MONASTIC PAVING TILES

WITH SPECIAL REFERENCE TO TILES DISCOVERED AT SHULBREDE PRIORY, LYNCHMERE.

BY LORD PONSONBY OF SHULBREDE AND THE HON. MATTHEW PONSONBY.

The study of mediæval monastic paving tiles is one to which little attention has been paid. Except for the two books, Examples of Decorative Tiles by J. G. Nichols (1845) and Specimens of Tile Pavement by Henry Shaw (1858), most of the literature on the subject is contained in papers in archæological societies' collections or in general books on architecture. Emile Amé's beautiful work (1859) on mediæval tiles in France has no equivalent in this country. Owing to the number of discoveries of these tiles during the last fifty years it would be manifestly impossible to cover the whole ground even in England. The inspection of churches, museums, and private collections where tiles exist and the examination of pavements unearthed from time to time in the ruins of monastic houses would involve a lifetime of research work. Were it merely a question of cataloguing patterns, although some thousands would have to be noted, that would by no means cover the whole ground. The device on the tile may in some cases tell us much, but there is also the question of its date, where it came from, and where it was made.

The object of the present paper is to restrict the field to a close and detailed examination of a very small corner of the subject. By this means it may be possible to arrive at some conclusions, or, at any rate, hazard some conjectures with regard to the method adopted by the inmates of religious houses not only of manufacture but of distribution, and to trace the intercourse between Abbeys and Priories in the purchase

and supply of paving tiles.

The history of the monasteries has been derived from records of Episcopal visitations and the Chapters of the various orders, from records of litigation, and from the Suppression papers. Intercourse between houses of the same order may be found in the interchange of monks and canons. The carriers of bede rolls also travelled far afield from one conventual house to another. We can now supplement the evidence of parchment and the written word by proof furnished by little squares of burnt clay. Not only in their patterns, but in their material and in the way they are fashioned, they bear the signatures of their monastic makers if only we can read the marks. Thus it becomes possible to trace a network of intercourse between monkish craftsmen, or craftsmen employed by the monks, not limited within the confines of each order and regulated by methods which may take some time vet to unravel.

Although this paper is strictly confined to the discoveries in one small priory the extensive ramifications of the subject have been astonishing. The research has been prolonged, but we can hardly claim it to be exhaustive. Apart from the actual unearthing of tiles in the grounds of Shulbrede Priory itself, a large number of other religious houses, churches, and

museums have been visited.

On the whole little regard has been paid to paving tiles. They have been broken up and thrown away, they have been left to be worn down by the passer-by. But it is only fair to say that there are a number of churches where care has been taken to preserve tiles intact. Tiles have been found in many monastic ruins, but there are some where either no work of excavation has been undertaken, and therefore no tiles have been unearthed or all the tiles have been removed. Tiles may be found unexpectedly in churches which are far removed from the site of any religious

house, while churches within a short distance of an abbey or priory are entirely devoid of tiles. monastic ruin the absence of tiles is no necessary indication that pavements did not originally exist. It is merely a matter of chance. In some cases such as Warblington Church and Buriton Church (Hants.), large quantities of tiles were probably removed at the Dissolution from neighbouring abbeys for the pavement of the church. The decorated floor tiles in the churches of Sutcombe and Bradworthy in Devonshire might be difficult to account for until Frithelstoke, a few miles away, is visited, where identical specimens may be found in the church adjoining the ruins of the priory

where they were undoubtedly manufactured.

Of Dallaway's suggestion that tiles were presented by the monasteries to churches which were under their patronage there is little evidence, although it is not impossible. There is some indication that the King's favourites to whom the dissolved monasteries were granted took paving tiles for their houses. But the ruined monastic churches were at the mercy of all who wanted building material; and it would seem that tiles were hawked about after the Dissolution and used here and there for church pavements quite indiscriminately. A few rare cases may be found where special tiles were supplied for a chapel or chantry. The best instance of this is the church of Ewelm (Oxfordshire), where specimens, still in good preservation, of two heraldic tiles connected with the Chaucer family, whose tombs are in the church, are arranged on the steps of the altar in the south aisle.

The presence or discovery of tiles in any particular place other than a monastery gives little help to the question of their original provenance or to the method of supply and distribution at the time of their manufacture. It is only the tiles themselves

which can tell us anything of their story.

Religious houses may be classified into three groups as regards tiles used for their pavements: (1) Those which made their own tiles and used no others: (2) those which made some of their tiles but imported tiles as well; (3) those which, owing to the absence of any clay, or for other reasons, made no tiles, and therefore imported all they used.

THE BEAUTY OF MEDIÆVAL TILES.

While there is undoubted archæological interest in the close examination of mediæval paving tiles, it happens at the same time that they have a very special beauty all their own. In the few cases where original pavements have been revealed this can be noticed, and even where rescued tiles have been laid carefully together. It is not merely a question of the mellowing influence of the passage of time. Each tile shows in itself the hand of the craftsman. The lines are not correctly accurate, but faulty and uneven. In the same way the ignorance of the tilewrights with regard to the choice and treatment of their clay as well as of the insertion of slip for the patterns and the burning and glazing of the tiles produces faults and shades of green and blue, purple and black (owing to the presence in the clay of oxide of iron). Thus, without plan or intention a variety and warmth of colour were given to the paved floors. These faults in manufacture caused what Dr. Frank Renaud called "the rugosities and peculiarities through which their artistic excellence is so much enhanced."1

While mediæval paving tiles are certainly an improvement on the Roman mosaic pavement, they are still more superior to the hard mechanical modern tile with its geometrically accurate lines and faultless material. It is the difference between the imperfect work of a man and the perfect work of a soulless machine. The only interest in modern tiles is that they sometimes postulate the former existence of mediæval tiles from which their patterns have been copied (as in the Lady Chapel of Chichester Cathedral). There are, however, sufficient pavements still in

¹ Four volumes of Tile Drawings by F. Renaud. Library of the Society of Antiquaries.

existence to give us some idea as to how the tiles were laid. Illuminations in manuscripts of the interior of churches also give some indication of pavement designs. Often in the earlier pavements, tiles, some of which formed complete designs in fours, nines or sixteens, were framed into panels by quarries of plain glazed tiles in narrow strips or by marble. Later the field was not divided up but filled in by rows of tiles of uniform pattern or by a diaper pattern repeated. But the work was often not carried out very symmetrically.

ORIGIN OF THE INDUSTRY.

The proficiency of the Romans in the domestic arts accounts no doubt for the early manufacture in this country of burnt clay in the shape of tiles, bricks, pipes, etc. Traces of tiles of Saxon origin show a certain development in the production of floor tiles. The existence in northern France of a number of monastic tile pavements led to the conjecture that decorated floor tiles were of Norman origin, and at one time they were referred to as "Norman tiles." Owing to the close relations between British and Norman religious houses it may well be that the art was introduced from Normandy, but there is no proof that tiles were imported. The designs on French tiles shown in the many illustrations in Emile Amé's book exhibit great similarity to the English varieties.

It would appear that floor tile manufacture was almost exclusively a monastic industry. It flourished from the twelfth to the middle sixteenth century. In every case which has come to our notice of the discovery of decorated floor tiles or kilns, it has been in the neighbourhood of some religious house. Few instances of the manufacture of floor tiles occur between the middle of the sixteenth century and the early nineteenth century. The tiles were used principally for the paving of the chancel, chapels and transepts of the church. In the nave stone flags were more commonly used, because any decorated design would be quickly worn down by processions and occasionally broken up

for burials. The Chapter house, the Frater, and the Hospitium would also be paved with tiles. And there are a few instances of paved cloisters as at Shaftesbury, Byland and Meaux. In the larger houses there were more extensive and more elaborate pavements covering a large space, circular or in long rectangular stretches. There are also several instances, specially in the North of England, of plain tiles cut in different shapes to form a mosaic floor, notably at Meaux and Byland.

In the course of time repairs were necessary and new pavements laid for extensions of the buildings. In cases where clay was handy tiles could be made on the spot, and this, despite the discovery of so few kilns, was undoubtedly a very common practice. Where there was no clay, tiles of course had to be imported from elsewhere.

Dossal or wall tiles must have been very rare, although they were often used for the rise of steps. Tiles specially made to represent figures and episodes (such as the remarkable set discovered at Tring, now in the British Museum), were probably fixed into walls, although some are also found in pavements. But there is no record of any dossal tiles having been found in situ, although some of the famous Malvern tiles were no doubt originally used as wall decoration.

DOCUMENTARY REFERENCES TO TILES.

The most notable mention of monastic tiles is a reprimand addressed to the Abbot of Beaubec in Normandy in 1210.

Let the Abbot of Beaubec, who has for a long time allowed his monks to construct for persons who do not belong to the order pavements which exhibit levity and curiosity, be in slight penance for three days, the last of them on bread and water. And let the monk be recalled before the feast of All Saints, and never again lent excepting to persons of our order, with whom let him not presume to construct pavements which do not extend the dignity of the order.³

² British Museum. A Guide to the English Pottery and Porcelain (1923), p. 18, 19.

³ Thesaurus Anecdotorum, E. Martene and V. Durand (1717), Vol. IV., p. 1308.

In 1237–38 it was ordered that the King's little chapel at Westminster should be paved with painted tile (tegula picta).⁴ In 1278 "a quarter and a half of yellow tiles" were bought for Westminster for 7d. In 1357, 185,000 tiles were bought from Richard Gregory for Westminster Chapel at 6s. 8d. the hundred. In 1368, "paventyll" for Windsor cost 4s. the thousand.⁵ Paving tiles were supplied to royal and other large houses and references occur to the importation of special tiles from abroad. In the dissolution letter written by Richard Layton from Shulbrede Priory he complains that the Bishop of Chichester had already taken away the pavement of the Frater.

Considering, however, what an extensive industry tile-making must have been, it is surprising there are not more documentary references to it. It would almost seem as if the designation of "tiler" should have been included among the offices which were held in the monastic fraternities. But even when there was a kiln it was not permanently working, as it was only required periodically. Nevertheless, the evidence goes to show that kilns must have been fairly common, although nowhere is there any documentary reference to them. Kilns for the burning of paving tiles have been discovered in the following places: Nottingham (1816–1821), Malvern (1833), Droitwich (1837), Great Saredon (1844), Dale (1862), Repton (1866), London, Farringdon Street (1869), Burton Lazare (1913), Chertsey (1922), Bawsey (1928), Rye (combined with a pottery kiln) (1930), Little Brickhill (Bucks.) (1930).

METHODS OF MANUFACTURE.

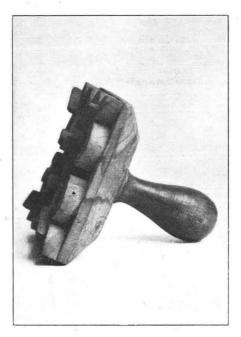
The clay was rolled upon sand into a sheet usually about an inch thick. Tiles have been found in which a good deal of sand is mixed in. But generally tightly-compressed clay was the material used. In some tiles

⁵ English Industries of the Middle Ages, L. F. Salzman, F.S.A.

⁴ Rot. Claus. 22 Hen. III.

 $^{^6}$ There is a reference to a pottery and tile kiln at Hastings, S.A.C., Vol. XI., p. 229.

of rougher make where the clay has not been sufficiently rolled there are holes and fissures which make the tile weak and brittle. The clay was then pressed into square moulds of the required size, the sides of which were sometimes sloped to form the bevelled edge. Tiles vary in size from 4 inches to 8 inches square; 4 to $4\frac{1}{2}$ inches are the most common. The soft clay was allowed to dry before the stamp or die, made of



Tile-stamp from Winchester.

wood, resembling a wooden butter print, with the design carved on it, was pressed down on it by means of a wooden handle. One of these stamps was found at Winchester, which is illustrated by kind permission of the Curators of the Winchester Museum. From frequent use the stamps occasionally cracked, sometimes part of the detail of the design broke off, and sometimes, either owing to a knot in the wood or to the dry clay not having been scraped out of the mould,

irregularities or faults were produced on the finished tile. The carver of the stamp, when engaged on an heraldic design, often made the mistake of carving an exact copy of his drawing, forgetting that when stamped the pattern would be the other way round. Armorial bearings are consequently often reversed. The best instance of the reversed tile is the alphabet (Repton kiln), where the carver, careful to get each letter the right way round, forgot to reverse the alphabet as a whole, so that it reads on the tile from right to left.

On some tiles diagonal or parallel cuts were made half way through the tile, so that a portion of the tile might easily be broken off to fill up corners. These cuts were sometimes made across both diagonals, dividing the tile into four triangular sections, or across the tile, dividing it into smaller squares or parallelograms. The cuts can easily be mistaken for a design.

In the majority of cases the design was carved in relief on the stamp with the ground cut away, producing the yellow pattern on the red background. In a few cases the design was cut into the stamp and the ground left, producing the red pattern on a yellow background. This latter would seem to be an easier method used by less experienced tilewrights. There are a few instances of the drawing of figures on the tile with a sharp point. These are rare and valuable instances of the art of the period.

Tiles with the pattern in relief, glazed and finished, with no filling in the depressions, are not uncommon. But the theory that they are of earlier manufacture than the more common type is difficult to substantiate. It seems more probable that there may have been difficulty in obtaining the finer white pipeclay for the

slip.

The slip was composed of white china- or pipe-clay, and care had to be taken that its composition was of a kind that would allow uniformity of result under firing. Instances can be found in which the white slip has shrunk and become detached from the outline of the pattern. The soft slip was run into the rather

drier clay of the impressed tile, and then scraped over with some sharp edge like a piece of slate.

Another way of using the slip (of which we have found several specimens) is very accurately described by Mr. John Ward, whose note may be quoted:

In some specimens a mere film of colouring matter takes the place of a definite inlay, so thin that it fails to appreciably level up the hollows, which in these cases are made very shallow. tiles had two advantages over the inlaid kind—the pattern colour being slightly depressed would allow of its glaze being longer preserved, and the depressions themselves would add strength and richness to the design . . . some worn specimens of these tiles disclose that this film was brushed over the surface. Apply this process to the above tiles: brush a thin white slip over the face of the dried quarry; the watery part is immediately sucked into the body, leaving a film on the surface; then pass over the face a straight scraper—this removes all the film except what lies in the hollows. Such tiles cannot strictly be called inlaid. I cannot think of a better term than enamelled, for the film looks like enamel. but technically it is very different from a true one. Sometimes the film is apparently purposely left over the whole surface, when the tile may be regarded as an embossed one in low relief.

The slip was sometimes brushed over the surface of plain tiles, and many are found with brush marks visible. Another method (referred to by Mr. Beaulah in his paper on Meaux Abbey tiles) was the covering of the tile with a coating about $\frac{1}{10}$ of an inch thick of white clay put on in a plastic state, on which the design was impressed and then glazed.

On the tile, now ready for burning, the metallic glaze was placed. This gave a richer tone to the colouring, deepening the red and turning the white clay into a mellow yellow. The glazing process is thus described by Mr. Grosvenor Bartelot⁸:

The final process was to dip the tiles in a yellow tinted metallic glaze, in which the lead and perhaps a little decomposed brass acted on the iron and the salt in the clay, and fire them once more, and they were then ready for use.

It is also maintained, however, that firing and glazing were all done at one fire in one operation. The different clays used in different places responded to the

⁷ Derbyshire Archæological Society, Vol. XIV.

⁸ Dorset Natural History and Antiquarian Field Club, Vol. XXX.

process of manufacture with varying results. The presence of oxide of iron in the clay gave at times a greenish hue to the body of the tile. This, while not intentional, by no means detracted from the general beauty of the pavement, which became, so to speak, shot here and there with a kind of green irridescence. A special glaze (not slip) was used for making green tiles.⁹ These are for the most part plain, although a few with patterns have been found.

Judging by the descriptions of the monastic kilns which have been unearthed it would seem that different methods were used for stacking the tiles in the kiln. Sometimes the flames reached the tiles from the fire in arches below them. The tiles seem also to have been stacked in recesses on a level with the fire, or in an adjoining chamber of the kiln, where the flames reached them by means of the strong draught in

the tunnel.

"Wasters" include broken tiles, over-burnt tiles, tiles stuck together or insufficiently burnt. The discovery of these, or of the roof tiles used in the construction of the arches of the kiln, postulates the existence of a kiln in the vicinity.

The different methods of manufacturing ornamental paving tiles may therefore be summarised as follows:

Depressed design filled with slip—this is the most common. Depressed background filled with slip, leaving design in red.

Depressed design without slip but glazed.

Very deeply depressed design, producing high embossed relief not requiring slip. (A good example discovered at Butley Priory, Suffolk.)

Very shallow depressed design on tiles covered with slip. Design of figures incised with a fine point on a slipped tile.

TILE DESIGNS AND THEIR DATE.

The decoration on floor tiles may be roughly classified as follows:

(1) Heraldic.

These have naturally received the most attention.

⁹ Described by Emile Amé (*Les Carrelages Emaillés du Moyen Age*) as follows: "C'est un vernis composé de protoxyde trituré de cuivre rouge ou bien de battiture de cuivre jaune mêlé avec l'alquifoux; on l'appliquait sur les engobes ou les terres blanches afin d'obtenir un ton plus éclatant."

The coats of arms of patrons and benefactors of religious houses have been found frequently on the pavement of the monastic church. In many cases armorial tiles have been found bearing the coats of men in no way connected with the district. The beauty of the design, quite apart from its significance, was often sufficient for a widespread demand to be created.

(2) Pictorial Designs.

These occur comparatively rarely either singly or in groups, depicting historical portraits, rural sports or mythological subjects. The Chertsey pavement is the classic example, and unique, and there are mural tiles of this character and also incised tiles.

(3) Beasts.

There are many samples of animals, fish and mythological beasts, most of all perhaps of birds. Some of them have symbolic significance. Birds may refer to the comprehensiveness of the Church ("the birds lodge in the branches thereof," Matthew x. 16).

(4) Emblems.

Religious monograms occur, and the *fleur-de-lis* and such like devices are perhaps the most common of all. The *fleur-de-lis*, although it may in some cases have heraldic significance as part of the royal arms, was more likely favoured as the emblem of the Virgin, and tiles in Lady Chapels often bear this design. The vine ("I am the true vine," John xv. 1) also has a religious significance, and occurs in an infinite number of varieties.

(5) Floriated.

Oak leaves and other sorts of leaves and branches occur in many varieties.

(6) Geometrical.

Interlaced circles, chequers, chevrons, trellises, gyronny, etc., are combined in many varieties, of which there are modern adaptations; also the vesica, a pointed oval, which is a simplified version of the figure of a fish, an early symbol of Christ.

(7) Letters.

Separate tiles of letters to form inscriptions have been found. They may be regarded as the fore-runners of moveable type.

On the dates of tiles it is impossible to dogmatise. That many were made in the thirteenth century for the first pavements of monastic churches there can be no doubt. Here and there an heraldic design may help to give an approximate date for the manufacture of a tile. But a stamp engraved at one date might well be used for tiles manufactured at a much later date. Simplicity of design cannot always be taken to denote an earlier date. We find the elaborate Halesowen tiles dated about 1250, and in our own collection a tile which is a late and simplified form of an earlier and more elaborate pattern. The fact that there must have been considerable activity in tile-making after the monastic church had been erected leads to the conclusion that the majority of tile designs date from the mid-thirteenth to the early fourteenth century, and were produced within a few years of one another; others at a later date were used for repairs and new construction. There are instances of tiles produced at different dates between the early thirteenth century and mid-sixteenth century in which similar designs persist through the whole period. The earlier tiles are for the most part from 4 to 6 inches in size. The larger tiles can be attributed to the fifteenth and sixteenth centuries.

THE BACKS OF TILES.

The examination of the back of a tile may tell us much of its history, even if the front be worn away. The small attention paid to this part of the subject is, of course, due to the fact that in many cases the tile is fixed and its back cannot be examined. In the two fullest papers on medieval tiles, Greenfield's in the Hampshire Field Club's proceedings, and J. Ward's in the Derbyshire Archæological Society's volumes, no mention whatever is made of the backs of the tiles.

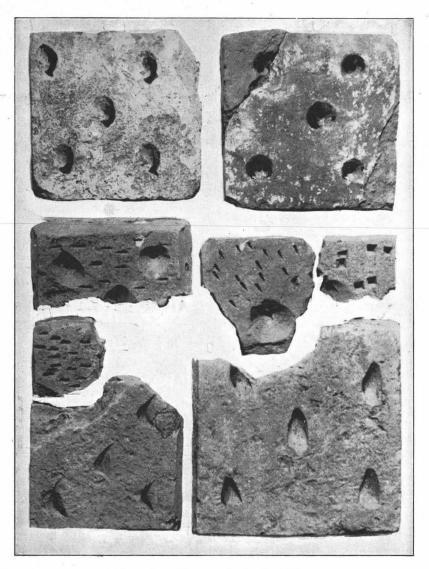
We have been fortunate in being able to inspect the

back of every fragment found at Shulbrede.

Judging by a considerable number of the tiles we have also been able to handle in museum stores and private collections, beyond the bevelled edge of the tile there were in the great majority of cases no distinguishing marks whatever. When marks do occur on the back of tiles something can be learned as to their manufacture, and by this means tiles can be classified in groups, and even in some cases their provenance ascertained. Why these marks occur in some tiles (mostly of Southern origin) and not in others is not clear.

Some tiles, both decorated and plain, have one, four or five (a tile at Wimborne Minster shows nine) circular indents, depressions, or what we may conveniently refer to as keys. In some instances the depressions are broad and shallow, in other cases narrow and deep. In a good many tiles of Shulbrede make, the keys have been made roughly with a finger or thumb (another instance of this occurs in tiles at St. Germans Priory, Cornwall). In the other cases the round kevs are carefully made with some tool like a knife or a flat pointed bit of wood. In one instance, a tile discovered at Newark Priory (Surrey), the depression takes the form of a deeply grooved quatrefoil. Tiles of identical design are found with differently marked keys. This shows that the stamp was used at different periods of manufacture.

The idea that these depressions were made in order to help in fixing tiles to walls may be dismissed, because all the tiles we have handled were undoubtedly used for pavement. Another theory (quoted by Otto B. Petor in Archæologia Cambrensis, 5th Series, Vol. XIII) is that they were made at the back "to prevent the clay from bending." This is plausible, as the warping of the clay, of which instances may be found in "wasters," was always a danger. But we have found a badly warped tile with five keys. In modern tile-making a different texture of clay is placed in a layer at the back of the tile to prevent warping. Why



Examples of Keys on the back of Tiles.

should this device be used in certain parts of the country and not in others?

Yet another theory is that these holes helped in

drying the clay before burning. Drying was important, because the presence of moisture produced cracks and scaling. But we are not inclined to accept this as the only explanation, as we have found a number of tiles covered at the back with small holes, sometimes made with the point of a knife three quarter way through the tile, sometimes with a pointed or a very narrow blunt instrument, such as a packing needle. These small holes were undoubtedly made to help in drying the clay. 10 But they generally occur in conjunction with keys. Mr. Grosvenor Bartelot's¹¹ idea that the "five rudely scooped finger grips doubtless during their manufacture served to protect the hands of the maker from the poisonous action of the lead used in the glaze" may be at once dismissed, not only because no five fingers could hold a tile by these holes, but also because he had obviously not come across tiles with one key or nine keys.

On the whole we are inclined to think that, while it may have helped in the drying process, it was merely an expedient adopted by certain tilewrights to steady the tile in the mortar or sand of the flooring, the small space between bevelled edges being insufficient to fix the tile if the composition of the floor was loose and sandy. In some cases there is no bevel at all; the edge of the tile is square. At any rate, the presence of these marks in the tiles discovered at Shulbrede has been of great assistance in arriving at some rough

classification.

THE SHULBREDE PRIORY KILN.

The remains of a kiln were discovered in 1928, about a hundred and fifty yards north of the west end of the site of the church in a meadow beyond the monastic enclosure which was encircled by a moat. It was about 8 feet square, the remains of one brick arch, 1 foot 6 inches from the south-east corner, 2 feet high,

¹⁰ To facilitate the equal drying of the tile, deep scorings or hollows were sometimes made on the reverse, and by this means when laid in cement the pavement was more firmly held together. (Parker's Glossary of Terms in Architecture.)
¹¹ Dorset Natural History and Antiquarian Field Club, Vol. XXX.

and about 2 feet across. The stool of another arch 2 feet further north. The presence of bricks piled together, the remains of brick arches, and the vitrified wall made out of cut stones taken from the Priory seemed to show that in more or less recent years this may have been used as a brick kiln. The burnt clay floor by itself would have been insufficient evidence of this being the site of a tile kiln. But in a dip of the ground close by, and scattered over a large area round about, a very large quantity of tiles were discovered some two or three feet down, a considerable number being plain and others patterned and inlaid. Most of the tiles, whether decorated or plain, had five keys made with the finger. There were several broken whole tiles, some under-burnt, some very dark and brittle from over-burning. The great majority of fragments were of a plain 8-inch tile, smooth, red and unglazed, with five finger keys. Some fragments were painted with slip and some glazed. Close by a quantity of roof tiles were found "run together," and covered with a vitruous glaze. It seemed as if the kiln, all but its floor, had been dismantled and thrown into the low ground when the brick kiln was constructed. Some small fragments of tile, however, still remained in or very near the kiln, some even having been used in the construction of the brick arching.

Bricks were sometimes used in the construction of tile kilns. The presence of the 5-inch tile fragments in the arches seemed to indicate that after these tiles had been made the kiln fell into disuse and was reconstructed for the manufacture of the 8-inch group at a later date. There is a tradition, based on the memory of fathers of men still living, of a brick kiln having existed at Shulbrede. A pile of bricks stacked lengthwise and crosswise, with a space of about halfan-inch between them, certainly had the appearance of bricks stacked for burning. Moreover the stone used for the surrounding wall was largely composed of cut and shaped stones taken from the ruins of the priory. However, the discovery in the lower ground of a large

quantity of broken tiles and "wasters" and vitrified roof tile, unquestionably shows that originally this was the site of the monastic tile kiln.

THE DISCOVERY OF TILES AT SHULBREDE.

Shulbrede Priory was an Augustinian house founded about 1200. The buildings we are informed (in 1358) "by the industry and magnificence of its founder were originally sumptuously arranged." It fell after the dissolution into the hands of yeoman farmers, and remained a farmhouse until the beginning of the twentieth century. The only remains standing to-day consist of the south-west corner of the hospitium, or Prior's lodging, with its undercroft and part of the outer walls of the refectory.

Chips and fragments of tiles were constantly discovered in the grounds after the building became a private house in 1902. The hospitium floor was tiled, but was much worn, and had frequently been repaired with unslipped tiles of inferior quality or bricks. certain number of patterned tiles remain on this floor. In a more careful investigation of the site of the church a large number of fragments were found in the chancel, the south transept and in the Lady chapel. On the site of a small rectangular building which stood near the moat more tile fragments were found. Finally, in the ground west of the church, which may have been used for a building in post-dissolution days, or was the site of the dump where material from the Priory was taken away, a very large variety of patterns were found scattered, and, curiously enough, several "wasters," fragments of over-burnt tile. In all some forty varieties of patterns and a large quantity of different plain tiles were collected. Some tiles discovered during the nineteenth century were sent to the Museum at Lewes, but, by kind permission of the Sussex Archæological Society, they have been returned to the Priory. Some again were kept in a neighbouring farmhouse, Lower Lodge farm, which for some years was combined with the Priory as a single farm. These too are now in the collection.

About the time of the dissolution it is probable that tiles were removed, perhaps by the Bishop of Chichester, whom Richard Layton in his suppression letter accuses of certain depredations some years earlier, including the removal of the pavement of the frater. The Ladv chapel of Chichester Cathedral was paved with mediæval tiles, of which only eight (close up against the east wall) now remain, the rest having been copied during the nineteenth century. Many of the patterns are identical with those found at Shulbrede. During nearly four hundred years since the dissolution the ground round the Priory has no doubt had various buildings and outhouses erected on it, or been cultivated or planted. Now and again a tile or two may have been discovered, but fragments of broken tiles would not have excited any curiosity. Except for the tiles laid in the Hospitium (divided in the sixteenth century into two rooms and a passage), very few whole tiles have been found. The fragments, varying from a large number of some patterns and perhaps only a small chip of other patterns, have, however, been sufficient when compared with tiles in the neighbourhood for the complete design to be reconstructed. The radius of the vicinity in which identical tiles have been found covers roughly four counties from London to the south coast, and from Winchester in the West to Dover in the East; Sussex, Surrey, Kent, and Hampshire. That fragments of specimens of all tiles used at Shulbrede have been collected is most improbable. In neither of the parish churches in the immediate neighbourhood, St. Peter's, Lynchmere, which was under the patronage of the Priory, and St. Margaret's, Fernhurst, only two miles away, have any mediæval floor tiles been discovered.

PLACES WHERE TILES EXIST IDENTICAL WITH THOSE FOUND AT SHULBREDE.

Religious Houses.

Durford Abbey (Premonstratensian), Sussex: (1) At the farm, paving a summerhouse. (2) At Mr. Minty's house, Petersfield. (3) At Lewes Museum.

Titchfield Abbey (Premonstratensian), Hants.: In Abbey ruins (discovered in a state of good preservation) under the grass in the twentieth century.

Selborne Priory (Augustinian), Hants.: (1) Dug up at the farm on site of ruins. (2) In the village church. (3) In Alton Museum.

Waverley Abbey (Cistercian), Surrey: (1) In the hall of the private house. (2) In Guildford Museum.

Lewes Priory (Cluniac), Sussex: (1) In the Sussex Archæological Society's Museum, Lewes. (2) In the British Museum.

Langdon Abbey (Premonstratensian), Kent: In the Victoria and Albert Museum.

Netley Abbey (Cistercian), Hants.: (1) In the Abbey ruins. (2) In Southampton Museum.

Romsey Abbey (Benedictine), Hants.: In the church. Merton Priory (Augustinian), Surrey: A few ex-

cavated, some placed in South Wimbledon Church (similar, not necessarily identical).

St. Bartholomew's Priory (Augustinian), London: In the cloister (similar design).

Tunbridge Priory (Augustinian), Kent: In the Victoria and Albert Museum.

Wilmington Priory (Alien Priory), Sussex: In Lewes Museum.

CATHEDRALS.

Chichester, the Lady Chapel.

Winchester, practically the whole of the retro-choir of the Cathedral is paved with tiles, many of them badly damaged.

CHURCHES.

St. Cross, Winchester, the whole church pavement. Poynings, Sussex, round a tomb in the south transept and on the chancel step.

Buriton, Hants., under the choir stalls.

West Harting, Sussex, in the vestry cupboard.

Warblington, Hants., originally all paved, those now in chancel collected from all parts of the church and laid in their present position in 1800.

Kingsclere, Hants., a collection placed on the south wall of the south aisle.

The Buriton, Warblington and South Harting tiles all come from Durford. The existence formerly of a tile pavement at Kingsclere Church may be accounted for by its proximity to Sandleford Priory (Berks.), an Augustinian house which was abandoned in 1480.¹²

Identical tiles have also been found in a large number of museums and in the Duke of Rutland's unique collection of mediæval tiles at Belvoir Castle, to which access has kindly been given. In the Cowdray Museum, only six miles from Shulbrede, there is a considerable collection of tiles which, by the courtesy of the late Lord Cowdray, we have been able to handle and examine very closely. The tiles were mostly used for paving the private chapel (built about 1520 and embellished between 1539 and 1542); a few were found at the foot of a turret staircase. After the fire (1793) they lay neglected till the beginning of this century, when they were collected and placed in a museum.

In addition to Battle Abbey, the following religious houses fell at the dissolution to the owners of Cowdray, at that time Sir William Fitzwilliam, and subsequently his half-brother, Sir Anthony Browne; Shulbrede Priory, Easeborne Priory, Durford Abbey, Chertsey Abbey, and Waverley Abbey. If tiles were wanted for the mansion there would be no great difficulty in procuring them. The possibility of some tiles having come from Shulbrede, where identical fragments have been found, must be entertained; more especially as Shulbrede remained actually within the Cowdray estate. Others no doubt came from Titchfield, where the dissolved Abbey became connected with Cowdray. Wriothesley, who erected a Tudor mansion out of the ruins, employed the architect who built Cowdray, and he married Sir Anthony Browne's daughter. While, therefore, the presence of monastic paving tiles at

¹² A few tiles at Kingsclere were collected by a vicar in the nineteenth century from Malmesbury Abbey.

Cowdray can easily be accounted for, the exact provenance of any particular tile cannot be con-

fidently assigned.

The Alton Museum has a good set of tiles from Selborne Priory, and in the Society's Museum at Lewes tiles from Durford, Wilmington, or Tortington, as well as local tiles, have been collected. In over a dozen museums some tiles identical with those illustrated in this paper have been found. But it frequently happens that the tickets in museums become on rearrangement separated from the tile to which they belong, with the result that many have been found to be wrongly described or not described at all. The only safe way is for tiles to be ticketed or stamped on their backs.

THE SHULBREDE TILES.

We cannot claim that the designs of the tiles discovered at Shulbrede Priory are in themselves of any special interest. We have no heraldic puzzles, indeed, only two or three tiles with heraldic devices at all, and these not connected with benefactors of the Priory. But the question of tile designs of which many beautiful and interesting specimens have been found elsewhere. stands rather outside the range of the particular problem on which we are engaged. A Chertsey or a Malvern, each with its rich store of magnificent tiles. help us little if at all in the question of tile intercourse in the monasteries of England, which, it must be remembered, reached in number close on two thousand. More can be gathered from a small and obscure house which appears to have both made tiles of its own and been provided with tiles from elsewhere. Before examining the tiles seriatim an approximate classification of the groups into which most of them fall may be made as follows:

Shulbrede Group. (1) Considered to be late fifteenth century; 7 to 8 inches, that is to say, unusually large. (2) Another series, $5\frac{1}{2}$ inches, mostly red pattern on white slip background, are an earlier product of the kiln.

The Five-Keyed Group. $5\frac{1}{2}$ to $6\frac{1}{2}$ inches, that is to say, rather larger than the great majority of tiles, probably late thirteenth century and used for the first tile pavement of the church. The great majority of the tile fragments discovered belong to this group. The keys are clean round holes made with a bit of wood or a knife.

The following is an analysis confined only to their recurrence (so far as they have been discovered) in religious houses: Shulbrede Priory has 12, of which one, No. 28, does not occur elsewhere. Durford Abbey has 11 of the 12 at Shulbrede, and about 20 more varieties. Titchfield Abbey has 8 of the 12 at Shulbrede, but many of its tiles belong to another group, of which Shulbrede has none. Selborne Priory has 9 of those at Shulbrede, Netley Abbey has 3, Romsey Abbey has 1, Lewes Priory has 2, and Winchester Cathedral has 4.

The Lewes Group. These are 4 to $4\frac{1}{2}$ inches and not keyed. Although several at the British Museum are marked as coming from Lewes, few, if any, exist in the Lewes Museum as coming from Lewes Priory. One or two have recently been found at Wilmington Priory, and as far afield as Langdon Abbey, Dover. But the largest collection of them is to be found in Poynings Church (about twelve miles from Lewes). This church was rebuilt in 1368, and the tiles are the remains of an original pavement which existed in the old church and may have been provided by Lewes Priory.

A Group of Unknown Origin. About 4 inches, not keyed. In some cases the clay from which these tiles are made seems to be of a different texture from the clay in the other groups. Some of these tiles may be of London origin.

The Waverley Group. $5\frac{1}{2}$ inches, four keys. Quite a distinct group, undoubtedly made at Waverley.

Picture Tiles. A few fragments have been found of patterns roughly drawn with a sharp point, on a slipped tile; one represents a horse's head, others

floral designs. These were probably used for wall decoration, not pavement.

Conclusions with regard to the Intercourse between Religious Houses in the matter of Tile Distribution.

Having made a general survey with regard to mediæval tile manufacture, and a detailed examination of tiles discovered in one locality, we now propose to consider what inferences can be deduced from these premises. Before coming to our own locality, something may be said of one or two known instances of tile distribution.

Between 1853 and 1861 the famous Chertsey pavement was unearthed and, owing to its special magnificence, attracted a considerable amount of attention. There is no need to enter here into any description of the remarkable designs, nor to enlarge on how the fragments came to be distributed in various museums, private collections and churches. 13 It was estimated that they dated 14 from the later part of the thirteenth century, and Mr. Lethaby suggests that the pavement was a royal gift. In 1922 the kiln was discovered at Chertsey, showing that the tiles were manufactured on the spot. In 1870 fragments of a precisely similar set of tiles were discovered at Halesowen Abbey, near Birmingham, "apparently made with local clay but with the same moulds as those at Chertsey." An inscription was found declaring the pavement to be the work of Abbot Nicholas of Halesowen, who is known to have died in 1298. No kiln has yet been discovered, and tiles of a different make have also been found in the Abbey ruins.

There is no known connection between Chertsey Abbey (Benedictine) and Halesowen (Premonstratensian). They are very far distant from one another,

¹⁴ Walpole Society.

¹³ Specimens exist in the British Museum, the Guildford Museum, the Ashmolean Museum at Oxford, Little Kimble Church, Bucks., St. Ann's Hill, Chertsey, the Library of Winchester Cathedral, the Duke of Rutland's collection, and Mr. Lethaby says also at Great Bedwin, Gloucester, Tintern, Rochester, and Westminster.

and the recurrence of such elaborate and easily distinguished tiles is so far a mystery. It may be safely said that the actual tiles were not transported from one place to the other. The tilewright must have taken his moulds and set up a kiln in the other establishment. As the pavement is the most remarkable in the country it is curious that the artist's fame should not have spread more widely, or, at any rate, in the immediate neighbourhood of one or other of the two Abbevs. Although at Hayles Abbey (Cistercian) a few of the border and foliage patterns have been found (perhaps imported from Halesowen in the neighbouring county), a fragment at Waverley, 15 and a tile at Newark (Augustinian),16 the Chertsey-Halesowen tiles have not been found as a monastic pavement elsewhere. This is a very special, exceptional and confined instance of recurrence.

Tiles "identical in every respect" and claimed to be products of the kiln discovered at Great Malvern have been found in the adjoining counties as far south as Devonshire, west as St. David's, and north as Newton Solney.

Tiles found in the Nottingham kilns have also been found at Dale, where there was another kiln, and extend in this range to York, Hull, Aldgate in Rutland, and Coventry.

With regard to tiles mentioned in this paper, the extent of the five-keyed group has been shown. There was also a four-keyed Hampshire group, possibly emanating from Winchester or Beaulieu, which reached Selborne but not Durford, Titchfield nor Shulbrede.

In the manufacture of tiles there was first of all the designer. He was not necessarily the man who carved the mould, a highly skilled form of work. Then there was the man who was responsible for the delicate processes of stamping, glazing and burning, and others again who were engaged in digging clay, rolling and

¹⁵ Waverley Abbey, by Harold Brakespeare.

¹⁶ "Newark Priory," by Captain C. M. H. Pearce, F.S.A. (Surrey Archœological Collections, Vol. XL., 1932).

preparing it, grinding and preparing the slip, and carrying the heavy stacks of tiles from the kiln. And the man who laid the tiles (cubator) was probably a different person, although acting no doubt under the superintendence of the designer. Some of these may have been "religious persons," specially in the smaller houses, but it is impossible that they all were. In cases where a great number of tiles were manufactured and became popular in the neighbourhood the whole industry must have been run on commercial lines by workmen, who operated under the patronage of a particular religious house and probably formed themselves into guilds, as did other classes of workmen at that time. In this way numeries (such as Shaftesbury, for instance) were supplied with the necessary quantities.

The community at Shulbrede was never a large one. There were five canons on the foundation, the Prior, the seneschal, novices and pupils, hinds and servants. Judging by the character of their work and the restricted output of tiles, a very few members of the community need have been employed in tile-making. At any rate, the discovery of the kiln has explained the undoubted origin of eight inlaid tile patterns out of the whole collection, some of which were simple original designs, others crude copies of tiles they already possessed. These tiles were not of sufficiently good quality for sale to other houses, and were no doubt made for economy's sake to repair worn patches or pave new premises. There is no evidence to suggest that the kiln already existed in which the tiles for the original pavement were manufactured by a band of tilewrights who came over from Durford or Titchfield.

Research with regard to the place of manufacture of the main group of thirteenth century five-key tiles brought us to the conclusion that the kiln must have been established either at Durford Abbey (Sussex), or Titchfield Abbey (Hants.), both Premonstratensian houses, where the greater number of specimens of these tiles have been found. At Durford there are no

remains whatever of monastic buildings; no excavations have been made and, with the exception of a few tiles in a private house in Petersfield and in the Society's Museum at Lewes, only broken fragments have been occasionally found on the spot. These, however, have sufficed to show that Durford had a large number of designs of this class of tile. Titchfield has considerable remains of monastic buildings and a number of very fine specimens of complete tiles of the cloister pavement. Neither the number nor the state of preservation of tiles, however, can give any certain

indication of the place of their origin.

One tile of this group (the double castle, No. 18) turned out to be a puzzle from which certain inferences could be drawn. This tile has found its way to London (Victoria and Albert Museum) and other museums in the country, marked always as "from Winchester." There is only a fragment of it in Winchester Cathedral pavement, but several specimens in the Winchester Museum. Winchester undoubtedly had a kiln, but very few of this group exist in Winchester Cathedral and St. Cross. But on closer examination we found that this tile, where it is found in the Winchester district, has been made with a badly damaged stamp, and when, by the permission of the curator of the Winchester Museum, the back of the tile was examined it was found that the five keys were quite differently cut (see page 33), and sometimes there were no keys. This looked at first as if the damaged stamp had been lent and used by a tilewright elsewhere. At Titchfield. however, we found that the tile exists in its perfect condition (as at Durford, Shulbrede and Selborne), and also in its damaged condition with the different keys. This pointed to a later product of the kiln, when the old stamp was used by different workmen at perhaps a much later date. Another tile of the group, the vine (No. 23) was treated in the same way.

At Titchfield remains of some sort of structure for burning was found close up to the west wall of the south transept of the church, but there was nothing discovered in the way of "wasters" or roofing, which could unquestionably point to this being a tile kiln. In any case it was far too close to the church. Kilns were constructed sufficiently far off to prevent the fumes from the fire being blown over the precincts of the monastery. While the balance of evidence seems to point to Titchfield, a strong argument in favour of Durford is contained in Mr. W. H. Blaauw's paper in S.A.C., Vol. VIII. As tiles were discovered bearing the arms of benefactors of Durford Abbey, he not unreasonably concluded that they and all the other tiles were manufactured at Durford. Even this, however, is not quite conclusive, and the location of the kiln (or, perhaps, two kilns) must remain therefore an open question for the present.

For the transport of tiles from one place to another there is documentary evidence, not only in the Westminster Abbey accounts, but in the case of Maxstoke Priory, where in 27 Henry VI. (1449), 20s. was paid for tiles for paving the floor of the infirmary, whilst

the carriage of the same came to 2s. 2d.

But the lending of the stamp and the conjecture with regard to a band of travelling tilewrights must also be considered. Mr. John Ward can be quoted on this point because he is the only authority who has to any extent entered into this particular question.

How are we to explain the wide diffusion of some of these tiles, and their presence in different kilns? Were the stamps passed from tilery to tilery? Or were casts of them distributed? Or did companies of tilewrights, carrying about with them their stamps and other tools, temporarily settle at the nearest convenient points to where their services were required? The latter, I think, is the most likely solution. The manufacture must have involved considerable skill and experience, and it is difficult to understand how a small religious house, like that of Dale or Repton, could have required a staff of such artisans. The demand for tiles would be too intermittent—only at such times as alterations or additions were made to the house, or when a chantry was founded at a neighbouring church. The kiln we can understand. It was there for use when tiles were required and the tilewrights came to make them; besides, the convent might now and again let it for a small sum. This theory explains why so few of the armorial bearings have any connection with the district where they occur.17

In the course of their peregrinations the tilewrights

¹⁷ Derbyshire Archæological Society, Vol. XIV.

may have come across patterns which pleased them and copied or adapted them. But the transport of tiles would appear to be an easier and more probable method of distribution. Moreover, we must remember that the monastery would naturally desire to export its tiles for profit. As a business proposition, therefore, direct export rather than the travelling abroad of the tilewright and his company would in all probability be the more common practice, although the case of Chertsey and Halesowen cannot have been unique. From the quotation on page 7 it is clear that the Abbot of Beaubec allowed his monks to construct pavements for other people. This may have been a general custom.

The fact of a religious house drawing its supply of tiles from four or five sources (as in the case of Shulbrede) can be explained. When a monastic kiln was working and tiles were being turned out in large quantities, the fact was noised abroad, and those in need of tiles at that particular time applied for them. The output of the Shulbrede kiln was too small for anything but domestic consumption, and indeed seems to have been used late in their history, probably only

for repairs.

We conclude, therefore, that the various methods adopted for manufacture and distribution, differing in

each locality, were as follows:

The original pavements were imported from a more ancient house where a kiln was operating, or where tiles were stored for sale.

Repairs and additions were imported from kilns which were known to be operating at the time the tiles

were required.

A kiln was constructed on the spot for repairs and additions as required. This kiln could be used by travelling tilewrights or by employees of the monastery in question, using stamps lent to them or carving stamps of their own.

The adaptation or copying of certain patterns denotes sometimes wide distribution and possible intercourse between designers in different districts.

DRAWINGS.

We have made no attempt to reproduce exactly the faulty yet highly artistic outlines of the original designs. But we have endeavoured to avoid precise geometrical accuracy and generally by tracing to present the designs as correctly as possible, showing the mistakes, except where they are only due to the overflow of slip on a particular tile.

PLATE I.

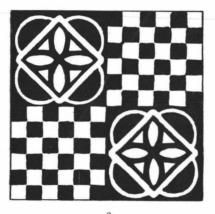
These three tiles, from 7 to 8 inches square, were manufactured in the Shulbrede kiln, where many fragments of them were discovered. They have five keys made by a finger. They were used for the domestic buildings. The slip is very shallow and many impressed specimens of Nos. 1 and 3 without any slip have been found. They are considered to be of late fifteenth century date, and show rough unskilled workmanship. They have not been found elsewhere.

- No. 1. A six-petalled flower within a spotted circle, is a very simple design so far as the curves are concerned. The designer, instead of repeating the floriated design between the petals, has made each one different, evidently knowing nothing of tracing and transferring patterns. A damaged specimen of unusual size (8\frac{3}{4} inches square, 1\frac{5}{8} inches thick) with identical design has found its way to the Guildford Museum.
- No. 2. Chequers and quatrefoils framed in opposite corners.

 Many fragments found near the kiln and one or two on hospitium floor.
- No. 3. The vine under a canopy, a very rough copy of No. 23, fragments with slip found in the kiln, and without slip on the hospitium floor.



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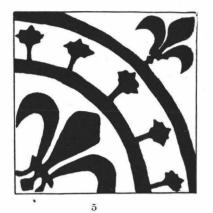
2



PLATE II.

- No. 4. This tile when set in groups makes circles enclosing fourpetalled flowers, leaving in between the sacred monogram Y.H.S. It is 7 inches square and not keyed. Several specimens occur grouped together in the hospitium. Fragments have been found outside the site of the church, but not in the kiln. A similar tile has not been found elsewhere.
- No. 5. Large and small fleurs-de-lis with decorated quarter circle. Red pattern on white slipped ground ($5\frac{1}{2}$ inches). Four tiles would complete the pattern, but it is so roughly designed that the result would be very unsymmetrical. A complete tile found on the site of the warming-room and fragments in the crossing of the church. It was made in the Shulbrede kiln.
- No. 6. A trellis containing fleurs-de-lis with trefoils in the side compartments ($5\frac{1}{2}$ inches). Fragments found inside and outside the church, red pattern on white. Shulbrede copy of No. 13.
- No. 7. Intersecting circles with flowered centre $(5\frac{1}{2}$ inches). A simplified and smaller Shulbrede copy of No. 19.
- No. 8. Plain chequers $(5\frac{1}{2} \text{ inches})$, a very common design which occurs elsewhere in many varieties. Shulbrede make. Fragments found inside and outside the church. One with five keys scooped out with some blunt tool.
- No. 9. Fleur-de-lis set diagonally with chequered border (5½ inches) red pattern on white. A gracefully designed Shulbrede copy of No. 17. Four grouped together would complete the design.









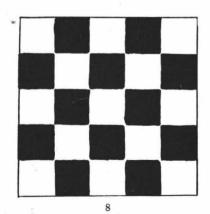




PLATE III.

No. 10. A complicated scroll and half a six-petalled flower in green on a white ground $(4\frac{3}{4})$ inches). This makes a continuous flowing pattern by setting the tiles next to one another, and yet again when alternately reversed. Several fragments found on the site of the church. It has not been traced elsewhere. The texture of the clay suggests that it is of London origin.

No. 11. Four *fleurs-de-lis* springing from central cross ($4\frac{1}{2}$ inches). There is an identical tile in the Guildford Museum (provenance not marked), the British Museum store, and several in the Duke of Rutland's collection (as from Reading Abbey, Oxford and London). Several varieties of this tile occur in Hampshire.

No. 12. Three cups on a shield (the arms of the Butlers), (3½ inches). This tile is of entirely different workmanship from any of the others. There is no known connection of any Butler with Shulbrede Priory. The tile was presented with other Shulbrede tiles by Mr. W. C. Alexander in 1892 to the Society's museum at Lewes. A similar design is illustrated by Shaw in his description of the tiles at Jervaulx Abbey.

No. 13. Four fleurs-de-lis in a trellis with half quatrefoils in the side compartments $(4\frac{1}{2} \text{ inches})$. It has not been traced

elsewhere.

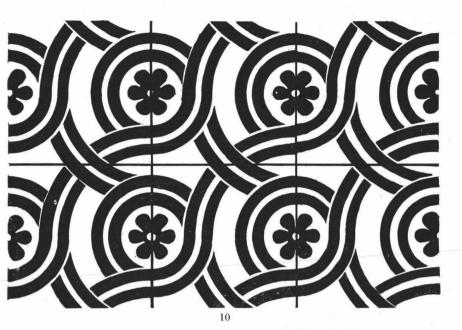
No. 14. Border tile pattern in white on green or red ground (4\frac{3}{4}\) inches). An exactly similar design on a 4-inch tile occurs at Poynings Church, and in the British Museum (as from Lewes Priory), the Victoria and Albert Museum (as from Langdon Abbey, Dover), the Lewes Museum (as from Wilmington Priory), at St. Mary's Abbey, York, and is illustrated in W. D. Cooper's history of Winchelsea. But in this larger size it has not been traced elsewhere.



No. 15. An eight-petalled flower surrounded by a scroll ($4\frac{1}{2}$ inches), probably of London origin. It occurs elsewhere in a confusing number of varieties. The specimens in the Guildhall Museum come from the site of the Priory of the Holy Trinity. In the British Museum (as from Lewes Priory) and from Leadenhall Street. Also occurs at Muchelney Abbey (Somerset).

15

No. 16. Fragment of scroll border tile (3 by 6 inches), made double in a 6 by 6 inch tile, and half cut through, with five keys. Fragments found at Durford Abbey.









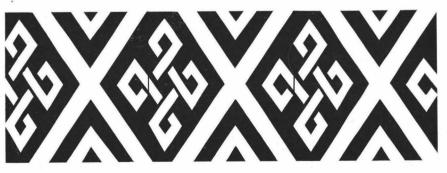


PLATE IV.

These six tiles all belong to the five-keyed group, dating from the late thirteenth or early fourteenth century. They are approximately 6 inches square, and are all white slipped pattern on a red ground.

- No. 17. Fleur-de-lis set diagonally with chequered border. Four needed to complete the design. Identical specimens occur at Durford Abbey, Titchfield Abbey, Selborne Priory, Warblington Church, South Harting Church, Chichester Cathedral (with modern copies), Southampton and Cowdray Museums (provenance not stated).
- Two castellated towers. The castle which occurs in several varieties elsewhere may have originated in a heraldic representation of the arms of Castille. It occurs with five keys similar to the other tiles of this group, also with five keys made with a different tool, or with no keys. The stamp is always the same in all the tiles, but many were manufactured after the stamp had been badly damaged (most noticeably the castellated top of the right-hand tower broken off). It occurs in its perfect form at Shulbrede Priory, Durford Abbey and Selborne Priory (Alton Museum), and for the most part with the distinct blemishes in the following places:—Winchester Cathedral, Museum and St. Cross, British Museum (as from Winchester), Norwich Museum (as from Winchester), Netley Abbey, Titchfield Abbey (with different keys), Warblington Church, South Harting Church, Barton Stacey Church, Kingsclere Church, Southampton Museum (provenance not stated), and Victoria and Albert Museum store (as from Tunbridge).
- No. 19. Intersecting circles with flowered centre, making a continuous pattern when joined together. Many varieties of this tile occur elsewhere. Identical specimens have been found at Durford Abbey, Selborne Priory, Titchfield Abbey, Romsey Abbey, Lewes Priory, Netley Abbey, Winchester Cathedral, St. Cross, Chichester Cathedral (modern copies), Warblington Church, Kingsclere Church. One specimen in the possession of Mr. L. Jowitt (as from Winchester) has five finger keys.
- No. 20. Circle enclosing arcs, spotted and intersected by diagonals. Found also at Durford Abbey, Selborne Priory, Lewes Museum, and Cowdray Museum (provenance not stated).
- No. 21. Grouped quatrefoils and chequers in a trellis. Found also at Durford Abbey, Titchfield Abbey, Lewes Priory, Warblington Church, Cowdray Museum (provenance not stated).
- No. 22. A variety of No. 21. Found at Durford Abbey, Titchfield Abbey, Selborne Priory, Warblington Church, Buriton Church, Cowdray Museum (provenance not stated).







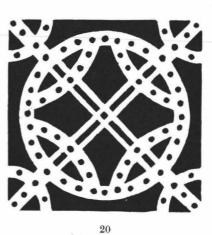






PLATE V.

These six tiles are also of the five-keyed group.

- No. 23. Vine set diagnonally under a canopy, forming a complete pattern in four tiles. Found also at Durford Abbey, Titchfield Abbey, Selborne Priory (Alton Museum), Netley Abbey, Lewes Priory, Winchester Cathedral, St. Cross, Barton Stacey Church, Warblington Church, Southampton and Cowdray Museums (provenance not stated). (Mr. Greenfield (circa 1893) also found it at Popham and Wootton St. Lawrence, Hants.)
- No. 24. A more elaborate variety of No. 23. There is a fragment of it in the Lewes Museum as from Durford Abbey, and several good specimens at Titchfield Abbey.
- No. 25. Three fleurs-de-lis on a shield supported by two birds, possibly the arms of France. Found also at Durford Abbey, Titchfield Abbey, Selborne Priory, Warblington Church, Chichester Cathedral (with modern copies), Wilmington Priory (modern copies), and Cowdray Museum (provenance not stated).
- No. 26. A double-headed eagle on a lozenge surrounded by birds. Found also at Durford Abbey (Lewes Museum), Selborne Priory (in parish church), and illustrated in Vol. II. of 1877 edition of Gilbert White's Selborne.
- No. 27. The arms of Richard, King of the Romans, son of King John. Several tiles elsewhere were struck to commemorate Richard. He was a liberal benefactor of Beaulieu Abbey, where his first wife, Isabel, was buried. This tile, however, does not occur there. The Beaulieu tiles are of quite different manufacture. The lion rampant faces sinister which is incorrect, a case of reversal (see p. 27). Found also at Durford Abbey, Titchfield Abbey, Selborne Priory, Winchester, Warblington Church, South Harting Church, and Cowdray Museum (provenance not stated).
- No. 28. This tile is the most curious puzzle in the collection. It is evidently a copy of No. 27. The lion rampant is reversed, and therefore inadvertently made correct. The lump on the beak of one of the heads of the eagle occurs in each fragment found. The loops are not made with the same radius, and each of the corners is differently designed. Although five-keyed and precisely similar in texture to the others, it has not been traced elsewhere than at Shulbrede Priory, where fragments of several of the tiles have been found.





X









PLATE VI.



29 30

The first three tiles on these pages are $5\frac{1}{2}$ inches and have four keys. There are specimens in Waverley House, Cowdray Museum, and Yateley Church. The slip is deeper than in the tiles of other groups. They were probably made at Waverley Abbey.

- Nos. 29 & 30. A flowered band with six-pointed star and cinqfoil forming when repeated a broad border. Six complete tiles were preserved in a farmhouse with other tiles from Shulbrede.
- No. 31. A vesica containing a trefoil and a cinqfoil intersected by a diagonal. No doubt part of a larger pattern.
- No. 32. The next five appear to be all of similar workmanship, and may be termed the Lewes group, not keyed. A scroll of carnations enclosed in a circular band (4 inches), four tiles completing the pattern. Also in Poynings Church, British Museum (as from Lewes Priory), in Lewes Museum, and illustrated in W. D. Cooper's *History of Winchelsea* as found there.
- No. 33. Four floriated crosses in quatrefoil frames (4 inches). Found also in Poynings Church, Victoria and Albert Museum (as from Langdon Abbey), and one with variations (as from Quay Gates, Portsmouth).
- No. 34. Flower encircled by spotted band, four completing the pattern (4 inches). Found also at Wilmington Priory.
- No. 35. Fleurs-de-lis and six-petalled flower alternating in a trellis ($4\frac{1}{4}$ inches). Not found elsewhere.
- No. 36. Intersecting vesicas (4 inches). Fragments found at Shulbrede, but not discovered elsewhere.

(See page 60 for No. 37.)



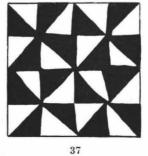












Continued from page 58.

No. 37. Gyronny (4½ inches) is a common pattern which occurs frequently in a larger tile, certainly of London origin. In this size, but improbably all from the identical stamp, it has been found also at Poynings Church, Titsey Church (near Tanridge Priory), St. Bartholomew's the Great, Merton Abbey, the London Museum, Sheffield Museum, Kingston Museum, the Muniment room (Westminster Abbey), and the Duke of Rutland's collection (as from Aldgate).

PLATE VII.

These illustrations show the vine tile copied or adapted by tilewrights at different times and in different places, the general design of the canopy always being preserved. (1) Chertsey Abbey circ 1260. (2) Halesowen Abbey before 1298. (3) and (4) both at Durford and Titchfield Abbeys. (5) Shulbrede Priory (fifteenth century). (6) St. Stephen's College, Westminster, and a version of it at Reigate (the head of the devil maliciously inserted). (7) British Museum (from Stone, Bucks).















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