

THE MAISON DIEU, ARUNDEL

By K. JANE EVANS

The ruins known as the Maison Dieu¹ or the Hospital of the Holy Trinity on the bank of the River Arun outside the Mill Road Lodge of Arundel Castle, revealed disappointingly little information during small-scale excavations by Worthing Museum for the Ministry of Public Building and Works in 1965.²

Comprising, at the present time, parts of buildings on three sides of a courtyard which measures 117 feet north to south, its foundation and early history has been related by several writers³ and its place in medieval social life as the most important example in Sussex of a hospital of private foundation has been shown recently.⁴ In brief, Richard Fitzalan, 3rd Earl of Arundel who died in 1376,⁵ had intended to found a hospital or almshouse in connection with the college whose foundation he was contemplating. Both of these schemes were carried out by his successor Richard, 4th Earl, who, after establishing the College of the Holy Trinity, obtained royal licence in March 1395 to alienate to the master and chaplain of the same, four messuages and two tofts for a hospital or Maison Dieu in honour of the Holy Trinity.⁶ 'The site . . . was on the right bank of the river, . . . Here as soon as the ground could be prepared, the foundations of the new hospital were laid, and the rapidity with which the works advanced, soon enabled the founder to anticipate the accomplishment of his undertaking. By the end of the year 1396 the building was finished.'⁷

¹ National Grid reference, TQ 020071.

² The Ministry of Public Building and Works provided a grant. Acknowledgments are due to His Grace The Duke of Norfolk, E.M., K.G., to Mr. J. A. Orr-Ewing of the Duke of Norfolk's Estate Office for his co-operation, to Mr. H. W. Simmonds, Arundel Borough Surveyor and Mr. R. J. Gue, Arundel Post-Master, to Mr. L. M. Bickerton, Librarian-Curator of Worthing Museum, to Mr. Michael Carson for surveying the site, to volunteers who excavated and provided information especially Mr. C. J. Ainsworth and Mr. A. J. Pudwell, and to the "digger" driver for skilful operation in a difficult situation. Also my thanks are due to Francis W. Steer for his help especially on historical points relating to the Dukes of Arundel.

³ M. A. Tierney, *History of the Castle and Town of Arundel* (1834), vol. 2, pp. 662 ff.; G. W. Eustace, *Arundel Borough and Castle* (1922), pp. 84-87; V.C.H., *Sussex*, vol. 2 (1907) p. 97.

⁴ W. H. Godfrey, 'Medieval Hospitals in Sussex,' in *Sussex Arch. Coll.*, vol. 97 (1959), pp. 130-136.

⁵ The numbering of the Earls of Arundel is complicated because of the various families which held the title. Of the Fitzalan line, it is doubtful if the first two members were ever Earls of Arundel, so the numeration adopted here is the same as that used by Francis W. Steer in *The Fitzalan Chapel, Arundel: a Guide and Short History* (2nd ed., 1967, p. 4, note 2), where Richard Fitzalan (d. 1301/2) is regarded as the first Earl of a new line.

⁶ Pat. 18 Ric. II, pt. ii, m. 17.

⁷ Tierney, op. cit., p. 663.

The Maison Dieu exemplifies the progressive tendency of medieval hospitals to transform themselves from institutions saving the sick, aged or poor from absolute destitution and exacting only the rudest discipline in return for charity, into relatively privileged bodies of almsmen or almswomen, living under a mild, quasi-monastic rule and performing duties of prayer in return for their keep: a lay college, sometimes repeating in simple form the prayers of an associated and wealthier clerical college. The more exalted analogies are with the colleges of vicars choral for cathedral prebendaries, or the 'poor knights' of Windsor, as lay vicars for the lay Knights of the Garter who theoretically formed a sort of small military order in the monastic sense.¹

The statutes of the hospital, as drawn up by its patron and founder, still exist.² The inmates were to be twenty poor men, aged or infirm, of good life, and able to repeat the Lord's Prayer, Salutation and Creed in Latin, preference being given to the servants or tenants of the patron. Over them would preside a resident priest, under the title of Master, who would be chosen from amongst members of the college. To assist him the community would elect from among itself another officer who was to assume the name of Prior; he was responsible for the immediate superintendence of the brethren. Idleness was discouraged, the inmates being set to such tasks as the care of the garden, the weeding of the churchyard walks, or the nursing of their sick brethren. Regulations for divine service were also laid down and it was ordained that the brethren should wear a brown woollen garment like that of a monk, with a hood: this, with shoes and socks, being given to each at Christmas. In the case of an inmate developing leprosy he was to be removed from the hospital and to be allowed one penny a day during the continuance of his illness.

There was also a steward who managed the possessions of the foundation. The revenues of the hospital amounted in 1407 to just over £50, with property in Sullington, Heene, and Lychepole in Sompting, but under the will of Thomas, 5th Earl of Arundel, in 1415 the house benefited largely, receiving property in Birdham, Treyford, Northwood in Eartham, Ilesham in Climping, Tortington, Warningcamp, and Kingston-by-Lewes; its income stood in 1437 at £101 13s. 10½d., at about which figure it remained for a century, being about £94 in 1546, in which year it was suppressed.

SUBSEQUENT HISTORY

At the dissolution in 1546 the hospital together with its lands was granted to Henry, 12th Earl of Arundel, the whole being 'left to

¹ The writer is indebted to Mr. S. E. Rigold of the Ministry of Public Building and Works for his comments here and below on the plan; also for his advice generally whilst excavations were in progress and subsequently.

² Tierney, *op. cit.*, pp. 663-669.

moulder beneath the ravages of the elements.¹ In the Civil War it is referred to as the old chapel where Sir William Waller's musketeers were stationed for an attack on the garrison of the castle, on Wednesday, 27 December 1643. Unfortunately it cannot be distinguished on Hollar's view of the town at this date.

In 1724 much of the stonework was pulled down and used in the building of a stone bridge over the River Arun, which bridge lay a little down river of the present one. Part of the south range escaped demolition. Amongst the Burrell Collection in the Bodleian Library is a drawing of 1780 by Grimm made from the bridge (see Plate I); it shows a first floor arched window at the east end and two windows in the south wall, the upper storey of which is missing. This drawing is altogether more accurate than a frequently found print of 1793 entitled "Hospital of God's House, Arundel."² Grimm's view is entitled "The Chapel of the Friary" and as a pair to it is a drawing made the same day from the north-west corner³ (now the Post-Office garage and driveway). In this, the north range can be seen, ruined but with the buttresses still intact. The west range however, is occupied by a building which, with the exception of a brick-built addition at the end nearest to the artist, appears to be the original structure. Ashlar stonework surrounds the upper storey windows but the whole has been re-roofed. It is described as a malthouse in 1834 and the cowl is present on the 1780 drawing. The new roof and additional rooms would account for the large three-light window being hidden. Grimm's afore mentioned drawing (Plate I) shows the southern end of this range of building with the added detail of an arched doorway which certainly appears to be ecclesiastical. Unfortunately this is obscured on what is otherwise a most informative print of 1813 by W. P. Sherlock (see Plate II).⁴ The view, from south of the river, takes in both the south and west ranges. Incorporated in the west wall of the west range is a large arch and this presumably is the gateway to which Tierney refers. To the right, an eastward extension of the building is shown as in Grimm's drawing and it is difficult to determine the position of this although it appears to lie in the courtyard and not in the north range; a plan of the town c.1785 shows no more than a step in the east side of the building range.⁵ The two ranges are separated by a road with a pump in the centre and the south range is fitted out as a

¹ Tierney, op. cit., p. 670.

² Figured, for example, in *Gents. Mag.*, 1793, vol. 63 (pt. 2), p. 1165, pl. III.

³ Published in W. H. Godfrey and L. F. Salzman, eds., *Sussex Views* (Sussex Record Society Jubilee Vol. 1951), pl. 12. Grimm's title is 'The Friary near the Bridge at Arundel.' Another popular misnomer, 'The Dominican Priory,' is used by Kimpton in his *Popular Guide to Arundel* (1893). A belief that the south range was an old chapel recurred persistently.

⁴ The writer expresses grateful thanks to Miss Winifred Fox, the Worthing Reference Librarian, for drawing attention to the print which is bound in a MS. diary entitled *Devonshire Tour IV*, in the Sussex Room.

⁵ Eustace, op. cit., p. 162 (plate facing).

timber yard: the eastern arch stands up well and there appears to be only one doorway in the south wall. Timber lies around and a high fence surrounds the ruins and runs down to the river bank. In the river a boat piled with timber is being poled away, presumably on the outgoing tide either from a wharf out of the picture on the right, or from the slipway in the centre; there is a wharf on the left which does not appear to serve the timber yard. Timber, oak and plank were the main exports from Arundel in the early 19th century, there being 45 ships belonging to the port in 1821; but by 1831 the trade was declining.¹ Indeed, in Tierney's sketch of the south range, c.1833, the ruins have the appearance of a barn or cattle-shed: the lean-to on the south east wall can again be seen in an oil painting in Arundel Council Chamber, which was executed prior to 1831.

The malthouse in the west range, still in use in Tierney's time, was removed sometime between 1834 and 1850 and transferred by Henty and Constable to another site on the south side of the river. A photograph of 1850 (*sic*)² shows the west range half demolished. The west wall stands only to first floor height but part of the arch of the large north window on the first floor survives. It was after this date that the buttresses of the north range were robbed.

In 1892 the new Mill Road was built through the courtyard, coinciding with the building of the Lodge, and in recent years a public convenience was constructed in the north-west corner of the courtyard. In 1965 the dual requests, to erect a temporary building in the north range and to put a road affording access to the Post Office through the west range, prompted the Ministry of Public Building and Works to arrange for rescue excavation to take place in the areas involved. In the event, the former building plan was waived and a more substantial building re-sited outside the north range. The interior of this range has been laid out as a garden and the ivy removed from the walls.

THE PLAN

The establishment is a version of the unified quadrangular plan for all sorts of collegiate and quasi-monastic foundations: it is typically late medieval and affected by house-plans of that period. The necessary buildings comprise (i) chapel; (ii) common hall; (iii) Master's lodging; (iv) brethren's lodgings; (v) gatehouse. The hall and chapel could be in series, as at New College, Oxford. Here they are opposite: the north range was the chapel: the south range was the hall: therefore the west range presumably contained the Master's lodging, brethren's lodgings and gatehouse. At the present time, no evidence can be cited for the existence of an east range but the lack of 18th or 19th century illustrations may mean

¹ Eustace, *op. cit.*, p. 233.

² Eustace, *op. cit.*, p. 84 (plate facing).

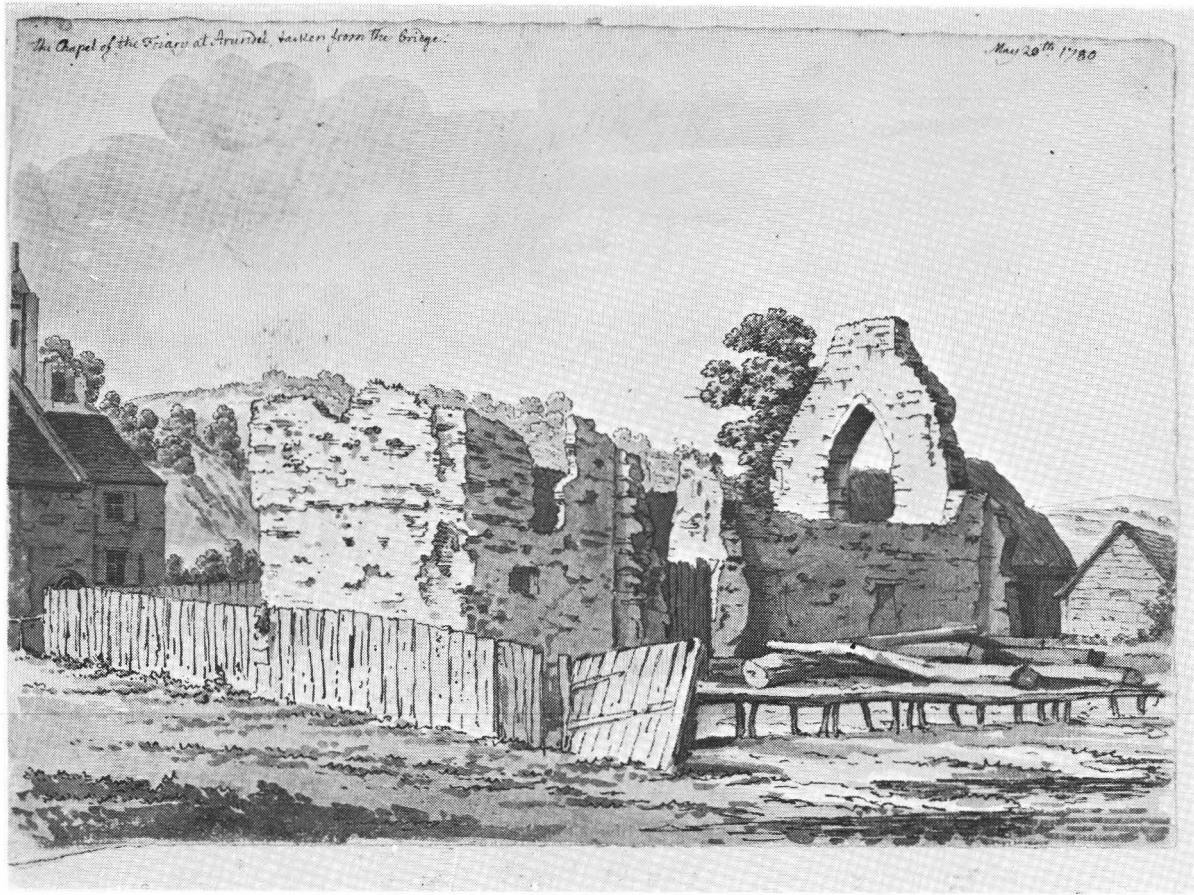


PLATE I. Drawing by S. H. Grimm showing south range and part of west range (extreme left).

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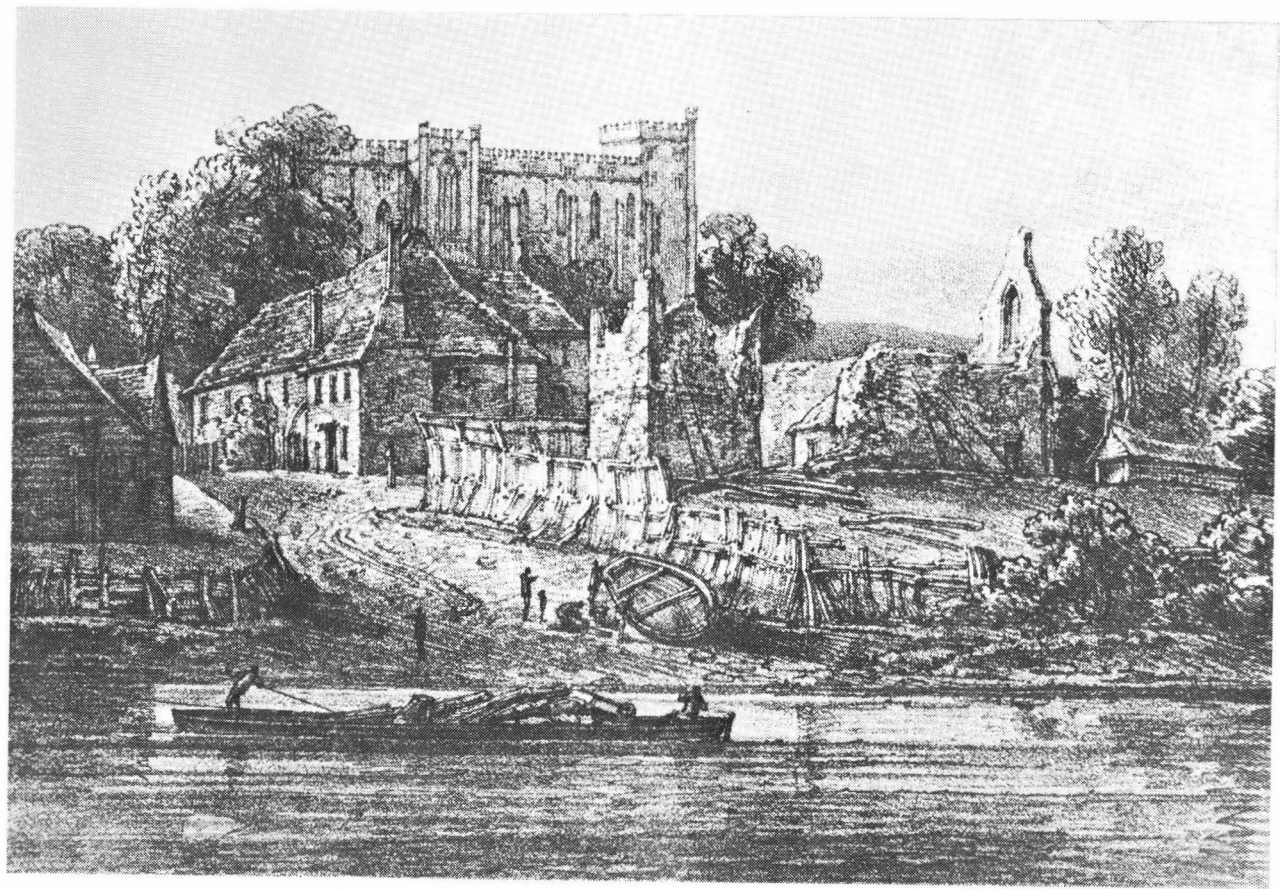


PLATE II. West range and south range shown on print of 1813 by W. P. Sherlock.



PLATE IIIA. West range before clearing, 1965; embrasures on left, the arch of the doorway (see Plate IVB) is right of centre.



PLATE IIIB. General view from Castle Lodge, 1968. North range on right with robbed transept and buttresses, south range on extreme left, west range hidden.



PLATE IVA. North range. Detail of doorway in the north wall. Bolt hole is 4ft above ground level.



PLATE IVB. West range. Doorway after clearing.

that the range had been entirely robbed in the 17th or early 18th century. The most likely candidate for the robbing is the new stone bridge of 1724 yet it is odd that it should be the range furthest from the site of the bridge to suffer most. The 1850 (*sic*) photograph in the Arundel Museum shows nothing but fields in the would-be area of the east range. Excavations could provide the answer but would be hampered by the fact that the supposed line lies almost entirely under the road junction between the Castle Lodge drive and Mill Road. Tierney says that the number of inmates in 1407 had only reached fifteen and that 'it is not improbable that the premature death of the founder had arrested the progress of his benevolent designs and left the foundation incomplete in some of its essential parts.' But on another page in his description he also says: 'Like the college it formed a quadrangle, whereof part was occupied by a chapel and part by the refectory and its offices: the remainder contained the various chambers of the inmates. Round the courtyard there appears to have been a cloister: and the traces of a gateway, at the south-west corner, are yet visible.'¹ The only surviving evidence of a cloister can be seen on the north wall of the south range which would have flanked the courtyard. Here chalk blocks face the wall up to the first floor height where their junction with knapped flints is marked by an ashlar string-course, perhaps the top of the cloister roof. There is no evidence, nor would any be expected, of a cloister alongside the chapel in the north range.

CONSTRUCTION

This is best seen in the upstanding pieces of the north range and confirmed by excavation in the west range. The south range has undergone much alteration and reconstruction, the upper flint part being entirely rebuilt; on the river side, two buttresses flank a large opening, the original character of which is lost. The foundations, core and visible internal faces of the walls are in chalk, but the inner face of the excavated section in the north range was of flint with a plaster coating. The external faces are of small knapped flint, the average width of the walls being three feet. The dressings are in coarse yellow sandstone—Wealden Greensand from the Pulborough area. Thus all the material would be brought in easily from a short distance upriver. Caen stone may have been used although it has not been recognised: a shipload of 30 tuns was imported to Sussex in a Dieppe ship between Michaelmas 1395 and Michaelmas 1396 but unfortunately it is not known into which port.² It would also be interesting if examples of Portland⁷ Stone

¹ Tierney, *op. cit.*, pp. 663, 669.

² R. A. Pelham, 'Some Further Aspects of Sussex Trade during the 14th Century,' in *Sussex Arch. Coll.*, vol. 71 (1930), pp. 192, 196; on p. 198 Mr. P. M. Johnston suggests the stone was intended for the Collegiate Church or Maison Dieu at Arundel, or the cloisters in Chichester Cathedral or Amberley Castle.

were to be found as building material (see page 77). The construction is generally similar to that of other late 14th century buildings in particular to that of the nearby Holy Trinity College which was built around a quadrangle: there the collegiate chapel formed the north side with the Master's house attached to its south-east angle; the refectory and kitchens were on the east side and private accommodation for members on the south and west sides with a gateway at the south-west angle.

THE EXCAVATION

The two areas investigated were as follows:—

North Range

A trench was laid out between trees at a point opposite the existing east terminal wall of the south range. Robbed on the surface, the inner or south wall of the north range was located at 2ft. 6in. A floor of glazed tile, much disturbed by a later rubbish pit, was traceable 4ft. below present ground level abutting against the plaster-covered flint facing of the wall. Below the floor level, the flint continued down to 5ft. 3in. Here the foundations of chalk blocks 7in. by 6in. by 6in. were off-set 10in. and continued down to 7ft. 3in. where they rested on natural alluvium. The whole of this part of the site had a 20th century thick capping of rammed chalk. This rendered further trenching by hand impractical and the proposal to erect a temporary building without footings prevented mechanical stripping. During subsequent removal of tree stumps from the site several glazed tiles came to light. A builder's trench located the outer north wall but failed to find evidence for the inner wall (see Fig. 1); this could be explained by the presence of a doorway since the trench being only some 3ft. deep did not reach floor level. In fact, it is opposite to an opening in the outer wall defined on its east side by ashlar dressings with a probable bolt hole (see Plate IVA). When ivy was removed from this same easternmost fragment, the continuity of the chalk core gave evidence of a wall at right-angles on the external side (see Fig. 1 and Plate IIIb); this may be the remains of a transept. The foundations of the main wall were traced still continuing at a point 6ft. east of its visible extent.

Some investigation was made outside the north range in what was then a garden,¹ soon to become a car-park. A trench against the wall revealed the unrobbed base of a buttress 18in. below present ground surface, which incidentally was lower here than inside the range, since there was no rammed chalk capping. Alongside was an area of cobbling. Ten feet to the north a trench to a depth of 6ft. went through clean black soil and recovered little except clay

¹ By kind permission of the tenant Mr. H. Mitchell Jacob. Tradition told of a burial ground in this area; a report of skeletons in the *West Sussex Gazette*, Nov. 1867, ascribed them to a Quaker burial ground.

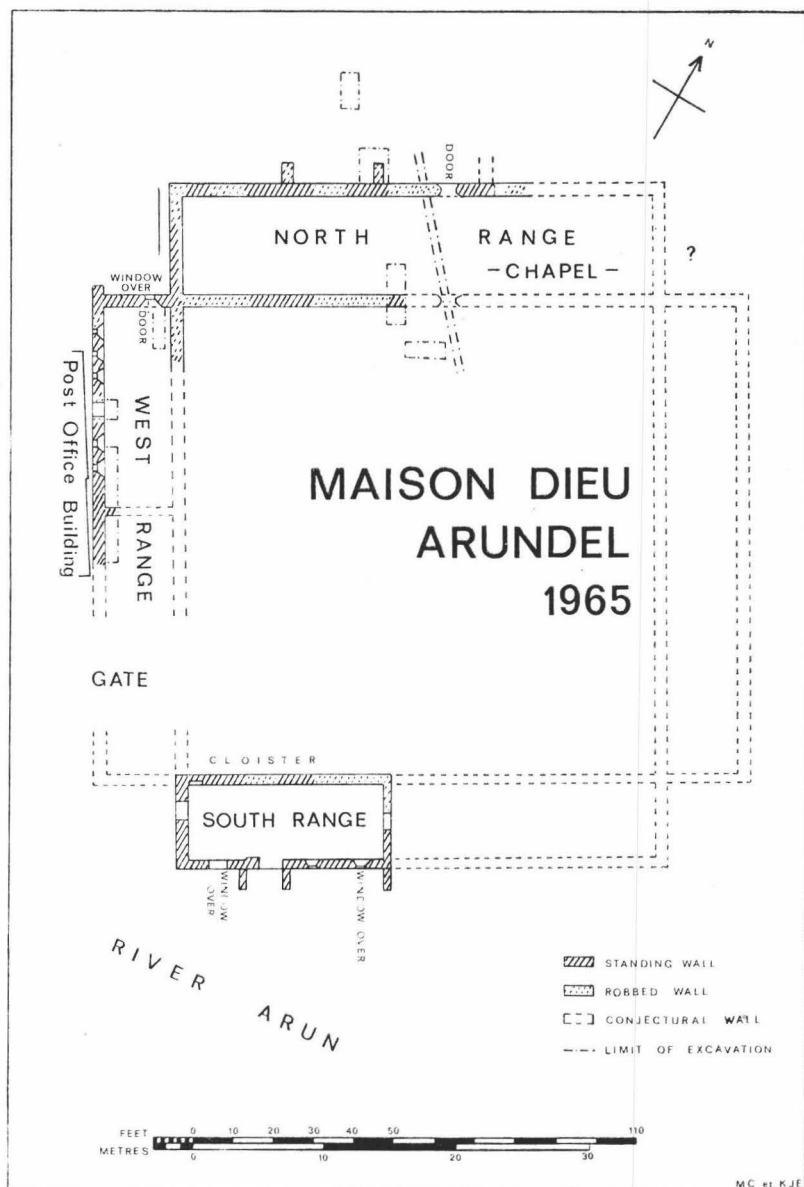


FIG. 1 Plan of building and excavations.

M.C. et K.J.F.

pipes and some 14th century potsherds. Plate III B shows the positions of the buttresses.

To the south of the north range a trench dug within the courtyard failed to reveal any evidence of courtyard flooring or cross walls. Victorian rubbish was found to a depth of 5ft. and a 17th century brick rested amongst chalk blocks on natural alluvium at 6ft.

West Range

The area available for excavation here was defined on one side by the wall of the Post Office, on the other by a public footpath and public convenience (see Plate III A). After tree removal a mechanical excavator was employed to cut a trench abutting up to the north end wall and to remove the overburden from alongside the upstanding fragments of the west wall. The concrete floor of the malthouse (early 18th century to mid 19th century) ran at a foot below the west wall embrasure seats and up to the north door, leaving a height of doorway of 6ft. 9½in.: a tile step dropped to the floor of the malthouse on the north side, where a decorated mid-19th century clay pipe was found in the old soil line overlying the sill. The original step, of mortared flint, lay nearly a foot below the malthouse floor, 7ft. 7in. below the top of the door arch. The width of the doorway was about 3ft. 6in. and 5ft. across the splays (see Plate IV B). On the left side a draw-bar hole 6in. square ran 3ft. 4in. into the wall 3ft. 7in. above the step; on the right side the companion hole was 4in. deep. At first floor level, 8ft. above the door-head, a fine three-light, arch-headed window occupied the whole width of the range, with fragments of lead strip still lodged in the masonry, but unfortunately the centre of this wall collapsed in a gale in December 1965. A section abutting the doorway was cut by mechanical excavator; the series of chalk levels overlying the natural alluvium, which occurred at 2ft. below the mortared flint step, cannot be related to floor levels contemporary with the Maison Dieu. All evidence of the ground plan showing how the large doorway related to the small partitioned study rooms to which the embrasures belong seems to have been destroyed, neither could the position of a staircase be established. It was only possible, by mechanical excavator, to prove chalk foundations of the inner or east wall of this range at a depth of 2ft. 6in. and at a point ten feet south of its junction with the north range; beyond, its course was obscured by the public convenience. In fact work throughout the west range was severely hampered by the very confined situation.

An 18th century brick hearth occupied the north-west corner of the range and the west wall had been altered by filling up the series of embrasures with flint packing, with the exception of the northernmost which had been reconstructed as a doorway (see Plate V A: note the re-used stone in position as the door jamb). The exact measurements and details of this embrasure cannot therefore be given. The others vary slightly and are as follows. Working

southwards, embrasures 2 and 3 were close together, 4ft. 10in. wide over the splay, narrowing to 2ft. at the window. Each had an external shutter-rebate with a 6in. drop step in the centre and side rebates of 1½in., but little remained of the surround of no. 3, only a very worn ridge along the sill; the front edge was chamfered.

A considerable gap separated embrasure 4 from 3. This is occupied by a wall of chalk blocks and includes a doorway subsequently blocked. A deep trench here revealed modern rubbish and no foundations, although the spacing would allow for another two embrasures.

Embrasures 4 and 5 were 5ft. 4in. wide across the splay, with a chamfered arriss. Both had shutter-rebates: that of no. 4 was 2ft. 3½in. across a very worn surface; and at a height of 2ft. 2½in. above the seat there is a very deep horizontal slot on either side of the embrasure and apparently running the total width from front to back (see Plate VB). The one stone of the south side bears a similar slot in embrasure 5, but the opposing stone does not remain in its place. It measures 2ft. 7in. in front of the shutter rebate which has bottom and side slots.

A three-foot wide trench was removed by hand from a point opposite embrasure 4 southwards for 29ft. to the pavement. Massive chalk foundations went to a depth of 6 to 7ft. below the sill of the embrasures. The floor of the Maison Dieu is presumed to have lain at 2ft. 6in. below the sill but the levels here were of later re-deposited rubbish and no facing remained on the west wall. South of embrasure 5 nothing survived above ground but at 7ft. from the embrasure, ashlar blocks with a vertical rebate for a door jamb appeared in the line of the west wall (see extreme left of trench in Plate VB). A chalk wall 2ft. wide crossed the trench at right-angles, the doorway having been blocked. On its north side this transverse wall overlay a rubbish pit containing a mixed range of pottery from the 12th to 15th centuries (see Fig. 2, nos. 7 and 8). To the south, the levels were undisturbed; the west wall was of ashlar and retained its mortar facing to a depth of 4ft. 6in. below the embrasure sills. There was a series of occupation and destruction levels, the most interesting at a depth of 4ft. below ground level. This was composed of much mortar and included numerous animal bones, presumably food refuse, large fragments of charcoal and pieces of bronze. Fragments of red glass, a lobed cup and three English jettons were closely associated: the jettons are dated to 1310 but lobed cups are usually considered 15th century. The jettons are very worn and could conceivably have been in circulation for a hundred years. Originally this room must have lain a step or two below the floor-level of the rooms to which the embrasures belong, and as such it must have been almost a cellar, used for storage purposes. Its proximity to the gatehouse would further suggest this. What is remarkable is that it was not rendered useless by flooding: during

the excavations when the River Arun was at high tide it was experienced that water seeped into the trench. It seems likely that early in its existence the room was allowed to fill with rubbish and the doorway was blocked, thus sealing off the room.

The presence of earlier pottery and rubbish is to be expected on a town site and is borne out by Tierney's statement (see above) '*... as soon as the ground could be prepared.*' Removal of buildings and levelling of the ground would be necessary over the large area that the new establishment was to cover. One wonders as to the nature of the previous occupation in view of the finding of late 13th century imported French pottery amongst the re-deposited rubbish.¹

DESCRIPTION OF FINDS NOT ILLUSTRATED

Jettons: by S. E. Rigold, F.S.A.

- 1) Thin Æ blank, pierced in centre, diam. 19mm.
- 2) Ditto, diam. 18mm.

Such blank pieces are sometimes found associated with English 'sterling' jettons, though this instance is probably the closest association recorded (1 and 2 were found together with 3). They were obviously used with proper jettons, and conform to the English regulation that they should be pierced to avoid being mistaken for coins, smaller continental pieces being occasionally pierced on importation.

- 3) English 'sterling' type, diam. 21mm., pierced obv. normal sterling head in border of pellets, rev. cross moline, one pellet in each angle, border of pellets. cf. Barnard,² Pl. 1, no. 2. The crown is bifoliate, i.e. not earlier than pennies of Fox class X, but the central ornament is not quite clear though not particularly tall. Apparently nearest to Fox class XI, but may approach XIII or XIV. —Date 1310s or possibly 1320s.

Red Glass. Fragments of opaque red glass from a bottle-shaped vessel with flaring mouth. There is one piece of a simple bead rim, and the average thickness of the glass is 1mm. On some pieces the surface is decayed but not necessarily burnt. Presumably it was imported. Mr. G. H. Kenyon, F.S.A., states it is probably impossible to identify Wealden glass away from the district until the mid-16th century.

Rouen pottery. A small body sherd in hard whitish-grey fabric from the shoulder of a Rouen jug. The distinctive zonal decoration is present, red slip next to white slip, with, at the junction, an applied vertical strip of double line rectangular rouletting; the whole is glazed with a clear lead glaze. Date 1280 to 1320.³

¹ Sections and a full set of photographs have been retained at Worthing Museum where they can be examined. The finds also are deposited there but will be shown in Arundel when possible.

² F. P. Barnard, *The Casting Counter and the Counting Board* (1916).

³ Identified by Dr. G. C. Dunning, F.S.A. See K. J. Barton, 'Medieval Pottery at Rouen,' in *Arch. Journ.*, vol. 122 (1966), pl. VIIb, p. 79.

West Sussex Ware. A variety of green glazed sherds was found, including fragments with applied strips of brown slip, and one of white slip.

Painted Ware. Several pieces with white painted lines and splash glazing.

Floor Tiles. A number of floor tiles was found, nearly all from the north range. The majority were plain green glazed tiles, 5in. by 5in. and $\frac{3}{8}$ in. thick; others were yellow or dark green glazed. Some have leaf shaped key holes on the under-side. The larger tiles are usual in the 15th century but the 4in. size can extend right through from the early 13th century. The patterned examples, all with a slightly depressed design filled with white slip, are figured.

DESCRIPTION OF ILLUSTRATED MATERIAL (FIG. 2)

No. 1. Glazed floor tile. (Ponsonby, no. 14),¹ border pattern, white on red ground, $4\frac{1}{4}$ in. The 4in. size occurs at Poynings church and elsewhere; a $4\frac{3}{4}$ in. size occurs at Shulbrede Priory. Not keyed. There seems to be a fault on the stamp.

No. 2. Glazed floor tile. (Ponsonby, no. 37), gyronny pattern, 4in., white on red ground, the glaze worn off. A common pattern. Not keyed.

No. 3. Glazed floor tile. (Ponsonby, no. 32), white on red with a green glaze, a scroll of carnations enclosed in a circular band, 4in. There are more dots in the circle than in the example figured at Shulbrede. Termed the Lewes group, not keyed. A fragment of the same pattern has recently been found at Bury² and may have been robbed from the Maison Dieu at the Dissolution.

No. 4. Glazed floor tile. (Ponsonby, pl. VII, no. 6), $4\frac{1}{4}$ in., white on red with a dark green glaze, a variation of the vine under a canopy with the head of a devil in the entwined loop. Lord Ponsonby records this pattern from St. Stephen's College, Westminster, and Reigate.

No. 5. Lobed cup, a handle and rim fragment. These have recently been discussed in the Hangleton report³ but this example seems to be better paralleled by one at Winchester.⁴ In 1968 a handle fragment was found at Tortington where incidentally the Hospital held property.

No. 6. Lobed cup, rim fragment.

¹ Lord Ponsonby of Shulbrede, 'Monastic Paving Tiles,' in *Sussex Arch. Coll.*, vol. 75 (1934), pp. 19-64.

² K. J. Evans, 'Worthing Museum Notes 1965 and 1966,' in *Sussex Arch. Coll.*, vol. 106 (1968), p. 136.

³ J. G. Hurst and D. G. Hurst, 'Excavations at Hangleton Pt. II,' in *Sussex Arch. Coll.*, vol. 102 (1964), pp. 127-129 fig. 10, no. 314-316.

⁴ B. Cunliffe, *Excavations at Winchester*, vol. 1 (1964), p. 94, fig. 27, no. 7.

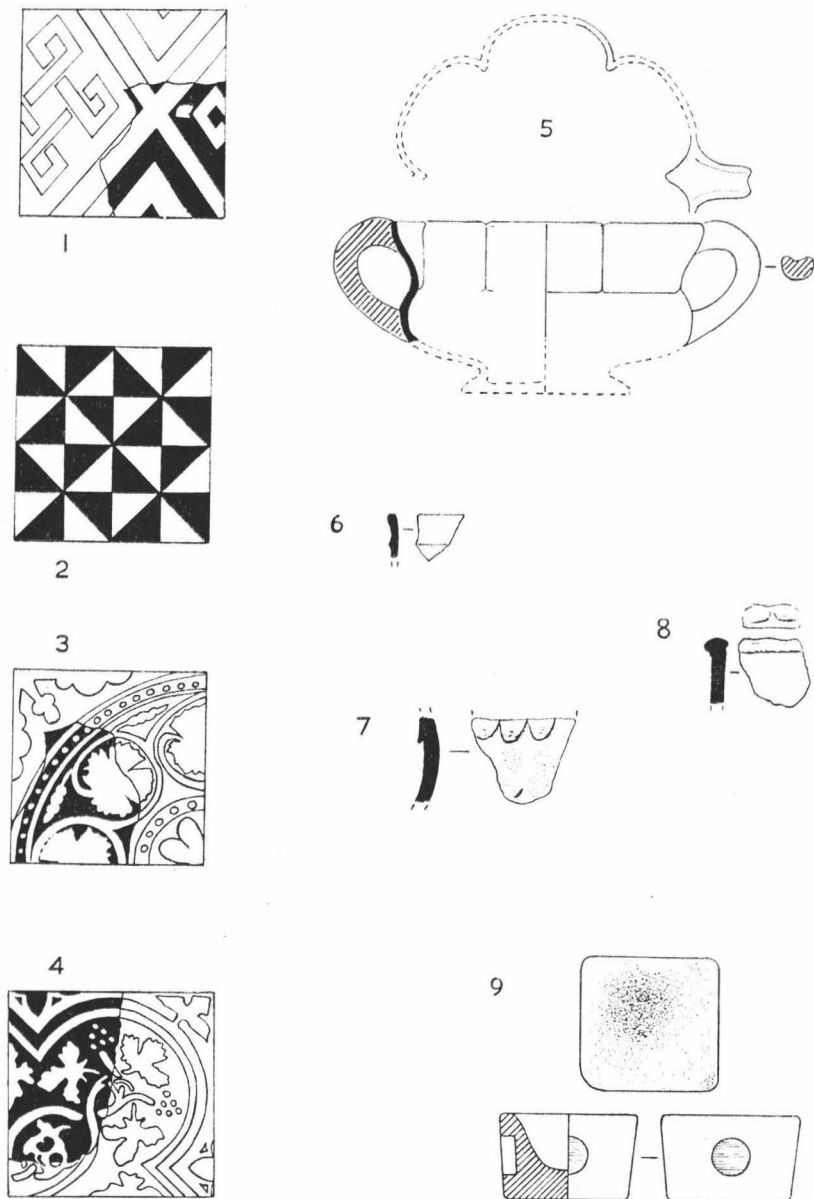


FIG. 2. Floor tiles 1-4; pottery 5-8; mortar 9. (All $\frac{1}{4}$).



PLATE VA. West range. North section of west wall, with malthouse doorway made in an embrasure.



PLATE VB. West range. West wall looking south from Plate above. On extreme left in trench as ashlar blocks of the 'cellar.'



PLATE VI. Apothecary's mortar from Maison Dieu, Arundel.
Top view and side view (scale $\frac{1}{4}$) (See Fig. 2 no. 9 and p. 77)

No. 7. *West Sussex Ware*, neck sherd, pink and grey sandwich sandy fabric, green glazed with applied leaf-shaped pellets of clay. This is fairly similar to a fragment from Goring.¹

No. 8. *Rim*. Thumbed on top, in grey gritted cooking-pot fabric. Although not worn, this must be residual since the form is normally considered to be 12th century.² It was associated with no. 7 and West Sussex Ware sherds generally, as well as cooking pot fragments with sagging bases.

THE APOTHECARY'S MORTAR FROM MAISON DIEU, ARUNDEL

By G. C. DUNNING, D.LIT., F.S.A.

Fig. 2, no. 9 and Plate VI

The miniature stone mortar was found during repairs to Maison Dieu, in 1937. It is recorded as having been built up into one of the walls,³ which suggests that it dates some time after the founding of the Hospital in 1396; probably it is 15th century.

The mortar was submitted to Dr. F. W. Anderson, formerly Chief Palaeontologist to the Geological Survey of Great Britain, who has kindly identified it as a very fine-grained, hard Portland stone. In southern England there are a limited number of areas in Dorset where this stone was quarried during the middle ages, extending in a belt across the south coastal strip of the county; in the Isle of Portland itself, in a strip north of Weymouth, and also in the Isle of Purbeck where the stone is generally harder than from Portland. The Purbeck area became renowned earlier for a large-scale stone industry (particularly Purbeck marble) than did Portland, whence stone was used in the 12th century only locally in churches, though in the 14th century it exported some as far as Exeter and London.⁴

The rare use of Portland stone for the specialised purpose of an apothecary's mortar is thus noteworthy, in contrast to the frequent use of Purbeck marble for the large domestic mortars. Dr. Anderson comments that the great advantage of a limestone as against a sandstone for this purpose would be the absence of small particles of quartz, which would not be acceptable in an apothecary's

¹ K. J. Barton, 'Worthing Museum Notes for 1963,' in *Sussex Arch. Coll.*, vol. 103 (1965), p. 93, fig. 3, no. 5.

² See E. W. Holden, 'Excavations at Hangleton Pt. I,' in *Sussex Arch. Coll.*, vol. 101 (1963), p. 114, fig. 17, no. 3. Also A. E. Wilson, 'Late Saxon and Early Medieval Pottery in Chichester,' *ibid.*, vol. 91 (1953), p. 155, fig. 8.

³ *Sussex Notes and Queries*, vol. 6 (1937), p. 185.

⁴ E. M. Jope in *Medieval Archaeology*, vol. 8 (1964), p. 102.

preparations. It may be added that the selection of Portland stone for a mortar is paralleled in the Roman period, when mortars of Purbeck marble were also in common use over much of Roman Britain. The sole instance known of Roman date is a mortar of this fine-grained stone, similar in size and shape to those of the shelly marble, from an occupation site near Gallows Gore, Worth Matravers, in the Isle of Purbeck.

The mortar is 2.8in. square at the rim, and 1.75in. high. The flat sides slope inwards to the base, which is 2.55in. square. In the middle of each side is a circular sinking, 0.8in. in diameter and 0.3 to 0.4in. deep, apparently cut by a tubular drill. The mortar is complete, apart from abrasions round the top and on the corners. The inside surface is worn smooth.

The mortar is without parallel in the medieval period, either for its small size or for the sinkings in each side; these would serve as holds for a thumb and finger, and thus steady the mortar in use.

The Arundel mortar has been examined by Mr. Leslie G. Matthews, F.S.A., author of the standard work on the *History of Pharmacy in Britain* (1962). Mr. Matthews kindly identified it as an apothecary's mortar, used with a small pestle for pulverising herbs or spices, or possibly in compounding small quantities of ointment that required an admixture of powder and fat as an excipient.

In medieval times, from the 13th century onwards, mortars of Purbeck marble and to a less extent of other stones were in general use for domestic purposes. These mortars have a circular bowl, varying from about 7in. to 15in. in diameter.¹ Many show signs of considerable wear, either for pulverising (which wears down the middle of the base, and eventually may break it), or for grinding (which undercuts the side of the mortar).

Mortars for pharmaceutical purposes were usually of metal, bronze or brass, or iron. These mortars ranked as valuable items of the dispensary, and are recorded in the inventories. The earliest of the extant mortars of metal date from the late 13th or early 14th century. Occasionally the mortars are shown in use in illustrations in medieval manuscripts. One of the most famous of the medical herbals, in the Library of Trinity College, Cambridge, depicts a doctor's dispensary of the early 13th century.² An assistant, sitting on the floor, is engaged in pounding with two large pestles in a massive mortar between his legs. These pestles, presumably of metal, are shaped differently at the two ends; one end is expanded and slightly convex, for use in pulverising, and the other is hemispherical, for grinding. No example of a medieval pestle, either of metal or of stone, appears to be known in this country.

¹ *Medieval Archaeology*, vol. 5 (1961), pp. 279-84.

² D. Hartley and M. M. Elliott, *Life and Work of the People of England, 11th to 13th Centuries* (1931), p. 33, pl. 28, b and c.