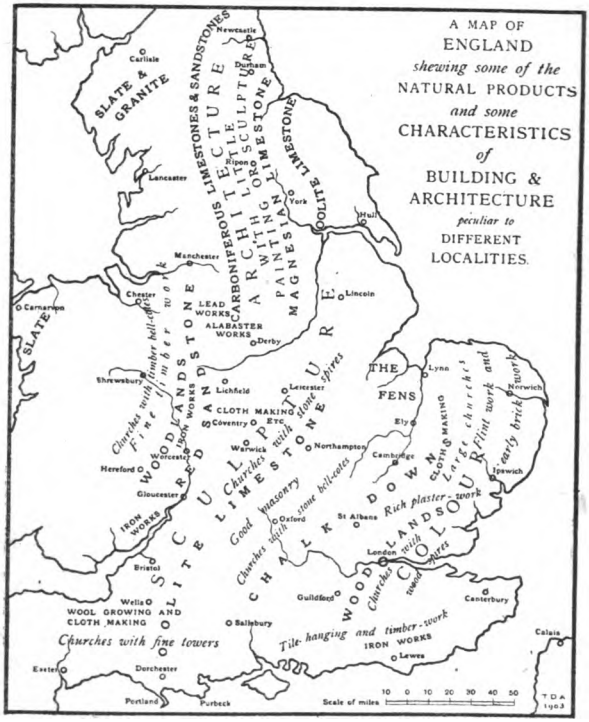
ENGLISH ARCHITECTURE


A MAP OF
ENGLAND
shewing some of the
NATURAL PRODUCTS
and some
CHARACTERISTICS
of
BUILDING &
ARCHITECTURE
peculiar to
DIFFERENT
LOCALITIES.
SLATE & GRANITE
CARBONIFEROUS LIMESTONES & SANDSTONES
ARCHITECTURE
SCULPTURE
WRITING
PAINTING
MAGNESIAN LIMESTONE
OOLITE
SLATE
RED SANDSTONE
WOODLAND
SCULPTURE
LIMESTONE
CHALK DOWNS
WOODLAND COLOUR
THE FENS
Newcastle
Durham
Carlisle
Ripon
Lancaster
York
Hull
Manchester
Chester
Carnarvon
Lincoln
LEAD WORKS
ALABASTER WORKS
Derby
Shrewsbury
Lichfield
Leicester
Lynn
Norwich
Ely
CLOTH MAKING ETC.
Coventry
Warwick
Northampton
Cambridge
Worcester
Hereford
Gloucester
IRON WORKS
Oxford
St Albans
Ipswich
London
Bristol
Wells
WOOL GROWING AND CLOTH MAKING
Salisbury
Guildford
Canterbury
Calais
Exeter
Dorchester
Portland
Purbeck
Lewes
IRON WORKS
Churches with timber bell-cotes
Fine timber work
Churches with stone spires
Good masonry
Churches with stone bell-cotes
Large churches
Flint work and early brick work
Rich plaster-work
Churches with round spires
Churches with fine towers
Tile hanging and timber-work
10 0 10 20 30 40 50
Scale of miles
TDA 1903

ENGLISH ARCHITECTURE

BY

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ARCHITECT

WITH 200 ILLUSTRATIONS

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TO

MY FATHER

PREFACE

IT will be at once apparent that this little book deals with the mere elements—with what may be called the grammar—of the vast subject of English Architecture. The great imaginative characteristics of our architecture—its æsthetic and poetical qualities (I do not speak of Gothic architecture only) its shortcomings, its reflection of national character, the influences which shaped its course and led to its alternate rise and decline—these are questions which cannot well be dealt with in the summary fashion of the following pages. The book might, in fact, be more accurately called an account of English *building* rather than of English *architecture*, if indeed it were not impossible to separate the two.

The endeavour has been, first, to trace the gradual development of our architecture so far as to enable the reader "to discriminate the styles," as Rickman has it; that is, to recognise approximately the date of any building he may visit; and then to give some account of the plan and arrangement of particular classes of buildings.

The illustrations have been drawn by myself from my own sketches, made during the last twenty years or so, except in a few instances where other sources are acknowledged. For the loan of drawings I am indebted to Professor G. Baldwin Brown, M.A., and to Mr. C. O. King. For permission to use illustrations I have to thank Mr. T. B. Batsford, Messrs. A. and C. Black, Mr. Reginald Blomfield, M.A., F.S.A., Mr. J. A. Gotch, Mr. W. H. St. John Hope, M.A., Messrs. Macmillan and Bowes, Mr. J. T. Micklethwaite, F.S.A., Messrs. Parker, Mr. C. R. Peers, M.A., F.S.A., Mr. E. S. Prior, M.A., and the respective Presidents and Councils of the Society of Antiquaries of London, of the Royal Archæological Institute, of the Cambridge Antiquarian Society, and of the Cumberland and Westmorland Antiquarian and Archæological Society.

I also very gratefully acknowledge the kindness of several friends who have helped me with the text and with the illustrations by most valuable advice and criticism, and by reading my manuscript and proofs.

T. D. A.

CAMBRIDGE,
Christmas, 1903.

INTRODUCTION

THE subject of English Architecture is so large that it will be necessary to confine the following sketch strictly within the limits—both geographical and chronological—imposed by the term. It will be impossible to attempt a review of Scottish architecture, with its strong national character and piquant French flavour, or of the art of Ireland, which in early days passed through a phase so interesting and far-reaching in its effects. So too with the work of our own country previous to Saxon times. The mighty structures of the Britons, still shrouded in mystery, and the elaborate buildings of the Romans about which we are now learning so much, are connected by so slight a thread with all that followed that the break may, for our present purpose, be considered as absolute.

It has been common to divide English medieval architecture into several distinct styles. But this is in many respects unfortunate, and, indeed, the very use of the word style, except as applied to the great periods, such as Romanesque, Gothic, and Renaissance, is apt to be misleading. The

terms Early English, Decorated, and Perpendicular are now too well established to be disregarded, but their use, if it does not actually convey an idea of definite breaks in the continuity of the art, at least suggests very rapid change from one style to another through short periods of transition. This, however, was not so. Medieval architecture was always in a period of transition. It was an unwritten law based solely upon precedent, a purely traditional art learned only at the bench, and as such it was continually advancing.

With the Renaissance the case is somewhat different. That period was not, as regards architecture, one of growth and development of at all the same kind as were the Middle Ages, neither was the art in its earlier phases vernacular in the same sense that medieval art had been. Though Renaissance architecture gave as great opportunities for variety of treatment and for originality of the highest order, its progress and development were modified by the fact that the forms in which it was expressed had become in a great degree stereotyped. New combinations and new themes were always open to the artist, but the language in which he expressed himself was scarcely so flexible as the medieval tongue; for our Renaissance architecture was based on that of the Italian masters of the fifteenth and sixteenth centuries, who took as their models the

architecture of ancient Rome, which in its turn had been derived from that of Athens. That is as far as the pedigree has been traced with certainty. Greek architecture as we know it—the architecture of the great period of Greek art—was perhaps itself a renaissance, a revival of types which had had their period of struggle and growth in some still buried past. When we first meet Greek architecture it is full blown. Further refinements of extraordinary subtilty were yet to be made, but the types or orders are fixed, and are deliberately adopted. The style, eclectic and perhaps exotic, is quite developed, and requires only that perfecting for which the genius of the Greek was so eminently fitted. From the types which he perfected no serious departure has ever been made.

Besides this contrast between the rapid growth of the Western style and the unvarying types of the East, there is the great change in the conditions under which English architecture was produced after the coming of Inigo Jones. In a work of the Middle Ages much was left to the initiative and traditional methods of the craftsmen.

> "For in the lond ther nas no crafty man,
> That geometrye or arsmetrike can,
> Ne portreyour, ne kervere of ymages,
> That Theseus ne gaf hem mete and wages
> The theatre for to maken and devyse."

But from the beginning of the seventeenth century architecture was a matter for architects.

These facts become apparent as the narrative proceeds, and involve a different treatment of the subject. In the Middle Ages there is incessant change of form in every detail, but the personal element, or at least any proper name, is almost invariably absent. Since Renaissance times the change in details may be told in a few lines, and history is apt to become a purely critical review with a list of architects and their works.

The manner of Inigo Jones and of Wren did, however, in course of time become traditional, and many are the seventeenth and eighteenth century houses, the work evidently of the local builder, which we of to-day would fain copy to the best of our ability. Meanwhile the work of the architects deteriorated from various causes till it reached such a pompous dullness combined with inanity of decoration as to make the Gothic Revival inevitable. It is in this connection that the half-prophetic remark of Campbell, in his *Vitruvius Britannicus* (written in 1715), becomes of interest. Speaking of the state of architecture in Italy, he says: "With him [Palladio] the great manner and exquisite Taste of Building is lost; for the *Italians* can no more now relish the Antique Simplicity, but are entirely employed in capricious Ornaments, which must at last end

in the *Gothic*." The capricious ornaments which, soon after this was written, began to appear in English architecture, did at last end in the Gothic Revival with all its strange productions.

One result of this extraordinary movement has been the "restoration" of our medieval buildings. It is impossible to leave this subject without a protest against the mutilation which too often passes under the name.

There can never be absolute agreement on the treatment of old buildings, any more than on any other question; but the general opinion among those who have given most attention to the subject is becoming more and more in favour of a very strong conservatism, and is slowly, very slowly, leavening the lump of public opinion. We are still living in an age (for indeed hardly a decade has passed) which saw the destruction of great quantities of fifteenth-century work in one of our noblest buildings to make room for modern reproductions of the original Norman and Early English; while in another case it was seriously proposed to pull down a building by Wren in order to replace it by one of modern Gothic. The Jacobean Communion table and the Georgian font, sanctified by the devotion of generations, are even now condemned as unsuitable. This is, of course, restoration in its crudest form, but it is still far from uncommon.

But though instances of restoration of the most revolutionary sort still occur, most of the damage which is now done is through excessive and injudicious repair. Every stone which shows signs of decay, or has been chipped, is cut out. Maybe it has taken six or eight hundred years to effect this slight degree of damage, and there is therefore presumably yet a good deal of life before it. Every bit of red brick with which a stone building has been repaired is cut out, especially if it be in a church, for it is not thought to be an "ecclesiastical" material, though these patches are often of excellent workmanship, and their warm colour always makes a delightful harmony with the grey stone. The old patchwork pavement is changed for monotonous red tiles. The screenwork, which has generally been covered with brown paint, retains under this the medieval decoration of gilding and colour, but the acids which are applied remove not only the modern oil paint, but often also the medieval colouring, and the work is put up again with a brown, woolly surface, which would have horrified the original builders. The plaster is stripped off the roughest rubble walls, sometimes even inside as well as outside,—a measure generally disastrous to the building æsthetically and very far removed from the ancient practice; for the medieval builders almost always covered their

walls, even when built of good masonry, with plaster of exquisite fineness, which they white-washed if they did not decorate it with colour.

The lines on which the treatment of old buildings should proceed may be briefly laid down thus: No object should be destroyed because it is in a style which we happen to dislike; the structural parts should be repaired in the best possible way, but no attempt should be made to restore decorative features; alterations should only be made where absolutely necessary for practical reasons; new work should honestly, though not ostentatiously, show itself as such; beauty should not be sacrificed to such mistaken notions of archæology as, for instance, that all constructive features and materials ought to be left exposed to view; nor, on the other hand, should history and association be wantonly sacrificed to what we consider beautiful.

In conclusion, I may mention a few books which have been very useful to me and will be useful to others. Unfortunately architectural literature, although considerable in bulk, was for a long time unscientific in its methods and limited in its range. In the field of medieval architecture there was too much theory and not enough minute and systematic recording of facts; in works on classical architecture there has been a tendency merely to describe particular buildings, without

any attempt at a connected general history; and it may be said that until the last few years a reasonable account of Renaissance architecture did not exist. There is still no general work on Roman architecture in England or on conventual buildings. A knowledge of either subject has to be gleaned from scattered papers in the publications of archæological societies, those on the latter subject by Mr. St. John Hope being especially valuable.

The foundations of intelligent architectural history were laid by Thomas Rickman in his *Attempt to Discriminate the Styles of Architecture in England from the Conquest to the Reformation*, published in 1817. This has been several times re-edited and enlarged by John Henry Parker, who added many excellent illustrations and a useful list of dated examples. Mr. Parker also published the invaluable *Glossary of Terms used in Grecian, Roman, Italian, and Gothic Architecture* (3 vols., 8vo. Oxford, 1850; out of print), *A Concise Glossary*, (1 vol. sm. 8vo, 1879. 7*s.* 6*d.*), and *An Introduction to the Study of Gothic Architecture*, besides other works.

R. and J. A. Brandon published in 1847–9 their *Analysis of Gothick Architecture*, with a great number of illustrations (2 vols. 4to., published at £5 5*s.*), and *Parish Churches* (1 vol. £2 2*s.*).

These works, like most that treat of Gothic

architecture, deal almost exclusively with ecclesiastical buildings.

On church architecture in particular there is M. H. Bloxham's *Principles of Gothic Ecclesiastical Architecture* (2 vols. 8vo, 11th edition, 1882), which is excellent, though it scarcely deals with "principles." The third volume is called *A Companion to Gothic Architecture*, and was reissued separately in 1903 as *Essays on Church Vestments*, etc., at 3*s.* 6*d.* George Gilbert Scott, the son of Sir Gilbert (whose *Lectures* are rather for those intending to enter the profession), wrote the learned and very discursive work, *An Essay on the History of English Church Architecture* (4to. 1881).

Development and Character of Gothic Architecture, by Professor C. H. Moore, of Cambridge, Mass. (8vo, London, 1890), is a purely critical work on the principles of Gothic architecture, written with considerable power, to show that the Gothic style was never fully developed in any country but France. Mr. E. S. Prior's *History of Gothic Art in England* (8vo, 1900, 31*s.* 6*d.*), an original and valuable work, is a critical appreciation of the national style in its local variations.

For Saxon architecture the writings of Professor Baldwin Brown should be consulted, and also the pages of the *Archæological Journal*,

especially Mr. J. T. Micklethwaite's valuable paper "Something about Saxon Church Building" (vol. liii., 1896).

On the subject of medieval houses the great book is *Some Account of Domestic Architecture in England from the Conquest to the time of Henry VIII.*, by T. Hudson Turner and J. H. Parker (4 vols. 8vo. Parker: 1851–9, 72*s.*). On the kindred subject of collegiate architecture there is the great *Architectural History of the University and Colleges of Cambridge*, by R. Willis and J. W. Clark (4 vols. 8vo. Cambridge, 1886, £4 4*s.*); and they have drawn up the ladder after them. The same remark applies to Mr. Clark's work on library buildings and fittings, *The Care of Books* (8vo, 1901). *Mediæval Military Architecture in England*, by G. T. Clark (2 vols. 8vo. Wyman, 1884) is the standard work on castles.

There are many good books on other special branches of the subject. *The Rites of Durham* gives a vivid and detailed account of the church and its furniture, the conventual buildings, and the monastic life, written by one of the monks after the suppression of the monastery (8vo. Surtees Society, 1842). This book is difficult to get, but a new edition is being prepared. Mr. Micklethwaite's *Ornaments of the Rubric* and Mr. St. John Hope's *English Altar* (both Alcuin

Club publications) are the most authoritative works on those subjects. A good account of church vestments is given in Mr. Macalister's *Ecclesiastical Vestments* (8vo, 1896, 6*s.*) and in a number of other works. Cardwell's *Documentary Annals of the Reformed Church of England* (2 vols. 8vo, 1844) is the authority for the changes of the sixteenth and seventeenth centuries. Bloxham's *Companion*, mentioned above, deals with this subject.

R. and J. A. Brandon's *Open Timber Roofs of the Middle Ages* (4to, London, 1849) contains excellent drawings, but is out of print. F. A. Paley's *Manual of Gothic Mouldings* (8vo, 6th ed., 1902, 7*s.* 6*d.*) gives a very large and admirable collection of sections, without, however, sufficient indication of their scale and construction and what may be called their context. Professor Willis's papers on the "Vaults of the Middle Ages" (*Trans. Ryl. Inst. of Brit. Archts.*, vol. i. part ii., 1842) still forms the best text-book on the subject; perhaps a like remark applies to all his architectural writings. Mr. J. Starkie Gardner's *Ironwork* (2 vols. 8vo, 6*s.* South Kensington Mus. Art Handbks., 1893) and Mr. W. R. Lethaby's *Leadwork* (8vo, 1893, published at 4*s.* 6*d.*) are handy and quite authoritative.

During the eighteenth century a number of large works on contemporary architecture were

published, but Colin Campbell's *Vitruvius Britannicus*[1] is the only one of general interest. This is a valuable work, consisting of large engravings, with a short note on each, but with no text. It is very far from impartial, the selection displaying the usual animus against Wren. It should be explained that the books of this period which profess to illustrate the work of Inigo Jones attribute to him a large number of designs which are really the work of others.[2]

As might be expected, little was produced on the subject of Renaissance architecture during the nineteenth century until near its close. But in 1897 Mr. Reginald Blomfield published his *History of Renaissance Architecture in England*, 1500–1800 (2 vols. 8vo, 50*s.*), which the reader will find to be all that can be desired, both in matter and in manner. To it I am particularly indebted. Mr. Blomfield has condensed it into one small volume in his *Short History* (large cr. 8vo, 1900, 7*s.* 6*d.*).

There are several large works on special phases of the Renaissance, which, though not really dear, are rather expensive, such as Mr. Gotch's *Architecture of the Renaissance in England*, 1560–

[1] Fol., vols. i., ii., 1715; vol. iii., 1725, continued by Woolfe and Gandon (vols. iv., v.), 1767–71, and under the title *New Vitruvius Britannicus*, by Richardson (vols. vi., vii.), 1802–8.

[2] Blomfield.

1635 (2 vols. fol., 1894, £8 8*s.*), and Messrs. Belcher and Macartney's *Later Renaissance Architecture in England* (2 vols. fol., 1901, £8 8*s.*). These are illustrative works, with short descriptive text. Mr. Gotch has issued a smaller work on the same period (8vo, 21*s.*), and it is to be hoped that Mr. Belcher will follow his example. Messrs. H. Inigo Triggs and H. Tanner have published *Some Architectural Works of Inigo Jones* (fol., 30*s.*), and Mr. G. H. Birch, *London Churches of the XVIIth and XVIIIth Centuries* (fol. £4 4*s.*).

But however delightful books may be, and necessary as they are in some branches of the art, the true way to study architecture, the only really satisfactory way, and by far the most attractive, is the close examination of the buildings themselves.

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ENGLISH ARCHITECTURE

CHAPTER I

ROMANESQUE

SAXON: Houses. Churches. Quality of work. Belfries. Quoins. Doors and windows. Columns. Arches. Vaults. Patterns in stone on walls. Methods of construction.

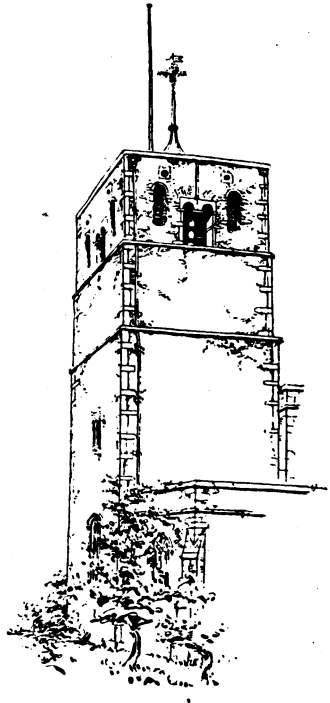
NORMAN: Great amount of building done. Construction. Walls, wall-arcades, corbel-tables. Buttresses. Doors. Windows. Columns, capitals. Arches. Vaults. Mouldings, enrichments. Sculpture. Roofs.

TRANSITION: Character. Change from round arches to pointed. Effect of the change on vaulting.

SAXON

THE Saxons were but little influenced by those Roman buildings which had survived the troubled interval between the departure of the legions and their own settlement in the land. Their houses seem to have been generally of wood, ornamented with rude carvings and covered with thatch or with shingles. They consisted usually of one room; only the greater houses seem to have had a second room as a sleeping place for the thane and his family, and the more honoured

guests. But the earliest builders (namely, those of the seventh and eighth centuries) tried to copy the style and technique of the Romans, and they



TOWER OF ST. BENEDICT'S CHURCH, CAMBRIDGE
PROBABLY EARLY ELEVENTH CENTURY

no doubt used to some extent materials from ruined Roman buildings, such as the large thin Roman bricks. The Saxons seem to have had

some of the Roman skill in building, and were consequently able to make their walls thin. In this respect they contrast strongly with Normans, whose work is so often of excessive massiveness and of inferior quality.

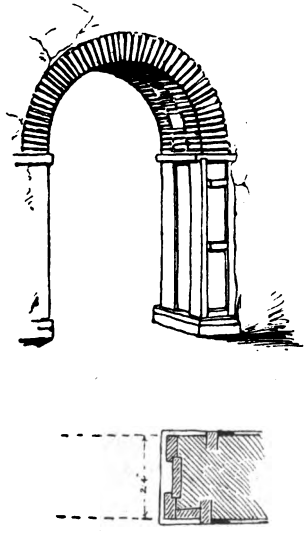


FIG. 2. ROMAN BRICKS AND SLAB CONSTRUCTION
ARCHWAY AND PLAN OF ONE PIER. BRITFORD CHURCH

No buildings other than churches now remain. But churches of which the whole or a considerable part are Saxon are fairly numerous and of great interest. Their ritual arrangement will be noticed in a later chapter. It will be, therefore,

only necessary here to describe their architectural features and methods of construction.

Saxon towers are usually tall and thin. They are divided into stages of about equal height by a series of offsets, each stage being rather narrower than the one below it. The belfry windows have a strongly marked character of their own. They are divided by balluster-shaped columns set in the middle of the wall, and supporting a long stone, running from inside to outside to carry the arches. Thus the Saxon towers strongly resemble those of the early churches in Rome, by which they were no doubt largely influenced. They were probably surmounted by a low pyramidal spire of stone or wood, or by a roof with a gable over each face of the tower.[1] The balluster-shafts were copied from Roman work, and were used in other parts besides the towers. Arches are always round and of a single ring. Door jambs are not splayed or rebated. Windows are small, and in the early churches are splayed on the inside.

During the Saxon period architecture seems to have deteriorated,[2] and it is believed that most of the features usually recognised as characteristic of the style, belong only to the latest buildings, that is, to those of the tenth and eleventh centuries. The angles are built in what is known as "long-and-short" work, that is, with flat slabs alternating with tall pillar-like stones.

[1] Sompting (Fig. 3). [2] Micklethwaite.

In the earliest Saxon work, as in post-Conquest work, all the quoins are the same height, all have one side longer than the other, like a brick, and the long sides are placed alternately on each side of the building. Buttresses are very rarely used at the angles or elsewhere.

The doors and windows have usually round arches, or a small window has a semicircular head

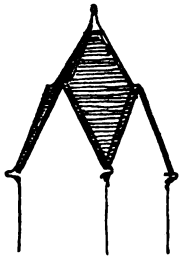


FIG. 3. TOP OF TOWER
SOMPTING CHURCH

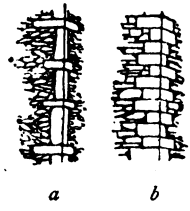


FIG. 4. QUOINS
a, LONG AND SHORT. *b*, ORDINARY

cut in a single stone,[1] and not infrequently the windows are complete circles. Sometimes a triangular head is formed over a door by two large stones leaning against one another;[2] a plain lintel is never used. Windows are splayed outside as well as inside, so that the narrowest part of the opening is in the middle of the wall. In the latest work there is once more a splay on the inside only, but this is probably due to Norman influence.

Columns are round, and are sometimes orna-

[1] Fig. 5. [2] Deerhurst, Gloster; Barnack, Northants.

mented with vertical or spiral flutings,[1] or they are balluster-shaped, and are spoken of as 'turned.' The capitals are rudely sculptured, and have a chamfered or moulded abacus. The arches are round and of one order, which is plain or moulded on the face only. Barrel vaults were used over small spans.

A remarkable feature is the pattern formed on the face of a wall by narrow vertical strips of

FIG. 5
SAXON WINDOW

FIG. 6. PLANS OF SAXON WINDOWS
a, EARLY *b*, LATE

stone, with some diagonal and arch-shaped pieces.[2] It is rather suggestive of wood-framing, and is thought by some to be derived from timber buildings. Others maintain that the system is a rude imitation of the pilasters and entablatures of the Romans.

The rubble walling was without a doubt plastered inside and outside. Roofs were most likely covered with thatch or with oak shingles, though it is possible that tiles were made. Glass windows were not unknown, though they probably numbered but one in ten thousand.

[1] Deerhurst. [2] Earl's Barton (Fig. 8).

FIG. 7. TOWER OF MONKWEARMOUTH CHURCH

A.D. 674

Drawn by Professor Baldwin Brown.

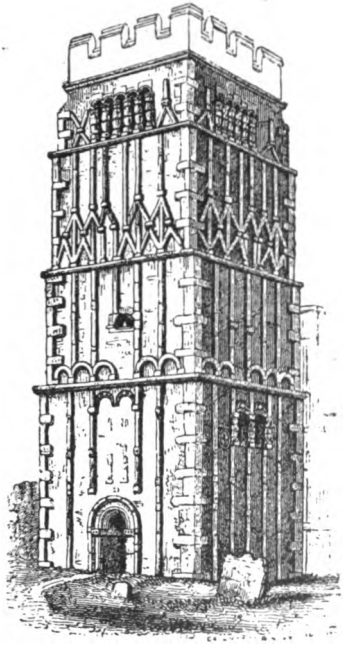


FIG. 8. TOWER OF EARL'S BARTON CHURCH

PROBABLY ELEVENTH CENTURY

From Parker's "Glossary."

NORMAN.

The Norman Conquest was at once followed by an extraordinary outburst of activity in building; perhaps the greatest the country has ever known. The churches of the religious houses were laid out on the grandest scale; a large number—probably the greater number—of our parish churches bear evidence of having been rebuilt at this time; an immense number of castles of great size and strength were erected to hold the conquered country, and not a few substantial private houses built of stone still remain.

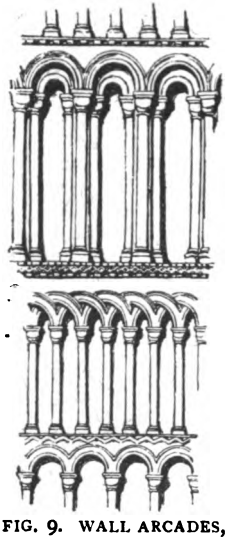


FIG. 9. WALL ARCADES, ELY. *c.* 1170

The walls are of great thickness. At first they are built of rough rubble, or of squared stone with very thick joints, (sometimes more than an inch thick,) but later the work improves and the joints are much finer. In early buildings Roman bricks are still occasionally used.

The building is often enriched by a row of small arches carried on detached shafts, and in elaborate work the whole wall is covered with arcades of various designs. There are sometimes overhanging eaves, sometimes a

parapet. The parapet projects about six inches beyond the face of the wall, and is carried by a corbel-table or row of grotesquely carved corbels a foot or two apart, with lintels or arches from one to another. A similar corbel-table is sometimes placed under the eaves where these overhang.

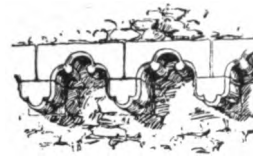


FIG. 10. CORBEL-TABLE, ELY. *c.* 1200

Buttresses are very wide, but they are of such slight projection, only a few inches, as to be of no structural use. They terminate in a gable or in a lean-to, or they run up to and stop against the projecting corbel-table under the parapet. The angles of the buttresses and of the building itself are often ornamented with a shaft or small column worked on the quoins.

Doorways, especially of churches, are often very highly decorated. The jambs consist of a series of recesses with a small shaft, generally worked on the same stones as the jamb, in each recess. The head of the doorway is generally a round arch, recessed like the jamb, and enriched with a great variety of ornaments; occasionally the innermost order of the arch is trefoil in form. Sometimes a lintel is used, with a corbel under each end and a relieving arch over it, the tympanum or space between the lintel and arch being filled with sculpture.

FIG. II. SOUTH-EAST DOOR, ELY. *c.* 1140

Windows are treated in the same manner as doorways, but though there are some rich examples, they are generally comparatively plain, and they are almost always arched. Circular windows are also used, especially in the gables of large buildings.

The columns, though exceedingly massive, have merely a facing of ashlar with a core of rubble.

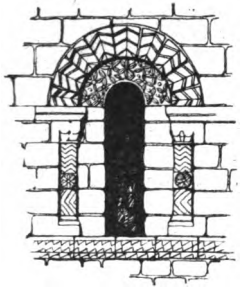


FIG. 12. WINDOW IN STOURBRIDGE CHAPEL, CAMBRIDGE. *c.* 1150

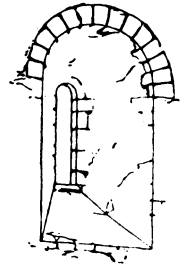


FIG. 13. INTERIOR OF AN EARLY NORMAN WINDOW

This method of building requires good mortar, and Norman mortar was generally very bad. In plan they are generally round, or else they are square with a series of recesses at the angles and with half columns on the faces; they occasionally have spiral or zigzag flutings. The bases are low and insignificant. The two component parts of a capital, the bell or capital proper and the abacus, are, in Norman work,

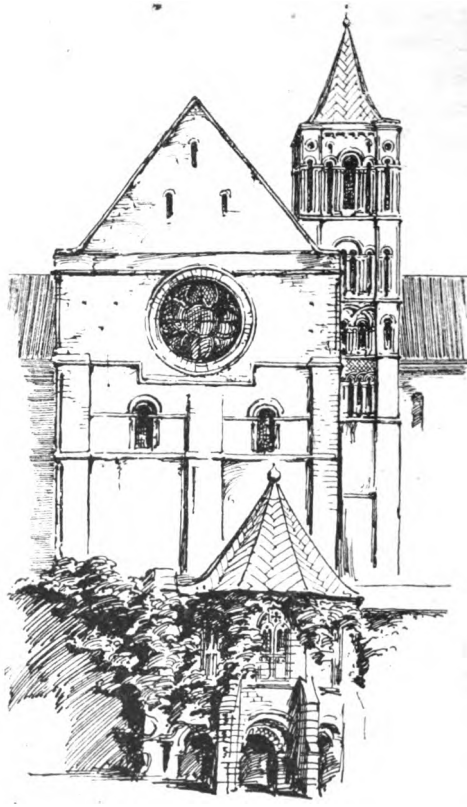


FIG. 14. NORTH-EAST TRANSEPT, CANTERBURY. 1174

formed of separate stones. In plan, the abacus of a large pier generally follows approximately the plan of the pier itself; for small shafts it is invariably square, and is so occasionally even for large round columns. The upper edge is square, differing in this respect from all later forms, and the lower edge is chamfered. The lower part of the capital is made round to fit the column, while the upper part is square to fit the abacus. The

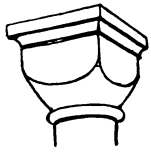


FIG. 15. CUSHION CAPITAL

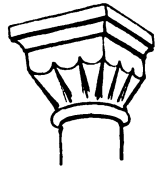


FIG. 16. SCOLLOP CAPITAL

result is known as the "cushion capital." This in its simplest form is far the commonest Norman capital, and is the parent of some of the more elaborate sorts. The most common way of decorating this plain block of stone is by cutting vertical flutes, producing what is called the "scolloped capital," from its resemblance to a scallop shell. Another form used for small capitals has four leaves springing from the neck and bending over under the angles of the square part and ending in volutes. Other varieties have a rude imitation of the more orthodox volute;

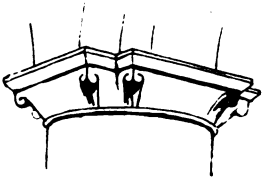


FIG. 17. CAPITAL WITH VOLUTES, ELY. *c.* 1090

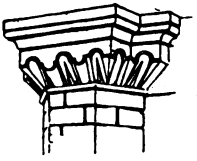


FIG. 18. SCOLLOP CAPITAL, ELY. *c.* 1140

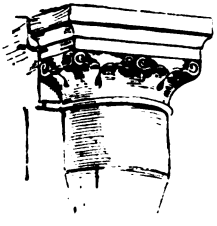


FIG. 19. REVERSED VOLUTES, BUILDWAS. *c.* 1150

FIG. 20. REVERSED VOLUTES, ST. MARY'S CHURCH, SHREWSBURY. *c.* 1150

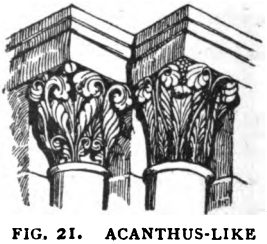


FIG. 21. ACANTHUS-LIKE FOLIAGE, ST. CROSS. *c.* 1160

some are of the cushion form, but are covered with surface carving. In the latter part of the twelfth century many capitals are carved with genuine foliage springing upwards from the neck of the capital and curling over under the abacus. Occasionally, in its general symmetrical arrangement and also in the character of the leaves, the Norman capital resembles the acanthus capital of the Roman Corinthian order, from which it was ultimately derived. The edges of the leaves are deeply serrated, and the leaves under the projecting angle of the square abacus have a volute-like form. This derivation from the classical acanthus is an important link in the history of art. But most examples show a departure from the acanthus form. The serrations are omitted, and the volute becomes a knob of opening foliage. Before very long the knob did open in a most interesting way, as will be described on a later page.

The arches are round, sometimes stilted, or even slightly horseshoe-shaped. Small arches, as of doors, windows, and wall arcades, are generally more richly ornamented than large arches.

Small buildings are sometimes covered with a barrel vault. More commonly the aisles of a church have groined vaulting and the nave a wooden roof only; the early builders were daunted by the height and width of the nave.

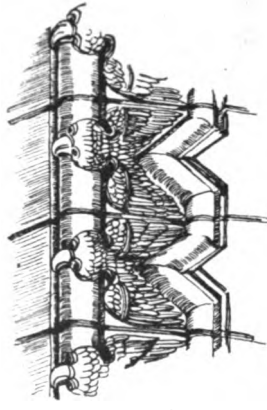


FIG. 22. BIRD'S-BEAK ENRICHMENT, ST. CROSS. *c.* 1150

FIG. 23. SECTION OF ARCH. ST. BARTHOLOMEW'S, SMITHFIELD. 1133

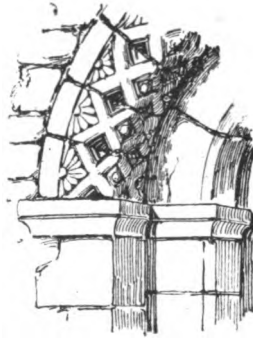


FIG. 24. IMPOST AND ARCH, ALSOP-IN-THE-DALE

FIG. 25. ENRICHMENTS OF ARCH, ST. CROSS

The nave of Durham, about 1130, is an early example of a large vault. The early groined vaults have no ribs, but about 1100 both transverse and diagonal ribs are added. The diagonal ribs being much longer than the transverse ribs, they rose, if both were made semicircular, to a greater height. This produced inconvenient forms in the spandrels, and various expedients were resorted to, such as stilting the transverse arches and depressing the diagonals, in order to make the crowns of the two more nearly at the same level.

The mouldings are few and simple, the enrichments various and elaborate. The hood-mould

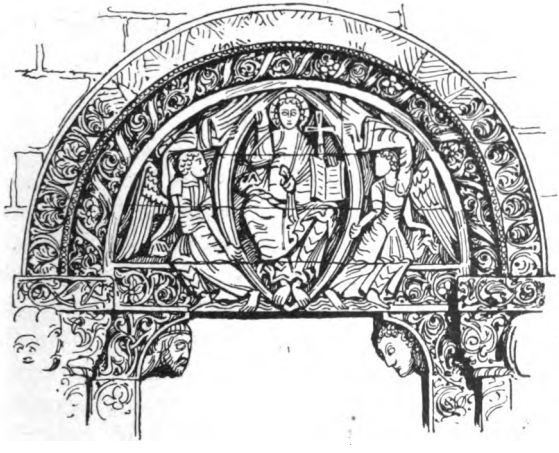


FIG. 26. SCULPTURED TYMPANUM, ELY. *c.* 1140

of the arch, in this as in succeeding styles, is generally similar to the abacus of the capital. Arch-moulds are bold rolls and shallow hollows. The commonest enrichments are the shallow zig-zag and the billet, used on string courses and arches; the rich and bold chevron, and the weird bird's-beak, used on arches only. The sculpture is shallow, the parts in relief being flat, like the ground, so that the effect is produced by broad level surfaces and lines rather than by true modelling.

Few, if any, roofs remain, but there can be no doubt that they had level tie-beams, and that each pair of rafters was framed together by cross pieces, forming what is called a 'trussed-rafter' roof (see p. 34). The pitch was moderately steep, and there was often a level boarded ceiling.

TRANSITION

During the third quarter of the twelfth century new features and new methods began to be introduced. The work becomes more refined, the walls and columns are thinner, the carving more delicate. The chisel was used more commonly than in early times and the axe less often. But the change was very gradual, and features belonging to the Norman style and to that which succeeded it are found side by side in work of this period of transition. Pointed arches are enriched with

Norman ornaments, and supported on columns of the massive Norman proportions. Old forms are sometimes clung to while the technique improves; or, on the other hand, the newer fashions are adopted while the skill to carry them out is wanting.

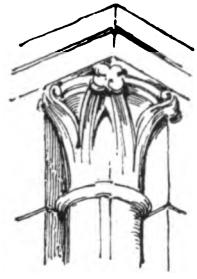


FIG. 27. CAPITAL, ST. MARY'S, SHREWSBURY. *c.* 1180

The most important change is that from the round to the pointed arch, and numberless views as to the origin of the change have been put forward. It has been thought that the pointed arch was suggested by the intersecting arches common in Norman work;[1] some have held that the *vesica piscis*[2] gave the idea; others that it was introduced from over-seas. It had, indeed, been long used in the East. It was introduced into the south of France from Byzantium towards the end of the eleventh century. It is found in the north of France somewhat later, and was in use in parts of England in the first half of the twelfth century. The Cistercians were among the first to adopt it, and they were using it freely by 1150. Their earliest houses in England had been founded about twenty years before, so that most of their buildings are round-arched.

But whatever the source whence the pointed arch was derived, the difficulties of vaulting with

[1] Fig. 9. [2] Fig. 26.

the round arch had set every mason in the land thinking of devices for overcoming them; and when everyone was met with the same problem such a simple solution was bound to come. Indeed, it seems not impossible that it came at the same time to different men in different ways.

FIG. 28. CAPITAL, ST. MARY'S, SHREWSBURY. *c.* 1180

FIG. 29. CAPITAL, ST. MARY'S, SHREWSBURY. *c.* 1180

CHAPTER II

GOTHIC

EARLY ENGLISH: King Henry III. Contrast with Norman. Quality of masonry. Windows. Doors. Buttresses. Columns. Capitals, foliage. Bases. Annulets. Arches. Mouldings. Vaulting. Roofs.

DECORATED: The development of tracery, geometrical, flowing. Foliage. Columns. Mouldings. Ogee-arches. Vaults. Roofs.

PERPENDICULAR: Reduction of wall surface. Windows. Doorways. Buttresses. Columns. Arches, mouldings. Foliage. Enrichments. Panelling in stonework. Vaulting. Roofs.

EARLY ENGLISH

BY the end of the twelfth century Gothic architecture had established itself as a distinct style; that is to say, it had cast off the last traces of Romanesque. Church building, to which, during the twelfth century, the architectural energy of the people had been devoted, had received a severe check by the sixteen years' interdict of King John's reign. But soon after the accession in 1216 of Henry III., who was himself an enthusiast, architecture revived and developed with extraordinary rapidity. Henry began Westminster Abbey in 1245.[1] The

[1] He began the Lady Chapel, now destroyed, in 1220.

century which followed is the great period of English art.

Massive construction had given way to extreme lightness, and instead of the general squareness of Norman proportion, height is increased and emphasis is given to the vertical line.

The quality of the masonry continued to improve till it reached a high degree of perfection. The comparative simplicity of the style did not present the complicated problems of the later work, but for accuracy in setting-out and skill in workmanship, the masonry of the thirteenth century has never been surpassed.

The long, narrow lancet windows are the well-known characteristic of the Early English style. Their height is commonly six times their width, and not seldom as much as ten times. In their grouping the greatest skill is shown. Along the side of a building they are in couples, or they form a row, evenly spaced and of equal height. In a gable end or in the clearstory of the larger churches they are in groups of three or five, increasing in height towards the centre, the spaces between them being often filled with blind arches. The jambs, especially inside, have rich clusters of thin shafts of Purbeck marble. The glass is set near the outer face of the wall; the inner jamb is widely splayed, but the soffit of the arch is level. When a pair of lancets is embraced under one arch,

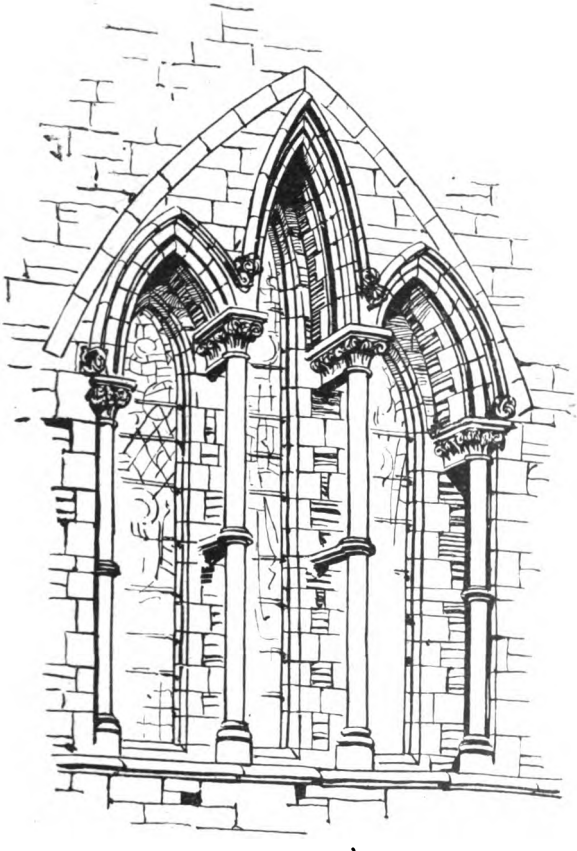


FIG. 30. LANCETS, ST. MARY'S, SHREWSBURY.
c. 1180

the thin wall above the lancets and below the arch is sometimes pierced by a circle or quatrefoil. This

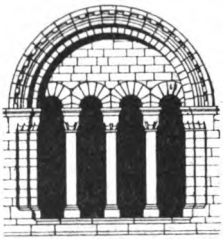


FIG. 31. UNPIERCED NORMAN TYMPANUM

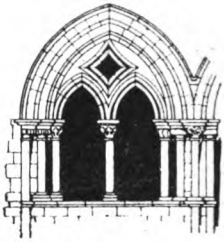


FIG. 32. PLATE TRACERY, JESUS COLLEGE, CAMBRIDGE

had been already done in the Norman triforium arcade. The beauty of the arrangement was at once apparent, and the idea was rapidly developed. Externally the group was included under one hood-mould, and the piercings were enlarged. This important step, producing what is known as "plate-tracery," was made during the first half of the thirteenth century. From plate-tracery is derived all the tracery of later times.

FIG. 33. CLEAR-STORY WINDOW, BOURN. *c.* 1200

Doors are generally richly moulded, and the jamb has one or more detached nook-shafts, but they are not often treated so elaborately as in Norman buildings. The head is commonly arched; only very occasionally are a lintel and relieving arch used.

The form of buttress now used makes it possible to reduce the thickness of the wall, and at the same time it gives a more pronounced vertical line than the Norman pilaster. It has a much greater projection and less width, the two dimensions being generally nearly equal. It is diminished by offsets, and terminates near the top of the wall by a plain weathering or by a gablet, or it is carried up above the parapet and finished with a pinnacle. The angles are frequently chamfered. The corner of a building has a pair of buttresses at right angles to the walls, never one placed diagonally. When a vaulted nave rises above an aisle the thrust of the nave vault is met by flying-buttresses carried over the roof of the aisle.

Columns are very slender, and are built of large blocks of dressed stone, instead of as heretofore a facing of ashlar, with a rubble core. They are generally round; in the nave arcade of a church round and octagonal columns are frequently used alternately. Sometimes they consist of four semicircles, and in the more important buildings four or more slender shafts of Purbeck marble are placed round a circular column of stone.

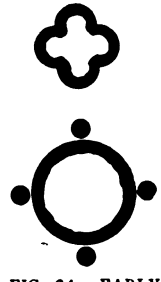


FIG. 34. EARLY ENGLISH PIERS

The capitals are of two varieties: moulded and carved. The abacus is

worked on the same stone as the rest of the capital; it is never square on plan, the upper edge is always rounded, and it is deeply undercut. The other mouldings of the capital are few and simple, and project boldly from a vertical 'bell.'

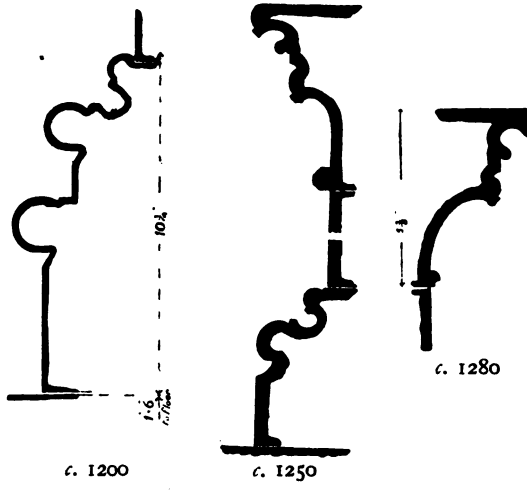


FIG. 35. MOULDED CAPITALS AND BASES

Before the end of the twelfth century the carved foliage had attained the essential characteristics which were to make it one of the chief glories of our architecture. Some examples retain a likeness to the parent acanthus. The commoner form is the simple leaf without serrations; it clings closely to the bell of the capital, pushing out a tight knot under the abacus or splitting

into three lobes. As the knot develops the lower part of the leaf is neglected; only its central rib remains, or it becomes broad and flat with a strong rib, which reappears in the central lobe lying in a deep hollow and stopping abruptly near the end of the leaf. Then the crocket-like bud breaks into full foliage, the leaves spread out and turn crisply back, and the art of the carver has reached

FIG. 36. CAPITAL, BERKLEY CHURCH. *c.* 1250

its highest level of beauty and strength. As the sprays are tossed more freely about they are apt to mingle with one another and there is a loss of strength, and a tendency to luxuriance and confusion. The foliage of the thirteenth century copied no individual leaf, though it has all the essential qualities of nature. The same forms are used as crockets on gables, in the hollow mouldings of arches, and in scrolls to fill arch spandrels.

The base has a deeply cut and very effective

moulding, derived from the Attic base. It is sometimes called the "water-holding moulding,"

FIG. 37. SCROLL IN DOOR-JAMB, WESTMINSTER. *c.* 1250

FIG. 38. FOLIAGE OF THIRTEENTH CENTURY

FIG. 39. BAND OF FOLIAGE ON CORBEL, CHESTER CATHEDRAL

because the deep channel holds the rain-water. When a round base stands on a square or octagonal plinth, the angle is filled by a "spur" of foliage.

FIG. 40. THE SPUR OF AN OCTAGONAL BASE, WESTMINSTER. *c.* 1250

When Purbeck marble shafts are used, they are connected with the main column by one or more annulets, which have mouldings of similar character to the capital.

Fig. 30

The arch varies in form from a very blunt to a very sharp point. The earliest pointed arches had generally been blunt, but after the middle of the twelfth century the shape is no guide to date. The trefoil arch had been used by the Normans, and now becomes common. The whole

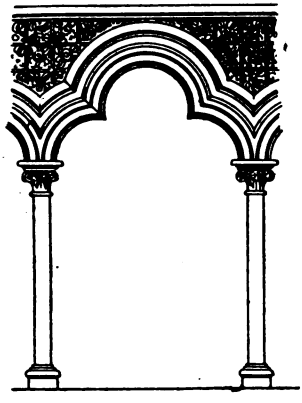


FIG. 41. TREFOIL ARCH, WESTMINSTER. *c.* 1250

arch follows the trefoil form; the plain arch with a distinct cusp is a somewhat later development.

The orders, or rings of the arch, are at first well marked, and the mouldings are very simple and bold—generally plain rolls with deep hollows. They are worked on the face and soffit of the stone, with a large roll at the angle, so that the recessed arrangement of the orders is well preserved. One of the hollows is frequently filled with the

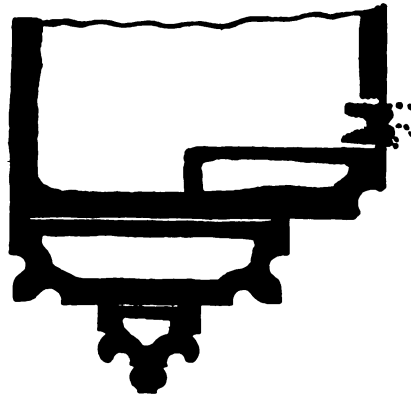


FIG. 42. SECTION OF ARCH-MOULD

THE RINGS WELL MARKED. *c.* 1180

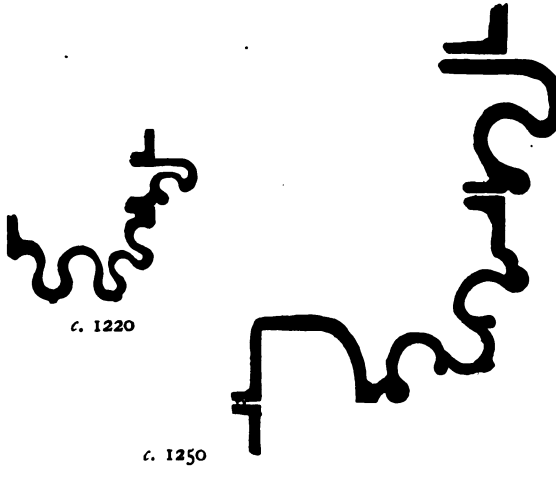


FIG. 43. SECTIONS OF ARCH-MOULDS

beautiful dog-tooth ornament—the one enrichment[1] of the style—or sometimes with a succession of separate leaves, or with a continuous scroll of foliage. The inner face of a wall is often,

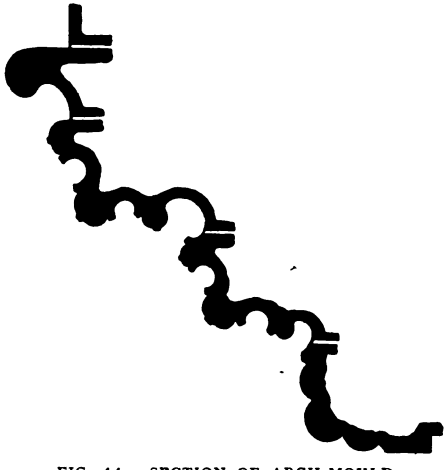


FIG. 44. SECTION OF ARCH-MOULD
TRANSITION FROM DISTINCT RINGS TO SPLAYED OUTLINE. *c.* 1300

especially in churches, decorated with a diaper pattern, giving a very rich effect. Fig. 41

By the introduction of the pointed arch, vaulting had become much more manageable. It was now possible to bring the apex of every arch composing it to the same level. The number of ribs is small; a cross rib, wall rib, and

[1] See Glossary.

diagonal rib only being used. The diagonal rib is made semicircular, or nearly so, while the wall rib forms a sharply pointed arch. This produces a twist in the spandrel-filling between the two ribs, especially in oblong vaults, where the difference between the diagonal and the shorter side is considerable, and the twist is sometimes increased by stilting the shorter rib. This form of vault

FIG. 45. DIAPERS, WESTMINSTER. 1250

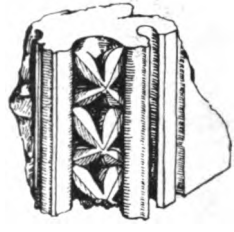


FIG. 46. DOG-TOOTH ENRICHMENT

has been aptly called ploughshare vaulting. The courses in each division of the spandrel-filling form approximately equal angles with the two ribs on which they rest; consequently the courses meet the ridge at an angle—a detail by which the work is readily distinguished from that of a later period. The keystone at the crossing of the two diagonals is often treated as a boss, and is carved with foliage or figures.

In a large church the bays of the aisles are generally nearly square, while the nave being

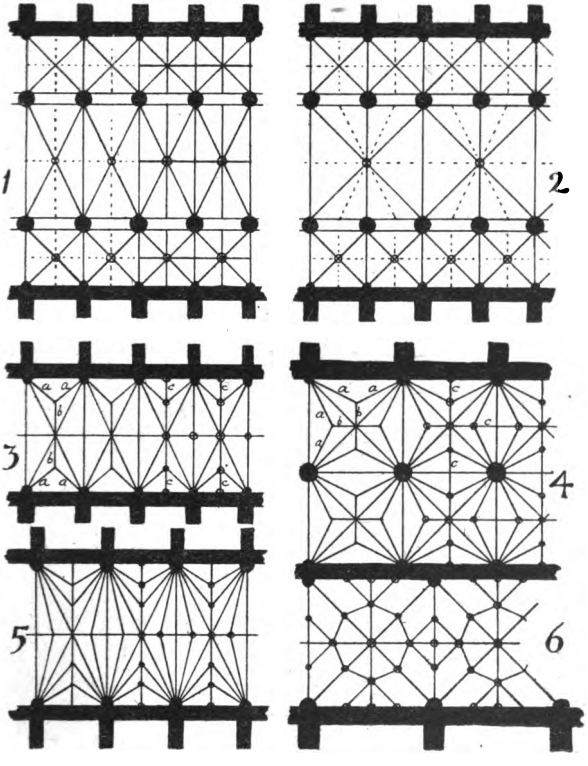


FIG. 47. PLANS OF VAULTS

1. Without and with ridge-ribs. 2. Sexpartite vault over nave. 3. Intermediate ribs (*a*) added; the ridge-rib (*b*) stopped against them, and (*c*) continued beyond to the wall. 4. The same. 5. More intermediate ribs added. 6. Fourteenth-century lierne vault.

about twice as wide, its bays are oblong, and about twice as wide as they are long. And so sometimes two bays of the nave are included under one square vault. In this case an additional groin is used, similar to the diagonals, but crossing the building at right angles. The bay has, therefore, three groins, dividing it into six cells, instead of four, and it is, therefore, called a

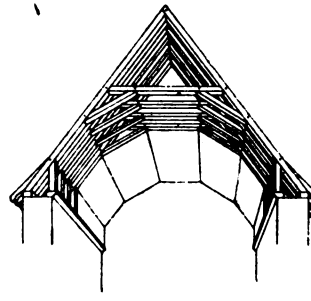


FIG. 48. TRUSSED-RAFTER ROOF WITH AND WITHOUT CEILING

sexpartite vault, the ordinary plan being quadripartite. This kind is more commonly used in France than in England. Its æsthetic effect is admirable, but it involves some constructional difficulties, and never became popular in England.

Roofs are high-pitched. They belong to the class known as "trussed-rafter" roofs, that is, each pair of rafters is framed together by a system of ties and struts so as to be a complete truss in itself. In later roofs the rafters were not so

framed, but were strengthened by purlins, carried on framed trusses, or principals, placed at considerable intervals. The two methods are, at this period, often combined in a somewhat unscientific way, by using a rudimentary principal in a trussed-rafter roof. There are no principal

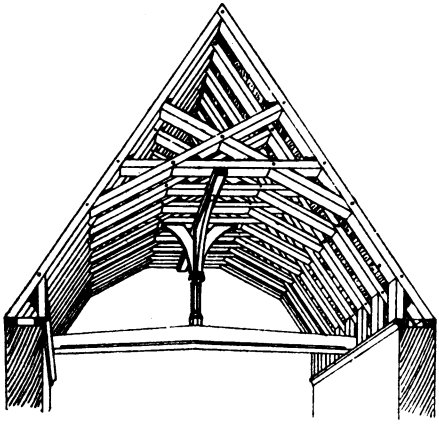


FIG. 49. TRUSSED-RAFTER ROOF
WITH RUDIMENTARY PRINCIPAL TRUSS

rafters; the principal truss consists of a very strong tie-beam, on the centre of which stands a post cut into the form of a column, with capital and base, supporting a central purlin. This purlin helps to support the collars which stiffen the rafters. The purlin, therefore, gives but an indirect support to the rafter, and any weight which the tie-beam does carry comes upon the

very middle of it. The heavy tie-beam is, however, of use in tying in the wall-plates, and thus preventing the rafters from spreading and pushing out the walls. The central post is sometimes called a king-post; it must not be confused with the modern king-post, which hangs from the ridge and supports the middle of the tie-beam. The roof was generally covered with the material which was most available in any particular district. Thatch of straw or reeds was, no doubt, the most common; shingles would be used where oaks were plentiful, and thin slabs of stone, slates, or tiles where these could be obtained. Lead was commonly used only in very important buildings.

DECORATED

It was shown on a previous page how the grouping of lancet windows and the piercing of the space above them had produced plate-tracery. As the piercings become larger, narrow and irregular-shaped surfaces of stone are left between them. These are now themselves pierced, and thus the tracery lights are divided by bars of stone of the same thickness as the mullion. This development was reached rather before the middle of the thirteenth century. It has been called "bar-tracery," a

FIG. 50
SIMPLEST BAR TRACERY, NORWICH.
c. 1240

term which includes all the later forms as distinguished from plate-tracery.[1]

At first the heads of the principal lights have plain arches, while the circles in the tracery are boldly cusped. But before long the arches are cusped also. These early cusps die into the level soffit of the tracery and are called "soffit-cusps"; but afterwards they are made wider, and are moulded like the tracery. Sometimes instead of being cusped the whole tracery bar is foliated.[2]

FIG. 51. SOFFIT-CUSPING

FIG. 52. ORDINARY CUSPING

This thirteenth-century tracery, consisting of simple forms, such as circles and trefoils, is known as "geometrical." It is at this period that tracery reaches its highest perfection of beauty and fitness. Equal care is given to the shape of the piercing and to the form of the bar. In the earlier plate-tracery attention had been confined to the shape of the lights, and awkward masses of stone had been left between. In later work, on the other hand, the bending of the bar into

[1] The English seem to have seldom used elaborate plate-tracery as they did on the Continent; when the piercings became numerous we wisely abandoned it for bar-tracery.

[2] Fig. 58.

graceful lines was all that was thought of. The change appears at the beginning of the fourteenth century. The heads of the lights take the ogee form, the stonework follows sinuous lines, and most of the piercings become irregular in shape. It is then known as "flowing tracery."

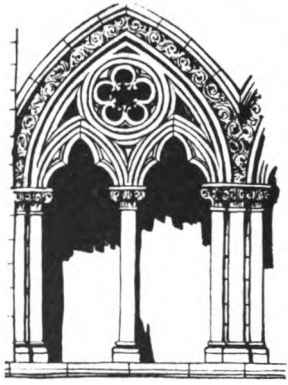


FIG. 53. PERFECT TRACERY, THE TRIFORIUM, WESTMINSTER. *c.* 1250

Geometrical tracery, however, continues to be used, though less often, till both sorts begin to give way to Perpendicular. The excessively florid work of France is called "flamboyant." We in England avoided this, but we descended to the dull monotony of "reticulated" tracery,[1] in which one pattern is repeated all over the window-head. In the fourteenth century the form of the cusping changes. The heads of the lights then have four small cusps instead of the two large cusps of the thirteenth century, and the tracery cusping corresponds.[2] Square-headed windows are not uncommon in churches, and are frequently used in domestic work. In this, as in the previous period, the transom was used only when the lower part of the window was to open.

[1] Fig. 58. [2] Fig. 56.

A remarkable change comes over the character of the carved foliage; an exact imitation of specific species was aimed at. The thirteenth-century sculptor had thrown into his work the life, the beauty, and the freedom of nature in the full vigour of growth, not troubling himself about any particular plant. His successor chose his plant and copied it as accurately as he could. This was a false step; but he went further astray in taking as his ideal not the growing herbage, but a spray or wreath of leaves twisted round the capital as it might be for harvest decorations; and in doing this he showed, too, that he did not appreciate the architectural value of the strong vertical stems of the Early English foliage. But it must be admitted that he copied his oak, vine, maple or what not, with extraordinary skill. Moreover, we must remember that his work was richly painted and gilded;

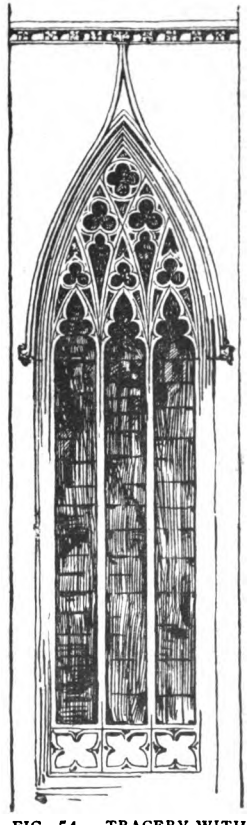


FIG. 54. TRACERY WITH TWO VARIETIES OF CUSPING. CHOIR, LICHFIELD. *c.* 1300

his scheme was a colour scheme, heightened by modelling the surface. The colour is gone, and we have only the skeleton left.[1]

This change had taken place in France earlier than in England. At Westminster Abbey, where we might expect to find some French hands at work, there are a few capitals and a spandrel

FIG. 55
FLOWING TRACERY

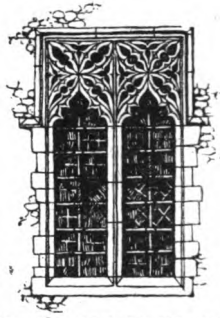


FIG. 56. SQUARE-HEADED WINDOW, WITH TRACERY

carved in this fashion. The treatment is perhaps generally more happy for a surface, such as a spandrel, than for a capital.

Columns are not very dissimilar to those of the preceding period; detached shafts of Purbeck marble are less used.

The arch-mouldings become more elaborate and have numerous fillets on the rolls. They are

[1] E. S. Prior.

FIG. 57. FLOWING TRACERY, GRANTCHESTER.
c. 1340

FIG. 58. RETICULATED TRACERY,
MERTON COLLEGE, OXFORD. *c.* 1310

not worked on the face and soffit of each order as formerly, but on a splayed surface; the distinction between the orders had been gradually disappearing, and is finally lost through the joint being concealed in a hollow. The splayed sur-

FIG. 59
BALL-FLOWER
ENRICHMENT

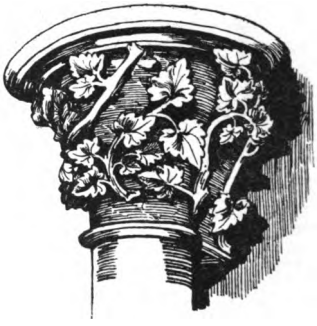


FIG. 60. NATURAL FOLIAGE
WESTMINSTER
See List of Illustrations

face has a wave-moulding or a sunk chamfer. The hollows are fewer and shallower. They disappear from the base towards the end of the thirteenth century, and from the abacus and hood-mould early in the fourteenth. The ball-flower is used instead of the dog-tooth, and often in too great profusion. The arch-mouldings of

doors and windows are generally carried down the jamb instead of being stopped on a shaft.

In diminutive work, such as niches and window

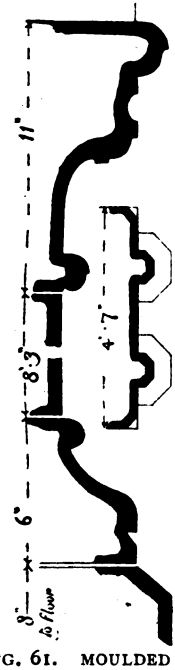


FIG. 61. MOULDED CAP AND BASE. *c.* 1320
WITH PLAN OF PIER REDUCED

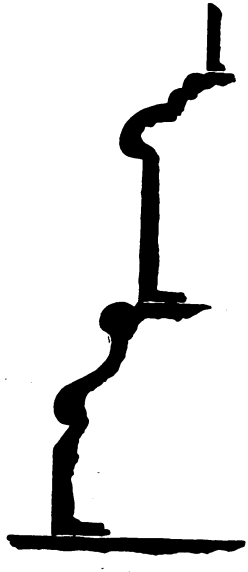


FIG. 62. MOULDED BASE. *c.* 1260

tracery, the ogee arch is used, that is to say, the concave curve of the arch becomes convex near the point.

Several important changes occur in vaulting.

In order to reduce the size of the spandrels, which in large vaults is very considerable, additional ribs (Fig. 47 *a a*) are introduced. Now a pair of these intermediate ribs form an arch, of which the two sides lie in different planes. They have therefore a tendency to fall towards the centre of the vault. In order to counteract this, a "ridge rib" (*b b*) is placed between the apex of the intermediate pair of ribs and the centre of the vault. These ridge ribs are afterwards continued to the extremity of the vault, but this continuation (*c c*) is of no structural use. Another important alteration is that made in the curvature of the ribs. The curve of the diagonal rib now approximates to the ellipse which would be produced by the intersection of two cylindrical spandrel surfaces of regular form. It is not, as a matter of fact, actually an ellipse, but an arch struck from several centres. The courses of the spandrel-filling are now made horizontal, so that they are parallel with the ridge. The ploughshare form of spandrel is abandoned. About the

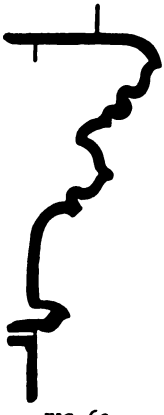


FIG. 63
MOULDED CAPITAL.
c. 1300

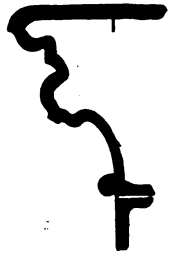


FIG. 64
MOULDED CAPITAL.
c. 1320

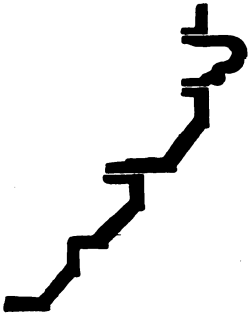


FIG. 65. THE SUNK CHAMFER, LEINTWARDINE

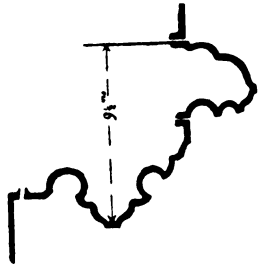


FIG. 66. SECTION OF ARCH, ST. MARY THE GREAT, CAMBRIDGE

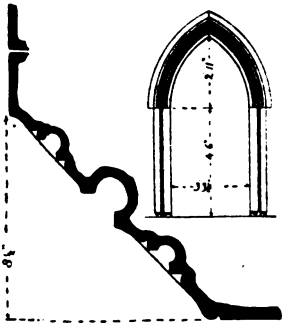


FIG. 67. MOULDINGS ON THE SPLAYED FACE. 1350

FIG. 68. PLANS OF COLUMNS

middle of the fourteenth century a further modification is made by the introduction of "lierne" ribs, that is, ribs which do not spring from the shaft or wall, but cross the spandrels from rib to rib, producing star-shaped patterns. This variety is known as lierne vaulting.

As the walls are reduced in thickness and the thrusts of vaults and roofs increase and are more concentrated, the buttresses are given greater projection, and their depth begins to exceed their width. In the fourteenth century they are placed diagonally at the corners of buildings, and they are more often terminated by gablets; the angles are not chamfered.

The trussed-rafter roof continues to be used, but roofs with purlins become more common. The principal truss has generally an arched form. A truss of this sort exerted a considerable thrust on the walls, but this was reduced as much as possible by carrying the arched struts a good distance down the wall. Where the principals are far apart, intermediate principals of a slightly different form are used, or the purlins are strengthened by wind-braces.

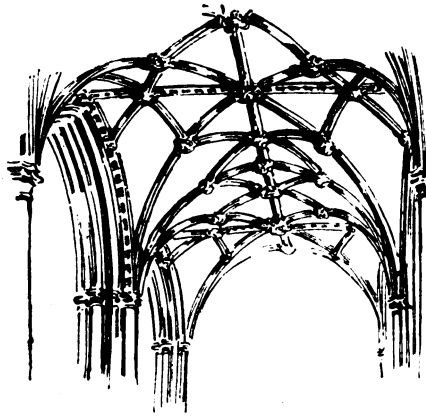


FIG. 69. LIERNE VAULTING, ELY. *c.* 1330

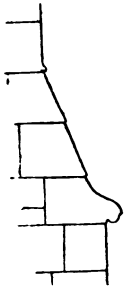


FIG. 70
WEATHERING OF
BUTTRESS. 1350

FIG. 71. ROOF WITH ARCHED PRINCIPALS,
NORTH ELMHAM

PERPENDICULAR

During the latter part of the fourteenth century and throughout the fifteenth, the extent of the wall surface is steadily reduced, actually and in appearance, by various devices. The windows are enlarged so as to occupy all the space between the buttresses; the plinth is heightened, so that there is little interval left between it and the sill of the window; the arches are made flat, so that the spandrels are reduced to insignificance. The parapet becomes an important and often a highly elaborate feature; it is generally battlemented, but no attempt was made to give it a really defensive appearance.

Towards the close of the fourteenth century there begin to appear in the window tracery straight vertical members; at first they are generally short, and are not very noticeable.[1] But they quickly become more numerous and more pronounced, till all curved lines are excluded, and the mullions themselves are continued up to the arch. These vertical lines, of course, entirely alter the character of the tracery and of the whole building, so that the term Perpendicular, as applied to the style, is descriptive and appropriate. A transom, with sub-arches, is used as an architectural feature, whereas formerly it had been plain, and had been used only as a necessary

[1] Fig. 72.

division between the glazed upper portion of the light and the shutter fitted in the lower part. Short pieces of transom are also used in the tracery itself. (Fig. 74.)

FIG. 73
HARLETON. *c.* 1375

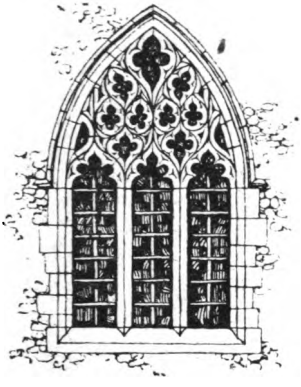


FIG. 72
WESTON. *c.* 1365

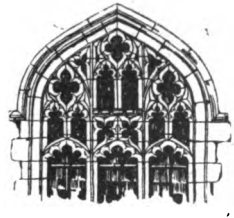


FIG. 74
COTTENHAM. *c.* 1390

THE TRANSITION FROM FLOWING TO PERPENDICULAR TRACERY

Large doorways are generally arched, but the lintel is occasionally used. The most common arrangement consists of an ordinary arch with two hood-moulds, one following the arch, the other being horizontal, and turned down at each end to meet the inner hood-mould at the spring-

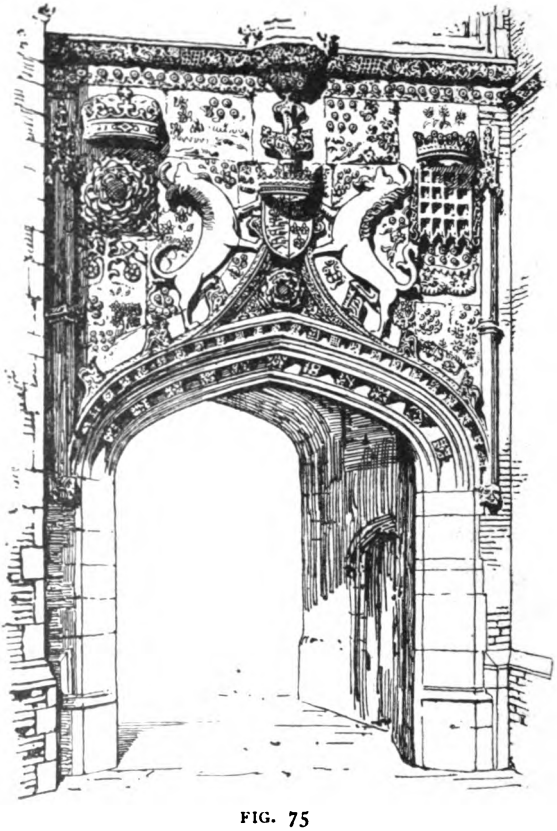


FIG. 75

GATEWAY OF ST. JOHN'S COLLEGE, CAMBRIDGE. 1510

From "Cambridge Described and Illustrated."

ing of the arch.[1] The spandrel included between the two hood-moulds is filled with tracery, sculpture, or heraldry. In small doorways the lintel is frequently used, especially in domestic buildings, though it is often given an arched form.[2] All or most of the mouldings are carried down the jamb, often one member is stopped on an extremely slender shaft. The hood-mould is often of ogee form. (Fig. 75.)

The projection of the buttresses continues to increase. The weatherings have a slightly wavy outline. The angles of the building sometimes have a pair of buttresses, sometimes only one which is set diagonally.

Columns are usually treated as a group of half-shafts alternating with wide shallow hollows.[3] The half-shafts only have capitals and bases, the hollows continuing up into corresponding hollows in the arch, and at the bottom dying away in the plinth. The arch being commonly blunt, the column occupies a large proportion of the total height of an arcade. The capitals are small proportionately to the small shafts which they surmount; they are seldom carved with foliage. The bases are of slight projection, but are often mounted on a high plinth.

The arch has usually a blunt point, that is, the two centres from which it is struck are close together. But now a new form of arch appears,

[1] Fig. 77. [2] Fig. 91. [3] Fig. 78.

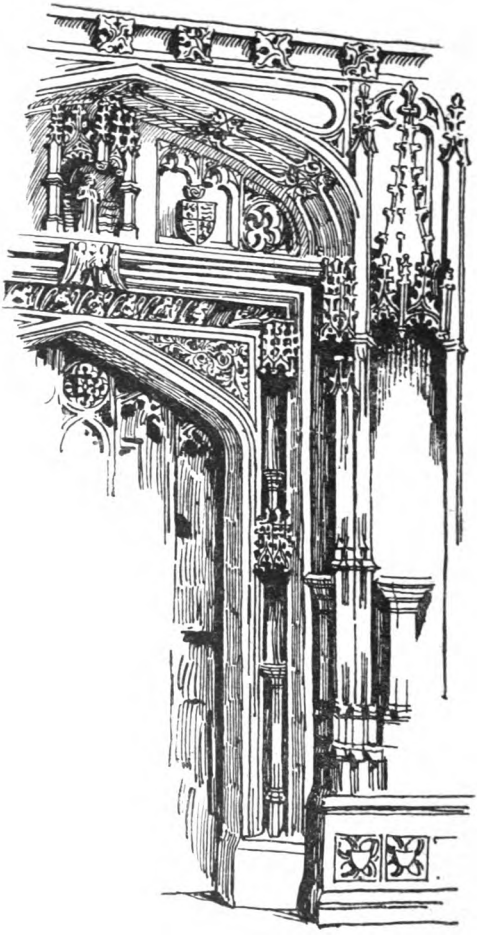


FIG. 76

WEST DOORWAY, CHESTER CATHEDRAL. *c.* 1490

namely, one struck from four centres. It springs with sharp curves struck with a short radius from centres on the level of the springing; the central part of the arch is formed of arcs with a longer radius struck from centres below the springing. The four-centred arch never entirely superseded the two-centred. It had long been used for the diagonal and intermediate ribs in vaulting, from which the idea was perhaps borrowed.

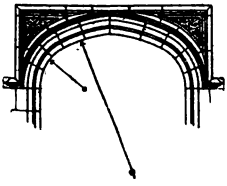


FIG. 77
FOUR-CENTRED ARCH
WITH DOUBLE HOOD-MOULD

The mouldings of the arch are worked on a splayed face; they consist of a series of small members, such as ogees, separated from another similar group by a wide shallow hollow called a "casement"; the soffit is narrow and flat; the hood-mould commonly has a straight, sloping, upper surface, and an ogee or hollow below; the abacus of the capital is similar.

FIG. 78
PLAN OF PIER

The foliage has deteriorated. It has neither the vigour and abstract beauty of the thirteenth-century carving, nor the imitative skill of the fourteenth century. It is hard and lifeless, and is used chiefly in the form of rosettes and similar ornaments.

Three enrichments are used: (1) leaves or flowers very conventionally treated, and varying

FIG. 79
STRING COURSE

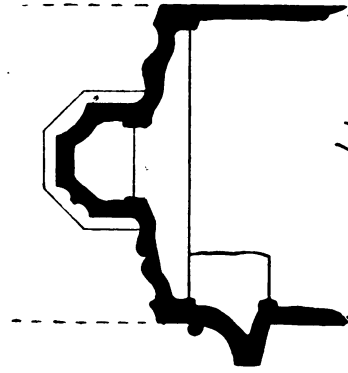


FIG. 82. SECTION OF DOORWAY

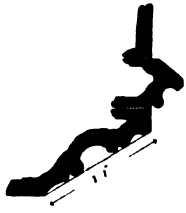


FIG. 80
SECTION OF DOORWAY

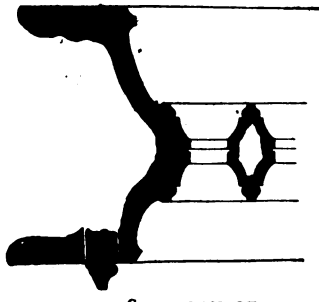


FIG. 81. PLAN OF
WINDOW-JAMB AND MULLION

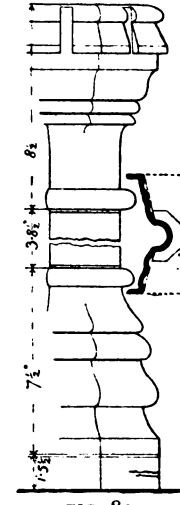


FIG. 83
CAPITAL AND BASE

in size according to the width of the hollow in which they are placed, are used on jambs, arches, hood-moulds, capitals, string courses, and cornices; (2) battlements are an equally common form of ornament, and are used on the tops of capitals,

FIG. 84. FIGURE ON A HAMMER-BEAM, CAWSTON

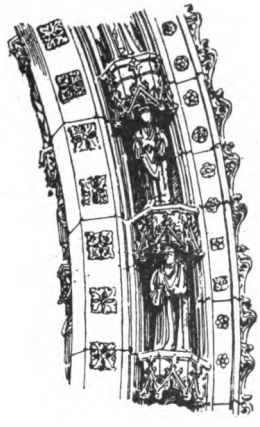


FIG. 85. ARCH-MOULD WITH NICHES, SONNING

cornices, and transoms; (3) a cresting of upright leaves or "brattishing," of like character to those just mentioned, is used in the same positions as battlements.

Shallow sunk panels are now used as a system of decoration. They are applied at first to the plinth and to the battlements, then to the

spandrels of large arches and the faces of buttresses, and finally in some late works the whole wall is covered. In those districts where flint is obtainable, it is used in combination with stone for external panelling; the stone is cut to the required architectural forms to represent the framework, and the flints are inserted, their faces flush with the stone, to represent the panels. The flints are split to show a smooth black surface, and they are shaped with great nicety to fit their positions.

FIG. 86
BRATTISHING. 1538

Vaulting becomes more elaborate by the increase in the number of ribs. The principal change, however, is in the curvature of the ribs. This change produces a new variety of vault, known as "fan-vaulting," because the numerous ribs produce, when seen from below, a somewhat fan-like appearance. All ribs have the same curve till they reach the level of the apex of the shortest pair of ribs; above this level the longer ribs are continued by a very flat curve till they meet the ridge. Horizontal ribs are used, though they are not, in fan-vaulting, called lierne ribs; they form horizontal concentric circles, with their centre over the springing of the vault, and hence they increase the resemblance to a fan.[1]

[1] The old method was till the end the more common.

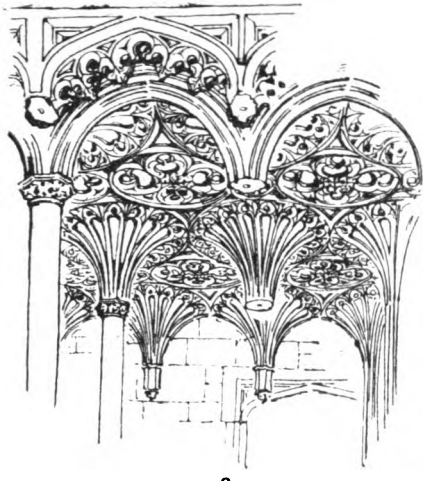


FIG. 87
FAN-VAULTING, TEWKESBURY. 1421

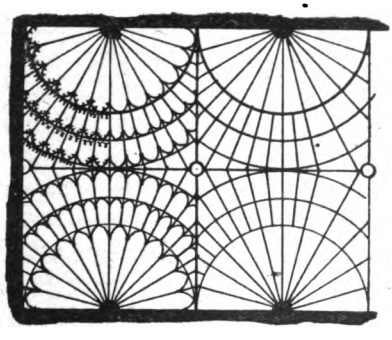


FIG. 88
PLAN OF FAN-VAULT, KING'S COLLEGE, CAMBRIDGE. 1512

The character of any vault is determined by considering the form of the mass of masonry above any one shaft. In the early vaults one of these masses forms, roughly, an inverted half-pyramid with concave sides, and a plan taken through it gives a parallelogram. In fan-vaulting the bundle of ribs forms an inverted half-cone of concave section, and its plan is a semicircle. It is this difference, more than any other —more even than the network of ribs, tracery and carving with which it is overlaid — that gives fan-vaulting its distinctive character. The early vault has the effect of (and is, as a matter of fact) a tunnel cut by cross-tunnels. In the fan-vault this character has, to its gain or loss, been eliminated both in fact and in appearance. The method of construction is also radically different. In the earlier vaults, the ribs were true arches—were, in fact, functional. They were built first, independently of the spandrels; the spandrels consisted of courses, each slightly arched, resting on the ribs. In the fan-vault the ribs and spandrels are one; the ribs are mere ornaments worked on the surface of the cone.

During the fourteenth century carpentry had been brought to great perfection. Roofs reach their highest development in that which is known as the "hammer-beam roof." In this construction a bracket, called the hammer-beam, rests on the top of the wall and projects into the build-

ing. This bracket supports a vertical post placed under the principal rafter at the point where the weight of the purlin comes. The weight of this post is counteracted, partly by the weight of the principal rafter, which rests on the other end of the hammer-beam, and partly by a strut under

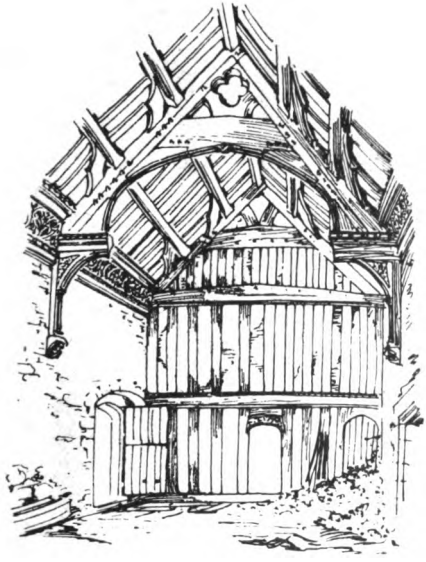


FIG. 89. HAMMER-BEAM ROOF, COCHWILLAN

it, springing from a corbel some way down the wall. The upper part of the principal is strengthened by a collar, or by another hammer-beam and post, or by curved struts, forming an

arch with its apex quite close to the ridge. This form of roof lends itself to many variations and to a highly decorative treatment. The hammer-beam is sometimes carved into the form of an

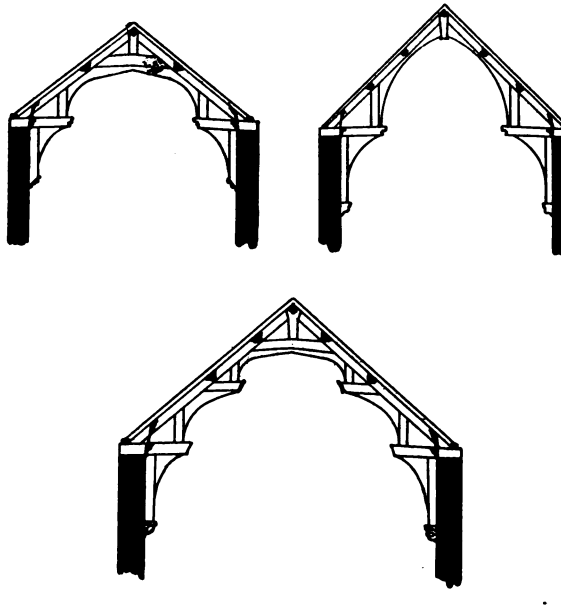


FIG. 90. DIAGRAMS OF HAMMER-BEAM ROOFS

angel, or an angel stands upon it in front of the vertical post. The spandrels above and below the hammer-beam are generally filled with rich and delicate tracery. The finest, and also the best-

known example is that of Westminster Hall. This building, originally divided into nave and aisles, was spanned by one great roof by Richard II.

After the middle of the fifteenth century roofs are frequently made of very flat pitch. They then have a heavy tie-beam, with struts under it, forming a four-centred arch. The principal rafters rise so slightly that little construction is necessary or possible.

CHAPTER III

RENAISSANCE

TUDOR: Condition of Gothic. Henry VIII.: Gothic with Italian details. Elizabeth: The Germans and Flemings. Gothic traditions, gables, chimneys, etc. Doors and windows. Roofs and ceilings. Tapestry and panelling. Mouldings. Timber buildings. Character of Tudor work.

STUART: Inigo Jones, Whitehall. The Orders, Greek and Roman, subdivisions of an Order. Doric, Ionic, Corinthian, Tuscan and Composite. Use by the Italians. Arches. Vaulting. Windows and doorways. Mouldings. Ceilings. Roofs. Panelling. Continuance of Gothic and revival under Laud. Wren, the Fire, St. Paul's, City churches, character of Wren's work.

HANOVERIAN: Wren's successors. The amateurs, Vanbrugh and Hawksmoor. Gibbs. The Country House. Campbell, Ripley, Kent, and others. The brothers Adam. Paine and others. Chambers, Gandon, and Dance.

TUDOR

AT the beginning of the sixteenth century Gothic architecture was practically dead. The little building work that was done is, with few exceptions, poor in general design and extremely meagre in detail. The windows have either hard and monotonous tracery or none at all, and the cusping is often omitted; roofs are flat and without architectural character; mould-

ings are shallow and give no contrasts of light and shade; carving has become hard and mechanical; vaults are masterpieces of ingenious masonry overloaded with detail. Everything was favourable therefore for the introduction of new ideas from abroad when the Reformation gave the *coup de grâce* to Gothic art.

But during the reign of Henry VIII. the old traditions were carried on with little change. Here and there, especially in the south of England, Italian details are found mingled with the common English work, owing to the employment of Italian workmen. Wolsey's work at Hampton Court and Layer Marney House in Essex are well-known examples. The foreigner sometimes brought over terra-cotta panels or coloured marbles, or he carved, here, a band of arabesque ornament, or there, a classical cornice or a mantel-piece. But the main outline of the building continued to be pure Gothic, and where the builder was not too ambitious the result is charming. The wall with its plinth and parapet, its gables and buttresses, is very much what it was in the fifteenth century. Doorways generally have a lintel and a sub-arch, with heraldry carved in the spandrels. The windows are large, and

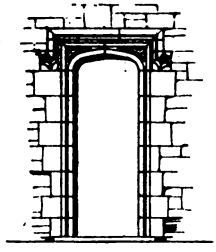


FIG. 91. DOORWAY, WHITMINSTER. *c.* 1500

consist of many lights under a very flat arch or a lintel. The heads of the lights have sub-arches, but they are uncusped. The oriel window in the hall of a large house becomes an important feature; lofty, richly vaulted, glowing with heraldic glass, it has a peculiar stateliness and beauty.

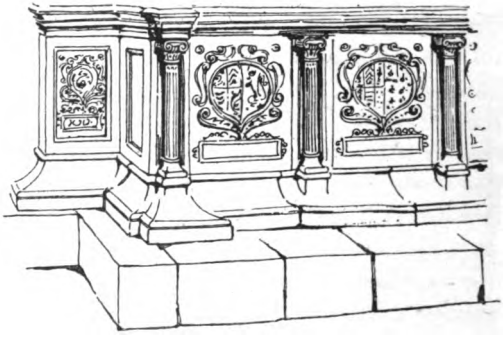


FIG. 92
BASE OF A MONUMENT, SPILSBY. *c.* 1610

Early in the reign of Elizabeth the Italian workmen were succeeded by German and Flemish Protestants, who having fled from religious persecutions, settled in England and began to influence English architecture. Small buildings and those in remote country places were not very much affected; but the palace of the nobleman, though built by Englishmen more or less in the English manner, was often finished off by the foreigners.

The wood and stone carvings and the details of some of the masonry, the plaster-work and the marble mantelpieces are the work of men who had a greater knowledge of classical details, or what passed for such, than any Englishman then possessed. In some instances they show considerable power in design, but their work is almost always overloaded with a profusion of extremely

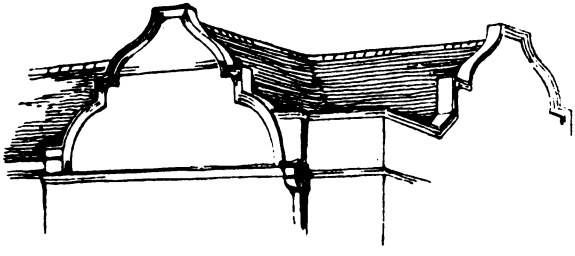


FIG. 93. CURVED GABLES, FEN DITTON

bad ornament, and shows a lack of judgment and restraint.

Indeed, at first the Renaissance makes but slow progress. A cornice of classical profile finishes the wall, but on this stands a parapet of Gothic form or of open work of a peculiar character known as strap-work.[1] The roof continues to be high-pitched. The gable often has a curved outline—one of the few Flemish fashions which took root in England. Buttresses are now seldom used, but pilasters and columns have not yet

[1] Fig. 94.

taken their place. Chimneys, now almost always of brick, are very picturesquely treated; the flues are kept separate and grouped in various ways, or ornamented with spiral flutes, and surmounted with bold caps. In some of the more ambitious stone houses the chimneys are fashioned into the form of Roman columns.

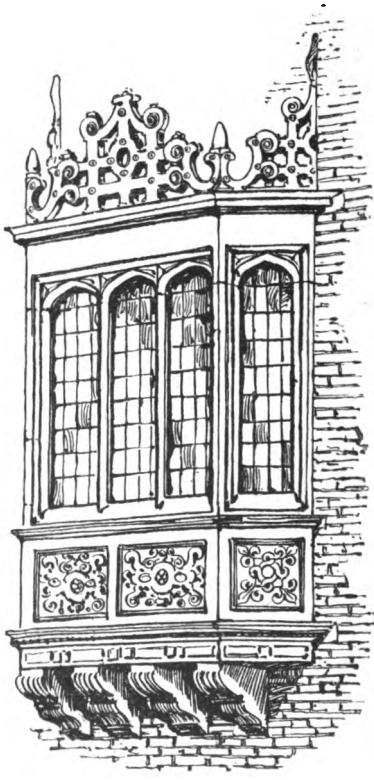


FIG. 94. ORIEL WINDOW, ST. JOHN'S COLLEGE, CAMBRIDGE. 1600

It is chiefly on the doorway and porch that decoration is concentrated. The doorway has a round or segmental arch or a lintel, but in either case it is surrounded by a framework of Renaissance architecture — columns, entablature, and pediment. The windows do not alter in form. They are generally very simply treated, and are devoid of trac-

ery; the great oriel of the hall has been generally discarded, but there are numerous small oriels. The moulding of the mullion, which has hitherto been concave, is now convex (Fig. 98).

The open timber roof is not very common, but in large halls the hammer-beam construction is still occasionally used, as in the hall of the Middle Temple, London, with Renaissance mouldings and other details. More generally the roof is hidden by a flat ceiling of rich plaster-work, the surface of which is divided into panels of varied shapes, containing devices, the broad bands which divide the panels being ornamented with a scroll of vine.

Oak panelling was extensively used, the panels being small and nearly square; the mouldings were worked partly on the edges of the stiles and rails, dying away as they approached the angle of the panel, and partly as grooves on the centre of the framing, those on the stiles being stopped abruptly by the rails which ran at right angles to them. The panels themselves are often worked with a peculiar series of mouldings, bearing some resemblance to a folded cloth, whence they are called linen-panels (Fig. 99).

In those parts of the building where Renaissance forms were adopted, the mouldings are of fairly correct classical profile; they will be described in a later section (p. 79). But the English workman still continued to use the traditional Perpendicular mouldings in a somewhat

FIG. 95. CARVED BEAM, SHREWSBURY

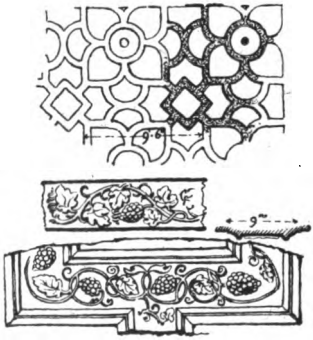


FIG. 96. PLASTER CEILING, ST. JOHN'S COLLEGE, CAMBRIDGE. *c.* 1600

FIG. 97. ARABESQUE, KING'S COLLEGE, CAMBRIDGE. *c.* 1535

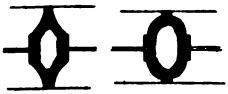


FIG. 98. MEDIEVAL AND TUDOR MULLIONS

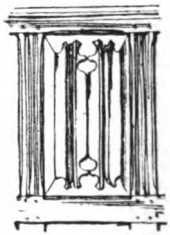


FIG. 99. LINEN-PANEL AND TUDOR FRAMING

debased form in the less important parts of the building.

The timber buildings of this period are picturesque and often richly ornamented with a coarse but effective mixture of Gothic and Renaissance detail. The traditional methods of construction with overhanging upper storeys continue in use. The barge-boards which finish the gables are decorated with pierced tracery or are carved in relief.

The sixteenth century was a period of transition from the dead Gothic to the architecture of the Renaissance, which was to be introduced from the Continent in the following century. It was also an age of transition from the medieval system (in which the design had been worked out on the spot, and the details had been entrusted to the inherited knowledge of the craftsman) to the modern method of getting a design from an architect at a distance who draws every detail and exercises a supreme control over the whole work. In this interval between the death of the old traditional style and the appearance of the first architect, building was done in a somewhat haphazard way. New features were grafted on to the old stock in an arbitrary and clumsy manner, by men who were often ignorant of their proper purpose.

STUART

The trained artist who was to introduce the new style and to inaugurate the new system, appeared early in the reign of James I. Inigo Jones had been born in 1573. He had studied architecture in Italy, especially the works of Palladio, and on his return to England had spent some ten years in miscellaneous occupations and in designing scenes for the elaborate masques then in vogue among the nobility. In 1619 he made plans for the new royal palace of Whitehall. The execution of this immense scheme, consisting of three great courts, was delayed by the financial difficulties of the King, and was finally stopped by the outbreak of the Civil War. The beautiful Banqueting House, the only part of the plan which was ever carried out, was almost the first work of Inigo Jones. It may be said to have revolutionised English architecture. It was the first building which entirely discarded the dying Gothic tradition and frankly accepted the new style which had been but slowly making its way for the last hundred years. It was the first building in which one controlling hand is to be seen from beginning to end. But though Inigo Jones may be said to have introduced into England the style of the Italian architects, of whom Palladio is in this country commonly taken as the representative, it became in his

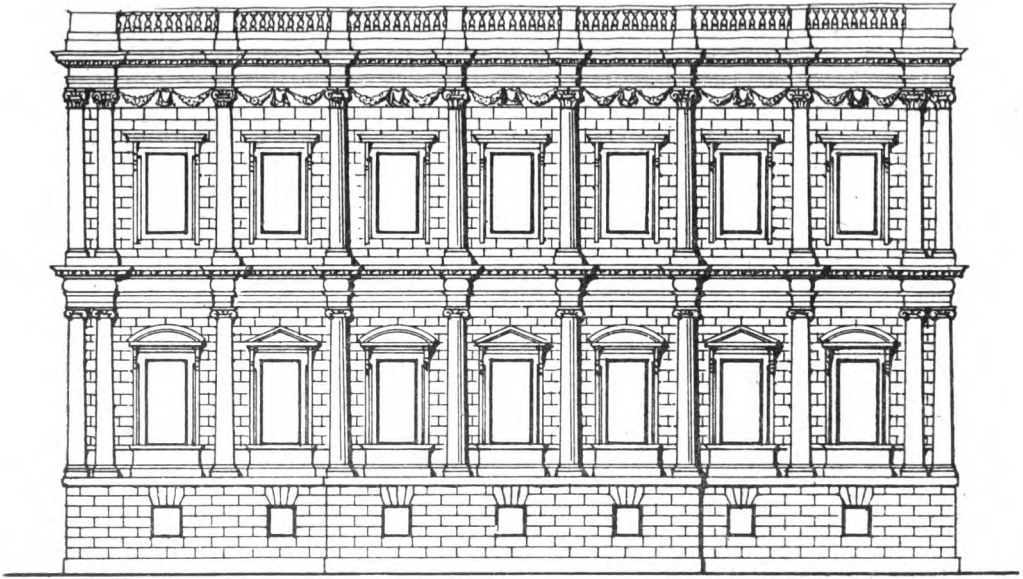


FIG. 100. THE BANQUETING HOUSE, WHITEHALL PALACE

By INIGO JONES, 1619. *From "Vitruvius Britannicus."*

hands an English style. The Banqueting House, although the first building of its kind in England, and the work of a man who had learned his art in Italy, is yet thoroughly English in character.

The classical Orders now for the first time become an integral part of the building; they are employed with more complete knowledge, and with an understanding of their proper use. This

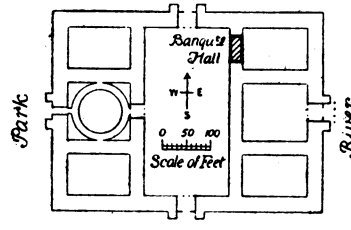


FIG. 101. BLOCK PLAN OF WHITEHALL PALACE

From "Later Renaissance Architecture in England."

will, therefore, be an appropriate place to give some account of them (Figs 103–5).

By an Order is meant the column and its superstructure. It includes (1) a plinth or podium, consisting generally of a series of steps, but sometimes of a high pedestal with a base and capping; (2) the column, including the base, shaft, and capital; (3) the entablature, which consists of three parts, namely, the architrave, forming a lintel immediately above the capital, the frieze or

broad band frequently decorated, and the cornice or boldly projecting top member.

The Orders are five in number. Three of them —the Doric, Ionic, and Corinthian—were used and perfected by the Greeks. The Romans

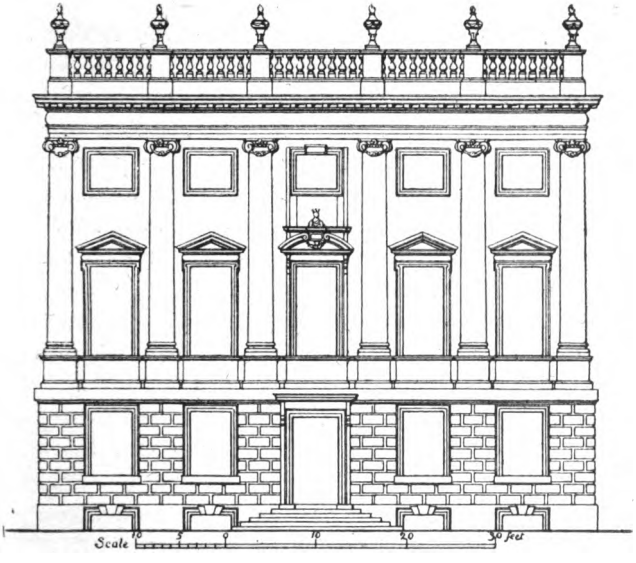


FIG. 102. LINDSAY HOUSE, LONDON
By INIGO JONES, *c.* 1625. *From "Vitruvius Britannicus."*

modified these, and produced two others of less importance, namely, the Tuscan and Composite. The five Roman Orders were revived by the Italian architects of the fifteenth century, and their employment was reduced to rigid rules of

proportion. Although the proportions fixed by these rules were not strictly adhered to by the ancients, it must be understood that their invention and employment was not so absurd in the case of the classical style as it would be in others, such as Gothic. Even in the absence of rules, the size of the various parts of a classical building maintained, roughly, a constant ratio to the whole, while their number was always the same, whatever the size of the building. Thus the diameter of a Greek Doric column is always about two-elevenths of the height, whether that be ten feet or forty. And so with the mouldings and with every detail. The half-diameter of the column is taken as the standard, and is called a module. In the Gothic style the size of the parts remains nearly constant in large buildings and small, and their number varies.

The Greek Doric has a massive column divided into twenty flutes; it is without a base, and has a very simple capital, with a square abacus. The architrave is plain, and the frieze is divided into triglyphs and metopes. The triglyph consists of three projecting vertical fillets. They are supposed to be derived from the ends of the beams which were visible in the early timber buildings. The metopes are square spaces between the triglyphs, and are filled with sculpture. The Romans spoilt this order by making the column more slender and by omitting the flutes and elaborating the

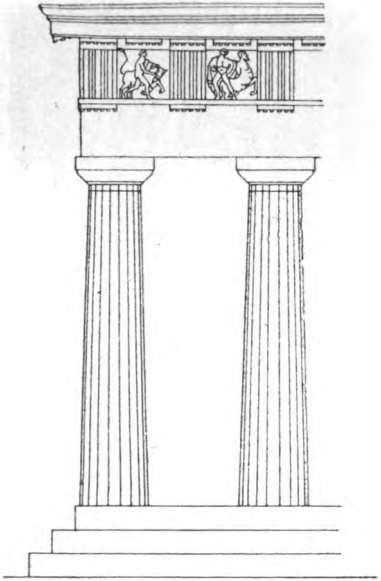


FIG. 103
THE DORIC ORDER

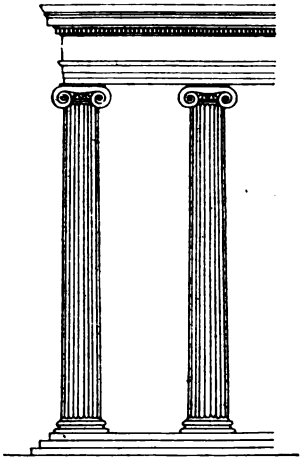


FIG. 104
THE IONIC ORDER

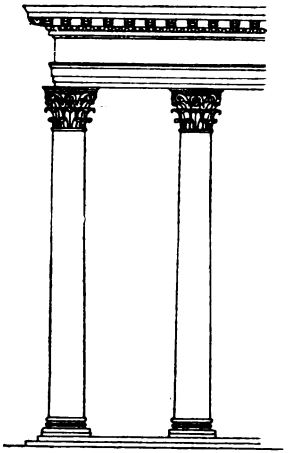


FIG. 105
THE CORINTHIAN ORDER

simple Greek capital; they made the architrave shallower and omitted the sculpture in the metopes. The Italian architects of the Renaissance fluted the shaft and added a base. The Greek Doric had no enrichments; the Romans and Italians used dentils in the cornice.

The Ionic Order is slender in its proportions. The column has a base, and the capital is ornamented with volutes or spirals, which are the most characteristic feature of the order. The shaft is fluted with twenty-four flutes, which are separated by flat fillets. The entablature is light compared with the Doric entablature, and the frieze is plain. Dentils and the egg-and-dart are used. The Romans did not modify this order greatly. The Italians copied the Roman order but introduced a great deal of sculpture into the entablature.

The Corinthian Order resembles the Ionic in its general proportions. Like the Ionic, its distinguishing feature is its capital, which is ornamented with rows of acanthus leaves and with small volutes at the angles. The mouldings are enriched with various leaf ornaments. This rich order was the favourite of the Romans, and they were more successful with it than with any other. They treated the acanthus in a more luxuriant manner than the Greeks, and enriched the frieze and many of the mouldings of the entablature with sculpture.

The Romans occasionally used a variation of

the Roman Doric, which they called Tuscan. They also invented a Composite Order, in which the features of the Ionic and Corinthian capitals were combined; in other respects the order bore a general resemblance to the Corinthian. It became popular in England.

We may now return to our view of modern architecture.

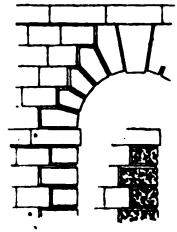
The Renaissance architects, of course, copied the Roman, not the Greek varieties. They also observed the same rules when using several orders in the same building. In Roman and in early Renaissance times each storey is usually marked by a separate order. In that case the simplest and most substantial is always placed lowest. Thus, in a three-storeyed building, the lowest order would be Doric, the next Ionic, and the uppermost Corinthian. Sometimes the lowest storey is treated as a podium, and is "rusticated" in one way or another to give it a substantial appearance. Two storeys, but never more than two, are sometimes included in one order. This is occasionally done in the first half of the seventeenth century, and almost invariably after the Restoration. When a building has four storeys, the uppermost is placed above the main cornice and is treated as a small separate order, called an Attic Order—hence our use of this classical word for a garret—the two middle floors are included in the main order, and the lowest forms a podium.

The system of moulding in classical architecture is essentially different from that of the Gothic style. Medieval architecture was a system of arches, and it was the arch which was emphasised by elaborate mouldings. A true cornice was seldom used, and to the end remained undeveloped. But Greek architecture was entirely a matter of lintels, and the style retained this character without much change. The proportions and system of decoration of the entablature had been settled approximately in remote times by the timber construction of the earliest buildings. The plain Doric architrave is the lintel, the triglyphs represent the ends of the beams of the roof, the cornice is the overhanging eaves. Though variations were made in details, the general arrangement, illustrating its structural origin, was preserved and perfected in the unchanging East, and has never been seriously modified. But the arch, although used by the Romans for the most important structural purposes, was always kept subordinate to the entablature. Its face was ornamented with a repetition of the very simple architrave moulding and the soffit was plain. This restraint was necessary on æsthetic grounds. The elaboration and emphasis of a richly moulded arch under the strong lines and deep shadow of the entablature would be an artistic blunder.

Mouldings do not vary as much as in Gothic

architecture. They are grouped in each order according to recognised rules. Like other details in the classical styles, they are enlarged or reduced so as to maintain a fixed ratio to the height of the column. The number of enrichments varies according to circumstances. Other forms of decoration, such as festoons of flowers, were also copied from the Roman—a guide to be

FIG. 106. CHIMNEY STACK, CLARE COLLEGE, CAMBRIDGE



a *b*

FIG. 107. *a*, ARCH WITH STEPPED EXTRADOS; *b*, RUSTICATED QUOINS

followed warily in matters of art; draperies and the skulls of oxen have even less in their favour than "swags" as forms of decoration.

Where arches are used they spring from pilasters between the main columns.[1] They are invariably round, and generally have a projecting keystone, either plain or shaped to form a corbel to support the entablature. The "flat-arch," as it is called,

[1] Inside a building an arch may spring from the entablature of the main order.

which had been occasionally used in the Middle Ages, now becomes common.

For purposes of vaulting an area is always divided into squares. Each of these is covered with a quadripartite vault formed by four round barrel vaults like those of the Romans and early Normans. The groins formed by the intersections have no ribs.

The windows are high and narrow, without mullions or transoms, and in strong contrast with the windows, many-mullioned, wide and low, of the Elizabethan age. They are sometimes arched, but usually square-headed. The head and jambs have the common architrave moulding, and there is sometimes also a complete entablature, with or without a pediment, over the head; the sill projects beyond the face of the wall, which was never the case in Gothic work; and the glass is fixed in a wood frame. In rusticated work the window has generally either a round or flat arch, and is quite plain. Large windows of three lights divided by columns are used; the side lights are narrow and covered by an entablature, the centre light is wide and arched. These are called Venetian windows. Doorways are made to correspond with the windows.

The ceilings are sometimes enriched with plaster work in relief and sometimes with paintings. In the former case the treatment is quite different from that of the preceding age. Instead of an

intricate network of small panels, there is a central device with scrollwork disposed round it. Sometimes we have heavy beams covered with enriched mouldings of plaster dividing the space up into a few large, deeply recessed hollows or coffers, the central space being often filled with an oval or a circle.

The framework of the roof is never allowed to show. It is almost always hipped, so that there

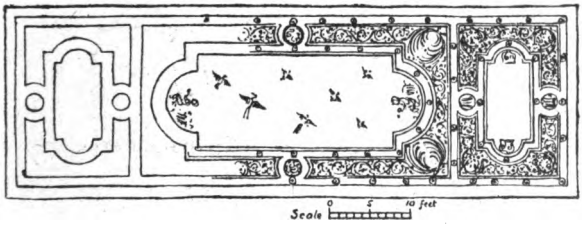


FIG. 108. PLAN OF CEILING

LIBRARY OF PEMBROKE COLLEGE, CAMBRIDGE. 1690

are no gables except where a pediment is required for architectural effect. In the latter part of the seventeenth century a new form of roof was introduced called a "Mansard roof," after the French architect of that name. In order to obtain more space in the garrets, the lower part of the roof was made steep and the upper part nearly flat. This was the result of a change in the normal plan from a long narrow range to a square block. When there were no garrets the whole roof was usually of a rather low pitch and was hidden by

a balustrade above the cornice. In the simpler buildings, however, especially in the country, steep roofs with gables continued to be used, and the balustrade is often omitted, the eaves projecting over a cornice or a plaster cove. The gables were often curved, but the curves were generally large

FIG. 109. PLASTER COVE UNDER EAVES. 1670

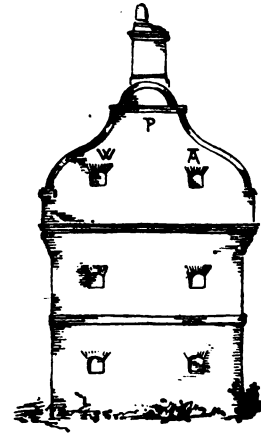


FIG. 110
CURVED GABLE

ogees instead of a succession of small quadrants as in Elizabethan times.

The panelling of the humbler buildings, where the old traditions were followed, continued to be in small divisions with minute mouldings. But in the more correctly classical buildings the work was on a bolder scale and more in harmony with

the style. The panels were very large and the edges were bevelled; they were surrounded by "bolection" mouldings, that is, with mouldings projecting beyond the face of the framework. The mouldings also were 'mitred,' that is, they were cut so as to intersect at the angles like an ordinary picture-frame.

It is necessary to notice here the long survival of the Gothic tradition contemporaneously with the practice of pure Palladian architecture. In some localities, as Oxford for instance, and in church work in general, the old forms lingered on, though mixed with classical details. Indeed there was in some sort a revival of the Gothic style in church building along with the renewed sense of decency and order which Archbishop Laud brought about. Few entire churches were built at this time, the old buildings being in most places enough, and more than enough, for the wants of the congregation; Saint John's Church at Leeds is one of the few exceptions. It is usually in pulpits and other furniture, and occasionally in

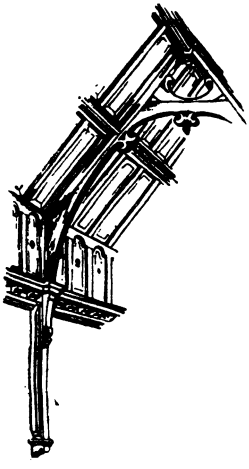


FIG. 111
JACOBEAN GOTHIC ROOF, WHITWELL. *c.* 1635

a new roof, that the movement is seen. In places where the old tradition was strong, such as the University towns, the old style had continued with little change. The buildings of Clare College, Cambridge, are an illustration.[1] The library of St. John's College is an example of the revived Gothic. Though built in 1623, it has, combined with its classical cornices, windows filled with Decorated tracery.

There was little building of any kind in England between 1640 and 1660. The outbreak of the Civil War necessarily put a stop to the practice of the arts, and little work was done during the Commonwealth. But with the Restoration there was a return of activity, and six years later the Fire of London gave an opportunity such as has seldom occurred. Christopher Wren was then thirty-four years old. He had already made a reputation as a mathematician, and had been appointed Professor of Astronomy at Oxford. He had built the Chapel of Pembroke College, Cambridge, for his uncle, Matthew Wren, Bishop of Ely, and had begun the Sheldonian Theatre at Oxford, besides other buildings. He had studied for six months in Paris, then the best school of architecture in Europe, and had been consulted about alterations to old Saint Paul's Cathedral.

[1] They were robbed of some of their medieval features in the eighteenth century.

Wren's first task after the Fire was the preparation of a general plan for laying out the whole city except the extreme north-east portion. A wide embanked quay along the river, and an orderly arrangement of parallel streets, with main thoroughfares, sixty feet wide, converging on the most important sites, were the chief features of this admirable plan. The scheme was approved by the King, but considerations of expense and private interests prevented its execution.

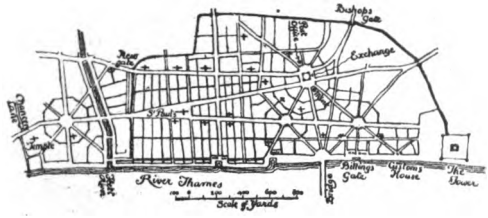


FIG. 112. WREN'S PLAN FOR REBUILDING THE CITY
From "English Renaissance Architecture."

Wren, who was now Surveyor-General, was immediately consulted about St. Paul's Cathedral. Several designs which he made for this were rejected, and it was not till 1675 that the first stone was laid. The building was opened for service on 2nd December, 1697, and the lantern of the dome finished in 1710; but it was not till about ten years later that the whole work was actually complete. The cost was about £736,750, exclusive of sums spent on attempting

to repair the old building. During the delays in beginning the cathedral, Wren was gaining experience in rebuilding the City churches. These churches, which numbered fifty-three, show an extraordinary variety of treatment and the most striking ingenuity in dealing with cramped and irregular sites. Besides these Wren

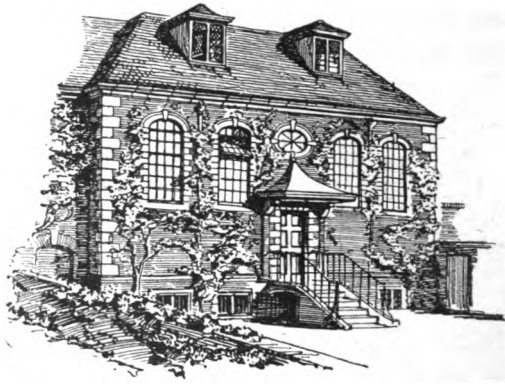


FIG. 113. CHOIR SCHOOL, SALISBURY. *c.* 1700

designed Greenwich Hospital, Chelsea Hospital, Hampton Court, the Library of Trinity College, Cambridge, and other buildings. He died in 1723.

The grandeur of Wren's genius is patent. His strength lay in the largeness of his general conceptions; of the laborious perfecting of every detail he was inclined to be somewhat careless.

One of his most striking qualities is the extraordinary ingenuity he displayed in the solution of a difficulty, whether æsthetic or constructional. He must be ranked below Inigo Jones as an artist. His manner is much less severe; indeed, his contemporaries and successors affected to be shocked at his freedom. But though his immediate following among the pedants of the next generation was consequently not so great as it might have been, his influence on the architecture of the country generally was immense, and his style became, in fact, the national style.

HANOVERIAN

Before the close of the seventeenth century there had begun a reaction against Wren's free style in favour of a more correct imitation of Palladio. Chatsworth, by Talman, 1681, may be taken as an example. The charming little Exchange (now the Customs House) at King's Lynn, built in the same year, is typical of the school that was passing away (Fig. 114).

Early in the eighteenth century a diversion was created by the appearance of the amateur, a product highly characteristic of the age. There followed a succession of pedantic dilettanti, who, although not entirely separable from the professional architects, with whom indeed they generally worked, may be considered as a distinct

and not very healthy influence. They may be connected to the main stream of architecture by Hawksmoor and Vanbrugh. Nicholas Hawksmoor, although a pupil and for many years an assistant of Wren's, fell under the influence of Vanbrugh, with whom he worked, assisting him with his professional knowledge.[1] John Vanbrugh, the most famous of the amateurs, took up architecture comparatively late in life. Castle Howard, 1702, and Blenheim, 1705, are characteristic products of an eccentricity without restraint, but not altogether without genius. 'Ponderous' perhaps best describes the characteristic for which his buildings are almost proverbial. Henry Aldrich, Dean of Christ Church, built All Saints' Church, Oxford; and Sir James Borough, the master of Gonville and Caius College, was, at least nominally, the architect of Clare College Chapel. But, in truth, each of these gentlemen has to divide the honours with a shadowy architect, who always appears dimly in the background. This division of fame is especially difficult in the case of the celebrated Earl of Burlington (1695–1753), who has by some been placed little below Inigo Jones, while by others he is, perhaps with greater justice, regarded as little more than a particularly enlightened patron. In connection with this wave of amateurism may be mentioned the perpetration, by professional

[1] Blomfield.

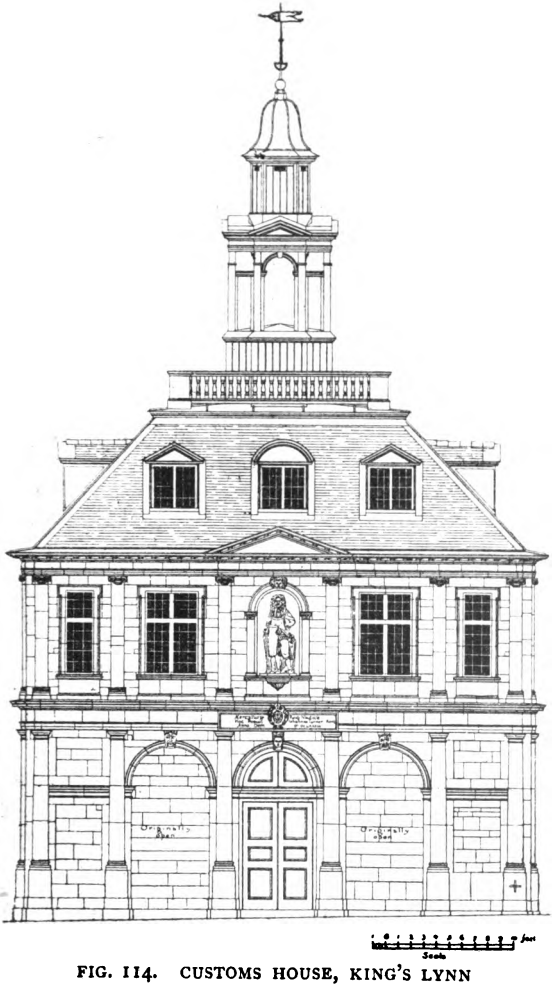


FIG. 114. CUSTOMS HOUSE, KING'S LYNN

By BELL. 1681. *From a drawing by Mr. C. O. King.*

architects at the instance of their patrons, of such absurdities as the reproduction of Italian villas, as at Mereworth Castle and Foot's Cray, with every circumstance which could make them inconvenient.

The succession of practical architects begins

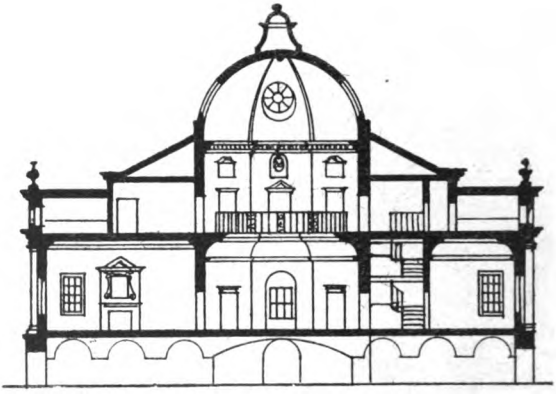


FIG. 115. SECTION OF ITALIAN VILLA
FOOT'S CRAY PLACE, KENT. *c.* 1720
From "Vitruvius Britannicus."

again with the name of James Gibbs (1682–1754). After studying on the Continent he built the church of St. Mary-le-Strand (1714–17), in which Wren's influence is seen, and completed the steeple of Wren's church of St. Clement Danes. His best work is his church of St. Martin's-in-the-Fields, with its noble portico (1721–6); in

this, and in all his later works, he drops the florid style of St. Mary-le-Strand. He also built the Senate House and the Fellows' Buildings at King's College, Cambridge, and, in his later years, the Radcliff Library at Oxford, besides many other buildings.

Somewhat senior to Gibbs, but belonging to a later school, was Colin Campbell, the author of *Vitruvius Britannicus*. He built Mereworth, Kent,

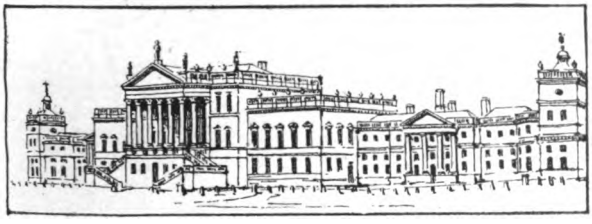


FIG. 116. WENTWORTH HOUSE
By FLITCROFT. 1740. *From Jones's "Views."*

and Houghton, in Norfolk, which was finished and altered by Ripley. Ripley also designed, about 1726, the Admiralty Offices, a building so dull and so ugly that it might have been done a generation later, when Robert Adam added the gateway and screen. The Horse Guards, a fine building, was designed, in 1742, by Kent, who also built Devonshire House (portico added since), and Holkham, in Norfolk. Among several provincial architects worthy of note may be men-

tioned the Woods, father and son, of Bath. Many of the buildings and the admirable laying out of some parts of the city are due to them,[1] and their house of Prior Park, near Bath, is a remarkably stately and beautiful building.

The second half of the century began to show that tendency towards a combination of the

FIG. 117. HEAD OF DOORWAY, OSWESTRY

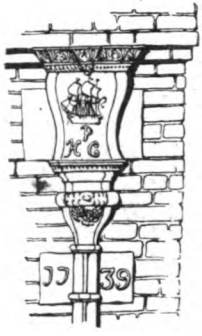


FIG. 118. LEAD RAIN-WATER HEAD, CHESTER

finicking and the dull, which was to culminate in the work of the brothers Adam. But Kedleston Hall, Derby, and Thorndon Hall, Essex, by Paine, and Harewood House, Yorkshire, by Carr, another provincial architect of ability, are bold designs. The front of the University Library at Cambridge is a pretty piece of work by Wright.[2]

[1] Blomfield. [2] Fig. 120.

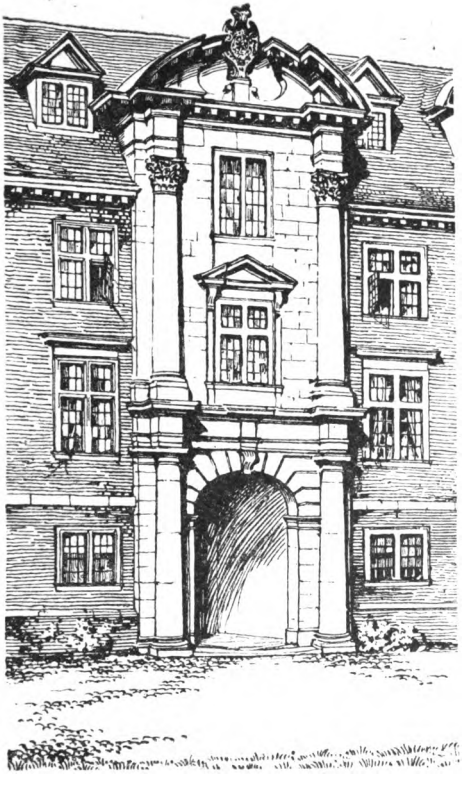


FIG. 119. GATEWAY OF ST. CATHERINE'S COLLEGE, CAMBRIDGE. 1679

From "Cambridge Described and Illustrated.

Sir William Chambers made a strong but unsuccessful protest against the tendency of the age by his powerful designs for Somerset House and many other buildings. His pupil, Gandon, followed in his steps in his Dublin Customs House. George Dance, the younger, who built St. Luke's Hospital, Old Street, and Newgate Prison, has been called the last of the old school.

It is in the deterioration of the general design rather than in the use of new forms in the details that the changes of the eighteenth century are most clearly seen. A technical change in the method of laying bricks at the end of the seventeenth century may be noted as a useful guide to the date of a building: English bond, which had hitherto been employed, now gave place to Flemish bond. Arches with stepped extrados (Fig. 117) are used more frequently as time goes on.

The most striking architectural production of the eighteenth century was the grand and somewhat incongruous country house. An almost essential feature is the great central portico, of one order, equal to the whole height of the house. The smaller houses, of less ambitious design and the work of unknown men, often have the great merit of appropriateness to their purpose and to their surroundings, and the charm of modesty and repose. Every county town still retains a few street houses of this period; the walls of

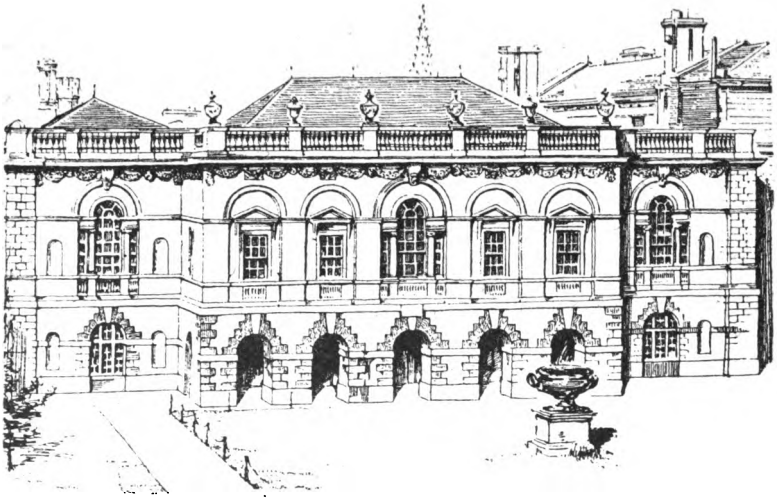


FIG. 120. FRONT OF THE UNIVERSITY LIBRARY, CAMBRIDGE

By WRIGHT. 1755. *From "Cambridge Described and Illustrated."*

deep red or warm, dark brown brick, with bright red dressings and cornice, and rows of heavy sash windows, their rooms panelled and their mantelpieces of handsome marbles.

FIG. 121. HOUSE IN BURY ST. EDMUNDS

CHAPTER IV

CHURCHES

ORIGIN of English church plan. Basilican plan, origin, earliest buildings, Romano-British church. St. Augustine's mission, orientation, early Saxon churches, the cross-plan. Celtic plan, Irish church. Union of Celtic and Basilican plans.

Norman Conquest, Norman plans for great churches, modifications by the English. Size of Norman churches and influence on subsequent work. The apse, the enlarged presbytery, the choir and pulpitum.

The parish church. The Norman building. Later history illustrating social history. Growth of the building.

Description of the parish church previous to the Reformation.

Changes made at the Reformation. Laud. The Commonwealth. Subsequent history. Parish Registers. Goods kept in churches.

THE English church is the result of a gradual and steady development from the earliest times. It is a national product, resulting from the combination of two imported types, generally known as the Basilican and the Celtic. It will be necessary to give some account of these before describing their introduction into England and their effect on English architecture.

The Basilican church varies in some important respects in different examples, but the normal plan may be thus described. The building consists of a nave, with one or sometimes two aisles on each side, with galleries above them. It is entered from the east, as will presently be described. At the west end of the nave there is a semicircular apse forming the presbytery, with a stone bench for the clergy round it, the middle seat being a raised chair for the bishop. In front of the bishop's chair, and nearly on the chord of the apse, is the altar. The western part of the nave is enclosed by screens (*cancelli*, whence our word "chancel"), and forms a quire for the singers. The presbytery, and perhaps the quire, are raised considerably above the nave over a crypt called a *confessio*, the burial-place of saints. There are two entrances from the church to the *confessio*, and if possible there is a window in the wall between the *confessio* and the nave. There are sometimes transepts; in some cases these are as long as the nave, while in others they hardly project beyond the aisles. The church is entered by three doors through a *narthex*, or large porch, extending across the east end. On this side of the church there is a forecourt surrounded by a cloister, and with a laver in the middle. Occasionally the entrances to the church are at the sides, and there is an apse at the east end as well as at the west.

The development of this plan in its main outlines may be traced back to several sources, but the exact degree to which it was influenced by each of these is still a matter of dispute. It used to be held that the Basilican church was modelled directly on the pagan basilica of Rome, or even that these were appropriated by Christians and converted into churches. But the process was probably not quite so simple. During the greater

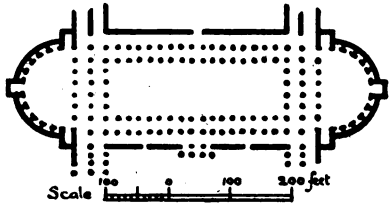


FIG. 122. PLAN OF A PAGAN BASILICA

From Middleton's "Remains of Ancient Rome."

part of the first three centuries the Christian communities met where opportunity offered: in private houses, at the alcoves erected over the burial-places of martyrs, and probably in *scholae* similar to those used by the numerous pagan fraternities, with which the Christian congregations had some practices in common.[1] In all buildings of that period the apse was the commonest of architectural features. For any building, therefore, in which people were to assemble

[1] Professor Baldwin Brown.

for a common object and with concentrated attention, an oblong room with an apse at one end was the most convenient and the most obvious plan, and it is accordingly an arrangement which is to be found in Roman buildings of every class. The public basilicas were primarily exchanges and secondarily law-courts.[1] They were of various forms, and some of them had apses with seats round, and an altar in the centre of the apse. But the early Christians, even when fully tolerated, could hardly have held their meetings in busy and noisy exchanges. For more than two and a half centuries, therefore, they had been accustomed to meet in other buildings, and they must surely in that time have developed fully a normal arrangement for their buildings, or at least for the most important part, namely, the presbytery.

When at the end of the third century and in the time of Constantine the increased number of converts made more accommodation necessary, the simplest way of providing it was by a building with nave and aisles, with a gallery over the aisles and with a clearstory, like the secular basilicas and other pagan buildings. The apse with its seats and altar had, without doubt, long since become stereotyped. The cloistered forecourt had always been familiar in the *atrium* of

[1] The reason why these buildings were called basilicas, meaning "royal," is obscure.

the private house. The alcove or cella erected in the cemetery outside the town over the tomb of the saint was rebuilt as a *confessio*, when the great numbers who visited the spot made it necessary to provide a large church. The end of the church at which the apse was placed was sometimes enlarged by the addition of transepts, thus forming a T-shaped plan, from which the cruci-

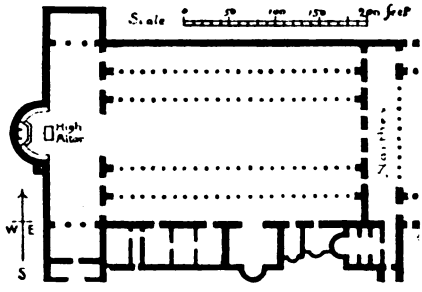


FIG. 123. OLD BASILICA OF ST. PETER, ROME
From Scott's "English Church Architecture."

form plan was afterwards developed; thus in this, as in so many other instances, a symbolical meaning was attached to what was at first purely practical and utilitarian. The term basilica had been applied to the great halls of palaces as well as to exchanges, and it was appropriated to the typical church plan early in the fourth century. The features which the two had in common, namely, the aisles with the galleries over them

and the clearstory, are sufficiently obvious to make the term perfectly appropriate.

The Basilican church plan was introduced into England by the Romans. A good example of a small church is that at Silchester, though unfortunately only the foundations and part of the pavement remain. It consists of a nave with an apse at the west end, aisles, transepts, and a

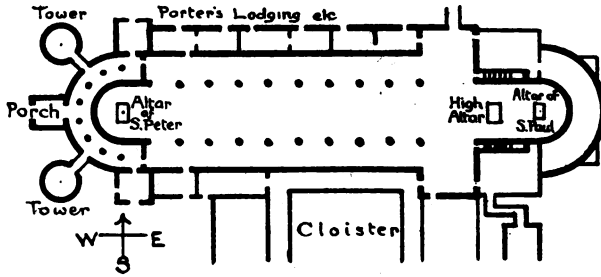


FIG. 124. CHURCH OF BASILICA TYPE, ST. GALL

From Scott's "English Church Architecture."

narthex or portico. The foundation-walls between the nave and aisles doubtless supported a row of columns, but one at least of the transepts appears to have been separated by walls from the rest of the church; the narthex probably was an open portico with three doorways leading into the church. The pavement is a mosaic of *tesserae* made of red tiles cut into one-inch squares in the manner common in Roman work. In the middle of the apse, however, there

is a square with a pattern of black, white, and red *tesserae;* this marks the position of the altar, and shows also that it was of wood, as were also the seats round the apse. To the east of the church there was a laver, at which worshippers washed before entering, and near it was a well. There are no distinct remains of the *atrium*,

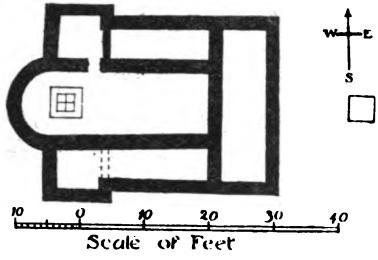


FIG. 125. ROMANO-BRITISH CHURCH, SILCHESTER

From "Archæologia."

which, it has been suggested, surrounded the church instead of lying to the east of it as was usual.[1]

On the arrival of St. Augustine in 598, he found the church of St. Martin at Canterbury in use by Queen Bertha, the Christian wife of King Ethelbert. The nave of this church is still standing, and forms the chancel of the present building.[2] Of St. Augustine's cathedral church no fragment is now to be seen. A description of it as it appeared in the middle of the eleventh

[1] W. H. St. John Hope. [2] J. T. Micklethwaite.

century is preserved by Eadmer, though how much of the building then standing was the work of St. Augustine we cannot now say. It had then an apse at each end, with an altar slightly in advance of the chord of the apse; at the extreme east end there was another altar, and at the extreme west end the bishop's throne. The eastern altar was in Eadmer's time considered the high altar, the *confessio* was beneath it, and the presbytery was at the east end of the nave.

The question of the orientation of churches is far too large to enter upon here. Suffice it to say that the eastward position of the entrance is an arrangement which the earlier Christian churches share with buildings so various and so distant as the Parthenon, the Temple at Jerusalem, and Stonehenge. The subsequent turning round of the church, which might fairly be discussed here, is involved in obscurity. It has been suggested by more than one writer[1] that churches with two apses were fairly common, and that the western apse, which had originally contained the high altar, was gradually superseded in importance by the east apse, and its altar finally moved to the east part of the nave. It had never been held to be important which way the building or the congregation faced. The priest was obliged to face the east, standing behind the altar and facing the people if the altar was at the west end, or in

[1] G. G. Scott, jun., and J. T. Micklethwaite.

FIG. 126
CELTIC PLAN,
ESCOMB

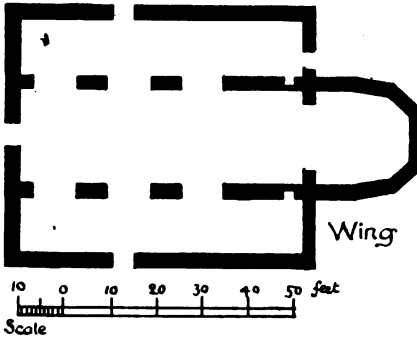


FIG. 127
BASILICA
PLAN, WING

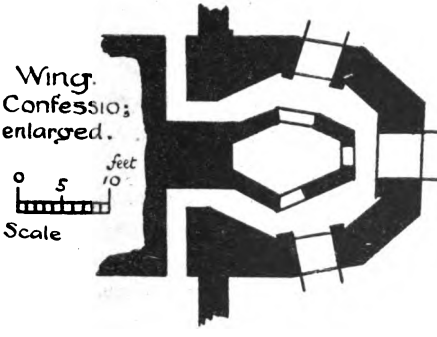


FIG. 128
PLAN OF
CONFESSIO,
WING

front of the altar and with his back to the people if the altar was at the east end.[1]

Other churches of St. Augustine's time have one apse, and that to the east. Several have a *confessio*, varied in detail in the different examples, but all with the same general plan of a central chamber with a passage round three sides, from which *arcisolia*, or chambers for other tombs, project.[2] There was a small square western porch, which was afterwards raised into a tower containing dwelling rooms for monks.[3] The porch was entered from a cloister which abutted on it to the north and south; to the west of the porch there was a baptistery.[4] Many of these early churches have three arches between the nave and the presbytery, probably because the builders lacked either the skill or the courage to turn one large arch.

The cruciform plan was, it would seem, developed in England more or less independently of, though no doubt influenced by, the Continental development. The north and south porches were not porches only, but also contained altars. In St. Augustine's Church at Canterbury the south porch was also used as a supreme court of law, in which were heard cases which could not be tried elsewhere, and the court itself became known as

[1] J. T. Micklethwaite. [2] Wing, Fig. 128.
[3] St. Mary's, Deerhurst. J. T. Micklethwaite.
[4] Indications of this at Brixworth, Northants.

the *Suthdure*.[1] These projecting wings, it has been argued, were then moved farther east and their outer doors omitted,[2] thus forming transepts with very small arches towards the nave.[3]

Something must now be said about that other influence on English church architecture, namely, the Celtic tradition. This is, perhaps, the more important of the two, though its story is sooner told.

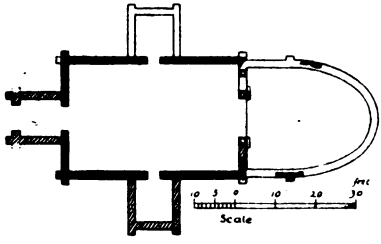


FIG. 129. TRANSITIONAL PLAN, ST. PANCRAS, CANTERBURY
From the "Archæological Journal."

A comparison of the Saxon churches of the North, built under the influence of the Irish missionaries, with the early Christian buildings of Ireland reveals some striking similarities, and between these and the Basilican churches of the South there are equally obvious contrasts. The

[1] G. G. Scott, jun.

[2] St. Pancras, at Canterbury, and Worth illustrate two stages in the process.

[3] J. T. Micklethwaite.

Irish Church had worked out for itself a simple, but quite definite, system of architecture. Its buildings were a development, it would appear, of the pagan cell or tomb, circular in plan, and in section of the form known as "beehive," that is, with a stone roof made by corbelling out every course beyond the one below it till the opposite

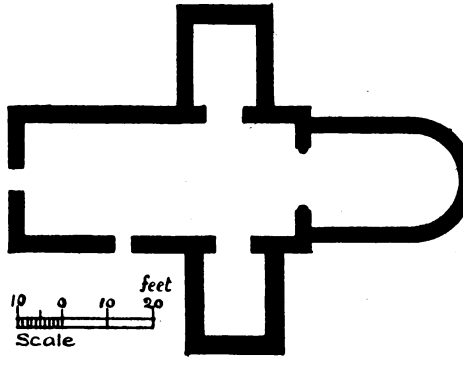


FIG. 130. TRANSITIONAL PLAN, WORTH

From the "Archæological Journal."

sides met at the top. This cell the Christians gradually made square in plan. Sometimes there is an oblong sanctuary at the east end; this perhaps originated in a rectangular recess for the altar. The towers are narrow and lofty.

The Irish missionaries naturally continued to build in the style to which they had been accustomed, and the influence of their architecture

spread over almost every part of the land. This influence, meeting with that of St. Augustine's mission, the two types of building combined and produced, with certain modifications by the Saxon, the English church plan in its primitive form. The apse is abandoned for the square presbytery; the tall west tower is adopted; side entrances are preferred to one at the west end. The *confessio*, the result of the peculiar conditions at Rome, is dropped; nor are aisles required in such small churches as are at first built. A central tower, in addition to that at the west end, is added in some cases.

* * * * *

Immediately after the Conquest a wave of Norman influence made itself felt for a time. The apse appears again; the central tower, even when there are no transepts, becomes a characteristic of even the smallest churches; the western door becomes more common. But it is chiefly in the great abbey churches that the foreigner's hand is most clearly seen. We have no great Saxon abbey with which to compare those of the Normans, it is true; but when we find how soon the Norman plan was changed for one resembling that of the small Saxon church, we shall recognise its exotic character.

It is in the eastern limb of the great cross-churches that we see the contending ideals of the

two peoples. Two types of east end were introduced by the Norman Benedictines. In one the aisle is carried round the apse, and from it chapels project. This plan, which came to be called a *chevet*, continued, with modifications, to be the typical French ending. Norwich may be taken as a good English example. The other, or Normandy type, has a Lombardic, and perhaps ultimately an Oriental, origin.[1] The aisles terminate in apses on a line with the chord of the great apse. Outside these, short aisles project from the transepts, and beyond these again other apses. St. Albans is given as an instance. Neither of these types, which were expressed in examples so numerous and so vast, were to outlive three generations.

In accordance with the tradition of their past, and with what was to be their path in the future, the English immediately lengthened the eastern limb, and very soon too they showed a disposition to return to their square east ends. At the beginning of the thirteenth century, both in large churches and small, they achieved both objects; they pulled down almost all their east ends and rebuilt them both longer and square-ended. The return to the square end was helped forward by the Cistercians, on whom it was imposed by their rule. But the rule—and this is noteworthy—though coming from abroad, was chiefly, if not

[1] Prior.

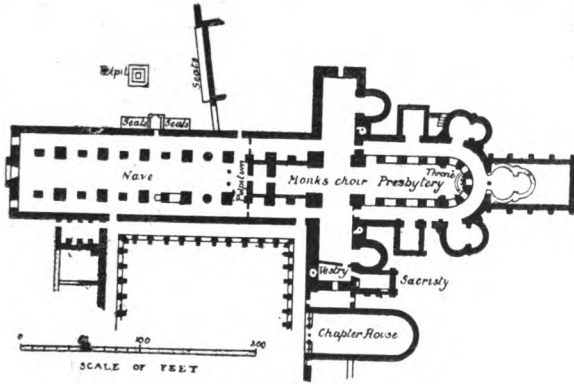


FIG. 131. THE CHEVET, NORWICH

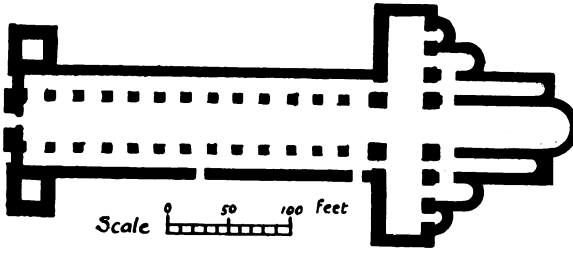


FIG. 132. PARALLEL APSES, ST. ALBANS

From Prior's "English Gothic Art."

entirely, the work of an Englishman, Stephen Harding. The Cistercians at first built short choirs, as enjoined by the rule, but they presently gave way to the English love of length. The central tower, though it unfortunately disappeared from our smaller churches, became the special glory of the cathedral and the abbey.[1]

But while the presbytery constantly grows longer and longer, the nave attained its full

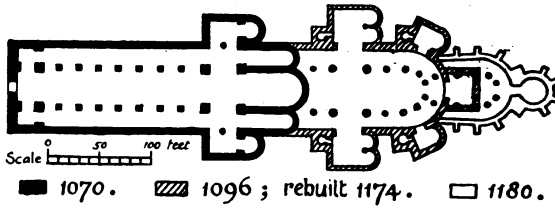


FIG. 133. THE EXTENSION EASTWARDS AND THE TWO TYPES OF APSE, CANTERBURY

length in early Norman times. If afterwards a larger nave had been found necessary, the opportunity would probably have been taken to entirely rebuild the whole church. But so grand was the scale of the Norman buildings that this excuse could never be pleaded, and thus the Englishman's inclination to add to and improve rather than entirely rebuild was encouraged. In this way the

[1] The bells were sometimes hung in a detached belfry, as at Salisbury, Norwich, Chichester, and old Saint Paul's, King's College, Cambridge, and various parish churches.

Norman buildings gave the keynote to work of a later period. This is especially noticeable in the proportions of the three storeys of the building: main arcade, triforium, and clearstory. The Norman church still gave to the triforium that

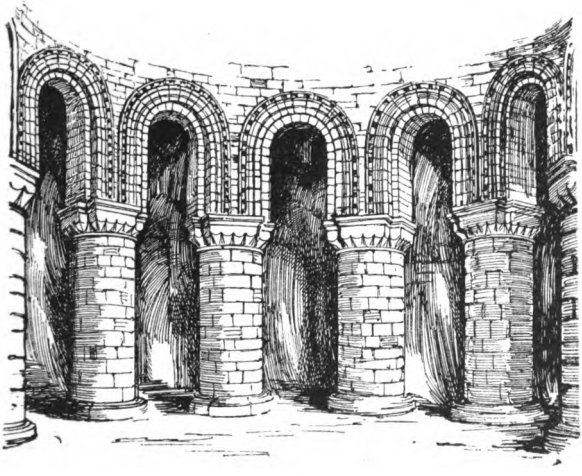


FIG. 134

THE AISLED APSE, ST. BARTHOLOMEW'S, SMITHFIELD. 1133

importance which it had inherited from the basilica. When a presbytery was rebuilt or lengthened the same proportions were preserved, so that the new work might range with the old. A tradition was thus established, which influenced English design even where, as at Salisbury, there was no earlier work to hamper the artist. Con-

sequently in England the triforium dies hard. But it does gradually dwindle, is incorporated with the clearstory as a mere wall passage, and finally disappears.

The east end retained till after the Conquest something of the Basilican arrangement; the altar was placed somewhat in advance of the apse; behind it were ranged the seats of the clergy; the central seat was considerably raised, and was reached by a flight of steps, which projected in a semicircle towards the west. The arrangement probably continued till the general enlargement of presbyteries in the thirteenth century, when the seats were moved to the south side of the altar.[1] In one instance only, namely, Norwich, are the remains of the ancient throne preserved *in situ*. The extension eastwards gave space behind the high altar for the more magnificent shrines which were then being built to contain the relics of saints, such as St. Alban, St. Cuthbert, St. Thomas à Becket, and for the great crowds of pilgrims who visited them. Room was also thus provided for additional altars, and especially for the altar of Our Lady, which had previously stood in the nave, or in some side chapel, but now was more sumptuously housed.

The choir of the monks or canons occupied the crossing and several of the easternmost bays of the nave. The screen which separates the choir

[1] J. T. Micklethwaite.

and nave varies in its details in different examples. In its simplest form (for the great churches) it consisted of (1) a wall against which the stalls are returned, and in the centre of which there is

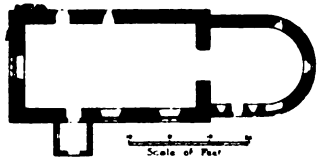


FIG. 135. BENGOE CHURCH

a doorway; (2) a screen wall one bay further west forming a reredos to the principal nave altar and supporting the great rood; it had a doorway on each side of the altar. The space between these two cross-walls was covered by an upper

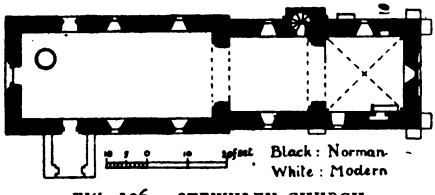


FIG. 136. STEWKLEY CHURCH

floor forming a gallery or loft containing the organs, and called the *pulpitum*.

The parish church, like the cathedral and abbey churches, was generally rebuilt soon after the Conquest; it often still retains clear evidence

of this, in spite of the numerous alterations to which it has since been subjected. A church of this period has aisles if the size of the parish requires them, and though otherwise humble, it has very commonly a central tower and sometimes transepts, features which in later times are found usually only in the larger buildings. As we have already seen, both central tower and transepts were to some extent native productions, but their more frequent use at this time is clearly due to Norman influence. The church sometimes has an apse, and sometimes it is square-ended.[1] The presbytery, as we have seen in the churches of St. Augustine's mission, had formerly been a part of the nave, merely enclosed by screens. But it had now long since developed, both in France and in England, into a distinct chamber—a chancel; the Norman only gave it a round end.

The parish church, as we see it to-day, preserves in the most interesting language possible the history of the people who have worshipped in it for eight centuries. In some cases, it is true, one chapter only of the story is told. Maybe the building of the eleventh century, like Stewkley, is still sufficient for the wants of the twentieth. Or, as at Sall,[2] a period of prosperity has made possible an entire rebuilding, which has given us indeed a complete work of art, but has erased its earlier story. But far more often does the build-

[1] Figs. 135, 136. [2] Fig. 138.

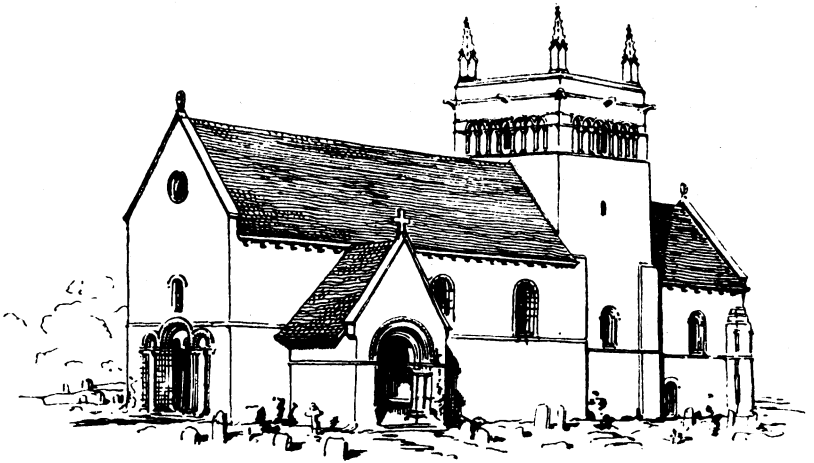


FIG. 137. STEWKLEY CHURCH

ing tell a tale of slow and continuous growth. This growth took place in a remarkably uniform manner over the whole country, though at different rates in different districts. Thus the first alteration or enlargement in any one church finds its parallel in that of many others all over England; and in the same neighbourhood the change was not only similar in different buildings, but often contemporaneous.

The first alteration was the substitution of a square east end for the apse. The removal of the central tower generally followed next, the reason in most cases perhaps being that it had become unsafe, though the fact that it was never rebuilt in the same place seems to indicate a change of fashion. The new tower was almost invariably built at the west end of the nave. As the population grew, it became necessary to add an aisle, if, as was more commonly the case, the Norman church had not aisles.[1] It was usually more convenient to do this on the north side, because there were generally more graves to the south. The aisle wall was built first probably, and then the arches were made, being often cut through the nave wall without taking it down. Thus it comes about that the upper part of the wall is sometimes older than the arches.[2] Soon it was found necessary to enlarge the building still

[1] Fig. 139.

[2] As at Grantham and St. Nicholas, Leicester.

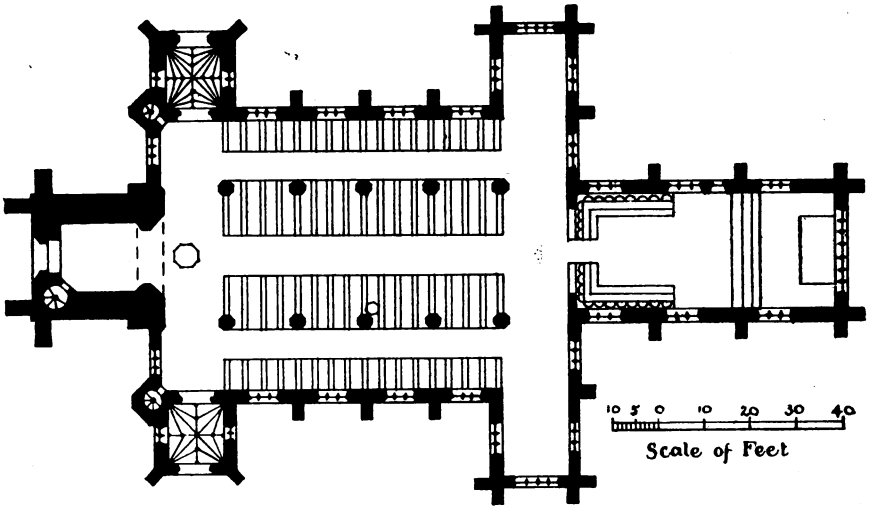


FIG. 138. SALL CHURCH

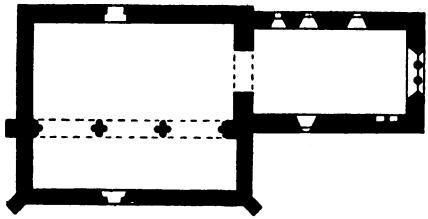
further, and a south aisle was built in the same way; and so the arches between it and the nave are later in character than those on the north side, and the aisle is perhaps wider. Then the north wall is moved out, so that the north aisle becomes the wider. If there were transepts in the Norman church, they had now probably been absorbed by the aisles. The wide aisle requires a corresponding increase of height, and a flat lead roof was put over it level with the eaves of the nave roof, and so we find the small early clearstory windows of the nave look into the aisle; a new clearstory was then built above the old one.

If the church was now becoming a large one transepts were perhaps again built, or the great man of the place built a south transept as a private chapel and family pew, and cut a squint-hole through which he could see the high altar. Sometimes the old chancel arch, though inconveniently narrow, was not rebuilt, but a small arch was cut through the wall on each side of it.[1] In the aisleless church there had been, at the end of the nave, on each side of the chancel arch, an altar enclosed by screens. Sometimes the altars stood against the chancel screen.[2] When aisles were added, these altars were moved into them

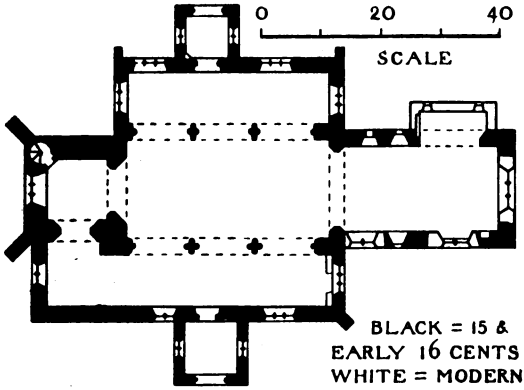
[1] Fig. 140.

[2] At Guilden Morden, Cambridgeshire, the rood-screen and the screens enclosing the side altars still remain.

TWELFTH CENTURY



FOURTEENTH CENTURY



FIFTEENTH CENTURY

FIG. 139. GROWTH OF THE PARISH CHURCH, COTON

and enclosed by screens; the marks of the screens are always visible on the responds and on the first column. Finally, the aisles were continued up to the extreme east end, and arches made through into the chancel. One of the chancel aisles, or a part of it, was sometimes used as a sacristy, in which were kept the vessels and vest-

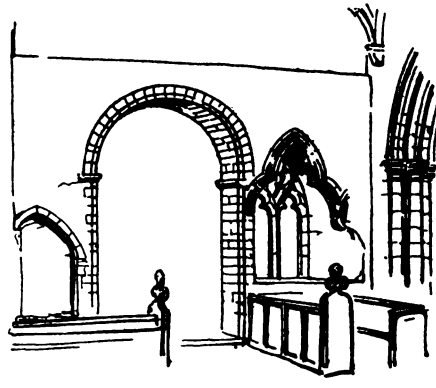


FIG. 140. CHANCEL ARCH, SHEPRETH CHURCH

ments and other things required in the service. When the chancel has not aisles, there often still remains on its north side a sacristy, which also generally contained an altar. There is sometimes a vaulted chamber below it, half underground, in which might be placed any human bones disturbed in making graves or in digging the foundations of any additions to the church.

Over the porch there is very often a chamber communicating by a winding staircase with the church. Its uses seem to have been various; sometimes it appears to have contained an altar, but more often to have been a living-room, presumably either for a priest or for the guardian of the church, and it is not unlikely that it was used for occasional meetings and for other purposes.

* * * * *

At this point we may take a survey of the church, in order to notice several features and characteristics which have not found a place in the outline given above of its growth.

The church stands rather on the north side of the churchyard, and is entered generally from the south. There is a north door, somewhat plainer than the south, but this has generally fallen into disuse, and has often been filled up. The graveyard is entered through a lych-gate, which affords a moment's shelter to the bier at a funeral. To the south of the chancel there stood, and perhaps still stands, a high stone cross on a 'calvary' of steps.

In the porch, or immediately within the church, is a holy-water stoup. Opposite the door is a large wall-painting of St. Christopher carrying the Infant Christ across the river. The traveller uttered a prayer before the picture, for this act

protected him during the day from the various dangers of the road.

The first object that would arrest attention was the great representation of the Passion over the entrance to the chancel. The chancel screen filled the lower part of the archway, and supported a gallery or loft some six or eight feet wide. On the loft, or on a beam above it, stood the crucifix, with the figures of the Virgin and St. John on either side, and in many churches figures of angels. A great number of lights were burned on the loft on special occasions, and hence it was sometimes called the "candle-beam." Parts of certain services were sung from the loft by hired singers, accompanied by organs and other instruments. The Epistle and Gospel were not read from the rood loft, as is sometimes supposed, but from a lectern.[1] The whole of the chancel arch seems, in many instances, to have been filled up with a tympanum of

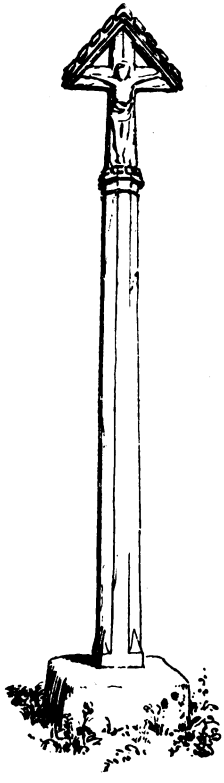


FIG. 141. CHURCHYARD CROSS, SOMERSBY

[1] Micklethwaite. There is, however, some difference of opinion on this point.

boarding behind the rood, painted either with accessories to the scene of the Crucifixion or with a picture.[1] The lower part of the screen was panelled and painted with pictures of saints, and the whole of the screen was enriched with colour and gold. On the wall above the arch was a great fresco painting of the Last Judgment.

Entering the chancel, which was generally level with the nave, we find the stalls for the priests are placed against the north and south walls and "returned" against the rood screen, that is, three or four on each side of the entrance have their backs to the screen and face eastwards; these are called "return stalls." Sometimes large earthenware jars were placed under the floor on which the stalls stood, with the object of improving the quality of the singing and increasing the volume of sound.

The high altar, placed close against the east wall, was of stone. It was covered with a linen cloth and had an embroidered frontal. There was commonly a cross and two candlesticks on the altar, or on a shelf behind it, and a reliquary, or silver vessel containing relics of a saint, but no vases of flowers. There was also a light kept constantly burning. Curtains hung from iron rods projecting from the east wall at either end of the altar, and there was sometimes a canopy over it and a curtain at the back. The reredos

[1] As at Wenhaston, Suffolk.

was either of stone or alabaster, with statues and scenes carved in relief and coloured, or it was a "table with leaves," that is, a triptic or painting on wood with folding shutters. In either case the painting was in *tempera*, colour mixed with yolk of egg, on a very thin coat of hard fine plaster called *gesso*. Over the altar hung the pyx, a silver vessel containing the Sacrament, under a tent-shaped canopy of linen or silk. In Lent a veil was drawn across the chancel in front of the altar.

In the south wall of the chancel are the three stone seats which we now call the sedilia, and a piscina for carrying off the water with which vessels were washed. There was seldom a 'credence' (Italian *credenza*, a side table), for the sacred vessels were, in England, placed at once upon the altar.

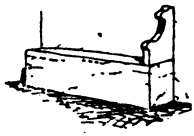


FIG. 142. EARLY SEDILIA, STEWKLEY

One of the most important ceremonies of the year was that with which the Easter Sepulchre was connected. The Easter Sepulchre was on the north side of the chancel, but it varied in form and character in different churches, and was of varied degrees of enrichment. Sometimes a temporary structure of wood was put up. Sometimes an altar-tomb was used, and doubtless people often desired that their tomb should be on the north side of the chancel in order that

it might be so used. Often there was a permanent recess in the wall of architectural character.

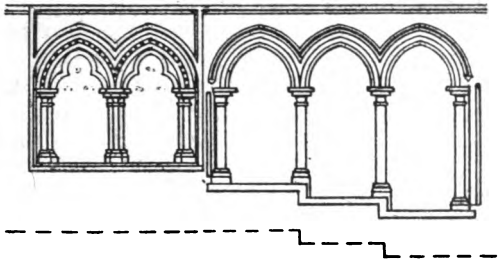


FIG. 143. MEDIEVAL SEDILIA, CHERRY HINTON

The service of the Easter Sepulchre at Durham was, briefly, as follows:—

"Uppon Good Friday theire was marvelous solemne service, in the which, after the Passion was sung, two of the eldest monkes did take a goodly large Crucifix bringing it betwixt them to the lowest steppes in the Quire, and then one of the said monkes did rise and went a pretty way from it with his shoes put off, and verye reverently did creepe uppon his knees unto the said crosse and most reverently did kisse it. And after him all the other monckes, in the meantime all the whole quire singinge an himne. The service beinge ended, the two monkes did carrye it to the Sepulchre which was sett up in the morninge on the north side of the Quire nigh to the High Altar, and there did lay it, with another picture [*i.e.* statue] of our Saviour Christ in whose breast they did enclose the blessed Sacrament of the Altar, sencinge it and prayinge into it upon theire knees.

"There was verye solemne service uppon Easter Day between three and four of the clocke in the morninge,

where two of the oldest monkes came to the Sepulchre and did sence it sittinge on their knees. Then they both rising came to the Sepulchre out of which they tooke a marvelous beautifull Image of our Saviour representing the resurrection, in the breast whereof was enclosed in bright christall the holy Sacrament, through the which christall the Blessed Host was conspicuous to the beholders. Then after the elevation of the said picture, singinge the anthem *Christus resurgeus*, they brought it to the High Altar. The which anthem beinge ended the two monkes tooke up the picture from the Altar, proceeding in procession to the South Quire dore, where there were four antient Gentlemen belonginge to the Prior holdinge upp a most rich Cannopye of purple velvett, to beare it over the image carried by two monkes round about the church, the whole quire waitinge uppon it with goodly torches and great store of other lights, all singinge, rejoycinge, and praising God, till they came to the High Altar againe, whereon they did place the image, there to remaine untill the Ascension Day."[1]

Before leaving the chancel, the westernmost window on the south side must be noticed. The sill is lower than the others, and the lights are divided by a transom. The upper part is glazed; the lower part had formerly no glass, but it was barred with iron and had shutters. Sometimes the window is on the north side, sometimes there is one on each side. What the object of this arrangement was we do not know. We can only say that these "low-side-windows," as we call them now, were not for any of the purposes

[1] *The Rites of Durham* (abbreviated).

which they are commonly supposed to have served. They were not for the administration of the Sacrament to lepers, nor for lepers to stand at to see the celebration; nor were they to enable anyone to watch the light at the high altar; nor for ringing a small hand "sanctus bell" to warn people outside of the moment of the consecration of the Sacrament; nor for confession. A theory, not improbable, has lately been put forward that a light was placed in these windows wherewith to scare evil spirits from the churchyard.[1]

Near each altar are aumbries or cupboards in the wall, in which are kept the vessels used at the services; there is sometimes one especially high for the processional cross. The number of vessels used at the altar and otherwise, of course varied very much in different churches. A country church of average size had, perhaps, but a silver chalice and paten, a pair of laten cruets, a censer, and a pair of candlesticks for each of its three altars, with a few other vessels, and some half-dozen sets of vestments and altar coverings. A large town church, on the other hand, might have seven altars, a dozen chalices and patens, silver and silver-gilt, a score of other vessels, besides reliquaries, crosses and banners, crowns and other ornaments for images, perhaps forty sets of vestments, including copes embroidered

[1] H. J. Hodgson, *Archæologia Æliana.*

with various designs and numerous altar frontals and linen cloths.

The church still, perhaps, retains one or more of its "consecration crosses." These were twelve crosses painted on the wall to mark the places anointed by the bishop at the consecration of

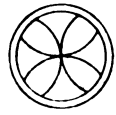


FIG. 144. CONSECRATION CROSS, LANDWADE

FIG. 145. CONSECRATION CROSS, HEYDON, NORFOLK

the church. There were twelve more outside the building, but these have almost invariably disappeared.

Every church, probably even the very humblest, was adorned with large wall paintings, sometimes of extraordinary beauty, done in fresco—that is, in water-colours on the wet plaster—of scenes from Scripture and from the legends of the Virgin and of the Saints, and allegorical subjects. These seem to have been more numerous in the eastern counties, while in districts where stone was abundant sculpture was more developed, and this also was coloured. In the fifteenth century a great

quantity of sculpture of somewhat inferior quality was turned out of the alabaster works in Derbyshire. The wall paintings, appropriately to their decorative scheme and to the possibilities of the fresco process, seem to have been delicate and quiet in colour, and restrained in effects of light and shade. They contrasted strongly, in the former quality with the brilliance of the coloured glass. The windows contained subjects similar to those on the walls, or single figures, and in the tracery lights heraldic shields. They were often of a memorial character, and a small figure of the donor or person commemorated kneels at the feet of the saint and utters his prayer.

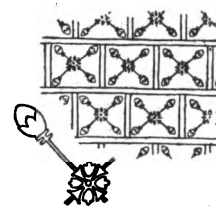


FIG. 146. PAINTED DIAPER, ST. CROSS

FIG. 147
PAVEMENT OF INCISED TILES
FOURTEENTH CENTURY

Probably the floor was most commonly covered with tiles, either plain or ornamented, though stone and other materials were used, and perhaps,

in the humbler buildings, simply beaten earth and rushes. The decorated tiles were usually red, with devices of foliage, figures, grotesques and heraldry, in buff. They were made by deeply incising the pattern in the red clay, filling the hollows with a yellow 'slip,' and then glazing and baking. Thus the design could hardly be obliterated, even by very long wear. Sometimes the pattern was simply incised.

FIG. 148
PAVING TILE,
VALLE CRUCIS

The roof was decorated with a powdering of sprigs of foliage and sacred monograms, few colours, and those subdued in tone, being used.

This survey of the medieval church may be concluded with a reference to some common mistakes. The popular theory about "leper windows" has been already noticed. Another very persistent notion is that when the chancel is inclined at an angle to the nave it was intended to symbolise the drooping of our Lord's head as He hung upon the cross; but there is no shred of evidence that the builders had any such thought, and the inclination of the chancel to the nave is without doubt purely accidental. Another modern fancy is that the chancel was made to point towards the place on the horizon where the sun rose on the feast of dedication, or on the day when the building was begun. But almost every church stands nearly due east and west, whereas

those dedicated to Saints Thomas, Stephen, John the Evangelist should stand south-east and north-west, while those dedicated to the Holy Trinity, St. Peter, and St. John Baptist should be north-east and south-west. Nor can it be supposed that all churches were begun at one of the periods of equinox, which the alternative view would require. The idea that early cross-legged effigies commemorate Crusaders is also devoid of foundation. It may also be mentioned that the helmets and swords placed on iron brackets over the later monuments are seldom the arms actually used by the person commemorated, but are almost invariably trophies used at his funeral.

* * * * *

We may now take up the history of the church at the point reached before the foregoing digression.

The first of the changes in the churches during the sixteenth century was the destruction of the rood and of images, relics, and shrines, so that "no remains or memory be found of them," in 1541. The suppression of the gilds and chantries by Henry VIII. in 1545 and by Edward VI. in 1547 caused the discontinuance of many services and the extinguishing of the lights which had been maintained by the payments of the gild brethren and by the chantry endowments. Candles were definitely forbidden by the Injunctions of 1547, except two upon the altar, and these appear

to have been disallowed soon afterwards. "A comely and honest pulpit" was to be provided, and the Epistle and Gospel read therefrom or from other convenient place. The Royal Arms were to be put up. A copy of the Bible in English and a translation of Erasmus' *Paraphrase of the New Testament* were to be placed in every church. The order to destroy all shrines and coverings of shrines, and all pictures and paintings on walls or windows, was repeated. A chest for collecting alms for the poor was to be fastened near the high altar.

In 1550 some used "the Lord's board after the form of a table, and some as an altar." Orders were issued to destroy all altars, and to provide "an honest table decently covered in such place of the quire or chancel as shall be thought most meet." It appears that texts from Scripture were painted on the walls in place of the destroyed pictures, for in the reign of Queen Mary orders were issued (1554) that these should be obliterated. Fragments are occasionally found, confused with the earlier paintings, under coats of whitewash. The old ornaments were then of course restored, so far as was possible, with "a rood of a decent stature, with Mary and John and an image of the patron of the same church."

In the first year of Queen Elizabeth injunctions very similar to those of Edward VI. were issued. And whereas some altars had been taken down

and others not, and whereas, "saving for an uniformity, there seemeth no matter of great moment, so that the sacrament be duly and reverently ministered," yet for uniformity and convenience the altar was to be removed and a table set in its place and covered; "and so to stand saving when the communion of the sacrament is to be distributed; at which time the same shall be so placed in good sort within the chancel as whereby the minister may be more conveniently heard of the communicants in his prayer and ministration, and the communicants also more conveniently and in more number communicate with the said minister." After communion the table was to be replaced. At the same time it was ordered that the old altar was not to be taken down "but by oversight of the curate and churchwardens, wherein no riotous manner be used." Proclamation was also made forbidding the mutilation of monuments, tombs, graves, or inscriptions in memory of the dead, or breaking images of kings and others, or breaking images in glass windows without permission of the ordinary, or taking down and selling bells or lead.

The open decay and ruin of churches at this time (1560) is described in a letter issued by the Queen, in which she instructs commissioners to determine some means of reformation, "and among other things to order that the tables of the commandments may be comlye set or hung up

in the east end of the chauncell." The old service books were ordered to be defaced and abolished in the following year.

In 1569 Archbishop Parker issued inquiries as to whether baptism was ministered in a basin or in the font, and whether the Holy Communion was ministered in "any prophane cuppes, bowles, dishes or chalices heretofore used at masse, or els in a decent communion cuppe provided and kept

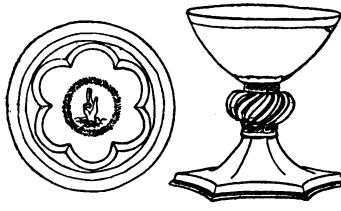


FIG. 149
CHALICE AND PATEN
HAMSTALL RIDWARE. FIFTEENTH CENTURY

FIG. 150
COMMUNION CUP
SALL. 1568

for the same purpose only, and whether the communicants do use to receyve the holy communion standinge sittinge or els knealinge, whether the roode lofte be pulled down according to the order prescribed; and if the partition between the chauncel and church be kepte." Many of the old chalices were inconveniently small now that the laity communicated in both kinds. A great number of communion cups and patens still in use bear the date 1569.

The position of the altar or communion table was still a burning question in the reign of Charles I., for it was taken by both parties as an indication of the character of the service. The puritanical party, regarding the service as a religious feast, wished to have the table brought from the east end into the body of the church when communion was to be celebrated, while those who viewed the celebration as a sacrifice wished the table to be placed altar-wise at the east end. Decision was given in favour of the high-church party even by Archbishop Abbot, and of course by Laud. The latter gradually established a uniform practice in the matter, and he provided candlesticks, alms-basin, carpet, and other furniture, while Bishop Cosin even introduced a crucifix and censer into the chapel of Peterhouse in Cambridge. Laud also required that communion rails should be provided, "near one yard in height, so thick with pillars that dogs may not get in," and he introduced from Italy

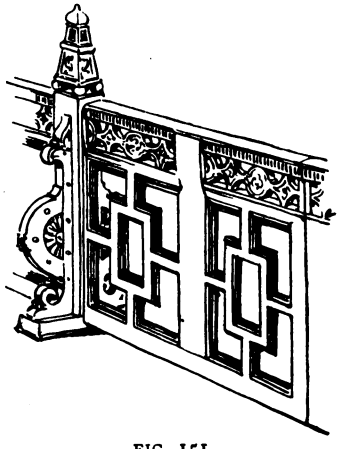


FIG. 151
ALTAR RAIL, MILTON. *c.* 1640

the "credentia" or credence. Pews were not to be much above a yard high, and the reading-desk was not to stand with its back to the chancel nor far from it. The fabric of the church also was repaired and furnished in a picturesque sort of Gothic style. Some curious window tracery, a number of pulpits, and a few good roofs of this period are still to be seen, but most of the work has been destroyed at the "restoration" of the church to make way for what is considered more correct Gothic. Laud's party were also accused of taking down galleries, some of which had been built early in the seventeenth century, and of restraining the building of them in parishes which were very populous. But Matthew Wren, Bishop of Norwich, one of Laud's party, appears to have found it necessary to instruct his ministers to "take order that there may not come above 300 or at most 400 communicants to one communion, for which occasion they are warned to have communions oftener."

During the Civil War and the Commonwealth the ornaments and other improvements introduced by Laud, and also much of the older work which the first reformers had spared, were destroyed. The amount of damage done varies very much in different places according to circumstances. Where puritanism was strong, as in East Anglia, the destruction was very great, while some secluded villages escaped with com-

paratively little damage. But luck entered largely into the fate of buildings. At Westminster Abbey, for instance, it seems miraculous that so much is left.

After the Restoration matters improved, but the process of repair was very slow in the poorer villages, and for years afterwards many churches were reported to be in a state of ruin. Gradually, however, things were brought round, roofs were repaired, windows mended, new communion rails made, and everything was overspread with a coat of decent whitewash.

But our churches have had to pass through yet another ordeal, from which they have not yet wholly emerged. They have had to undergo the dangerous and often fatal operation known as "restoration." Probably more old work has been destroyed by this process during the last seventy years than by the fanaticism and neglect of the preceding three centuries. But this misfortune has generally been due to excess of zeal, and it must be admitted that probably at no previous period have church buildings generally been kept in such decency and order.

The musicians who had played in the rood-loft previous to the Reformation had been relegated to a gallery at the west end. They appear to have been superseded by the barrel-organ early in the nineteenth century. An organ or harmonium in a parish church must have been rare till 1850.

It appears that the systematic heating of churches began soon after the middle of the eighteenth century. There is no indication that churches were artificially warmed in the Middle Ages; the people kept themselves alive by wearing plenty of warm clothing.

A word may here be said about parish registers. There are some few dating from the early part of the sixteenth century, but the first order on the subject appears to be a royal injunction issued by Thomas Cromwell in 1538. Entries of all marriages, christenings and burials that had taken place during the week were to be entered after service on Sunday; and if this was not done a fine of three shillings and fourpence was to be paid, and the sum devoted to the reparation of the church. The register was to be kept in the church in a chest, of which the parson kept one key and the churchwardens another. Parliament reaffirmed the injunction in 1558. The entries were probably made on loose sheets of parchment or on paper, but in 1598 Convocation of the Province of Canterbury ordered that these should be copied into parchment books, and copying clerks were sent round to make the copies. These are generally the earliest documents preserved, the originals having been in almost every case destroyed or lost. Sometimes the copy is of earlier date than this order, many having been made in 1570. In 1598 it was ordered that a

copy of the year's entries should be sent to the bishop of the diocese. The Act so often referred to in the registers, requiring that all persons should be buried in woollen, was passed in 1678. Allusion is made to it in a song of 1680:—

> "Let them damn us to woollen, I'll never repine
> At my lodging, when dead, so alive I have wine."

There is occasionally still to be found in a country church the common plough of the parish, and sometimes the fire-hook for pulling down burning houses. The arms which every parish was bound to provide are preserved in one cathedral (Norwich), and perhaps in others, but they have been removed long since from almost every parish church.

CHAPTER V

MONASTERIES

THE Benedictines: church, cloister, chapter-house, dormitory, frater, guest-house, infirmary.

Cluniacs. Cistercians. Carthusians. Augustinian Canons. Gilbertines. Friars. Templars. Hospitals.

EACH of the religious orders[1] developed a special arrangement of its buildings, to which every house of the order adhered fairly closely. The plan of the church grew out of the common traditional plan, with variations to suit the views and ritual of each order; the arrangement of the secular buildings was dictated by the practical requirements of the Rule. The differences, whatever their origin, in most cases are confined to details. As the Benedictines were the first to develop a typical plan, and as their houses became more numerous in England than those of any other order, it will be convenient to describe fully the ordinary arrangement of one of these, and then to notice the points in which other orders departed from it.

[1] A list of the religious orders is given in an appendix.

Something has already been said of the Norman plan of the great Benedictine Church (p. 114). In the twelfth century the apse was discarded, but the transepts and the central tower were retained. The latter, indeed, became a special characteristic of the English church of the first rank. The presbytery was lengthened, and secondary transepts were sometimes added, as at Lincoln and Durham. The presbytery and choir occupy a larger part in the monastic than in the parochial church, and are more completely separated from the nave; in these respects the churches of the canons hold a half-way position. The west part of the nave formed in fact a separate church for the servants and novices and for the public; it was entirely distinct from the rest of the building, had its separate entrances, and its principal and smaller altars. The cloister and secular buildings were placed on the south side of the church for the sake of warmth, unless, as was often the case, some peculiarity of the site made it more convenient to put them on the north. Round the cloister were ranged the common buildings used daily by the monks, and beyond these lay various special buildings.

The cloister, which was the living-place of the monks, was at first covered by a simple lean-to roof, supported on wooden posts standing on a low wall. Then a high wall with windows took the place of the wood posts, and the passages

were often vaulted and covered with lead roofs. But the cloister long retained its character of a mere covered way with open sides. Gradually

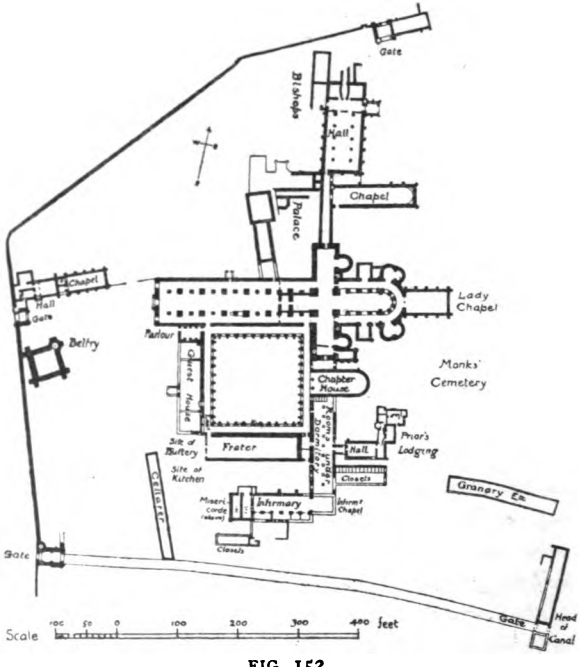


FIG. 152

BENEDICTINE MONASTERY AND BISHOP'S PALACE, NORWICH

more shelter was obtained by glazing first the upper parts of the windows and then the whole. Finally, a series of little studies like sentry-boxes, and not very much larger, called "carrells," were

placed against the windows. These were in use in the thirteenth century.[1]

At Gloucester one side of the fifteenth-century cloister has recesses specially built to receive these carrells. When the monks went to service they entered the church by a door in the north-east corner of the cloisters; each one as he passed placed the book which he had been studying in a large cupboard or *armarium* on the left of the door, or between the door of the church and that of the chapter-house. The recess for this cupboard may usually be seen; there is a good one at Ely. The cloister, in fact, formed the library, the reading-room, and the scriptorium, or copying-room. As books increased more presses were added. Sometimes a distinct library was built over the cloisters, as at Salisbury.[2]

In another part of the cloister, sometimes the west walk, the novices were taught. The stone bench which runs round the cloister is often marked with little sinkings about the size of the bowl of a salt-spoon in groups of nine. These were doubtless for playing some such game as Nine Men's Morris, which still survives in our villages; but they do not appear to be confined, it must be confessed, to the novices' part of the cloister. There is another door into the church in the north-west angle of the cloister; it led into the part west of the pulpitum, and so would

[1] J. W. Clark. [2] For the Canons.

serve for novices and those who were not admitted to the choir.

In the east pane or walk of the cloister there is a series of doors leading into several buildings of importance. The first opens into a narrow space next to the transept, which was put to various uses in different houses—a chapel, or the sacristy, or a passage leading to the monks' cemetery. Next comes a large doorway, with a window on each side; this is the entrance to the Chapter-house. The normal shape for the chapter-house was oblong, as at Gloucester, Fountains, and other large houses, and all the smaller houses.[1] The grand polygonal chapter-houses with which we are familiar were built chiefly in the thirteenth and fourteenth centuries, and for the most part by the great chapters of secular canons;[2] the vestibules through which they are entered are of great variety and beauty. Some few of the rectangular chapter-houses have also a vestibule, but usually there is none, and the entrance has not even a door.

Proceeding south, we come to the staircase which goes up to the dormitory, and then to a series of small rooms under the dormitory, such as the Common-house, or room in which great fires

[1] Figs. 155, 157.

[2] Lichfield, Salisbury, Wells, Lincoln, Hereford, Southwell; also at the Benedictine monasteries of Westminster (Fig. 170) and Worcester.

were kept burning in winter, to which the monks were allowed occasionally to go to warm themselves; a prison for refractory monks, into which

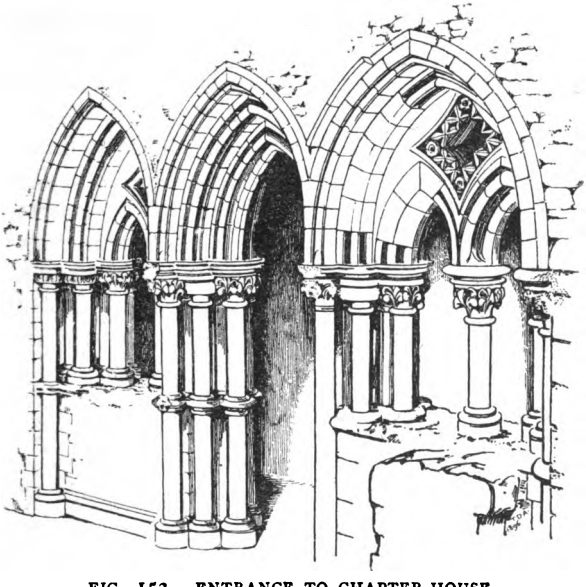


FIG. 153. ENTRANCE TO CHAPTER-HOUSE, ST. RADEGUND'S, CAMBRIDGE. *c.* 1180
From "Cambridge Described and Illustrated."

their food was let down through a hole in the ceiling; and a passage leading to the infirmary. Over the whole of this range is the Dormitory. From it another staircase, in addition to that from the cloister, descends direct into the transept,

so that when the monks rose for matins at midnight they could enter the church and return without going out into the cloister. At the south end of the dormitory and on the same floor is a large Necessary-house, containing a great number of closets divided by wood partitions. A stream of water was carried under it in an artificial cut (Figs. 152, 155).

To the south of the cloister stands the Refectory or Frater, the common dining-hall of the monks, entered by a doorway in the south-west angle of the cloister. It is usually on the ground floor, but is sometimes raised on vaulted cellars. Within the frater there is a lectern corbelled out from one of the side walls, from which one of the brethren read aloud, while the others ate in silence. The Lavatory, at which the monks washed their hands before and after meals (for fingers were made before forks), is in the cloister near the frater door. It consists of a long stone trough in a recess, and roller towels hung near by; there is a good example at Norwich. The Kitchen, in the greater houses at least, is often a large and lofty detached building at the west end of the frater; that at Glastonbury is a well-known example. On the west side of the cloister there are usually the Guest Hall, and cellars used for storage and other purposes. Here also is commonly a Parlour, where monks might see their friends or deal with traders, and also the Cellarer's Hall,

where the poorest class of guests was entertained. The almoner who dispensed broken victuals to the indigent had his quarters near the gate.

FIG. 154. REFECTORY LECTERN, CHESTER

The most important of the outer ring of buildings is the Infirmary for the aged and the sick and infirm. Those who had recently been bled were also admitted in order to recover their strength. Monks were very willing to undergo the periodical bleeding for the sake of the few

days of luxury in the infirmary. The building is usually to the east of the cloister, and connected with it by a covered way. It is planned like a church, with a very long nave and aisles and a chancel.[1] The east part of the nave is cut off by a cross wall with a doorway. The part to the west of this wall is the infirmary proper, and the part to the east formed, with the chancel, a chapel. The aisles were in later times often cut up into a series of small rooms by blocking up the arches and building cross walls. There was also a hall for those who could sit up to their meals.

The Misericorde was a hall which generally had some connection with the infirmary, but its position and name vary in different monasteries; at Durham it was called "the loft." It was provided for those who were allowed to eat meat, and hence occasionally the whole convent dined there. As time went on these occasions became more and more frequent, till at last the frater was deserted for almost the whole year.

The palace of the bishop and the lodging of the abbot or prior gradually increased in magnificence, and included a large hall for the entertainment of the highest guests.

Besides all these there were great storehouses for grain and fish, mills and brewhouses and

[1] The Westminster infirmary, built round a cloistered court (the charming Small Cloister), is abnormal.

workshops, and the "checkers" (exchequers) of the officers in charge of various departments of the establishment.

The Cemetery of the monks was usually to the east of the church. It was distinct from that of the lay brothers and the public. Burials were sometimes made in the church, in the chapter-house, in the cloister; never in the cloister-garth.

There were one hundred and eighty-six Benedictine houses in England at the time of the Suppression.

Early in the tenth century an order of reformed Benedictines was founded at Cluny; hence they were called Cluniacs. They spread to England early in the twelfth century, and at the Dissolution had twenty houses. They observed a very gorgeous ritual; their buildings were elaborately decorated, but did not differ very materially from those of the Benedictines.

The Cistercian order, the second offshoot from the Benedictines, was founded in 1098, at Citeaux (Latin, Cistercium). In its architectural development it is one of the most interesting and important of the monastic orders. The Rule, which was drawn up chiefly, if not entirely, by an Englishman, Stephen Harding, was one of extreme severity. Houses were to be planted in wild and desolate places. The smiling fields of

Fountains and Tintern are evidence, not of the worldly wisdom of the monks, but of their skill and industry in agriculture. Manual work, as well as devotion and study, was required of the brethren; each establishment was to be self-supporting; to produce all that it required. It is due to this cause that towns did not grow up round their monasteries, as they did round those of the Benedictines such as Bury. Absolute simplicity was to be observed both in ritual and in architecture; hence the strongly marked characteristics which distinguish their buildings from those of other orders. There was to be but one tower, central and low, no unnecessary turrets or pinnacles, no triforium, no pictures on walls or in glass, crosses were to be of wood and candlesticks of iron.

The Church has a very short eastern limb (until lengthened in later times) with a square end. Chapels, divided by solid walls, project from the east side of the transepts. The monks' choir was in the crossing and the eastern part of the nave; the west part of the nave was the church of the *fatres conversi*, or lay brothers. These *conversi* formed a distinct and important class in a Cistercian house, where so many industries were practised. The aisles were separated from the nave by high screen-walls, against which stalls were placed.

The Chapter-house was square or oblong, and

divided by columns and arches. The Refectory, which was similarly divided, was placed at right angles to the south pane of the cloisters, instead

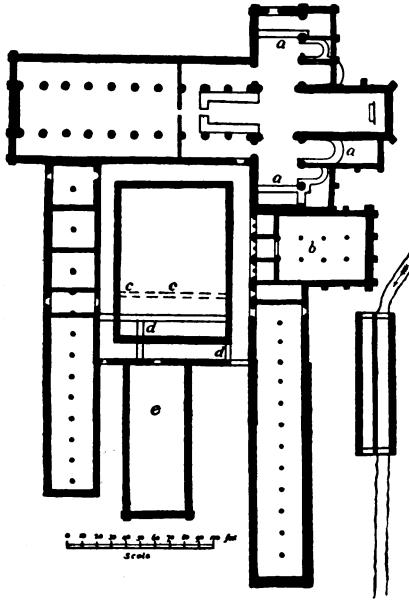


FIG. 155. CISTERCIAN PLAN, FURNESS ABBEY
SEE LIST OF ILLUSTRATIONS
From "Trans. Cumberland and Westmorland Archæ. Society."

of parallel with it. In other respects the secular buildings have a general resemblance to those of a Benedictine monastery. A small book-room is provided between the transept and the chapter-house or between the cloister and the chapter-

house.[1] The self-supporting character and the isolated position of the houses necessitated more extensive outbuildings, such as mills and workshops, than were required by the Benedictines.

The order was introduced into England in 1128, and spread rapidly, especially in Yorkshire. The severity of the life soon became relaxed. At the Dissolution 101 houses were suppressed.

The Carthusian order was founded in 1084 at Chartreuse, near Grenoble, whence they took their name. (Hence, also, the 'Charterhouse' in London and the 'Certosa' at Pavia.) The life was extremely ascetic, and not only was the separation of the community from the world required, but the isolation of each individual. The buildings, therefore, differ radically from those of all other orders. A separate cell and garden is provided for each monk. On certain days the brethren all dined together, but ordinarily they met only at the church services. The church, refectory, chapter-house, and other buildings common to the whole community are small. The cells, which are really small houses, are ranged round a court and connected by a cloister. Between the houses and the cloister there is a corridor, accessible only to the Superior. Food was passed into each house through a hatch so contrived that the occupant could not see out

[1] W. H. St. John Hope.

through it. The house contains a living-room, a bedroom, a closet for keeping fuel (for the room was warmed by a fire in winter), and there was a garden in which the occupant might work. The order was introduced into England by King Henry II. The best-preserved buildings are those of Mount Grace, Yorkshire (about 1397). Nine houses suppressed.

After the Benedictines the most numerous were the Augustinians, an order of Canons living under rule, and holding a half-way position between monks and secular clergy; they were founded about 1060. They had 173 houses.

The Gilbertine order, the only one of English origin, was founded in 1148 by Gilbert of Sempringham, at Sempringham, in Lincolnshire. Monasteries were double, with a men's part and a women's part. Twenty-five houses were suppressed by Henry VIII.

The foundation of the orders of Friars by St. Francis and St. Dominic early in the thirteenth century was a new departure from and, to some extent, a reversal of the monastic idea. The monks' life of study and devotional exercise was to be changed for one of work for others; his isolation for familiarity with the world; his confinement for itinerancy. Not only the individual was to be poor, but the community also. Preach-

ing and ministering to the poor was to be their work, begging their means of support.

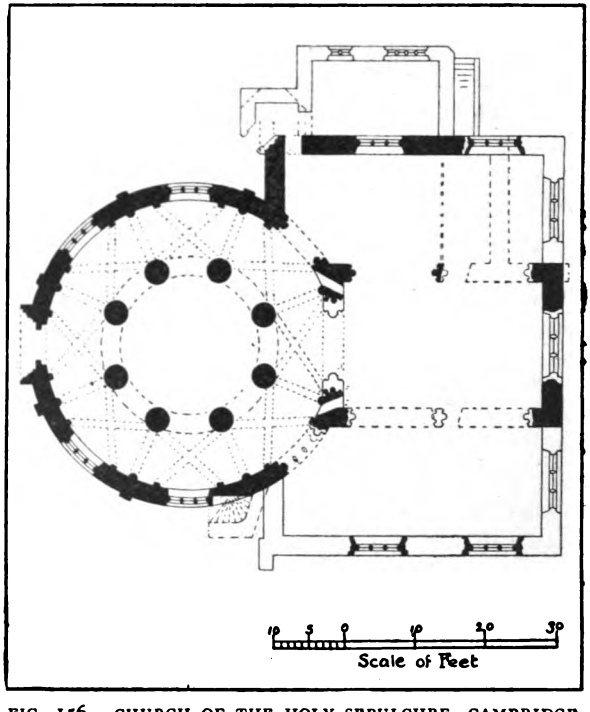


FIG. 156. CHURCH OF THE HOLY SEPULCHRE, CAMBRIDGE

From "Cambridge Described and Illustrated."

The Friars' Churches consisted of long, simple buildings, with large naves for great congregations. They were sometimes built without aisles

or transepts, sometimes they had one very large transept. There is occasionally a large open space on one side, and an outside pulpit for outdoor preaching. The domestic buildings were grouped round a cloister, but did not follow one plan so uniformly as those of the monasteries; their usual situation in the heart of a town probably made this difficult. The same reason has led in most cases to the almost complete destruction of their buildings. Saint Andrew's Hall at Norwich is the church of a Dominican house.

The only one of the Military orders whose buildings require notice is that of the Knights Templars. The famous round church in London is said to have been built in imitation of the church of the Holy Sepulchre at Jerusalem. The other round churches in different parts of the country were probably founded with the same idea and under the influence of the Templars.[1]

The Hospitals, founded by the benevolent for the aged and infirm, were arranged in various ways. The example here given combines features of a monastic infirmary and of a private house. The main building has the plan of an ordinary church, with aisles and transepts. In the nave and aisles were placed the beds; the eastern part,

[1] Holy Sepulchre, Northampton, about 1100–27; chapel in Ludlow Castle, about 1120; Holy Sepulchre, Cambridge, about 1130; Temple Church, London, finished 1185; Little Maplestead, Essex, about 1300.

including the transepts, was separated by a wall from the nave, and formed the chapel. There is a cloister, out of which opens the dining-hall, with screens and butteries like a private house, and a master's lodging and other buildings.

There were also a number of special hospitals for lepers on the outskirts of towns. Usually only the chapel remains.

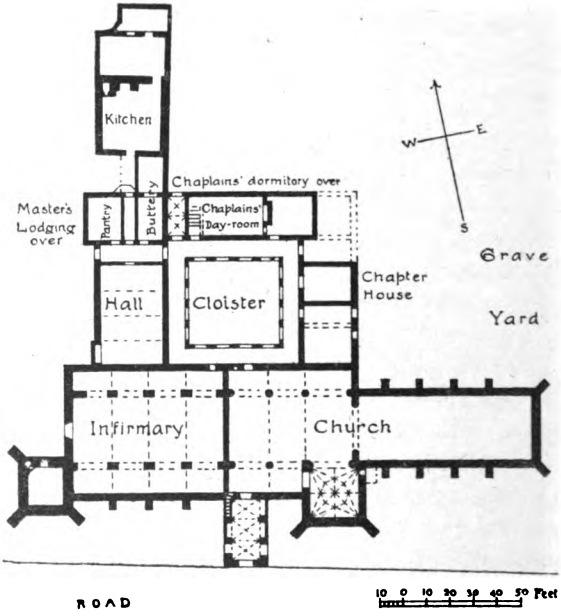


FIG. 157. THE GREAT HOSPITAL, NORWICH

CHAPTER VI

HOUSES

Norman houses. Thirteenth century. Edward I.: typical plan, growth of house, courtyards, gradual improvement. Shops, Tudor houses, changes in plan. Inns, play-acting. Inigo Jones. Eighteenth century.

OUR earliest domestic buildings date from the twelfth century. After the Conquest stone was more commonly used, and consequently several houses of the Norman period have been preserved to us. The stone-built houses in the towns which still remain appear to have belonged in most cases to Jews, the rich men of the period, and a class which must often have found it necessary to have a house that was capable of defence. The best known are those at Lincoln, in which the principal rooms are on the upper floor. It was a common plan, both in private houses and in the secular buildings of monasteries, to reserve the ground floor for offices and storerooms, and to cover it with a stone vault, supported on a row of columns running down the middle of the building; the living-rooms were placed above,

and were sometimes reached by an outside staircase only. In some of the larger houses the hall was on the ground floor, and was divided by arches into a nave and aisles like a church.[1] Westminster Hall, built by William II., was thus divided originally. Probably the columns were

FIG. 158. NORMAN HOUSE AT LINCOLN

often of wood, like those in the Bishop's Palace at Hereford.

Whether the hall was above or below stairs, it occupied the greater part of the house. Hence the application of the word Hall in very early times to the whole house. The only other rooms were a cellar at one end of the hall with a room

[1] Fig. 152, Hall of Bishop's Palace.

over it and at the other end of the hall the kitchen offices.

Little building was done in the first half of the thirteenth century, but in the latter part houses improved considerably, and the typical manor-house was then gradually developed. The same general arrangement was followed, but there was an advance in refinement and comfort and in the quality of the workmanship. Fireplaces became more common. Glass windows were still almost unknown, even in the king's own houses. The medieval story of King Arthur tells how "there befell a marvellous adventure, that all the doors and the windows of the palace shut by themselves; but for all that the hall was not greatly darkened, and therewith they were all abashed both one and another."[1] Here to close a shutter is thought of as closing a window.

It is in the reign of Edward I. that we see the gradual development of the well-known medieval plan, which continued with but little change in its essentials till the time of Elizabeth. The medieval house consisted of a hall going the whole height of the building, with a wing of two storeys at each end. The hall had an open timber roof, and usually a central hearth. It was lighted from both sides, and on each side there was a door at the "lower" end, which was that nearest to the kitchen. The "upper" end of the hall

[1] Sir Thomas Malory.

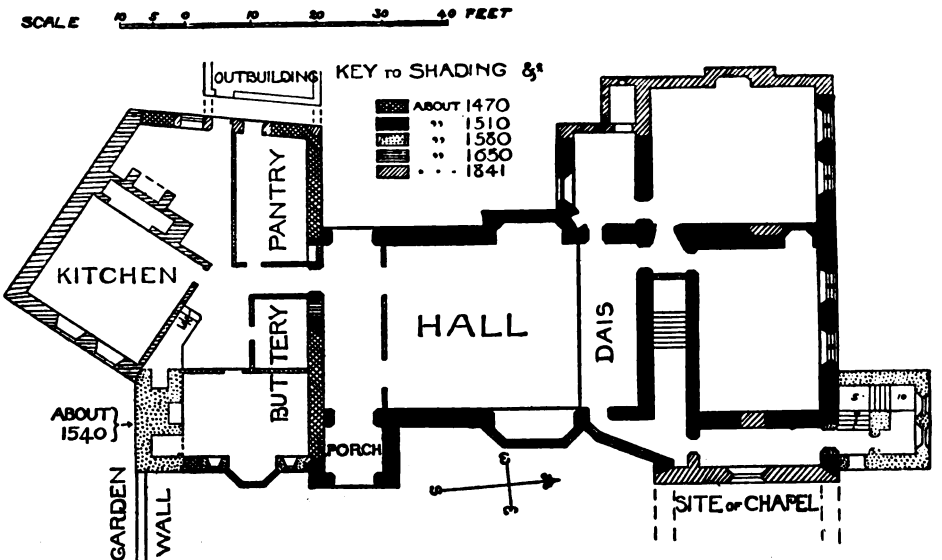


FIG. 159. A TYPICAL MEDIEVAL PLAN, HORHAM HALL

From the "Proceedings of the Cambridge Antiquarian Society."

was raised a step to form a daïs for the high-table, which stretched across the hall, while the tables for the retainers ran down the sides. To check the draughts from the doors, short screens, called "spurs," were projected from each of the side walls; afterwards a third screen was placed between them, leaving two intervals, which may perhaps have been hung with curtains; then the passage between the doors, which itself came to be called the screens, was ceiled over and thus a gallery was formed; finally the intervals between the three screens were fitted with doors. The bay, or oriel window, as we call it, is another development of later times; it formed a convenient retired corner when houses had so few rooms.[1]

The ground-floor room at the upper end of the hall was often a sort of storeroom or cellar; over it there was the chamber or "solar," the private sitting-room and bedroom of the family, to which they could retire after supper, leaving the hall to the servants. The room commanded a view of the hall through a small loophole. It had a fireplace with a projecting hood or mantel (whence our term mantelpiece) carried on corbels and sloping back to the wall. The window recesses were continued down nearly to the floor to form seats (Figs. 160, 161).

Large houses had a private chapel adjoining or near to the solar. In some cases a gallery ex-

[1] For plans see Figs. 94, 156 (palace), 161, 163, 168.

tended over part of the chapel for the accommodation of the family, while the retainers sat below (Fig. 162).

Returning to the lower end of the hall: the end wall, beyond the screens, contained two doors, one opening into the buttery (the "butlery"), the

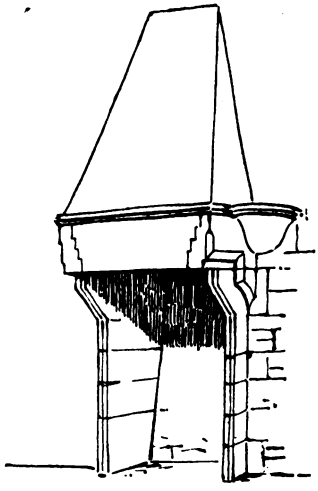
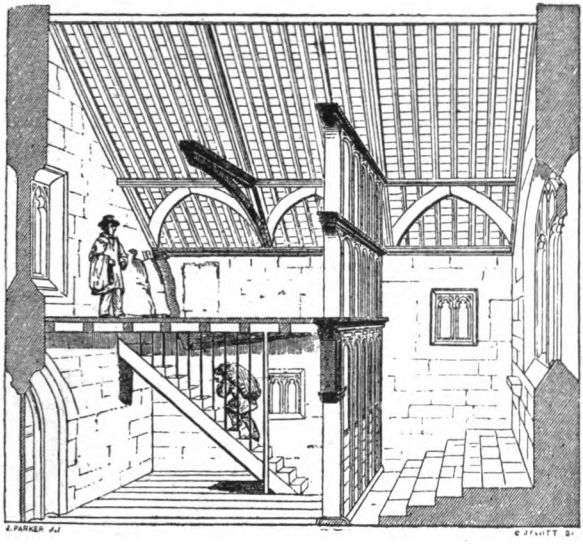


FIG. 160. A FIREPLACE WITH A MANTEL. *c.* 1300

FIG. 161. WINDOW-SEAT, THE PALACE, SOUTHWELL

other into a passage leading to the kitchen and larder; frequently there was a third door to the pantry, where bread, butter, etc., were served out. The larder retained its importance till quite recent times, owing to the necessity of larding down



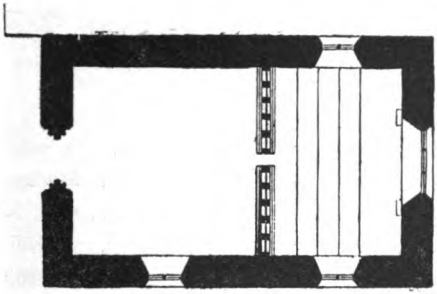


FIG. 162. CHAPEL IN A PRIVATE HOUSE, EAST HENDRED

From Turner and Parker's "Domestic Architecture."

large quantities of meat for the winter, while the beasts were still fat. The rooms over the offices were probably bedrooms for women-servants, the men sleeping, as of old, in the hall.

The house was gradually enlarged by adding room to room, especially by extending laterally

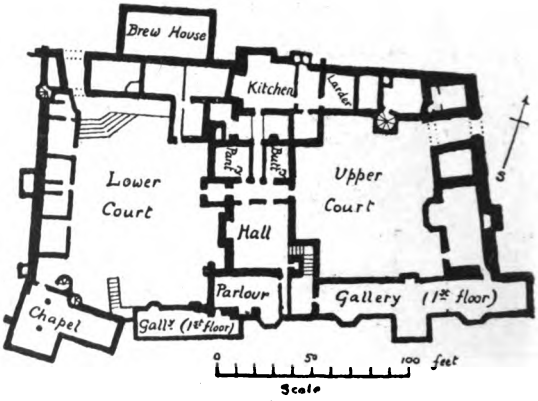


FIG. 163. TYPICAL HOUSE WITH TWO COURTS, HADDON HALL

the wings at each end of the hall. In course of time this led to the formation of a courtyard surrounded by buildings, and sometimes of two courts, one on each side of the hall. From these three stages of development—the central hall with a projecting wing at each end, the single court, and the double court—the normal plan of later times was derived. The smaller houses,

of course, continued the simple primitive arrangement more or less, according to circumstances. They were almost always of timber, as indeed were most of the larger houses except in districts where stone was the more easily obtainable. The

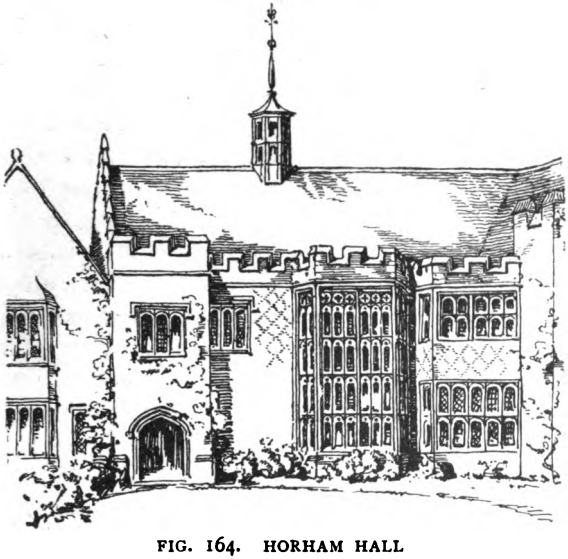


FIG. 164. HORHAM HALL

overhanging of the upper storey was, perhaps, an idea borrowed from the towns, where land was valuable, but it is a method of construction very suitable to timber, and also affords protection from the weather to the lower parts of the walls.

The only other changes made in this plan

during the Middle Ages were in matters of detail, tending chiefly to the greater seclusion of the family. The solar becomes more important, and separate bedrooms are provided. The upper rooms at each end of the house, formerly separated by the high central hall, are now sometimes connected by a gallery built out from the side wall of the hall. The staircase remains an insignificant feature. Glass gradually becomes more common, the window is divided by a transom, the lower part having bars and a wood shutter to open, the upper part having glass fixed. Glass was considered to belong to the tenant till the time of Henry VIII.; it was, therefore, sometimes set in a wood frame which was fitted into a rebate in the stonework and could be easily removed. The walls were plastered and painted, the lower part being sometimes boarded or panelled. In the fifteenth century tapestry was much used, but later it gave way to the cheaper 'painted cloths' which Falstaff recommended to Mistress Quickly as preferable to "these fly-bitten tapestries."

The town house was less susceptible of variety in plan than the country house. The lower storey was usually a shop, and there was a somewhat insignificant staircase at the back to the living-rooms above. The architectural treatment of the street front was often elaborate enough, as may be seen in such towns as Shrewsbury. Their

overhanging storeys, supported by richly carved posts and brackets, are familiar to all.

The medieval shop was a place where goods were made as well as sold, and the master, with his family and apprentices, lived in the upper

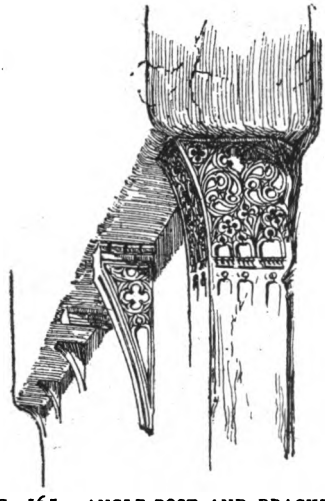


FIG. 165. ANGLE-POST AND BRACKETS, BURY ST. EDMUNDS

storeys, not in the suburbs. The building was almost invariably of wood till the eighteenth century, and even then very often only a brick skin was put in front of an old building, so that many an old skeleton still remains behind. The shop window was fitted with two hinged shutters; the lower of these was hinged at the bottom, and

was let down during the day into a horizontal position to form a table standing out in the street, on which were exhibited objects for sale; the upper shutter was hung by its upper edge, and was raised to form a pent-house roof to shelter the stall. "With your hat pent-house like o'er the shop of your eyes," says Moth, in *Love's Labour's Lost*. The door was like the stable door of the present day. This sort of shop front was general till the first half of the eighteenth century, when glass windows were gradually introduced.

FIG. 166. SHOP OF MEDIEVAL TYPE, NORTH ELMHAM

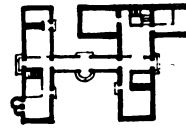
Before leaving the town a few words may be added about the Town Hall. Its early name was the "Tolbooth," and it was originally built as a booth, a mere roof on wooden posts, at which to collect market tolls. When a room was required as a place of meeting for the Gildmerchant or the Town Council, the easiest and most convenient way of providing one without encroaching on the market-place, the rents for which were of value to the town, was to build a chamber over the Tolbooth. And when, in later times, the Town Hall was rebuilt in stone or brick, the same arrangement was kept. Thus it happens that so

many of our old Town Halls are entirely on the upper floor, and have a space open to the market underneath. Some few have been developed by a similar process from the shelter built on posts over the market cross. Occasionally they are built solid from the ground like ordinary houses.

FIG. 167. GUILDHALL, PETERBOROUGH

In the reigns of Henry VIII. and Elizabeth the larger country houses generally followed the courtyard plan. The plan of the smaller house, and sometimes also of the larger, assumes the well-known E shape, commonly supposed to be an allusion to the Queen's name. Houses planned in the form of initials, or in some other fanciful

shape, are, indeed, an occasional conceit of the time, as in the famous plan by John Thorpe :—



These 2 letters I and T
ioyned together as you see
Is ment for a dwelling howse for mee
JOHN THORPE.

FIG. 168. THORPE'S PLAN FOR HIS OWN HOUSE. *c.* 1600

From "Architecture of the Renaissance in England."

And no doubt the resemblance of the plan to an E would please the Elizabethan mind; but the arrangement is simply a central range with a wing at each end and a porch in the middle, a plan which has been common at all periods. This type continued till ousted by Italian ideas in the reign of James I.

The tendency in the sixteenth century was to abandon the closed courtyard. The insecure conditions of life which had led to its development no longer existed, and there was a greater demand for more light and air and for a "prospect." The fourth side of the court was therefore left open, or closed only by a wall with a gateway; thus the gateway came to be a detached building.

The rooms at either end of the hall are now more conveniently, or at least more symmetrically,

arranged. Though many rooms still open out of one another, and some rooms, even bedrooms, cannot be reached without passing through several others, they are ingeniously grouped and are connected by wide galleries, and numerous staircases are distributed about the building. The galleries occupy one side of a range, not the middle like a modern passage with rooms on each side. They are a development of the light covered ways which connected various parts of a large medieval building, and they form an important step towards the modern compact block of building as distinct from the medieval narrow and straggling range. The gallery built on the upper floor behind the hall, with small rooms or an open colonnade below it, becomes the great picture-gallery, which is one of the most striking features of the Elizabethan and Jacobean house. Its walls are panelled or hung with tapestry, the plaster ceiling has a rich pattern of panels and foliage, and the bow-windows give varied light and shade.

The hall has now become little more than an entrance-hall and lounge, though it retains its former grandeur and is still used for Christmas revels. The stately reception-rooms on the upper floor necessitated a corresponding enlargement of the staircase, which had hitherto been rather a neglected feature. It is still kept apart and separate from the hall. It is wide, massive,

and richly decorated with carving. The screen, though often now of no use, is retained as an ornamental feature. Fireplaces have become universal in private houses, and splendid marbles and luxuriant carving are lavished upon them. It is only in a few college halls that the primitive central brazier and lantern in the roof are still used.

The Inns of the Middle Ages appear to have been poor and uncomfortable; the monasteries and the town and village gilds had supplied, and probably well supplied, the wants of the traveller. But the suppression of the monasteries and gilds and the increase in the number of travellers brought about an improvement in the inns in the sixteenth century. The ordinary Elizabethan hostelry is built entirely of timber, and presents a street front similar to the ordinary house, except that it has a large archway leading through to a courtyard. The court is square, or more commonly long and narrow, and it is surrounded by an open gallery at the level of each storey. The lowest rooms are offices; the bedrooms for guests are on the upper floors and open on to the galleries.

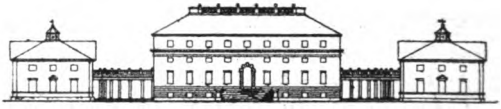
These inn-yards were naturally chosen by the travelling showman, whether he led a dancing bear or a troop of acrobats, or performed sleight of hand, or what not, as his place of exhibition. For such a purpose its raised galleries made it extremely suitable. As the drama developed it

too, of course, chose as its theatre the inn-yard. A rude stage was erected in the middle, with not even a background, far less scenery. The quality watched from the galleries, the 'groundlings' stood about in the yard. Shakespeare and Burbage improved upon this primitive plan by moving the stage to one side and arranging a 'tireing house' behind it, while the part of the gallery which ran behind the stage was useful in the balcony scenes such as that in *Romeo and Juliet.* The absence of a curtain is illustrated by the invariable rule that in the tragedies the bodies of the dead are carried away by the survivors.[1] And thus to some extent the old inn-yard influenced the arrangement of the modern playhouse. Plays were, however, also given at Whitehall Palace, in the halls of Colleges and of the Inns of Court, and in the palaces of the nobles. The performances took place in the great hall, and the arrangement of this had a larger share in the development of the early theatre. The stage was at the lower end of the hall, and the gallery over the screens served for the balcony scenes; the two doors in the screen long survived as features at the back of the modern stage.

Inigo Jones broke entirely with the traditions of the past in his plans, as in his architecture. The house becomes a solid block instead of a

[1] A. Gray.

narrow range with numerous projections and broken outline. The older plan was, indeed, continued at the same time, till all building was stopped by the Civil War. But when architecture



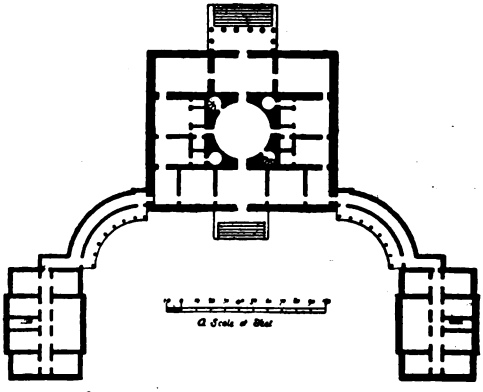


FIG. 169. THE EIGHTEENTH-CENTURY PLAN
GOODWOOD, SUSSEX
From "Vitruvius Britannicus."

revived at the Restoration, the house of Elizabeth and James had disappeared. All the reception-rooms, as they were now called, were placed on the upper floors, and they certainly were arranged with much more regard to state receptions and

architectural effect than to comfort. The offices were placed in a basement below them. The main floor was reached by a wide flight of stone steps outside the house. The inside staircase, leading only to the bedrooms, is treated as simply as possible.

For the largest class of country house the favourite plan of the eighteenth-century architects consisted of a central block connected with low advanced lodges by quadrant galleries. These advanced wings usually contained on one side the laundries and so on, and on the other side the stables. The reception-rooms were often effectively grouped, but the arrangement of the bedrooms is still defective. The exigencies of perfect symmetry and 'exact architecture' often rendered the lighting and ventilation of some rooms an impossibility. We have to thank the Gothic revival for throwing over the restraints of pedantic classicism, and for opening the way for a further advance in the art of house-planning.

CHAPTER VII

CONCLUSION

French and English, apse, proportions. Summary of history. Local varieties of style and workmanship.

GREAT and immediate as was the effect of the Norman Conquest on English architecture, it was, as we have seen, in many respects transient. Owing to political and economic causes an extraordinary impetus was given to the building of churches and castles, and probably to that of houses. But artistically the country soon began to take its own way, and ran its course, giving now and then a trial to some suggestion from abroad, and generally dropping it.

This English independence of French influence has nothing to do with the relative merits of the two national styles. Into that artistic and æsthetic question this is not the place to enter. Merely is the historical fact recorded that each country followed its own bent. The fact that the two, under similar conditions, often traversed nearly parallel paths, was but natural. That the

two paths so often diverged is the more remarkable point, and a sufficient proof of independence. While France was throwing her great vaults at such immense heights England was developing her entirely national open timber roofs, and when she did make a florid vault she did it in quite a different way from the Frenchman. And so with window tracery. Through the thirteenth century there was a general similarity, and perhaps some borrowing, but in the fourteenth century the national temperament began to tell. As our neighbours grew more exuberant we became monotonous. The English cannot be florid nor can the French be dull, and when they became Flamboyant we invented Perpendicular.

And as in the details of the craft generally, so in church architecture in particular. Sir Gilbert Scott has pointed out that on four several occasions was the apse introduced into England, and four times was it abandoned: we see it used in the church of the Roman occupation, and in the church of St. Augustine's mission, the Norman Conquest made it for a time the almost universal fashion, and finally at Westminster it was exemplified in a building of surpassing beauty, and with all the prestige of a royal foundation.

In the west front also is shown the tendency to dwell on the horizontal line in contrast with the French love of height. The end is spread out into the western transepts of Ely and Bury;

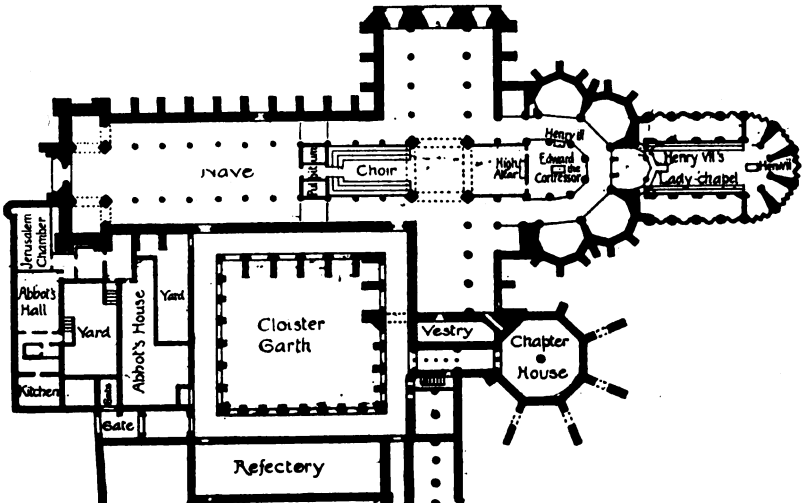


FIG. 170. THE FRENCH PLAN: WESTMINSTER ABBEY

SCALE: Three-quarters of an inch to one hundred feet

or a great screen with rows of niches for statues is stretched across as at Salisbury and Wells; or twin towers, low and wide, are subordinated to the emphasis placed on the broad unbroken front of Lichfield. And most clearly of all is it shown in the long, low roof-ridges of Winchester and St. Albans in contrast with Amiens and Paris.

* * * * *

Right or wrong, we remain intensely insular. It is perhaps our strength and our weakness that our aims were always characteristically modest and even humble. Under the influence of the Norman we laid down immense buildings; we never surpassed them. The largeness of conception of that time, combined with the rudeness of execution, has the impressiveness of the work of giants. The interior of the nave of Durham, the western transept of Ely, both inside and out, the central tower of St. Albans,—these are rough-hewn epics which dwarf the efforts of later days. The lavish concentration of telling but barbaric ornament at salient points with the bold acceptance of the plain surfaces between, and the somewhat unwieldy bulk,—these early characteristics are refined down to the perfect union of beauty and strength in the choir of Canterbury.

The last traces of the Romanesque origin of our architecture were discarded by 1200, though there was still much to be done in refining and

perfecting. If the builder of the thirteenth century was not quite so heroic as his forefathers, if he accepted the lines laid down by them as regards scale and breadth of treatment, at least his detail is unsurpassable for abstract beauty, for purity of line and cleanness of modelling, for absolute appropriateness and unity with the structure; witness Salisbury, Westminster, Lincoln, Beverley, Wells.

As the fourteenth century advances the builder becomes more deliberate and scholarly. His work is in some respects more elaborate and in others it is simpler. There is a more conscious aim at unity in the whole. As the window and niche are elaborated, the decoration of the wall is suppressed, the bold wall arcades become superfluous. There is extraordinary ingenuity, but there is a loss of strength in the structural forms, and the carved foliage, beautiful and skilled as it is, has, both in its form and disposition, much of the character of a parasite. The Black Death, coming as it did when the art had already lost something of its vitality, undoubtedly had a numbing effect.

Towards the close of the fourteenth and during the early part of the fifteenth century, there was a reaction against the florid and somewhat limp style. King Henry VI., whose building schemes show great architectural power, gave expression to the feeling when he wrote, "And I wol that

the edificacion of my same College procede in large fourme clene and substancial, settyng a part superfluite of too gret curious werkes of entaille and besy moldyng."[1] But in general it was a reaction due rather to lack of energy than to restraint. Moreover, painting and sculpture began to assume the first place, and architecture proper to drop into the rôle of handmaid where she had formerly been mistress. An elaborate scheme of colour allows, and even demands, a corresponding simplicity of form, and as painting of wall and window advanced, architecture was forced to retire. The masses become attenuated and the foliage lifeless.

But the decline was not rapid. After the development of Perpendicular there came a period of rest under the Lancastrians, till the Wars of the Roses extinguished alike medieval life and medieval art.

The sixteenth century was an age of great house building, but it cannot be called an age of great architecture. The dead Gothic lingered on, tricked out, under the influence of foreign workmen, in classical details arbitrarily applied and classical ornaments of ugly and inappropriate form. But the builders retained enough artistic instinct to weld to some extent these elements and to produce buildings full of charm and character. During this period classical architec-

[1] Willis and Clark.

ture made little progress, and it was not till the appearance of Inigo Jones that the influence of the Italian renaissance was felt in this country. Inigo Jones gave a new direction to English architecture, which has influenced it ever since. And he introduced not only the new style, but a new system in the production of a building. Inigo Jones was the first English architect. Henceforth the common traditional knowledge of the crafts was to count for less, and the learning and power of one controlling mind for more. Inigo Jones's own work was a protest against the florid Elizabethan, and he set down his opinion in words which read almost like a paraphrase of Henry VI.'s protest against florid Gothic: Architecture should be "solid, proportional according to the rules, masculine and unaffected."[1]

Wren carried on the art of his predecessor in his own manner. But Renaissance architecture was to follow the course of medieval architecture, and indeed of all arts; it had its rise and its decline, and after Wren's time architecture slowly died, and a long series of importations and 'revivals' have failed to bring it back to life.

* * * * *

English architecture preserves its broad national characteristics over the whole country

[1] Blomfield.

to a remarkable degree. There are, however, certain local variations in matters of detail.

These variations are very numerous, are both artistic and structural, and are due to several causes. Geographical and geological formations have been perhaps the most important. Political, economic, or social conditions have had considerable effect. Possibly, too, racial traits remained sufficiently distinct to account to some extent for the differences between the buildings of Yorkshire and Hampshire, of Norfolk and Devon. The religious orders certainly had an influence on architecture which may still be traced; thus, the Benedictines were stronger in the east and south than elsewhere; the canons of the old sees occupied central England; these settled districts were not suited to the Cistercians, who consequently established themselves in the wild regions of Yorkshire and the borders of Wales.

A district which was brought under cultivation at an early period, and whose population has remained agricultural and has not varied greatly, has numerous small churches very much in their original state, or at least not very much enlarged. In other parts the church has grown gradually with the population. In the towns and in the rich wool-growing or weaving districts, such as Somerset, East Anglia, and Coventry, many of the churches have been entirely rebuilt on a magnificent scale. In East Anglia, too, the influence

of the Netherlands is seen in its paintings, in the stepped gables of the houses, and in its early use of brick. French influence is discovered in the south-east, and the ancient alliance between France and Scotland had a marked effect on Scottish architecture, as we see in the flamboyant tracery of Melrose.

But perhaps the most obvious of local peculiarities are due to the causes first mentioned, namely climate and geological formation, giving rise as they do to abundance or scarcity of particular materials, and hence to the use of particular methods of construction. In these days of rapid travel and of easy transport of material there is a general uniformity of style over the whole country. But in early days this was not so. In even the most important buildings it was necessary to use materials which could be obtained in the neighbourhood or in some locality with which there was fairly easy communication. The varying qualities of these local materials demanded different modes of treatment.

A great ridge of good oolite building stone runs in a broad sinuous band from Somerset, through Gloucester and Wiltshire, Oxford and Northampton, Lincoln and Yorkshire. This is, accordingly, the line of masonry and sculpture: witness the towers of Somerset and the spires of Northampton, the fine technique of Salisbury and the grand masses of Lincoln, the imagery of

Wells, Worcester, Salisbury, Lichfield, Lincoln, the foliage of Southwell and of many a small midland church, the great palaces of Montacute, Wollaton, Burghley, Rushton, Wentworth, and the many admirable stone-built houses of the humbler sort. Hereford, Shropshire, and Cheshire,

FIG. 171. WINDOW TRACERY IN A HALF-TIMBERED HOUSE, OSWESTRY

PROBABLY FIFTEENTH CENTURY

with an abundance of soft, warm sandstone, developed quite a distinct manner in their churches, while their forests gave them the elaborate half-timbered domestic architecture for which they are famous (see Frontispiece).

The monks of Ely, on the eastern border of the midland district, could command its stone and its

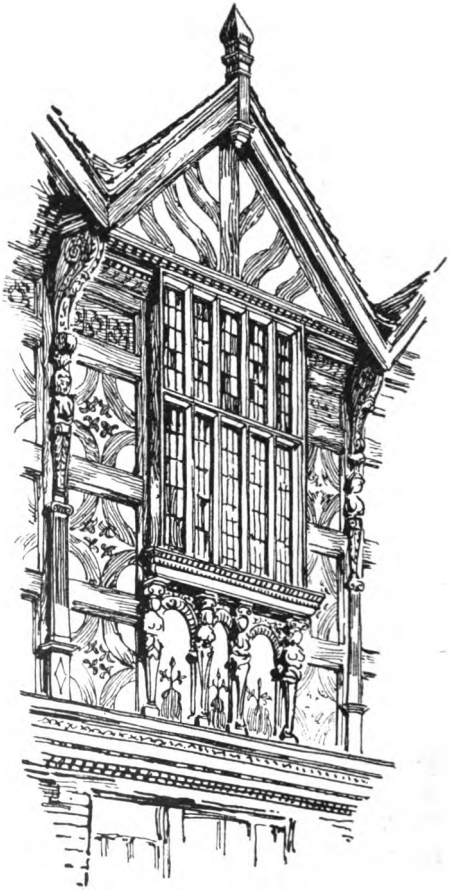


FIG. 172. PART OF THE PALACE OF THE STANLEYS, CHESTER

PROBABLY *c.* 1600

sculpture; or, availing themselves of their native chalk, produced the delicate "pictures" and ornaments of their chapter-house. But East Anglia possessed no durable stone, and the only building material was flint. The stone necessary for doors, windows, and angles had to be carried at great cost, and was used with strict economy. Sometimes the church towers were made round to save the expense of getting stone for the quoins. Brick was largely used in the middle of the fifteenth century—a hundred years before it became common in other parts—and was not rare a hundred years before this. The necessity of making stone go as far as possible led to a system of decoration which became very characteristic of the district; namely, that of stone and flint cut so as to form traceried panels and inscriptions. This parsimony in the use of stone produced a somewhat wiry style, and such a

FIG. 173. ROUND FLINT TOWER, BARTLOW
FOURTEENTH CENTURY

FIG. 174
STONE AND FLINT, SWANINGTON
FIFTEENTH CENTURY

hard and disagreeable surface as that of a split flint should be kept very much in reserve.

The eastern counties, not having the materials for masonry or sculpture, turned their energies to carpentry and painting, and produced the wonderful roofs and screens of the Norfolk and Suffolk churches with their elaborate paintings. There does not, however, appear to have been an elaborate timber domestic architecture. The woodwork was simple, or was entirely concealed.

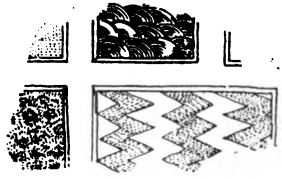


FIG. 175. PATTERNS IN STAMPED PLASTER, EAST ANGLIA

The decoration is usually done in plaster, divided up into panels, which are filled either with a simple stamped pattern or with elaborately modelled figures and foliage.

The south-east was another woodland district, and had some points in common with the west. Church spires are framed of timber, and are covered with oak shingles. The smaller churches often have a small timber bell-turret, with a low pyramidal roof perched on the west end of the nave roof. In the timber houses the oak is its

natural silvery grey, with yellow plaster between, which has a more pleasing effect than the black and white of Cheshire and Lancashire. Sometimes the walls are covered with weather-tiling,

FIG. 176. WEATHER-TILING, HOUSE IN SALISBURY

which makes the best protection against driving south-west winds.

The traveller cannot fail to notice other local varieties, some more, others less important than those glanced at above. Many of them may be studied in the humblest buildings, and thus they give an added interest to every village and country town.

NOTE ON APPENDIXES

In making the following list of buildings, the aim has been to select examples which are at once typical, easily accessible, and widely distributed. The dates to which Saxon buildings are assigned are those proposed by Mr. Micklethwaite. For those of the medieval period I am chiefly indebted to Mr. Parker's edition of 'Rickman,' and for most buildings after 1500 to Mr. Blomfield's *Renaissance Architecture of England.* The dates assigned to the buildings, and to the births and deaths of the architects, are approximate only, for authorities disagree even in regard to those of recent times. The grouping and the marginal notes, for which I am myself responsible, are, of course, arbitrary, and are meant to indicate only general tendencies, but they will be perhaps not more misleading than the usual division into styles.

In the table of Religious Orders, the date at which each was introduced into England and the number of houses suppressed are, in most cases, taken from Tanner's *Notitia Monastica.*

APPENDIXES

I.—CHRONOLOGICAL LIST OF BUILDINGS AND ARCHITECTS

Romano-British.

- Wall of Hadrian, Carlisle to Newcastle; A.D. 120.
- Silchester, Berkshire, foundations of town and Christian church (buried); probably about A.D. 350.
- Other Roman towns, villas, etc.; 3rd and 4th cents.
- British Buildings continuing the Roman methods; first half of the 5th cent.

*****

- Canterbury, St. Martin's Ch., chancel; before 600.
- Canterbury, St. Pancras' Church; before 600.

Celtic.

- Monkwearmouth Church, Durham; A.D. 674.
- Escomb Church, Durham; late 7th century.
- Jarrow Ch., Durham (not the tower); late 7th cent.
- Bradford-on-Avon Church, Wiltshire; *c.* 700.
- Barton-on-the-Humber, Lincolnshire, tower.

Transition.

- Dover, St. Mary's Church, in the Castle; 7th cent.
- Repton Church, Derbyshire, crypt; 7th century.
- Britford Church, Wiltshire, arches in nave; 9th cent.
- Worth, Sussex, part of church; 11th century.

Basilican.

- Hexham Ch., Northumberland, crypt; prob. *c.* 670.
- Ripon Minster, Yorkshire, crypt; prob. *c.* 670.
- Wing, Buckinghamshire, church with crypt; *c.* 680.
- Brixworth, Northants, church with crypt; *c.* 680.

English.

- Deerhurst, Gloucestershire, St. Mary's Church; tower early, east end 11th century.
- Lincoln, St. Peter at Gowt's Ch.; 10th or 11th cent.
- Lincoln, St. Mary le Wigford Ch.; 10th or 11th cent.
- Earl's Barton Ch., Northants, tower; 10th or 11th cent.
- Sompting Church, Sussex, tower; 11th century.
- Cambridge, St. Benedict's Ch., tower; 11th cent.

* Roman tradition (Micklethwaite).

Tower of London, The White Tower; about 1070–1138.
St. Alban's Abbey Church; 1077–93.
Winchester Cathedral, crypt and transepts; 1079–93.
Ely Cath., transepts and east part of nave; 1083–1100.
Durham Cathedral, choir and transepts; 1093–6.
Norwich Cathedral, choir, trans. and nave; 1096–1119.
Tewkesbury Abbey Church, west front and nave arches; 1103–21.
Durham Cathedral, nave and aisles; 1104–33.
Peterborough Cathedral; 1117–43.
London, St. Bartholomew's Ch., Smithfield; 1123–33.
Cambridge, Holy Sepulchre Ch.; prob. *c.* 1125.
Rochester Castle; 1126–38.
Fountains Abbey, Yorks, nave and transepts, 1132–47.
Buildwas, Shropshire, Abbey Church, nave; 1135–60.
St. Cross, Winchester, hospital, choir of ch.; 1136–.
Oxford Cathedral, 1160–80.
Iffley Church, Oxfordshire, nave, west front, and tower; 1160–.
Oakham, Rutland, castle; 1165–91.
Ely Cathedral, west transepts and tower; 1174–89.
Canterbury Cathedral, choir; 1175–84.
Durham Cathedral, galilee; 1180–97.
Glastonbury Abbey, St. Joseph's Chapel; 1185–1200.
London, Temple Church, round part; –1185.
Lincoln Cathedral, choir (not presbytery), north transept and part of south; 1192–1200.
Winchester Cathedral, presbytery and Lady Chapel; 1195–1204.
Worcester Cathedral, choir; 1203–18.
Salisbury Cathedral; 1220–58.
Winchester, King's Hall; 1222–35.
Exeter Cathedral, chapter house; 1224–44.
Wells Cathedral, nave and west front; 1225–39.
Rochester Cathedral, part of choir; 1225 (transepts, central tower, and east bays of nave rather later.)
York Minster, south transept; 1227–40.
Southwell Minster, choir; 1233–94.
Ely Cathedral, presbytery; 1235–52.
Peterborough Cathedral, west front; 1237–.
Netley Abbey, Hampshire; 1239–.
Durham Cath., Chapel of the Nine Altars; 1242–90.

CATHEDRALS.

Westminster Abbey, choir and transepts; 1245–69.
Wells Cathedral, Lady Chapel; 1248–64.
Lincoln Cathedral, presbytery; 1260–80.
Salisbury Cath., cloister and chapter-house; 1263–84.
Oxford, Merton College Chapel, choir; 1274.
Wells Cathedral, chapter house; 1292–1302.
Stokesay, Salop, castle; 1291–.
York Cathedral, nave; 1291–1345.
St. Alban's Abbey Church, Lady Chapel; 1308–26.
Lichfield Cathedral, Lady Chapel; 1310–21.
Bristol Cathedral, choir; 1311.
Gloucester Cathedral, south aisle of nave; 1318–29.
Lichfield Cathedral, west front; 1320.
Ely Cathedral, Lady Chapel and octagon; 1321–49.
Bury St. Edmunds, gateway of abbey; 1327–.
Exeter Cathedral, nave; 1331–50.
York Minster, west window; 1338.
Penshurst, Kent, hall; 1341–.
Norborough, Northamptonshire, hall; 1356–.
Hull, Holy Trinity Church; –1367.
Selby Abbey, Yorkshire, choir; –1375.
Canterbury Cath., nave and west trans.; 1378–1411.
Oxford, New College; 1380–86.
York Cathedral, central tower; 1389–1407.
Exeter Cathedral, east window; 1390–2.
Winchester Cathedral, nave and aisles remodelled; 1394–1410.

PARISH CHURCHES, COLLEGES, HOUSES, AND GUILD HALLS.

Westminster Hall, roof and porch, etc.; 1397–9.
Coventry, St. Mary's Hall; 1401–14.
Howden Church, Yorkshire; 1403–.
York Minster, east window; 1405–8.
Norwich, Guildhall; 1413.
Gloucester Cathedral, west front and south porch; 1420–37.
Manchester Cathedral; 1422–.
Oxford, Merton College, transepts; –1424.
Tattershall Castle, Lincolnshire; 1433–55.
South Wingfield Manor House, Derbyshire; 1433–55.
Fotheringay Church, Northamptonshire; 1435.
Warkworth Castle; 1435–40.
Oxford, Divinity School; 1445–54.
Oxford, Merton College, tower; 1448–50.
Gloucester Cathedral, central tower; 1454–57.
Long Melford Church; chiefly *c.* 1470 and 1496.
Norwich Cath., clearstory and choir vault; 1472–99.

The End of Gothic.

Windsor, St. George's Chapel, except vault; 1481–1508.
Canterbury Cathedral, central tower; 1490–1517.
Oxford, Magdalen College, tower; 1492–1505.
Bath, Abbey Church; 1500–39.
Windsor, St. George's Chapel, vault; 1507–20.
Cambridge, King's College Chapel, turrets, pinnacles, large windows and vault; 1508–15.
Thornbury Castle, Gloucs. (unfinished); 1511–.

Renaissance Details by Italians.

Westminster, Henry VII.'s Chapel; 1503–20.
Westminster, Tomb of Henry VII. by Torrigiano; 1512.
Hampton Court; 1515–20.
Layer Marney Hall, Essex (ruinous); about 1520.
Sutton Place, Surrey; 1521–7.
Compton Winyate House, Warwickshire; about 1520.
Hengrave Hall, Suffolk; 1525–38.
Oxford, Christ Church Hall; –1529.
Ely Cathedral, Chantry Chapel of Bishop West.

Gothic with Renaissance Details by Germans.

Burghley House, Northamptonshire; about 1556.
Charlcote House, Warwickshire; about 1558.
Longleat, Wiltshire; 1567–80.
Montacute House; 1580–1601.
Knole House, Kent (parts).
Blickling, Norfolk.

Great Country Houses. Gothic by Surveyors and Architect-Builders.

John Thorpe, *fl.* 1570–*c.* 1610, surveyor.
Longford Castle, Wiltshire; 1580–*c.* 1590.
Rushton Hall, Northamptonshire; 1595–1630.

Huntingdon Smithson, died 1648, surveyor.
Wollaton Hall, Nottinghamshire; 1580–.
Bolsover Castle, Derbyshire; 1613–*c.* 1630.

Thomas Holt, 1578?–1624, carpenter.
Oxford, The Schools; 1600.

Ralph Symons, builder; *fl.* 1600.
Cambridge, St. John's Coll. (second court); 1598–1602.
Cambridge, Trinity College Hall; 1604.

John Westley, died 1656, bricklayer, and *Thomas Grumbald*, mason.
Cambridge, Clare College, east and south ranges and bridge, 1638–41.

John Abel, 1597–1694, carpenter.
Leominster, Hereford, Market Hall ("The Grange").
Abbey Dore Church, Hereford, woodwork.

Buildings by Architects.

Inigo Jones, 1573–1652.

Greenwich Hospital, Queen's House; 1617–35.
London, Banqueting House, Whitehall Palace; 1619–22.
Raynham Park, Norfolk; 1636.
London, Lindsay House, Lincoln's Inn Fields; 1640.
London, St. Paul's Church, Covent Garden (since destroyed, but rebuilt on the old lines).
Wilton House, Wiltshire, south block; 1649.

John Webb, 1611–74.

Thorpe Hall, Northamptonshire; 1656.
London, Houses in Great Queen Street.
Ramsbury House, Wiltshire.
Ashdown Park, Berkshire; probably *c.* 1665.

Survival of Gothic.

Oxford, Wadham College; 1610–13.
Bath Abbey Church, continued till 1616.
Cambridge, St. John's College Library; 1624.
London, St. Catherine Cree Church; 1630.
Lytes Cary Hall, Somerset; 1631.
Cambridge, Peterhouse Chapel; 1632.
Leeds, St. John's Church; 1633.
Berwick-on-Tweed Church; 1648–52.
Plymouth, Charles Church; 1657.
Oxford, Brazenose College Chapel; –1666.

Renaissance Popularised.

Sir Christopher Wren, 1632–1723.

Oxford, Sheldonian Theatre; 1663.
Cambridge, Trinity College Library; 1675–90.
London, fifty-three City churches; 1670–1711.
St. Paul's Cathedral; 1675–1717.
Hampton Court; 1689–1700.
Greenwich Hospital.

No architect.

Nottingham Castle; *c.* 1675–.

Henry Bell, died 1717, of King's Lynn.

King's Lynn, Norfolk, Customs House; 1681.
North Runcton Church, Norfolk; 1713.

William Talman, died 1700.

Chatsworth House, Derbyshire; 1681.

AMATEURISM.

Henry Aldrich, Dean of Christchurch, Oxford, 1647–1710, amateur.
Oxford, All Saints' Church ; *c.* 1695.
Oxford, Peckwater quadrangle, Christ Ch. ; *c.* 1695.

George Clarke, statesman (Secretary for War, etc.), 1660–1736, amateur.
Oxford, Christ Church Library ; 1716.

Sir John Vanbrugh, 1664–1726 ; amateur or professional ?
Castle Howard, Yorkshire ; 1701–14.
Blenheim Palace, Oxfordshire ; 1705–24.

Nicholas Hawksmoor, 1666–1736.
London, St. Mary Woolnoth Church ; 1716–19.
London, St. George's Church, Bloomsbury ; 1720.

INFLUENCE OF WREN.

Thomas Archer, died 1743.
Birmingham, St. Philip's Church ; 1710.

John James, died 1746.
London, St. George's Ch., Hanover Square ; 1713–24.

James Gibbs, 1682–1754.
London, St. Mary le Strand Church ; 1714–17.
London, St. Martin's-in-the-Fields Church ; 1721–6.
Cambridge, Senate House ; 1722.
Oxford, Radcliffe Library ; 1734–47.
Ditchley House, Oxfordshire.

COPIES OF ITALIAN BUILDINGS.

Giacomo Leoni, 1686–1746 (came to England *c.* 1715).
Moor Park, Hertfordshire ; 1720.

Colin Campbell, died 1734.
Mereworth Castle, Kent ; about 1720.
Houghton House, Norfolk ; 1723.

Thomas Ripley, died 1758.
London, Admiralty Offices ; 1724–26 (screen by Adams).

Earl of Burlington (Richard Boyle, third earl), 1695–1753, amateur. Credited with :
Works perhaps by Campbell, Kent, Leoni, Flitcroft.

Sir James Borough, Master of Gonville and Caius College, Cambridge, 1690–1764, amateur, worked with James Essex, architect.
Cambridge, Work at Peterhouse, etc. ; 1732.
Cambridge, Clare College Chapel ; 1763–9.

William Kent, 1684–1748.
London, Devonshire House; 1734.
London, Horse Guards; 1742.
Holkham Hall, Norfolk; about 1744.

Henry Flitcroft, 1697–1769.
London, St. Giles'-in-the-Fields Church; 1731.
Wentworth House, Yorkshire; 1740.
Woburn Abbey, Bedfordshire; 1747.

George Dance, senior, 1698–1768.
London, St. Luke's Church, Old Street; 1732.
London, Mansion House; 1739.

Isaac Ware, died 1766.
London, Chesterfield House; 1749.

John Wood, senior, 1705(?)–1754, of Bath.
Prior Park, near Bath; *c.* 1750.
Bath, Queen's Square, (north side), etc.
Bristol, Exchange.
Liverpool, Exchange; –1754.

Stephen Wright.
Cambridge, University Library, east front; 1755–8.

John Vardy, died 1765.
London, Spencer House; 1762.

James Paine, *c.* 1720–89.
Kedleston Hall, Derbyshire; 1761.
Worksop Hall, Nottinghamshire; 1763.
Thorndon Hall, Essex; 1763.

Sir Robert Taylor, 1714–88.
London, Stone Buildings, Lincoln's Inn Fields.

John Carr, 1723–1807, of York.
Harewood House, Yorkshire; 1760 (since altered).
Basildon Park, Berkshire; 1776.

Sir William Chambers, 1726–96.
London, Somerset House; 1775.

George Dance, junior, 1741–1825.
London, St. Luke's Hospital, Old Street.

Period of Decline.

Robert Adam, 1728–92.
London, Lansdowne House; 1765.
Luton House, Bedfordshire; 1767.

Henry Holland, 1746(?)–1806.
London, Brooks's Club; 1777.

James Gandon, 1742–1823.
Dublin, Customs House; 1781.

James Wyatt, 1746–1813.
Fonthill Abbey; 1822 (Gothic).

Sir John Soane, 1753–1837.
London, Bank of England; 1788.

Greek Influence.

William Inwood, 1771(?)–1843.
London, St. Pancras Church, Marylebone Road; 1819–22 (Greek).

John Nash, 1752–1835.
Buckingham Palace (since altered).

Sir Jeffery Wyatville, 1766–1840.
Windsor Castle, alterations; 1824 (Gothic).

William Wilkins, 1778–1839.
The National Gallery; 1832–8.

Sir John Smirke, 1781–1867.
The British Museum; 1823–47.

George Basevi, 1794–1845.
Cambridge, Fitzwilliam Museum; 1837.

Decimus Burton, 1800–81.
London, Athenæum Club, Pall Mall.

Harvey Lonsdale Elmes, 1813–47.
Liverpool, St. George's Hall; 1836.

Sir William Tite, 1798–1873.
London, Royal Exchange; 1844.

Charles Robert Cockerell, 1788–1863.
Oxford, Taylorian Institute; 1842.
Cambridge, University Library, north wing; 1837.

Sir Charles Barry, 1795–1860.
London, Reform Club, Pall Mall; 1837 (Classic).
The Houses of Parliament; 1840–60 (Gothic).

Gothic Revival.

Sir George Gilbert Scott, 1811–77.
London, St. Mary Abbot's Church, Kensington.

George Edmund Street, 1824–81.
London, Law Courts.

Renaissance Revival.

II.—TABLE OF THE PERIODS OF ENGLISH ARCHITECTURE

		Rickman.	Sharpe.
			Saxon to 1066
William I.	1066	Norman	Norman
William II.	1087	1066–1189	1066–1145
Henry I.	1100		
Stephen	1135		
			Transition
Henry II.	1154		1145–1190
Richard I.	1189	Early English	Lancet
John	1199	1189–1280	1190–1245
Henry III.	1216		
Edward I.	1272	Decorated	Geometrical
Edward II.	1307	1280–1377	1245–1315
			Curvilinear
Edward III.	1327		1315–1360
Richard II.	1377	Perpendicular	Perpendicular
Henry IV.	1399	1377–1547	1360–1550
Henry V.	1413		
Henry VI.	1422		
Edward IV.	1461		
Edward V.	1483		
Richard III.	1483		
Henry VII.	1485		
Henry VIII.	1509	Tudor	
Edward VI.	1547	1500–1603	
Mary	1553		
Elizabeth	1558		
James I.	1603	Stuart	
Charles I.	1625	1603–1689	
Commonwealth	1649		
Charles II.	1661		
James II.	1685		
William and Mary	1689	Hanoverian	
Anne	1702	1689–1800	
George I.	1714		
George II.	1727		
George III.	1760		
George IV.	1820	Revived styles	
William IV.	1830	1800–	
Victoria	1837		
Edward VII.	1900		

III.—A TABLE OF THE RELIGIOUS ORDERS IN ENGLAND AT THE TIME OF THE GENERAL SUPPRESSION BY HENRY VIII.

	Common name.	Founder.	When founded.	Rule, habit, etc. When introduced into England.	No. of houses suppressed.
MONKS AND NUNS:					
Benedictine . .	Black monks.	St. Benedict, at Monte Cassino, between Rome Naples.	529	Black cape and hood over cassock of black, white, or russet, with white or black fur.	186
Cluniac . .	.....	Berno, at Cluny.	910	Reformed Benedictines. All black. 1077.	101
Carthusian . .	.....	St. Bruno, of Cologne, at Chartreuse, near Grenoble.	1084	No houses of women in England. Black cloak, white tunic. 1181.	20
Cistercian . .	White monks or Grey monks.	Robert, Bishop of Molême, and St. Stephen Harding, at Citeaux, Dijon.	1098	Reformed Benedictines. White cassock with small hood, with black scapulary. 1128.	9
Fontevraud . .	.....	Robert d'Arbrissel at Fontevraud, Poitiers.	*c.* 1100	Double houses for men and women, ruled by Abbess. (No nuns in England?) 1161.	3
CANONS AND CANONESSES:					
Augustinian, incl. Trinitarians .	Black canons.	Probably at Avignon.	*c.* 1061	Black cloak and hood over white tunic. *c.* 1100.	184
Præmonstratensian	White canons.	St. Norbert, at Prémontré, Picardy.	1120	Reformed Augustinians. Long white cloak and hood over white cassock; white cap. 1140.	32

Gilbertine . .	.....	St. Gilbert of Sempringham, at Sempringham, Lincolnshire.	1148	The only English order. Double houses for men and women, ruled by Abbess. Men, white cloak over black cassock; women, black cloak, hood, and tunic.	25
FRIARS AND NUNS:					
Franciscan . .	Grey friars or Friars minors.	St. Francis, at Assisi.	1208	Grey cloak and hood, grey cassock. 1224.	60
Dominican . .	Black friars or Preaching friars.	St. Dominic, at Bologna.	1215	Black cloak and hood over white tunic, square black cap. 1221.	43
Augustinian, including Crutched or Crossed . .	Austen Friars.	Not known.	13th cent.	No houses of women in England. Long black gown, with wide sleeves and hood; white cassock. 1250.	38
Carmelite . .	White Friars.	Albert of Jerusalem, at Mount Carmel.	1209?	White cloak over brown tunic. 1240.	40
St. Clare . .	Poor Clares or Minoresses.	St. Francis and St. Clara, at Assisi.	1212	Franciscan nuns. 1293. [1257.	3
Bonhommes . .	.....	.....	*c.* 1250	Rule of St. Augustine. Blue.	2
Brigittine . .	Order of Our Saviour.	St. Bridget of Sweden, at Wadstena.	*c.* 1350	Rule of St. Augustine. Black. 1414.	1
MILITARY ORDERS:					
Hospitallers . .	.....	Gerard, at Jerusalem.	1104	Black mantle, with eight-pointed white cross. 1100.	28
[Templars] . .	.....	Hugh de Payens, at Jerusalem.	1118	White mantle with red cross; dark clothes; hair worn short. *c.* 1140. *Supp.* 1310.	Not known.

GLOSSARY

Abacus. The top member of a capital.

FIG. 177.
ABACI

FIG. 178.
THE ROMAN ACANTHUS.

Acanthus. The leaf of the Corinthian capital.

Almonry. A building where alms were distributed.

Altar, Portable-, or **Super-.** A small slab, about 12 inches by 6 inches, for use where there was no fixed altar. Allowed only by licence of the Pope. The term super-altar is now applied to the shelf at the back of the communion-table.

Altar-tomb. A tomb resembling a stone altar.

Ambo, Ambone. A pulpit-like lectern in early churches from which the gospel was read; there was a separate one for the epistle.

Ambulatory. A passage; the term is applied to cloisters, and to the aisle round an apse, etc.

Andirons. Fire dogs.

Annulet. A ring; the term is applied to the fillets under the Doric capital, and to the bands connecting small detached shafts with the central column or with the wall in Gothic. (Fig. 30.)

Anta. A short wall projecting from a building enclosing the end of a portico, or a pilaster in place of the wall where the portico is open. [Classic.]

Arabesque. A fanciful scroll ornament of leaves and animals and human beings. (Fig. 97.) [Renaissance.]

Architrave. The lowest and weight-carrying division of the entablature; the moulding round a door or window. [Classic and Renaissance.]

Ashlar. Squared and regular masonry.

Atrium. The central and partly covered court of a Roman house.

Attic. A storey above the main entablature.

Aumbry. A small cupboard in a wall.

FIG. 179. ARCHITRAVE MOULDING *a*, OGEE; *b*, BEAD

Baldachino (pron. baldakēno). A canopy; the term is generally applied to an altar canopy.

Ball-flower. (Fig. 59.)

Barge-board. A board placed under the gable when the roof projects beyond the wall.

Basilica. (p. 98.)

Batter. When a wall is intentionally built with a sloping face it is said "to batter," and the slope is called "the batter."

Bay. A compartment of a building; the space between two pairs of columns or two roof principals.

Bay-window. A bow-window.

Bead. A small round moulding. (Fig. 179.)

Bed-mould. The moulding under the bold projection of a cornice.

Bevel. A slope made by cutting off an angle.

Bilection-mould. See **Bolection-mould.**

Billet. A Norman enrichment consisting of a succession of short cylinders lying in a shallow hollow or on a chamfer. (Fig. 31.)

Blind storey. A triforium.

Blocking-course. A plain course of stone over a cornice; a plain string-course. [Classic and Ren.] (Fig. 102.)

Bolection-mould. A moulding used in wood panelling, projecting beyond the face of the framing. [Ren.]

FIG. 180. BOLECTION-MOULD.

Bond. The overlapping of stones or bricks in a wall. In brickwork from the middle of the sixteenth century to the end of the seventeenth century *English bond* was used. In this system, which is

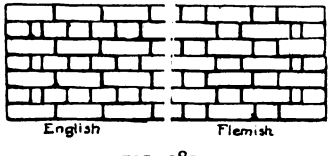


FIG. 181.

ENGLISH AND FLEMISH BOND.

the strongest, one course consists entirely of headers, *i.e.* bricks showing their ends, and the next course of "stretchers," or bricks showing their sides, and so on alternately. In *Flemish bond* all courses are alike, and show alternately "headers" and "stretchers."

Bowtel. A round moulding. [Gothic.]

FIG. 182.
BOWTEL MOULDING,
WITH FILLET AT *a*.

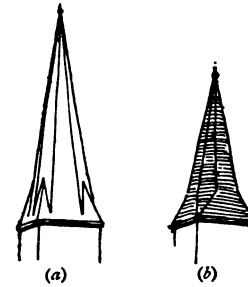


FIG. 183.
(*a*) A STONE BROACH SPIRE;
(*b*) TIMBER SPIRE COVERED WITH SHINGLES.

Brace. A strut to connect two pieces of timber which are at right angles to one another.

Brattishing. (Fig. 86.)

Broach. A half pyramid connecting the angle of a square tower with the face of an octagonal spire. (Fig. 183 *a*.)

Cabled flute. See **Flute.**

Camber. An upward curve or slope in a beam, such as the tie-beam of a roof. (Fig. 49.)

Cantilever. A bracket.

Carrel. (p. 144.)

Caryatides. Columns in the form of human or grotesque figures.

Casement. (1) A wide, shallow moulding (Fig. 81); (2) a window hinged at the side to open like a door.

Chamfer. A bevel.

Checker. The office of an accountant in the Middle Ages

Chevron. (Fig. 24.)

Clearstory, or Clerestory. The storey of the nave which is above the roofs of the aisles.

Coffer. A sunk panel in a ceiling, dome, or vault in Classic or Renaissance buildings.

Common-house. (p. 146.)

Composite order. (p. 77)

Console. A bracket supporting the cornice over a doorway or window. [Classic.] (Fig. 119.)

Corinthian order. (p. 76.)

Crenelle. A parapet with battlements or loopholes.

Crocket. A crook-like leaf or bunch of leaves projecting from the slope of a gable.

Cusp. One of a series of points projecting from the soffit or mouldings of an arch, giving a trefoil or multifoil form to the arch.

FIG. 184. CUSP.

Decastyle. A portico with a row of ten columns is said to be Decastyle. [Classic.]

Dentil. An enrichment in a classical cornice consisting of a series of small square projections.

FIG. 185.
DENTIL ENRICHMENT.

Diaper. A geometrical pattern carved or painted on a wall in the Middle Ages.

Dog-tooth. (Fig. 46.)

Doric order. (p. 74.)

Dormer window. A window in a roof.

Dorsal. A curtain at the back of an altar.

Egg and dart. An enrichment in a classical cornice consisting alternately of eggs and darts.

FIG. 186.
EGG-AND-DART
ENRICHMENT.

Elemosinaria. An almonry (*see above*).

Entablature. The horizontal superstructure on the columns in classical architecture. It is divided into three parts: the architrave or lintel, the frieze, and the cornice or projecting member.

Entasis. The slight swelling in a column. [Classic.]

Faldstool. A folding stool, formerly used for carrying about. The term is now applied to the Litany desk.

Fillet. A band; applied principally to mouldings. (Fig. 182.)

Flute. One of a series of channels running up the face of a column. Sometimes it is filled by a staff, which runs up to one-third of the height of the column, and it is then said to be cabled or reeded. [Classic and Ren.]

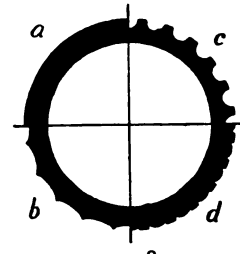


FIG. 187.
QUARTER-PLANS OF COLUMNS:
(*a*) PLAIN SHAFT; (*b*) DORIC FLUTES; (*c*) IONIC AND CORINTHIAN FLUTES; (*d*) CABLED FLUTES.

Footpace. A low platform, a daïs.

Frater. The dining-hall in a monastery.

Freestone. Stone which can be worked with the chisel.

Frieze. The middle division of an entablature.

Galilee. The term is applied to a porch, as at Lincoln, and to a chapel, as at Durham, and seems to have been not uncommon. The origin of the term is not known.

Gargoyle (pron. gurgoyle.) A projecting spout to throw the rainwater from the gutter clear of the wall.

Geometrical tracery. (p. 37.)

Groin. The edge formed by the intersection of surfaces in vaulting.

Hagioscope. A squint (which see).

Hammer-beam. (p. 60.)

Header. See **Bond.**

Hexastyle. A portico with a row of six columns is said to be Hexastyle. [Classic.]

Hip. The angle formed by the intersection of the surfaces of a pyramidal roof. (Fig. 189.)

Hood-mould. The projecting moulding over an arch.

Impost. The horizontal projecting member at the springing of an arch.

Ionic order. (p. 76.)

Jamb. The side of a window or doorway.

King-post. The central vertical post in a roof-truss.

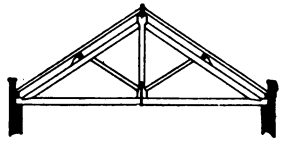


FIG. 188.
MODERN KING-POST ROOF.

Label. A hood-mould.

Lantern. A timber structure on a roof to admit light or allow the escape of smoke.

Latten. A mixed metal resembling brass.

Lierne vault. (p. 46.)

Louvre. A lantern (*see above*); a sloping board in a lantern or belfry window, arranged so as to allow the passage of air without admitting rain.

Lych-gate. (p. 123.)

Machicolations (pron. makikolations). Small arches carried on corbels to support an overhanging parapet of a castle. There were openings in the gutter so that missiles could be thrown upon assailants.

Mansard Roof. A roof in which the lower part is steep and the central part low pitched.

FIG. 189.
A MANSARD ROOF, HIPPED.

Metope. The space between two triglyphs in the frieze of the Doric Order. (p. 74.)

Miserere. A hinged seat in a stall of a church. A bracket was attached to the lower side forming a small secondary seat when the main seat was raised. It was provided for the relief of the infirm during service.

Misericorde. The hall in a monastery in which better fare was allowed than in the frater. (p. 150.)

Mitre. The line formed by the intersection of mouldings or other surfaces, as at the angles of a picture-frame.

Modillion. A bracket under a classical cornice.

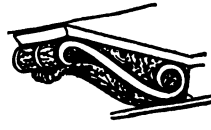


FIG. 190.
CARVED MODILLION.

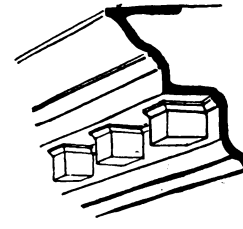


FIG. 191.
WOOD CORNICE WITH MODILLIONS.

Mullion, or **Monyal.** The vertical division between the lights of a window.

Narthex. A porch extending across the end of an early church. (Fig. 123.)

Newel. The post at the angle of a staircase. The central column of a circular staircase.

Octostyle. A portico with eight columns is said to be Octostyle. [Classic.]

Ogee. A curve composed partly of a convex and partly of a concave line; applied to the sections of mouldings (Fig. 179) and the outlines of arches.

FIG. 192. OGEE ARCH.

Order. (p. 72.)

Oriel. A bow-window, either corbelled out from the wall or rising from the ground. (p. 66.)

Ovolo. A round convex moulding. (Fig. 193 *b*.)

FIG. 193. PLAN OF MULLION: (*a*) FILLET; (*b*) OVOLO MOULDINGS; (*c*) REBATES.

Pane. A portion; the term is applied to a window, an alley of a cloister, a side of spire.

Paradise, or **Parvise.** A courtyard, a cloister garth; now sometimes applied to the room over a church porch.

Pargetting. Plaster-work; the term is generally applied to ornamental outside work.

FIG. 194. PARGETTING. SCALE: ABOUT ONE-EIGHTH OF AN INCH TO A FOOT.

Parlour. (p. 148, and Fig. 163.)

Parvise. See **Paradise.**

Patera. A small circular ornament in classical architecture. The term is now often applied to any small carved ornament forming one of a series.

Pediment. A gable in classical architecture.

Peristyle. A colonnade round a courtyard. [Classic.]

Pilaster. A flat, rectangular column against a wall.

Piscina. (p. 126; Fig. 143.)

Plate. A piece of timber lying on a wall to receive rafters, etc.

Plinth. The base of a wall above the ground; the lower part of the base of a column.

Podium. A high plinth or basement-storey. [Classic.]

Poppy-head. A carved finial on the top of a bench-end.

Presbytery. The part of a church in which the high altar stands, east of the choir.

Pulpitum. (p. 115.)

Purlin. A horizontal timber in a roof resting on the principal rafters and supporting the common rafters. (Fig. 71.)

Quoin. An angle-stone.

Rebate. A rectangular sinking along the edge of a piece of wood or stone. Sometimes spelt and pronounced "rabbit." (Fig. 193.)

Reeded flute. See **Flute.**

Relieving arch. An arch over a lintel.

Respond. A half-column against a wall to receive an arch.

Return. An angle, generally applied to mouldings; thus, in Fig. 77, the hood-mould is said to be returned horizontally at the springing of the arch, and to be returned against the wall. Return-stalls, p. 125.

Rubble. Masonry consisting of small irregular stones.

Rustic-work, or **Rustication.** Ashlar masonry with the surface treated in a particular way. There are several varieties: the face of the stone is left rough or is artificially roughened; or it is smooth, but projects and has chamfered or rebated edges. (Fig. 107.)

Sacristy. (See **Vestry.**)

Saddle-bar. A horizontal bar of iron in a window.

Sanctus-bell. A bell rung at the consecration of the Host.

Sedilia. A seat for the clergy on the south side of an altar.

Severy. A bay or compartment of a building.

Shingle. A roof-tile made of split oak.

Soffit. The under side of a cornice, arch, etc.

Solar. (p. 163.)

Spandrel. Applied to almost any surface of irregular form: such as the spaces above an arch; between an arch and a cusp; between the ribs of a vault.

Splay. A large chamfer, as to the jamb of a window, etc.

Squinch. An arch built across each angle of a tower to form an octagon to carry a spire.

Squint. A hole cut obliquely through the wall of a church to give a view of the high altar.

Stanchion. A vertical iron bar in a window.

Stele. An upright slab of stone sculptured in relief, erected as a memorial to the dead. [Classic.]

Stilted arch. An arch of which the springing is above the capital. Fig. 134

Stoup, or Stock, Holy-water-. A hollow stone near the entrance of a church to contain holy-water.

Strap-work. (p. 65.)

String. A horizontal projecting moulding. [Gothic.]

Terra-cotta. Vitrified brick.

Tetrastyle. A portico with a row of three columns is said to be Tetrastyle.

Transom. A horizontal division in a window.

Triforium. An upper storey over the aisle of a church.

Triglyph. An ornament in a Doric frieze, consisting of a projection with the two vertical edges chamfered and with two vertical grooves.

Triptic. A painted panel with two folding-doors, generally used as a reredos.

Tudor flower. An upright leaf used in cresting on the tops of cornices, etc. (Fig. 86.)

Tuscan order. (p. 77.)

Tympanum. The space enclosed (1) between the lintel of a doorway and the relieving arch (Fig. 26), or (2) between the horizontal and sloping cornices of a classical pediment. (Fig. 119.)

Valley. The angle formed by the intersection of two roofs.

Vesica piscis. The pointed oval forming the auriole or glory round representations of the Deity and the Virgin. (Fig. 26.)

Vestry, or **Revestry**, or **Sacristy.** (p. 122.)

Volute. A spiral; the characteristic ornament of the Ionic capital.

Voussoir. An arch-stone.

Wainscot. Panelling on a wall; foreign oak much used for panelling.

Wall-plate. The horizontal timber on which rafters and joists rest.

Wave moulding. A section used in the fourteenth century.

FIG. 195. WAVE MOULDING.

Weathering. A sloping surface of stone, as at the top of a buttress.

Windbrace. A timber springing from the principal rafter, or other member of a roof-truss, to support the purlin and to prevent longitudinal movement in the roof.

Zigzag. A Norman enrichment. (Fig. 25.)

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