

Excavations at Elstow Abbey, Bedfordshire, 1968 - 1970

Third Interim Report

DAVID BAKER

SUMMARY

Further excavations at the Benedictine nunnery of Elstow Abbey (c. 1080-1539) have shown parts of a complicated plan for the eastern arm of the church, many details of this are obscured by a modern graveyard. The development of the Chapter House, from within the Norman dorter range to a lengthy eastern extension of the 13th or 14th century, has been investigated. The rebuilding and repositioning of the dorter range and the rere-dorter is discussed. A complex series of outbuildings is being explored.

INTRODUCTION

Excavation continued during six sessions between December 1968 and July 1970, and the results up to the last date are discussed here. The complexity of the structural and occupational evidence recovered has amply justified a fifth and sixth year on the site. The main efforts were concentrated upon further elucidation of the eastern arm of the Abbey church, examination of the eastern claustral ranges, and the outbuildings south of the main complex. The policy of excavating in large areas has been continued, though time and resources have varied their size. Several trial trenches were dug, some mechanically, in attempts to determine the limits of occupation in various periods.

SEQUENCE OF OCCUPATION

The scheme proposed in the second interim report¹ holds generally secure. The outbuildings can only be partially integrated with this main sequence of occupation due to the general lack of precise dating and the incompleteness of their exploration at the time of writing. Of the periods discussed previously, nothing new can be added for the Roman or pagan Saxon. If the main chronological pattern seems established, however, it may still be altered in the light of the remaining excavation programme.

EARLY LINEAR FEATURES (Fig 1)

Two sections of a ditch defining a circular area, possibly parts of a Bronze Age ring ditch, have been described.² Trenches on the only other accessible parts of the circumference showed deep and extensive medieval disturbances that would have destroyed any evidence of earlier structure.

Mechanically excavated trial trenches running west-east between the Abbey church and the modern A6 (north of, and parallel with, the mansion sunken carriageway) cut across a linear feature running north-south. Its profile was 'V' shaped, with a flat bottom, and the silting sequence within it was similar to that in the ring ditch. Its bottom was cut to a maximum of 4ft 10in (1.47m) into the natural gravel.

Other irregularities in the natural gravel surface were seen in trial trenches mechanically excavated south-east of the main Abbey buildings. Its level falls off drastically as the stream is approached. Particular features noted here, where the depth of gravel from the surface varies between within 4ft (1.0m) and deeper than 17ft (5.0m) included the sides of at least three large features: these were unlikely to have been linear since they did not appear in an adjacent trial trench: the fill of two produced early medieval pottery at the bottom, so they may indicate medieval gravel extraction.

SAXON : PAGAN

Following the discovery under the east end of the Abbey church in 1968 of a fifth or sixth century cremation vessel and sherds of similar examples, further trenches were designed to test whether they represented the edge of a larger burial area.³ Five hand-excavated and two mechanically-excavated trenches produced little evidence. Other cremations may have existed here, but have been destroyed by the density of monastic burial around the outside of the church. Indeed the survival of the original find was fortunate. However, all the trenches to-

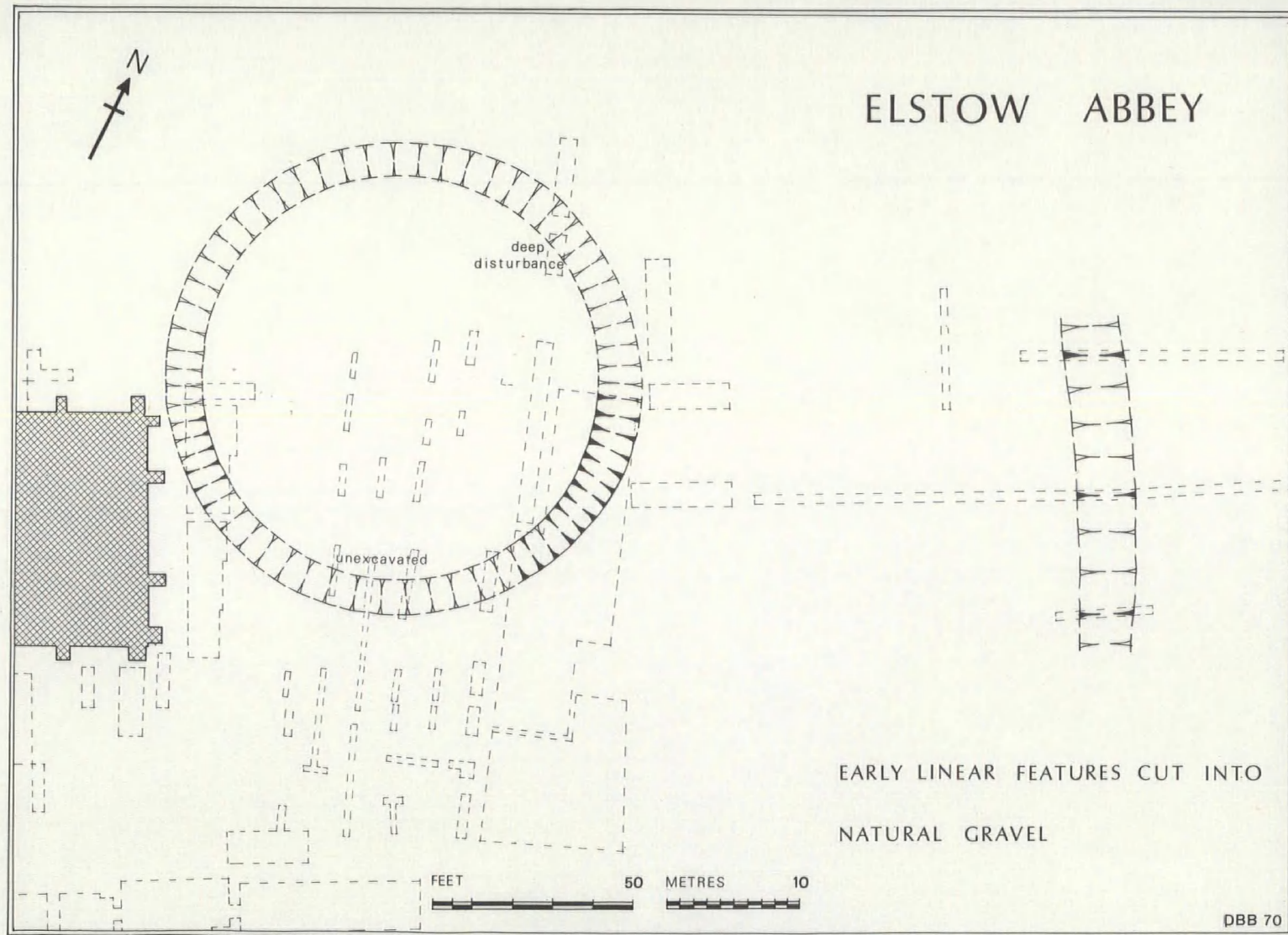


Fig 1 Early features cut into natural gravel.

gether failed to produce either the distinctive clean soil within which the first cremation had been placed, or more than a few sherds of contemporary pottery. Trenching out to the south-east would only encounter further inhumations, first medieval and then late Saxon, while the modern churchyard imposes another limit on the western side.

SAXON :CHRISTIAN

The total of late Saxon burials or parts of burials has been increased to nearly 270 individuals by further discoveries in trenches primarily concerned with examining other problems. A group of this size is adequate for study purposes and comparison with the monastic group, and work on them proceeds.

A Saxon parish church has still not been located. If it is in the immediate vicinity of the burials it can only be under the existing parish church or to its north or west: all of these areas are inaccessible and most have been disturbed by centuries of grave-digging associated with both Abbey and the present church. Alternatively the parish church may have been some distance away, and the cemetery have been surrounded by a fence or some similar delimitation. Perhaps the chapel of St Helen should be considered in this context: it stood in the churchyard by the 1340s, and was a desirable place of burial in 1509; it served as a parish church in the mid fourteenth century, maybe reviving a role it or an earlier building nearby had carried out before c.1080.⁴ Suggestions that the anomalous east end of the abbey church can be explained in terms of a surviving Saxon parish church have to contend with the presence of late Saxon burials underneath it: neither is there any obvious confirmation for an hypothesis involving a two period Christian Saxon cemetery, with the Saxon church built over the earlier part of it.

MEDIEVAL (Fig 2)

1 late eleventh century : church

The plan of the Abbey church, eastwards from the nave, presents many difficulties. The sequence is clearly complex, and the original version unusual. Moreover the evidence is most incomplete; the footings have been considerably robbed, and information from the area of modern churchyard between the two sets of trenches excavated in 1968 could only come from shallow, narrow trenches dug precisely beneath the paths between the rows of graves. The tops of footings seen here were of identifiable

construction types, but allowed little more than the attempt to establish the main ground plan.

The arrangement of transepts and *quire* aisles needs comment. Sufficient trenches could be dug on the south side of the church to show that the south nave aisle wall must have turned south for some 12ft (3.6m) at a point about 104ft (31.7m) from the Norman west end of the nave, before returning east to limit the transept. Although there was a return wall north, giving a transept of external length about 32ft (9.75m), this southern wall continued east until it turned north again as the eastern termination of the aisle flanking the presbytery. The eastern walls of both transept and aisle had unmortared footings with large stone and gravel layers, of the kind seen at the main eastern apse, and could not be separated chronologically on this criterion. The eastern wall of the south transept was on a direct line with the eastern wall of the Norman *dorter* range. If this indicates the original transeptal plan, modified in execution or soon after, it draws attention to the correspondingly extended nature of the horseshoe apse at the main east end. The evidence for a similar arrangement on the north side is less clear since the north transept lay out of this most recent addition to the churchyard, in ground that is inaccessible and anyway much more disturbed. The sleeper walls for the nave arcade, found in 1968, seemed to continue east until they attached to the end of the main apse. These had been overlain by later footings (on the south side) or robbed (on the north side) so the intervals of piers upon them cannot be readily reconstructed.⁵

A consideration of the west end of the nave in relation to the known west ranges of the Norman and fourteenth century periods suggests that the present thirteenth century west front was an extension rather than a rebuilding. This cannot be confirmed by excavation due to current use of this part as a parish church; however if one replaces the Early English nave piers with Norman responds, against a Norman west wall, spaced at the interval set by the rest of the Norman arcade, this proposed church west wall would have been exactly on a line with the west wall of the Norman *cellarium*. It would also have placed the Norman door into the north aisle centrally in what would have been the north-west bay.

Timber buildings

The prospect envisaged in the last report, of locating evidence for temporary Norman timber structures predating the early claustral range, has

not materialised.⁶ Extensive excavation of ground later covered by *frater* and *dorter* has produced more occupation spreads with pottery of late eleventh or early twelfth century date. Some possible post-holes and clay and gravel spreads were also seen, just above the present watertable, but not in any coherent pattern. These layers were cut by or sealed by the robber trenches or footings for the earlier claustral buildings. This implies the first stone plan was not built until some time after the Abbey's foundation, though the lack of precise dating for the pottery makes it difficult to determine the exact interval. It is also possible that these spreads represent rubbish or dumping deposits on open ground rather than actual occupation associated with buildings.

2 early-mid twelfth century: claustral buildings *Dorter* range

Extensive work has been done in the last two years on the Norman eastern claustral range. It attached directly on to the south transept of the church, and had a slype running across it on the ground floor against the transept. The southern limit of this passage may have also formed the north wall of the Chapter House, in this period confined entirely within the range. The ground immediately to the east of the range at this point was investigated but failed to show any extended apsidal end. The site of the entire range down to south of the Chapter House lies within the modern churchyard, so evidence on this point is accordingly limited.

The robber trench for an internal partition wall within the range was found south of the modern churchyard wall, 72ft (21.94m) from the south wall of the transept. This stood equidistant between the north wall of the *rere-dorter* and the probable position of the south wall of the Chapter House. This robber trench did not continue the line of the north wall of the *frater* eastwards, linking the two ranges integrally, as occurs with the *frater* and *cellarium*. This may suggest that the east range was built first, and the other two subsequently as a planned unit. A small hearth was located towards the eastern side of the range, 10ft (3.05m) north of the *rere-dorter* north wall. It was 2ft 4in (0.71m) square and bordered with four reused architectural fragments.

The *rere-dorter* block for the Norman claustral complex was attached at right angles to the *dorter* range; it may have extended east beyond the present limits of excavation. Its plan shows two unequal

sized units, with the drain set into the southern wall. It had been robbed almost entirely. (pl. 5). The wide drain floor (3ft: 0.91m) consisted of flat, waterworn limestones with a clay sealing; its sides were built upon the edges of the floor, with internal faces shaped and dressed. This *rere-dorter* had certainly been demolished by the time the fourteenth century *dorter* was constructed. It may have been pulled down even earlier, since outbuilding M5 which contained a substantial chimney footing and hearth perhaps of late thirteenth century date, was built over its western end. It is likely that M5 had originally extended further north-east, covering more of the *rere-dorter* site, before the fourteenth century south end of the new *dorter* range had truncated it.

The normal placing for *rere-dorter* blocks was intended to make use of existing drainage, natural or artificial, to flush out the drains. While this example showed clear signs at its eastern visible limit of heading towards the stream, there was no evidence at its western end for any consistent water supply other than that which might have been provided by the marshiness of the whole area. The dis-use of the *rere-dorter*, if it preceded the reconstruction of the main range, might perhaps be explained by its subsidence into this marshy ground, or through the draining and canalisation of the wider wet area removing the cleansing water supply.

3, 4 twelfth century: church

Rebuildings at the eastern end of the Abbey church are suggested by the footings and robber trenches seen in 1968; they indicate further problems when it is attempted to work out their implications for the area under the modern churchyard.⁷ The south *quire* aisle was extended east, early or in the middle of the century, and the main presbytery was later squared off on its originally apsidal footings. As first built, these two parts had shared a common sleeper wall which may have supported an arcade dividing up that part of the church. After the reconstructions, however, the new footings suggest that the *quire* gained its own south wall, and the south *quire* aisle its own north wall, with an infill between them.

The main problems concern the extent to which these rebuildings were carried west-wards in superstructure, and also the nature of that superstructure. It has been possible to trace the footing

Fig 2 (opposite) Elstow Abbey: Medieval and Post-Medieval: General Site Plan.

between the two areas, distinctive as three parallel foundations, back for 49ft (14.93m) from the east end of the rebuilt chapel. The footing for the eastward continuation of the Norman nave arcade sleeper wall can be followed eastwards for 20ft (6.09m) from the west end of the transept. The junction between the single early and the triple later footings might be expected to occur in relation to the east side of the south transept, but, as is often the case in this part of the site, the evidence is not available. Thus the reconstruction of the severely robbed ground plan is difficult; it is doubly difficult to visualise a viable superstructure upon it.

7 mid fourteenth century : claustral rebuilding. *Cellarium*

Two small trenches were excavated against the west side of the modern churchyard wall which overlies the west wall of the fourteenth century *cellarium*. Two external buttresses were found which correspond to the abutments found previously supporting vaulting within the range. If their intervals are consistent throughout the range, it would give the undercroft six bays south of the thirteenth century Outer Parlour, whose vaulting arrangements, being earlier, do not fit this spacing. Both external buttresses were seen as robber trenches, their fill being the same as that of the similarly robbed main wall which was retained in the mansion period, and removed after the late eighteenth century. This does not help to resolve the problem of whether the Abbey wall was reused in its entirety after the early seventeenth century, complete with its buttresses, or whether a new wall was built on the old footings; the surviving buttress footings could have been removed when an unbuttressed mansion wall was robbed to its lowest courses.

Frater

Investigation of the fourteenth century *frater* is now complete, with most of its total area excavated. Work since 1968 has been concentrated upon the eastern half of the range.

The complex junction between this and the rebuilt *dorter* range can be explained, through the extension of the first floor *dorter* over its adjacent eastern cloister walk. Since the range extends south beyond the *frater*, yet is abutted by it, part of the

first floor *dorter* extends over the extreme end of the south range undercroft. Thus on the ground floor of the *frater*, the main load-bearing west wall of the east range serves as a partition, making the slype which was later used as a warming room. This suggests that these two ranges were planned and laid out at the same time. The continuous walls of both ranges — a north and south in the *frater*, central and eastern in the *dorter* — were laid out as continuous footings, with the other sections, like the interrupted footings of the *dorter* west wall, laid out afterwards. This provides a satisfactory explanation for the relationship of footings to each other.

The south wall of the *frater* range had been strengthened at some time in its life, with a doubling of its width for a length of at least 20ft (6.0m) between the *dorter* range west wall footing and the first buttress to the west. Consequently this south wall appears both to abut and be abutted by the west wall of the *dorter* range. The additional length had been inserted by working from the ends to the middle, with a consequently awkward joint. This may indicate a staircase in the thickness of the wall, representing the *frater* pulpit and its stairs, as at Battle, Tynemouth, Lacock and elsewhere.⁸ If so, it was a later addition, though the time interval is unknown.

Areas excavated across the whole width of the range have confirmed the previous impression that there was no central sleeper wall. The *frater* itself may have been on the ground floor of a single storey building, since its internal span is quite wide at 23ft (7.01m): certainly the southern cloister walk would have leant against the range rather than have been included in any first floor going over the top of it.

Dorter Range

The relationship of the east to the south claustral range has already been described. In the fourteenth century, this range moved inwards, while the other two contributed to what was in general an overall claustral expansion. The length of the range from the south transept was 126ft (38.4m) and its width was 29ft (8.84m).

The attachment of the new range to the church is not fully understood, since the evidence lies in the modern churchyard and is mostly inaccessible. The westward resiting of the range without a corresponding shift of the south transept means that either the north-west corner of the *dorter* range was not attached to the church at all, or that the

Fig 3 (opposite) Elstow Abbey: The Monastic Outbuildings of Claustral ranges.

western side of the south transept became masked by the extension alongside it of the new wall up to the south aisle wall. The second arrangement would involve vaulting over the north cloister walk; the first would need at least a door in a wall continuing the line of the south wall of this transept. It is also possible that the south transept may have ceased to be a planning obstacle by reason of its demolition, though there is as yet no evidence to support this.

Assuming for present purposes the simpler picture of a transept retained in the fourteenth century, the first floor *dorter* would presumably have abutted right up to it to allow access into the church by way of night stars. Outside the transept, in the north end of the undercroft, and north of the Chapter House, was a slype through from the cloister, probably providing access to the monastic cemetery. In this period, though, there can have been barely sufficient width between the south wall of the south aisle and the north wall of the Chapter House.

The large building in the Chapter House position is discussed in this part of the report even though there are uncertainties about its dating. It was first seen in 1968 when a length of robber trench and a buttress footing were found at the southern end of the area excavation on the east side of the church. The eastern half was completely stripped subsequently and trials were made in the western half where the modern churchyard permitted. (pl 6a) The building had been placed squarely within the sunken carriageway dug out later, in the seventeenth century, leading from the porch of the Hillersden mansion to the main road. As a result, only a fairly thin stratification upon natural gravel remains under the carriageway metalling, which lies directly over the lower parts of the Chapter House robber trenches which are cut into natural. The only masonry *in situ* consists of the buttresses on the north side. Half the southern robber trench had been removed longitudinally by a large later disturbance. Dating evidence has been scarce, and the vital relationships to other buildings have been obscured by the modern churchyard.

An initial interpretation saw this building as the first Chapter House in the Norman stone plan, with a construction date set late in the twelfth century. The robber trench for its east wall had been cut into a pit containing twelfth century pottery. The north-east corner buttress foundation was seen as representing a Norman buttress of clasping type, although its construction did not consist of the usual unmor-

taired layers of alternate stone and gravel. The presence of a short length of footing with yellow mortar continuing the line of the south wall between the west walls of earlier and later *dorter* ranges was suggested as evidence that an existing Chapter House was lengthened westwards at the claustral rebuilding to reconnect it with the re-treating east range.

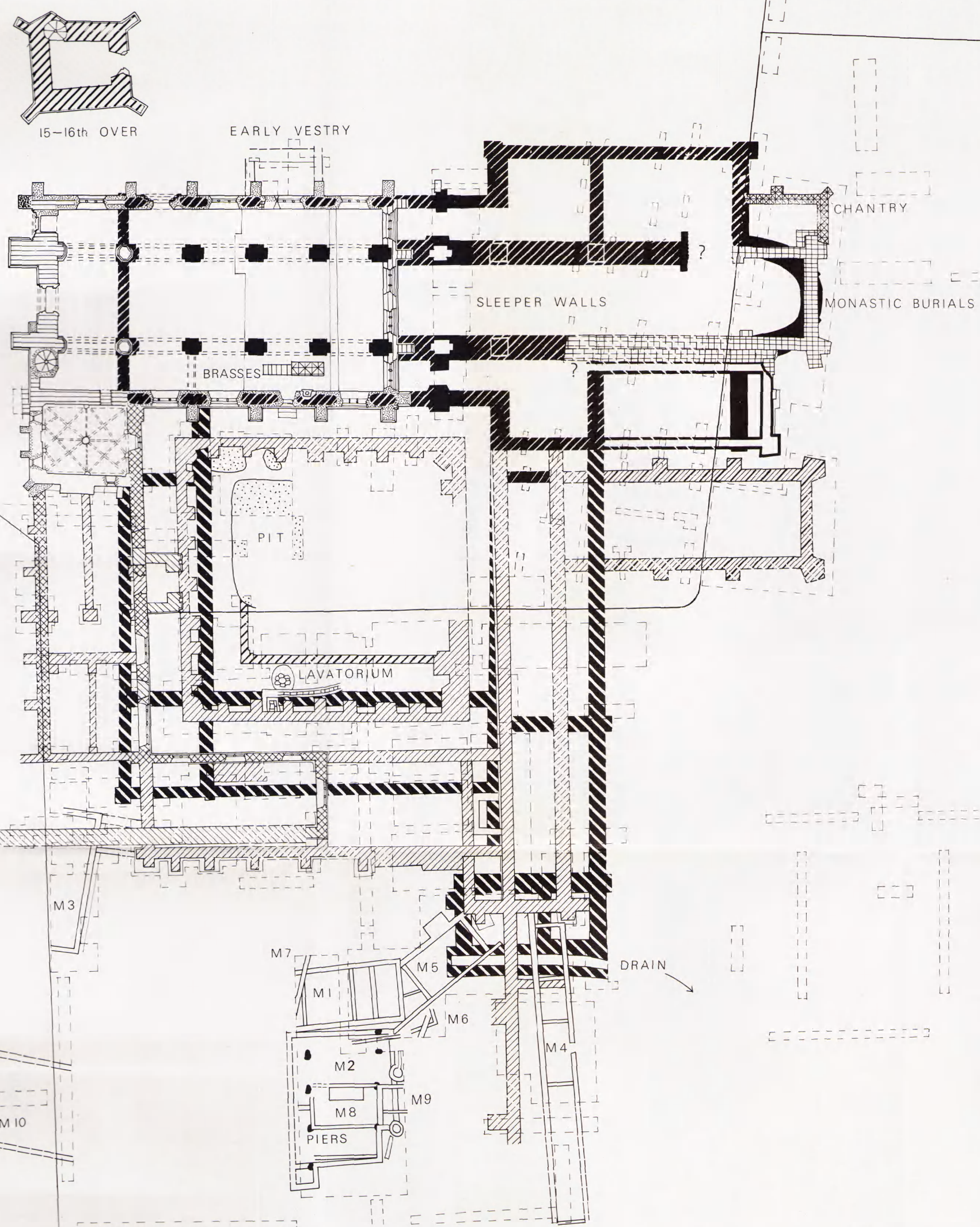
This dating and construction sequence must however be questioned in the light of more recent work. The south wall of the slype at the north end of the east range undercroft had a Norman footing, and may well have done service for the north wall of a Norman Chapter House entirely enclosed within the east range undercroft. Also, the north-east buttress footing might be given a later dating if it is argued that its shape represents a diagonal corner rather than a clasping buttress; this argument is strengthened by the intervals between the external buttresses on the north side, three of which have now been located. Projection west-wards of these intervals shows that they relate to a standing eastern wall of the earlier rather than the later *dorter* range. It is therefore suggested that the Chapter House was extended out to this extraordinary length, as far east as the main east end of the church, at some time in the late thirteenth or early fourteenth centuries, and that the earlier Chapter House was retained within the range to become its vestibule. This gave it a total length of 88ft (26.82m) and a width of 27ft (8.23m). When the *dorter* range was rebuilt, the dimensions of the Chapter House and vestibule together remained unchanged, but the length of the former may have increased by 10ft (3.04m) at the expense of the latter.⁹

A broad section was excavated across the *dorter* range immediately south of the modern churchyard wall. (pl 6b) A small clay tile hearth had been built against the west side of the east wall. The continuation westwards of this trench, excavated in 1967, had shown the cloister walk wall footing, now known to have supported an upper storey, to be much thicker than the other, lean-to, walls, around the cloister garth.¹⁰ The main internal footing of the eastern range had been built over the Norman predecessor at this point.

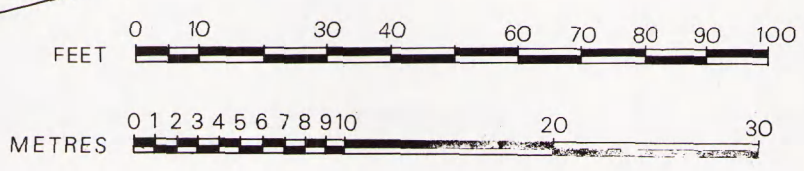
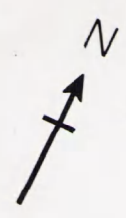
The south end of the *dorter* range projected 15ft (4.75m) beyond the south range. It was built directly on the site of the Norman *rere-dorter*. A thick footing extended south from the end of the range, continuing the line of the internal load-bearing wall for at least 60ft (18.0m). It had been heavily robbed, but there were indications of two

ELSTOW ABBEY 1965-70

MEDIEVAL AND POST MEDIEVAL



INTERIM PLAN



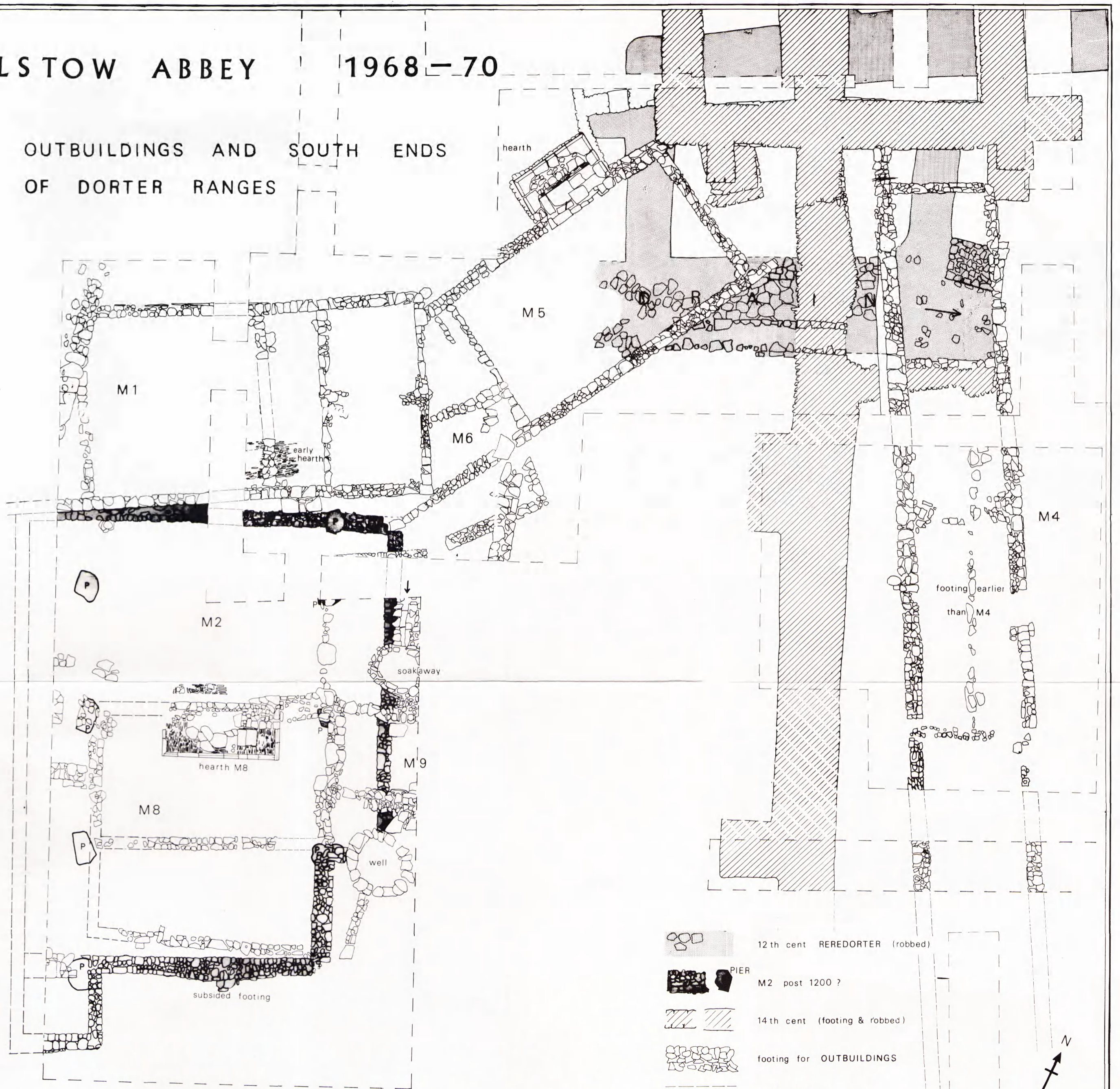
KEY

	wall or footing or robbed	con-ject-ural
late 11th		
early - mid 12th		
mid - late 12th		
late 12th		
early 13th		
mid - late 13th		
mid 14th		
15th		
17th on 14th		
16th		
17th		
date uncertain		
19th		

ELSTOW ABBEY

1968-70

OUTBUILDINGS AND SOUTH ENDS OF DORTER RANGES



0 5 10 20 feet

0 1 2 3 4 5 metres



buttresses on its west side, and of a slighter footing coming off to the east. Though they suggest the west side of a large fourteenth century building, in the position for a detached *rere-dorter*, nothing has been seen of an eastern wall within a distance of 30ft (9.0m). Thus there may be a large building here, or this single much robbed footing may represent a drain running south from the *dorter*, whose south end contained the monastic lavatories. There was some fragmentary stonework under disturbed ground in the mechanical trial trench dug further to the south and at right angles to this wall, which may represent the line continuing. If it was a building and not just a drain, it must have been demolished by the time outbuilding M4 was constructed.

Examination of robber trench fills showed that the east range had been demolished before the south range. While the interval between the two events cannot be established, it is tempting to think of this sequence as representing the immediate removal of one range at the Dissolution while the other was preserved until the erection of the mansion in the early seventeenth century.

MEDIEVAL BURIALS

Trenches were excavated beyond the east end of the Abbey church to encompass more medieval skeletons as well as pagan Saxon cremations, so that comparisons could be drawn between the monastic population and that represented by the late Saxon inhumations. Several more skeletons or parts of skeletons were recovered, bringing the monastic total to about 90.¹¹ Some were buried in rough stone coffins, others in wooden ones as indicated by the presence of nails; some may have been only wrapped in a shroud. This monastic group comprises mainly females, though males and children were represented. The density of burial resulted in overburying and the disturbance of earlier by later burials. All were properly oriented, with arms more usually crossed, but sometimes by their sides. One burial was on its right side, with legs slightly flexed and arms pointing down at about 45° in front of it. One was a priest, with a substitute chalice, of poor quality lead and much decayed. (pl 6c). A limit to this graveyard was seen in a mechanical trial trench at about 90ft (27.0m) east of the church. At this point, the level of natural gravel, generally cut into by the graveyard, rose up sharply.

BUILDINGS TO SOUTH OF CLAUSTRAL AREA (Fig 3) (Pl 7a)

Up to 1968, three outbuildings had been noted

between the main abbey claustral complex and the stream, one between the south and west ranges, and two in trial trenches south of the refectory.¹² At least ten such outbuildings can now be identified. The sequence of structures and rebuildings presents many difficulties, due to their flimsiness and consequent incomplete survival. It cannot be safely laid out until the entire complex, which could even stretch between M10 and M8/9, has been excavated. The system of numbering may then need revision for a final report.

The absolute dating and description of precise function for each building presents further difficulties. Of the main monastic buildings, in addition to the claustral complex, a guest house and a farmery might be expected, but have not been positively located. Among domestic outbuildings, bake-houses, brewhouses, storehouses and sundry others could be expected, but with little detail surviving beyond hearths, specific identifications here could only be extremely tentative. There is the further difficulty that such outbuildings are almost the least investigated aspect of monastic archaeology; helpful comparative material from full series fully examined is extremely scarce.

These buildings were probably half-timbered, resting upon narrow and sometimes shallow stone footings which fall into two broad categories: M2 had a narrow deep coursed footing, including much reused clunch; the others had less regular footings of varying thickness and depth, with clayey sandy mortar, limestone pieces and reused tiles of stone and clay.

The alignments of the buildings may be significant for dating purposes. M3, M10 and M7 lay on a common axis, as did M1 and M4. M5 was eccentrically aligned, while M2 seems fairly square to the main claustral axis.

A brief description of each building follows.

M2 was perhaps the earliest in the sequence and the most distinctive in plan. Most of three sides have been seen, suggesting a basic rectangular shape 30ft (9.14m) by 37ft (11.28m), with its south-east corner inset, and an additional cell bonded into the south-west corner. The position of the west wall, though predictable, has yet to be seen. The internal space was divided into nave and two aisles, aligned north-south, with four bays. The main wall footings were all of one construction date, consisting of roughly coursed Totternhoe clunch blocks, roof and floor tiles, and some limestone pieces. The pier bases were large reused architectural fragments, some with worked faces. One

was put over a large pile of rubble as further support in spongy ground. Similar large stones were built into the main north and south walls. The pier base at the south east corner had been robbed.

The southern footing bulges out and tilts over and must represent drastic if not fatal subsidence. (pl 7b). Parts of the pier system may have been incorporated into *M8* and *M9*, but the thick gravel spread between *M8* and *M1*, which partly seals the footings of *M2*'s northern wall, shows that at least the northern half of the building had been pulled down by the period of these later buildings. A construction date for *M2* can only be derived from the pottery dumped in the silt underlying it, and the reuse of clunch blocks in the footings. Together they suggest a date after 1200, perhaps towards the middle or end of the thirteenth century as a *terminus post quem*. The function of *M2* is not obvious from the evidence of its internal arrangements; part of an earlier hearth lay under the gravel running up to the north side of the hearth in *M8*. Any attempt to interpret it as a farmery hall must take into account its position south of the cloisters on the wettest part of the site. It is necessary to show that the farmery did not lie south east of the claustral area or elsewhere, or that a farmery in that position is substantially later than *M2* before this aisled outbuilding can be considered in the same role.

M6 only partly survives, and is proposed as a building to make sense of three lengths of footing. It was later than *M2* and earlier than *M5*, though on similar axis to it. What survives may be the eastern corner, with the full width possibly twice the distance between a south wall and an internal partition. The footings were shallow, and the subsequent clearing of ground to build *M1* could account for most of their disappearance.

M5, on a diagonal axis to the other structures on the site, had a complex history. (pl 8a). It probably began as a three cell unit, with the central one having a large stone built hearth and chimney, set back outside the line of the north wall to minimise fire risk to the timber superstructure. The hearth footings were much deeper than those for the main walls and the highest surviving course consisted of a dressed plinth with external camfering. The floor of the hearth was mainly of large shaped clunch blocks, which had also been used for the internal sides, though had been replaced in a few instances by clay tile when heat had disintegrated the soft stone. The floor of the hearth sloped into the building. The central unit of this building had internal plastering on its footings, of a rough kind

for waterproofing rather than for decoration. A further unit almost certainly existed to the south-west, cutting *M6*, possibly abutting the earlier *M2*, and certainly removed by the later *M1*. There is some evidence for another unit on the north-east end, destroyed by the fourteenth century claustral reconstruction and the new south end for the *dorter* range.

Assuming the central part of *M5* continued in use when *M1* was built, it is not clear whether the two buildings were separate, or joined by the surviving triangular part of *M5*'s southern-west unit. *M3* has already been described.¹³

M10 Three limits to this building have been seen, but only in trial trenches. They indicate a width of 26ft (7.95m) and a length of at least 33ft (10.0m). The construction style of the west wall, with an external offset, is similar to that of *M3*, which has the same orientation. Part of a hearth was seen in the trial trench near this wall. It is not known how far east this building extended towards *M8*.

M1 (pl 8b) This building was 17ft (5.18m) wide and so far 33ft (9.14m) of its length has been excavated. A western limit has not yet been obtained. Its main axis lay east-west. In its first stage, it had a hearth near its south wall, of stone and clay roof tiles laid on edge. Later, this went out of use, and the west wall of a corridor was built over it. Access to this passage may have been from the south, over a square step attached to the outside of the south wall. It post-dated *M2* and was for part of its life contemporary with *M8* and *M9*.

M4 This long narrow single period building, of width 10ft (3.05m), has been traced south for over 80ft (24.0m) from where it abutted the south end of the fourteenth century *dorter* range by having its north-east corner built over a buttress footing. It postdated the *rere-dorter* drain (or wall) and ran south nearly parallel with it. There is some evidence for a fragmentary early footing running underneath it at a slightly different angle. It was divided into compartments by partition walls: three of these were seen in the northern end, from north to south 13ft (3.96m) 11ft 6in (3.50m) and 16ft (4.88m) long. The north edge of another partition wall, or perhaps the end wall, was seen 81ft (24.69m) from the north end. The building seems to have been free-standing apart from its attachment to the *dorter* range at one end. It might have been accommodation for animals, though the width is a little narrow for horses.

M9 The western side of this building was seen. Further investigation to the east is needed to deter-

mine whether it existed in its own right, or as part of *M8*. It was built over *M2*. It included three units: the north-western contained a drain leading south to a well-like soakaway: the central was roughly rectangular in shape; the southern contained a well within a strengthened 'L' shaped end. This well contained 3 iron bucket handles, an iron key, and a small gold pin. It is possible that only the central unit represented a covered structure and that the other two flanked it on the outside, the whole being a lean-to against *M8*.

M8 Only part of this building has been seen, and it is too early to suggest its western or eastern limits with confidence. It had been badly robbed; it was part of, or connected with, the west side of *M9*; it was built over the central part of *M2* and may have reused its pier bases as corner foundations. For part or all of its life it was contemporary with *M1*, since a gravel spread was laid between the two buildings. This building had at least two sections, the northern of which contained a stone and tile hearth, very large for the room in which it was placed, measuring 9ft (2.74m) by 4ft (1.22m). It had reused architectural fragments with chamfered edges forming a border to it on the west, east and south sides, and appeared to butt up against the north wall of the building. It was covered in ash, containing an iron poker. The floor of the hearth was mixed construction, including clay tiles on edge, flat floor and roof tiles and large flat stones.

M7 Only one wall has been seen, and further excavation makes it difficult to relate to any known building. It overlay the footing of *M1*, and is therefore likely to have been the latest end of the sequence. 15ft (4.57m) of wall was seen.

MANSION: c.1625-c.1775.

No problems primarily relating to this period were intentionally investigated. However, a brick drain with a flat floor and curved top was found running through the east end footings of *M10*, passing through an east-west trial trench south-west of *M8*, and on into the stream. It was larger and different in construction when compared with the other mansion period drains. It may have been a sewer. Its point of departure is not known, though this is likely to have been west of the known mansion buildings.

ENVIRONMENT

A number of trial trenches have been excavated, mostly mechanically, to determine some limits of occupation on the main site. They also provided information about the fluctuating depth of gravel

subsoil, and about the condition of some of the land in the medieval and earlier periods. These trenches have corroborated earlier evidence for a marshy area bordering the stream. Under the main outbuildings (*M2*, *M8* and *M9*) were wet silty layers containing a quantity of coarse sand filled and shell filled wares, with a few glazed sherds of the thirteenth century. The footing for the south wall of *M2* showed a dramatic lean and bulge. Subsidence may have been a cause of major alterations such as the demolition of the Norman *rere-dorter*, the rebuilding of the cloisters on a new plan in the fourteenth century, the propping up of part of the post-fourteenth century south range, and the complete rebuilding of the south mansion wall rather than the reuse of the adjacent monastic refectory wall. Thick clayey silts were found in the trenches on the extreme west of the site. There was a thick spread of rubble and mortar under *M4* which, together with the stratigraphy in the southernmost trial trenches, gave the impression of many tips of material dumped to make up ground or to give it some solidity. Several tips of stone were also found under *M8*.

This consolidation of soft, wet ground may be associated with medieval canalisation of a water-course connected with the medieval fishponds, making it into the present day stream. A view of this stream on the map shows its course to be irregular until it passes south of the Abbey where it runs virtually straight for about 360 yd (328m) before resuming a meandering course. It seems probable that this straight stretch was stone-lined, as there are several lengths of this part of the stream with slabs of stone still *in situ*. The footings for the bridge discussed below, are further evidence that the stream here follows the medieval channel. On the basis of available evidence, it is therefore suggested that the area was systematically canalised, consolidated and presumably drained, at some time not earlier than the first part of the thirteenth century.

BRIDGE (pl 7c)

Two stone footings on opposite sides of the stream were examined. They ran down the full height of the banks, but were set into them for only a few feet. Yellow sandy mortar had been used to bond the limestone slabs, and the northern side had been reinforced at a later date with some brick. Both had been disturbed by the action of tree roots.

These may represent the bearing points for a bridge; if so, it would have been narrow and for

foot traffic only. There is a local tradition that it represents the position of a sluice gate used to control the flow of water in the stream, connected with the fishponds higher up. The difficulty of this explanation however is that the bearing points excavated in the banks are possibly not set in far enough to give the necessary leverage; also it is hard to see what a sluice at this point might achieve, with no obvious means to cope with any resulting build up of water. It may make more sense in the light of the full examination of stream, ponds and associated stonework.

CONCLUSION AND FUTURE PLANS

Though the main periods of occupation on this site had been sketched in by 1968, the continuation of this high percentage excavation policy has produced further results of importance for this site and for monastic archaeology. The unusual plan of the church's eastern arm, the extensive Chapter House, the extremely complicated series of outbuildings all underline the potential variations of plan and development which this medium sized house can show. The discussion of Elstow Abbey in its context belongs to the final report.

At the time of writing, there seems to be work for at least two more years. This will be concentrated upon outbuildings, and upon other aspects of the monastic precinct surrounding the main claustral complex.

ACKNOWLEDGEMENTS

Rev P. Hartley, the Vicar of Elstow, and Mr C. Prudden, who farms the land, have again kindly permitted excavation, and have been helpful and co-operative throughout. The project is sponsored by the Bedford Archaeological Society and by Portsmouth Polytechnic. Other financial support has come from the Harpur Trust and from the Carnegie (UK) Trust. Local organisation has run smoothly thanks to Mr J. Messer, Secretary of the Bedford Archaeological Society, Messrs A. Chrystal, M.J. Long, and B.B. West, who also has advised on architectural matters.

The labour force, at times more than 50 persons a day, was drawn mainly from local schools. The Headmaster of Bedford School, Mr W.M. Brown,

and the Housemaster and his wife, Mr and Mrs D.P. Stileman, have most kindly allowed use of Sandersons boarding house as an excavation camp.

The work of supervision on the site was ably performed by the Misses Sue Linger, Kate Nichols, Angela Simco, and Messrs William Annan, Andrew Cooper, Peter Cottrell, Anthony Couchman, Robin Ferguson, and George Nell. Mrs Evelyn Baker assisted with recording and supervision, and designed and set up an exhibition of the first five years' results at the Moot Hall. Thanks are also due to many others for help with various aspects of the project. I am grateful to Mr R. Gilyard-Beer and to Professor Barry Cunliffe for reading and commenting upon this report in typescript.

NOTES

- 1 D B Baker 'Excavations at Elstow Abbey, 1966-68' *Beds Arch J* 4, 1969, 27-41; see also D B Baker 'Excavations at Elstow Abbey; 1965-66' *Beds Arch J* 3, 1966, 22-30.
- 2 Baker, 1969, 28, 34 and fig 2.
- 3 Baker, 1969, 28, 30, 34 and fig 2.
- 4 This whole problem of parish churches and chantry chapels will be discussed in the final report. The evidence is ambiguous. Some comments may be found in *VCH Beds* 1, 1904, 354; *Beds C R O*, CRT 130/3; *S R Wigram Chronicles of Elstow*, 1885, esp 134-5, 150-4. Joan Beertrofte wished to be buried in the chapel of St Helen in the churchyard of the parish of Elstow: no 103 in P Bell (ed) 'Bedfordshire Wills, 1480-1519' *BHRS* 45, 1966, 41. I am grateful to Mrs S C Hawkes for discussing the problems of the Saxon cemetery.
- 5 Description and comment upon the eastern arm of the church has been deliberately kept to a minimum. The present state of evidence, while markedly incomplete, may excite various proposals of reconstruction; but these in turn are likely to be overtaken by the results of further work. R Gilyard-Beer and M Biddle have kindly reviewed the problem.
- 6 Baker, 1969, 32
- 7 Baker, 1969, figs 1 and 2
- 8 I owe this observation to R Gilyard-Beer.
- 9 I am grateful to M Biddle for a discussion of aspects of this Chapter House development.
- 10 Baker, 1966, pl 4a.
- 11 Baker, 1969, 34 and fig 2.
- 12 Baker, 1966, 25, 29 and fig 2; Baker, 1969, 29, 39 and fig 1.
- 13 Baker, 1969, 39.

The Bedfordshire Archaeological Council is indebted to the Bedford Archaeological Society and the Portsmouth Polytechnic for grants towards the costs of this paper.