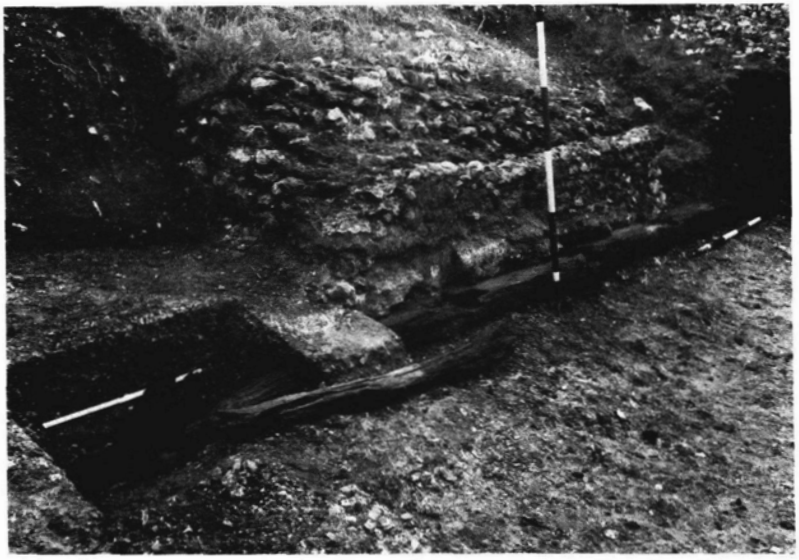
FIG. 2.

perhaps better associated with the compacter layer below (5). The rear of wall Y was well preserved and protected by the dismantling débris (3a, 3b) piled against it. The front was badly eroded or robbed, except at its lowest courses, though similarly protected by the débris (3d, 3e—on this side the upper layer contained more tile), which extended down its eroded face. Even if much of the débris derives from the final dismantling of Phase E, rather than of Phase D (ascribed to 1312), the condition suggests that wall Y, though certainly not older than Phase B, had been exposed for a long period and had been built much nearer to Phase B than Phase D. It appears, however, to have lost little in height and still rises to within about 50 cm. of the surface-level in the entrance-passage.

In the first stage of excavation only the unstable upper deposits

[2] *Ibid.*, 122.

A. Bridge-area, from Curtain, showing inner Abutment.



B. Wall Z, Plate A3 and Foot of Brace.

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PLATE II

Base of V2, showing Matrices for Timbers and Post (W).

Plates B2, B3, A3 and Wall Y.

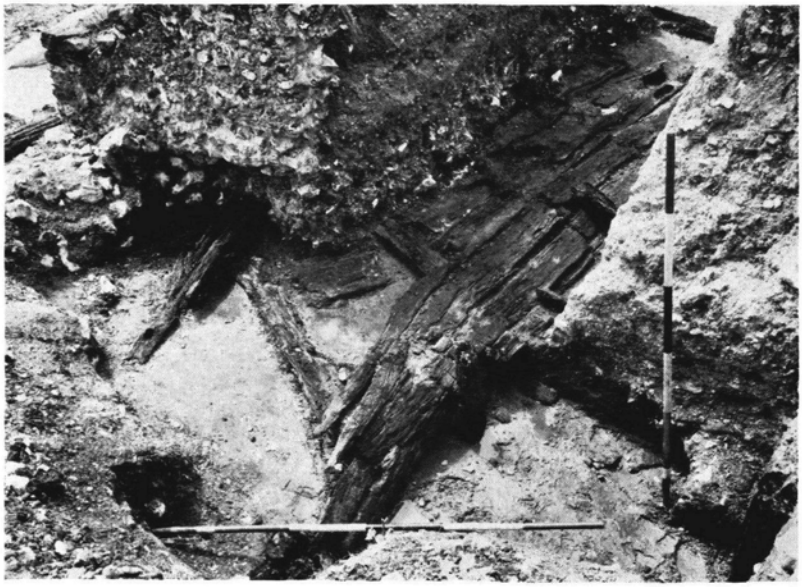


PLATE IV. Planking on felled Trestle.

PLATE V. Felled Trestle on D1, between Y and V1–V2.

were sectioned and stripped—the topsoil (1), the flint-débris (2), the dismantling débris (the '3' layers) and the friable upper deposits against the curtain (4, 4a). These and corresponding layers were removed right across the moat, revealing (see Fig. 4), besides wall Y: —(i) another retaining wall (Z) on the outer lip, not winged but identical in masonry with Y, similarly eroded before it was buried (in soil, 3c, rather than débris) and obviously part of the responding abutment; (ii) a pair of more or less trapezoidal piers (V1, V2), flanking the

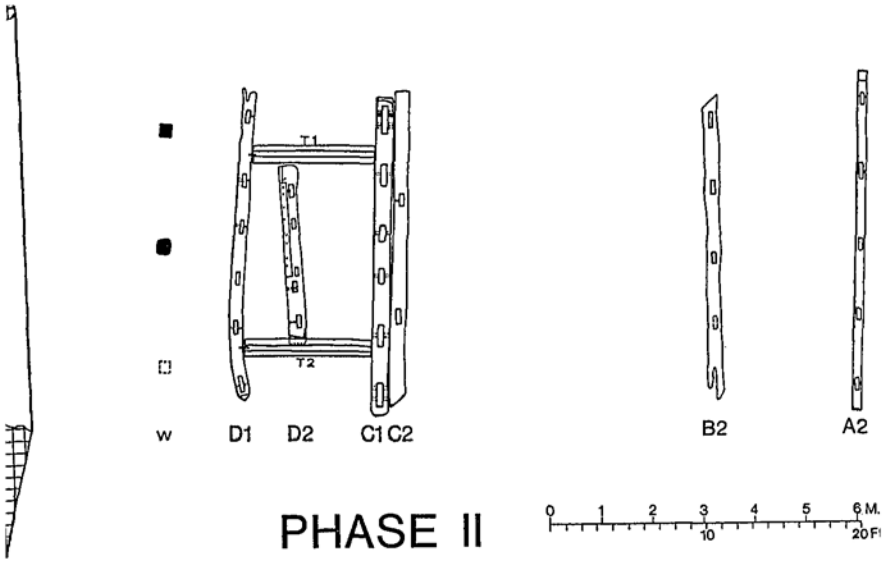


FIG. 3.

entrance-gap and helping to retain the dump-like earthern abutment, but different in masonry from Y and Z, being of large broken flints, poorly bonded. Subsequently, low and feeble wings (y1, y2), sloping towards the curtain from the foot of Y, were traced, though poorly preserved—perhaps kerbs to the abutment.

Examination in depth followed in three stages. In 1961, soundings at the angles of V1, V2, Y and Z showed the unexpected potential of the area. V1 and V2 were in two overlapping builds which together descended for nearly 2 m. from the level of the entrance-passage, but entirely through unstable deposits; they were not, as had been thought, relics of an early drawbridge-pit. Their lower part, particularly in V2, had been formed around a series of round or roughly trimmed poles, some at least standing on a plank, as sole-plate. Taken together the piers constitute a clumsy, asymmetrical pair, and it is not clear whether

the timbers were intended as a lacing or just a shuttering. The topmost edges of the flintwork follow the expected alignment of a bridge carried on wall Y and the footings do not penetrate much below the well-drained layers of the 'dump' against the wall. Both builds may be accepted as late. The masonry, as found, was dry, leached and crumbly, and the matrices of the timbers quite empty (Plate III).

On the other hand, the lowest facing-courses of walls Y and Z were solid and well-preserved, with the impressions of upright timbers

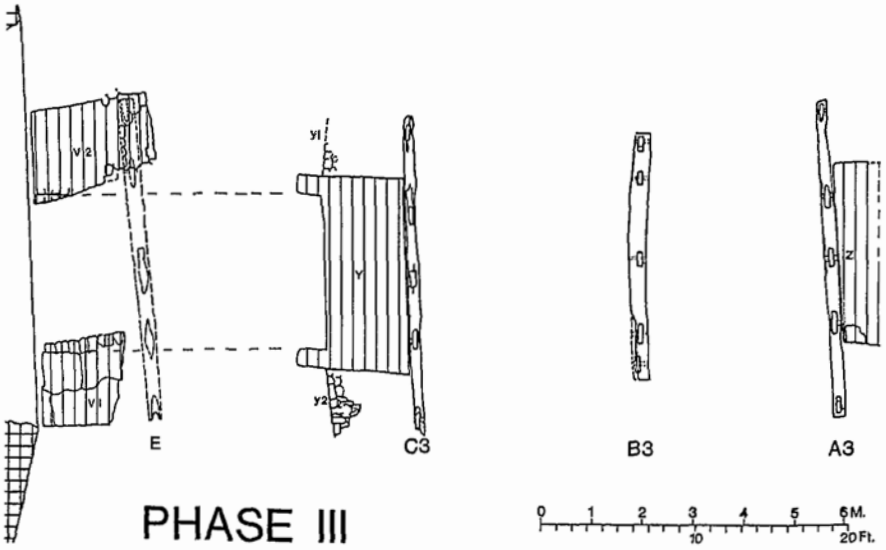
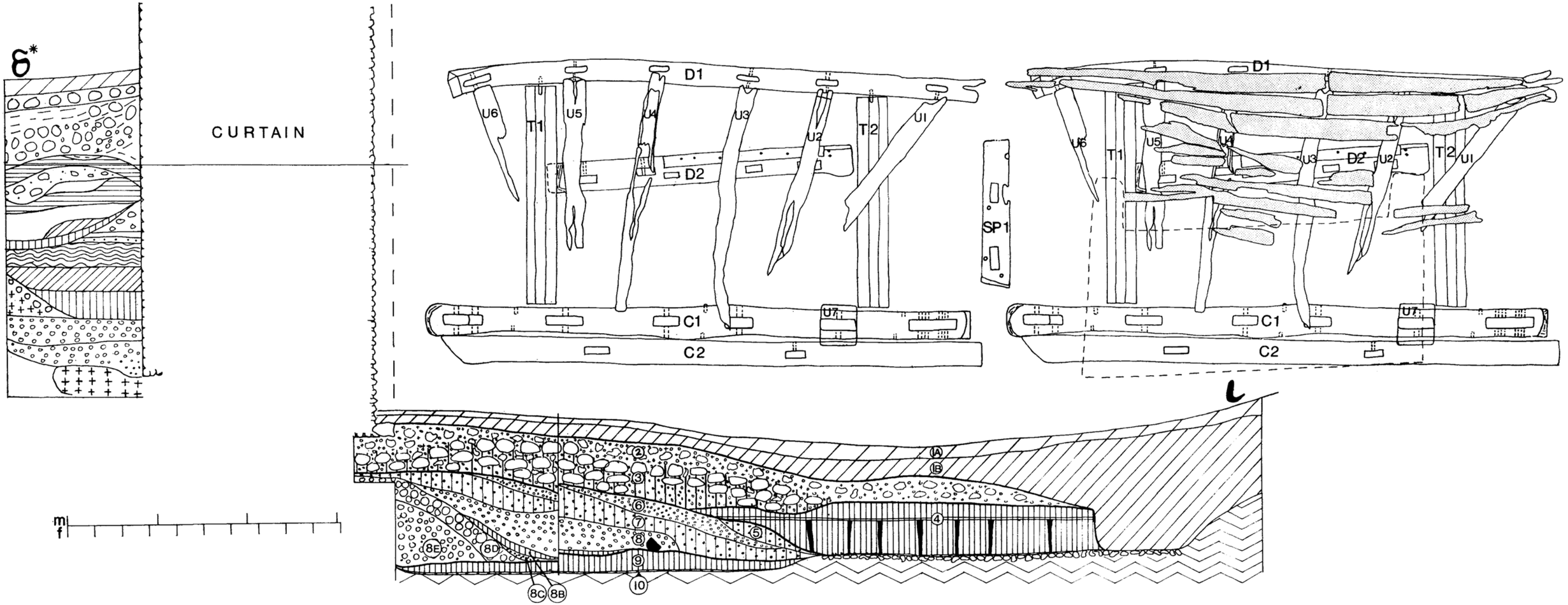


FIG. 4.

in their rendering or overspilt mortar, and just below the footings of each a timber plate (C3, A3) was found in moderate condition, with mortices corresponding with the impressions of the uprights. Preservation of wood was quite unexpected: the level was not far below the empty slot at the base of V2, dry in summer and certainly not permanently waterlogged. The sterile conditions that prevailed up to a distinct horizon, some 35 cm. above the footing of wall Y and just below the base of V1 and V2, are still not entirely explained but may be due to a combination of the filtering effect of the flint and lime above, a solution of iron in the seepage and genuinely waterlogged conditions below. It was decided to leave further investigation until it could be done on an extensive scale. In the event this was in two campaigns: in 1963–4 and, under the direction of D. C. Mynard, in the summer of 1966, when the whole stratification between wall Y and the curtain



Figs. 5A (upper right), B (upper centre) and 7 (Same scale).

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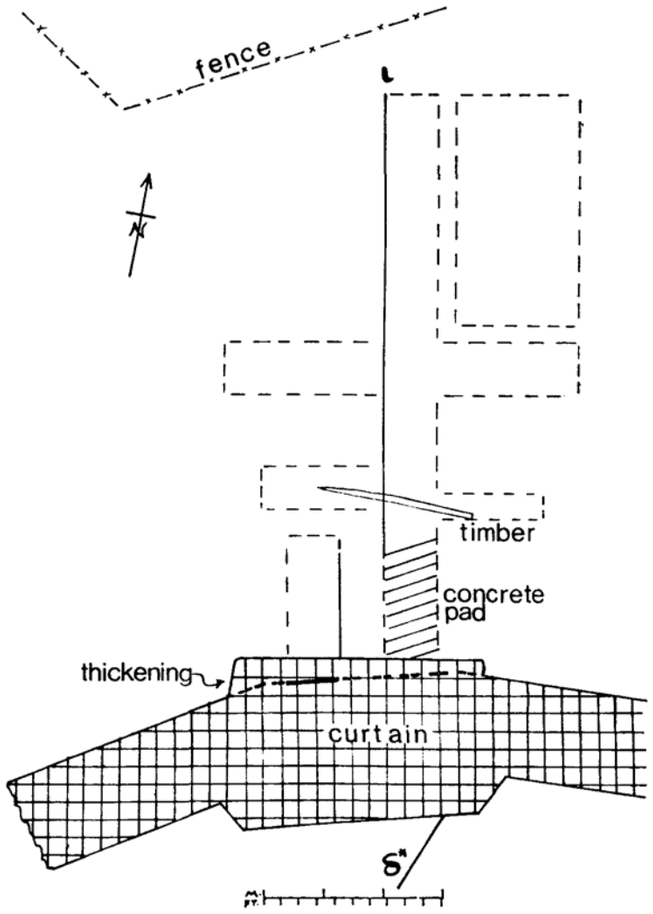
fence
timber
concrete pad
thickening
curtain

FIG. 8.

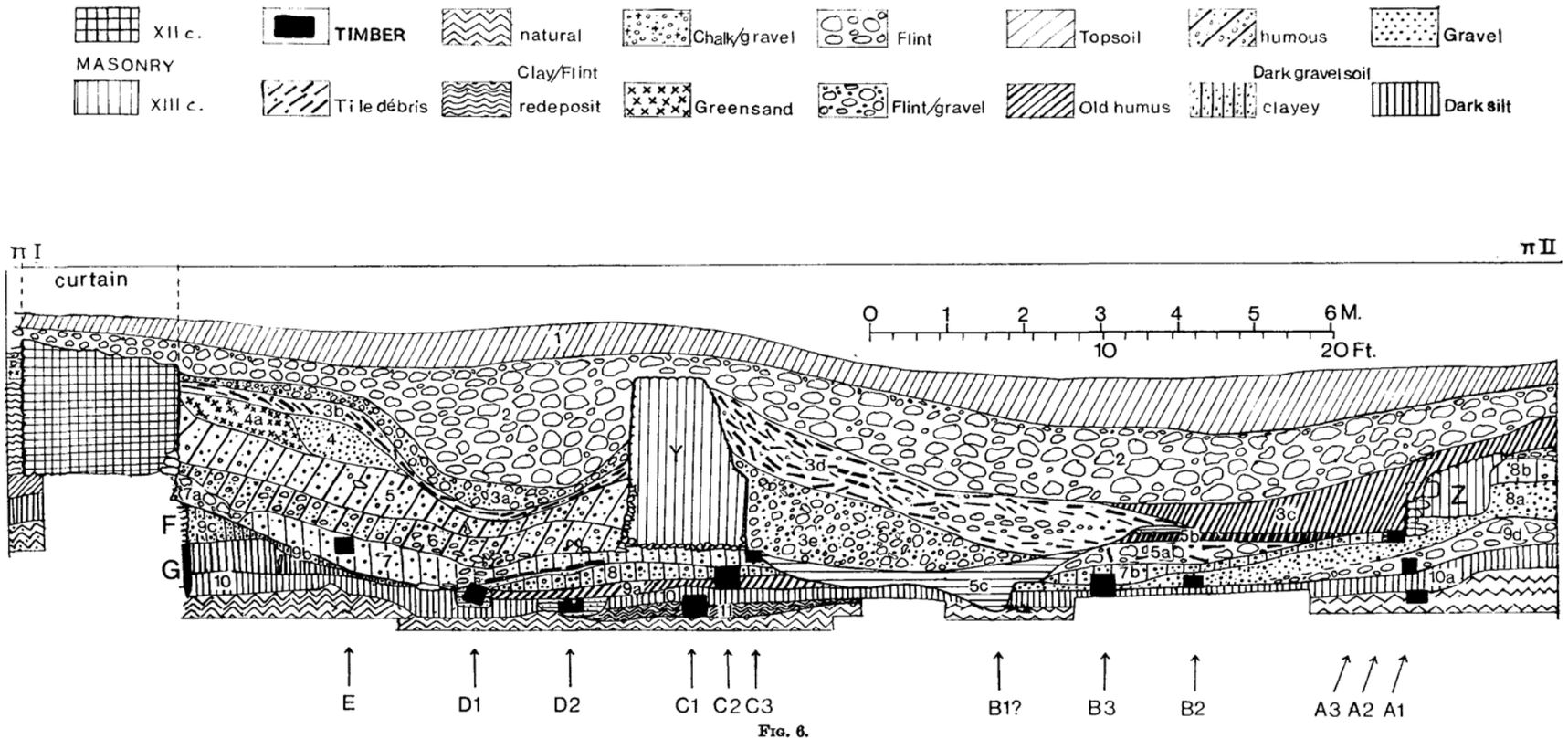
XII c.
MASONRY
XIII c.
TIMBER
Tile débris
natural
Clay/Flint redeposit
Chalk/gravel
Greensand
Flint
Flint/gravel
Topsoil
Old humus
humous
Dark gravel soil clayey
Gravel
Dark silt
π I
π II
curtain
0 1 2 3 4 5 6 M.
10
20 Ft.
E
D1
D2
C1
C2
C3
B1?
B3
B2
A3
A2
A1

FIG. 6.

was removed, all the timbers that were sufficiently rigid were lifted and wall Y, which had been, in effect, built upon a timber raft, was underpinned with concrete. The width of investigation was 10 m. right across the moat.

As in the previous report, the layers down to D or its equivalents, 3a–e, are described in descending order. This has already been done, including, for convenience, the 'dump' deposite 4 and 5b. Likewise, the lower layers are described in ascending order from 'natural', the remains of the bridge and all masonry treated in context.

THE STRATIGRAPHY OF THE BRIDGE (Fig. 6)

The base of the solid curtains, flat and almost level, at about 37 m. above O.D., is separated from the slightly less even natural soil (almost everywhere clay-with-flints, or 'brick-earth', of varying density) only by the chalk raft and, in some places, by a spread flint footing beneath it, as in sections β and υ. Towards the south-east entrance, however (section η; see first report) the natural was falling to nearly 1 m. below the (rebuilt) curtain and outside it it was nearly twice as deep. From this point, right across the moat, though no doubt affected by scouring, it was remarkably even, rising from just above 35 m. to about 36 m. at the outer lip (i.e. under the artificial abutment retained by wall Z) varying by only 0·7 m. in 17 m. Here at least, the impression is not that of a dug ditch but an essentially natural flood-plain, with the enclosed area as an island whose steeply falling margin coincides with the curtain, hence the collapse and rebuilding. The surface of the clay-with-flints seemed more indurated than elsewhere, described by the diggers as 'ballast'. In places, especially where protected by the abutments associated with walls Y and Z, it was covered by an artificial layer, perhaps an attempt at lining, of mixed ballast and clay (11).

The strata are built up either on the natural or on 11 and none contains pottery of phase W, even against the curtain, where what is almost certainly the spread footing of the older curtain (Fig. 6, F) remained beneath the rebuilt one. Below the base of the rebuilt curtain was a spill of washed flints (7a) at about water-level under ordinary high-water conditions, which may represent an attempt to stanch erosion. V1 and V2 were based on this spill. Below it was a pile of gravel (9c) against the rough flint footing, F, 50 cm. deep, which seems to correspond with the footing, only two courses deep, in section υ. 9c is not primary: below it and driven into the basal ballast, through the ubiquitous dark silty layer, 10 (see below), was a row of riven spiles, G, apparently forming a secondary 'corset' to prevent the spread of the footing, rather than a primary marking-out.

The strata rising from the base to the destruction-layer, 3, may

be divided into the well-compacted layers from 10 or 11 to 7, that is to say those up to the construction of walls Y and Z (with which the uppermost timbers, A1, C1—see p. 90—must be associated), and the looser layers, 6 to 4, accumulated after the construction of Y. All preserved timbers and all excavation by stripping were in the lower, compacted strata.

Layer 10 was a dark, almost black, riverine silt, with the consistency of cheese when damp. It appears also on section ι and something similar, presumably redeposited, was found in pockets in the interior, as against the Hall and in the gully within the curtain. Its even texture, free of peat, suggests rapid deposition under catastrophic conditions, but it was plastic enough to absorb sherds and other fragments. That it had been cast up the slope under the rebuilt curtain, spilling a little into the interior, while some at least of the earliest timbers had been laid into it in recognizable cut channels and others driven through it, indicates that it was present before Phase X, and the absence of yet earlier timbers or pottery in a context so conducive to preservation seems to signify that the area did not then hold a bridge. With one exception, there was nothing older than shelly wares of the 'late X' and 'early Y' types associated with the completion of the hall and forebuilding (not the destruction that preceded the hall).[3] Such wares were plentiful in layer 10, mixed with slightly later forms and fine wares not certainly matched in the interior before Phase Z. The new entrance and the first phase of the timber bridge must be associated with the completion of the hall and gate-tower, with layer 10 exposed to subsequent dropping of rubbish. A comparable layer (10a), under the outer abutment suggests similar exposure for at least another 3 m. and the original bridge may have been one bay longer.

The timbers set in layer 10, or ultimately covered by its fluxion, were: (i) two squared piles (W) and the probable 'ghost' of a third, driven through the layer into the 'ballast', 2·6 m. from the curtain; (ii) two transverse plates, D1 and the heavier C1, with six mortices each; (iii) two massive baulks with chases along the top, T1, T2, butted, not halved, to D1 and C1, but clearly articulated with them; (iv) another transverse plate with six mortices, A1, under the outer abutment. Though all these dormant members have a structural conformity their bedding was not uniform: D1 was in a packed channel cut in layer 10, A1 let into the hard ballast at the bottom of a scooped trench, while the others were apparently sunk into layer 10 where it was plastic. The distance demands at least one intermediate plate: B1 is conjectured from another channel in the ballast but if there were

[3] *Ibid.*, 152. Y5 and the other example cited (properly just *west* of the hall) are the earliest stratified Y-types, the introduction of which seems to coincide with the completion of the hall.

others they need have left no mark below layer 10. These constitute 'phase I' of the bridge (Fig. 2).

The next layers, 9a, 9b, 8, 7, though variable in texture, were essentially dark, gravelly soils, getting darker as they descended and absorbed more organic silt and less gravelly as they moved from the curtain, where 9c was almost neat gravel, yet turning from grey to khaki in the same direction. This gradation was more marked in the rapid fills, 7 and 8, than in the slow deposit of 9a. The pottery content of 9a is indistinguishable from 10, with a predominance of 'Z' types, while that of 7 and 8 is distinctive, with wares down to those of Phase B, perhaps even later. In the outer abutment the ascending strata are a raised causeway of flints in silt, 9d (it seems to date from the long exposure of 9a), and two further elevations, 8a, a thick sandy layer, and 8b, earthy but capped by a flint metalling. Wall Z is cut into these layers.

Generally associated with layer 9, but not necessarily contemporaneous and each in a distinct context, were the timbers grouped as 'phase II' of the bridge and certainly of intermediate date (Fig. 3). These were: (i) a re-used member, D2, evidently once a door-durn, placed in the middle of the articulated frame C1, D1, T1 and T2, to carry reinforcing shores, but set in a channel not unlike that of D1; (ii) a plate at higher level, C2, with only two mortices, apparently reinforcing, but not replacing, C1; (iii) a transverse plate, B2, short like C2, with five mortices, bedded on layer 10 (9a was absent here); (iv) another plate, A2, set in layer 9a and clearly replacing A1. The reinforcement represented by D2, and probably C2, is generally covered by the fluxion of 9a and all associations suggest that it was required not long after the phase I construction and well within the twelfth century. Clumsy though it looks, it was effective and gave the original structure something like a century of further life.

Layers 7 and 8 represent a process and are best described in terms of the timbers they contained, the cleaning and lifting of which was the chief consideration in excavating at this level. Within the area of the inner abutment the process is clear: the superstructure of plate D1, probably five uprights and one shore (U1–U6), sheathed on the side towards the curtain by six strakes of horizontal planking, H, was pushed bodily over, away from the curtain, without displacing D1 more than a few degrees, to form a raft or 'frame-gate' on which to build wall Y (Fig. 5, A before, B after, lifting of planks). The rest of the primary structure had been largely removed, but the casting-down of one transverse frame ensured its preservation to a height that would have been impossible had it remained upright. Layer 8, a khaki clayey soil with diminishing gravel, was sandwiched between the felled frame and layer 9a. Layer 7, a spread of re-deposited gravelly soil, extends

from the obviously contemporary 'stanching' of flint at the foot of the curtain (7a), over the frame and some distance into the moat, to form the final bedding of wall Y. It sealed off the driven piles, W, and a long morticed plate, E, was laid obliquely in it in such a position that it could not have functioned as an articulated member, but merely as a binder for the earthen abutment, and perhaps for V1 and V2 (Fig. 4). Of the new functional plates, C3 was laid into layer 7, B3 and A3 laid on the older surface: a secondary silting, 7b, covered all three. Subsequently, a pile of flints and Roman tiles, 5a, had been cast on the far side of the moat and had already acquired a topsoil, 5b, before the ditch was cleared out and then refilled to some depth with soil and flints but no occupation rubbish, 5c. All this took place before the final dismantling.

A static section of timber bridging must have joined wall Y to the curtain since the inner earthen abutment was not completed as the outer was. These two, together with plates C3, B3 and A3, represent phase III (Fig. 4) of the bridge, which was never replaced; hereafter a ramp sufficed. The trestles carried on C3 and B3 were cast down in the final dismantling, that is at the end of Phase D, or at least, Phase E, since they are buried in débris, beneath which were also what are probably to be identified as slight remains of their collapsed uprights. The truss on A3 may have decayed *in situ*, as the foot of a brace remained upright in its mortice.

The finds were concentrated at the junctions of the layers, mixed with oyster-shell and other food-remains, particularly on the surface of layer 7 and where 7 lay unconformantly on 9. The subsequent layers 6 (within wall Y, loose gravel and flint) and 6 (within the moat and providing a clay bed C3, B3 and A3), which completed the final bridge, were barren. Roof-tile and pottery, apparently already of 'D' types, begins again, in small quantity, in layer 5.

Within the moat, but not on the axis of the bridge, and on the top surface of 5b, a light, nailed lattice-work of riven slats, little more than laths, was found. It can hardly have been part of a parapet and, if not just a hurdle, may be a piece of the filling of some 'open' timber frame.

The North-West Section (Figs. 7, 8)

As already mentioned (p. 87) the reason for the section at ι was to test whether an early access to the Castle existed there. The trenches, dug with contract labour in 1972, were initially laid out as co-ordinates but the cross became a Lorraine cross when extended to examine the timber (Fig. 8). Only the principal transverse section, completed on an offset line, is published; the rest of the trenches merely repeat the sequence.

Five major stages emerge (Fig. 7):

Stage	*Layers*	*Description/interpretation*
V	1	Phase K (eighteenth century) and modern.
IV	2–3	Phase D, occupation *c.* 1300 to dismantling in 1312.
III	4	Silting-up of moat, perhaps mainly during divided tenure from 1261, or even from the time of mounding.
II	5–8	Late eleventh-century gravel mounding in advance of building the curtain wall.
I	9–10	Bed of pre-curtain 'proto-moat' containing early wares.
Pleistocene		Yellow current-bedded gravel, *not* 'clay-with-flints'.

Stage I. Layer 10 was a thin (max. 5 cm.) band of clayey gravel on the natural, compacted as though it had been trampled. It contained the hand-made bowl-sherd (Fig. 10, 3). Layer 9 fills the primary moat-channel, a sticky black-to-khaki silt, similar to, but 'fouler' than, layer 10 at the bridge (p. 94), containing wood-ash, wood-chips, twigs and leaves (indicating stagnant water) and wares with coarse shell of the 'Wc to Xc' fabric. The 'proto-moat', with its flat floor is clearly artificial, even if made out of a natural river-meander. The only substantial relic of occupation before the curtain was a straight length of cleft timber, well preserved and lying with one end in the mud and the rest aslant the strike of the tipped gravels. It had no evidence of carpentry or nails and, while it may have served some temporary purpose at the time of mounding or actual building (it would fit a putlog-hole neatly), the fact that it could have been retrieved suggests that it was just thrown away, stuck in the mud and keeled over.

Stage II. Gravel layers, 5–8, represent a mounding, visible also within the curtain (section δ), where it was cast up over the more typical clay-with-flints. It contains a very few fragments of pottery of the 'coarse-shelly' fabric exemplified in groups Wc and Xc and nothing later, even in the upper layers 5 and 6. The rising sequence was: 8E, yellowish, finer and more compact than 8D which was very unstable, of water-worn cobbly flints covered in fine silt percolated from above; 8C, a lens of yellow gravel; 8B, a thin band of khaki silt, like layer 9, which may represent a respite, a flood during mounding or just a re-deposition; layer 8 proper, barren, mixed brown soil and gravel, becoming increasingly heavy and cobbly as it fanned out over the primary silt; layer 7, brown sandy soil mixed with small yellow gravel and one or two sherds. The freshly cut section showed yellowish-green sandy streaks. Layer 6, a yellow gravel, similar in appearance to the bed-rock of the moat, may represent a cleaning-out or even spoil left over from the cutting of the new bed, for layer 5, a mixture of small

gravel and silt, seemed to dribble across the moat-floor in a thin trampled layer, like 10. The flat bottom of the new moat, already achieved, had a hard metalled surface of packed flints, extending to the point where the 'natural' rises to the outer lip and showing the original full width at this point, beneath the later constriction.

Stage III. Layer 4 consists of a thick bed of soft, clean brown silt, deposited in a sluggish stream—not, however, stagnant and prone to the suffocating effects of a build-up of leaves, as small freshwater molluscs and quite sizeable freshwater mussels lived there (as they did in layer 10 at the bridge). In view of the swift current of the Darent, we may infer that the flow was regulated in some way, a condition also implied in the bridge area by the many small fragments of timber that remained *in situ* and were not swept away. The lowest three-quarters of layer 4 is crazed with mud-cracks, sealed by a 5 cm. thick shell-bed, succeeded by silt which was glutinous when the stage IV dumping took place. Nearer the curtain the silt is compressed, where not actually mixed with building débris, while the largest lumps of mortar, flint and tile embedded themselves in the silt matrix. The silt is varved. It is hoped that analysis of the varves, not yet available, will show the duration of the present silting and, hence, whether the moat was cleaned out or not. It would seem unlikely that it was not cleaned so near the high garderobes, but unless the silt is thus undisturbed it is impossible to discount an early access to the Castle at this point.

Stage IV. Chiefly represented by the layer-3 matrix of variable brown soil, flecked with chalk and mortar and containing pottery, animal bones, Roman tile, including *tegulae*, and medieval roofing-tile in great profusion, but dominated by heavy, packed flints, rammed down hard, especially approaching the curtain. This dense material and the yellow mortar and chalk of layer 2 ran under the forward face of the curtain as far as a line of resistance, almost certainly the face of its original footing (probed, not excavated, for fear of weakening the wall). The forward face at this level is clearly that of an added thickening, not well bonded to the main body, though the upper thickening, supporting the garderobe, may be integral and corbelled out. The rammed material was intended to underpin the basal thickening, which may therefore be ascribed to this late period, though too shallow to be more than a 'strip-buttress'. At this point the wall itself is based on gravel: the fissure that began the collapse of the riverward section is nearby and the wall was underpinned and buttressed by E. D. Till.

The range of pottery from layers 2 and 3 is peculiar—shelly wares of 'Y' and 'Z' types and then a 'jump' to a very consistent group of good-quality 'D' type wares. Joins between sherds in 2 and 3 showed them to have been laid down together, but generally the sherds of the

same 'D-type' vessels were distributed throughout layer 3 from the curtain down to the silt, while the shelly sherds, which must be residual, were in clutches. The unambiguous D-period assemblage, mixed with débris, suggests that the underpinning actually followed the dismantling of 1312: it has already been noticed that the flimsy walls of Phase E were mainly in this corner.

Stage V. No deposit records the lapse of four hundred years to Phase K, the kennels, but the hounds are graphically evidenced by the large quantity of butchered bones from layer 1B, a blackish dead humus which contains much broken flint, especially in the hollow which inexplicably cuts down to the moat bed. None of the upcast spoil was backfilled, no stratigraphy was discernible and none of the few scraps of delft and country earthenware merits illustration. From the topsoil, 1A, stoneware ginger-beer bottles and marmalade pots, glass soda bottles and willow-pattern may record nineteenth-century picnickers.

Conclusions. The most important is that an early moat, apparently with some occupation, existed, for however short a time, before the mounding that carries the curtain and, *a fortiori*, before the earliest Phase 'W' deposits in the interior, which are contained by the curtain. Is this Ralf fitz-Unspac, rather than the young William I? The new moat, dug to run with the curtain, produced no positive evidence of access in this sector, nor indeed of any constructional activity until the repairs that must be very close to the Phase D dismantling.

Interpretation of the Bridge

Definitive information about the species of the timber and dendrochronology are not yet available, but there was a sharp difference between timbers lying in similar conditions of good preservation, far from the 'threshold' where they faded into sponginess and stains. Some were blackish, hardened on exposure, and were successfully lifted, for study *ex situ*; others were reddish-brown and fresh-looking, but decomposed rapidly and were impossible to lift complete. This difference covered heavy plates manifestly of the same build and was at first thought to be merely that between oak and elm, but it now appears that oak and elm were both present in the first category, and the second, provisionally, may include willow. Details of tooling have been observed in the lifted timbers, as in the mortices (whether drilled and chiselled or merely chopped out), or the pegs and peg-holes (whether round or oval, to allow for some wedging effect). These points are reserved for a comprehensive comparative treatment.

Date. The arguments, stratigraphic and structural (for neither is conclusive in itself) have been given in the excavation section (pp. 88-96) for the unity of the timbers classed in phase I and in phase III, for the intermediate date, but not necessarily structural unity, of those

classed in phase II, for the high probability that the timbers (U1–U6) which stood in the mortices of plate D1, together with their sheathing of boards, were the originals, from phase I, lasting until they were cast down as a bed for wall Y, and for the association of the phase III plates with walls Y, Z and probably V1 and V2. Of the superstructure of this phase only the foot of one brace remained upright in plate A3 and ill-preserved timbers that appeared to have fallen forward towards the centre of the moat were probably those that had stood in the mortices of A3 and B3. Part of one substantial and apparently original upright, U7, remained on plate C1 (Fig. 5), All other fragments, including the relatively large and well-preserved SP1, are impossible to place with confidence.

The finds, almost entirely from the area of the inner abutment, i.e. around the C and D timbers, make it clear that the phase I structure (Fig. 2) dates from the transformation of the Castle which closes Phase X and begins Phase Y and is probably to be assigned to William of Eynsford II in the 1130s, possibly to the early tenure of William III. They also indicate that the phase II *reinforcements* (Fig. 3, C2, D2) were inserted after quite a short interval, within phase Y, i.e. they are also mid-twelfth century. This does not necessarily apply to B2 or even A2 (which has a few associated finds): the trestles they supported were closer in form to those of phase III than to the primary ones, but there was a considerable interval between them and phase III, so that they can hardly be after the early thirteenth century. None of these include the notched laps which are the most diagnostic joints of this age.

The dating of the phase III bridge (Fig. 4) relies more on the time required for the erosion of walls Y and Z and the accumulation within the moat, before the phase D dismantling, than on the finds associated with its construction. These at first seemed anomalous: the fresh shelly wares are of types associated with phase B or, more or less identical and designated BC, with the only, and immediately conformable, layer from Phase C present in the interior[4]—types, in any case, extinct by phase D; but the sand-tempered wares are closer, as a sample, with a high proportion of rims without upper bevel, to those of phase D than of phase B. The hypothesis of an interval, *c.* 1266–*c.* 1300, of royal custody followed by divided tenure, does not preclude good management. A new, non-defensive bridge would fit well early in this context, say *c.* 1270 and would give a new dimension to phase C and to the latest group of sandy wares.

Structure. The basal supports—usually all that remains *in situ*—of

[4] *Ibid.*, 156.

timber bridges in moats have been classified[5] as: (1) earth-fast posts; (2) isolated transverse sole-plates,[6] sometimes crossed by short toe-pieces,[7] which carried separate trestles; (3) quadrilateral ground-frames with sole-pieces in both directions,[8] which carried various rigid, belfry-like structures. Most known bridges fall into one only of these categories, but the phase I bridge at Eynsford incorporates elements of all three. The categories should be regarded as functional rather than chronological. At Hen Domen, Montgomeryshire,[9] the earliest bridge, older than anything at Eynsford, has a basal plate and its successors have earth-fast posts.

Phase I (Fig. 2). It is suggested that the earth-fast posts, W, were the intermediate shock-absorbers of the simplest kind of drawbridge, a mere pivoted 'lid', without counterpoise, without 'legs' and without parapet, but long enough (3·60 m.) for its trailing edge to have reached the rigid structure, or pier, based on D1, C1, T1 and T2. The weakness of this pier, as reflected in the phase II reinforcements which cured it so effectively, was in withstanding compression towards the axis rather than towards the curtain. It was an odd, somewhat hybrid structure, differing from most of its kind, including the probably earlier one at West Derby, Lancs.,[10] which were closer to timber 'belfries' of the kind that existed in the middle of the first castle at Eynsford, having plates of equal scantling on all four sides, trenched, or at least halved, over each other at the angles and meant to take the evenly distributed weight or fall of the bridge. The crude and apparently late structure at Elmer's End, South Norwood,[11] seems also to be anomalous in this respect. At Eynsford, it included two transverse plates, C1, D1, of different scantling but otherwise identical with each other and with the free-standing A1 and B1, not only in plan but apparently in the general pattern of the superstructure: six tenoned members, of which the central four were upright, the upstream terminal one, and less certainly the downstream, set obliquely, bracing horizontal to horizontal, rather than acting as a shore to a vertical. These members

[5] Besides the forthcoming discussion in *Château Gaillard*, vi, cf. D. F. Renn in *Trans. London and Middx. Arch. Soc.*, xxv (1967), 224–5, and F. J. Huggins in *Med. Arch.*, xiv (1970), 60–3.

[6] Perhaps closest to Eynsford, Bushwood, Lapworth, Warwicks., *Med. Arch.*, vi–vii (1962–3), 336–7.

[7] e.g. Bodiam, Lord Curzon, *Bodiam Castle* (1925), 89–90, re-excavated 1970 by D. Martin, *Bodiam Castle Medieval Bridges*, Hastings Area Arch. Papers, 1 (1973).

[8] e.g. West Derby, Lancs., *Univ. Liverpool Annals of Archæol. and Anthropol.*, xv (1928), 47–55; Acton Burnell, Salop., *Med. Arch.*, viii (1964), 272–3; Leckhampton, Glos., *Trans. Bristol and Gloucester Arch. Soc.*, xv (1928), 47–55; Beckenham, which also has horizontal planking.

[9] *Château Gaillard*, iii (1964), 15–27.

[10] *v.s.*, note 8.

[11] *v.s.*, note 8.

on D1 (Fig. 5) were mere studs; on D1, a much heavier plate, at least the second and fourth were substantial square posts that could have framed a kind of barbican gate above the walkway.[12] There is a resemblance to a transverse and a terminal frame of an aisled building, which is carried further by the totally different treatment of the sides of the structure, analogous to a stave-like side-wall in such a building. The lateral plates, T1, T2, are more massive even than C1, but only butted on to the transverse plates and secured at one end only by small pegs. Along the top of each is a wide channel which seems intended to take a continuous row of stout vertical planks, all missing. This is a work of a house-carpenter rather than an engineer.

Phase II (Fig. 3). Like the independent trestle-plates, A2 and B2, the reinforcing plates, C2 and D2, have mortices drilled before cutting. C2 carried two vertical members only. D2, laid in the middle of the existing quadrilateral frame, was certainly a re-used timber, but the mortices operative in the bridge seem to be those for a pair of uprights as in C2 and an oblique notch with a peg, like the seating for a rafter in a wall-plate, was almost certainly to take a shore from the upstream lateral wall. The original function of D2, which had an almost 'clubbed' head and a long rebate with pegs in pairs, may well have been as a door-durn, with half of an arched head set in the rebate, but it is hardly strong enough to have served in the main castle-gate of phase W. A2 and B2 have five mortices, of which the outer pair is clearly for braces, passing rather than entering the uprights: the arrangement seems to have been identical with that of phase III, but no member of either phase was complete enough to measure the angle of intersection.

Phase III (Fig. 4). The timber bridge was now reduced to the space between the abutment-walls Y and Z, but the longitudinal plates must have carried back to piers *v*1 and *v*2. Though more weathered than the other, plates A3, B3 and C3 apparently carried trestles of the same elevation, the outer mortices holding braces, the other three uprights. The foot of the downstream brace which remained in A3 was square in section and scribed round the curvature of the plate A3 and C3 must have derived some support from the flint walls, while the free-standing B3 was broad enough for the mortices to be 'staggered', allowing a strong halving of the braces and uprights. Wall Y, linked by plates to *v*1 and *v*2, formed an essentially hollow abutment, never completely filled, and in a sense, a larger successor to the primary timber caisson. Wall Z revetted a solid embankment. One other substantial timber, E, lay obliquely just below the 'threshold' of observation, as though thrown down to bind the contemplated inner embankment and support the timber lacings of *v*1 and *v*2, but not

[12] As in the reconstruction, *Arch. Cant.*, lxxxv (1971), 140.

articulated with them. It was longer than the others and clearly re-used, but the regular mortices and lack of scarf-joints do not suggest that it was once a longitudinal plate.

The Finds

I. *Building materials and objects of stone*

1. Dressed masonry: very little—slivers of coarse-tooled rag, some surfaces rounded, in destruction-layers of bridge, no doubt from the gate-tower, where the débris included a larger, bull-nosed section with a hollow channel along one flat face, with traces of burning (a string-course with a drip-runnel?). Norman-looking, but coarse rag dressings at Eynsford occur in the hall after the thirteenth-century fire.

2. Roman bonding-tile: little, considering that at least the inner arch of the gate-tower was turned in this material. Occurs in the basal and destruction layers of the bridge and, re-deposited with flints, towards the outer slope (layer 5a). One piece bears the imprint of a boot—five rows of hobnails on the sole, a row round the heel and a looped ornament within it.

3. Medieval roofing-tile: plentiful from the destruction-layers, as in the Phase D strata of the interior. Also a number of fragments from layer 8, sandwiched between the basal timbers and overthrown uprights of the phase I bridge, not all of the earlier type (first report, Fig. 8, 5) and including pieces with olive and orange glaze. This, with the associated pottery, of phase B and apparently later, confirms the late date of the phase III bridge.

4. Rhenish lava quern (Fig. 9, 3) from the otherwise barren clay-with-flints build-up within the gate-tower, contemporary with the new entrance (end of phase X, before the middle of the twelfth century). A sector of a lower stone, diameter over 60 cm., i.e. enough for a water-mill, but with a slightly raised rim. Coarse radial dressing, rough pick-tooling on underside. Source probably Mayen (Andernach and Niedermendig were trading-points).

5. Globose mortar (Fig. 9, 1) in coarse, not dense, pale grey calcareous sandstone, with a little fossil shell, from bridge, layer 5. The form is usual in the late thirteenth century and *c.* 1300 for mortars not of Purbeck marble,[13] save in having an everted base, not a base-roll, and the lugs squared off at the bottom. Fairly smooth tooling inside and out and little sign of grinding: the material was poor and it soon broke.

6. Truncated conical mortar with strip-lugs (Fig. 9, 2) in Purbeck

[13] Cf. mortars of Caen-stone from Dover, *J.B.A.A.*, 3rd ser., xxxii (1969), 82–4; of Burr-stone from Northolt, Middx., *Med. Arch.*, v (1961), 279–84; and of rag-stone (?) from Beckenham.

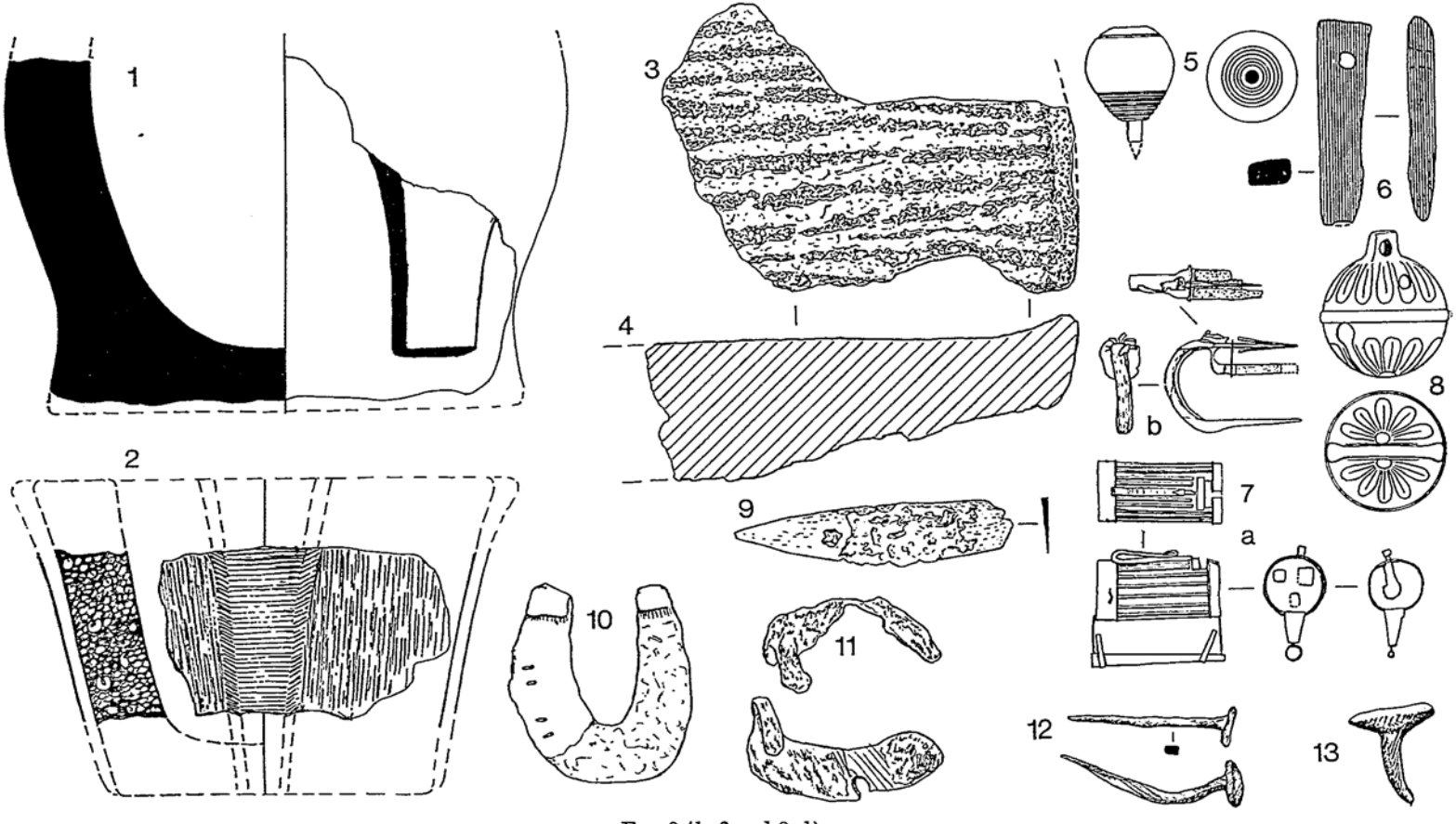

FIG. 9 ($\frac{1}{4}$; 6 and 8, $\frac{1}{2}$).

marble, from bridge, layer 7 (destruction of phase I bridge in preparation for phase III). Only a lateral fragment, but the form is usual for Purbeck mortars of the second half of the thirteenth century.[14] Exterior roughly tooled, vertically on body, horizontally and obliquely on lug; interior ground smooth but more towards base than sides.

7. Slate whetstone (Fig. 9, 6), from bridge, layer 9, under collapsed upright. Rectangular section, 5·5 cm. long, perforated at top for suspension.[15]

II. *Objects of metal, with some unreported late material*

1. Barrel-padlock of copper-coated iron (Fig. 9, 7), from bridge, top of layer 10, i.e. with strongly twelfth-century associations. Barrel diam. 3·0 cm. Quite well preserved, thin metal, delicate workmanship, with fluted barrel and terminal hoops. The barrel, hasp and spring are shown from all aspects: a, barrel and tube; b, hasp and spring.

The remains of another barrel-padlock, from the fire-level in the solar undercroft, BB, early to mid-thirteenth century, have been identified though not included in previous report. Also of copper-coated iron, barrel-diameter 2·2 cm.[16]

2. Short iron knife-blade with traces of leather sheath (Fig. 9, 9), from bridge, top of layer 10. Cutting-edge hammered (possibly welded on) and honed.[17]

3. Horseshoes: several from the upper or destruction (3a–3b), and lower (8) layers of bridge, not well preserved and generally like those from phase D in the interior (first report, Fig. 9, 5–8); one (Fig. 9, 10; from π, 10) has more prominent calkins and rather different holes.

4. Edge or cladding of wooden implement (?) from π, 8 (Fig. 9, 11). In same layer, a 'doughnut-like' ring, diam. 8 cm., section-diam., 3 cm. Both of iron, very corroded.

5. Nails: few, especially from lower bridge-levels; large structural nails and low clouts (Fig. 9, 12, 13) from dismantling-layers of bridge, but not enough to suggest that the great gates fell outwards.

6. Small ferrule of copper-alloy from bridge, layer 10.

7. Horse-bell (Fig. 9, 8), cast in copper-alloy with surface-enrichment of tin, from uncertain high level, presumably phase K.

8. Whip-top (Fig. 9, 5), omitted from previous report, from behind final blocking of garderobe f1, presumably phase K. Oblate pear-

[14] Cf. mortars from Northolt and Winchester, *Med. Arch.*, as note 13, and from Dover, *J.B.A.A.*, as in note 13, 82, 102, and xxx (1967), 107, 117.

[15] Cf. one from Dover, mid-thirteenth century, *J.B.A.A.*, xxx (1967), as in note 14, but the type is found at least back to Viking contexts.

[16] Cf. London Museum, *Medieval Catalogue* (1954), 146, but there is now material for a fuller study, e.g. a very close parallel in a fifteenth-century context (!) from Boston, *Lincs. Hist. and Arch. Soc.*, i, 7 (1972), 40–41.

[17] From X-ray examination.

shape, turned in fine-grain (fruit-tree?) wood, with one groove above, several below and iron spindle (point broken), wedged with wood.

9. Fragments of large iron chain (?) in moat south of wall Y. This and the following (III) not yet analysed.

The hinge, Fe1, described in the previous report, has been found to have had its ends more recurved.

III. *Leather*

Offcuts of shoe-leather, in a ball, from bridge, layer 10.

IV. *Pottery*

General. The pottery from the moat augments the corporate series in the previous report and will be set against the classification proposed there, in which the coarse wares were divided into major groups labelled, in upward progression, W, X, Y, Z, A, B, C, D.[18] It was argued that the predominance of each group coincided with phases in the history of the castle and the pottery from the moat is consistent with this pattern. Reference to related examples in the first report will be made thus: 'D4', 'Z3' (i.e. to group and individual number, not to page or figure). Those first described in this report will be designated by figure-numbers, under group-headings. Contexts are given briefly *in brackets*, the relevant section, ι or π, followed by the relevant layer-number.

(i) Shell-gritted wares (Cooking-pots unless otherwise noted).

Very early types. Clumsy hand-made vessels from re-deposited material (ι, 1B); heavily leached fabric, externally dark drab-grey, internally light greyish pink and buff; not related to anything else known locally but late-Saxon rather than Iron Age.[19] Fig. 10, 1, may be a bowl or part of a small, flared-rim cooking pot. In fig. 10, 2, the angle of the rim is uncertain, owing to unevenness.

'W–X' types. With large shell-fragments, the fabric continuous as 'Wc' and 'Xc' and dominant in the early pots from Lullingstone.

Fig. 10, 3 (ι, 10, trodden into clean yellow gravel floor of moat), hand-made bowl, rather uneven; the fabric of this, the earliest stratified sherd from the castle, is like L7, L9 but softer; orange, oxidized surface, grey reduced core; upper inner surface of rim decorated with light finger-tipping. Wall-sherds in typical Xc fabric (finer, harder, very thin, dark grey, directly paralleled from footings of cross-wall of hall, section β) occurred in ι, 10 and π, 10.

Fig. 11, 2, probably from a small, flared-neck cooking pot, is in similar fabric but with small, relatively sparse shell, approaching 'Xa'.

[18] *Arch. Cant.*, as note 1, 149.

[19] In the opinion of Mr. J. G. Hurst.

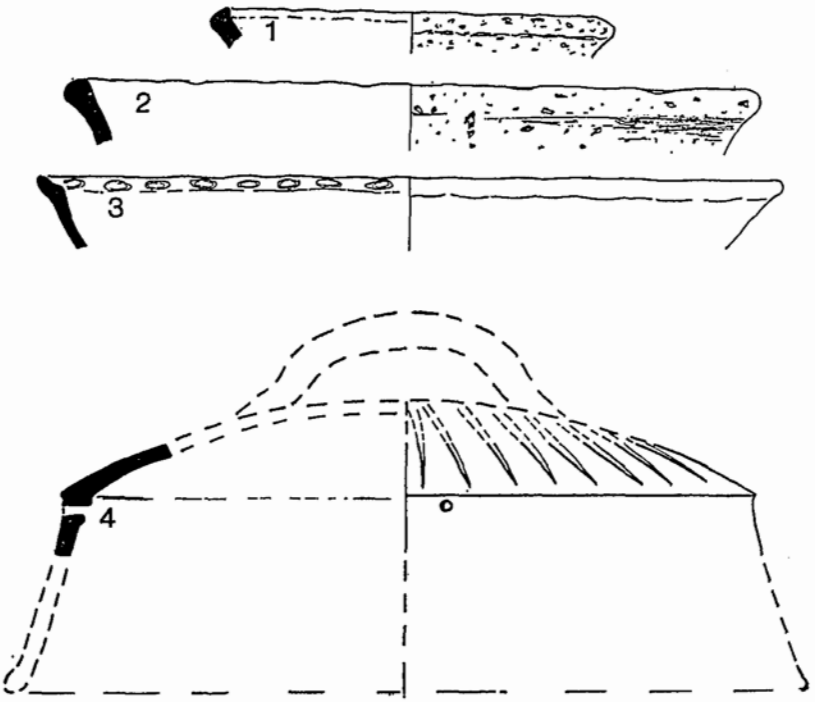

FIG. 10 (1/4).

'Y' types. These pervade the bridge layers 9 and 10, at least 12 vessels in all. The reconstructible profiles (Figs. 11, 3; 12, 2) suggest that cooking-pots are still generally globular. The two rim-forms, Y, a and Y, b, noted in the previous report are followed.

Y, a rims: Fig. 11, 3 and 4, Fig. 12, 1 and 2 (all *π*, 9b). The typical thumb-strips, smudged onto the body, contrast with the neat ones on the contemporary sand-tempered wares.

Y, b rims: Fig. 11, 5 and 6 (*π*, 9a), Fig. 13, 2 (*ι*, 3) augment the series.

'Z' types. Hardly any Z-type profiles from the bridge, except the precocious-looking Fig. 11, 1 (*π*, 10). Fig. 12, 3 (*π*, 8, so not sealed until much later) typifies the Z-type curvature, with slight thickening on the shoulder and wide, slightly hollowed, turned-down lip.

The re-depositions of section *ι* produced more. Fig. 12, 7, 8, 9 (*ι*, 2), variations of the Z repertoire, emphasize the coherence of this group: 8 is a variation of Z10, exaggerated in 7, while 9 echoes Z8.

Fig. 13, 1 (*ι*, 3) is an enormous, thumb-stripped pot (42 cm. high, 50 cm. at widest point, 38 cm. across the mouth) which could stand

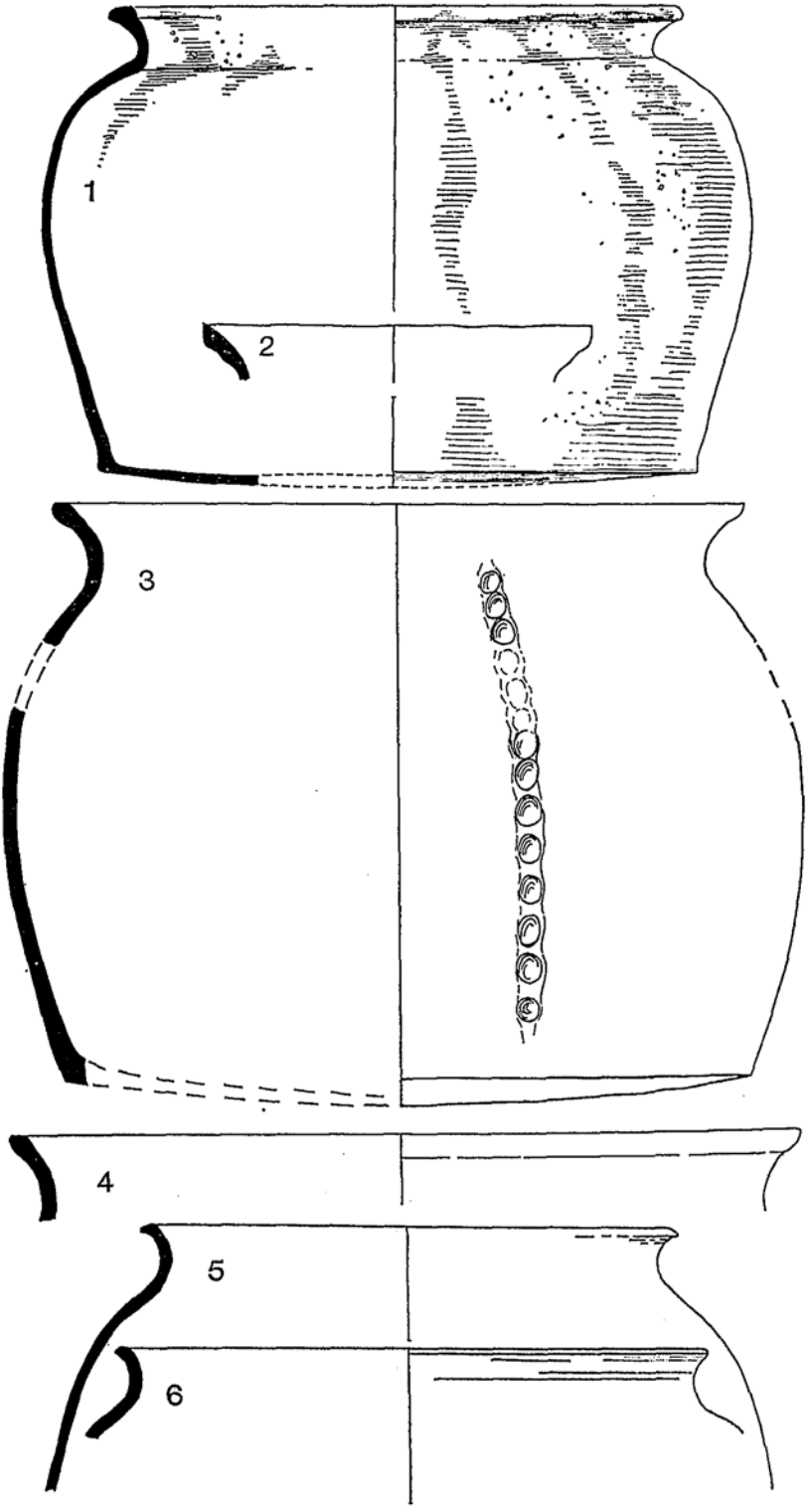

Fig. 11 (½).

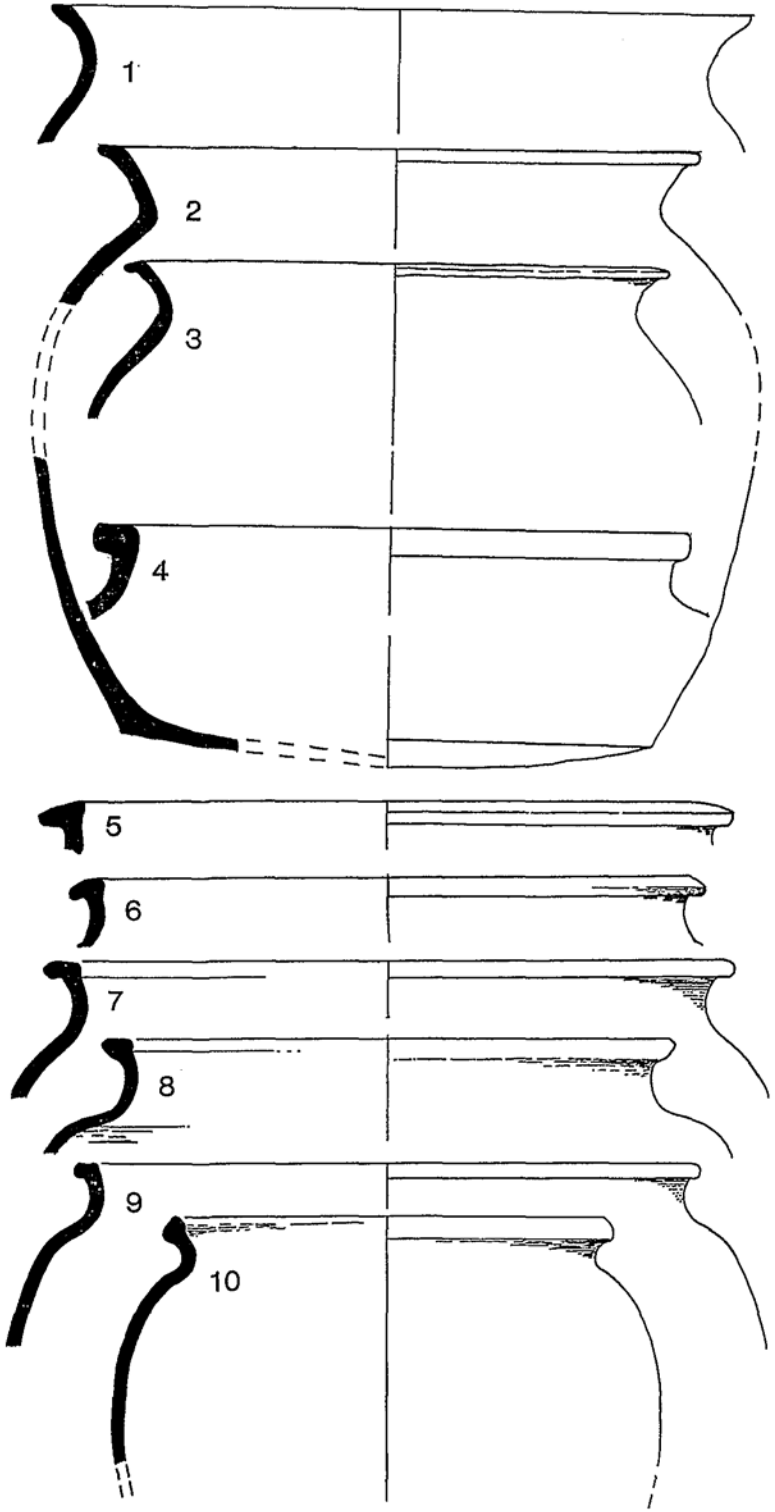

FIG. 12 ($\frac{1}{4}$).

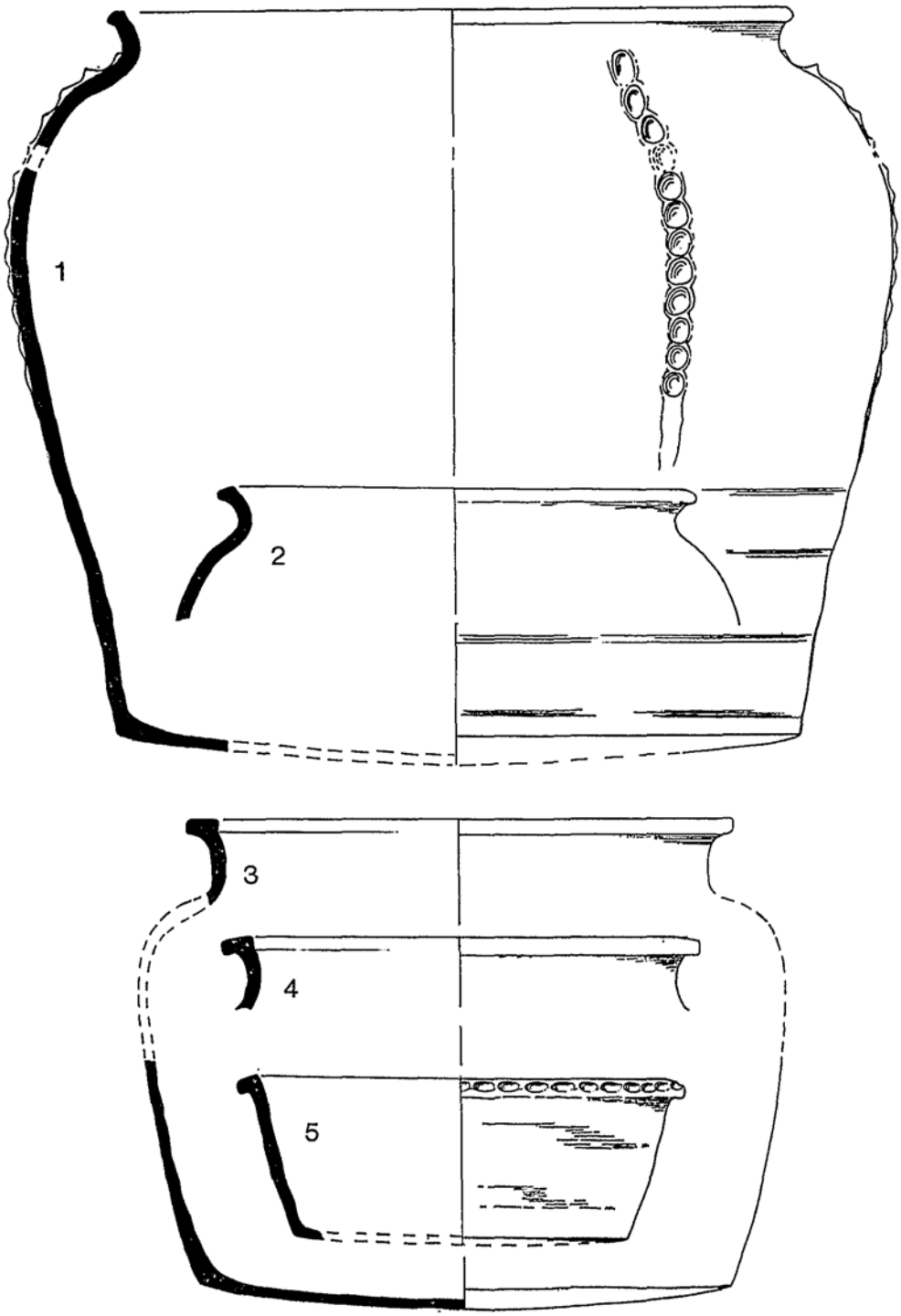

Fig. 13 ($\frac{1}{4}$).

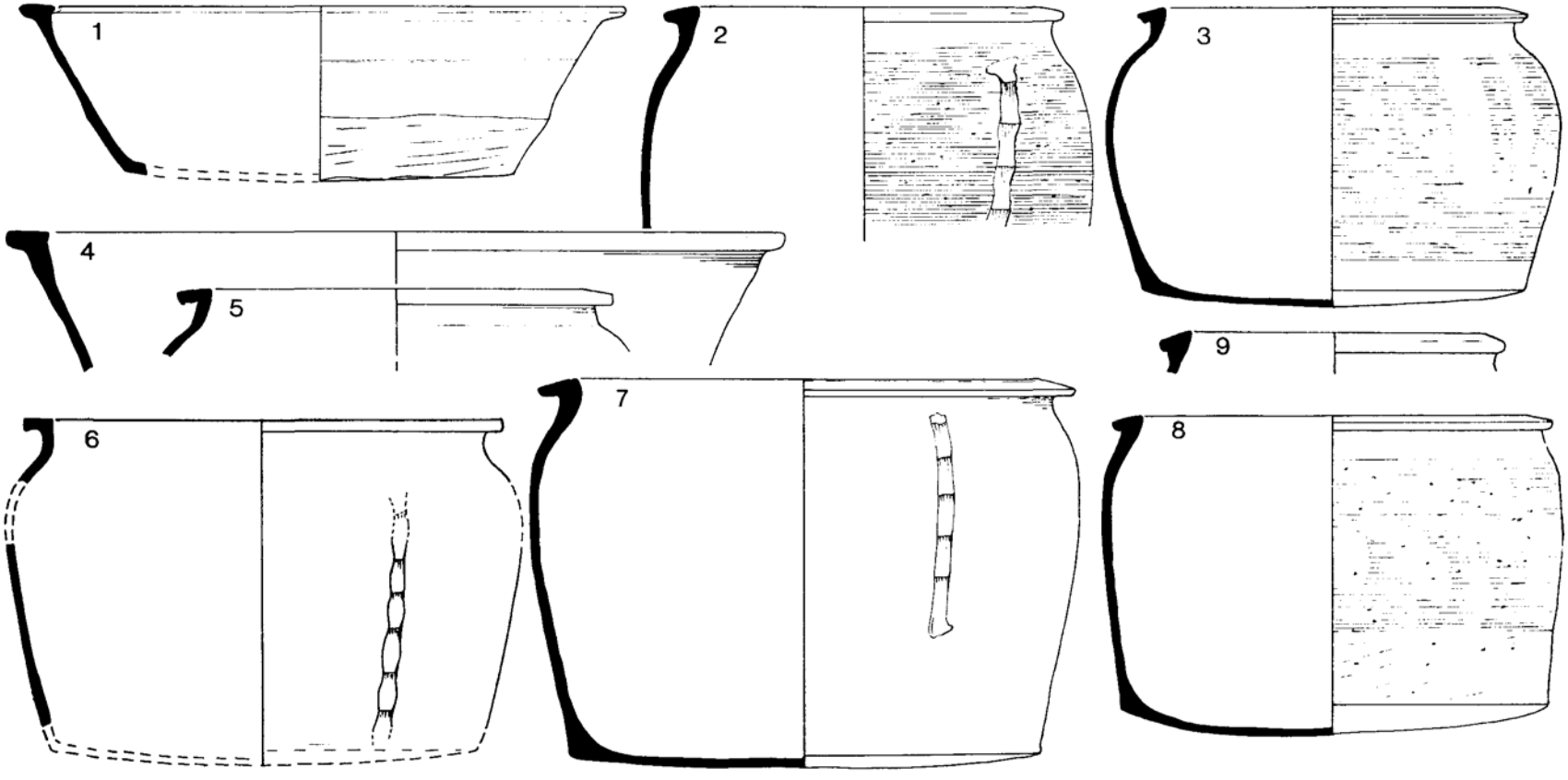

FIG. 14 ($\frac{1}{4}$).

[*face p.* 110

alongside the great pot found and exhibited in Yaverland church, Isle of Wight. The high walls appear to have been achieved by coil-construction, indicated by the thick undulations of the lower body, which has been hand-smoothed while the rim and shoulder were finished on a wheel as opposed to a turntable.

'A' types. In the lower bridge layers, and even in π, 8, only Y and Z shelly types occur, but in π, 7, they are supplanted by A and B types.

Fig. 12, 6 (π, 7) and Fig. 13, 3 and 4 (ι, 3) have rims of A, c form, the most persistent form, with the inner bead, and the only one observed here. Fig. 13, 5 (ι, 3), one of the rare shelly bowls, could be classified under A or Z, but the soapy feel links it to the A group.

'B' types. Fig. 12, 4 (π, 3, derived), with club-like rim-form, B, a. Fig. 12, 5, has the broad flange, turned down, the 'B, b' rim-form, dominant in π, 7 and also among those grouped as 'BC' in the earlier report, confirming that it is generally the later form, marking the demise of the full-shelly fabric, save (?) for the following:

Fig. 12, 10 (ι, 3). In this the fabric conforms with that in A and B shelly wares, but the rim matches that of sand-tempered D wares, which can now (see below) be traced back to the age of π, 7.

(iia) Sand-tempered wares with variable admixture of shell.

The 'shelly-sandy' fabrics of the 'main series' in the previous report pass in a continuum from shelly with a little sand to full sandy with the sparsest addition of shell and may be subdivided as follows:

SSa. Relatively thick, coarse, even crumbly when leached, body and core; generally, a fairly uniform light grey.

SSb. Relatively thinner, finer, tending to dark grey or black.

SSg. Dark grey, slightly shell-gritted, resembling SSb but thin for their relatively rough surface with markedly regular latitudinal striations, a London-Middlesex feature.

Where definition between SSa and SSb is ambiguous the term SSa/b will occasionally be applied. In the moat excavations cooking-pots outnumber jugs, which exceed the number of bowls.

Shelly-sandy wares stratified with Y shelly in bridge, layer 10. In the interior the 'main series' of sand-tempered wares could be traced, with little change of fabric, at least back to phase Z, but only in small numbers. π, 10, produced a larger sample, firmly associated with Y wares as well as Z.

SSb. Fig. 15, 11, Jug-base, slightly sagging, thin walls, fine sand, sparse shell, body grey throughout with smooth black surfaces.

SSg. Fig. 15, 6 and 9. Thin, hard, very regular jug body-sherds, sparse, rather leached shell, charcoal-grey surfaces grading to lighter core. The distinctive striated surfaces are decorated on 6 with wavy comb-lines and on 9 (cf. the pitcher, Z19, in oxidized sandy fabric) with carefully applied thumb-strips.

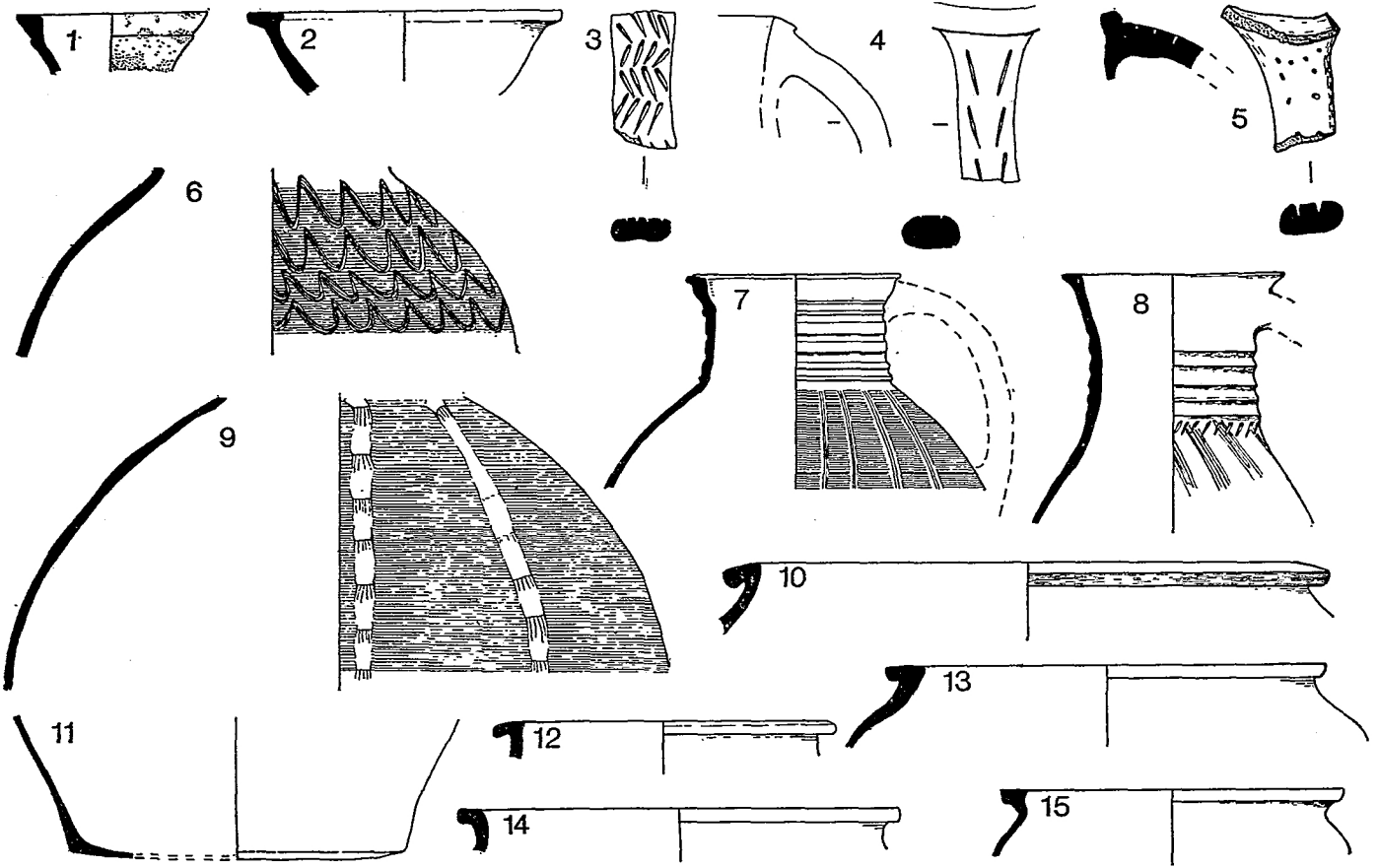

Fig. 15 (¼).

Shelly-sandy wares of B-types, i.e. with the slight upper bevel that was almost universal in the typical B layer behind the hall.

SSa. Fig. 15, 14. Cooking pot from π, 7, with the form of B17 but a hollow upper surface to the flange, as B20.

SSg. Fig. 14, 6 (ι, 3) and Fig. 16, 11 (π, 3 or near) are both in a harder form of SSg than those with D-type rims (Fig. 14, 2, 3, 5, 8), preserving the sharp outlines to the flange as well as the hard fabric of B12. The straight-sided walls are shared by the comparable D-rim pots mentioned above.

Shelly-sandy wares of D-types. Only the most typical profiles (D, b, c), with level or down-turned flat flanges, without upper bevel, are found. These are absent from the sealed B level behind the hall, but it cannot be asserted that absolutely none of the comparable vessels classed as D in the first report came from the A or B soils covered by the débris, but otherwise unsealed. Since it is abundant in π, 7, the unbevelled form must have evolved quickly soon after Phase B.

SSa. Fig. 15, 13 (π, 7). Fig. 15, 7 and 11 (π, disturbed layers); the former placed here for its ashen colour and coarseness, but striated as typical in SSg fabric.

SSb. Fig. 15, 15 (π, 8), thin-walled unrilled cooking-pot.

SSa/b. with turned-down rim (D, c). Fig. 15, 10 (π, 8). Fig. 15, 12 (π, 7). Fig. 14, 7 and 9 (both ι, 3), the last buff-coloured throughout.

SSg. Fig. 14, 2, 3, 5 and 8, which, with Fig. 14, 7 and 9, form a consistent group from ι, 3, are true phase D vessels of the last occupation. Notice the relatively thin walls of 2, 7 and 8 and the knife-trimming of the lower body of 8. Except for 3, the neatest cooking-pot found, which has a buff body, the surfaces are generally dark grey to black, sometimes with brownish oxidation just below the surface.

Shelly-sandy bowls. SSa/b. Note the inner bead, generally characteristic of D-type *bowls*, with flat topped rim, occurs in the stratigraphically early Fig. 15, 2 (π, 8), blackish and smooth-surfaced, as well as in the presumed late Fig. 14, 1 and 4 (ι, 3); the latter is buff throughout, like Fig. 14, 3.

Sandy-shelly jugs. Few, but typically D-types, with stabbed handles.

SSa. Fig. 15, 5 (π, 8) and Fig. 16, 12 and 14 (π, upper layers), stabbed strap-handles, unreconstructible.

SSg. Fig. 15, 7, in the tradition of the much larger striated jugs, Fig. 15, 6 (with wavy combing) and 9, all from ι, 3. Fig. 15, 7 has a short, corrugated cylindrical neck and flared, cusped, flat-topped rim, slightly pulled out to pour.

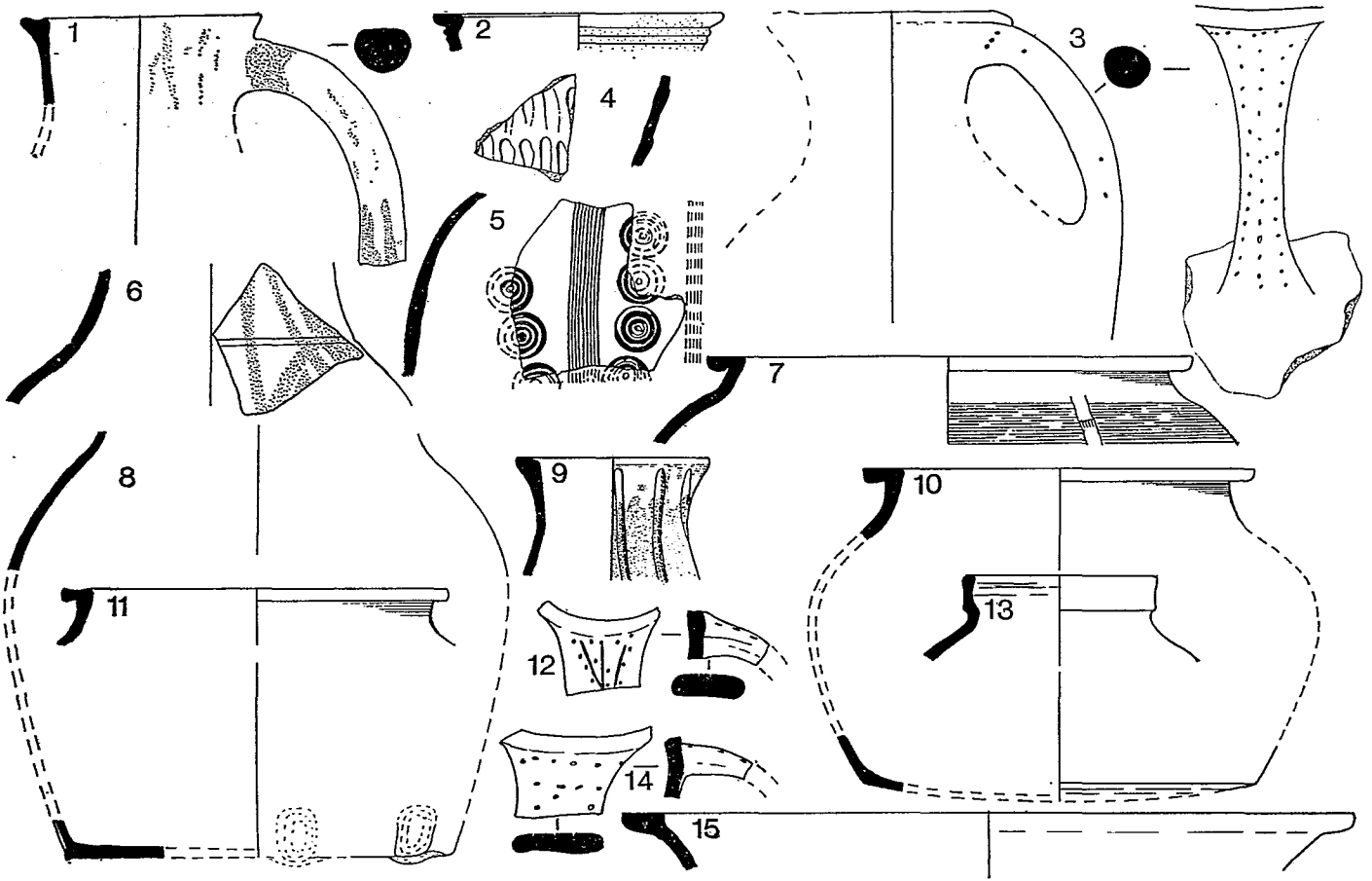

FIG. 16 (1/4).

Other Sandy-shelly vessels, in SSa/b.

Fig. 10, 4. Curfew, black surface, small smoke-piercing, radically slashed top, handle reconstructed (π, 7). Also, a skillet (not illustrated); simple stabbed rod-handle (ι, 3).

(iib) 'Pure' sand-tempered wares.

The characteristic grey, unglazed fabric can be seen in the bridge area, from which all illustrated examples come (though a few jug-sherds were in ι, 3) leading up to the early D types of layers 8 and 7 from something not very different except in the handles.

Jugs. Fig. 15, 4 (π, 9b), slashed handle, hard, light grey fabric. Similar to Fig. 15, 3 (π, 7), still with zig-zag slashing.

Fig. 15, 5 (π, 8), stabbed ovoid handle, similar to Fig. 16, 3 (π, 7) and 14 (π, 3, or near).

Fig. 15, 8, medium-coarse fabric, surface dull pink-buff (reminiscent of glazed West Surrey fabric, as D66) and akin to Fig. 15, 7 (π, 8).

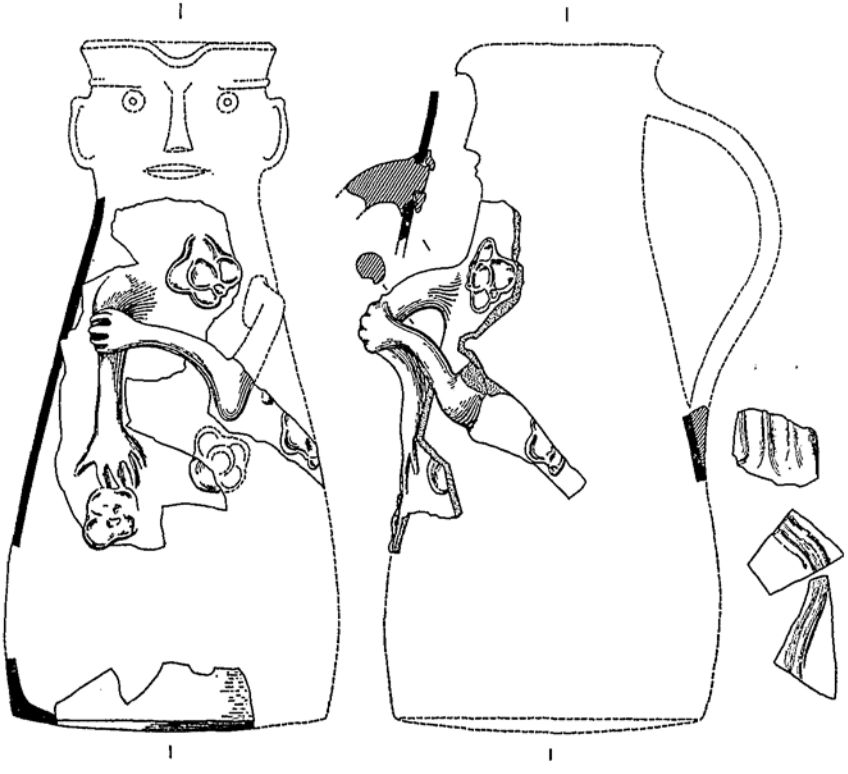

FIG. 17 ($\frac{1}{4}$).

Fig. 16, 8 (π, probably 3), jug-body, flattish thumbed base, oxidized.

Fig. 16, 13, rim with shallowly hollowed neck recurved into body.

Bowl. An isolated flat-flanged D type from π, 3.

(iii) Glazed wares.

The few glazed sherds, mostly from the bridge, fall within the known range of 'London-area' jugs, apart from the following two sherds:

Fig. 15, 1, in a remarkably fine, hard grey ware with smooth inner surface but badly burned external olive glaze; perhaps distantly related to Stamford ware, it comes from the lowest bridge layer, π, 11, and is stratigraphically the oldest sherd from the bridge and the oldest glazed sherd from the site.

Fig. 16, 2 (π, 3), in whitish, hard Surrey fabric, quite to be expected. The 'London-area' wares show little variety and are already in layer 9b.

Fig. 16, 1 (π, 9b), a baluster, resembles in fabric and light, speckly glaze Fig. 16, 6 (π, 8). Fig. 16, 9 (π, 7), has brown, iron-glazed vertical ribs; Fig. 16, 4 and 5, are green-glazed; 4 with elongated scale-decoration, has a very rough exterior, poor, mottled glaze, dull red-brown lining and grey core, almost like Tyler Hill ware; 5, in similar fabric, if not quite so coarse, has combed lines separating tiers of concentric circles.

Fig. 17, the London-area imitation of a north-country anthropomorphic jug, already noticed in the previous report, is here reconstructed on the lines of the London Museum, *Medieval Catalogue*, Pl. LXII, no. 2.

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