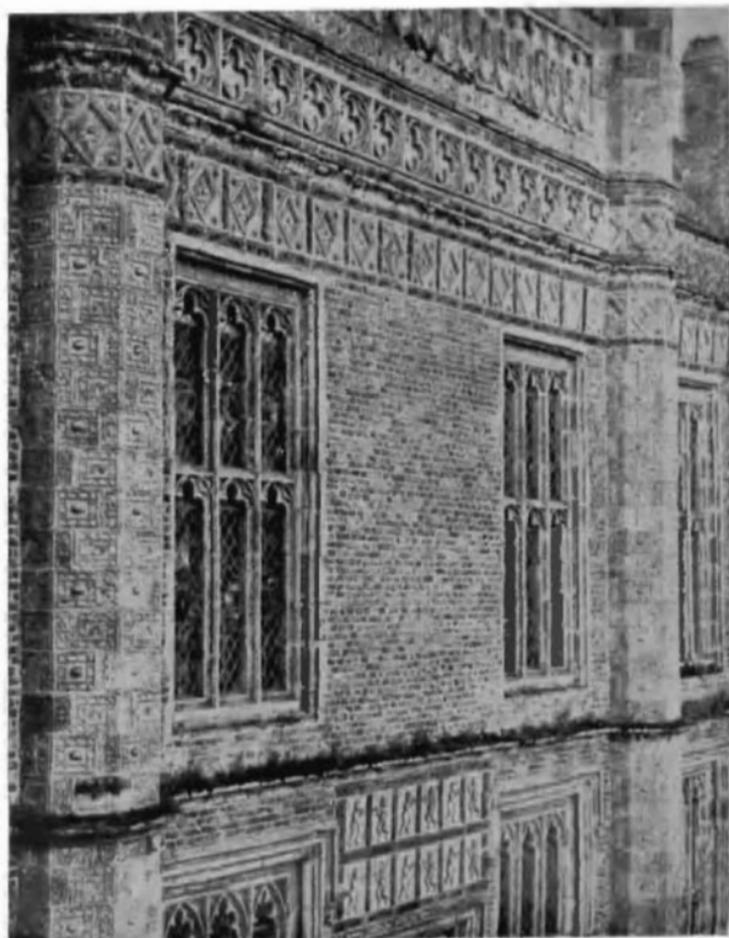




NO. I. EAST BARSHAM MANOR-HOUSE, NORFOLK (c. 1538),
SHOWING UPPER CORNICE AND RETICULATED FRIEZE OF
CARVED BRICK WITH TERRA-COTTA PLAQUES AND TERRA-
COTTA WINDOW-HEADS.



NO. 2. SUTTON PLACE, SURREY (1523-1525),
SHOWING TERRA-COTTA PLAQUES IMPOSED ON THE
BRICKWORK.

ENGLISH BRICK BUILDINGS : HENRY VII-VIII.¹

By the Rev. J. KESTFLL FLOYER, D.D. F.S.A.

In March 1913 I had the honour of reading a paper to this Institute on the subject of English brick houses of the fifteenth century. The object of this was to trace the rise of a large group of those built between 1431 and 1500, which possessed certain characteristics not found previously, such as the tall gatehouse and certain peculiarities of ornament and detail. It was also pointed out that the builders of nearly all these brick houses with these characteristics had taken part in the French wars, and that one at least of these houses was traditionally said to have been built after the model of one in France. There was also a fair amount of evidence to show that the great revival of building in brick which took place in the fifteenth century had its origin in France before or at the same time as it came to the Low Countries. This suggestion will, I believe, still hold its own, but in the last ten years accounts have been published which go to show conclusively that the early artificers in brick in England were Flemish, and that through these brick-workers the industry was revived and systematised.

The object of this paper is to illustrate this, and also to attempt to find some criterion or standard by which the age of brickwork in the fifteenth century and onwards may be determined. The architecture of the period of Henry VII and VIII follows of course the Tudor lines, and the dates of many buildings can be sufficiently decided by this. But there are many examples where all or most of the distinctive architectural features of the original buildings have been either removed in the course of alterations and repairs, or covered with plaster or stucco, so that the ground-plan or the shape of the window-heads or other guiding details of ornament no longer exist. It will then be an advantage to archaeologists if, by comparing the brickwork in houses of the same period, of which the

¹ Read before the Institute 4th July, 1923.

date of construction is known, we can establish a supplementary rule to decide an often-debated question, whether the whole of a house has been rebuilt, or if portions of older buildings remain in it.

And first I wish to emphasise the point that, while the art of making bricks was retained in England, especially in the eastern counties, throughout the middle ages, though at one time it was at a very low ebb, yet in the early fifteenth century the demand for large houses by the returned warriors from France, enriched with lands and fiefs, gave rise to the fashion of building in this material and in certain forms, not only in the counties where stone is scarce, but practically all over the midlands and south of England.

The word 'brick' is of French origin, and is not found in England before the fifteenth century. Even in the building accounts of Lincoln's Inn of 1517-8, the entry is for the making of tiles (*tegule*) 'called "les Brikes."' Before that we read always of wall-tiles and roof-tiles. In the statute of 1402, we read of sementiers, tegulers, etc. but not of bricklayers. Also it may be pointed out that brick-making is not recognised in the act of 14 Edward IV (1474) which regulates artificers, showing that it was still at that time a foreign industry; but the same act does regulate tile-making. It requires that 'the earth whereof any such tile shall be made shall be cast up before November 1st next before that they shall be made, and turned before February 1st next following the digging, and not wrought before 1st March following,' and 'every plain tile so to be made shall contain in length $10\frac{1}{2}$ inches, breadth $6\frac{1}{4}$ inches, and in thickness five-eighths of an inch at least. Roof-tiles are to be 13 inches long, half an inch to five-eighths thick, under penalty.'¹

We will next take the evidence of the Stonor papers published by the Camden Society in 1919 under the editorship of Mr. C. L. Kingsford. Thomas Stonor, who was born in 1394, had a long minority during which money was accumulated to build the fine manor-house at Stonor in Oxfordshire, which still exists. In 1416-7 John Warefield renders his account as agent. Among the items are 'received from the lord for paying "les Flemynge" for

¹ *Parliamentorum Rotuli.*



NO. 1. OLD VICARAGE, METHWOLD, NORFOLK,
SHOWING CARVED BRICK.



NO. 2. LEES PRIORY, NORFOLK,
SHOWING CARVED BRICK CORNICES AND DIAPER PATTERN.

the work of Stonor, £13 13s. 4d.' Also allowances are made to Michael Warwick in full payment for making '200,000 de brykes,' £40; for working the material for them £5 3s. 4d.; for carriage of the 'brikes' from Crockern End to Stonor £15, and 'to John Penne for four hand-saws and for one cart for "les Flemynges" 10s.' Here then are Flemings, using some French terms for their trade, employed in the manufacture of bricks for an English country gentleman in Oxfordshire in 1416-7. They work in a brick-pit a few miles from the house, and contract with an English foreman for the delivery of the bricks when made. The Stonor family soon after this time had an interest in the wool trade both in France and Flanders, and there would have been no difficulty in procuring men for the work. The bricks which they made for Stonor average $4\frac{1}{2}$ by $2\frac{1}{4}$ ins. with a length of 9 to $9\frac{1}{2}$ ins. and are set, as we should expect, in what is called the Old English bond, though it is irregularly carried out. The same kind of brickwork is used at the same period in the French-speaking or Walloon parts of Belgium. For example, at Rouge-Cloître in Tervueren, a building which was probably in existence in 1407, when the duke of Brabant made it his temporary residence, we find bricks of the same size, laid in the same way.

Further, in the building accounts of Loseley in Surrey in 1561, we find such names as Andro Dyrryke, Richard Dyrryke, Thomas Mabbauke, Crawks, Chetey, Hoke, Boylet and Cowpere, as 'brykleyers': some of these are undoubtedly Flemish.

The brickwork of the almshouses at Ewelme, within a few miles of Stonor, is of the same kind, and the entrance-porch to the cloister at Ewelme is very similar to a recessed arch at the Hôpital de Saint-Jean at Bruges. Ewelme was founded by William de la Pole, duke of Suffolk, who married a daughter of Thomas Stonor, and the licence to found this almshouse is dated 1437. It looks then as if the Flemish workmen had gone on from Stonor to Ewelme. The accounts of the building of Kirby Muxloe in Leicestershire in 1480-1484, recently published by Mr. A. Hamilton Thompson,¹ give much more detail of the way in which

¹ *Transactions of the Leicestershire Archaeological Society*, vol. xi, parts 3-6.

a large building of brick was constructed at that period. A gang of Welshmen was procured as navvies. The bricks were burnt near by in a place called the 'Frith.' The foremen are English, but some at least, and possibly all the actual brick-makers, were from the Low Countries, either Flemings or Walloons. Payments are made to Antony Docheman, who may be the same as Antony Yzebronde, to Roger Gaillarde, Corbel, Mark Maligoo, Staner Matlot, Charlot or Charles Ruddicourt and Turkyn Horwynd. These men with foreign names were specially employed on certain kinds of work. The bricks are delivered in batches of 13,000 to 24,000 every week for a considerable period, and altogether the payments are for 1,342,500 bricks actually laid. To make these at the rate of 700 per day per man for half the year would have required a gang of about seven men for two years, and twice as many others would have been required for the full equipment of the brick-pit. The Flemings then, whose names are mentioned from time to time as doing special work, were selected from a larger number of twenty-one to twenty-five who were at work in the kilns. So we find them at work in England in 1416 and again in 1484.

At Eton, again, when the cloister was begun in 1441, Robert Westerley, the king's chief mason, was appointed overseer of the works, and John Wynwyk, the new warden of the masons. A brick-kiln was established at Slough, and William Vesey, brickmaker, was empowered to impress as many 'brickleggers' as he might require for the work.

In the Kirby accounts some light is thrown upon the way in which the patterns of blue or black headers were worked. These patterns are characteristic of the brickwork of the fifteenth and sixteenth centuries, but in the later buildings, and in those of Henry VIII's time, the patterns are more often laid quite regularly in diamond lattice-work, as at bishop Fox's gateway at Farnham castle (1501-1529). In the earlier ones they appear to have been worked in afterwards as frets and monograms and devices. Items in the Kirby accounts show that these were executed in some cases after the brickwork was finished. Six men, of whom some at least were Flemings, were paid at more than their ordinary rate for 'laying anew le Basse Towers,' 'cum pyctura muri,' which may be translated 'with



[*Martyn Floyer, phot.*

NO. I. GREAT CRESSINGHAM MANOR-HOUSE,
NORFOLK (c. 1542).



[Martyn Floyer, phot.]

NO. 2. GREAT SNORING MANOR (NOW RECTORY), NORFOLK
(1520-1535 ?),
SHOWING ORNAMENT IN TERRA COTTA.

patterning of the wall' (i.e. with the Hastings 'manche'), and special scaffolding was erected for this work. Kirby Muxloe is a good deal in ruins; but such independent devices appear in the palace of Henry VII at Richmond, where an heraldic label of five points, which may be intended for the Lancaster portcullis, is worked in; at Tattershall castle; in the ruined gate-house at Nether Hall, Essex (1470), where frets are found; and in many other places. But regular lattice-patterns are the commoner and are produced by the bricklayer in the coursing and not added afterwards. These black header diapers are not universal, and in the decay of the brickwork the bricks have sometimes been replaced, and so the pattern cannot readily be detected, if it were ever there. Black-headed bricks occur naturally in the burning in the kiln, and are often used in the ordinary coursing, as at Titchfield priory, Hampshire, in 1538.

The size of the bricks is another factor in determining their date. In eight buildings which can be dated historically between 1415 and 1500 the bricks are $9\frac{1}{4}$ or more by $4\frac{1}{2}$ by $2\frac{1}{4}$ ins. approximately. They vary a little, but not more than could be accounted for by roughly-made moulds, or the different amount of shrinkage in burning, or the want of correspondence between the measure in use and the standard. These buildings are all south of Lincolnshire and not further south than Surrey.

Tattershall castle in Lincolnshire (about 1450) appears as an exception, and the bricks here are 8 by 4 by 2 ins. But $9\frac{1}{4}$ by $4\frac{1}{2}$ by $2\frac{1}{4}$ ins. is a standard brick in the time when Flemish builders were at work, that is, a brick of which the length is roughly twice the width and four times its thickness. The length of $9\frac{1}{4}$ ins. instead of 9 ins. may point to the measurements being a quarter of that of the Flemish ell of 37 inches, which was a standard long measure in England up to 1553. The general characteristics of this brickwork before 1500 are that it was laid in what is called the Old English bond, that is a row of stretchers overlaid by a row of headers, but short bricks of about six or seven inches are often worked in here and there to make a better cover for the joints, as in Old Basing House, Hants (1530-1550) and in Richmond palace, Surrey (Henry VII). The bricks are very rough and often uneven, which

necessitates a good thickness of mortar. Where black header patterns are used, this of course interferes with the regularity of the coursing.

Down to 1500, mouldings or ornamental details are rarely moulded on the bricks beforehand, bricks of ordinary size being laid and then cut with a chisel and rubbed down (plate I, no. 1, and plate II, nos. 1 and 2). The man who did this was a superior craftsman and was known as a brick-hewer.

In many of these buildings no stone is used, even for dressings. The windows are high and narrow. In the absence of stone lintels a long flat arch was a difficulty, but in the church at Layer Marney in Essex, the builders were not afraid to put brick transoms in the windows, with an iron rod running through them, and they have lasted more than four hundred years without sagging.

After 1500, the brickwork changes a little but not universally. Crafts such as bricklaying are very conservative, and were handed down either through guilds, or from father to son. This allows little scope for departure from tradition. We cannot with any certainty distinguish between brickwork of the reign of Henry VII and Henry VIII if that is the only criterion, and the adoption of bricks of 9 ins. long is only gradual. In Fox's gateway at Farnham castle (1501-1529) the bricks are 9 by 4 by 2 ins.¹ and here also the ornamental brick is carved into special forms, not moulded. Even in the fine chimneys of the houses of the time of Henry VIII, such as at Hampton Court² or Titchfield priory, Hants (1538), it seems that they were built by roughly laying the bricks and then cutting the patterns when they were in place.

We must now consider the effect of another foreign influence. Henry VIII and cardinal Wolsey introduced Italian workmen. Torrigiano, a Tuscan, came over and executed his English masterpiece in the tomb of Henry VII at Westminster. The contract for this was drawn up in 1512. He also carved the fine tomb of Sir John Yonge (died 1516) in the old Rolls chapel, and the tomb of Lady Margaret Beaufort, Henry VII's mother. Other

¹ At Greys Court, Rotherfield, temp. Queen Elizabeth, the bricks are 10 by 5 by 2 ins.

² In the reproductions recently made of these for a house in Regent Street, the bricks were moulded before setting.

Italians who came over were Benedetto da Rovizzano and Giovanni da Majano, these two being employed in the decoration of Hampton Court in 1521. Majano executed there the large terra-cotta medallions of the Roman emperors. Girolamo da Trevizi was appointed surveyor of the king's buildings about 1533, and besides these were painters such as Toto dell' Annunziata, Zucchero and others.¹ It is, however, chiefly with the surveyors and sculptors that we are concerned. They introduced terra cotta and



[Martyn Floyer, phot.]

FIG. I. AN ITALIAN PLAQUE AT CROWN POINT, NORWICH.

moulded, as opposed to carved, brick ornament. Those best qualified to judge are doubtful if they erected any house in England at all, though some are credited to one John of Padua. Of the houses now standing, Sutton Place in Surrey perhaps gives most cause for hesitation. It was built for Sir Richard Weston, one of the knights who attended Henry to the Field of the Cloth of Gold in 1520.

¹ R. W. Carden, *The Italian Artists in England during the Sixteenth Century*, *Proc. Soc. Antiq.* 2nd ser. vol. xxiv, 1912.

The original ground-plan was English and it had the large gate-tower (now destroyed) which was so characteristic of the English brick houses of its time. There is nothing peculiarly foreign about the brickwork except possibly on one chimney, and it seems as if, at Sutton Place as elsewhere, the work of the Italians was confined to the embellishment of the large English brick houses which, in a time of increasing wealth, were rising all over the country, though chiefly in the eastern counties. With the exception of a premature tendency to greater symmetry shown in one or two examples, there is no trace of the renaissance in the design of these Italianised houses. The work of the

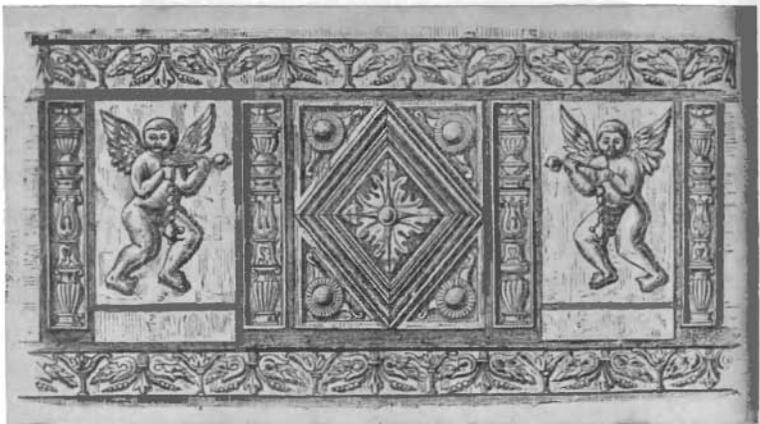


FIG. 2. EXAMPLE OF ITALIAN TERRA-COTTA ORNAMENT FROM SUTTON PLACE, SURREY (1523-1527).

Italians was purely to carve and enrich the plain stones of houses which were already built, and to mould in terra-cotta window-frames, finials, turret decorations, ornamental plaster cornices, plaques, tombs and, in one case, Wymondham, church sedilia and, at Tarrant Hinton, an Easter sepulchre (plate I, no. 2, and plate III, nos. 1 and 2).

Even allowing for the fact that a terra-cotta door or window-jamb cannot be rubbed down to fit when it is in place, and consequently the joints are not always good, it remains to be said that these Italian adornments never seem to suit the places into which they are introduced: they bear no relation to the architecture; the material, being harder, does not harmonise in colour with the brickwork; and except in the case of heraldic decoration,

of which the Italians did a good deal, there is no appropriateness in the subjects chosen. Why, for example, should Roman emperors or a regiment of cupids be placed on an English king's palace or nobleman's house? Why should a monk be represented on the tomb of an English merchant? At East Barsham we see numerous plaques of the head of a man and woman, whom sober English antiquaries, taking these things seriously, have tried to identify with Henry VII and Elizabeth of Woodstock, because they have not realised the irresponsible light-heartedness of the Italians, the followers of the great artists, who turned out dozens of heads from the same

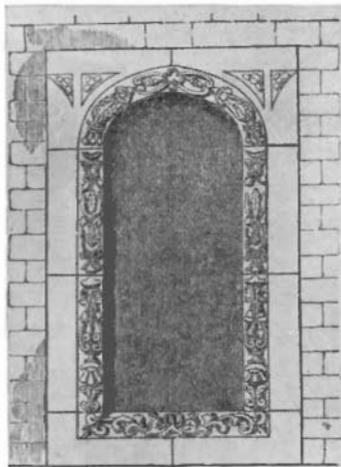


FIG. 3. EXAMPLE OF ITALIAN TERRA-COTTA ORNAMENT FROM LAUGHTON PLACE, SUSSEX (1534).

mould, and sent them wherever they thought they might look pretty. The medallions in themselves are, however, generally very finely moulded and pleasing, but this decoration was not a natural growth or outcome of architecture, only a fanciful excrescence.

The Italians remained for about twenty-five years at most, during which they were employed in various parts of the country, but perhaps most in Norfolk. They disappeared as silently as they came. Their earliest and best work which now remains on houses after Hampton Court, is at Layer Marney in Essex, East Barsham in Norfolk, and Sutton Place in Surrey, but of tombs the best are those by Torrignano of Henry VII, of Lady Margaret Beaufort at

Westminster, and Sir John Yonge already alluded to, and those of the Marneys at Layer Marney (plate v, no. 1). The material used in Norfolk is a much coarser terra cotta. We might in fact call it fine brick. At Wymondham in Norfolk are three sedilia executed by Italians in this material (plate iv, no. 2), and they did the Bedingfield chapel in Oxburgh church (plate v, no. 2). In the church of St. George's Colegate, Norwich, the tomb of one Richard Jannys (executed about 1533) is theirs (plate iv, no. 1).

This Italian work may generally be known partly from the material and general style, which is quite distinctive, by the lettering of the inscriptions, where they exist, and



FIG. 4. PELHAM BUCKLE IN MOULDED BRICK AT LAUGHTON PLACE, SUSSEX (1534).

'L'AN DE GRACE 1534 FUT CEST MAISON FAICTE.'

by the shape of the heraldic shields, which are equal in width at the top and bottom, bowed in at the sides, and with a rest for the lance cut out of one border, a form I believe never previously used in England. The impaled shield on the tomb of Richard Jannys has his merchant's mark on the dexter between the initials R. J. and a coat of arms, a chevron between nine cloves on the sinister.¹ Also on this tomb are two reliefs worked in terra cotta of a man sitting with a long hood and coat holding a rosary,

¹ These are the arms of the Grocers' Company, granted 1531-2. Jannys' will was proved 1530. The date of the tomb is therefore about 1533.



NO. I. TOMB OF ROBERT JANNYS, ST. GEORGE'S COLEGATE,
NORWICH (1533),
SHOWING ITALIAN TERRA-COTTA WORK.



[By permission of 'The Builder.'

NO. 2 SEDILIA IN WYMONDHAM CHURCH,
NORFOLK (1520-1535),
SHOWING ITALIAN TERRA-COTTA WORK.



and intended for a monk. These are from the same mould as two now at the house of Mr. Russell Colman at Crown Point, near Norwich, which were brought with others from the ruin of a house at Arminghall. Four other plaques at Crown Point represent heads, and two from the same mould have been presented by Mr. Colman to the Norwich museum. Mr. Colman has other plaques and roundels of terra cotta which were brought from Arminghall; but in a drawing of some of them as they were placed on the porch there, like all these Italian ornaments, they give the impression that they are out of place, and do not harmonise with the Gothic architecture behind.

Several other terra-cotta panels with rose and fleur de lis, which were formerly on the village cross, are now to be seen on the parapet of a small building in the main street of the little town of Watton in Norfolk. Three others, with the devices of the pelican in her piety, the double-headed eagle, and a fancy subject, are in the museum at Colchester. Four square terra-cotta panels were on an old house at Swyncombe in Oxfordshire (now destroyed). Another example of Italian work, though of bronze and not terra cotta, has been ascribed by some to Torrigiano himself: this is the very fine medallion of Sir Thomas Lovell, K.G. chancellor of the exchequer in 1485, who died in 1524. This was originally on the house he built at East Harling in Norfolk, but when that was destroyed it was presented to Westminster abbey, and it is now housed in Henry VII's chapel. An Italian painter, Vincent Volpe, was employed in May 1524 in connexion with the funeral of Sir Thomas Lovell to make twenty-four small escutcheons in metal 'with my master's arms in garter, to be set on the altar at the interment,'¹ so the medallion may also be by Volpe. Mr. Chamberlain suggests that Torrigiano may have executed the monument to Sir Thomas Lovell in the priory of Holywell in Shore-ditch.²

The Easter sepulchre in the church of Tarrant Hinton in Dorset is an example of fine Italian workmanship in terra cotta and has the following inscription in floriated Roman lettering: VENITE ET VIDETE LOCVM[*M*] VBI POSITVS[*VS*] ER[*AT*] D'NS. It is of the shape of a chimney-piece, and had

¹ A. B. Chamberlain, *Hans Holbein the younger*, Lond. 1913.

² Sir Thomas Lovell also built the gatehouse of Lincoln's Inn about 1518. The arms above the arch were cut in 1520.

it not been for the inscription we should have wondered what was its place in a church.

Two roundels of Roman emperors similar in style to those of Majano at Hampton Court, were at Basing House in Hampshire in a very dilapidated condition,¹ and four others may be seen in an old print of the destroyed gateway at Whitehall attributed to Holbein.²

The men who employed the Italians to decorate their houses were chiefly courtiers of Henry VIII, and were quick to secure specimens of this art to adorn their houses, or to embellish those which were nearing completion.

Oxburgh, one of the finest of existing English brick houses, has the date 1482 on it, and was therefore completed when the Italians arrived in England. But Layer Marney was not so far advanced. At Oxburgh, therefore, the house being happily completed, the Italians are responsible only for the screen of the Beddingfield chapel in the church, but at Layer Marney, which seems to have been in building, the Italians were employed to make in terra cotta some of the upper window mullions, and the ornaments of the parapet; they finished the house, worked the tombs of some of the Marney family, and introduced one window in which, with a very curious result, an attempt was made to imitate Gothic.

With regard to the date of all this work, Torrigiano's first visit to England about 1508 only lasted a short time, perhaps until 1516-7. He returned, bringing others with him in 1519 or 1520. Majano is said to have executed the Hampton Court medallions in 1526, and Nonesuch palace was only begun by Toto in 1538. There can therefore be little or no Italian work in the country districts before about 1520. If we wish to study the best developments of purely English brickwork of the fifteenth century we shall find it in such buildings as Tattershall castle (1450); Hurstmonceaux (about 1440); Middleton Towers, Norfolk (before 1460); Faulkbourne hall, Essex (1439); Hatfield old palace, Herts (1479-1486); Oxburgh (1482); West Wickham, Kent (about 1470); Jesus College, Cambridge (1487-1497); Alcock's tower in Ely palace (before 1490), etc. If we wish on the other hand to see the effect of Italian decoration, we should study Layer Marney, Essex; Sutton

¹ The one remaining now is of stone.

² See engraving by G. Vertue, 1725, in *Vetusta Monumenta*.



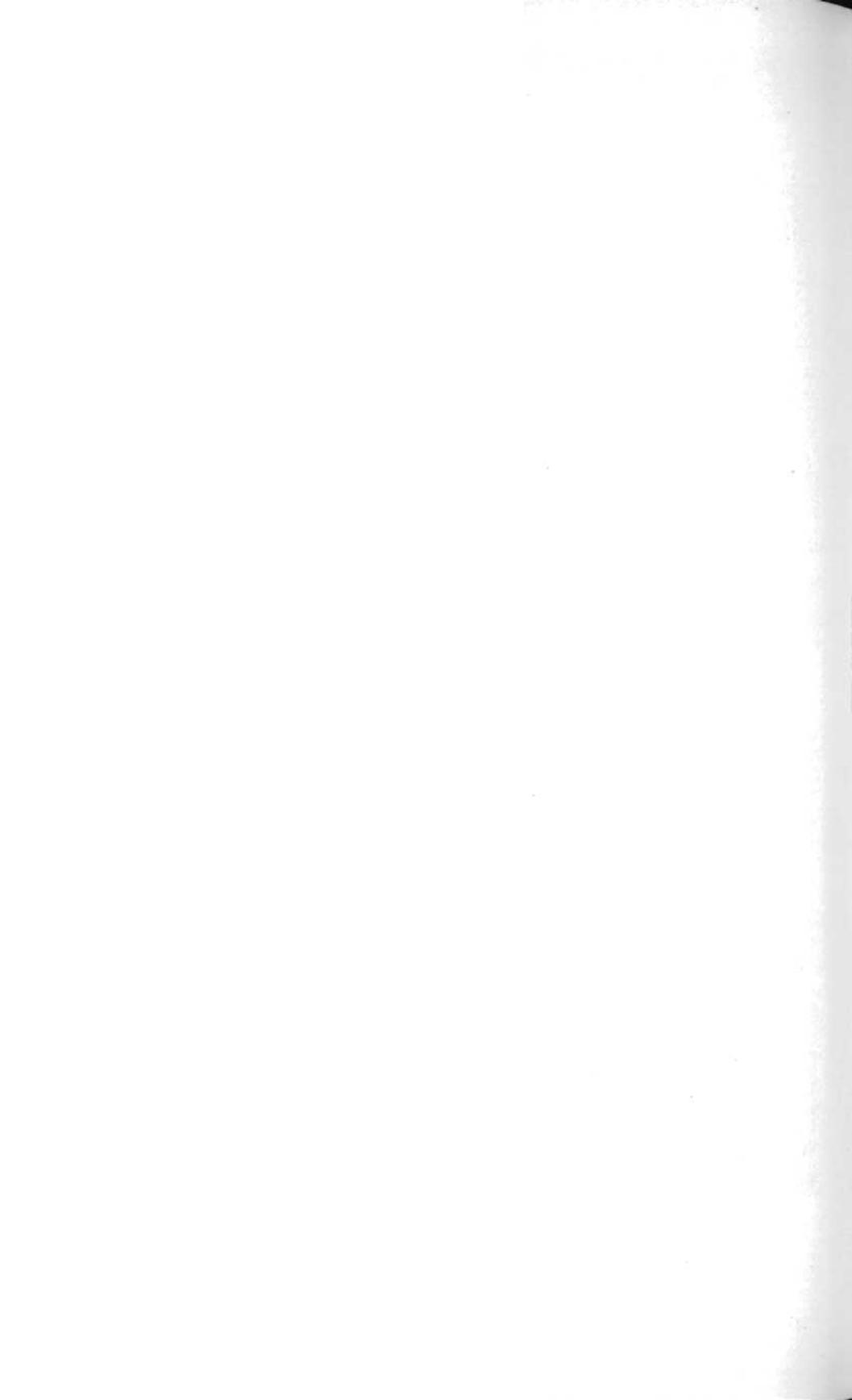
[By permission of 'The Builder.'

NO. I. ITALIAN TOMB IN LAYER MARNEY CHURCH, ESSEX
(1520-1535),
SHOWING ITALIAN TERRA-COTTA FIGURE AND CANOPY.



[By permission of 'The Builder.'

NO. 2. BEDINGFIELD CHAPEL IN OXBURGH CHURCH,
NORFOLK,
SHOWING ITALIAN SCREEN (1520-1535).



Place, Surrey; or Wolterton hall, commonly called East Barsham manor house (1538)¹; Great Cressingham (about 1542); Great Snoring manor (now rectory) and Methwold in Norfolk; and Laughton Place in Sussex (1534). All these were finished between about 1520 and 1545 and present fine examples of terra-cotta work in plaques and mouldings, and what we may call pictorial effects displayed on the fronts and cornices. Thus they help to date the houses.

But if we would judge how well architecture in brick might have developed in England without the influence of either the Italian craftsmen or the Italian renaissance, we might study Hampton Court, where now only the medallions and perhaps some of the heraldry are Italian work, or Compton Wynyates in Warwickshire, or the Wyne in Hampshire, of which the long gallery is between 1515 and 1523.

These matters have, however, been dealt with by Messrs. Stratton and Garner and by Mr. Gotch, and lately by Sir Thomas Jackson and others, much more ably than I could deal with them. My purpose is to facilitate the dating of brickwork. There is very little change in this from the first quarter to the end of the fifteenth century in which the Flemish standard very largely obtains. After the coming of the Italians, say after 1520, we get the use of terra cotta in a few places until about 1545. The bricks then thicken a little and conform more to a standard of nine inches in length in the time of Queen Elizabeth, though there are many exceptions. The approximation to nine inches may mark the abolition of the Flemish ell of 37 inches in 1553, and the adoption of the English yard of 36 inches as the standard, when the craftsman here had absorbed the industry, and the Spanish wars put an end, for a time, to the immigration of Flemish brick-workers.²

But there is no very decided change until the end of the seventeenth century, when what is called the Flemish bond was introduced. The bricks are of this bond in Wren's portion of Hampton Court, about 1690. Ham House in Surrey was built partly in 1610 and partly between 1670

¹ This date was in the window in 1801. More recently it has been attributed to the reign of Henry VII, on account of this appearance of the king's arms on the gateway. But the supporters of a dragon and lion were used for a while by Henry VIII, and it is unlikely that Italians would be at

work in 1508. See note in the *Minutes of Soc. Antiq.* by J. A. Repton, 4th Feb. 1808. The paper was not printed in *Archæologia*.

² We no longer find distinctly Flemish names amongst the bricklayers at Lincoln's Inn in 1516.

and 1700. The earlier part is in the Old English bond, the later in the Flemish. The church of St. James, Piccadilly, which is attributed to 1680, has the bricks in the Flemish bond. It was therefore about Wren's time that we find the alteration, though here again in the hands of a conservative or progressive builder the changes might be later or earlier.

As an index of the chronology of brick buildings, with which this paper is chiefly concerned, in addition to the architectural style, now in many cases obliterated by alterations, we have the measurements and mode of laying the bricks as a guide, though one which is difficult to follow, and the introduction of the 'frog' on the under side of the brick. In the buildings of the reign of Henry VIII, if it be allowed that very little or no 'purpose-moulded' brick (that is brick for which special moulds were made before burning) was used before the advent of the Italians, a suggestion we can scarcely as yet take as proven, we have another and more certain indication of date in the employment of terra cotta.

A few words may be added about the prices of bricks. From the building accounts of Stonor, 1416-7, bricks are paid for at the rate of four shillings a thousand. The higher grade brickmaker receives 6*d.* a day, the labourer 4*d.* But the higher grade man pays 14*d.* a week for board and lodging, the labourer 10*d.* Thus the labourer would receive weekly about two and a half times the cost of his board, working six days a week and being boarded for seven. If the labourer to-day pays one pound for his board and lodging, the equivalent would be that his wages would be about £2 12*s.* 0*d.*, but the Flemish workman would have to support his family in another home. At Loseley in Surrey, in 1561, a week's board and lodging costs 22*d.* but the wages of a bricklayer's labourer are still 6*d.* so the workman is not quite so well off. For this building the total cost of making a clamp of six score thousand bricks, including the making of the moulds, wood for burning, cartage of sand, provision of straw and of meat and drink for the brickmakers, was £34 12*s.* 3*d.* At Lincoln's Inn, in 1568, bricks are paid for at 3*s.* a thousand. At Grafton in Worcestershire in the same year, the wages of a labourer are still 6*d.* a day, but the bricklayer receives 11*d.*