.

# THE ENGLISH CASTLE

# THE "BRITISH HERITAGE" SERIES

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RICHMOND CASTLE, YORKSHIRE

*Detail of a Painting by James Whitelaw Hamilton
R S A , in the Corporation Art Gallery, Glasgow*

# THE ENGLISH CASTLE

## CASTLE

*By*

## HUGH BRAUN

*With a Foreword by*
HILAIRE BELLOC

*Illustrated from Photographs
and Drawings*

*Third Edition, revised*

# FOREWORD

## By HILAIRE BELLOC

THE English castle is one of the most illuminating objects
of study in history. It illustrates the whole of the English
Middle Ages and their military transformation under the
effect of artillery. The English castle is to-day one of three
things: a ruin, a restoration, or a fragment on to which has
been grafted a later dwellinghouse unsuited to war. In its
early development it followed the rule of all English things in
that it came tardily and developed tardily, because the arts,
military and civil, came from overseas and had been developed
elsewhere before they were established here. A further reason
for the tardy development of the English castle was the fact
that the English manorial lords took little part in the Crusades
of the twelfth century which were the mainspring of castle
building in Western Europe. Another reason was that save
for a brief breakdown under Stephen, before castle building
in stone had taken full root, English central government
remained stronger in England than on the Continent for over
three centuries. The greater feudal lords, whether on their
own account or as officers under the King, held the great
stone castles which in their new whiteness marked the English
landscape from the middle of the twelfth to the end of the
fourteenth centuries; but the smaller feudal lords and the
"one manor men," lords of single villages, had no occasion
to copy their superiors, having no chance of standing up
to them individually, a thing that the smaller feudal lords could
only do where central power was weak and social order con-
fused. Therefore it is that the typical squire's house, which is
called in France to this day a "castle," rarely bears that name in
England, and when it does bear that name hardly ever derives
from the home of a petty local family but almost always from
one of the great barons or from the Crown.

Towards the end of the Middle Ages all this changed.
English architecture became in castle building as in every-
thing else more particular and national. Even the language at
last became national in the fourteenth century and French,
which had been as common in England to the wealthier and
middle classes as English is common in Wales to-day, died
out, and the new amalgam of dialects which we now speak
and call English took its place. The Wars of the Roses offered
opportunities for a certain amount of new castle building on a
smaller scale, but they were not continuous. The end of the
Middle Ages in England was more and more mercantile and

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less and less feudal. Castle building ceased, partly under the effect of that social change but also, towards the end, under the effect of artillery which gradually compelled the defensive to substitute earthwork for stone walls. It was this same artillery which destroyed the castles wholesale in the seventeenth century, here as abroad, but for very different reasons. Here they were destroyed during that rising of the landed class (including the more prosperous yeomen) against the Crown in the seventeenth century, known as "The Civil Wars." They were destroyed because they were "strong points" on which the national monarchy in process of defeat could fall back. Abroad and especially in France it was just the other way. Castles were destroyed because the Crown feared the defensive power they put in the hands of subjects. In each case it was the party with the most guns, the revolutionary oligarchy in the case of England and the monarchy in the case of France, which battered the old castles. In both countries the castle decayed or was transformed and ceased to be a fortress, and most castles, having no religious or social reason for survival, were abandoned to crumble or be used as quarries. At last in the late eighteenth and early nineteenth centuries what was left of their ruins appealed to the new Romantics and later to the new historical sense, whereby, in the main, they have been safeguarded, for good, let us hope, as national possessions.

KING's LAND, *April* 1936.                    H. BELLOC

# NOTE TO THE SECOND EDITION

THE call for a second edition of this work comes when Major Braun is on active service in the Middle East, and owing to distance and the exigencies of service conditions, is not in a position to undertake its revision. Consequently all that it has been thought advisable to undertake has been to give effect to some of the comments by reviewers and correspondents and to change a few illustrations, it is hoped with some slight advantage. It must be clearly understood that the author is necessarily entirely disassociated from these revisions. The brief last word has been kindly contributed by Major-General Loch. The republication of the book is certainly worth while when the application of fortification is essential to our continued existence, and every household is affected by the problem of defence.

*Winter*, 1942–3                    THE PUBLISHERS

# PREFACE

WHOEVER reads this book will doubtless appreciate that it is the work not of one person but of many. Thus, should the writer casually mention that such and such a castle was erected in this or that year it does not mean that he has always known this as a fact, nor that the knowledge came to him during a sudden flash of inspiration. To collect the data which form the foundation of the book many persons have spent countless tedious hours in wading through piles of ancient documents, measuring and planning castle after castle, comparing date with date and plan with plan—thereafter putting pen to paper to let us know the bare results of their patient research. In a book of this description it is not possible to supply the array of footnotes usual in more technical works, but castle students who may recognise among these pages unacknowledged references to the results of their researches will, I trust, excuse me for my unavoidable discourtesy in this respect.                    HUGH BRAUN
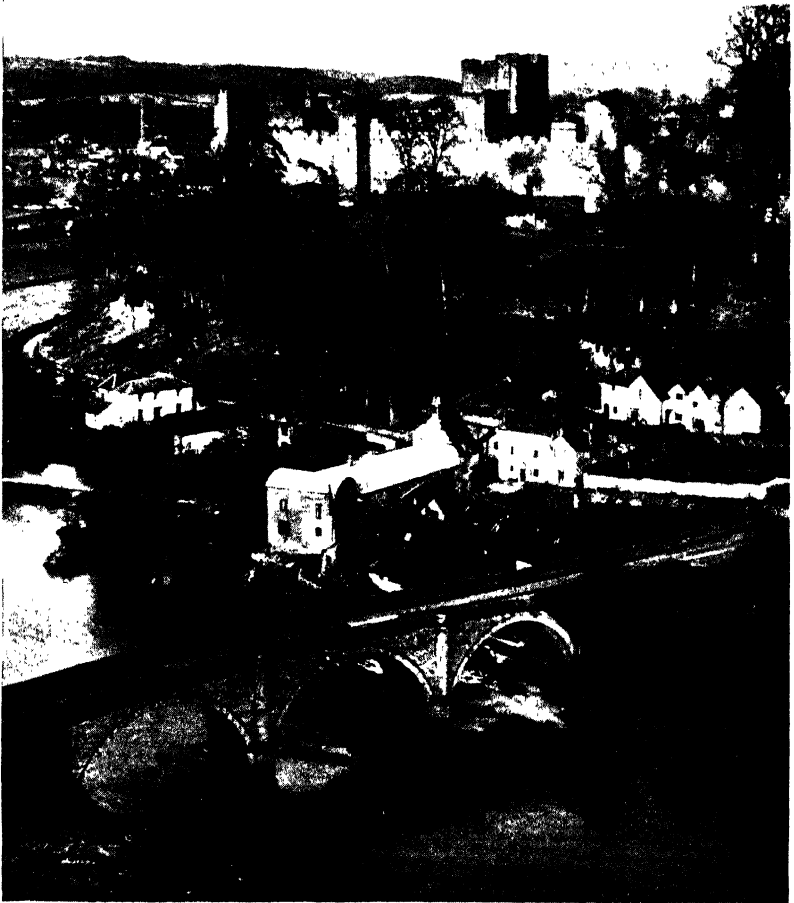
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# INTRODUCTION

"Were I in my Castle of Bungaye
Above the Water of Waveneye
I would ne care for the King of Cockneye
And all his meiny."

IT seems rather surprising that so very few books have been written about the castles of this country. A great deal of literature exists on the subject of our parish churches, buildings for the most part lacking in vital interest except to students of architecture. Even cathedrals, although offering more scope in this respect, seem to be equally devoid of human interest; yet, when we turn to the great monasteries, which, as well as being magnificent structures architecturally, formed in addition the homes of hundreds of human beings, we can find very little literature dealing with these great rookeries and their occupants.

Why is it that, to so many of us, the great buildings of the past are but piles of worked stones, some glorious in their perfection, others mournful or romantic in their ruin: graceful of detail or aspiring to grandeur through their stern proportions? Do we not sometimes forget that these structures were not only built by human beings, but were designed for their constant use as habitation or shrine?

No buildings in this country are so human in their appeal as its ancient castles. Churches are less practical in their architecture, each builder striving to outdo his rival in aesthetic matters only. Castles, on the other hand, were constructed as residences, and as such, their designers had to consider the practical utility of their buildings for human occupation, in the same way as the housewife of to-day, examining the plans of her new house, will probably be much more concerned with the size of the cupboards under the staircase than the architectural glories of its balustrade.

In addition to this there was, of course, the special factor which governed the design of castle works—the protective. Castles were the homes of those who might at any time find their lives or liberties threatened by their neighbours. The walls of their dwelling had to be impassable to their enemies, and every opening carefully considered in this respect first of all, its embellishment being left to second thought.

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The castle had also to be defensible, so that the structure could be used not only to protect its inhabitants but to assist them in driving away undesirable intruders. Fortresses were not conceived simply as shelters in which the besieged could cower until the aggressors decided to withdraw; one's castle had to be a high place from which to strike terror into the forces of the besieger.

Last of all, the castle had to be defensive, itself armed with all the cunning imaginable not only to protect its occupants but to preserve its very self from destruction. The great cathedral, once safely completed, would stand through the centuries if a little care was bestowed on it from time to time. The castle had to withstand the deliberate and determined attempts by the brethren of its builders to raze it to the ground. The following chapters will attempt to show how the history of the development of military architecture in this country is that of one long and never-ending struggle against the forces of destruction. The cathedral is perhaps the apotheosis of Architecture—the castle is Architecture fighting for its life!

Despite the appeal which the ancient castles of our land must make to those who take pleasure in exploring the monuments of past centuries, very little literature on the subject is available to-day.

One of the most interested observers of our ancient fortresses was that energetic traveller whose *Newe Yeares Gyfte to King Henry the viii in the xxxvii Yeare of his Rayne* was the result of a "Laboriouse Journey and Serche for Englandes Antiquitees." Most excellent Johan Leylande, would that others since your days had been as observant of "Englandes Antiquitees"! For not only did you take note of many a "great castelle," but also of the "Dikes and Hilles, which were Campes of Men of Warre." Well is it for us that we too can take your "Newe Yeares Gyfte" before us, for many of the castles which even in your day were "nothing but straunge ruines" have now gone from us for ever.

The first comprehensive book to be published on the subject of castles appeared in 1884. This is the fine two-volume work on *Mediaeval Military Architecture* by George T. Clark. Mr. Clark was an engineer who had worked under the great Brunel, and the detailed descriptions he has left us of more than a hundred castles—the results of over fifty years' work—have fully demonstrated how competent an observer his pro-

4   BODIAM, SUSSEX : the Postern Front
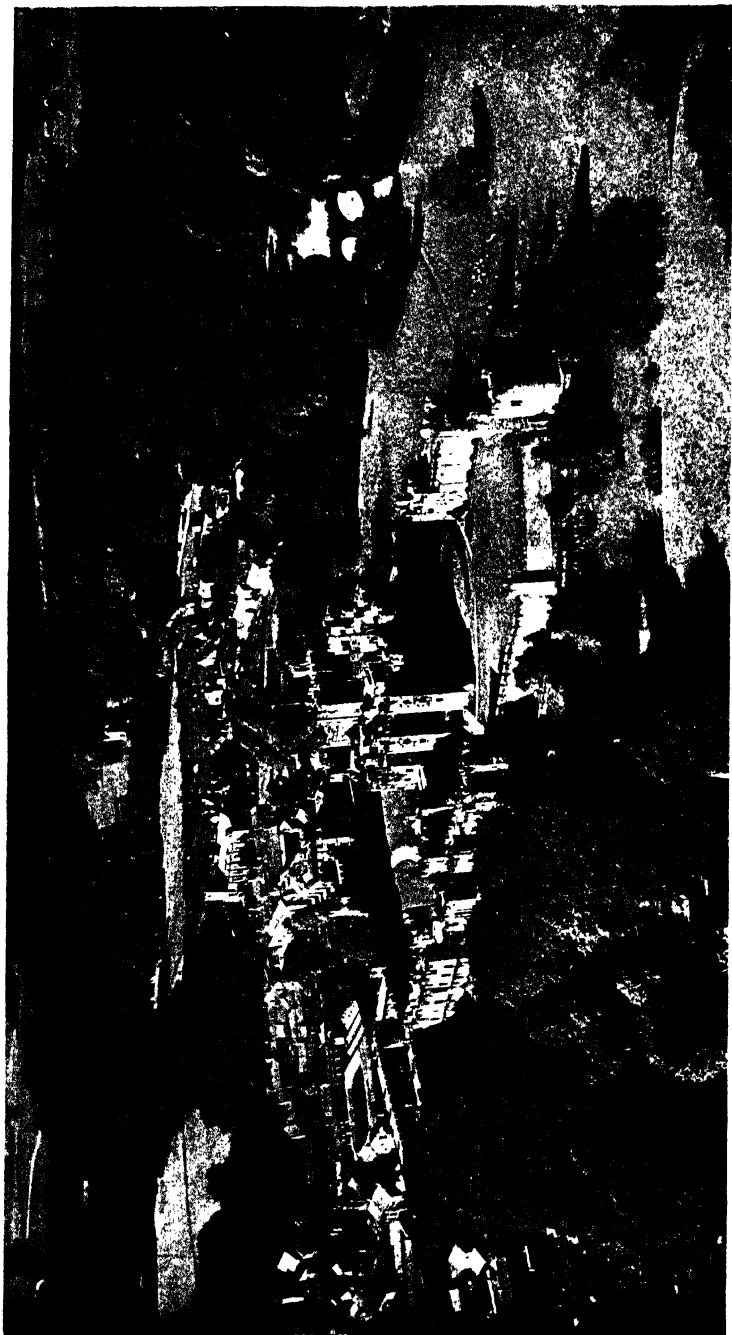
5  ALNWICK, NORTHUMBERLAND :  still the Home of the Percys

6  BAMBOROUGH, NORTHUMBERLAND : a splendid Norman Keep overlooking the North Sea
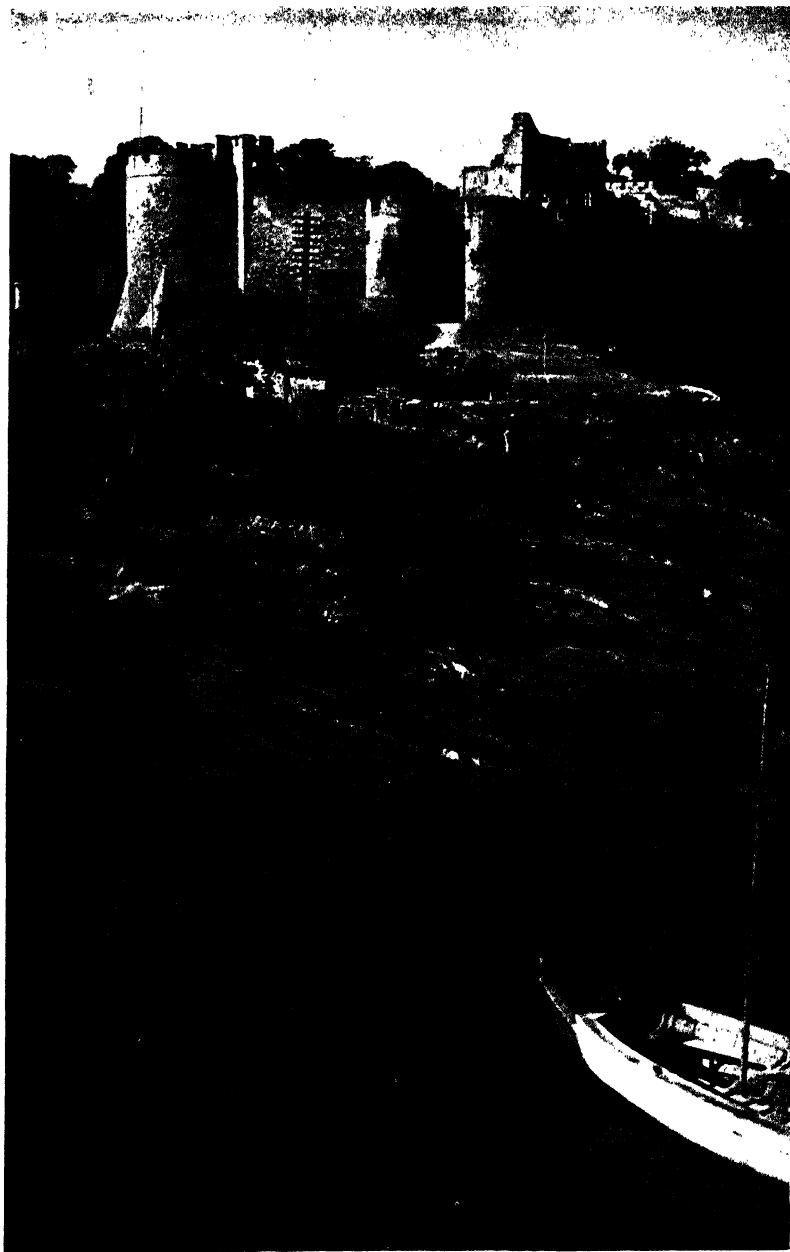
7 CHEPSTOW, MONMOUTHSHIRE : finely situated on the
Banks of the Wye

fessional training had made him. His book is still the standard work on the subject, and has been copied, even as far as the terminology which he invented, by all his successors.

In 1897 a monumental work in two volumes was published by Sir James Mackenzie, giving some mention and in most cases a short description of every known castle in England. These volumes are profusely illustrated, but deal only with masonry structures; every castle having only earthwork remaining is listed as "non-existent."

"Castle" Clark had made only one serious error of diagnosis in his great work, and that was in connection with castle mounds. For some inexplicable reason he had come to the conclusion that these great artificial hills were the "Boroughs" of the Anglo-Saxon Chronicle, and that the Normans had erected their stone castles upon the summits of pre-existing mounds. This mistake was corrected in 1912, when Mrs. Ella Armitage published her scholarly work on *The Early Norman Castles of the British Isles*. Mrs. Armitage dealt with all those castles which could be proved to have existed before the end of the eleventh century, and showed how they were all originally constructed of earthwork. Her book is almost the last word on the subject of early Norman earthwork, but some little criticism may be made in connection with her theories as to the use of the mounds themselves.

Almost simultaneously with Mrs. Armitage's book appeared an important book by Professor A. Hamilton Thompson, F.S.A., on *Military Architecture in England during the Middle Ages*. This work dealt with the architectural side of the subject, was plentifully illustrated, and its value was moreover greatly increased by the numerous documentary references given in the text, considerably augmenting the similar work effected by Mrs. Armitage.

After the publication of Professor Thompson's book, a general work on castles has appeared, and there have been a number of good monographs compiled on individual buildings, mostly in the publications of archaeological societies, and mention must be made of the work on *Castles* by Sir Charles Oman, comprehensively descriptive and excellently illustrated, though it only covers those examples to be found in the territory reached by the Great Western Railway.

The *Historical Monuments* Commission has dealt with careful thoroughness with Hertfordshire, Essex (4 vols.), Buckinghamshire (2 vols.), Herefordshire (3 vols.), Huntingdonshire,

Westmorland and the City of London; there are in addition the County volume surveys of the Welsh Historical Monuments Commission.

Since the first edition of this book was issued a comprehensive work on *Castles*, by Sidney Toy, F.R.I.B.A. has appeared.

Its scope is the development of the science of Fortification from 1600 B.C. to A.D. 1600, and it is concerned with Europe and the Levant as well as the British Isles, including illustrations from photographs and drawings.

The greatest authority on the subject (although to our great loss, no work from his pen has ever been generally published) was undoubtedly the late Harold Sands, F.S.A., to whose huge collection of castle plans and notes the present writer has many times had recourse. Indeed, had it not been for the ready assistance always granted to its compiler by Harold Sands, this book would probably never have been written.

Though they are of necessity excluded from the scope of this book, the literature and more especially the illustrations of the castles of Scotland are on an ampler scale, with (e.g) the five volumes of McGibbon and Ross's survey, Mackay MacKenzie's lectures in book form, and the plates in Billing's four volumes, as well as monographs and papers, and, of course, the Historical Monuments Commission's county surveys.

It is hoped that the following chapters will enable visitors to our ancient fortresses to appreciate to some extent the original purposes for which the various parts of the structures were designed, and possibly even to form some idea as to their appearance and that of their occupants in the days which have passed away. Above all, it is hoped that those who read these pages will, as they do so, endeavour to realise the sense of these once again warring times, that they may to the full appreciate the centuries-long struggle of the castle-builders of the Middle Ages to bring that peace to themselves and upon the land for which we long and strive to-day.

Over the great gatehouse of Cooling Castle (8) on the Kentish shore of the Thames, which was begun by John de Cobham in 1380 to protect his tenantry from invasion, its founder inscribed the lines which may be read there to-day:

> "Knoweth that beth and schal be
> That I am mad in help of the cuntre
> In knowyng of whyche thyng
> This is chartre and wytnessyng."

8 COOLING, KENT: the heavily machicolated Gatehouse

9 RESTORMEL, CORNWALL: the early Norman Mound is clearly seen
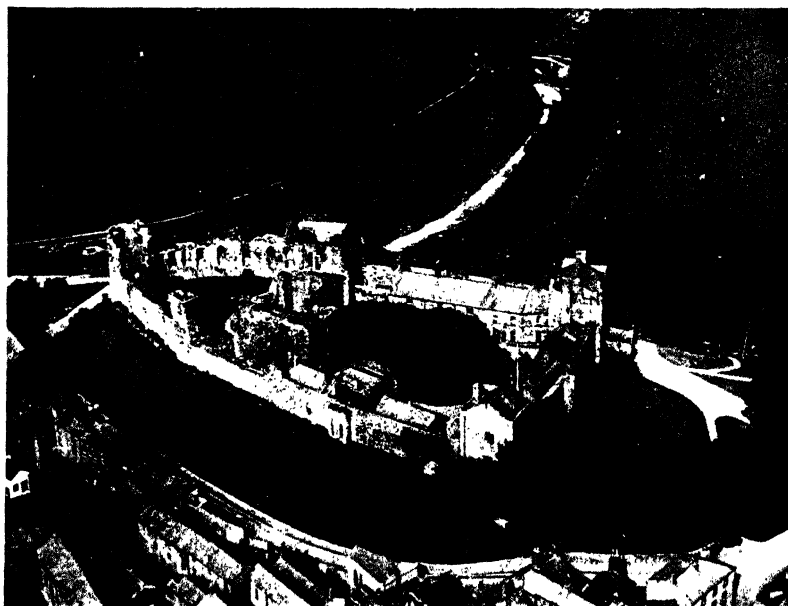


10 COCKERMOUTH, CUMBERLAND, on its large Norman Mound

# THE ENGLISH CASTLE

## CASTLES OF EARTH

"The moles that the kepe stondeth on is large and
of a terrible higth."

I SHOULD imagine that, to most of us at any rate, the word
"castle" conjures up a vision of grey stone walls and lofty
towers rising above the scarps of a river bank or nestling
among trees in some sheltered valley. It may be that some of
us are pleased to see our castles as ruins, their broken walls
softened with dark veils of ivy; while others, less aesthetic
and more practical in their tastes, prefer to see walls and
towers rising stark and grim, as fortresses should be, proud
in their ruined strength and needing no mantling verdure to
render them romantic.

It would seem strange to us if, on our journeys through
England, we should one day come by chance upon a ruined
cathedral. Even a roofless church, deserted by its parishioners,
seems to most of us a shameful sight. But as we pass by the
ancient castles crowning their lonely hill-tops or sleeping in
forgotten coombes, we are strangely satisfied to see their
ruined state. For the Age of Castles has passed away,
and it seems well that their grand old walls should rest in
peace.

It would probably be little exaggeration to suggest that,
for every ten visitors to the great cathedrals and abbey
churches of this country, there is but one person who would
stop the engine of his motor car that he might stroll through
the ruins of a castle. Why is it that castles seem to have so
little appeal to some who are interested in old buildings?
Is it possible that we are unable to understand the buildings
themselves and cannot appreciate for what purpose walls,
towers and chambers were constructed, and when their
builders raised them? Castles are certainly very complicated
structures. They have none of that simplicity of plan, for
instance, which makes one's appreciation of the various parts
of a cathedral such a comparatively easy matter. The castle

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plan is changing every few decades, and its defences are continually being modified to meet some new weapon which has been invented to assault them.

It is necessary to study the development of the castle from its very beginning before you can really appreciate such examples as remain to us to-day. And the beginning is much farther back than might be imagined.

I suppose most of us instinctively connect castles with William the Conqueror and that most fundamental of all dates—A.D. 1066. Yet the castles of the Conquest were so entirely different from the structures which remain to-day that if, while investigating some hitherto unexplored part of England, you should by some strange chance come upon one of William's castles, it is practically a certainty that you would not know what you were looking at.

It is difficult to imagine a castle without stone walls—a castle looking more like a Maori *pah* than the residence of an English king. Yet such were our earliest castles: fortresses constructed of such humble materials as earth and boards. Strongholds of straw they would seem to us to-day, yet they rose in their hundreds throughout the length and breadth of England, and by them the land was held. Many of them have passed away, and strange mounds and furrows may be discovered buried in dense coverts or seaming the pastures and ploughlands to the irritation of the farmer who has been vigorously ploughing them level for centuries. Some of them were consolidated with stone walls in place of humble palisades, and lofty towers and spacious halls have all combined to hide the humble mounds and earthen ramparts upon which they stand. Yet in many cases the original ditch of the castle may be seen in much the same state as when it was first cut by the peasant labourer of eight hundred years ago, and many a proud fortress is thus forced to remember that once it was but a castle of earth.

To go back to the beginnings of fortification one must go back a very long way. Presumably, like all great scientific discoveries, it originally started with some trivial incident, comparable with Newton's windfall. It would be interesting to know what manner of man it was who first tumbled into a ditch and, upon emerging, discovered that he had invented the science of fortification.

For it is the ditch which is the fundamental factor in all fortifications. Exceedingly simple in principle and easy enough

11 A MODEL IN SAND OF THE EARTHWORK OF A
MOTTE-AND-BAILEY CASTLE



12 A MODEL IN SAND OF THE EARTHWORK OF A
SIMPLE RESIDENTIAL CASTLE
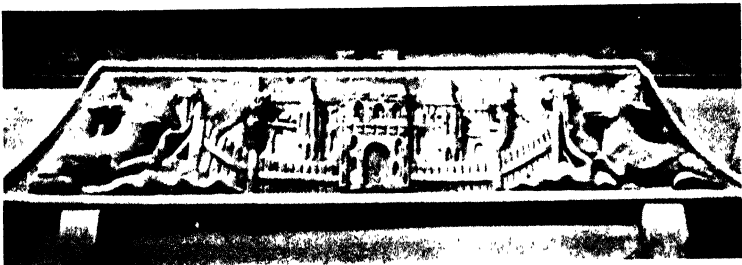


13 WOOD-CARVING ON THE TOWN HALL OF NEW
BUCKENHAM, NORFOLK, representing the early Timber Castle

14 A RECONSTRUCTION OF AN EARLY RESIDENTIAL CASTLE, showing the Low Mound and small Barbican Bailey

to construct, it possesses the advantage over any form of wall in that, provided the digger of the ditch keeps to his own edge of it, an attacker must needs first descend to beneath the level of the defender and then advance on him uphill. If the defender needs some protection against missiles, nothing is easier than to use the soil excavated from the ditch to make an earthen wall behind which he may cower and upon which he may mount to meet the attack when it comes. It is, of course, obvious that the rampart must be raised on the defender's side of the ditch; this is invariably so with defensive earthwork.

It will be appreciated that earthwork by itself will not serve as more than an obstruction to check and disorganise a charge of attacking warriors. In order for the works to be effective as a defence, the rampart must be surmounted by some kind of stockade formed of tree trunks, wattling or possibly even a rough wall of dry stonework in a district where stone is procurable without quarrying, which needs better tools than primitive man had at his disposal. We know practically nothing about the construction of primitive palisades, but some of the great hill-forts, such as the mighty fortress of Worlebury in Mendip, still show considerable remains of their dry stone walls.

It has been discovered that the ditches of the most primitive fortified sites in this country were not continuous lines, such as might have been expected, but consisted of short lengths of ditch, each with its corresponding bank, forming a line of what must have looked rather like the bunkers of a very formidable golf course. When these earliest fortifications were raised no man can tell, but it may have been at some time towards the end of the New Stone Age in this country, let us say, very approximately, about 2000 B.C. If this is so, the first earthen ramparts were being constructed in southern Britain about the time that Khammurabi was writing the Laws of Babylonia and the Labyrinth of Knossos was echoing with the dismal bellowing of the Minotaur.

Earthwork, of course, is only necessary for the protection of an inhabited site when this is insufficiently guarded by natural defences such as precipices or marshes. Whenever primitive man could discover a site already practically impregnable by reason of its natural surroundings, he would obviously occupy it. Earthwork could then be used to complete the deficiencies in the defences. Thus a favourite site would be a

promontory thrusting into the sea or from a range of hills above a plain. A line of earthwork cut across the neck of the promontory would turn the site into a primitive fortress.

If the projection of the promontory becomes less pronounced and its base proportionately longer, so much more earthwork is needed and the defensive lines will curve across from flank to flank making the shape of the site approximately a sector of a circle. Perhaps there is no promontory at all, but the best site which can be found is at the more or less straight edge of a cliff. The form the lines will then take will be roughly a semicircle.

In this country the chances of finding a natural stronghold are not very great. Indeed, in so far as the south and east of England is concerned, there are none such except on the actual coast. It will therefore be seen that fortified sites in these districts will require to be completely encircled with lines of defensive earthwork.

Obviously the best situation for a defensible township would be the crest of a more or less isolated hill, such as may be found in the chalk and limestone regions in the south-eastern districts of this country. The natural slopes may then be utilised as rudimentary ramparts. The difficulty met with on steep slopes, however, is with regard to the raising of the earthen rampart itself, for, when the ditch is dug and the earth thrown upwards towards the top of the hill which is to be occupied by the prospective settlers, the loose soil is liable to run back again into the excavation. The solution to this difficulty was discovered when the method of scarping was invented. This consists in throwing the earth downhill instead of upward, so as to form a bank on the outside—or "counterscarp"—of the ditch. This operation gradually forms two steep main scarps, one above the ditch and one outside it down the slopes of the hill-side. It cannot be stated with any certainty when scarping was first employed in this country, but it seems possible that those great masters of earthwork, the Iron Age Men of the last three centuries B.C., first utilised the method in some of the huge hill-forts of the south, the greatest of which is the mighty fortress of Maiden Castle, which crowns a windy hill-top a mile or so from Dorchester. It was the Norman castle builders, however, who were the chief artists in scarping, and the deep-hewn trenches of Bramber, Dover (38), and many another stronghold remain as witnesses to their skill. The scarped

defences of the great fortress of Arques near Dieppe are possibly the finest example of earthwork in the world.

There is no prehistoric earthwork to equal in vertical scale these huge productions of the early Norman castle builder, although in so far as multiplication of defences and size of area enclosed is concerned, the prehistoric "camps" are all, of course, much more extensive, being fortified towns and not merely the defensible residences of single households.

What splendid spectacles the great hill fortresses must have presented in the centuries immediately preceding the Christian era! Cissbury, Cadbury, Hembury, Worlebury, The Caburn—their very names sound formidable.

The Roman invaders were quite familiar with the science of earthwork fortification. The first works they raised in this country were the fortified lines of their marching camps and later, as occupation became complete, these small, feebly protected enclosures gave place to larger, stronger fortresses and fortified towns. There was, however, no place in the orderly mind of the Roman for the easy, sweeping curves of prehistoric defences; the lines of his camps, towns and forts are almost invariably straight-ruled from corner to corner, his favourite plan being a rigid rectangle, quite different from the approximately oval plans of the prehistoric hill-forts. Many of his earthworks were afterwards consolidated with masonry walls, and some of these fine examples of military architecture remain to-day, such as at Burgh near Yarmouth, Richborough and Portchester (16). These Roman forts are often to-day called "castles," but this is really a misnomer, as will be explained later.

The exotic culture of the Romans in this country passed away with the east-bound legions at the beginning of the fifth century. And with the flight of the eagles from our shores the storm-clouds hovering in the north and east swept down upon the land, enveloping hills and valleys in the pall of the Dark Ages.

To east and south—the Pirates; to north and west—the Painted Folk! Was this the time when the hero Arthur, last descendant of Cassivelaunus and the great chiefs of the Belgae, fell in the hopeless struggle against the powers of darkness which were closing in upon his country? Was the hope of his return to lead them back to victory the only light which shone upon the people of the Dark Ages in Britain, giving birth to the immortal Legend?

The unhappy Britons chose the least of two evils and asked the Saxons to help them against the Picts. The Saxons obligingly accepted the invitation—and took possession of the country! An inept, easy-going people, their partnership with the deteriorating Romano-Britons seems to have done them little good, and it was not long before they themselves were being oppressed by new piratical hordes. And on all sides the cry rose up anew: "From the fury of the Northmen, good Lord, deliver us!"

The Danish raids began just before the close of the eighth century, and the heathen armies marched and counter-marched through the land for a hundred dreadful years, until the old Saxon kingdoms of Northumbria and East Anglia had been swept away and Mercia and Wessex all but overcome. At last the rot was stayed by Alfred the Great, who built the first Saxon navy and beat the Danes in their own element, the wrecks of a hundred and twenty of their longships strewing the shores of Swanage Bay.

On the uplands of Dorset, a short three miles from Wimborne Minster, lies one of the grandest of the prehistoric hill-forts, Badbury Rings, said by some to be that *Mons Badonicus* where Arthur received his death wound. On the death of Alfred in the year 900, his nephew Ethelwold raised the standard of revolt and shut himself up in Wimborne. Thereupon Edward, Alfred's son and the rightful heir to the throne of Wessex, marched with an army to Badbury and took up a position in the old hill-fort. This appears to have been the first occasion upon which a Saxon army had attempted to fight behind earthworks, and Ethelwold was so upset by this unsporting behaviour of his rival that he fled away from Wimborne at such speed that Edward could not catch him, and only stopped when he had got to Northumberland, where the surprised Danes immediately made him their king.

Whatever the Saxons may have thought of Ethelwold's behaviour, they should, however, have remembered him with gratitude in after years, for it seems to have been King Edward's expedition to Badbury Rings which gave him the great idea of constructing an elaborate system of fortified towns to protect his subjects and keep the Danish armies in check.

Some of these "boroughs" of Edward, King of Wessex, and his no less energetic sister, Ethelfleda, Lady of the Mercians, were simply restored Roman towns such as

15 OLD SARUM, WILTSHIRE: the Norman Mound, Cathedral Foundations and Ramparts of the abandoned City, seen from the Air

16 PORTCHESTER, HAMPSHIRE : built in the Angle of a Roman Fortress

Towcester, Colchester or Manchester. Where the earthwork
defences were entirely new, however, the Saxons do not
appear to have adopted the rectangular Roman plan but seem
to have laid out their ramparts along the more easy-going
lines of prehistoric fortification, which is just what one might
have expected of them. Sometimes they even used an existing
prehistoric enclosure as the basis of a new borough. (This
seems to have been the case with Edward's borough at Witham,
and possibly excavation will show that many more supposedly
Saxon earthworks are simply ancient sites re-fortified, and that
as earthwork engineers the Saxons were practically negligible.)
The original defences of many of these early boroughs have
disappeared with the growth of the towns which once they
protected, as in the case of Hertford, Buckingham, Notting-
ham or Stamford; but a few which were afterwards deserted
or almost so, remain to this day. Such are Witham and Maldon
in Essex and the Mercian fortress of Eddisbury in Cheshire.
One of the later boroughs now forms the outer ward of the
great castle of Dover (38).

The idea of fortifying towns having been recalled by
Edward, the Danes were not long in copying it, and they
too founded boroughs, usually on the banks of large rivers,
where they could keep up their water-borne communications.
Only one such Danish work remains to-day in this country,
that at Willington in Bedfordshire. Originally it was simply
a rude semicircular enclosure on the banks of the Ouse, but
it was enlarged several times subsequently with outer en-
closures laid out on the rigid rectilinear pattern, as befitted
a fortress of such stern warriors as the Danes. Another
interesting feature connected with this earthwork is the series
of repair docks for the longships.

Having now surveyed the history of earthwork fortification
in this country up to a period approaching the Norman
Conquest, let us cross the Channel for a brief space to investi-
gate what was happening in that country whence the new
invaders were soon to be passing to the conquest and occu-
pation of England. This diversion is, I regret, unavoidable,
for the reason that the actual type of building we are dis-
cussing in this book, the mediaeval castle, was not originally
a product of this country but an importation of the Norman
conquerors. There is documentary evidence to prove that
there were almost certainly not more than three castles
existing in this country prior to the Conquest, and these

were all constructed by the Norman favourites of Edward the Confessor.

During the six centuries of Saxon government, the disciplining of this country cannot have been a very easy matter, divided as it was into several petty kingdoms. Contemporaneous conditions on the Continent, however, were possibly worse, as, after the collapse of the Roman Empire of the West, there seem to have been few Frankish kings who could command much respect from their subjects, and internal strife seems to have been all too frequent. The first great Frankish ruler was Charlemagne and there seems little doubt that during the second half of the eighth century, when this fine soldier and scholar was endeavouring to bring peace and order to his half-barbarous empire, he found that the hitherto weak government had produced a crop of petty despots—in fact, a more or less formidable *aristocracy*.

Such a state of affairs had never before been known in Western Europe. A primitive organisation cannot afford to have more than one ruler—the king. Anyone who may acquire sufficient authority to become a petty ruler in his own district is a direct menace to the head of the state. It is therefore absolutely essential that the king should have some sort of hold over his aristocracy so that he may count on its support in case of trouble. Thus was developed, not suddenly, but over some considerable period, the system of land tenure which is known as the "Feudal System."

The strong position of a mediaeval aristocrat was due to his wealth, this consisting almost entirely of the revenues from his lands. The king had therefore to make sure that the feudal lord quite understood that all land belonged to the Crown and that any "fief" bestowed upon a subject was given solely in expectation of loyal assistance should the king require it. In the perfected form of the Feudal System, the owner of land had to contribute soldiers to the feudal levy in proportion to the value of the revenues from his property. If the feudatory failed to keep his part of the bargain and the men were not forthcoming when required, or if any other form of rebellion was engaged in, the king would then be obliged to march on him and take his lands, thus effectively drawing his teeth for a while.

The urgent necessity for the introduction of some such system will easily be realised when we find out, for instance, that these Frankish nobles of the early ninth century were

actually fortifying their houses. It must be understood that this was not a case of their obligingly providing communal fortresses in which the inhabitants of the district could shelter in case of an invasion. It was the lord's house which was being fortified against his tenants, against his neighbour, possibly even against the king. For the first time in the history of military architecture in Western Europe we find a new type of fortress arising—the *private* stronghold.

These structures were such a complete innovation that there was not even a name for them, and one had to be invented. The only type of fortress known hitherto was the communal stronghold, called in the "official" Latin tongue "*castrum*." (This word, of course, was employed by the Saxons, who probably learnt it from the Romano-Britons, and "-caster" or "-chester" remain to-day as suffixes to the names of many places in this country.) "*Castrum*," however, would not suit the small fortified houses which were becoming all too common during the ninth century in Western Europe; therefore the diminutive form "*castellum*" was employed to describe them, and this word, shorn of its Latin suffix "*-um*," is the origin of the title of "castle" which we give to the mediaeval fortified houses in this country. Some of the great hill-forts of prehistoric days are to-day called "castles" but this is really incorrect: the castle is essentially a *private* and not a *communal* fortress.

What sort of structures these ninth-century castles were must be discussed later, when we consider their successors in this country. Generally, of course, they were provided with earthwork defences, but even a thorn-hedge was not considered too humble a protection. Thus, in 864, Charles the Bald (they could not *all* be Charlemagnes) issued an edict that all those who had made castles, strong places or hedgeworks without his permission should forthwith be compelled to destroy them, because through them the whole neighbourhood suffered depredation and annoyance. This edict shows how completely the castle-building fashion had taken hold of the Frankish nobles in the ninth century.

At that period the inhabitants of the north-western coasts of what is now France were suffering just as much from the depredations of the Danes as the Saxons were in this country. In 886, Alfred the Great made a treaty with the Danes of Guthrum giving them the eastern part of England. In 911, Charles the Simple made the same kind of bargain with the

Danes of Rolf the Ganger, and the country which was ceded to them came to be known as Normandy—Land of the Northmen. The Normans seem to have been just as turbulent neighbours to the French as the Danes of the Danelagh were to the Anglo-Saxons, but, occasional lapses notwithstanding, they seem on the whole to have settled down by about the year 1000 to be good Frenchmen, though subjects of a separate Duchy.

The Feudal System seems to have been finally adopted by the Normans towards the middle of the tenth century, and the new feudatories were probably not slow in following the custom of other feudal lords and building fortified houses in which to live secure from predatory neighbours. Possibly there were also occasions when their own tenants were feeling ill-disposed towards them. This was certainly the case when they settled in England—the Saxon tenantry were so hostile that no gentleman's estate could be considered complete without a castle.

Having now digressed, I am afraid at some length, in order to investigate the circumstances which led to the rise of castles on the Continent, let us turn straightway to the consideration of the remains of early castles in this country.

The earliest form of castle defences may have been merely the surrounding of the timber house of the Norman noble with a quick-set hedge or even a rough stockade or fence. Such defences, however, besides having all by now utterly disappeared, are hardly worthy of our notice in this book. The first really efficacious castles must have been those constructed in earthwork.

At first glance it might be thought that there would be no difference between the earthwork lines of a Norman castle and those of a prehistoric "camp." To a certain extent this was in fact so. The Normans, too, had their "promontory forts," as at Sauvey in Leicestershire (later an important royal castle), where an enormous ditch and rampart was constructed across the base of a narrow steep-sided spur between two shallow ravines. Two notable examples of castles planned by cutting a curved ditch between the flanks of a more obtuse-angled promontory may be seen at Ludlow in Shropshire and Pembroke in South Wales.

They had their cliff castles, too, semicircular enclosures of ditch and rampart at the summit of a steep cliff, as at Kidwelly (86) and Llanstephan above the shores of Camarthen Bay.

17   A SMALL MOTTE-AND-BAILEY CASTLE RECONSTRUCTED

[Drawn by Norrell Edwards.
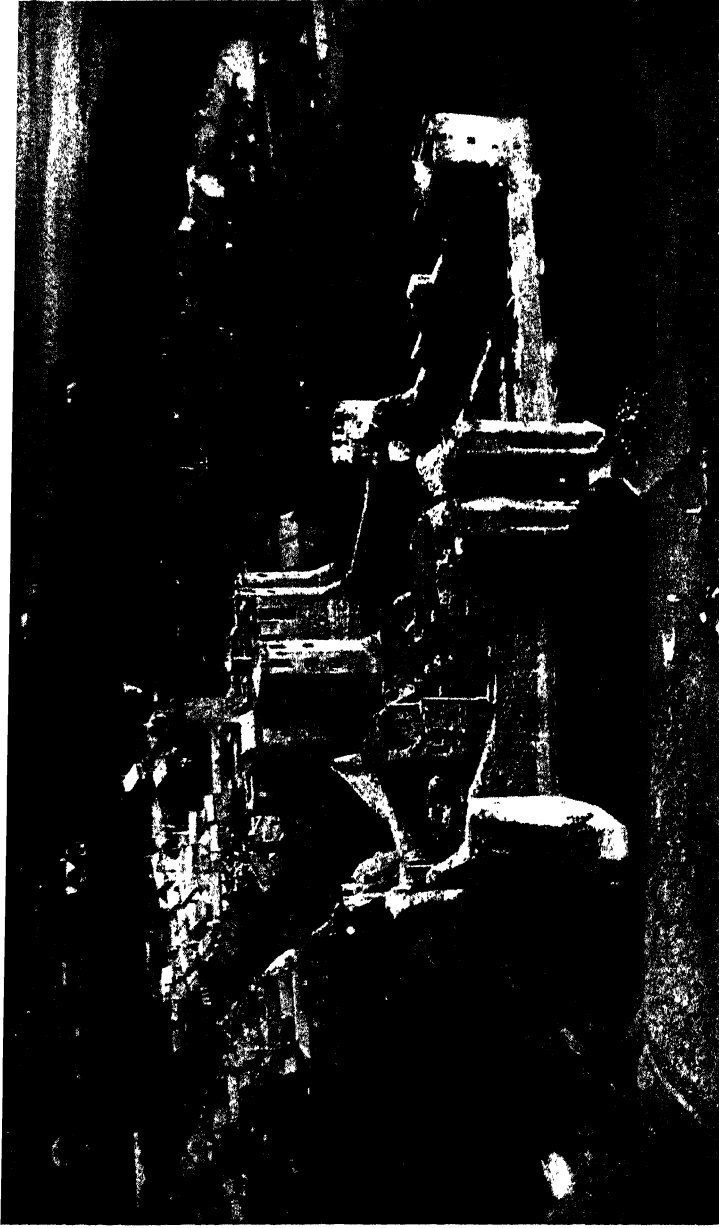
18  WARKWORTH. NORTHUMBERLAND : looking across the Bailey to the Keep on its Motte

A form of plan which falls, as it were, midway between the last two types—the promontory castle and the cliff castle—is what I (for want of a better description) will refer to as a "quadrant castle." This seems to have been a favourite type of plan with the Normans, who would endeavour to find some place at the edge of a cliff where it was cut by a subsidiary ravine. A house built in one of the angles between this and the main cliff would already be protected on two sides and a curved quadrant-shaped ditch cut joining these two sides would complete the defences of the place. This plan may be seen at Norham in Northumberland and Barnard in Durham.

The same type of plan is met with in the case of some castles built in the angles of Roman-walled towns, such as at Pevensey —or at London itself. Similarly, you may observe the "cliff castle" plan when a castle was built outside and adjoining the walls of a Roman town, such as the first castle at Rochester, now called Boley (bailey) Hill.

The promontory, cliff or quadrant type of plan is of course all very well in such districts where naturally protected sites exist. In this country, however, such sites are few and, generally speaking, the majority of castles required to have their complete perimeter fortified with earthwork. Let us, therefore, leave for a while the special types of castle plan and turn to the simple form of a complete enclosure on more or less level ground.

The method of commencing a simple enclosure of ditch and bank work is first of all to mark out a line from which to start digging. This might be done with the aid of a plough or traced out more romantically with the spear of the future castellan. Digging is commenced by cutting the ditch and throwing up the earth to form a rampart on the inner edge of the ditch. As the work proceeds the ditch becomes wider and deeper and the rampart higher and wider. The main scarp of the work, that is to say the slope which will face the enemy, is becoming higher and higher, the labourers carrying up the earth in baskets and depositing it upon the ever-growing rampart. If they go on doing this for a few weeks, the rampart will become so large that the sides of it will almost meet across the enclosure.

Perhaps you are now beginning to see the great difference between mediaeval and prehistoric earthwork—the comparative scale of the works. The great hill-forts covered anything

D*

the castle look rather like a key-hole (12)). An additional defence provided beyond an entrance is usually known as a barbican, and we may call these little enclosures, for want of a better name, barbicans, although sometimes they are so large as to become complete "outer wards" and would contain the horses and other beasts belonging to the castellan, who would be only too glad to get them out of the confined space within his main enclosure.

Having discovered the value of the mound in defensive earthwork, the Normans proceeded to experiment further with it. Most of us have spent an hour or two of a summer holiday in constructing castle mounds on the sands of the seashore. The setting-out circle is marked out and the first circuit of the ditch completed. As the ditch becomes deeper and the mound grows its summit becomes smaller as it rises more and more rapidly with each spadeful of soil. At last the desired conical shape is attained and the banner affixed to the summit of the completed symbol of sovereignty, which may then be fought for until one shall mount upon it to declare: "I am the lord of this Castle—avaunt ye baser folk!"

Once a small mound had been constructed by an early Norman castle-builder, a comparatively small amount of deepening of the ditch around it would raise the mound proportionally much higher. If the operations were continued the mound would rise rapidly until it became more and more conical in form. The greater the height, however, the less would be the space available at its summit, until a point would be reached where the mound would be of no more use as a residence. Height, however, had been attained, and at surprisingly little cost in labour by reason of the diminishing of the area of the top of the mound.

Thus yet another new feature was discovered by the Normans, the conical mound or "motte." What the origin of this curious word may be no one can say with certainty, and its derivation is best left for the present for elucidation by some more erudite person than the present writer.

What were these lofty conical mounds used for? Their summits were too small to have been of any use for residential purposes and, moreover, anyone who had lived for any space of time at the top of such a mound, perhaps sixty feet above the ground level, and with sides sloping at forty-five degrees with the horizontal, would have very soon become tired of

it and preferred to take his chance with the others living on the level.

They were, of course, invaluable as watch towers, their crests commanding a wide range of view over the surrounding country. In some parts of England there are mottes called to this day by the name of "Toot Hill," which means "hill of watching"; there is a Toot Hill at Pirton in Herts which is an ancient motte. (The sites of residential castles, as at Downton in Wilts and Wymondham in Norfolk, are sometimes called "Moot Hill" which means "hill of judgment.") Moreover, their summits were so difficult of access that any hardpressed Norman who cared to scramble up to the top of his motte and thence roll things down its sides upon the heads of those who were trying to dislodge him would find the labour he had expended in constructing it well worth the while. The conical motte was, in fact, a tower, and "towers" they were originally called until about the beginning of the eleventh century, when the first millennium had been seen safely past and people were considering it expedient to build strong towers of stone.

The edge of the motte-top was, of course, palisaded in the same way as the edge of the castle mound or the crest of its ramparts. Early castles are often referred to as "wooden castles" (the earthwork being taken for granted) and, in the same way, early mottes are often called "wooden towers."

Occasionally a motte was added to a castle mound to provide this with a tower of refuge, but there was seldom room for its broad base. Bramber is almost the only prominent example in this country, though probably a few others do exist. With a castle consisting only of earthen ditches and ramparts, however, a motte could always be added, either on the line of the ramparts or outside them. Some of the mottes in this country may have been added to their castles, but it is difficult to discover if this is the case, and it is indeed most probable that most mottes are contemporary with the foundation of the castle.

The motte once discovered, it was apparently hailed with enthusiasm by the castle-building Normans, and we find everywhere the vertical scale of castle earthwork increasing. Either you had a lofty castle mound or you had an ordinary ditch-and-rampart enclosure and a conical motte. This last type of earthwork castle became very popular during the eleventh century, and archaeologists of to-day have come to

refer to it as the "motte-and-bailey" castle. The "bailey," of course, refers to the courtyard at the foot of the motte, and is from a Norman-French word, probably not employed until later, referring to a palisaded enclosure. (Actually, the enclosure was always called the "castle" and the motte the "tower.")

While the Norman lord seems to have preferred to live on a broad, deeply ditched mound, the motte-and-bailey type of castle became very popular as a purely garrison fortress; and the large bailey, suitable for the accommodation of a small body of troops in wooden huts, could in addition be made to serve as a protected camping-ground when the garrison was augmented by troops during a campaign. Thus the great castles built by William I in the years following the Conquest were nearly all of the motte type. Warwick, Huntingdon, Rockingham are all motte-and-bailey castles, as is also the greatest of all castles, royal Windsor (44). It will be noticed that William generally used the stern rectangular plan when setting out his castle baileys. The aerial view of Warkworth (18), although this was not, as it happens, a royal castle, also shows a rectangular bailey, its palisades long since replaced by stone walls.

On the whole, however, the most popular shape for a castle bailey was the circle or oval, for the reason that it was so difficult to get the palisades to run smoothly round the sharp angles of a rectangle, and also because at the angles of an earthwork enclosure, more earth comes out of the ditch than is needed to form the ramparts, and the surplus soil has to be carried somewhere else for disposal.

Thus the typical motte-and-bailey castle was laid out by striking a rough semicircle from the base of the motte and curving the ends of this line so as to bring the ramparts round to meet the motte ditch at approximately a right-angle (11). (The bailey palisades had of course to cross the ditch and mount the sides of the motte to join the palisades at its summit or someone would be getting into the bailey by way of the motte ditch (17).)

Some of the great motte castles, such as Ongar and Pleshey in Essex, are on this plan, and their kidney-shaped baileys may clearly be seen to-day, but the plan is chiefly noticeable in the innumerable little castles which one finds scattered all over England, many of which may have risen during the Anarchy of Stephen's reign.

Some idea as to the state of affairs during this unhappy period may be gathered from the Anglo-Saxon chronicler's notes on the year 1137, two years after the death of Henry I:

"and they filled the land full of castles.
"They cruelly oppressed the wretched men of the land with castle-works;
"and when the castles were made they filled them with devils and evil men.
"and they said openly, that Christ slept, and His saints."

Most of these "adulterine" or unlicensed castles were destroyed by Henry II when he came to the throne in 1154.

The majority of the motte-and-bailey castles were probably non-residential and nearly all represent strife of some sort. Some may have been siege-castles, though most of these would have been destroyed, of course, after their use had become unnecessary.

In the November of 1066, William appears to have occupied himself during his flank march round London by founding little motte-and-bailey castles in every gap in the Chiltern Hills between Wallingford and Berkhamsted, where the surrender of London eventually took place, and where a great motte castle now stands.

One can, of course, find motte-and-bailey castles on other than free sites. Cliff-side castles are frequent. Most of the Conqueror's castles are such, having one side of their baileys along a cliff edge. At Oxford a great semicircular bailey was laid out beside the Thames with a motte at one end. In the same manner as castle mounds were carved out of the ends of spurs, mottes also were formed, usually with their baileys spread out behind them on the hill-side. Thus was fashioned one of the last of the English motte-and-bailey castles, built at Topcliffe in Yorkshire by young Geoffrey Plantagenet in the summer of 1174 when he was besieging the rebel Mowbray's castle at Thirsk.

What a spectacle England must have presented in the years following the Conquest when the great mounds were rising through the length and breadth of the land! How the unfortunate Saxon peasantry must have been swinked and sweated to raise the hated symbols of their departed freedom! (Eight days only saw the Conqueror's castle of York rise from its deep-dug ditches.)

You who make non-stop tours of all the cathedrals of England should pause on your way to Norwich to take a glimpse of Roger Bigod's great motte at Thetford (19), eighty feet high from the bottom of its stupendous ditch, and see how the architects of old wrought in other materials than stone.

But it is time that this chapter was brought to a close.

So we will now turn to *real* castles.

19  THETFORD, NORFOLK : the finest Motte in England.  The figures of the Children give some idea of its Height
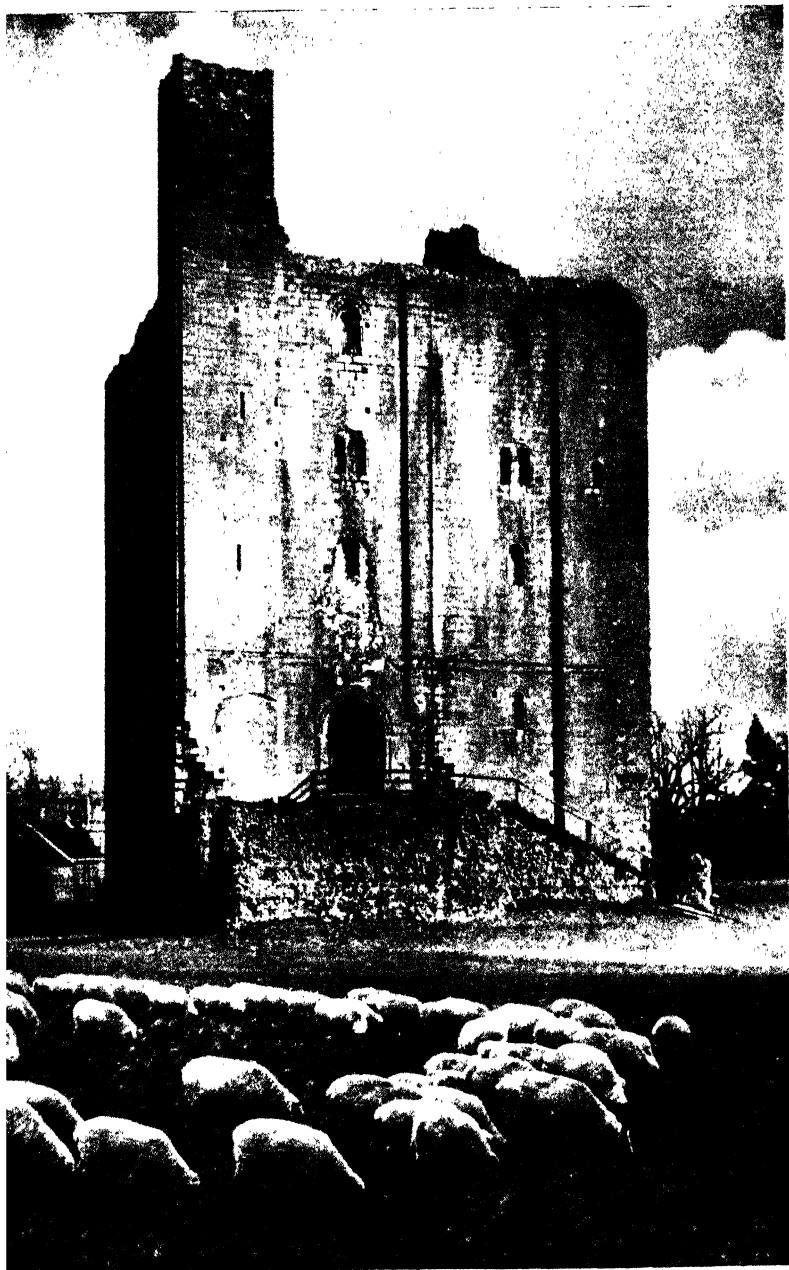
20 HEDINGHAM, ESSEX: the most perfect of English Tower-Keeps

# GREAT STONE TOWERS

"The Glorie of the castelle is yn the dungeon that
is both larg fair and very stronge booth by worke
and the site of it."

WE have investigated at some length the development of the
earthwork defences of the early Norman castle. It is now
necessary for us to consider the house which such defences
were designed to protect. For in its origin the castle was
essentially a protected residence, with the garrison castle as
a later development.

The first castle halls were, of course, no different from
any other large houses of the period. Only the surrounding
defences made them castles. The time had not yet come when
the house itself was to be made defensible, and eventually
house and defences incorporated so as to form the perfect
fortress, bearing no resemblance at all to the unprotected
residence.

It is almost certain that even at the time of the Conquest
there were no stone houses in England, practically all
buildings being of timber construction. The Normans came
from a country which had no stone architecture of its
own at the time (although a very fine timber technique), and
what little they had been able to learn about masonry con-
struction had been derived from the Byzantines, who were
a long way off for those days.

It is true that a fine style of masonry architecture was being
developed in Normandy during the eleventh century, pro-
ducing a series of beautiful churches and ecclesiastical build-
ings, but building in stone seems to have been a luxury at
that period, and it is doubtful whether the wealth of the
average lay lord would have been equal to providing him with
a hall of stone in which to live.

It was probably nothing loth that he built his house of
timber, for his ancestors had lived in wooden halls and his
knowledge of timber construction was probably unequalled.

There are three ways of building in timber. In some Central
European districts such as Switzerland, where the inhabitants
have never developed a good style in timber construction,

they merely cut down the trees and lay them along the ground horizontally as if they were courses of stones, thus raising the walls in "log-cabin" fashion. This is very wasteful of material and unscientific in construction, and it is a difficult business to cut doors and windows through such walls.

The classical or sophisticated method is to square the timber and erect a rigid, properly braced framework of strong balks, which may then be covered with boards, shingles, or even tiles (although this, of course, is rather stretching a point). This involves a knowledge of joinery, as, besides squaring the timbers it is necessary to form neat, rigid joints between the various members of the framework of the house.

The Scandinavian method was evolved "out of nothing" by a people familiar from earliest times with timber construction; one which, moreover, had for many centuries been used to building ships. Although not so sophisticated as the classical people in their construction, the Scandinavians were much more practical than the log-cabin school of Central Europe. Four keels were first laid, crossing to form a square or rectangle, and along these keels tall fir masts were stepped to form the supports for the high-pitched roofs which the snows of Scandinavia rendered necessary. Round such a central structure were erected the walls of the house, these being formed of screens of cleft logs fastened vertically to horizontal heads and sills, after the manner of an ordinary boarded partition. By making the keels longer and stepping more "masts" the house could be made as large as desired. The masts made useful supports from which to run cross partitions, and the loftiness of the structure made it possible to insert upper floors.

None of these houses exist to-day, but there are a number of churches remaining on the west coast of Norway which are of this construction, some of which, moreover, are about contemporary with the earliest castle halls in this country. (We have, actually, a very small portion of a " stave-church " still remaining at Greensted in Essex. The masted interior has vanished long ago, but the side and west walls of the nave still consist of the timber screen-walls of the original church.)

The trouble with the masted structures of Norway was their lack of rigidity. The principle of triangulation seems to have been unknown to the Scandinavians, and anyone who

has lived in a timber house knows how it is apt to twist and flop if it is insufficiently braced. It seems possible that the classical principle may have reached the timber builders of Normandy about the time when the first castle halls were being erected, and that these may have been a combination of masted construction and the framed and braced technique of the classical peoples introduced into Normandy through the Byzantines.

If this is so, we can form some idea of the appearance of the early Norman castle hall. It may have been large and lofty, with narrow aisles on all four sides and perhaps even a low portico or loggia round this, in the case of the more elaborate examples, for such exist in the stave-churches and are hinted at in some of the descriptions of timber castle halls which have come down to us. The walling would appear as vertical boarding and the well-pitched roofs were probably covered with shingles. The ends of the gables may have been ornamented with dragon-heads, relics of the piratical long-ships of the bad old days of the Norman castle-men.

The only representations of early castle halls which have come down to us may be seen in the Bayeux Tapestry, a practical memento of the devotion of the Conqueror's queen. This work of art, however, needs to be examined with caution, for its accuracy is affected by two factors. One is that Matilda had to get a great deal into a short length of tapestry, and thus everything is squeezed together horizontally and appears disproportionately lofty. The other is that it was probably designed by a Byzantine artist who may have had ideas of his own. Thus one might be a little suspicious, for instance, of the elaborate domed roofs of some of the castle halls, very like Byzantium but rather less like eleventh-century Normandy. (On the other hand, the designer has shown dragon-heads on the gables.)

The Bayeux Tapestry shows clearly the castle mound (54) —rather squashed laterally, however—with the ditch at its foot and the sloping bridge rising, at an impossible angle, to the edge of the palisaded summit. Over the palisades appear the upper portions of the defenders and behind them rises the ornate timber hall of the castle. Miss Nowell Edwards has endeavoured to suggest the actual appearance of such a castle in her drawing (14), but you are at liberty to judge for yourself what the Bayeux artist was trying to portray.

Let us now consider the interior arrangements of the

Norman castle hall. The first timber houses of the Frankish landowners possibly consisted of a single pillared hall—very much like an ordinary English barn—in which the owner, his wife and family, his servants and his horses and cattle, all slept together, kept warm by a central fire, the smoke from which escaped somehow through a hole in the roof if the door was left open.

When the time came for the animals to be ejected and housed in separate buildings the house itself would naturally become considerably smaller, and possibly the spacious pillared effect would be lost for a time until the expanding population of the castle would necessitate the enlargement of the hall to its old proportions.

Thus, despite the efforts of the artist of the Bayeux Tapestry to glorify the castle halls of the Conquest period, they were actually probably quite simple structures until the twelfth century was drawing to its close. Let us for the time being, therefore, leave the more elaborate type of dwelling-house to consider its growth from first principles.

Throughout the mediaeval period we find two essential parts of a dwelling-house—the Hall and the Chamber. In a democratic organisation the segregation of the sexes was probably the only consideration, and this may have been effected by their sleeping on opposite sides of the hall in screened-off compartments. With the rise of the feudal aristocracy, however, some kind of privacy seems to have been found desirable by the owner of a large estate and its great house, and thus we find him gravitating with his family towards one end of the common hall, finally esconcing himself in a separate compartment—the Chamber.

From this time onwards the hall becomes a symbol of social rank, with an "upper" and a "lower" end; entered at the latter extremity and having at the opposite end the private chamber of the lord. Thus we arrive at the root of all mediaeval domestic planning, the fundamental principles of which we can detect both in castles and in unfortified houses throughout the Middle Ages.

To make a more definite statement, the early Norman house consisted primarily of two rooms, a Hall and a Chamber of approximately half its size, both rooms being usually end to end and under the same roof. Meals would be taken in the common hall and cooking would probably be done either over its central fire or in the open air. The Chamber would

be the lord's select domain and in it he, his family and his maidservants would sleep in privacy. (This, of course, applies to the most primitive plan in which there were only the two rooms.)

It will be seen that this arrangement gave no room for storage of any description, and it was thus usual wherever possible to divide the house into two storeys and have a basement under the hall and chamber which could be used for this purpose. In such cases the entrance would be on the first floor by an outside timber staircase.

It will be necessary at this point to explain a convention which will be used throughout this book. It was the usual custom in the Middle Ages to have storage basements to mediaeval halls, keeps, etc. These basements were not beneath the ground and should therefore be called, strictly, the "ground floor." As, however, the entrance to such structures was nearly always on the first floor, the lower storey became in effect a basement, and will be called so throughout this book, the term "ground floor" being correspondingly omitted.

With the advent of the separate chamber in the planning of early Norman houses, more attention was given to sanitary arrangements. In the earliest houses there had apparently been no permanent latrines, but when ideas of comfort had advanced sufficiently for a private room for women to be provided, it was not long before permanent latrines were constructed in connection with the Chamber part of the house. By the twelfth century at the latest, the essential parts of a house were the Hall, the Chamber and the Latrine. These "private chambers" as they were more often called, are nearly always to be found arranged in the walls of Norman keeps, and unfortunately a nineteenth-century convention among archaeologists has give to them the name of "garderobes." Besides being incorrect this designation is most misleading, as the later Norman wardrobe was a most important room, in which was kept not only the clothes of the lord and his lady, but also their private effects and personal treasure. (Many of the little chambers you find hollowed out in the thickness of the walls of a Norman keep, especially those adjoining the "Chamber," were probably wardrobes.) Let us therefore call the latrines such, for although Latin, the word is more convenient than "privy chamber" which is the correct designation.

The great hall was, of course, the centre of the life of the castle, and we shall see in the next chapter how by the end

of the twelfth century it had grown with the enlargement of the castle population into a spacious structure, possibly aisled, with its chambers, kitchen and a whole suite of offices of all descriptions. For the time being, however, we must continue to consider the simplest form of hall and see how its form was being adapted to the requirements of the castle-builder of the eleventh century.
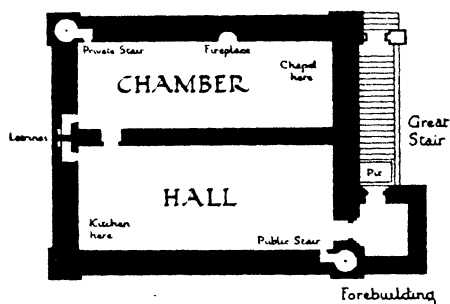
It has been noted that the commonest type of plan was that of a hall with a chamber of about half the size at one end, the two rooms being under one roof and raised over a storage basement. Up to the end of the tenth century these buildings were probably all of timber. It is curious that so few stone domestic buildings were erected prior to the year 1000; it can scarcely have had any connection with the popular belief that the world would come to an end with the first millennium. It is probable that the reason for this comparatively late trans-formation into permanent form was much more bound up with a shortage of skilled mason-labour which would be essential for the building of strong houses.

When, however, in the first years of the twelfth century many castellans were turning their attention to rebuilding their timber houses in stone, it seems to have occurred to them that while they were doing so they might just as well make the houses themselves defensible, so that the breaching and loss of the surrounding defences would still leave them in possession of their homes. In the case of castles without mottes the owners must have felt it most desirable to have some sort of refuge to which to retreat should the castle yard be taken.

We therefore find very few early Norman stone halls imitating the simple plan of the timber prototypes, as the eleventh-century castle-builder was endeavouring to modify this so that he could turn the building into something resem-bling a tower. The timber building being awkwardly long for this purpose, he conceived the idea of placing the hall and chamber side by side, making them of different widths but of the same length, so that they could both be enclosed by a thick outside wall forming on plan something much more nearly a square and thus more easily raised to form a tower. This is the germ of what is perhaps the finest feature in mediaeval military architecture—the great tower or keep.

The hall and chamber were placed on the first floor so as to leave a lofty basement for storage purposes. The entrance

was at one end of the hall and was approached by an outside staircase. At the opposite end of the hall a doorway led through the "cross wall" into the chamber. In the wall of the tower opposite the entrance were the all-important latrines. Hall and chamber often have fireplaces in their walls, but where there was only one fireplace this was almost invariably in the chamber. Flues from early fireplaces usually pass straight out through an external wall. There are usually two vents, one on either side of a strip buttress. The windward vent may have been closed during a heavy wind: the lee vent would then be assisted to "draw" properly by the protecting buttress. It is only in late keeps such as Scarborough that vertical flues are found passing upward through the walls. As the inhabitants of the castle might find themselves confined to the tower for a long period, a well was most essential, and sometimes there is even a small kitchen. In the mediaeval castle hall it was usual to have the kitchen at the lower or



THE MAIN FLOOR OF A HALL-KEEP:
A DIAGRAMATIC PLAN

entrance end of the hall, but in the keeps it often had to be at the other end. It may be taken as a general rule that in most castles the well was situated wherever possible conveniently near to the kitchen. At the upper end of the chamber (this is, of course, at the lower end of the hall, as the door to the chamber was at the upper end) was often provided what in mediaeval times was a very important feature—the chapel. Hall and chamber had well-pitched roofs over them, and the walls of the tower were carried up to protect these from damage by projectiles. The main walls were usually eight or ten feet thick, partly owing to the height of the tower and partly for defensive purposes. It was also very useful to be able for the first time to walk on the tops of your walls, well protected by a crenellated parapet. The various floors were connected with the summit of the tower usually by two spiral staircases constructed in the angles of the tower. One of these, the "public" stair, would be in the angle nearest the entrance and the other, more private, in the opposite angle

(sometimes only the latter goes down to the storage base-ment). The entrance on the first floor being rather exposed to projectiles, it was usually covered by a small tower called a "forebuilding," in the side of which, next the main wall of the keep, was an outer door whence a flight of stone steps led down the side of the keep to the ground.

It may be here noted in parenthesis that the word "keep" is of late origin. The official word current at the time when these great towers were in use was simply "tower," as wall-towers had not been invented, and thus the keep was the only tower in the castle. The more popular name for them seems to have been something like "donjon," a word of which the derivation is uncertain.

There will of course be no space between the covers of this book to deal, except incidentally, with the vast subject of the growth of English Architecture. One must pause, however, to remember that the early Normans introduced into this country with their stern castles what was rapidly becoming a very beautiful architectural style. From their Scandinavian ancestors they had inherited the fine timber technique—a love of soaring pillared halls with slender shafts lending such grace to the interiors as had never before been known in the history of Architecture. From the Byzantines they had learned some-thing of building in stone and how to turn the arch in its most efficiently constructed form with ever-widening rings of "voussoirs" (as the stones of an arch are called). These they proceeded to embellish with the skill of generations of woodcarvers, the primitive "chip-carving" of the peasant carpenter becoming the glorious chevrons and cunningly contrived billet mouldings of all descriptions which are such riches to us to-day. From the basket-maker they had long ago learned how to weave the lovely patterns which beautify so many of their buildings. With the appreciation of true artists for the value of beautiful design they seized upon the flowered capitals passed to them from Classical days, adapting them for their own purposes with such artistry as the sophis-ticated Byzantine engineers could never have achieved.

Why do we call the beautiful architecture of the Normans "Romanesque"? How could a Roman, or even a Byzantine, have created the romance of a Norman doorway, Grendel and her fellows grinning down upon us from the rings of writhing beasts, denizens not of the soft shores of the Tide-less Sea but of the wilder regions of the North?

The architecture of the early keep was probably fairly simple. The only relief given to the stone walls was their division into "bays" by slender strips or embryo buttresses, relics of the timber masts of the older buildings. Sometimes, in later keeps the angles are thickened out slightly to allow more room for the staircases in what were after all not very thick walls, and these angles were then usually carried up above the battlements as angle turrets. Window openings were very small indeed in the lower storeys, partly for protection against projectiles (and of course against escalade), and partly because there was no glass. In order to keep all large openings as high as possible, the system of clerestory lighting was borrowed from the great churches, and thus it will often be noticed that the halls and chambers of some of our great keeps are surrounded by galleries cut in the thickness of the wall, the larger windows being in this and the body of the room below being either unlit or else provided with much smaller windows. As the church architects began to turn their attention to the design of these great towers we find them sometimes becoming quite ornate, with really beautiful doors and windows and sometimes even fine arcaded exteriors.

The construction of a great stone house of this description as a citadel made the reduction of a castle a very difficult matter. Such houses could not be burnt or carried by assault, and their walls were too strong to be battered down by the primitive siege engines at the disposal of the early Normans. With their well-stocked basements they could feed their garrisons for long periods. Some method had to be devised by which the proud stone tower could be taken by a determined besieger.

The reply to the stone castle was the mine. The patient besieger could impress the local peasantry and set them to driving mine galleries towards and through the foundations of the tower, propping it up with stout timbers until such time as a fire lit amongst these would destroy them and bring the wall above crashing down in ruin. The reply of the castle-builder was to make his foundations thicker and thicker, so that his tower stood upon a strong plinth, above which the wall could be stepped or sloped back to the face of the wall above.

Having discussed the development and typical plan of the Norman "hall-keep" let us now consider such examples as

remain to us in this country of this magnificent type of structure.
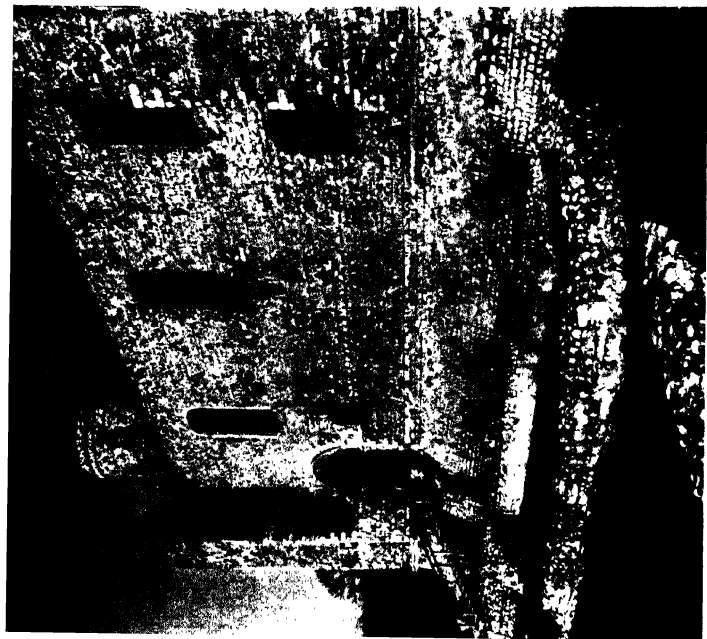
First and foremost comes, of course, the great White Tower of London (21), which was probably commenced by the Conqueror's orders about 1077, the architect being Gundulf, bishop of Rochester, known as the "Weeping Monk of Bec."

The White Tower is not by any means an early type of hall-keep but is one of the most elaborate in the country, as befits the metropolitan fortress. Besides its basement and main floor, it has an intermediate storey as an entrance floor and to act as a sort of outer lobby for guards and lesser folk. The chapel at the upper end of the chamber is the finest in any keep in the world (29), being a complete little church in itself, having its own clerestory to match those of the adjoining hall and chamber. Unfortunately the main storey of the tower has been divided, and a floor constructed at the level of the gallery, with the result that the proportions of the hall and chamber are spoiled. The forebuilding has now disappeared, but its position is shown by the larger windows, which it once protected, at the southern end of the gallery of the great hall. As the hall was at a higher level than the entrance floor of the forebuilding, the upper storey of this was the kitchen, which was thus able to be in its proper position at the lower end of the great hall. At the opposite end of the hall, and in the adjoining chamber, were the latrines. Two staircases are in the usual position, one next the entrance and the private stair, nobly provided with a special circular turret, at the opposite angle. This being an unusually large and commodious keep, there is a third staircase at the upper end of the great hall. Beneath the chapel are two storeys of vaulted prisons, the lowermost being the grim "Little Ease"; there was possibly also another prison in the basement of the forebuilding, as this was the usual position for the castle prison of Norman times. The architecture of the keep shows the transitional style. The strip "buttresses" are present, but the broadening out of the angle pilasters and the special circular turret for the north-east stair show the departure from the old wooden technique towards the fully developed masonry style. The Tower has also a fine stepped plinth.
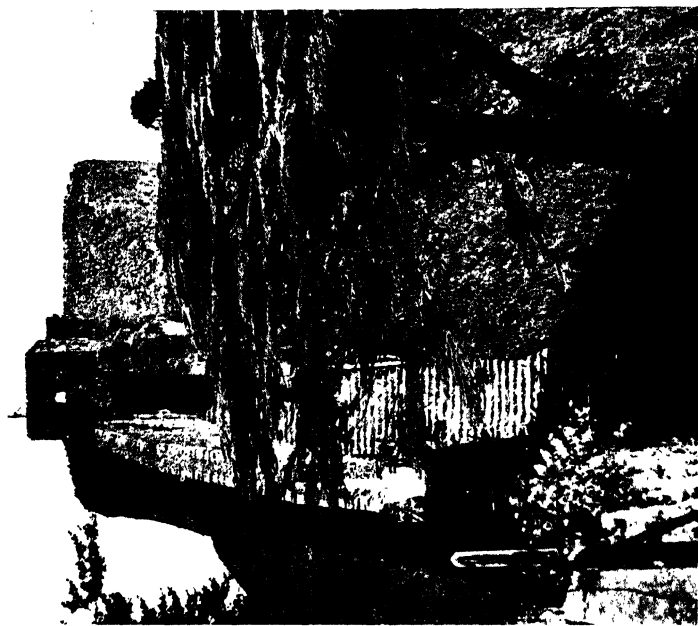
From the metropolitan fortress let us now turn to Colchester (22), the largest keep in existence. This enormous tower is 152 feet long and 111 feet wide, and when perfect

21   THE TOWER OF LONDON : a Norman Hall-Keep, still the Metropolitan Citadel

22a CARISBROOKE, ISLE OF WIGHT: A fine example of a Shell-Keep



22 COLCHESTER, ESSEX: a Corner of the World's greatest Hall-Keep

must have completely dwarfed the Tower of London. Like the latter, it had also the luxury of a special entrance floor, above which, at the present day, the keep has unfortunately all. been destroyed. The span of the great chamber was so enormous that a wall had to be built down its centre to help carry the floor. It is not usual to find a chamber so divided, although many of the hall-keeps had a row of columns down the centre of the hall basement to help to support the some-times heavily loaded hall above—as at Middleham (p. 36). At the end of the chamber was a large and elaborate chapel, now unfortunately vanished, on the same plan as that of the Tower of London. To the west of this, over the basement well, was apparently the kitchen. There seems to have been no forebuilding, and the main doorway must have been approached by an external wooden staircase, which was so inconvenient that the door was afterwards moved down to the ground level. The keep was so large that it had a back door or postern in the wall opposite it on the first floor, a unique feature which still remains. There are several capacious fireplaces on the first floor. The exterior faces of the building are ornamented with the usual early strip buttresses, and the angles, overgrown like everything else in this enormous tower, project considerably and contain staircases and latrines. There is a stepped plinth. The cross-wall between the two halves of the tower has vanished, and to-day it is not easy to under-stand its original plan, especially since the insertion of the recent reinforced concrete interior which has completely destroyed the character of the building.

Having dealt with the metropolitan keep and the sur-prisingly Brobdingnagian example at Colchester, let us now turn to the provincial examples. Castle architecture and church architecture do not seem to have moved together in this country. While the actual plan of the Norman keeps seem to have been kept up to date, the architectural treatment—the only thing one has to go on when attempting to date buildings when there is no reliable documentary evidence as to their initiation—seems to have varied considerably with the district, and never seems to have kept to a consistent level with the fashion in Normandy and South-Eastern England.

Thus one of the earliest keeps in point of architectural style in this country is the beautiful tower of Norwich. Although elaborately ornamented inside and out with arcading it has no angle turrets but retains throughout the narrow strip

buttresses. Yet it is supposed to have been erected in the reign of Henry I, thirty or forty years after the Tower of London. It has unfortunately been disembowelled to serve as a prison, but its present use as a museum does not prevent one from studying its details. The first floor had a hall (the usual row of columns once supported this); a chamber and an elaborate series of latrines have been provided in the wall opposite the entrance. The hall had a kitchen contrived at its upper end by splaying off a corner, and the fireplace—later converted into a staircase—was arranged in the angle where it may still be seen with its "flues." A small room was constructed at the corresponding end of the great chamber, but the purpose of this is uncertain. At the upper end of the great chamber was a fine chapel, now destroyed except for its south wall, and a charming little apse was contrived in the angle of the tower. The walls of this apse are covered with carvings made by prisoners after the great tower was turned into the county prison in late-mediaeval days. The staircases are in the usual position. The main entrance is one of the most beautiful Norman doorways in England, and its forebuilding still remains, with a fine vaulted basement. The outer stair has gone to make way for buildings connected with the museum, the ground floor of which cuts the basement of the keep into two, leaving the original main floor of the tower as a gallery.

The arcaded glories of Norwich remind one of another keep which resembles it to a lesser degree, the rather smaller keep of Corfe in Dorset (23). The shattered ruins of this once beautiful tower—vindictively destroyed by the Parliamentarians after their repulse by its castellaine, Lady Bankes—form one of the grandest, if most pathetic castle spectacles in England. The keep had the usual two storeys, with a rather squarish hall, a wall beneath the centre of its span helping to support the floor, and a small chamber to the north. It has a much altered forebuilding in the usual position at the lower end of the hall. A special tower has been constructed beside the hall for the latrines, which discharge down the slope of the great mound. The exterior of the keep is ornamented with strip pilasters, rather wider than usual, but there are no angle pilasters and therefore no turrets. In place of the gallery around the main floor, there is a handsome blind arcade; the keep has such a lofty perch that the usual clerestory lighting could be dispensed with, and there were probably large
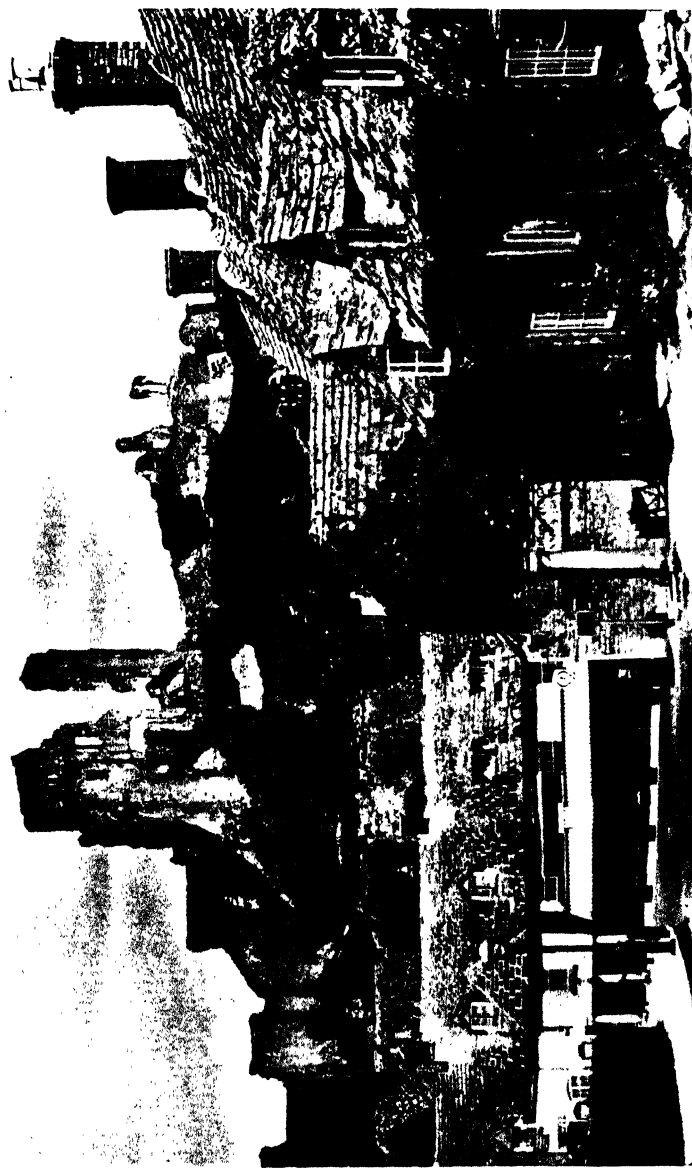
23 CORFE, DORSET : a View from the Village, showing the results of Parliamentary Mining on the Keep
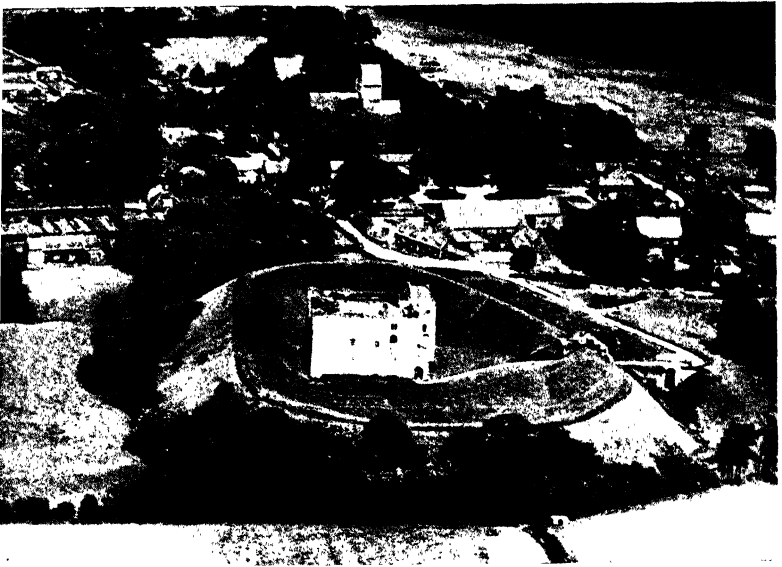
24 CASTLE RISING, NORFOLK, within its huge earthen Ramparts
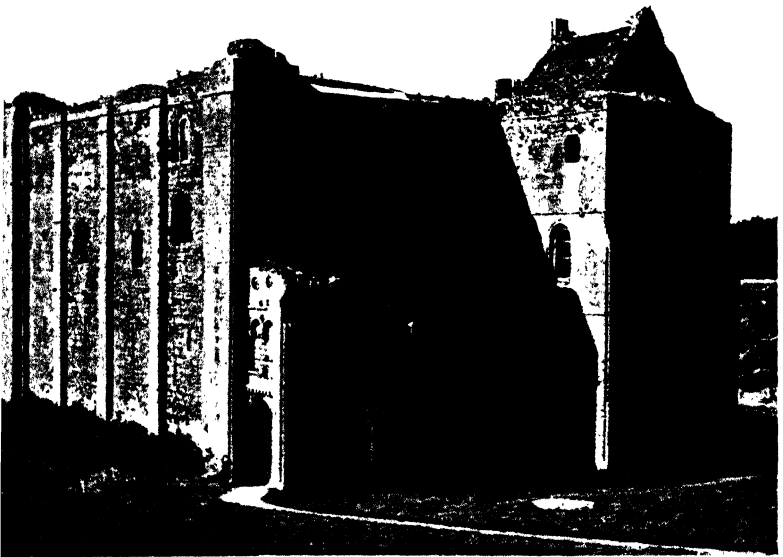


25 CASTLE RISING: the mid-12th Century Hall-Keep, with

windows at a convenient level within the lower part of the hall and chamber, although Tudor windows have been inserted where the earlier windows may have once existed. The public staircase from the hall to the roof remains, but the private stair was destroyed when the northern angles of the keep were brought down.

The foundations of a huge keep, the third largest in this country, remain at Duffield in Derbyshire. It had a large hall, the basement of which had a row of columns down it to support the floor, and a long narrow chamber. The staircases were in the usual position, and at the lower end of the hall the wall was thickened out for the latrines. It is a pity that such a magnificent keep is lost to us.

One of the most elaborately planned hall-keeps in the country may be seen at Canterbury. Instead of the usual two divisions it is actually divided into three. The two northern of these more or less follow the standard plan, with a fine hall, fifty-seven feet by twenty-seven, and to the north of it a chamber with a fireplace, forty-six feet by sixteen. On the opposite or south side of the hall, however, is a third "aisle" having a large and rather fine chapel at its eastern end, and to the west of this is a kitchen with a fireplace contrived in the angle turret, as at Norwich. It has also its own private stair to the basement, and a door to the well-shaft which rises in its north-western angle. The hall was approached by a door-way at its western end, and this was covered by a forebuilding with the usual external stair.

The private stair in the north-eastern angle of the chamber passes through all floors, while in the north-western angle of the tower was a stair rising to the roof, a long passage in the wall joining the foot of this to the chamber. Opening off this passage were the latrines, contrived at the eastern end of the chamber and approached also from the lower end of the hall. This part of the keep has been much damaged, but it would seem that the cesspit was beneath it at basement level, as a drain passes through the north wall of the keep at this point. The clerestory storey was destroyed about 1800, and the whole structure was gutted and used as a coke store by the local Gas Company until a few years ago. The keep has a battering plinth and retains the narrow strip buttresses of the earlier types, although it has fully developed angle turrets. Until the destruction of the last century it had very fine windows of apparently the reign of Henry I.

One of the most beautiful hall-keeps in England is that of Rising in Norfolk (25). It is clearly a copy of the nearby keep of Norwich, although it is possibly a good deal later in date. The basement of the hall had the usual central row of columns. At the upper end of the hall is a kitchen with an angle fireplace as at Norwich, and opposite it is a room which may be some kind of store or pantry connected with it. Between the two is a passage leading to the latrines contrived in the thickness of the keep wall. The two rooms at the upper end of the hall are matched by two at the upper or opposite end of the chamber. One of these is the chapel, which is a very pretty little room with arcaded walls and the remains of a fine east window. The beautiful main doorway of the keep was turned into a fireplace in Tudor days. From the forebuilding in which this is situated an exceptionally beautiful staircase descends to the ground level



THE INTERIOR OF THE HALL,
MIDDLEHAM KEEP, YORKSHIRE

(36). This is the finest staircase to any hall-keep in the country, entirely enclosed by high walls and most elaborately ornamented on its outer face and round its lower doorway (35), the embellishments having apparently been designed by the same hand as those of the great gate-tower of the abbey at Bury St. Edmunds, which is supposed to have been erected about 1130.

There is a rather poor hall-keep with very thin walls at Wolvesey, the bishop's castle, as opposed to the royal castle, of Winchester, the great tower of which has completely disappeared. Wolvesey Castle has in addition to the keep a very fine early hall, so that possibly the former was for the use of

the bishop only and its hall was not occupied by the common folk of the castle as was the case with most of the earlier hall-keeps.

Two fine late hall-keeps are those of Middleham in York-shire (p. 36) and Norham in Northumberland (30). These keeps are both much more elaborate than the earlier examples, having vaulted basements and various projections from the walls to provide small chambers leading out of the main rooms. Middleham has a row of columns under the hall (p. 36). Such keeps as these are not typical, but are somewhat anachronistic copies of the earlier examples. Kenilworth (55) is another late keep, apparently of the early thirteenth century, aping the earlier examples even so far as to have the narrow strip buttresses of the most primitive keeps.

An interesting early hall-keep is that at Portchester in Hampshire (16). As will be explained later, this keep was afterwards raised to turn it into the loftier "tower" type which eventually supplanted the early "hall"-keeps.

The very primitive-looking keep at Pevensey has no signs of a cross-wall and no windows in its basement, which is the only part of it remaining. Built up against a Roman wall, it employs the upper part of one of the Roman bastions as a chapel. The keep is surrounded by several similar bastions, but these are contemporary with it. Next to the chapel is the forebuilding, which appears to have a solid basement, as have all the bastions, that farthest from the entrance having had the latrines in its upper storey. Possibly this keep had no chamber, unless it was on a second floor over the hall, as in a tower-keep.

Another early hall-keep, like Pevensey very elongated on plan and with no subdivision except a wall supporting the centre of the first floor, is that at Sherborne in Dorset. It is at present a sorry ruin, and was much altered at a subsequent date. It has an interesting forebuilding, but the internal arrangements appear quite inexplicable. There is an early hall attached to it, as at Wolvesey. It is a curious fact that at least four episcopal castles show this combination of hall and keep. Wolvesey has already been noted, and at Taunton are the remains of a small but strong keep attached to the end of the Norman hall, while at Bishop's Waltham in Hampshire is a more perfect but less formidable late twelfth-century tower joined to a contemporary hall by an intervening building.

When we come to the North of England we find the keep

designers getting very independent. The fine keep at Bam-
borough (6), although it appears quite early in date from
its narrow buttresses and rather small angle turrets, is never-
theless most complicated in plan. It has been much mutilated,
having been converted into a house, and its interior is diffi-
cult to understand. It has a fine vaulted basement which
suggests the usual plan of a hall with a central row of columns
beneath it and a chamber with the usual small room at its
end which is often the chapel, but here could not be, owing
to the orientation. On the next floor, however, the "chapel"
has been continued right across the "hall" part of the keep
and has an apse formed in the keep wall. In early days, how-
ever, it was not considered correct to have a chapel with any
kind of building over it which was used for secular purposes,
and the keep at Bamborough continues upward for yet
another floor, which results in such a confusion of plan that
it is impossible to explain what each room was used for.
Moreover the main door has been moved down to the ground
level, possibly from some other part of the keep altogether.
The whole interior was mutilated when it was turned into
a house and the exterior refaced and provided with sash
windows. The best thing about this keep is its very fine
stepped plinth.

There is a late hall-keep of unusual plan at Bowes in York-
shire. It has none of the usual strip buttresses, but its angles
and walls are ornamented with the completely developed
broad type of pilaster. It has the usual two storeys, with a
squarish hall having a sleeper wall under its centre to support
the floor. At the end of the hall is a long narrow chamber.
The entrance is in the usual place, and the remains of the
forebuilding still exist. Adjoining the entrance is a small
wall-chamber with a fireplace which may have been the
kitchen. Both hall and chamber have latrines, that of the
former being approached by a wall passage similar to the
passage at Canterbury. There is only one stair, leading from
the hall, and there is no chapel.

There is a very large keep at Lancaster which has been for
the present spoiled by modern uses. It seems early in design,
but this architecture conveys no clue to date so far away
from its home in Normandy. The plan is very simple, being
merely a large square tower divided into two by a cross-wall.
It seems to have had two floors in the usual manner of hall-
keeps, but the interior arrangements are not clear. Slender

26 ROCHESTER, KENT: the first great Tower-Keep
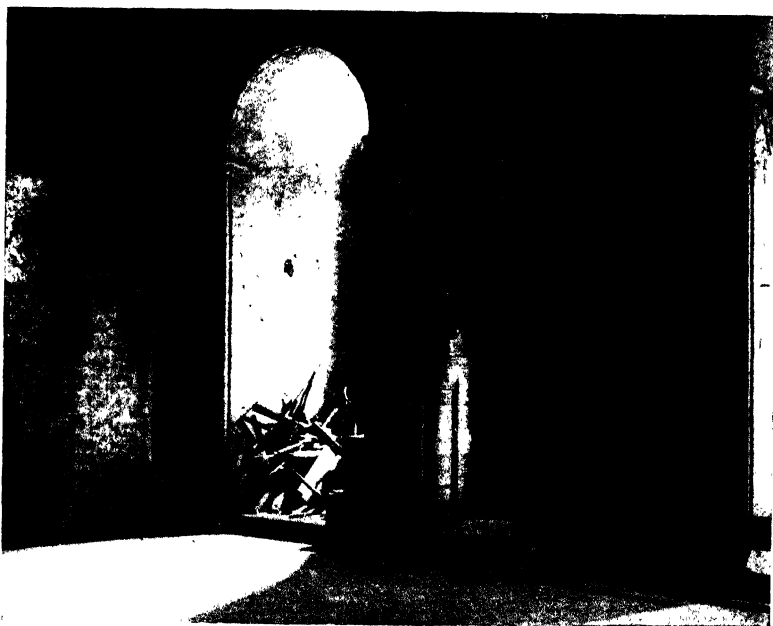


27 HEDINGHAM, ESSEX

28  ROCHESTER, KENT: the arcaded Cross-Wall of the Keep, with the Door giving access to the Well-Shaft



29  THE TOWER OF LONDON: the fine 11th-Century Chapel

pilasters, paired at the angles and centrally on each face, suggest an early date. There were no angle turrets.

A keep rather similar to that of Lancaster is to be seen at Carlisle. It is known that this was built by King David of Scotland in 1136. It is not large, much smaller than Lancaster, but very similar in its simplicity of plan, having a central cross-wall only. Its interior has been ruined by being turned into a barracks, and it is not clear how many floors it had originally; at present there is a basement and three upper floors. The first of these is certainly original, as there is a Norman fireplace remaining. The rooms are very long and narrow, and altogether it must have been a most uncomfortable keep to live in. Some of the external pilasters are narrow and some broad, and it seems improbable that there were ever turrets except possibly over the staircase angle. The upper part of the keep has been vaulted over in recent times, and embrasures made in the tops of the walls for modern cannon. It is a pity that this keep could not be cleared out and investigated. The walls are much thicker than is usual with the earlier hall-keeps, and contain chambers in their thickness which are possibly not all yet explored.

There is a curious little keep at Appleby (49) which may belong to the hall variety. It has very thin walls and small angle pilasters which have been carried up as turrets. It has the mural passages peculiar to early keeps, and may be of a sort of transitional type. The division of the interior is symmetrical, which is a peculiarity of such northern hall-keeps as Lancaster and Carlisle—though, indeed, it is doubtful whether these three great towers may really be called hall-keeps, for the true examples of this type of structure are divided unequally into a large division for the hall and a smaller one for the chamber. Also the true hall-keep has only the one main floor above the basement, except for the two special keeps at London and Colchester, which have an intermediate entrance floor.

Besides these more or less perfect examples of early hall-keeps, there are several of which only fragments remain. A single angle is all that is left of the keep of Knepp in Sussex, its lonely snag of wall a prominent object to those who pass along the Worthing road. At Sarum (15) is the lower part of a small hall-keep with an exceptionally large latrine tower adjoining the chamber, and it is known that the foundations of a keep lie buried at the summit of the great mound of

Castle Acre in Norfolk, while at Mileham nearby is the basement storey of a small example in a very forlorn condition.

We have seen how the primitive timber hall was first raised on a basement, then reorganised and raised to the dignity of a great tower of masonry. The scale and dignity of these great towers must have appealed to the minds of the Norman feudal lords, and from the end of the eleventh century they seem to have devoted their skill and wealth to building them loftier and loftier. Having discovered how the hall and chamber could be arranged so as to include the two within a spacious, if low, tower, they next conceived the idea of placing the chamber on top of the hall, an improvement which will appeal to all architects who know from experience how much more expensive it is to build a bungalow than a



Hall Keep          Tower Keep
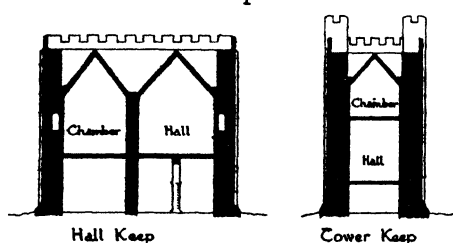
THE TWO PRINCIPAL TYPES OF KEEP

two-storied house of the same accommodation. The Normans, however, went rather suddenly from the bungalow to the skyscraper!

One of the first great tower-keeps is that of Rochester (26). This fine structure, well over a hundred feet in height, imitates the luxurious layout of its neighbour of London in having a separate entrance storey on the first floor beneath the main floor. The span of the tower is so large that it had to be divided in half by a cross-wall to help carry the roof (about thirty feet seems to have been the maximum span of a floor-beam in those days), but in the main storey this is pierced by a row of arches (28) so as to interfere as little as possible with the accommodation on that floor. The early scheme of clerestory lighting has been retained for this main storey, which is thus surrounded by a gallery having larger windows than the lower part of the hall. Above the hall is the chamber, also lit by large windows, a reasonably safe altitude having been reached. The keep is well supplied with fireplaces, and the well-shaft is carried up to the main floor in the thickness of the cross-wall. As the towers were raised in height, so their walls became thicker, which allowed plenty of room for small mural chambers such as latrines. There is the usual small forebuilding at Rochester, with a prison in
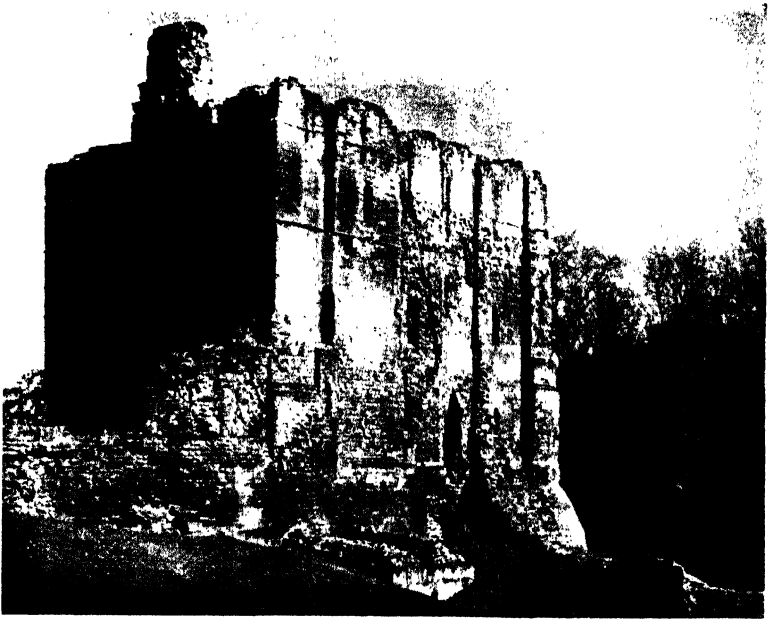
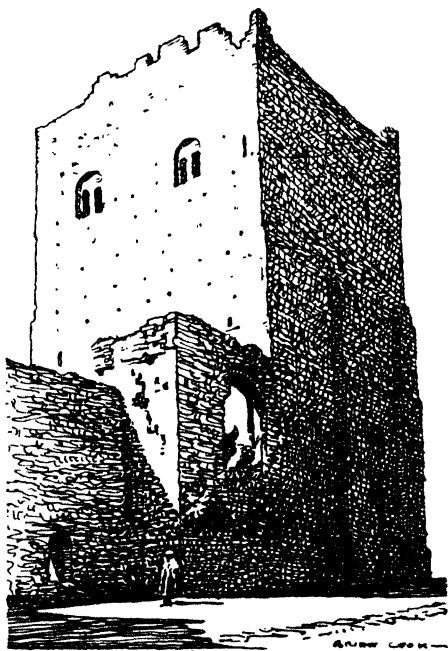30  NORHAM, NORTHUMBERLAND: a late Hall-Keep

32 GUILDFORD, SURREY : a small early Tower-Keep

its basement and a room above the entrance which may have been the chapel. The top of the external staircase was protected by a bridge-pit, and a stone gate was provided near the bottom of the stair. This keep was begun by Archbishop William de Corbeuil about 1128, and, although its sturdy angle turrets show that the perfection of the masonry style had been reached, the intermediate strip buttresses remain as reminders of early keep architecture.

A very beautiful keep may be seen at Hedingham in Essex (20). This tower is designed on the same lines as that of Rochester, but is much more beautifully finished. It is much smaller than the Kentish example, and instead of the arcaded cross-wall, a single arch spans the chief rooms. The windows of the hall triforium and of the chamber above it are larger than those below, as at Rochester. The forebuilding has been partly destroyed, but its



THE RAISED KEEP AT PORTCHESTER

remains may be seen in the photograph. This graceful tower was probably built by one of the de Veres at the very end of the reign of Henry I.

The great tower-keeps of Rochester and Hedingham stand alone in this country, although the converted hall-keep of Portchester, like them over a hundred feet high, bids fair to match them for loftiness. The foundations of a very large tower-keep, much bigger than any of the three, remain at Castle Cary in Somerset. Its latrines were in the external wall where it is joined by the cross-wall, and a special tower with a cesspit in its basement was built out at this point to contain them.

There are the remains of two large tower-keeps in the east

G

country which have unfortunately been destroyed to their basement storeys, but which, when complete, may have been almost as large as Rochester. The Mandeville keep of Saffron Walden in Essex had a central column instead of a cross-wall and an elaborate forebuilding and entrance stair, and the Bigod keep of Bungay in Suffolk had an exceptionally large forebuilding, its basement forming a pit-prison with its own latrine and vaulted cesspit. The latter keep shares with that of Scarborough the peculiarity of a main stair constructed in the centre of a wall instead of at the angle.

It will be remembered that the keep was in its origin a fortified house, made particularly strong because of the rather feeble timber defences by which it was surrounded. By about the year 1100, some of the larger castles in the south of England, such as London and Rochester, were having their defences rebuilt in stone. During the reign of Henry I, several of the provincial residential castles, such as Corfe and Richmond, seem to have been following suit. The need of such castles for strong hall-keeps was not so great, as the castle wall itself could be properly defended. Moreover, some castles were growing more important, and the number of their inhabitants was being augmented by additional servants and perhaps a small garrison, so that the accommodation provided by a hall-keep, unless of the largest size, may have been becoming inadequate. With the rise of the stone walls, therefore, we note the disappearance of the hall-keep.

On the other hand, however, the motte-and-bailey castles still had their fine lofty mottes, providing such excellent watch-towers and places of refuge for a garrison which had lost its bailey, and the principle of providing a tower of some description to each castle was one not to be abandoned too easily. So although we find the hall-keep giving way to the stone hall (the development of which will be discussed in the next chapter), we still find the keep continuing for a while as an important feature of the castle, especially as a means of overlooking and protecting the entrance. No longer a hall-keep, it becomes the private tower of the lord of the castle and is thus much smaller on plan and does not rise to the great height of a transitional keep, such as Rochester or even Hedingham, which still retains the lofty galleried hall.

We thus find throughout the country a series of small tower-keeps, most of them probably dating from the middle of the twelfth century. They are generally about forty feet

34 SCARBOROUGH, YORKSHIRE: Henry II's first Tower-Keep, badly wrecked during the Civil War
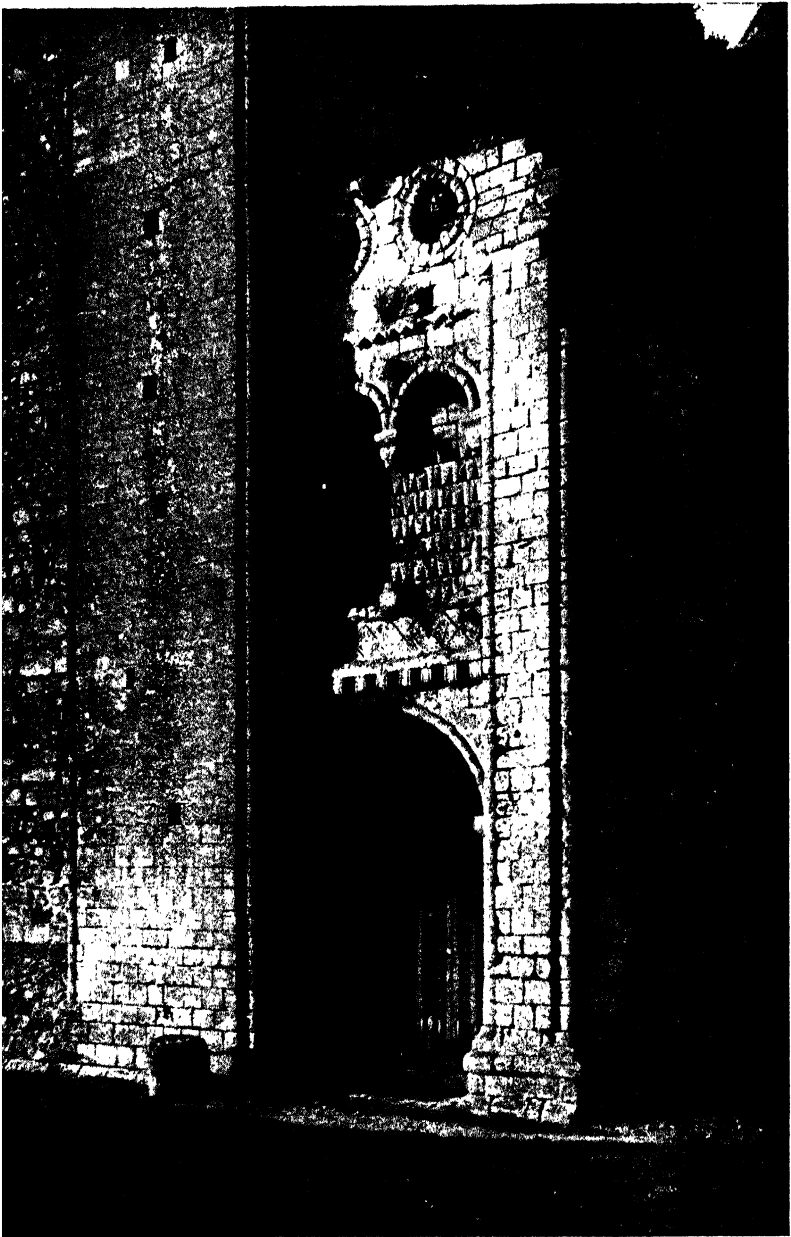
35   CASTLE RISING, NORFOLK : Detail of the Keep, showing
the Door at the foot of the Great Stair

square externally and usually have had originally three floors, although some have been subsequently raised by substituting a flat roof for the original pitched one and dividing up the top floor into two.

Guildford in Surrey (32), Bridgenorth in Shropshire (badly wrecked after the Civil War) and Prudhoe in Northumberland are examples of such keeps, the first being probably much earlier than the other two. There are smaller examples at Clitheroe in Lancashire, Goodrich in Herefordshire (a very pretty little tower) and Wattlesborough in Shropshire (in a very good state of preservation, and possibly rather later in date than the other two).

The remains of one of the earliest of the tower-keeps may be seen at Benington in Herts. This little tower has quite thin walls and primitive strip buttresses, and it must be early in date, as it was actually destroyed by Henry II in 1176.

At Lydney in Gloucestershire, Castle Combe
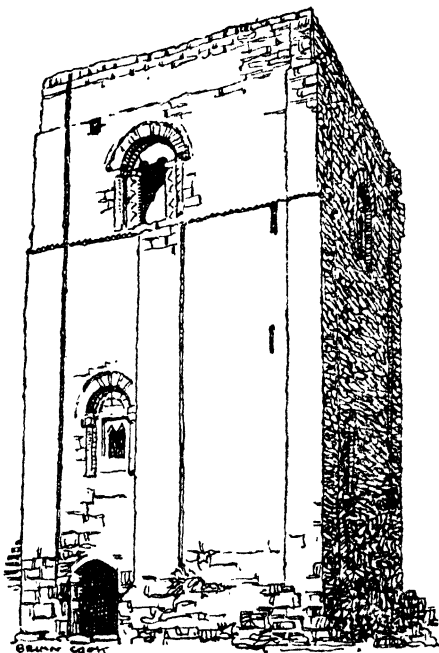


GOODRICH CASTLE: THE KEEP

in Wiltshire and Elmley in Worcestershire the lower portions of early keeps still remain, while later walls have superseded the keeps of Whitecastle in Monmouth and St. Briavels in Gloucestershire, so that only their foundations are left.

It is known that there have been several keeps in this country which have vanished practically without trace. Bristol had a very large keep completely destroyed after the Civil War. Winchester and Devizes both had large keeps and both have vanished. The foundations of the large square keep at Bolsover in Derbyshire now support a Jacobean mansion, and the great tower which once crowned the hill-top strong-

hold of Montacute in Somerset has completely disappeared. Doubtless there are others to be discovered by the spade of the excavator.

Most of the tower-keeps had three floors: a storage basement, a hall floor with the entrance in it, and a chamber on the second floor under the roof. Some of the later keeps, however, go in for the luxury of a separate entrance floor. At Bramber in Sussex a lofty tower of this type was erected beside the gate of the old Braose stronghold, the earlier motte being too remote for the proper defence of the entrance.

Some of the larger and more important keeps of the second half of the twelfth century also have four floors, as Scarborough and in the still later round keeps of Conisborough and Pembroke. On the other hand some keeps have definitely gone down in the social scale, having for some reason lost their halls, and become what might be called "chamber-keeps." This either suggests that the lord of the castle was a permanent absentee and thought his constable might just as well dine in the common hall, or else that a sort of "bed-sitting-room" fashion had come in.

The most primitive "chamber-keep" is the little tower of the Peak, believed to have been erected by Henry II in 1175. It has only two floors, the basement and a combined entrance storey and chamber complete with latrine but lacking a fireplace. We are glad to say, however, that this appears to have been the only case where the unfortunate occupant of a "chamber-keep" was not allowed a separate entrance floor, the normal type of these keeps always having one. Such were the keeps of the Westmorland castles of Brough and Brougham (37), and Henry II's own (earlier) castles of Chilham and Orford, to be described later.

That the fashion for "chamber-keeps" was coming in is suggested by the presence of a late twelfth-century tower at the end of the contemporary hall at Bishop's Waltham in Hampshire. Hardly strong enough for a keep, this tower is nevertheless not a wall-tower and must be classified as a "chamber-keep."

Having analysed the arrangement of the accommodation within the various types of tower-keep, let us now consider how their architecture was developing from the military point of view.

The great era of tower-keeps seems to have been the second quarter of the twelfth century. Henry II started his reign by

37   BROUGHAM, WESTMORLAND:   a small Tower-Keep of the late 12th Century

39 DOVER, KENT: the beautiful little late 12th-Century Chapel in the Keep

building the fine square keep at Scarborough (34), which, in the design of its accommodation, sets the fashion for many towers of the future. It has four almost equal floors, the basement, entrance floor, hall and chamber, the first floor being spanned by a great arch as at Hedingham. With the exception of the two belated examples at Newcastle (45) and Dover, however, this was to all intents the last of the great square towers, for a reason which will now be explained.

It has been hinted earlier that the great danger to which the stone tower was liable was assault by mining. The classic example in this country is the siege of Rochester by John in the October of 1215. The angle of the castle wall was first mined and broken up and the angle of the great tower itself then assaulted. The recently discovered mine gallery under the keep at Bungay shows how this was done. First a tunnel was driven across the angle to cut it off from the tower and then the whole angle was undermined with cross-galleries until the props could be fired and the whole corner of the keep, over a hundred feet high to the top of the turret, toppled over down the hillside. Fig. 42 shows the angle of the keep rebuilt after this disaster and cracked again owing to faulty reconstruction. John's men thus got into the southern half of the keep, but the garrison on the other side of the cross-wall held out for several days before giving in. John would have hanged them all, but his mercenaries threatened to desert if he did so.

Henry II seems to have been the first to realise the danger of having angles to tall towers. He therefore made two experiments with keeps, first in 1165 at Orford in Suffolk (40) with a twelve-sided tower, and five years later at Chilham in Kent with an octagon. The designer of the former keep was his own royal architect, Alnoth, who had a permanent salary of sevenpence a day and executed much work for Henry on the Tower of London and the Palace of Westminster. He seems to have been rather puzzled to know what to do with the staircase in his keeps, as the old square angles in which they used to be situated had been done away with. He therefore built a separate turret up the side to take the stair, which at Orford he balanced with two other similar turrets having useful chambers in them. The staircase angle was always the weak point of a square keep, and Henry's keep at Scarborough has its stair in the middle of a wall, an example which may

have been copied at Bungay, where the stair is also away from the angle.

With the exception of the mysterious octagonal ruin at Odiham in Hampshire, which is probably of the thirteenth century and cannot be classed with the great towers, Orford and Chilham are the only polygonal keeps in this country, as persons who continued to build these almost obsolete structures seem to have decided that they might just as well make them round and be done with it. Before passing on to the round keeps, however, there are just two more square ones to be considered.

In 1165, as we have seen, Henry II experimented with a polygonal tower at Orford. Five years later he continued with the keep of Chilham. He seems to have been on the right path towards the unminable keep when he had a relapse and, in 1171, began the large square keep at Newcastle-upon-Tyne. Possibly he was so pleased with the excellent chambers which Alnoth had produced in the two turrets at Orford (considerably reducing the "bed-sitting-room" effect of the main floor) that he returned again to considerations of comfort with a corresponding neglect of military responsibilities. In any case the keep at Newcastle has unusually thick walls with fine large chambers provided in them, quite different from the mean little wall-chambers of the earlier keeps. The only gesture made to military efficiency is the polygonal form of the most exposed angle turret.

The arrangement of the floors at Newcastle shows a complete departure from the usual practice. The keep has three floors, of which the uppermost is the main storey. This is also the entrance storey, incidentally the first time we have met with an entrance on the second floor. Why this was done, and for what purpose the intermediate floor was intended, it is difficult to say. With one exception the keep is unique in its arrangement of floors, and there seem no obvious indications as to the reason.

The result of the elevated entrance to the keep was that an exceptionally long external staircase was necessary. It will be noticed that the staircases of Rochester, Hedingham and the later tower at Scarborough were defended near their lower extremities by arched gateways. At Newcastle the unusual length of the stair provided the opportunity for developing this arrangement. Thus the great Northumbrian structure has a very small tower in place of the usual fore-
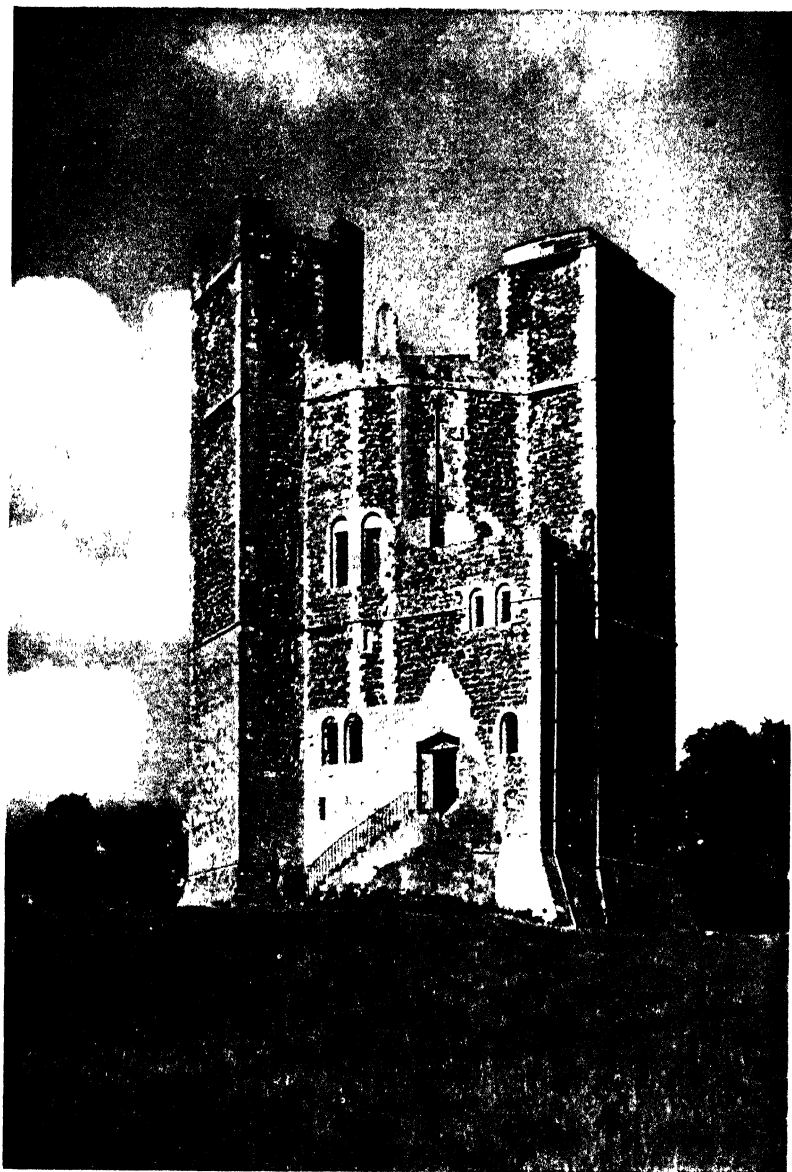
40  ORFORD, SUFFOLK : Henry II's pet Castle
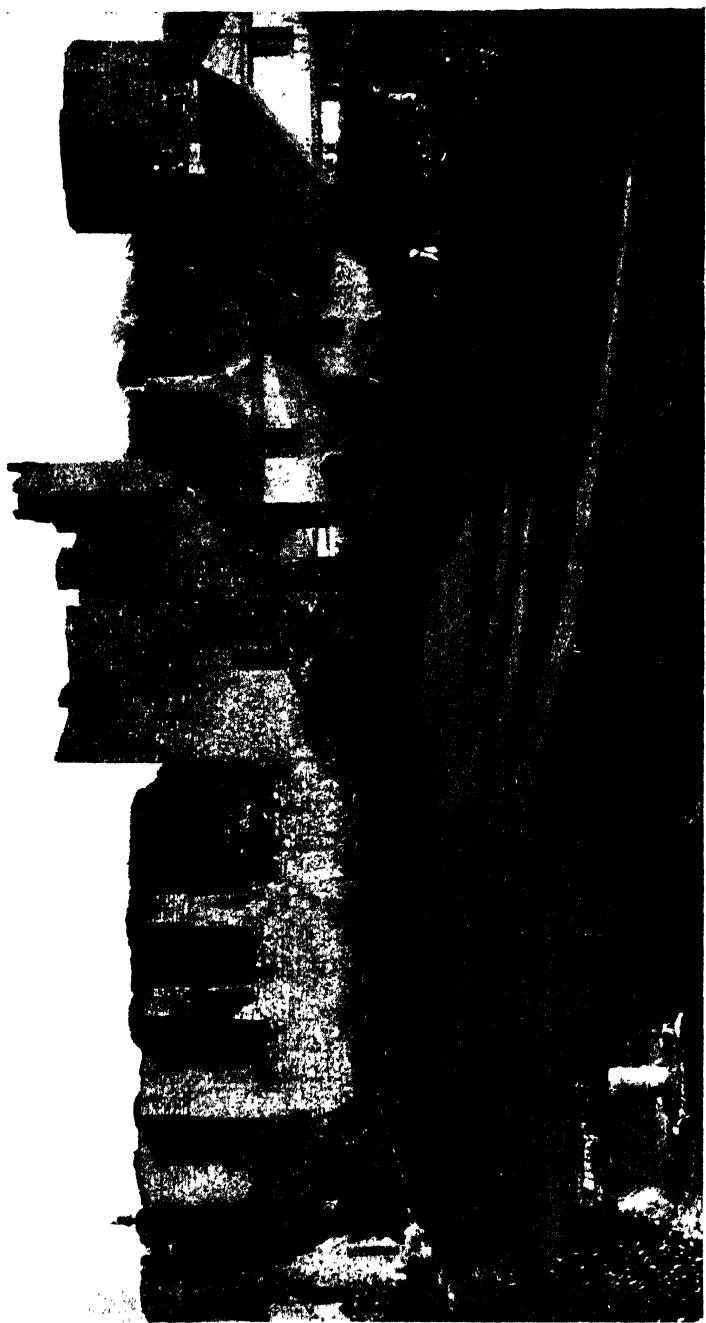
41  MANORBIER, PEMBROKESHIRE : the Interior of the Courtyard, showing the ancient
Tower-Keep beside the later Gatehouse

building, and the entrance doorway into the keep itself is placed close to the angle but outside the little tower instead of inside it. On the other side of the doorway is another little tower, through which the staircase passes as it did through the gateways of the earlier keeps, the tower, however, providing a much better protection to the stair.

If the uppermost tower had been placed in front of the keep door as in an ordinary forebuilding there would have been no room for the very long stairway, but adequate protection was provided for the door by joining the two towers with a connecting wall, turning the space between them into an adequate, if roofless, forebuilding. Underneath the great stair is a very beautiful chapel. This is an unusual place for a religious building, which should never have had a secular structure between it and the sky. Possibly, however, the stair was considered not to count and the little room above the chancel, opening off the landing into the upper turret, was used for the purpose of an oratory so as to rectify the irregularity as far as possible.

Another interesting feature which is very noticeable at Newcastle is the provision of galleries round the upper part of the wall under the wall-walk. It will be remembered that in some of the hall-keeps and early towers the halls had been lit by a sort of clerestory arrangement, thus keeping the large windows as high up as possible where projectiles were less likely to enter. Early keeps were not really built for active defence. Their main purpose was protection for the occupants, and the wall-walk was almost the only place whence the besieged could in their turn annoy the besiegers.

The windows were all kept high off the floor and thus had sloping or stepped stills to let the light get as near to the floor as possible. The only windows where an archer might get a stance were those in the "clerestory," which could thus be employed as a makeshift fighting gallery.

The galleries at Newcastle are not for lighting the room below. The windows in them are very tiny. Moreover the whole arrangement is above the roof—which seems to settle the matter. The galleries are thus provided specially for fighting purposes, acting as a lower stage to the wall-walk. This is one of the first signs of aggressiveness which we have seen in our military architecture, showing that the castle-builders of 1171 were thinking less of being mined and more of the pleasures of sniping the enemy from the walls of a lofty keep.

One of the reasons for the remarkable change in design between the keeps of Orford and Chilham and that of New-castle seems to have been that a new architect had been discovered. Henry's own architect, Alnoth, while still draw-ing his yearly salary, seems to have built no more keeps, although he was continually engaged on the royal palaces, and when Newcastle keep was commenced, the work seems to have been entrusted to one Maurice the Mason, who may have been a Frenchman having new Continental ideas which resulted in the remarkable tower he produced.

Newcastle keep was completed in 1177, and in 1181, Maurice the Mason, now Maurice the Engineer (the mediaeval equivalent of architect) was commissioned to begin the largest of all the tower-keeps and the fourth largest keep in the country—the great tower of Dover. Dover Castle is unique in that it shows combined the two features of the tower-keep and the towered curtain walls which ousted the great towers; in this case, curiously enough, both erected at the same time.

The enormous keep of Dover (38) has very thick walls, in some places more than twenty feet through. It has a basement, a first floor as at Newcastle and a floor above that which is the entrance floor, thus copying the Northumbrian tower. The entrance stair is even more elaborate than Newcastle. In addition to the two towers on either side of the main doorway, there is one in which the stair turns the angle of the keep and another at the ultimate foot of the staircase, which thus passes through three towers. The tower at the angle has a little oratory approached from the quarter-landing of the great stair and above is a really beautiful chapel (39), all constructed over the lower part of this immense "fore-building."

The great tower was never finished, either owing to the death of Henry II or because it was realised that it was just a huge "white elephant." We cannot tell whether the present upper floor was intended to be the main storey, but it seems improbable, as the cross-wall is unpierced with the arches one might have expected if such were to have been the case. The general proportions of the tower suggest that the main floor was to have been added above the entrance storey, in which case Dover keep would have been one of the grandest towers in the world. As matters turned out, however, it was apparently found desirable to stop the work at the entrance

42 ROCHESTER, KENT: the Angle of the Keep, mined by John
and afterwards rebuilt

43 THE MIGHTY SQUARE-KEEP OF NEWCASTLE-ON-TYNE that gives
its name to the City. Commenced by Henry II. in 1171

storey and convert this into a makeshift main floor, lowering its floor level (thus leaving the entrance doorway rather "in the air"), lowering the sills of some of the windows, and moving others bodily downwards to fit the new level of the floor. The staircases were then out of adjustment, and short curving stairs had to be constructed to join them with the floor of the keep. Round the top of the storey were cut crude "fighting galleries" like those at Newcastle, but in this case merely hacked through the walls. The whole building is just a trifle pathetic—a great venture, but obsolete almost as soon as it was begun.

The arches within the keep are very interesting as they are of the depressed segmental type instead of the usual Norman semicircular shape. The Dover arches may be met with again at Maurice's other keep of Newcastle and in the doorway to the great hall at Farnham.

We must now pass on from this rather lengthy examination of two very late square keeps and return to consider how the experiments towards the round type of tower were progressing. The round keep had been tried out at least once before, apparently in Stephen's reign, in just that part of England where one would expect to find round towers—East Anglia.

The builder of this remarkable keep was that mighty hero William d'Albini of the Strong Hand, who took the trouble to fight a raging lion with his bare hands and tear its tongue out just to annoy the Queen of France. She apparently wanted him to marry her. As it happened *he* wanted to marry the Queen of England, and we are gratified to know that he eventually won the lady of his choice, soon after the death of her consort Henry I. A man of action, William later moved his castle bodily some two miles to a place now known as New Buckenham. He apparently wished to build there a hall-keep, but found himself in the same position as the local church builders who could not find stone for the angles of their towers. So he, like them, built his keep round, and thus we have the curious feature of a circular hall-keep complete with cross-wall. Unfortunately only the basement remains; it would have been remarkably interesting to have known what its main floor was like and how it was roofed.

The first tower-keep to be built on a circular plan was probably the fine structure at Conisborough in Yorkshire (51), which dates from about 1170, and was built by Henry II's half-brother, Hameline Plantagenet, as an enlarged copy of

H

a keep he had built at his great castle of Mortemer in Nor-
mandy. It has the four floors, basement, entrance, hall and
chamber, which now formed the usual arrangement in keeps.
The remarkable feature is the ring of six huge buttresses
which surround this lofty tower, making it unique among
English keeps.

There is only one other round keep of any great size in
this country and that is the fine tower of Pembroke (50),
built about 1190 by one of the Marshall Earls. It shows the
perfect form which, although used everywhere on the Con-
tinent, seems never to have taken root here except in a few
isolated examples on the Welsh Marches. The upper storey
of Pembroke keep is vaulted, a very unusual thing for this
country, where timber roofs to towers were the usual finish.
possibly in this case it was due to the great improvements
which were being made towards the end of the twelfth century
in the engines employed during siege operations. The range
of these was being improved by raising the trajectory, and no
Norman dared expose the roof of his tower for fear of getting
it smashed by the great stones which giant catapults could
hurl through the air at a considerable height. It will be noticed
that the walls of Norman keeps were always raised to the ridge
of the roof. At Orford the conical roof was beneath the top
of the tower, and at Conisborough a little stone turret was
provided at the tower-top to protect the roof.

There is quite an imposing round keep at Skenfrith in
Monmouthshire, which, together with its surrounding castle,
was to have been pulled down to mend roads with, but was
fortunately saved from such a fate by the late Harold Sands,
F.S.A., who bought the castle and vested its custody in a
trust for the perpetual enjoyment of castle-lovers. This keep
has only three storeys—basement, hall and chamber—and its
walls are not very thick, so that the staircase has to project as
a bulge on the external face of the tower.

It will of course be realised that the great stone keeps which
have been dealt with during the course of this chapter were
only added to those castles which did not already possess
the earthen towers or mottes described in the last chapter.
The owners of motte-and-bailey castles must have been some-
what envious of the great towers, especially as they possessed
the advantage over timber structures in being fireproof. We
therefore find that, at the time when the tower-keeps were
rising in many castles throughout England, the motte-owners
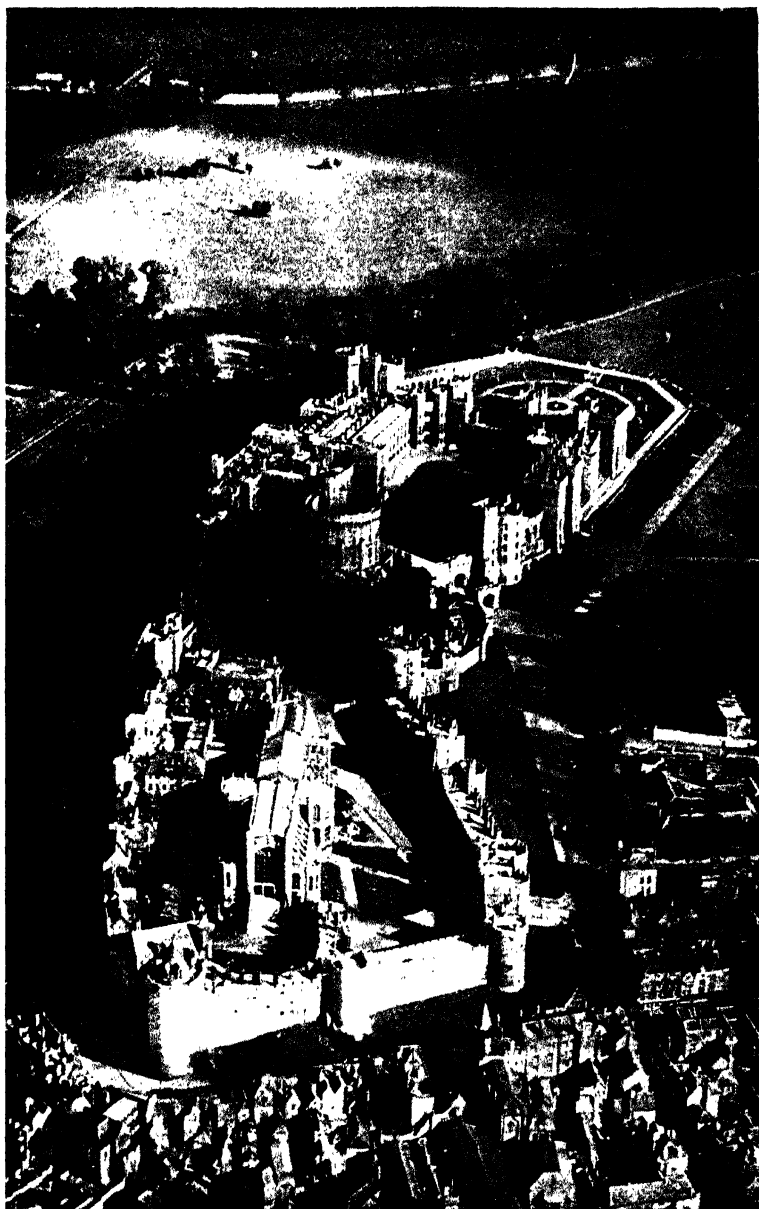
44 WINDSOR, BERKSHIRE: originally a Motte-and-Bailey Castle of the
Conqueror, it has undergone much alteration throughout its Royal History
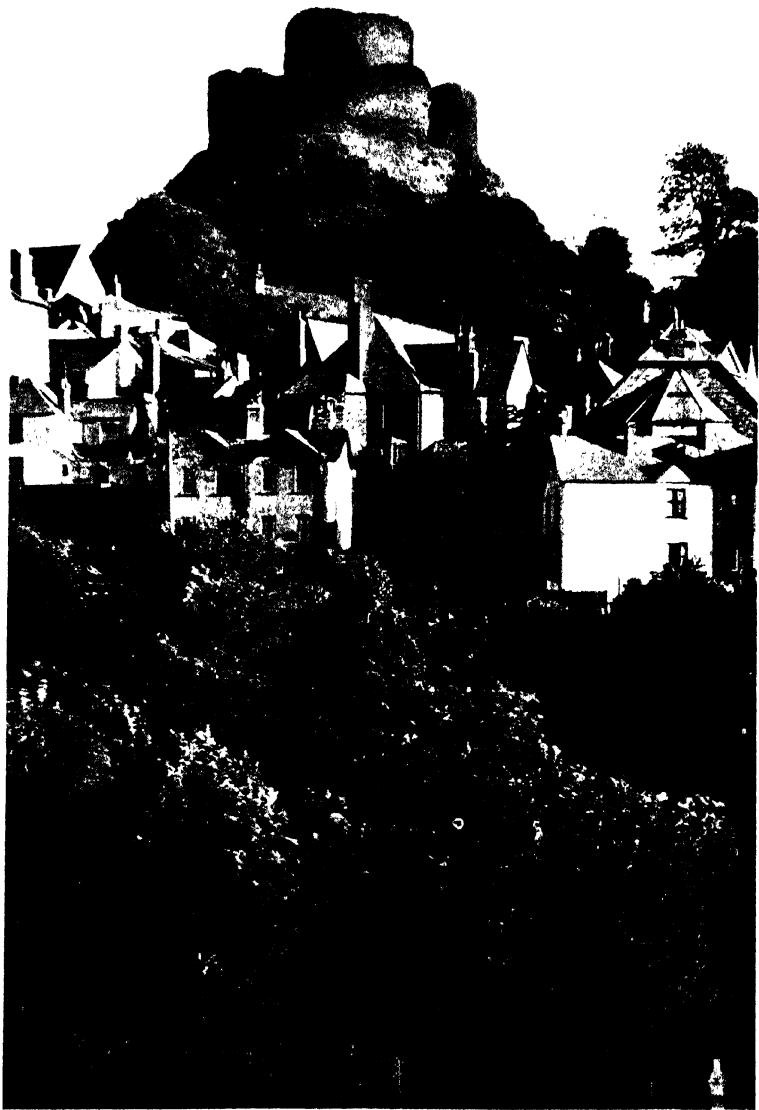
45 LAUNCESTON, CORNWALL: a round Tower-Keep within
a Shell-Keep

were consoling themselves by re-fortifying their palisaded summits with stone walls. This feature of a stone-walled motte has come to be called by archaeologists a "shell-keep."

Two of the finest of these shell-keeps may be seen at Carisbrooke in the Isle of Wight (22A) and at Arundel in Sussex (the little gatehouses are later additions). The Round Tower of Windsor was built as a shell-keep by Henry II (see front end-paper) and raised to twice its height a century ago. This king built shell-keeps on the summit of the mottes of several great royal castles. He is known to have constructed them at Hastings in Sussex and Tickhill in Yorkshire, and the example already noted at Arundel was his work.

There are the remains of shell-keeps at Pickering in Yorkshire, Tonbridge in Kent, Lewes in Sussex, Berkhamsted in Herts, Clare and Eye in Suffolk (this last much restored), Warwick and Lincoln, Launceston (45) and Trematon in Cornwall, Barnstaple, Totnes and Plympton in Devon, Wiston in Pembrokeshire and a fine lofty example at Cardiff. Foundations remain at Ongar in Essex, Haughley in Suffolk, Tutbury in Staffordshire, and Richard's Castle in Herefordshire. The mottes of Oxford and Southampton are known to have been crowned by shell-keeps and the castles of Bedford, Hereford and Gloucester, of which even the mottes have vanished, are known to have had keeps of this type. There are some hundreds of motte castles in England and Wales, and this list must necessarily be incomplete. Possibly the reader may care to investigate the summit of his local motte for traces of a shell-keep.

At the very end of the twelfth century a curious structure was built at the motte castle of Berkeley in Gloucestershire consisting of a kind of shell-keep erected not on the top of the motte but half-way up its scarps. The top of the motte within the "shell" was then levelled so as to provide a more spacious area inside the "keep" than would have been the case had this been built on the motte top. This remarkable construction has three small semicircular wall-towers, in one of which is a chapel.

Some time about 1180 it was apparently decided to improve the accommodation within the castle of Farnham in Surrey by providing it with stone domestic buildings. The castle was a very small one with a rather diminutive mound and shovel-shaped barbican, and the summit of the former was

apparently considered too confined and awkwardly shaped as
a site for the new buildings, which were therefore erected
along the farther side of the barbican, leaving the original
castle mound with its new stone wall as a sort of shell-keep.
This arrangement seems to be unique, and in the details
of the new stone hall I fancy I can detect the hand of that
interesting character Maurice the Engineer, designer of the
great towers of Newcastle and Dover.

With the inevitable one or two exceptions, there are no
square keeps built on the summit of Norman mottes, for the
reason that their corners were likely to drop off. The curious
—undatable, but possibly twelfth-century—keep on the top
of a broad motte at Christchurch in Hampshire has had its
angles splayed off in an attempt to avoid such a catastrophe.
The round keep, however, was eminently suited to such a
site. The fine tower of Longtown in Herefordshire (46) is
perched on the summit of a lofty motte. It is not very high
itself, however, and has three curious bulges like the one at
Skenfrith, possibly to confuse attackers as to where the
staircase—weak point of all keeps—was situated.

At Dynevor in Carmarthen is a fairly large round keep
which appears never to have been finished and is not very
high. There is a good round keep on a motte at Hawarden
in Flintshire, and two lofty examples may be seen at Tretower
and Bronllys in Breconshire. Above the beautiful lake of
Llanberis in North Wales stands the lonely round tower of
Dolbardarn, which seems late in date. An English example
of a round keep on a motte once existed at Chartley in
Staffordshire, but very little remains of this to-day.

One of the most interesting round keeps is that which
stands in the middle of the shell-keep at Launceston (45).
What a magnificent spectacle the combination of lofty motte,
shell-keep and tower presents silhouetted against a Cornish
sunset, as if bidding the west-bound traveller halt for the
night. "Beyond you lies the Moor" it seems to warn you,
"and haunted Dozmaré, in whose dark depths Excalibur still
sleeps."

One must feel a little sorry for those castles which had
neither tower-keep, shell-keep, or even a motte to crown their
defences. There remained yet another chance, however, for
such to provide themselves with a tower of some sort. The
weak point of the castle was always the entrance. Where the
castellan could get in, his enemies could also. The entrance

was particularly vulnerable where the defences of the castle were of wood, for although the timber palisades were well protected by the scarps above which they rose, and it would have been difficult to pile up a fire against them, the entrance gate might have no ditch in front of it, or perhaps almost as bad, a permanent bridge on which a fire could be built.

It was thus very necessary to make every effort to make at least the entrance to the timber castle as fireproof as possible. This was done by building a stone gate-tower, a small square structure having usually one upper floor carried over the entrance passage by a pair of sturdy round-headed arches.



EGREMONT CASTLE, CUMBERLAND: THE GATEHOUSE

Fig. 13 gives a photograph of a fourteenth-century carving from the little town hall of the castle-town of New Bucken-ham in Norfolk, showing the stone gatehouse breaking the line of the timber palisades. The whole carving is of course somewhat affected by artistic licence, and both the gatehouse and the keep behind are depicted rather more elaborately than was probably justified. The curious circular keep of this castle has been already described, and the remains of the gatehouse also may still be seen to-day.

Many of our castles which never had their timber palisades replaced in stone were nevertheless strengthened by the addition of stone gatehouses, and the remains of these little towers may often be detected at the entrances through the ramparts of some of the more ancient castles, such as at Ongar in Essex. Perfect little examples of Norman gate-houses may be seen at Egremont in Cumberland, Arundel

in Sussex, Tickhill in Yorkshire, Alnwick in Northumberland, Sherborne in Dorset and Castle Rising in Norfolk, the last almost buried in the enormous ramparts which were afterwards raised around the great mound of this castle.

There is half of a very large and early gate-tower remaining at Lewes in Sussex (102), somewhat overwhelmed by the fine four-teenth-century barbican which stands before it.



It will be appreciated that the entrance to a castle, besides being fireproof if possible, was also generally placed where it could be com-manded by the motte, if there was one; or else, if a keep was built, this was usually placed next to the entrance, so that its summit could be used as a point of van-tage whence lethal mat-ter could be deposited on the heads of persons assaulting the gate. At Exeter, where there was no keep, an enormous gate-tower was built, as large as a tower-keep, but having the entrance passage through its lowermost storey. At

TICKHILL CASTLE: THE GATEHOUSE

Newark in Nottinghamshire a still larger gate-tower (105) was built in the middle of the second half of the twelfth century, an exceptionally beautiful structure having a fine chapel with a wheel window on its upper floor. At Lud-low in Shropshire (3) a fine gate-tower was also con-structed, turreted and with an elaborately arcaded entrance passage. This passage was afterwards walled up and the tower turned into a keep, but the cracked masonry where the blocking was effected still shows where the great arches were originally (48). The important castle of Richmond in Yorkshire was one of the earliest castles in this country to have stone walls

46 LONGTOWN, HEREFORDSHIRE : a round Tower-Keep on a Motte



47 CONISBOROUGH, YORKSHIRE : a remarkable Keep
crowning a great Norman Mound

Instead of palisades, the entrance in this case being through a fine large arch cut through the wall. The castle had no keep, however, so the wall over this great arch was raised and a tower built round it to form one of the most impressive of our tower-keeps. This alteration was made after the early Norman stone hall had been built. This building had no separate chamber within it, so it would appear that the keep may have been built to provide a private residence for the castellan.

Most of the Norman gate-towers appear to belong to the second half of the twelfth century, at the time when "chamber" keeps were coming into fashion. The former usually have one good room on the main floor over the entrance passage, and this room may have been intended in some cases to form the private chamber of the Constable. If this is so, the tradition thus founded was main-
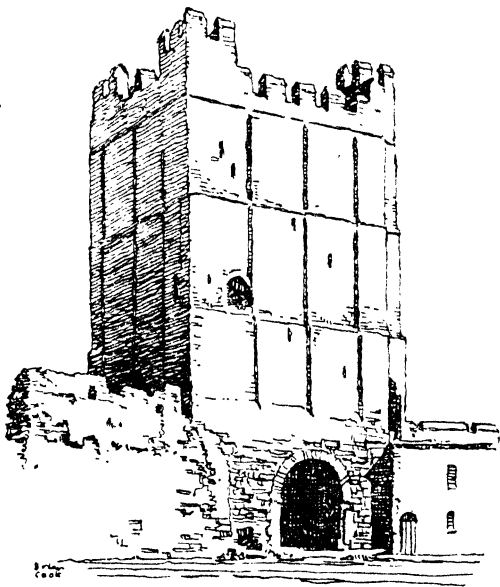


RICHMOND CASTLE: THE KEEP

tained throughout the period of castles in this country, the upper floor of the great Edwardian gate-house of the second half of the thirteenth century usually forming the Constable's lodging.

There are still a few keeps to be considered before we leave these great towers and return to the defences by which they were surrounded. There is a curious keep at Mitford in Northumberland, which is a pentagon with three sides rectangular and the other two projecting along the cross-wall to form a prominent angle. This seems to have been an early keep, but it may have been built after the time when siege engines were becoming more powerful, and possibly represents an attempt to offer better resistance to the great catapults.

Two other keeps seem to have been built with this in view. Chief of these is the great tower of Knaresborough in Yorkshire, which is much stronger than that of Mitford but has no cross-wall. Its salient angle is in the form of a half-hexagon instead of a triangle, that is to say the two outer angles of the keep are splayed off so that it looks like a square keep on the inside of the castle and an octagonal one, like Henry II's experiment at Chilham, on the outside. Unfortunately most of the outer side of this fine keep was battered down by Cromwell's artillery in 1644.

The same fate befell the interesting keep at Helmsley in the same county, which was built at the very end of the twelfth century by Robert de Roos. The square keep was in his time passing away and the round keep taking its place, and Robert tried the interesting experiment of making his keep square inside the castle and round towards the field where mining might be expected and where the projectiles cast from great engines might be assisted to slide off its face instead of giving a direct blow. But Robert de Roos had reckoned without Cromwell's artillery, which soon knocked away the whole of the outer half of his keep (118).

The era of great keeps in this country passed away with the twelfth century, but there were still a few who could not resist the temptation to build these fine towers within the walls of their castles. The most notable example of an early thirteenth-century keep is the great tower of Kenilworth in Warwickshire (55) believed to have been built in the reign of John. At Lydford in Devonshire (33) is a lonely tower of some considerable size but with quite thin walls and a smaller and less perfect example may be seen at Sutton Valence in Kent. In Shropshire the fine thirteenth-century tower of Hopton stands curiously isolated on the summit of a low motte and in the same county is a large rectangular tower perched precariously at the edge of the mound at Clun. At Chepstow Castle in Monmouthshire (52), the early Norman hall was raised and crenellated early in the century, and at Okehampton in Devonshire a curious keep was built with a hall and chamber end to end, on the same plan as that of the unfortified hall of the period.

Perhaps the finest tribute paid to the memory of the ancient keeps is the fine cruciform tower of Warkworth in Northumberland (31) erected in the fifteenth century on the summit of the motte of that castle.

50  PEMBROKE : the finest Round-Keep in Britain
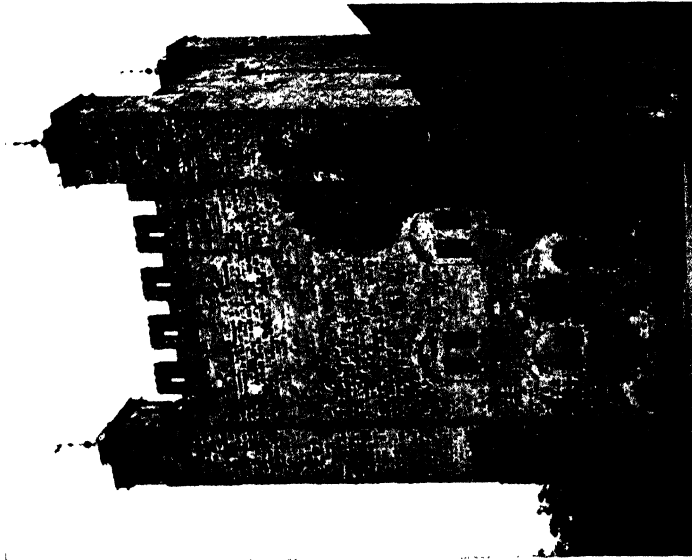


49  APPLEBY, WESTMORLAND : an effective little
Norman Keep

52 CHEPSTOW, MONMOUTHSHIRE: the Interior of the fine early-Norman Great Hall, raised in the 13th Century
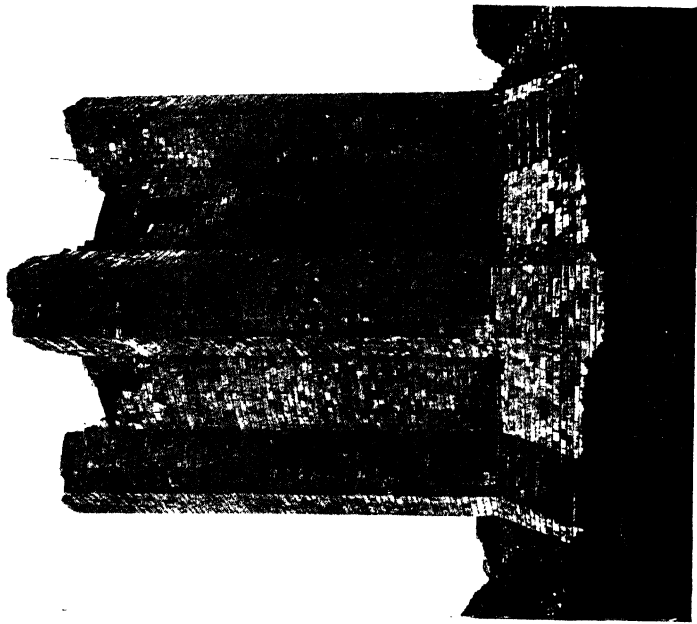


51 CONISBOROUGH, YORKSHIRE: the curious Keep, modelled on that of Mortemer in Normandy

The next chapter will explain how castles became ringed round with lofty "curtain" walls and high round towers. These high walls blanketed the keep and minimised its utility, hence its disappearance at this time. On the other hand, one can still sometimes detect a lingering desire for a great tower gratified by making one of the wall-towers larger than the rest. The fine Marten Tower at Chepstow in Monmouth (7) is an example of this, and at Barnard Castle in Durham there is a round tower which is sometimes called the keep. At Caldecot in Monmouth a fine round tower was built at one angle, and to complete the illusion a small motte was actually raised round its base.

The round tower-keep continued to be used on the Continent long after its abandonment in this country, as once witnessed the glorious donjon of Coucy near Laon, built towards the end of the first half of the thirteenth century. This two hundred feet of splendour was razed to the ground by the Germans during their retreat in 1918.

In 1277 Edward I made an attempt to bring back the donjon to this country by building an immense round keep with walls twenty-three feet thick at Flint in North Wales (111). The whole castle was revolutionary in design, being on a sort of motte-and-bailey plan, with the keep, surrounded by its own ditch, in the place of the motte, and a square bailey with high stone walls and corner towers. The experiment, however, was never repeated, and the great tower remains to-day an isolated example of the fine circular donjons of the thirteenth century on the Continent.

We have seen in this chapter how the sturdy hall-keep of the late eleventh and early twelfth centuries developed into the lofty tower of the mid-twelfth century, to become circular on plan at the end of the century before it died out altogether as the castle-owners began to turn their attention to the better protection of their castle yards with higher stone walls.

Let us therefore turn to the reasons for this change of policy.

I

# LOFTY WALLS

"And ever stode the lordes and the ladyes on the
Castel walles cryeng and sayenge knyghte with the
reed shelde ye have merveyllously wel done as ever
we saw knyght doo."

I AM afraid that the last chapter was exceedingly architec-
tural and the one before even worse, but I will now for a
change endeavour to describe something of the life in an
early castle and the manner in which siege operations were
conducted and repulsed.

It must be understood that the early Norman castles were
not designed to hold a large population. The ordinary resi-
dential castle merely contained the lord and his wife and
family and a few servants of both sexes. The lord's horses
were a very valuable item of his belongings and were always
housed within the enclosure of the castle, where there would
probably also be enough space to keep cattle for food during
a siege. The early residential castles had no real garrisons,
although the lord's servants would fight for him when he
was involved in trouble, and he could always hire mercenaries
to augment their services. A permanent garrison, however,
had no place in a community which was simply the private
household of a wealthy landowner.

The change came when the Conqueror and his great barons
had to build castles not as dwelling-places but as fortresses
from which to police the country they had won. Even then,
however, the garrison of the castle was not a large one, for
there was no standing army, such as exists to-day, from
which to draw the troops to man the place.

I have explained in the first chapter that the fundamental
principle of the feudal system was that all land belonged to
the king, who bestowed it, however, in the form of fiefs,
on his various feudatories on the condition that they supplied
him with soldiers when required to do so. The number of
soldiers each feudatory was supposed to contribute depended
on the amount of land he had received. This amount was
assessed not necessarily in terms of the area of the land but
in accordance with the amount of actual wealth it brought
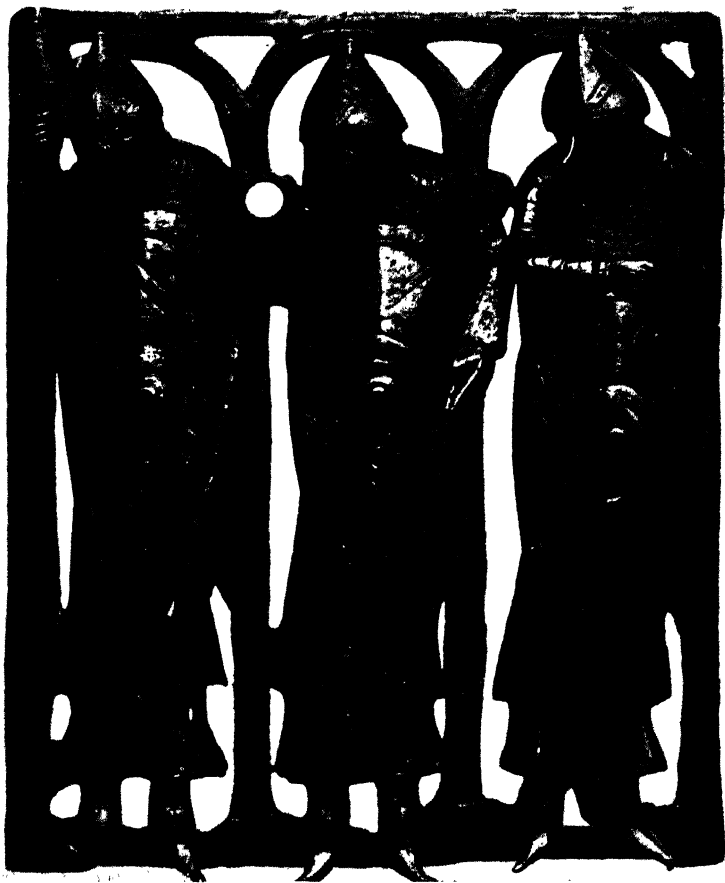
53 Twelfth-Century "Knights," from a Pyx found in the
Temple Church, London
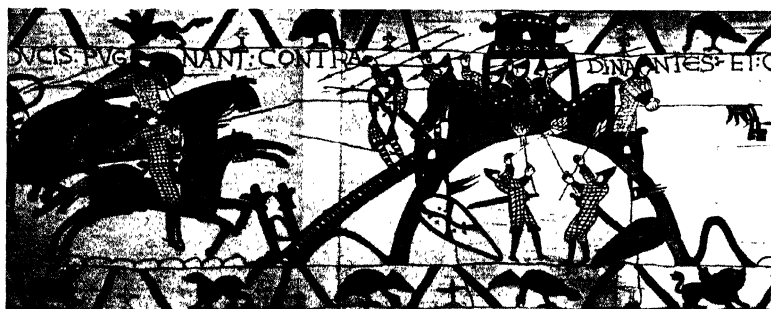


54 THE CASTLE OF DINAN: from the Bayeux Tapestry
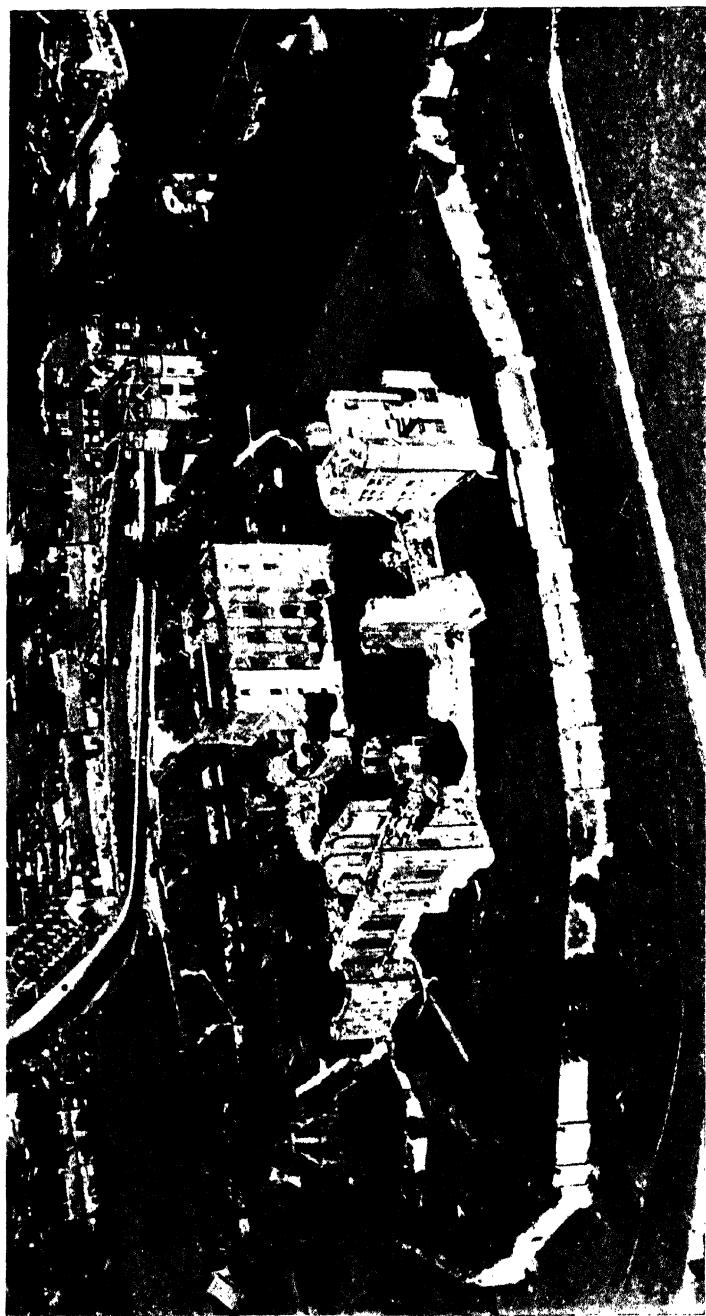
55 KENILWORTH, WARWICKSHIRE : the Scene of one of the greatest Sieges in English History, now denuded of its Lake

into the coffers of the man who owned it. During the twelfth century it seems that for every £20 a year brought in by an estate, the owner had to supply a fully armed and accoutred soldier to his feudal overlord.

These soldiers were called "knights," which, of course, in early times meant merely a paid soldier, albeit of such rank that he fought on horseback. In the twelfth century his wages were eightpence a day. The limit of time he was expected to serve was forty days, and thus we sometimes find that where a tenant could not send his quota of knights he would pay the sum of two marks, or 26s. 8d., which would enable his overlord to hire mercenaries for the same period.

The king himself was, of course, the head of the whole feudal community, but the great barons and landowners who formed the chief feudatories had to make themselves responsible for getting together from their subtenants the correct number of knights. It has been computed that the total paper strength of knights which the country should have been able to supply during the twelfth century was somewhere about five thousand.

Sometimes the "knight-service" due from any tenant to his overlord was ear-marked for garrison purposes in one of the latter's castles. This service was then called "castle-guard." Some of the more important castles having later a large array of towers added to their walls, one of the tenants providing castle-guard might be entrusted with the defence of a particular tower which might then receive his name. Thus if you find a tower named after some man, it does not necessarily mean that he built it. The towers at Dover Castle are all named after the fiefs to which they were attached for castle-guard.

In addition to the knights there were also foot-soldiers (called "servants") who were not so well armed and accoutred and were probably not trained professional soldiers at all, but would take on menial duties within the castle for the princely sum of a penny a day. (Sailors at the time got two-pence a day—the Senior Service.) When it came to digging trenches or excavating mine galleries there were always the Saxon peasants—probably not paid at all.

The mercenaries usually employed by the Norman kings were Flemish infantry, mostly pikemen, who received the usual pay of a penny a day. The weapons in use in this country were chiefly the long sturdy sword and the lance, aided by

the arbalasts or cross-bows which had played such havoc with the Saxon troops at Hastings.

The defensive armour of the twelfth century was the long shirt of chain mail reaching to the knees and, later on, chain mail breeches to protect the whole leg. The helmet was first of all the conical type with a strip of metal coming down in front to prevent the man's nose being cut off (53). Later on this "nasal" was abandoned and the helmet became a flat-topped cap just like an inverted saucepan. The shield was first of all of the kite shape, with a rounded top and long pointed lower portion. Later on the top was cut off square and the whole shield became shorter and less pointed, the shape being rather like that of a flat-iron.

It will be appreciated that the whole point of building a garrison fortress (as opposed to a residential castle) was that the passive strength of the building would enable a small garrison to take the place of a large army. We therefore need not suppose that the garrisons of twelfth-century royal castles were numbered by hundreds or even scores. Thus when Henry II had finished his pet castle of Orford in Suffolk, he only placed in it a garrison of twenty men, although the whole country surrounding it was in a very unsettled state and indeed broke out into full rebellion the next year. The neighbouring castle of Walton (which has since tumbled "down-cliff" into the sea and disappeared) had a peace-time garrison of four knights and two servants.

During the twelfth century, when internal rebellions were making it sometimes necessary to have large garrisons in some castles, those of rebels as well as those of the Crown, it consequently became necessary to enlarge the castles by providing them with an outer bailey. These additions were usually enclosures of primitive ditch and bank work, and were added, wherever possible, immediately in front of the gate of the castle, or its barbican if it had one, as at Framlingham. The castle at Corfe shows two large baileys added one after the other.

The motte-and-bailey castle was usually enlarged by having its outer bailey added on the opposite side of the motte, so as to retain this as the central commanding feature. Thus was produced the curious "hour-glass" plan which is well seen at such castles as Windsor (44) and Arundel.

The garrison of Orford lived on bread, pork, beans (*sic*), cheese and eels. In the Pipe Rolls of the time you can still see

Henry II's "shopping lists" for Orford Castle. On them you can see jotted down such items as handmills for grinding corn, cables for siege-engines and cords for cross-bows. Salt of course was essential, especially for preserving the bacon and eels in the basement of the great keep, and one also finds coal mentioned for its fireplaces (this was once stolen by Flemish mercenaries on its way to Orford).

It was explained in the first chapter that not all castles were residential. The king, for instance, had his official castles for the policing of the land. The barons also had their garrison castles by which to maintain order within their large estates, and in some cases castles, especially those near the borders of the realm, were definitely entrusted by the king to the care of some great feudal lord. It will be appreciated that such castles might have had no permanently residential castellan. Their government was therefore entrusted to an officer called a "constable" who lived in the castle and, although not its owner, was in much the same position as if he had been, occupying the great chamber just like the lord of an ordinary residential castle. The constableship of a castle was a very important position and might very easily be abused—to put an untrustworthy man in charge of a mediaeval castle was like letting somebody run off with a modern battleship; it might be a considerable nuisance getting it back from him. Thus the rank of Constable of the Castle was one sometimes bestowed on a great baron as an honour, and some of the important royal castles actually had hereditary Constables.

Besides the Constable, there were usually three permanent officials attached to each castle. Being on the permanent staff, they seem to have been very poorly paid, only getting a penny or twopence a day instead of the eightpence which was paid to the knights. First of these was the chaplain. Besides having to maintain the services in the castle chapel, this person was in the unique position of being probably the only person within the castle who could read or write, and thus had to keep the accounts and conduct any correspondence in which the lord or his constable might engage.

Next there was the watchman, a sort of "caretaker" whose duty it was to look after the castle movables and see that there were no leakages of stores. Lastly there was the porter, who was at all times responsible that no one entered or left the castle without proper authority. It will thus be seen that

the absence of the constable should have had no effect what-
soever on the safety of the castle, the porter watching the
gate and the watchman watching the garrison. (If any trouble
arose, I suppose the chaplain wrote a note to the Constable,
who could get the chaplain of the castle where he was staying
to read it for him.)

Before considering the methods adopted in assaulting the
early Norman castle, let us investigate a few matters in con-
nection with the conduct of the besieged during operations.
It was, of course, seldom that a castle was assaulted without
the owner having plenty of notice. The times were leisurely,
and he would receive ample news as to what was happening
in his district. Having victualled and garrisoned his castle
he would then frequently look round for someone, usually
a cousin or uncle or some such unimportant relative, to put
him in charge of the place to await the siege while he cleared
off somewhere else to await the result. In 1139, Bishop Roger
of Sarum, in rebellion against King Stephen, left his castle
of Devizes, one of the strongest in England, in charge of his
mistress, Maud of Ramsbury, who would probably have held
it until the end of the war if the good bishop had not been
so careless as to get himself captured, being thus forced to
give up the castle in exchange for his freedom.

Operations once commenced, it would be left mainly to
the besiegers to do all they could to get into the castle, the
garrison meanwhile sitting tight and trusting in their defences,
repelling, of course, such attempts as might be made by the
besiegers to carry the place by storm or by firing the gate
or palisades.

If the castle proved too much for the assaulting party all
was well. If, on the other hand, the garrison felt that they
could not cope with the besiegers they would ask for a truce
for forty days (*sic*) in which to communicate with the castellan
their overlord. If the order to surrender was not received
within this time, the siege would recommence, and if in this
event the garrison were so rash as to fight until their castle
was carried by assault, they might possibly expect to
be massacred in the end by their justifiably irritated
adversaries.

There were two chief ways of assaulting an early earth and
timber castle. One was by throwing blazing material at the
wooden defences, a method which was very often successful
unless the garrison had a good supply of water and could

56 FRAMLINGHAM, SUFFOLK: one of the earliest English Castles to be built with a Towered Curtain

57, 58 THIRTEENTH-CENTURY BATTLE SCENES, showing the
use of the Trebuchet

keep the palisades covered with wet hides or some other fire-resisting material. The other method was by getting to the defences themselves by scrambling up the ramparts or filling up the ditch with brushwood; then simply tearing them down and apart with iron hooks and levers. This method was not very popular with besieging troops, as their losses were likely to be very heavy during such an assault. To protect themselves they had to hold their shields over their heads with one arm or else procure planks of wood and construct some kind of rough cover for themselves.

It was probably only during first-class sieges that actual siege-engines were employed, as these were clumsy things to drag about from place to place in a country with practically no roads, and also were difficult machines to understand, requiring skilled operators and needing to be taken great care of, especially in wet weather.

Practically the only siege engine in use during the century following the Conquest was the old classical machine called by the Byzantines, who introduced it to the Normans, the "mangon." The best way to understand the way in which this engine worked will be to make a small experiment. Overturn an ordinary kitchen chair and round the ends of its two back legs wind a number of turns of string until you have a sort of thick skein joining the two legs. In the middle of this skein insert the end of a ruler and begin to twist it round and round, thus winding up the skein into a sort of thick rope. The more you wind, the greater will be the resistance of the "rope," and if at any time you should happen to let go, the rope will unwind and the ruler will fly round. Should you have placed a projectile of some sort on the outer end of the ruler before letting go, it will have been thrown off when the arm of your engine started to turn.

This is the principle of the mangon, which has an arm with its lower end fixed in a very thick skein of sinew (or it is said sometimes to have been woman's hair). The skein was mounted in a strong horizontal frame having a sort of trestle over it from side to side to hold the arm of the engine still while the skein was being wound up. The arm itself could not be turned so the ends of the skein were wound round to produce the same result. The skein being wound up by means of some sort of capstan (called, apparently, a "capital") the arm of the engine was hauled down and back and secured in position, thus "cocking" it. Sometimes the

arm had a spoon-shaped end in which to place a large stone or a mass of blazing material for firing timber structures, and sometimes there was a sling attachment for increasing the length of the arm and the range of the throw. When the end of the arm was let go it would flip back into its position against the trestle, at the same time hurling the stone with considerable force. As the arm hit the trestle the whole machine
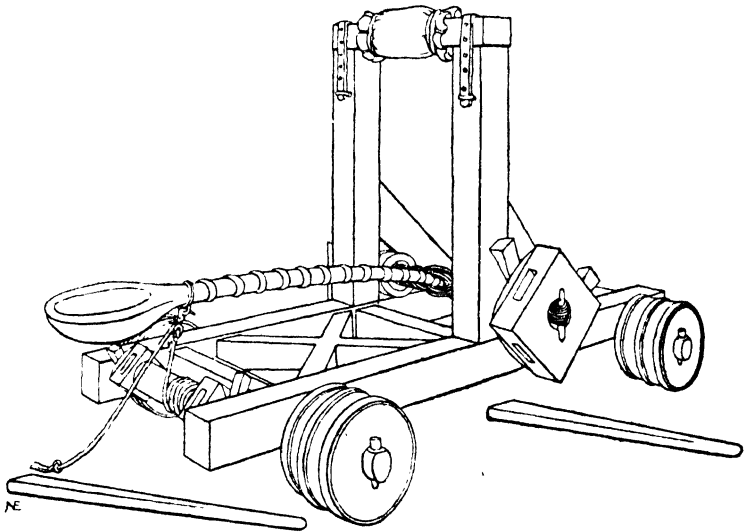


A MANGON WITH ITS "SKEIN" WOUND UP AND THE ARM HAULED
DOWN READY FOR LOADING

would kick up its hind-quarters, and thus the Romans called these engines "wild asses," and the twelfth-century Norman soldier "nags." The mangon was quite a useful type of engine, as its ground frame could be mounted on four wheels and dragged about the countryside in a siege train.

In the summer of 1174, Henry II at last decided to put an end once and for all to the troubles and indignities he had been suffering at the hands of Hugh Bigod the Restless, the terrible old Earl of the East Angles who had been in more or less continuous rebellion for nearly forty years. Henry had been in France for a while, and on July 24th of that year he suddenly appeared at the lonely village of Syleham on the Waveney with a host of five hundred carpenters and set

them making engines for the reduction of the great stronghold
of Bungay Castle. It is interesting to relate that the very next
day the Bold Bigod, all the fight scared out of him, rode up
and surrendered all his castles.

What were those dreaded new engines that Henry's five
hundred carpenters were making that summer's evening while
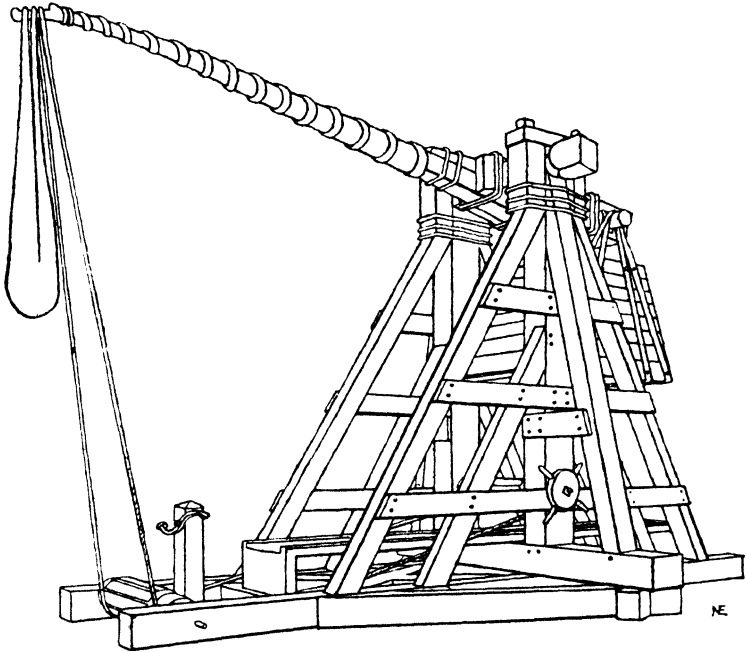


A TREBUCHET WITH ITS "VERGE" HAULED HALF-WAY DOWN

the Will o' the Wisps danced over Syleham Marsh? My own
impression is that the great "trebuchet" was appearing for the
first time in this country.

The principle of the trebuchet is much more simple than
that of the mangon. Any see-saw can be turned into a trebuchet
if you can catch your opposite number unawares and cause
him to leave his seat as you bump down your end on the
ground. The verb used in connection with the hurling of
projectiles by means of a trebuchet is "to trap"; in Somerset
the village boys had a game called "Trapping the Toad."
A short flat piece of wood was laid against a stone so that

K

the short end projected over it. A toad was then placed on the long end, and it will be seen that a brick dropped on the projecting short end will cause the other extremity to fly up and cast forth the toad! The catapult which throws clay pigeons is of course also called a "trap."

The trebuchet used at the end of the twelfth century consisted of a long heavy beam balanced near one end at the summit of a lofty and very sturdily constructed trestle.
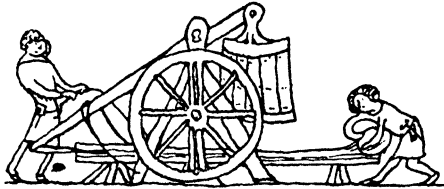


LOADING A TREBUCHET
*From a 14th-century MS.*

Attached to the short end of the beam was a very heavy weight, usually a box full of earth or stones. At the other end was a long leather sling, and this end was hauled down and the sling drawn forward under the legs of the trestle for loading. A large stone, a dead horse, a mass of manure, a prisoner or some other projectile could then be inserted in
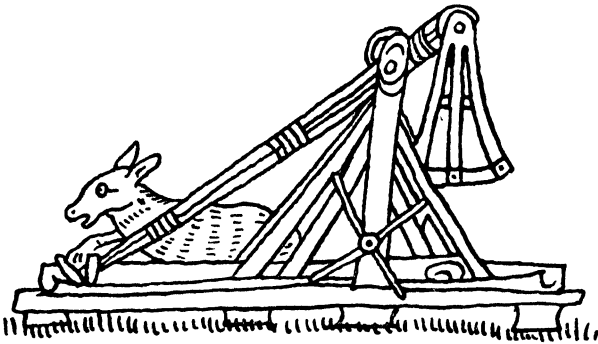


A TREBUCHET LOADED WITH A DEAD HORSE!
*From a 14th-century MS.*

the sling, and the end of the beam released. The weight at the other end would descend with rapidly increasing velocity, the "home" end would rise in the same manner, the sling would be dragged from between the legs of the lofty trestle and swung in the air. At the summit of its arc the sling would open and the projectile would hurtle through the air at a great height and with considerable velocity. The stone balls hurled by these great engines are often found lying about

59 A BESIEGED CASTLE, showing the Timber Constructions on the Wall-Tops
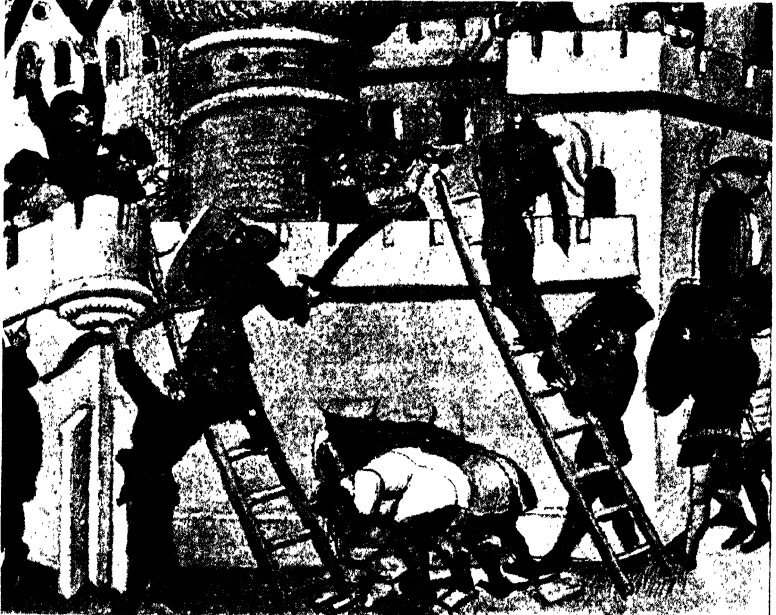


60 ESCALADES AND MINERS IN A FIFTEENTH-CENTURY SIEGE

61 A FIFTEENTH-CENTURY SIEGE: the busy scene before
the Castle Walls

the ruins of old castles. They sometimes weigh as much as two hundredweight, and it is known that stones half as heavy again could be thrown, to say nothing of a dead horse, which might weigh half a ton. The range of a trebuchet might be as much as a quarter of a mile.

One of the most valuable of mediaeval documentary treasures is the sketch-book of a thirteenth-century French architect named Wilars de Honecourt. Among its fascinating pages may be seen a sketch design for a trebuchet, the timbers all carefully drawn and the whole fully annotated. "Se vus voles faire," he writes in his quaint Picard dialect, "le fort engieng con apiele trebucet, prendes ci gard."

He shows the layout of the cruciform base with its diagonal strutting, upon which the strong trestle was erected, and explains how the engine was loaded. "The hauling down of the rope," he says, "is a very serious affair, for the counter-poise is very heavy. For it is a chest full of earth, which is twelve feet long and nine feet wide and twelve feet deep."

Sometimes, in place of the box of earth, the end of the great beam had a cross-bar to which was attached a series of ropes which would be hauled upon by the men working the engine, thus bringing up the other end and casting forth the projectile. (See MS. illustrations, Fig. 57.)

It will be seen that these great engines were a great improvement on the old mangon, as the principle was much more simple and there was no cable to get out of order in wet weather. The only difficulty was that they were not transportable except in sections; but on the other hand they were easily knocked together by local carpenters.

The trebuchet continued to be used long after the invention of gunpowder. Even as late as the sixteenth century it was still being employed in most elaborate forms. The English version of its name was "trip-gate" or "trap-gate," and it seems that the game of "tip-cat" may have been so named by reason of the similarity in principle.

The last chapter was entirely devoted to the consideration of the actual house within the defences of the castle. Let us now consider the defences themselves. The palisades were known as "brattices," which simply means "boarding," as the stockade was usually made of squared timbers, possibly rather like railway sleepers and planted tightly together to resist dislodging. They were probably secured at top and bottom by horizontal timbers. The tops of the pales may

have been cut to a spike, and some palisades may even have been made "crenellated," with pieces cut out of them to fire through in the same fashion as the later stone walls.

Some castles had an additional defence at the outer edge of the ditch. A solid palisade would not have done in this position as it would have given cover to the besiegers, so some kind of "zareba" was often constructed of quickset thorn bushes. This defence (forerunner of "the wire" of the Great War) was called by the Norman soldiers the "herrison" or "hedgehog."

The area immediately in front of the defences of a castle was always kept smooth and clear of cover and was called the "lists," a word borrowed from the Byzantines from whom the Normans learned so much of military matters.

After a while, as has been explained earlier, the palisades were often replaced by low stone walls, perhaps six to eight feet thick and ten to twenty feet high, with a wall along the top protected by a crenellated parapet, having embrasures or "crenels" every now and again with solid "merlons" between each. Masonry defences were coming in about 1100 in this country, and by the middle of the century many castles were having their palisades replaced by stone walls.

When the great trebuchets were introduced, however, towards the end of the twelfth century, it was found that their trajectory was so high that the stones they cast came over the walls and landed in the castle. It was, as it were, the action of the American baseball pitcher giving place to that of the Australian fast bowler. This would not have mattered so much if the buildings inside had all been of timber, but a stone from a trebuchet hitting a masonry wall or a paved yard would burst like shrapnel. It is on record that such a bursting stone was known to kill three knights with the one shot. Such a disaster would have made a bad hole in the garrison of a twelfth-century castle.

At Berkhamsted in Hertfordshire, besieged in 1217 by Louis the Dauphin, who had been assisting the barons against John, the emplacements for Louis's seven trebuchets (the biggest of them he called La Malvoisine—the Bad Neighbour) may still be seen. The stone walls built by Thomas à Becket about 1160 were no protection at all, and the garrison only stood it for a day or two and then asked for the usual forty days' truce while they communicated with their overlord. The reply they received was that Louis would never be able to

keep the castle and there was no point in letting him smash it up, so the garrison had better surrender, which they promptly did. On this occasion Louis had been going from castle to castle with his great engines and reducing with the greatest ease those which were not properly protected with high walls. "What are we to do?" appealed one garrison plaintively, "the damned stones burst into such fragments the smallest of which, hitting a man, will either kill or spoil him!"

There was only one thing to be done—raise the castle walls so that the stones would not come in. Henry II put this idea into operation when he built walls round the castles of Dover (38) and Windsor at the middle of the second half of the twelfth century, and it is interesting to note that these lofty "curtains" defied the trebuchets of Louis against which the old walls of Berkhamsted and Hertford had proved entirely useless.

By raising the walls of their castles, however, the castellans had let themselves in for trouble. The answer to all strong stone structures is mining, and the new curtain walls were much more easily assaulted by this method than the old low ring-walls. If you should be living in a tall old-fashioned house in a narrow city street and are looking through a first floor window, you cannot see if a burglar is getting in at the ground floor without opening the window and looking out (not allowed in this experiment, for if the mediaeval watchman leaned out through a crenel someone might shoot at him). If you should mount to the second floor you will perhaps not be able to see the pavement below, and on the floor above that, even if there is a riot going on in the street, you may not be able to see it—*without leaning out.* Now perhaps you can see the difficulty of the watchman on the summit of a high curtain wall. A gang of miners might be esconced at the base of his wall busily engaged in undermining it—and he could not get at them.

His first step would be to provide a closely wattled hurdle supported on brackets just in front of the crenel so as to protect himself when he leaned out. This form of protection was called "hoarding," and the holes where the brackets were fixed (or sometimes stone corbels for the same purpose) may often be detected just beneath the parapets of some castles. Sometimes these hoards were made more permanently of boards or bratticing, and even roofed over so that a man might walk, as it were, in a little gallery overhanging the

wall-face, and be able to drop things through holes in the floor of the "allure," as it was called, on to the heads of persons working beneath. Fig. 59 shows allures on a castle wall.

The best way, however, of efficiently commanding the whole external face of a castle wall, is by constructing towers projecting from it towards the field, so that persons standing on their summits can shoot sideways along the face of the wall. The finest fortifications in the Western world are those which were built in the fifth century round the great city of Constantinople, its capital, well known by repute even as far as this country from the time of the Franks onwards. These great walls have fine square towers projecting at frequent intervals from their outer faces, and the example presented by them was apparently followed by the castle-builders of this country when they began to build the high "curtain" walls at the end of the twelfth century.

The first of these were the fine walls built surrounding the keep at Dover (38), begun in 1182 by the French engineer Maurice. About the same year were started the towered walls of Windsor (44) which still remain, although much disguised by the alterations of a century ago. Early curtains with square angle-towers may also be seen at Portchester and Carisbrooke.

An exceptionally interesting castle is that of Framlingham in Suffolk (56). The timber structure of 1103 having been destroyed by Henry II in 1174, the castle had to be completely rebuilt when it returned to the Bigods on his death in 1189. It thus presents a perfect example of the castle of what is called the thirteenth-century type, although its round-headed Norman arches show its exceptionally early date. Its walls, forty-five feet high, are surrounded by twelve square wall-towers and one polygonal angle tower (reminiscent of the keeps of Orford and Newcastle).

Thus high walls and wall-towers come into use simultaneously in this country, the first being highly dangerous to the defenders if unprotected by towers. At first these were just clumsy imitations of the towers of Constantinople, being merely portions of the wall brought forward, the towers having no backs to them and thus no habitable interior.

At the same time as the walls of Framlingham were being built, however, a great military campaign was influencing military architecture in this country—the Third Crusade. The early brick fortresses of the Arabs all have projecting
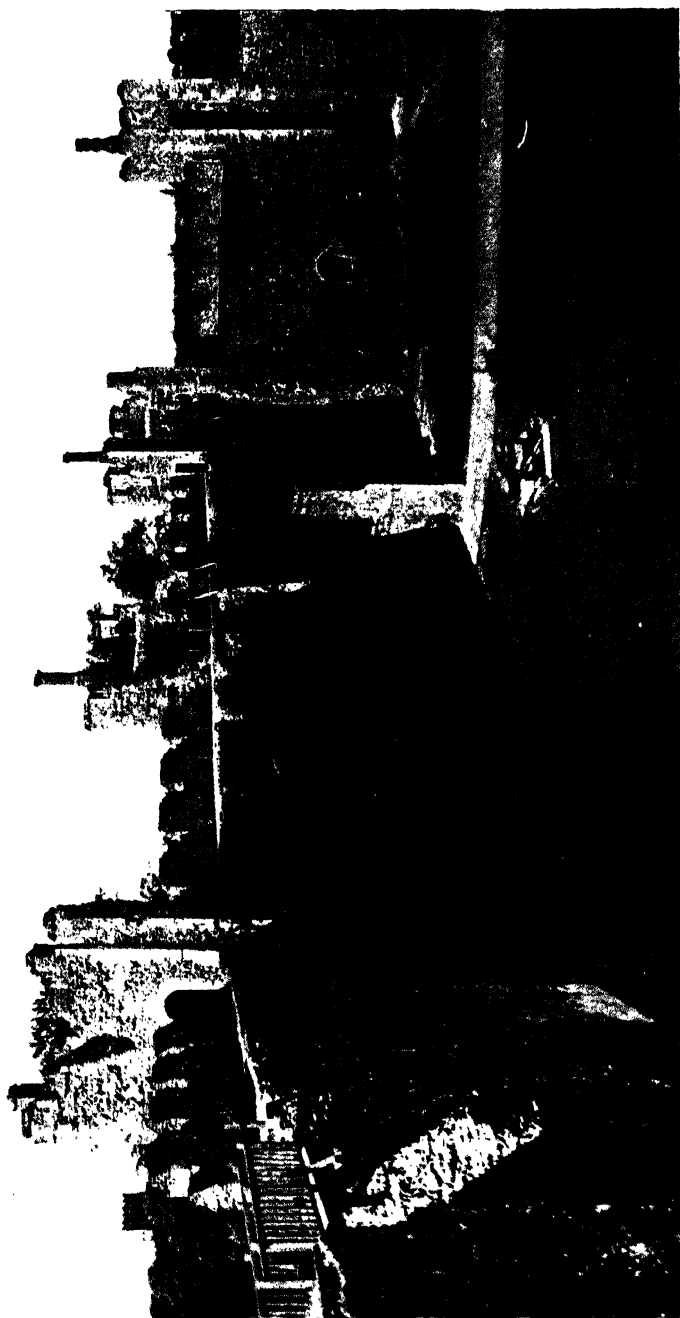
62 FRAMLINGHAM, SUFFOLK : inside the early Curtain Walls

63  PEVENSEY, SUSSEX :  an Example of early Wall-Towers

towers plentifully disposed around their high walls, serving both as buttresses and as wall-towers for the protection of the curtains. It will be remembered that the military architects of this country had already been experimenting with circular keeps, and their investigations in the East had confirmed them in their belief that the circular plan was a more efficient form than the square. Thus, almost as soon as the wall-tower comes into use in this country it gives up being square and becomes semicircular.

The lessons learned from the Arabs themselves were first employed in the Holy Land itself, and many great castles were built there by the Crusaders. Grandest of these is the mighty fortress of Kalat el Husn—Fortress of Horses—begun in 1202, which is still almost perfect and shows three huge D-shaped towers like the keep at Helmsley. It must not be forgotten that there are English castles in distant Syria, forsaken exiles with no green turf or swathes of ivy to temper their loneliness and with only the whirling dust-devils stalking their courts for garrison.

The wall-towers of the early Arab fortresses took the form of solid circular bastions, small on plan and very slender. An almost perfect copy of this type of towered curtain exists at Conisborough, having been added to the top of the mound in place of the wooden palisades some time towards the end of the twelfth century, after the erection of the great keep. The towers at Conisborough were perhaps the first examples of the Oriental type of solid bastion to be erected in this country since the time of the Roman occupation (when they were constructed squat and sturdy to act as platforms for siege engines). It is doubtful whether our castles were as a general rule armed with engines, and certainly the solid bastion is very seldom found, the hollow habitable form being invariably adopted. The roofs of such towers were usually pitched, so that, however strong they were, siege engines could not be mounted on them. It was not until some time later that lead came into general use as a roof covering and enabled flat roofs to be constructed, and it will be noticed that the interiors of circular towers are often made polygonal to simplify the arrangement of the rafters.

It is doubtful whether even the flat roofs of wall-towers would ever have been strong enough to stand the immense strain from the recoil of an engine, and when we read of castles being defended with engines, as at the great seige of

Kenilworth in 1266, these were probably placed in the large outer bailey, where the engineers would have had sufficient room to fire over the walls, lower than those of the main ward.

Such castles as Ludlow (3), where the site was unminable rock, retained the square tower as much more convenient for accommodation (after the castellan had learned to use the inside of wall-towers), but, generally speaking, the standard type of castle wall of the thirteenth century took the form of lofty curtains with semicircular wall-towers projecting, as at Pevensey (63).

The wall-tower in its square form was actually quite a useful structure. Towards the middle of the thirteenth century one occasionally finds large rectangular towers placed, like Helmsley keep, astride the wall (called "cavalier towers"), and sometimes situated at the upper end of the hall so that the lord's chamber could be placed there, in a "solar" or sunny upper room. Square wall-towers were also useful where guest-chambers were desired. The cavalier towers were all very well, however, until the thirteenth-century architects began to take full advantage of their high walls to lay out their domestic buildings along the interior faces of the outer walls instead of scattering the hall, chamber, chapel and various offices all over the interior of the castle. Thereafter the internally projecting towers were found to be in the way, and so they were cut off flush inside and only projected towards the field.

Another useful purpose which wall-towers could be made to serve was in connection with latrines. The earlier examples, it will be remembered, were constructed in the walls of the stone keeps. When stone ring-walls came into use latrines were usually constructed in these so that they could discharge into the ditch, but when the wall-tower came into use the latrines were often gathered together into one tower, as at Ludlow. At Framlingham, Manorbier in Pembrokeshire and Coity in Glamorgan, towers were advanced forward right into the middle of the ditch for this purpose, an almost ideal arrangement and one showing how much more attention was being given to sanitation than in the bad old days of the eleventh century, when more than one earth and timber castle had been forced to give in solely through absence of sanitary arrangements, as, for instance, Rochester in 1088.

It will be appreciated that the stone keeps of the twelfth

century had been built as residences and not as strictly military structures. The only way of defending them would have been by firing through the crenellations at their summits or possibly through such windows as could be reached. Many of the windows have stepped or sloping internal sills which were obviously not made for persons to stand on. The first stone walls and early curtains had, of course, only their wall-walks to give a stance for defenders, and the earliest towers, having no floors, could similarly only be defended from their summits.

Not all the early wall-towers, however, were backless. During the last quarter of the twelfth century we found complete towers being built along the lines of curtains of such castles as Ludlow, Richmond or Newark, which have useful rooms in them, one at Richmond actually having a chapel within it. These towers, however, were not strictly military structures in the sense of having been planned primarily for defence of the curtains, but, by the beginning of the thirteenth century, when towered curtains were the recognised form of castle defence, we find that the towers were properly equipped, not with windows as in the Norman structures, but with proper arrow-slits through which the defenders could command the field. The simplest form was a narrow vertical slit, through which observation was limited so that only a person standing immediately in front of it or advancing or retreating before it could be fired upon. It was therefore very soon found necessary to provide one or more cross slits through which persons crossing the field could be observed as well, for much the same reason as the metal goggles of a stone breaker have vertical and horizontal slits in them to extend his view. (See Fig. 65.)

We have now come to the stage when the defences of the main wall of the castle were almost impregnable. The wall-tower had been a most important discovery, and the siege of a castle so protected was no light matter.

It was one thing to have a stone wall round your house. Even if it had a wall-walk at its summit it did not matter much, unless you had a parapet through the crenels of which you could shoot at your sovereign lord the king, for instance, should he be displeased with you and call upon you with an army. If you had wall-towers and crenellated walls as well you might be definitely a menace to the peace of the realm, unless it was quite certain that you were a peaceable and well-

disposed person. Thus it came to pass that persons were not allowed to have crenellated walls and wall-towers unless they had obtained a proper licence from the king to build them. From at least John's reign onwards, therefore, we find no castles being built except under royal licence. This is a very useful fact as we can thenceforth date with almost certainty any castles which were erected by looking up the date of the "License to Crenellate."

Having decided that the thirteenth-century military engineer could do no more to make his great stone curtains invulnerable, let us now turn to see what was going on inside those lofty walls.

64 PEMBROKE: Interior View of the great Gatehouse
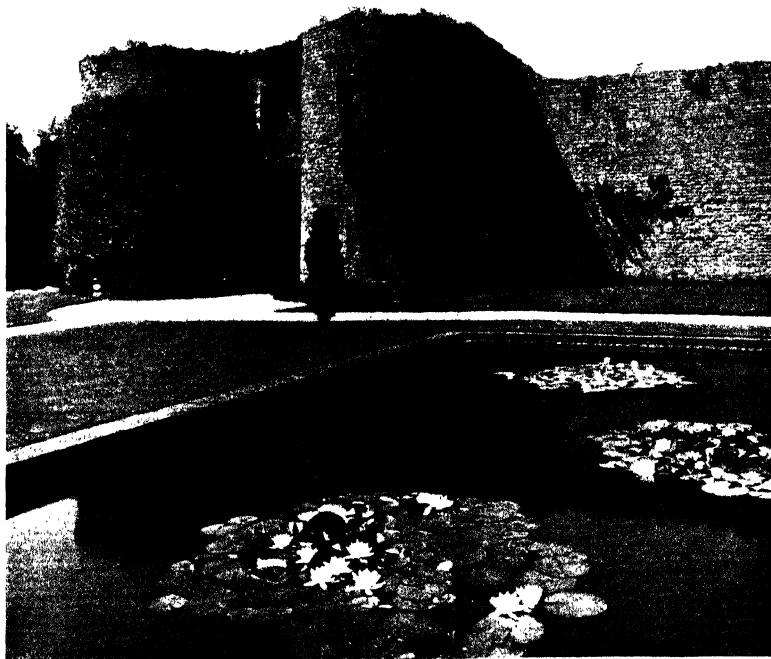


65 BARNWELL, NORTHAMPTONSHIRE. Note the Arrow
Slits in this simple Gatehouse
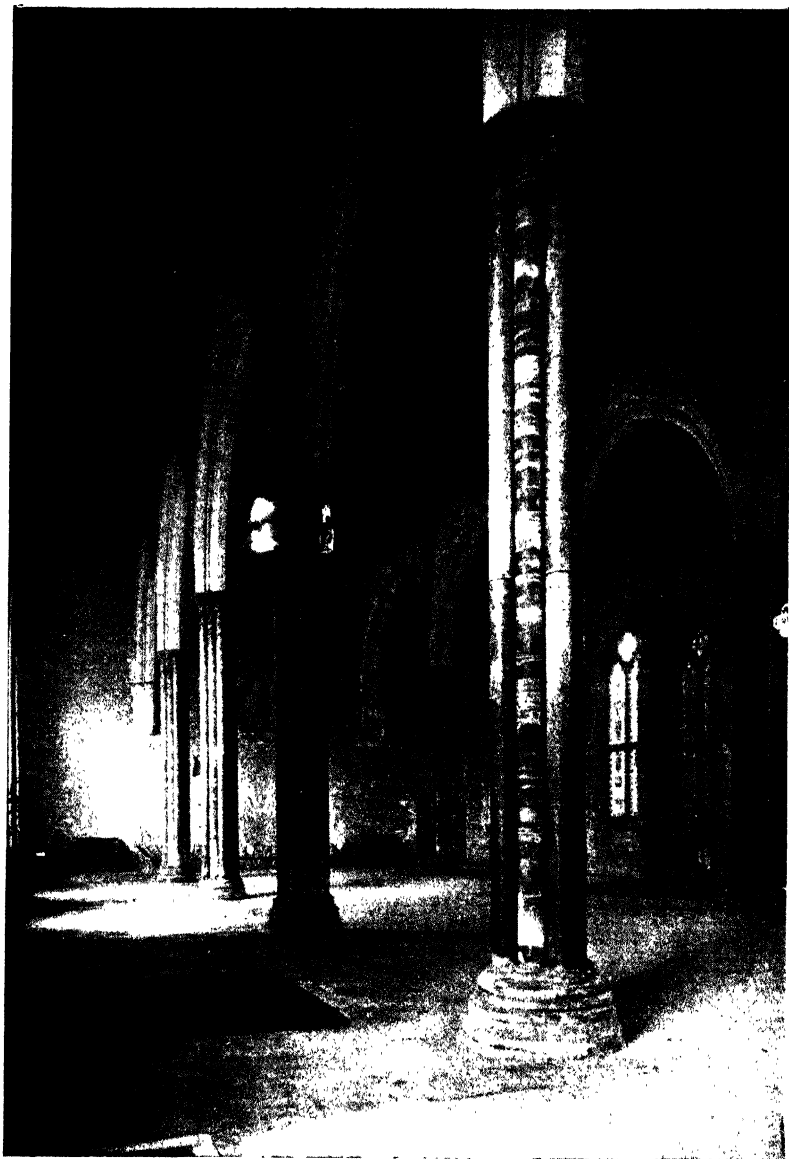
66   WINCHESTER : the beautiful Castle Hall of the 13th Century

## STATELY STRONGHOLDS

"That castylle ys so stronge that men sayde that
hyt was impossybylle unto any man to gete hyt."

APART from the experiments made by the builders of the
great hall-keeps of the early twelfth century, the castle-builders
had been so concentrating their efforts towards the improve-
ment of the defences themselves that they had neither the
time, money (or, possibly, immediate necessity) to rebuild
the timber houses which stood within them.

The tower-keeps, of course, had been abandoned when the
high walls were built, for there was neither the need for them
nor were they much use half-smothered by the lofty curtains
by which they were surrounded. As time went on those that
remained went out of use even as chambers for the lord of
the castle and became storehouses and prisons. The "donjon"
had become "dungeon."

The hall-keeps were quite different from any structures
which have ever existed in this country in that they were
houses which were actually themselves defensible. After the
abandoning of these remarkable buildings during the second
quarter of the twelfth century and the concentration on the
defences surrounding them, the castle hall falls back into the
position of an ordinary house, and, as such, hardly comes
within the scope of this book. As most of the earlier halls
were of wood, however, and have consequently nearly all
disappeared, it might be of interest to consider the few
examples which remain of the stone halls of the twelfth and
thirteenth centuries.

It was explained in Chapter II that the hall in its simplest
form consisted of just one great room, the accommodation
being later made more luxurious by the addition of a private
chamber for the lord and his family. By the time of the
Conquest, the hall, in this country at any rate, was always
raised over a storage basement, the access to this being only
from the floor above so as to reduce the possibility of a
leakage of stores. The entrance was thus by a first-floor
doorway at the lower end away from the chamber, the door
being approached by an outside staircase, apparently usually

of wood as the hall, being unfortified, did not require a stone stair as in the case of the keeps.

If the hall had a big span, there frequently had to be a row of columns down the centre of its basement to support the main floor as in the halls of the hall-keeps. This feature existed at Chepstow, Newark and Spofforth, and is repeated in the undercrofts of many monastic dormitories, and in the houses of their abbots which often formed part of the western range.

Probably the earliest, and certainly the finest, of the Norman halls in this country is that of Chepstow in Monmouth (52). Built, probably early in the twelfth century, as a simple undivided hall, it was spanned about a century later by a fine arch or series of arches so as to convert it to the "hall and chamber" type of plan so popular about 1200 (in this case, however, the division was not a solid one). At the same time, it was raised and crenellated so as to turn it into a sort of keep, the upper floor being, perhaps, the chamber.

The absence of fireplaces is a noticeable feature of most early stone halls. The usual position for the fire in an early dwelling-house was, of course, the centre of the floor. In the case of a hall raised over a basement having a row of stone columns down its centre, the hearth may have been supported by one of these. In hall-keeps, however, there was nearly always a fireplace in one of the walls of the chamber. At Framlingham in Suffolk, the east wall of the stone hall of Hugh Bigod, destroyed in 1174, still remains built up into the curtain of c. 1190, and shows two fine slender chimney shafts, possibly those of the hall and chamber fireplaces. The pretty little house on the river front at Christchurch Castle in Hampshire also has a fireplace with a slender chimney shaft. This building, however, has only one room on its main floor, so perhaps it was a chamber constructed separately from a now vanished timber hall. The name "Constable's House," by which it is known to-day, would seem to lend some support to this theory.

Remains of halls and offices of the second half of the twelfth century still exist at the motte-and-bailey castles of Windsor and Carisbrooke, but later building has considerably altered and confused them. At the episcopal castles of Wolvesey, Sherborne, Bishop's Waltham and Taunton, halls of the same period may be seen in conjunction with towers, suggesting that the latter were the private residences of the

bishops. The hall at Wolvesey appears to have had some sort of triforium lighting, Sherborne had an external wall-arcade high up round the hall and Bishop's Waltham an arcade behind the dais, a frequent feature of Norman halls which may be seen, for example, at the keep of Norwich.

At Portchester, where there is a hall-keep that was afterwards converted into a tower-keep, there are remains of a Norman hall and another domestic building, possibly a separate chamber, built up against the late-twelfth-century curtain. This demonstrates approximately the early history of the domestic buildings within a castle. First we have the hall-keep of perhaps the end of the reign of Henry I, then we have the lofty curtains of the end of that of Henry II, necessitating the raising of the keep to form a four-storeyed tower. Soon after this the residential accommodation of the castle is moved from the keep to separate buildings erected against the new curtains.

At Richmond there is an undivided hall, probably built late in the reign of Henry I, which is situated at the edge of the cliff above which the castle stands. It is in very good condition, having a fine doorway, and apparently precedes in date the lofty keep which was raised over the original gate of the castle.

Another early hall built above a cliff is that at Durham. This hall is also of early date, being lit in its upper part by windows placed in an exceptionally fine arcade with coupled columns, rather like the triforium of the hall of an early keep. This hall, which is entered by the most beautiful Norman doorway in all England, is completely spoiled to-day by being divided up into small rooms.

At Brough in Westmorland are the remains of a late-twelfth-century first-floor hall. There are doubtless many traces of Norman domestic structures within the walls of English castles as yet incompletely explored.

The custom of having a basement under the halls of castles led to their often being built out on the scarps of the ramparts instead of in the main yard of the castle. Thus, when a timber castle was rebuilt in stone, as at Newark (105) about 1175 and Helmsley (118) about 1190, the new halls were built out in front of the old line of the timber palisades, the new walls having to be adjusted to suit.

Another way of getting a cheap basement was to build the hall in an obsolete ditch, as at Egremont in Cumberland,

where the thirteenth-century hall stands in the ditch which once separated the two wards of the castle (the upper of which may once have been a motte). At Kenilworth (107) the beautiful fifteenth-century hall stands in the ditch of the now vanished motte which formed the tower of the castle prior to the erection of the very late keep.

Three early-thirteenth-century halls are worthy of mention. At Spofforth in Yorkshire is a large and elaborate hall with a columned basement. At Eynesford in Kent is a humbler and badly ruined example which shows very clearly the division into hall and chamber. At Grosmont in Monmouth is another interesting hall of the early thirteenth century, also much ruined, but showing traces of having been more elaborate architecturally than the Kentish example. These three halls are all free-standing and form no part of the castle defences, which may account for the compactness of their plans.

If we take the total of the hall-keeps in this country and add to it the number of contemporary stone halls discoverable (Chepstow is possibly the only example), it will be seen that the total is almost negligible, which seems to lend weight to the theory that the majority of early castle halls were of timber. Some of these wooden buildings, however, must have been quite considerable structures, for, although we have very little information concerning them in this country, there is a good description of the timber castle hall which was built on the mound at Ardres in Flanders at the beginning of the twelfth century.

"The first storey was on the surface of the ground, where were cellars and granaries, and great boxes, tuns, casks, and other domestic utensils." (You can visualise the storage basement.) "In the storey above were the dwelling and common rooms of the residents, in which were the larders, the rooms of the bakers and butlers, [i.e. the pantry or bread-room and the buttery or bottlery] and the great chamber in which the lord and his wife slept. Adjoining this was a private room, the dormitory of the waiting maids and children. In the inner part of the great chamber was a certain private room, where at early dawn or in the evening or during sickness or at time of blood-letting, or for warming the maids and weaned children, they used to have a fire." (So much for the main storey; you can detect the arrangement of a large hall-keep such as Norwich in this description; but here they used the roof as a living floor also.) "In the upper storey of the house
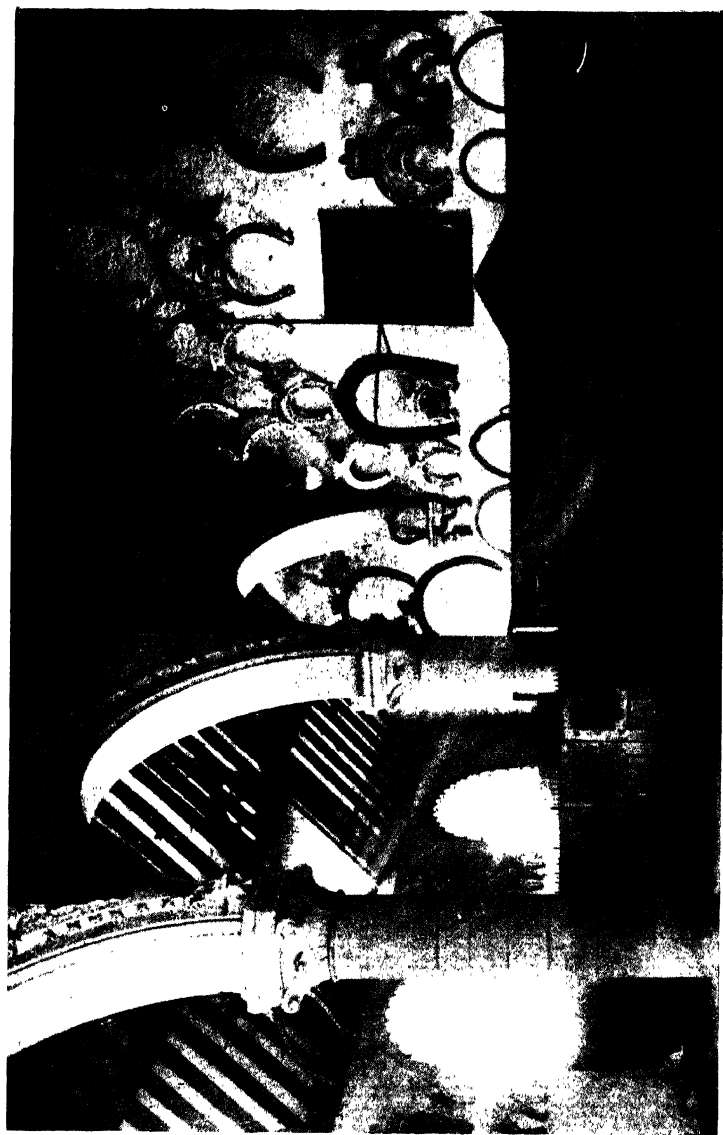
67   OAKHAM, RUTLAND:   the Interior of the late 12th-Century Hall
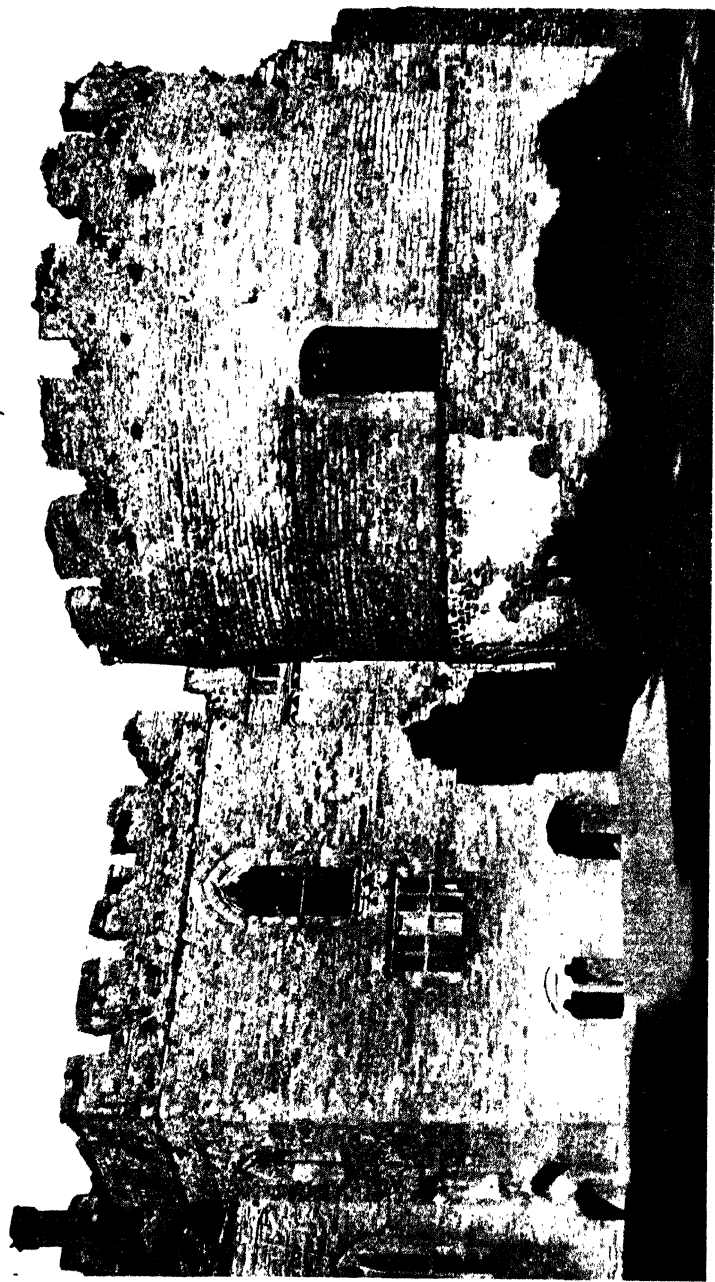
68 LUDLOW, SHROPSHIRE: the Circular Nave of the 12th-Century Chapel

were garret rooms, in which on the one side the sons, when they wished it, and on the other side the daughters, because they were obliged, of the lord of the house used to sleep. In this storey also the watchmen and the servants appointed to keep the house took their sleep at some time or other." (Attic bedrooms, you see.) "High up on the east side of the house, in a convenient place, was the chapel, which was made like unto the tabernacle of Solomon in its ceiling and painting." (The chapel was apparently the most decorative room in the house.) "There were stairs and passages from storey to storey, from the house into the kitchen [a separate building apparently], from room to room, and again from the house into the loggia, where they used to sit in conversation for recreation, and again from the loggia into the oratory."

This description gives some idea of how elaborate some of the vanished timber castle halls may have been before they were replaced by stone hall-keeps. On the whole, however, such large structures must have been the exception rather than the rule, the average castle hall being of the simple type with or without a chamber at its upper end. The reason for the comprehensive accommodation provided by the hall-keep was that the whole population of the castle might have to live in the building for an indefinite period without a holiday from their confinement. There is, however, at least one hall in this country, which, although it has very thin walls and cannot be classed as a keep, is nevertheless planned on the same principles as one. This is at the Clare castle at Bletchingley in Surrey, where there are the remains of a hall and chamber arranged side by side, the basement of the hall having had the usual row of columns down its centre. The circular stair-turret at the south-east corner of the hall suggests a late-twelfth-century date, but the building is badly neglected and ruined (though it makes quite an attractive rockery!).

It will be remembered that after the middle of the twelfth century the arrangement of the tower-keeps was undergoing a change, the great hall having been moved out of them to form a separate building in the bailey, and the keep either left without a hall at all or with only a small private one for the lord of the castle. The lord's private suite being thus separated from the great hall, this fell back into the same place it had occupied before the coming of Feudalism had divided it up and raised it on a storage basement, and even fortified it in the form of a hall-keep.

Although the basement under the hall remained popular with many castle-builders throughout the Middle Ages, the improvement of the defences of the bailey and the breaking up of the old "hall complex" made it no longer absolutely necessary to retain this. The main disadvantage of the basement was that the difficulty of supporting the main floor over it necessitated keeping the span as small as possible to avoid having a forest of columns for support. Once the basement had been dispensed with, the hall could expand and become more commodious, even getting back the lateral aisles as in former days.

By the middle of the second half of the twelfth century, therefore, we find the primitive aisled hall at the ground level coming back into the scheme of things. Probably many of them were as yet entirely of timber, as appears to have been the case at Hertford Castle. When such halls were rebuilt in stone they probably in many cases retained their original timber pillars. Possibly even some of the new halls, while having stone external walls, still kept to the old timber-posted construction for their interiors. The Normans of the twelfth century were still novices in masonry construction. It was not until the very end of the century that they discovered how to build slender shafts of stone such as grace the interiors of so many buildings of the "Gothic" era. (Compare the almost ludicrous Norman attempts at Gloucester and Tewkesbury.) They built columns as if these were walls, with a stone facing filled up with rubble. At Devizes in Wiltshire the foundations remain of an early hall which seems to have had sturdy stone columns of this description. If the Normans wanted to build a lofty arcade they usually had to build it in two storeys (i.e. with a "triforium"). It was not until the last quarter of the twelfth century that they learnt how to build columns with drums of hard stone and could erect lofty pillars such as those at Oakham Castle (65). (Every peer of the realm who passes through Oakham has to pay toll of a horseshoe to the castellan, hence the curious collection displayed on the walls of this interesting building.)

Parts of the timber columns of the halls of Leicester and Farnham still remain. The cubical capital, used so ingeniously to cap the fir "masts" of the Scandinavian buildings such as the churches of Urnes and Hopperstad, could not be employed with the square oaken pillars of the Norman halls, so these ever-ingenious craftsmen cut each face of it into a series of
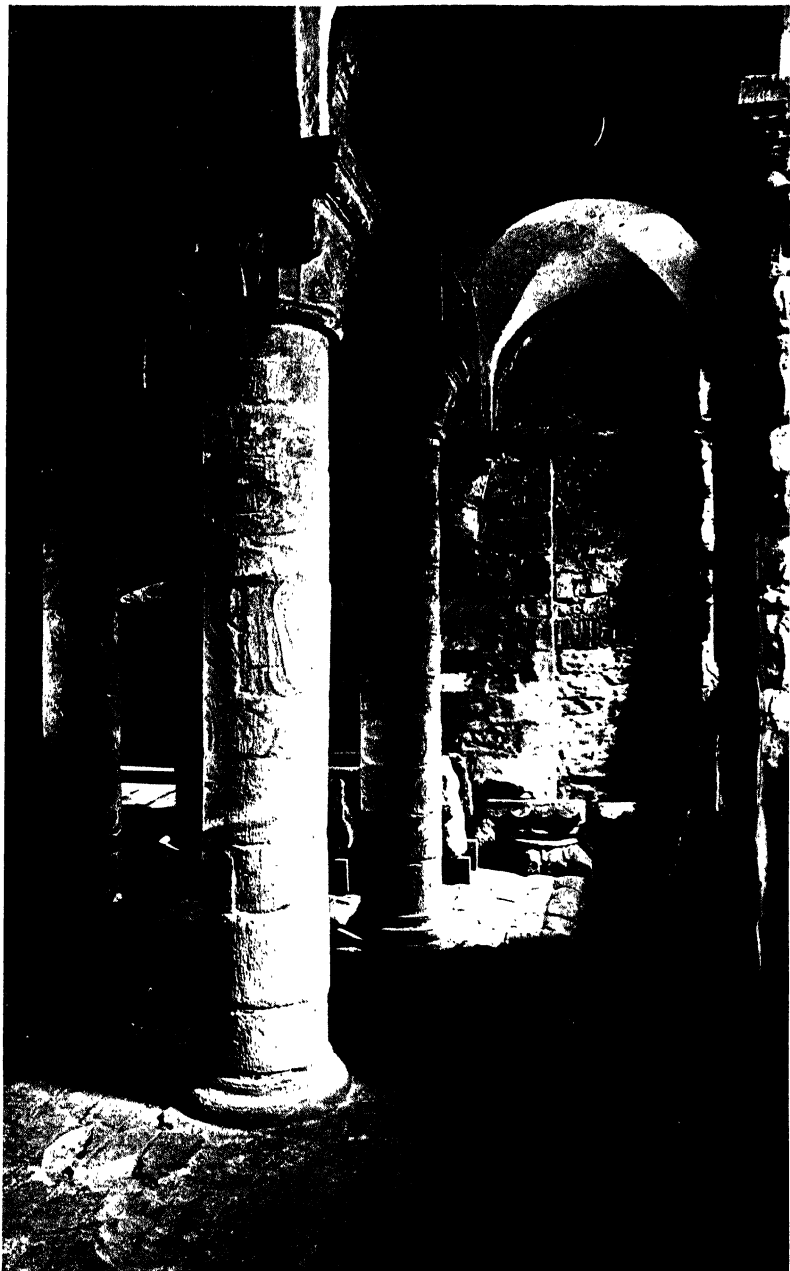
69   DURHAM :   the late 12th-Century Chapel
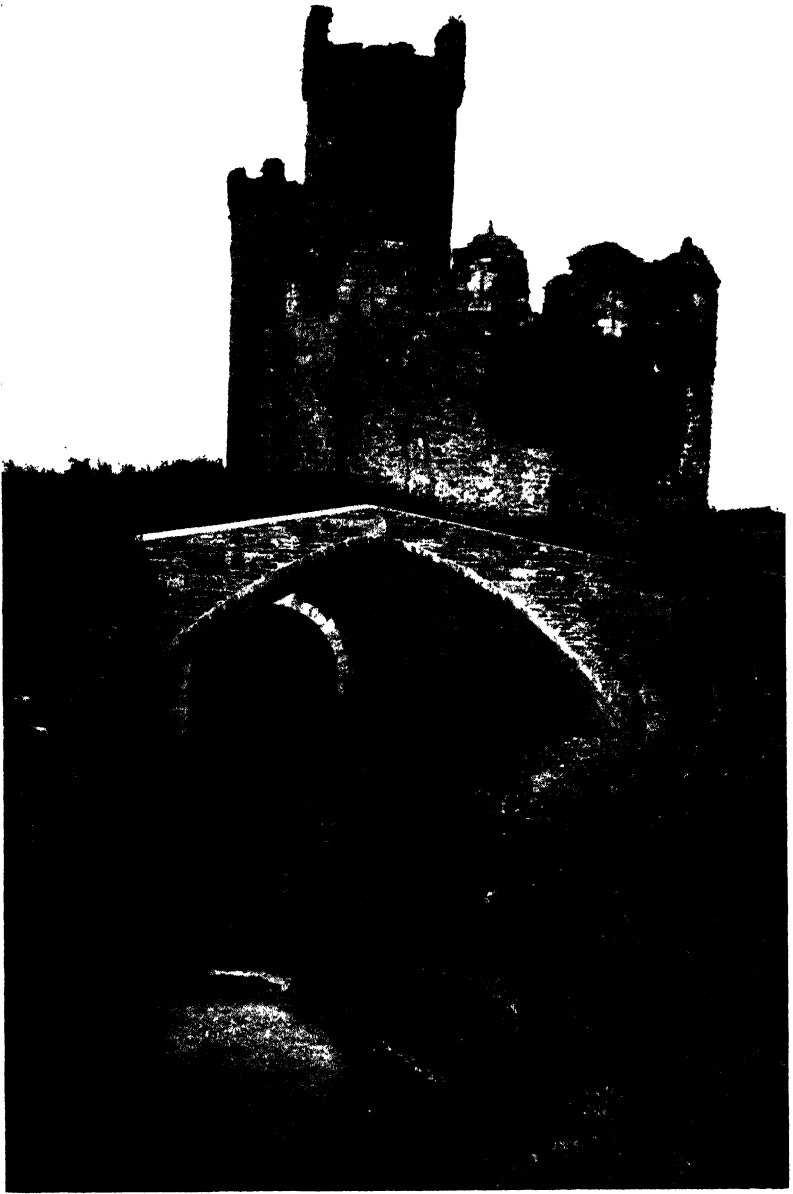
70 CONWAY, CARNARVONSHIRE : the Arch spanning the
Great Hall

cones, producing the well-known "scalloped" capital which may be seen at the two halls mentioned above and in many stone buildings besides.

In the early thirteenth century the hall with stone columns separating "nave" from aisles seems to have been popular. The beautiful example at Winchester Castle (66) may have originally been a Norman hall with timber columns before the present graceful ones were erected. At Newcastle-on-Tyne was another fine aisled hall, now, unfortunately, almost vanished. It was by no means every castellan, however, who either required, or could afford, such magnificent buildings as these, and we may still find many castles which have only simple unaisled halls.

The basements which existed beneath the early halls were not only provided for the purpose of raising the main floor and making it more defensible, but also to provide a safe space for the storage of food and equipment. This space was, of course, the private store of the castellan, and often the only stair leading to it was that from his own—the chamber—part of the main floor. When the unfortified hall became a hall-keep and later a tower-keep, the basement was still retained, thus making it unnecessary for a separate common hall, if there was one, to be raised above the ground level. This factor, coupled with the structural disadvantages of the first-floor hall already noted, was the real reason why, by the middle of the thirteenth century, the hall at the ground level had become the most popular arrangement.

By the middle of the twelfth century, the egregious habits of the Norman feudal aristocrat had reached the stage where his private apartments had become isolated to form a tower-keep with its own hall as well as a chamber, but we have also noted that, during the latter half of the century, keeps were being built without the hall storey, suggesting a better relationship between the castellan and his servants which was leading him to dine with the company in the common hall.

Towards the end of the century we find the lord's tower actually becoming joined to the hall and forming, with it, part of a range of buildings, as at Bishop's Waltham in Hampshire, where the tower was joined by a small intermediate building to the great hall, the latter, however, being still on the first floor. By the end of the century, however, the junction of tower and hall had become completely effected,

M

the lowering of the hall to ground level having made the union much easier.

By the thirteenth century, tower and hall had become completely united, to form, as it were the old plan of hall and chamber end to end as in the original Norman houses. The difference was, however, that whereas the hall had been lowered to the ground level, the storage basement still remained beneath the chamber, the roof of the great hall often being raised so as to pass over the latter.

Thus the castle hall of the thirteenth century and onwards consisted of a lofty room, usually at ground level, having at the upper end a dais, behind which was a door leading to
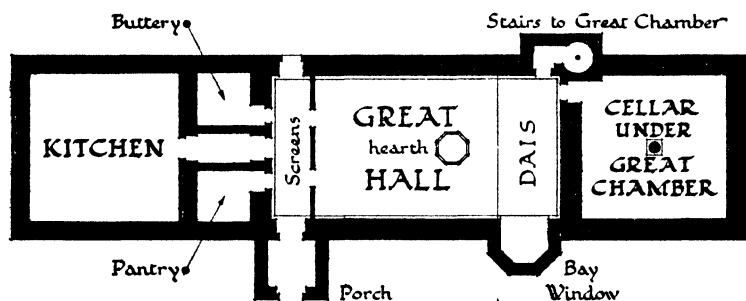


THE GREAT HALL AND ITS DOMESTIC BUILDINGS:
A DIAGRAMMATIC PLAN

the "cellar," and nearby another door communicating with the stair to the great chamber—or "solar" as it was some-times called—over it. Stokesay Castle in Shropshire has also a solar at the lower end (71). In front of the dais would have been the open fire-hearth, the smoke from which would escape somehow through a hole in the roof protected by a little turret. Fireplaces were not introduced into the great halls until quite late in the mediaeval period, long after they had become common in smaller chambers.

The great chamber would later become the nucleus of a series of rooms forming the private apartments of the cas-tellan, but it does not come within the scope of this book to discuss the development of the mediaeval house.

An important feature of the new "hall-complex" which was being invented at the beginning of the thirteenth century was the inclusion of a proper kitchen in the plan. It was

71 STOKESAY, SHROPSHIRE: the Stair to the Solar at the
Lower End of the Great Hall

72 STOKESAY, SHROPSHIRE : the Great Hall and Miniature Keep
of a 13th-Century Fortified Manor-house



73 GOODRICH, HEREFORDSHIRE : lofty Walls above a Rock-cut Ditch

placed, of course, at the lower end of the hall and was usually
joined to it by a passage having on either side two rooms,
one of which was the pantry (literally "bread room," but in
practice a sort of servery for food), and the other a buttery
for the butler who had charge of the drinks. Thus you may
often see at the ends of castle halls three doors, those of the
pantry, the passage to the kitchen, and the buttery. The side
doors were sometimes merely service hatches and only the
passage to the kitchen had a door leading directly into the
hall. Within the kitchen would be great fireplaces and ovens
for baking bread and possibly a scullery where scullions
could wash the platters, pouring the dirty water down sinks
contrived in the wall, usually an outer wall next the ditch of
the castle.

At the lower end of the hall was, of course, the entrance,
often covered by a porch. During the thirteenth century, and
later, an inner porch was usually formed by cutting off the
end of the hall by a wooden screen, having in it two doors
for the entrance and exit of servants carrying food to the
rows of tables in the hall beyond and the high table on the
dais at the far end. Above "the screens," as this passage-like
porch was called, was sometimes a minstrel gallery, so that
the lord might have music with his meals.

After the end of the thirteenth century, when the military
side of castle architecture was beginning to be neglected, we
find the domestic accommodation becoming more and more
elaborate. Beautiful architectural features appear, such as
elaborate porches to the halls. The chief of such features,
however, was usually the great bay window (sometimes
called an "oriel") which gave light to the lord's high table
on the dais of the great hall. There is a beautiful example of
such a window at Newark-upon-Trent (105).

The great halls of mediaeval castles in England must have
presented magnificent spectacles during the later mediaeval
period, but there is no space in this book to deal with these
structures, belonging as they do to domestic architecture
rather than to military.

There are very few really fine castle halls left in this country.
Their masonry not being so strong as that of the curtain
walls which protected them, the buildings within the later
castles have usually been considerably despoiled for the sake
of their materials. When a castle has continued in use, how-
ever, as at Warwick or Arundel, its domestic buildings have

usually been so altered as to lose the effect of their mediaeval origin.

A fine fourteenth-century hall still remains at Caerphilly in Glamorgan, of which castle, once the finest in England, I shall have more to say later. The rather earlier hall at Ludlow has already been mentioned. Conway Castle has the remains of a fine hall (70) with slender stone arches spanning it to support the roof timbers. One of the most perfect halls is that of the little "castle" at Stokesay in Shropshire (71) probably erected in 1291. Several of our castles possess the outer walls of their halls where the strong curtain has proved too much of a task for the stone-robbers. Such is the case at Manorbier in Pembroke, and the very fine hall at Newark-upon-Trent still has its outer wall and one gable perched above a fine crypt. The most beautiful hall of all is that built late in the fourteenth century by John of Gaunt at Kenilworth (107), which also had a vaulted crypt beneath it.

The Crusades of the time of Richard I and the internal struggles of John's unhappy reign having at last given place to the comparative peace of the reign of Henry III, that monarch was able to give more attention to the internal accommodation of castles than had ever been given before. There are many accounts still remaining concerning his improvement and embellishment of the royal castles. The lower parts of their halls were often panelled with "wainscot," and in front of the door to these and other chambers within the castle were erected projecting "spurs," permanent panelled screens which served to protect the rooms from draughts when the door was opened (often, of course, directly into the open air). The living-rooms of some old cottages in the country still have their "speers" remaining, projecting before their outer doors and keeping the chimney corner free from draughts.

Internal corridors were rare in mediaeval buildings, and communication between the rooms was often by means of timber pent-houses, like the alleys of a cloister, passing along the outer faces of the walls (compare the "loggias" of the early timber halls) and even across the courtyards from building to building.

Henry III seems also to have had a professed taste for mural decoration. Green with gold stars was a favourite scheme of his, and occasionally circles in which were depicted scenes from the Bible such as "the history of Dives and Lazarus." Secular subjects were not neglected, such as the

combat of King Richard and the siege of Antioch, or even "a map of the world."

Henry seems also to have had a more tender nose than his predecessors, and we often find him insisting that the sanitation of his castles be improved as the constable "values his life and liberty." At the Tower he commands: "Since the privy chamber of our wardrobe at London is situated in an undue and improper place, wherefore it smells badly, we command you on the faith and love by which you are bounden unto us, that you in no wise omit to cause another privy chamber to be made in the same wardrobe in such more fitting and proper place as you may select there, even though it should cost a hundred pounds."

If an ardent Inspector of Nuisances, however, Henry was also a lover of gardens. We find that he often ordered his castles to be beautified with green lawns and pleasant "herberies" where his dear queen Eleanor might walk among the sweet-scented blossoms.

An important building within the walls of the castle was the chapel. The little chapels within the stone keeps and timber houses have already been mentioned, and throughout the era of castles small private oratories were often to be found at the summits of wall-towers, such as the beautiful example at Conway. Large stone chapels, however, were as rare as stone halls so far as earlier castles are concerned. The foundations of an early Norman stone chapel with nave and chancel remain at Pevensey, and at Ludlow is the beautiful little round chapel (68 and 76) modelled on the churches of the Knights of the Temple. There is a beautiful little aisled Norman chapel among the domestic buildings of the castle at Durham (69), and at Castle Rising are the ruins of a large twelfth-century chapel with nave, chancel, and apsidal sanctuary.

Many chapels in Norman days, like their halls, were of timber, and as late as John's reign we find this king building a timber chapel within the castle of Sauvey in Leicestershire.

There are few really noteworthy chapels remaining in our castles. At Goodrich one of the gatehouse towers was used as the chapel and suitably ornamented. One of the most interesting castle chapels is the pleasing little structure which was built out under the river walls of Kidwelly in South Wales (86). At Farleigh Castle in Somerset may be seen a large late-fourteenth-century chapel having beneath it a crypt

in which are interred many of the Hungerford family. There are some other remains of chapels to be found among the ruins of the domestic buildings within our castles, as at Bodiam (74), but few noteworthy examples are to be seen.

On the other hand, some castellans built really large chapels within their castles and sometimes founded in them chantries or even colleges of priests. The great chapel of St. George within Windsor castle is known all over the world as the chapel of the Knights of the Garter. The ruins of its collegiate church form the greater part remaining to-day of the castle of Hastings. The foundations of an enormous cathedral-like church may still be seen at Warkworth castle, but at the Beauchamp castle of Elmley in Worcestershire the plan of the collegiate chapel has yet to be recovered by excavation.

Easily the majority of castles in this country were originally founded as earth and timber structures in the years immediately following the Conquest. The addition of stone walls, keeps, high curtains and towers made them into the castles we see to-day covering many of their sites, and these masonry additions and embellishments have mostly been effected in their planning by the original form of the timber castle. After the early part of the twelfth century very few new castles were erected except such ephemeral structures as siege castles, small motte-and-bailey forts for the most part, on the same plan as the very earliest castles and giving no thought to subsequent masonry improvements.

By the beginning of the thirteenth century, however, the age of timber castles had passed away, and the only terms in which the castle-builder could think were those of high stone walls and lofty towers. Let us consider what form such new castles as were built at this period appeared to take.

Firstly, the necessity for considering the sweep of timber palisades having passed away, we find the circular plan being abandoned with it. One castle, Sedgwick in Sussex, was built on a circular plan in 1257, and even as late as 1307 we find the same plan being followed at the Cumbrian castle of Scaleby; but there is just the possibility that these two were on earlier sites.

Obviously the ideal plan for a stone castle is that of a square or rectangle, which is easy to set out and facilitates the building of such structures as the hall and chapel against the interior faces of its walls. A wall-tower projecting at each angle will completely command the exterior faces of the walls.

75  OAKHAM, RUTLAND: one of the late 12th-Century
Hall Windows



74  BODIAM, SUSSEX: the 14th-Century East Window
of the Chapel

77 CHEPSTOW, MONMOUTHSHIRE: the ancient trellised Door of the Outer Gatehouse



76 LUDLOW, SHROPSHIRE A View of the circular arcaded Interior of the 12th-Century Chapel, through the West Door

Thus the usual plan of the newly erected castle of the thirteenth century was a square surrounded by lofty curtains and with a circular tower at each angle. Such castles were built at Barnwell in Northamptonshire in 1264 (65) and at Somerton in Lincolnshire in 1281. The first is almost perfect, but only one tower and the basement of a second remain at Somerton. At Kidwelly a still perfect four-square four-towered inner ward was built in the middle of the old Norman cliff-castle about 1244. The aerial view of Goodrich (120) gives some idea of the type of plan.

It is very noticeable that there is a considerable falling-off in castle building towards the end of the twelfth century. The story of our castles during the thirteenth century is one of embellishment rather than strengthening. Fine halls and chambers and chapels were being built, and a few rather obsolete castles were being provided with new towered curtains; but practically no new castles were being founded.

The reason for this was the change of frontier. England was subdued and pacified. The borders of Wales and Scotland had been secured with numerous castles though the complete conquest of those countries was a little later desired and undertaken. On the other hand, the Normans were engaged in continuing the task of colonising Ireland. Starting with Strongbow's invasion in 1169, the rapacious Normans had soon established themselves and, by about 1180, mounds and mottes and great stone keeps were rising everywhere throughout the English Pale.

Year by year the colonists were pushing westwards, their frontiers ever extending and the number of their castles ever increasing. Is it an Hibernianism to say that if you wish to see English castles of the thirteenth century you must go to Ireland?

It will be remembered that many of the early Norman castles had been constructed on the summit of artificial mounds. This, although an ideal site for a timber castle, was quite the reverse when stone walls came on to the scene, when an artificial scarp, besides lessening the stability of the walls, provided an ideal site for the mining activities of the besiegers. Thus, with the advent of tall stone walls, the earthen mounds passed away for ever.

It is impossible to lay too much stress upon the very great danger mining was to the high stone towers and curtains of the thirteenth century. New devices were also being improved

for assaulting the bases of the walls. The ditches could be filled up at night with brushwood, stones or even the bodies of the slain, and across the causeways thus constructed movable timber penthouses could be propelled by means of rollers right up to the walls. Engineers and miners could be esconced in these "cats," as the creeping engines were called by the soldiery (who, as to-day, had names for everything). There was the "ram," of course, which would deal thunderous blows with its heavy head against the masonry until the stonework was broken up. Then would come the bore, or "mouse," which would nibble away with its iron-shod snout until the loose stones came out and the pick-men could peck at the rubble core of the wall.

At the great siege of Kenilworth in 1266 the besiegers constructed a high framework tower called a "bear" upon which were perched archers to shoot into the castle in an attempt to pick off the engineers working the catapults by which, however, the great bear was eventually slain. They were a gay garrison, those "Disinherited" defenders of Kenilworth. Given to the bad practice of staying out all night, they were once all but caught by Prince Edward— Edward I to be—who fell upon the village one August dawn and sent them scampering—nightshirt or nothing—back to the shelter of their castle walls, short of many of their number and almost lacking their leader who had to swim the great lake to get home. The besiegers brought up the Archbishop of Canterbury to excommunicate the garrison, whereupon the castle chaplain arrayed himself in a borrowed cope, mounted the walls and proceeded to excommunicate the Archbishop! For six months they held out until the whole castle was roofless from the fire of the besiegers' engines; but dysentery intervened, and the "Disinherited" at last surrendered, marching out with the honours of war.

While on the subject of military engines it should be mentioned that there were two types of engine which, although not strictly siege-artillery, were nevertheless sometimes used to harass the garrisons of mediaeval castles. The first was the old Classical *balista* or cross-bow, employed by the Romans, the Byzantines and the Normans. In earliest times it was worked by the torsion of two twisted skeins of cables in the same way as the mangon, but in the Middle Ages it became the "arbalast," a large bow mounted horizontally on a stand like a machine-gun on its tripod, and casting heavy

78 CHEPSTOW, MONMOUTHSHIRE: an early 13th-Century Gatehouse
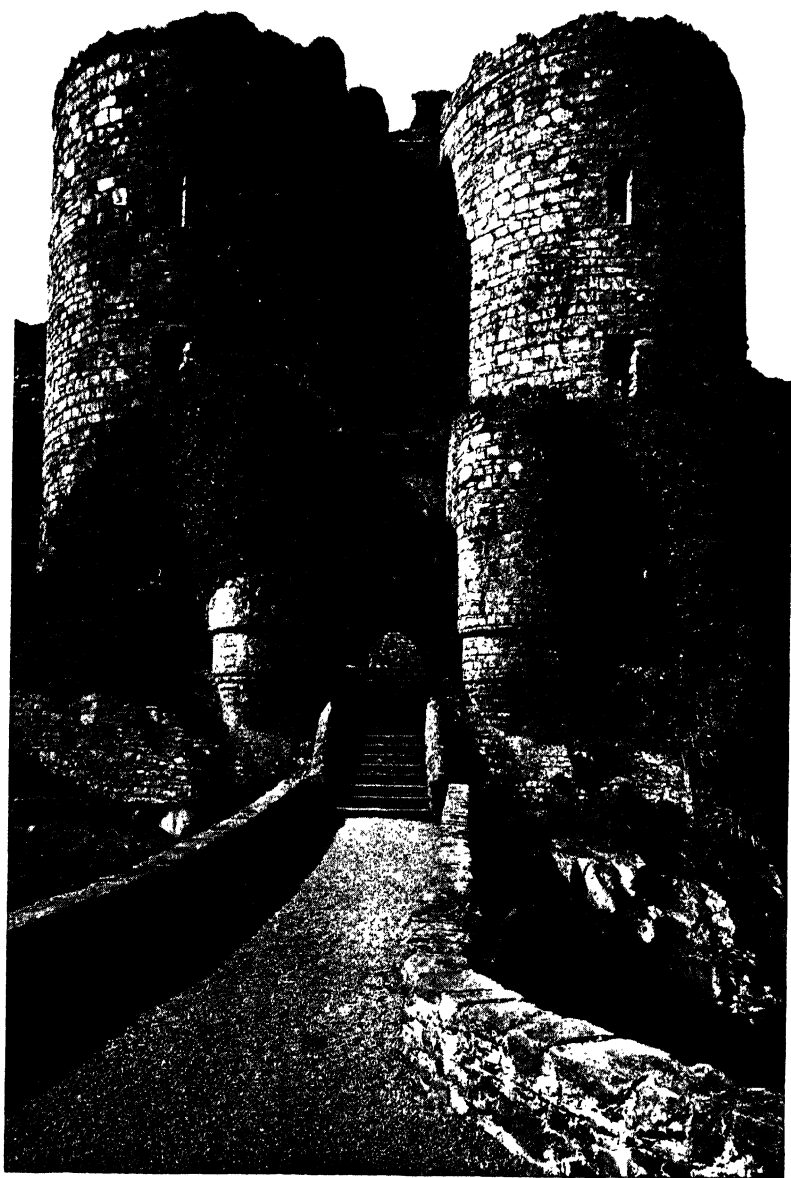
79 HARLECH, MERIONETHSHIRE: the Scale of the great Edwardian
Gatehouse is emphasised by the little Barbican in front

darts or lances. The ordinary cross-bow was simply its portable form. In the thirteenth century its place seems to have been taken by the "springal," which worked on the principal of the table-knife employed for the purpose of projecting bread-pellets across a dining table. The place of the table-knife was taken by a springy board fixed at its lower end, drawn back and let go, thus punching the after-end of the lance or dart which was placed on a rest in front of it. Another form of springal had a still more springy arm which could be drawn down and a projectile placed upon the end or in a sling attached to this. (The rabbit poacher often bends down a twig and attaches his noose to the end, securing this by a sort of trigger which, when dislodged by the snared rabbit, allows the twig to jump up and strangle the victim. This he calls a "springle.")

Towards the end of the thirteenth century a new feature is noticed in the planning of castles. It will be remembered that the early castles usually had a space called the "lists" kept clear before their defences, the outermost of which was the bristling "hedgehog" or *chevaux-de-frise* of stakes or thorn hedge at the outer edge of the ditch. This defence could easily be breached, the ditch filled in, and the walls approached by the cats and other siege machines. In some of the large Edwardian castles, therefore, the hedgehog was replaced by a low stone wall, properly crenellated and turreted. This wall was then called the "list wall" or "mantlet wall" (a mantlet was a large wooden shield carried by storm-troops), and had the main ditch of the castle on its outer side, so that ditch and list wall had first to be taken before the main wall of the castle could be assaulted. The space between the list wall and the curtain wall received the name of "the lists" of the castle, and it was in this area that the mediaeval tournaments used to take place, the walls surrounding it providing a remarkably convenient grandstand.

Another reason why the owner of a castle was most anxious to keep besiegers as far away as possible was the great improvement in the range of the bow which was taking place at the end of the thirteenth century. The old short bow drawn to the breast was greatly outstepping the clumsy and inaccurate crossbow, and was being made longer so that it could be drawn to the ear, thus extending the arm to the fullest length possible. Although the chain mail of the last century was giving place to a cunningly tempered suit of plate, the long-

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bow at a furlong could pierce a mailed knight through breast and back or nail both his thighs to his horse at one shot. Throughout England the sport of archery was being encouraged and the accuracy of the archers and their formidable weapons was such that none of the garrison of a castle would care to show himself at a crenel unless the besiegers could be kept well away from the walls.

The most notable change of face of the castle-builders of the thirteenth century is, however, shown by their choice of site. The earliest castles had all been situated wherever possible on high ground, artificial if not natural. The abandoning of the mound was followed by the desertion of the high site also. The reason was the ever-present fear of mining, unknown to the builder of the timber castle. The only sure defence against mining was water defence—to surround your castle with water which would quickly fill any mine gallery driven towards your walls. Thus we get that feature so beloved of most of us—the castle moat, once the truest friend of many a harassed castellan—to-day beautifying many a lonely ruin.

Some of the earliest castles had primitive water defences, formed by damming the end of a valley with a bank of earth as at Saltwood in Kent or the remarkable promontory castle of Sauvey in Leicestershire. Others such as Knepp in Sussex or Skipsea in Yorkshire, were deliberately planted on mounds raised in the middle of swamps.

The moated castle of the thirteenth century, however, was usually situated on low ground, where a broad shallow ditch (quite unlike the deep V-shaped ditch of the dry-ditched Norman castle) could be dug to surround the castle with a broad moat when springs or neighbouring streams could be diverted into it. Such moated sites had no mound nor ramparts, the excavated earth being used for bunds or dams to keep the water in the moats.

The danger then was that the dam might be cut by a besieger and the water drained away, leaving the castle defenceless. Some castles, such as Kenilworth and Caerphilly (82), were surrounded by large artificial lakes, kept in by very extensive dams, and in such cases the dams were often themselves fortified by walls and towers. The fortified dam at Caerphilly, which fortress, the mightiest in all England, was built about 1267 by one of the Earls of Gloucester, is to-day the most striking feature of the great stronghold. Its dam
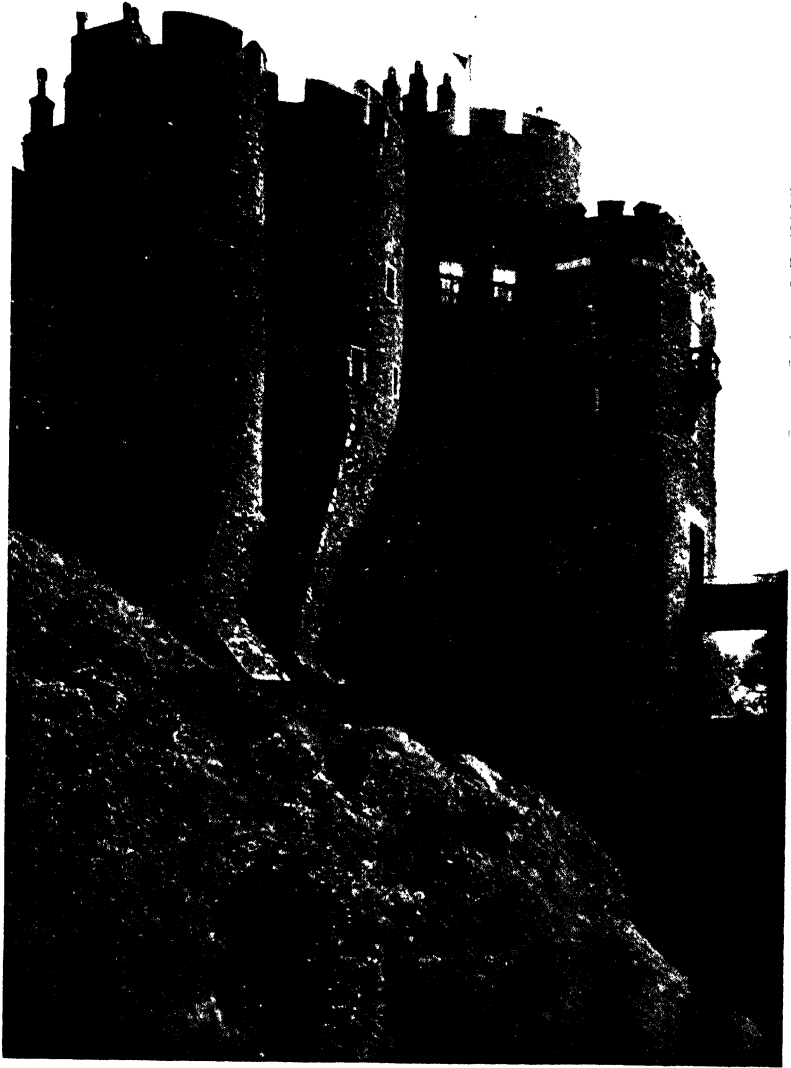
80  DOVER, KENT: the Constable's Gate.  The Arched Bridge
is a modern addition

81 CAERPHILLY, GLAMORGANSHIRE : the still formidable-looking Ruin of the greatest British Castle

breached, its lake green meadows, its walls, towers and halls split and shattered by Puritan vindictiveness, the ruins of Caerphilly rise yet unrivalled among the great castles of the world (81).

Before leaving for good the castles of earliest times, let us take one last glance at the only surviving feature of many a castle of the Conquest. Most of the older castles had long ago had their earthen ramparts all but obliterated by the stone walls which had replaced their timber palisades. Only one feature of them could not be hidden—the great earthen tower of the castle could survive any upstart erection in masonry. Most of the mottes had received by the thirteenth century the stone ring-wall round the summit which gave them the title of "shell-keep." During the century some of these keeps were embellished by the addition of a little gatehouse.

At Lewes in Sussex the shell-keep was improved, apparently about 1300, by the addition of a pair of fine semi-octagonal wall-towers. About the year 1312 a curious structure was erected on the summit of the motte at York consisting of a quatrefoil-shaped keep with rather thin walls. This keep appears to have been shortly after copied by Thomas of Lancaster at his motte-less castle of Pontefract, where a similar tower stands at the apex of the site, at a right-angled corner, and has only two lobes projecting towards the field instead of the four at York. (The two octagonal lobes of the so-called keep at Stokesay castle in Shropshire (72) make this queer little tower look as if it may belong to the same period, although its large external windows suggest that it is rather later.)

About 1320, John de Warrenne, grandson of the man who may have built the towers at Lewes, built on the summit of the motte at Sandal a fine shell-keep with two wall-towers facing the field and a little twin-towered gatehouse facing the bailey. This important little building seems to have been the model for the only royal castle erected after the great Edwardian fortresses built on the Welsh Marches by Edward I at the end of the thirteenth century, that of Queenborough in Sheppey, begun in 1361.

The four-lobed keep of York seems to have set the fashion for what one might call "bulgy" towers. The twin-towered gatehouse of the castle of the thirteenth century was often placed near an angle instead of in the centre of one side of the enclosure. At Barnwell in Northamptonshire, begun in

1264, the gatehouse (65) is cheek-by-jowl with one of the angle towers, an unnecessarily complicated arrangement.

In the early-fourteenth-century additions to Kidwelly, therefore, the great gatehouse (86), placed close to the angle, has absorbed the angle tower, which appears as a bulge on its external flank. The very fine gatehouse of the little castle of Leybourne in Kent also shows a bulge of this description, in this case, however, containing latrines. This extraordinarily interesting gatehouse has a slot like the slit of a letter-box over the entrance arch through which water could be poured upon a fire should the besiegers try to build one against the timber gate itself.

We have lately been rather neglectful of this most important feature of the mediaeval castle—its entrance. It will be remembered that the early stone walls had just an archway made in them, such as at Richmond or Eynesford, or occasionally rose to the luxury of a small square gatehouse-tower, having the entrance passage through its lower storey. The same square towers remained through the thirteenth century, but when projecting wall-towers came into use the gate-towers were made to project externally to match them. The next development was to have a broader tower so that small rooms could be constructed beside the entrance passage for the use of guards and porters and, moreover, a large useful chamber could be provided on the floor above them.

These fine gate-towers persisted right to the end of the castle period in this country. There is a fine fourteenth-century example, flanked by small square turrets, at Caldicot in Monmouth (108). A new feature, however, began about 1200 to affect the design of gatehouses. It was soon found that quite a good position for the entrance was between two of the wall-towers, which could be placed close together, as at Helmsley Castle, with the gate between them well overlooked from their summits. Later in the century these two gate-towers became cavalier towers with a good long entrance passage between them, through the roof of which the defenders could pour hot water, powdered quicklime and other deterrents upon the heads of those endeavouring to force the entry. There is a large four-towered gatehouse of early date at Warkworth (18) and another—still larger—at Pevensey.

Some interesting experiments were made towards the middle of the thirteenth century in lengthening the entrance passage and at the same time enfilading the castle ditch by
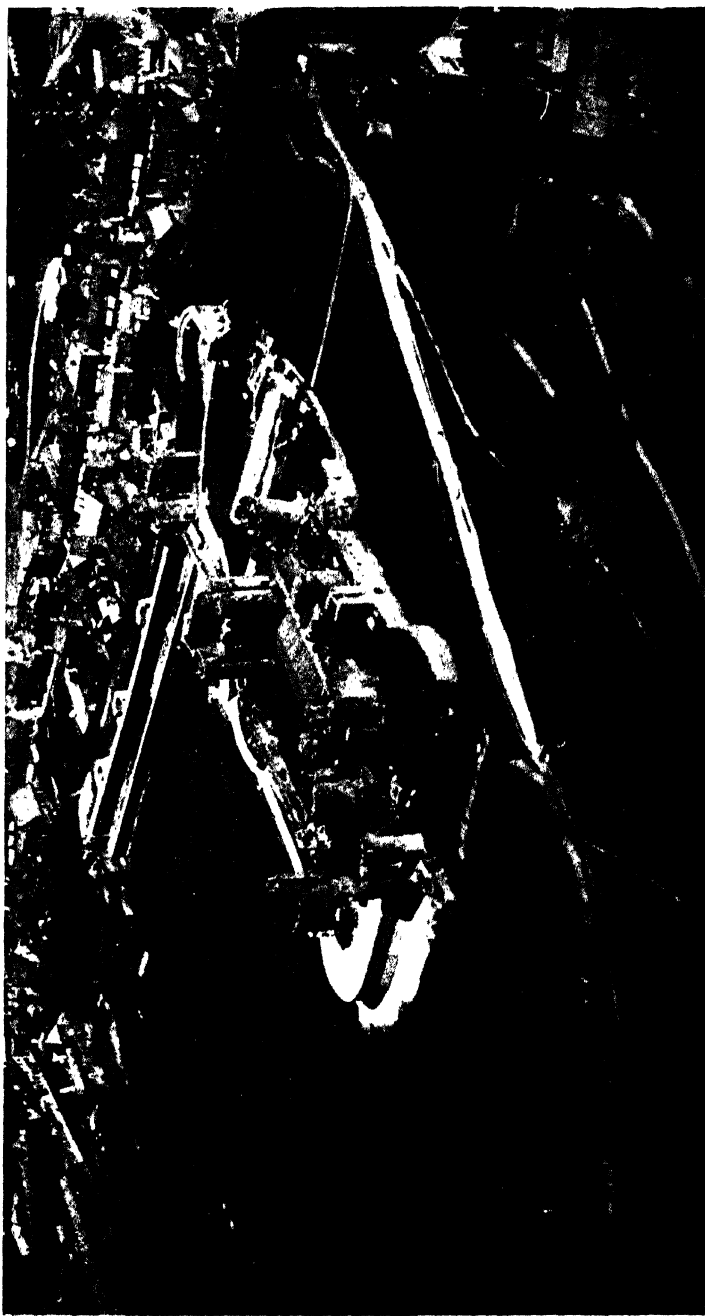
82  CAERPHILLY, GLAMORGANSHIRE: an Aerial View. The great Fortified Dam in the background is the only relic of the vanished Lake
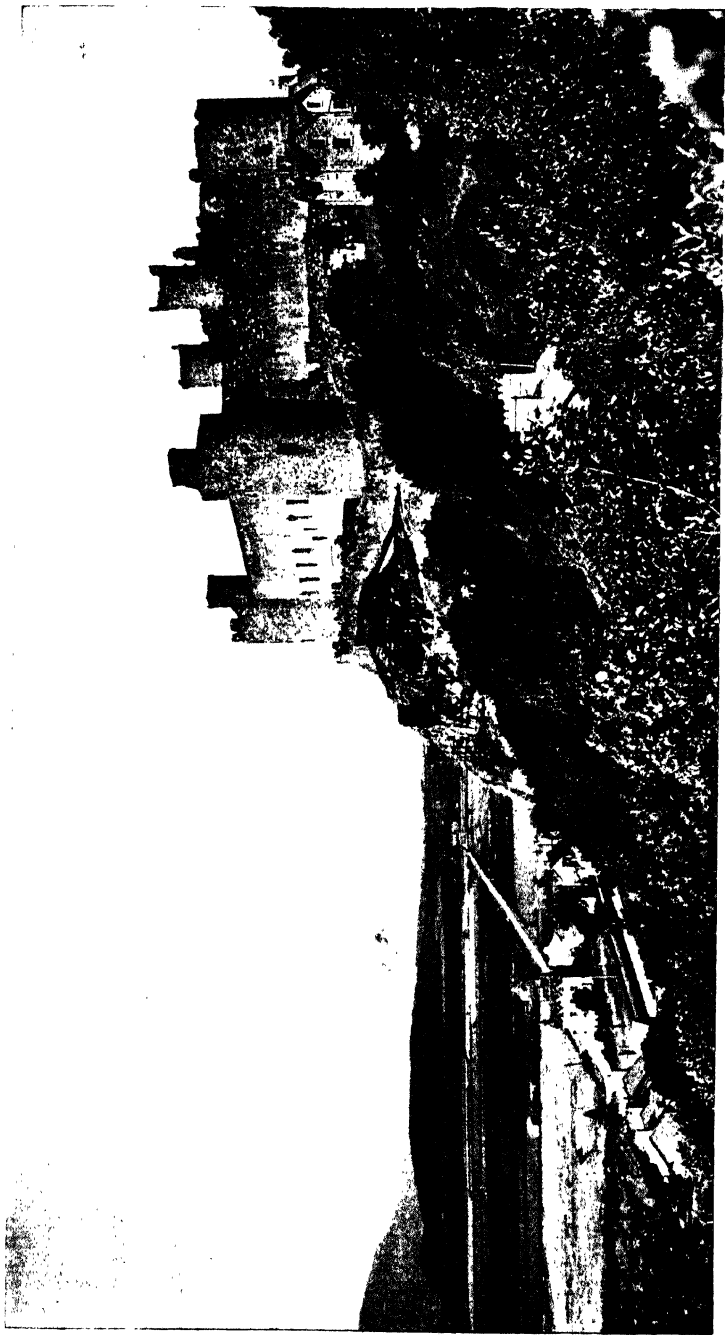
83 HARLECH, MERIONETHSHIRE, on its rocky Crag overlooking the Sea
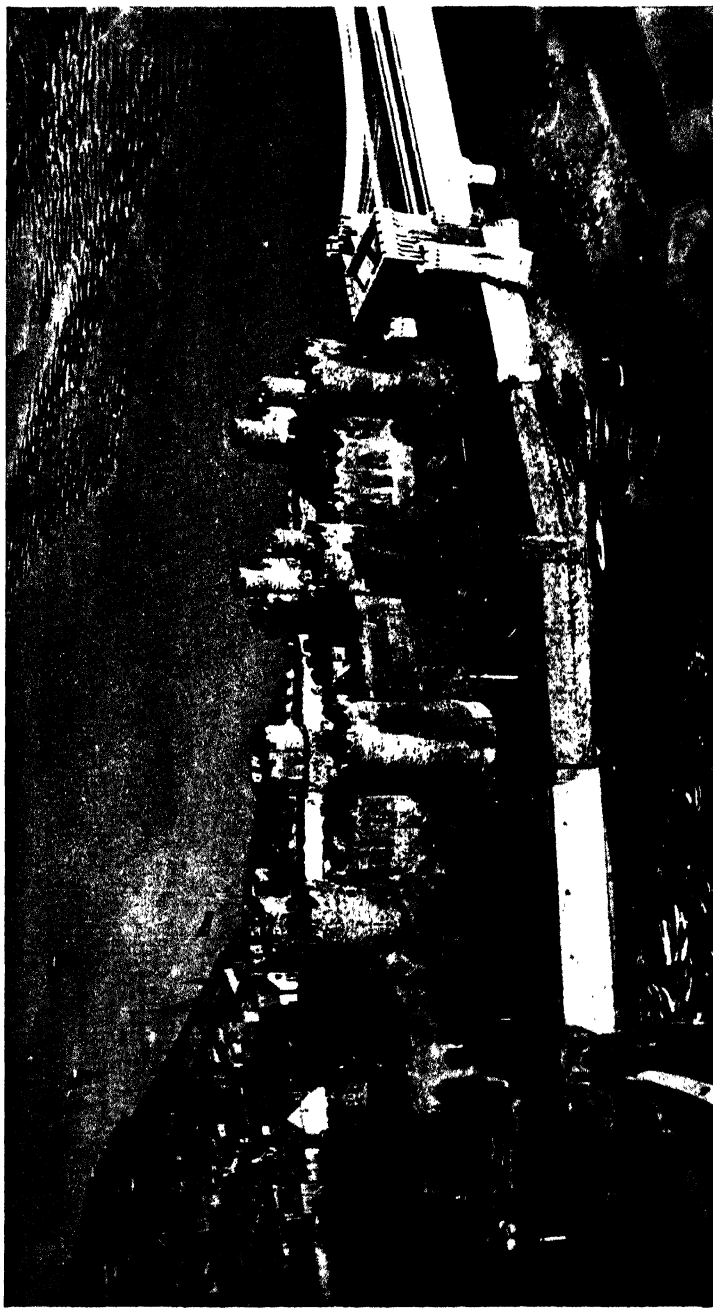
84 CONWAY, CARNARVONSHIRE : a great Edwardian Castle
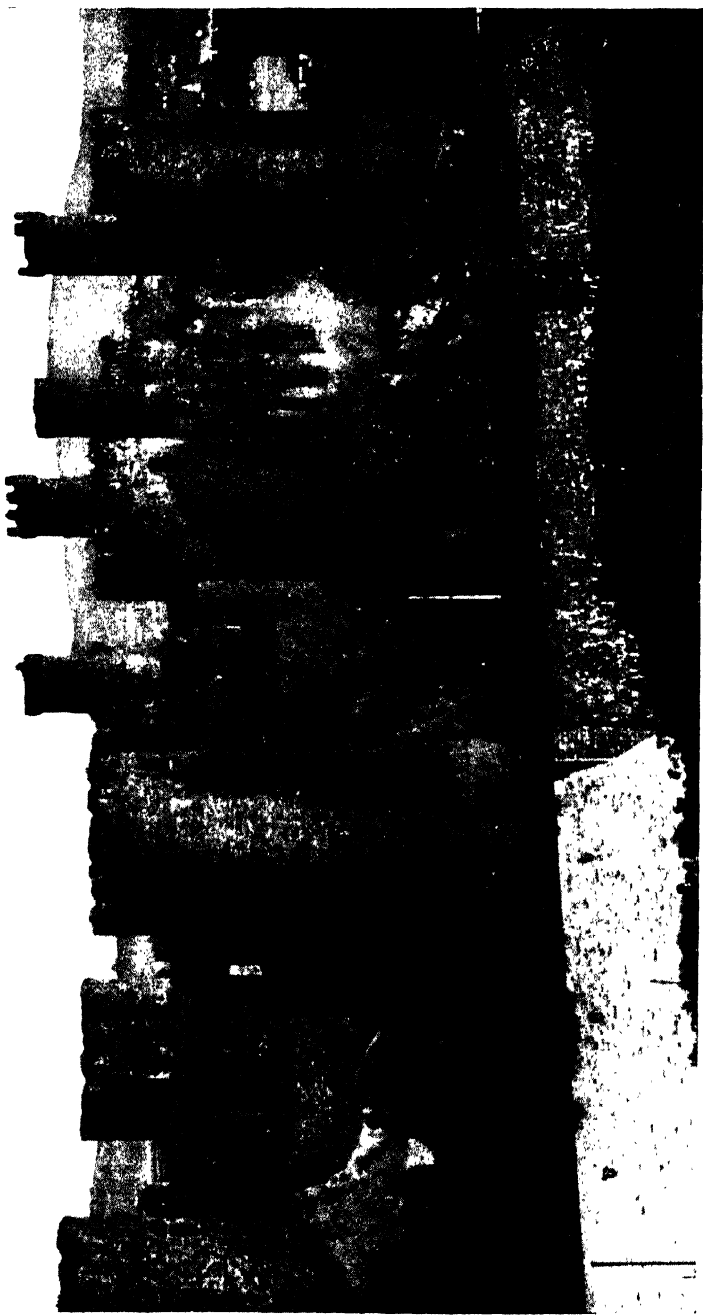
85  CONWAY, CARNARVONSHIRE : the many-towered Curtain Walls

throwing forward a structure—predecessor of the barbicans of a century later—consisting of two half-round towers facing along the ditch with the outer entrance between their backs. The Black Gate at Newcastle, built in 1247 and the Constable's Gate or Fiennes Tower at Dover (80) show this form of entrance. (The latter has been seriously spoilt by modern additions.) At Beverstone in Gloucestershire there is a similar tower forming by itself the main gatehouse to the castle (which, by the way, was erected without the royal licence and gave great annoyance to Henry III). In the next century these works were still further advanced to the outer edge of the drawbridge-pit and became true barbicans, such as those of Carisbrooke (103) or Lewes (102).

If we ignore, however, these experimental barbicans of the mid-thirteenth century, we find that the perfected form of great gatehouse was achieved by amalgamating the square gate-tower with the twin-towered entrance, making the gatehouse into a rectangular block with two projecting semi-circular towers projecting towards the field, having the entrance passage between them. On the first floor of these great gatehouses were large rooms or series of rooms which were approached by way of circular stair-turrets provided at the interior angles of the structure. The Constable's lodgings were sometimes on the upper floors of these structures. ·

These great Edwardian gatehouses, with their two sturdy external towers and their two slender internal turrets, are perhaps the chief feature of the period of great castles in this country. Originating at Caerphilly and Llanstephan in 1267, they are found in several of the great Welsh castles of Edward I such as Harlech (79 and 100) and Beaumaris, which has two of them. Tonbridge in Kent has a fine example, and at Dunstanburgh in Northumberland is the largest of all, built in 1313.

The great gatehouse remains the chief feature of the castle from now onwards, taking the place of the Norman keep as the largest structure in the scheme of defence. By the middle of the fourteenth century it was becoming absorbed into the range of domestic buildings which were lining the inside of the castle walls, but it remained lofty and turreted to the very end, surviving even to the days of the unfortified houses of Elizabethan days as the last relic of the mediaeval castle.

It is a far cry from the timber entrance bridges of the early mound castle of the Bayeux tapestry, and many of these

had been rebuilt in stone before the Edwardian period. The timber bridges often had a removable section, possibly merely consisting of a few planks which in time of siege could be drawn back into the castle to prevent ingress. The term "drawbridge" still survived right up to the end of the age of castles in this country, but their design changed considerably with the advent of masonry. The first properly constructed movable bridge was the "turning bridge." The permanent bridge across the castle ditch stopped when the gatehouse-towers were reached and a deep pit was formed between their flanks. Across this pit the bridge was pivoted seesaw fashion, the inner edge of it later having heavy counterpoise arms which sank into curved slots in the end of the pit as may be seen in the gatehouse of Bungay.

The next development was to abolish the counterpoise on the bridge itself, and to attach to its outer corners chains with which it could be raised by turning a windlass situated in the chamber over the entrance passage, such as exists at Manorbier in Pembroke. Later still the chains were attached to the ends of two arms which projected from above the arch of the gate (the slots for these may often be seen in the walls of our later castle gatehouses, as at Hurstmonceux in Sussex (91)). These arms were the projecting sides of a strong door which was pivoted above the entrance arch and acted as a counterpoise to the bridge, the door coming down into position when the bridge was raised and staying up close to the ceiling of the entrance passage when the bridge was down.

Another important invention of the beginning of the thirteenth century was the portcullis, or sliding door, usually a strong wooden trellis, iron-bound and with spikes along its bottom edge, made to slide in grooves which may usually be seen at the sides of gatehouse passages just in front of the entrance arch. The portcullis could be wound up by a windlass situated in the chamber over the gate as at Berry Pomeroy in Devon, or the Bloody Tower at London, or could be made to act as a counterpoise to the drawbridge, so that when the bridge was up the portcullis was down.

The wooden "allures" which were provided during the thirteenth century at the summits of lofty walls and towers are referred to in the last chapter. Towards the middle of the century someone conceived the idea of improving the defensibility of gatehouses by bringing forward the parapet over
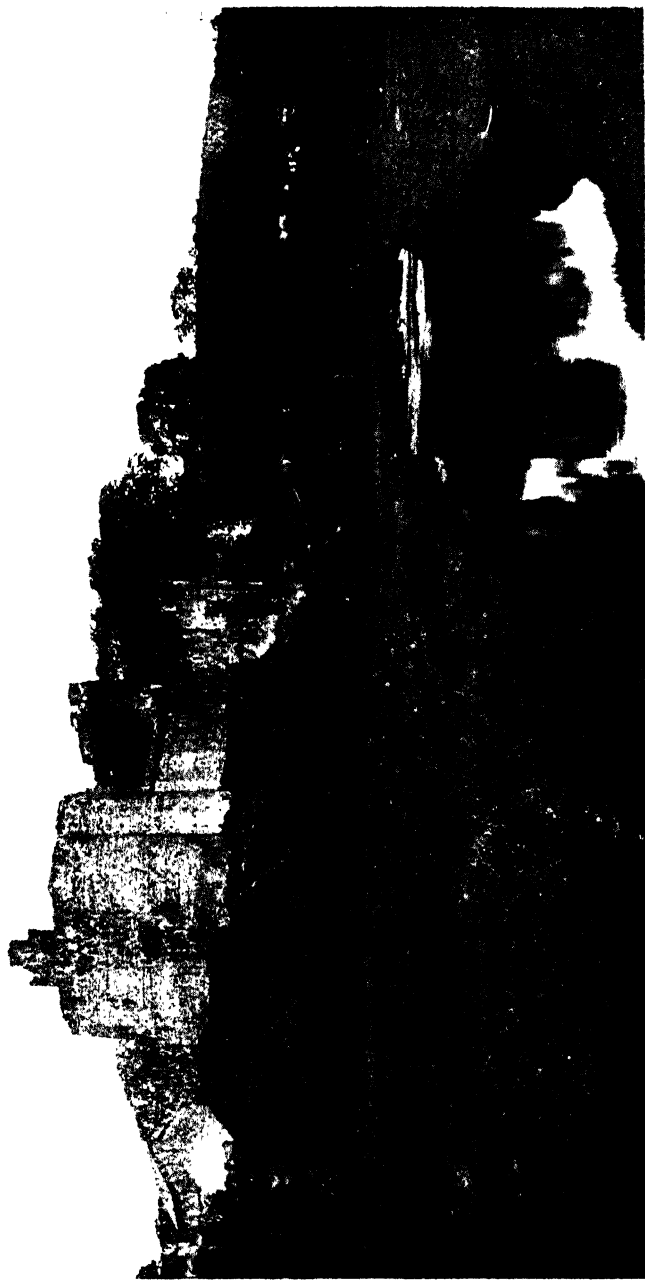
86  KIDWELLY, CARMARTHENSHIRE:  Stone Walls added to an early Norman Earthwork Castle
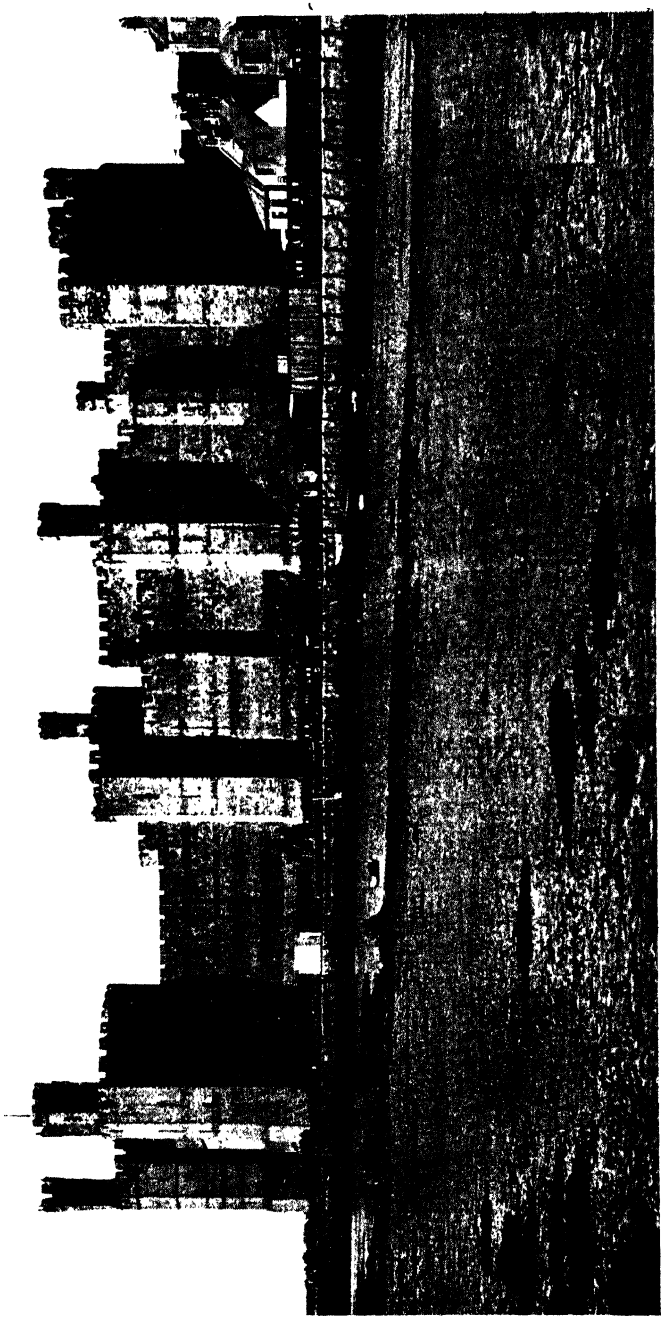
87 CAERNARVON: Edward I's finest Castle, still the Scene of the Investiture of the Princes of Wales

the entrance arch and supporting it on an arch springing between the two towers, as at Chepstow (78) or Pembroke (where there is an enormous arch at the *back* of the gatehouse) (64). Persons on the top of the tower could then drop things down the wall-face on to the heads of those trying to force the entry while remaining themselves still protected by the advanced parapet. By the beginning of the fourteenth century, instead of one large arch the parapet was being carried on a series of corbels or brackets with small arches or flat slabs spanning them as at Kidwelly (86). The idea spread to the summits of the towers and even the walls themselves, and thus was evolved the fine "machicolations" which form such an important feature of the military architecture of the later fourteenth century. Although our architects never produced such magnificent parapets as may be seen on the Continent (such as the fine Ghibelline series in Tuscany for example) they nevertheless could achieve Cooling gatehouse (8) built in 1380, or the early-fifteenth-century "castle" at Raglan in Monmouthshire (116).

The opportunity for demonstrating the utility of the inventions of the thirteenth-century military architect came when Edward I was engaged on his task of subduing the turbulent tribesmen of North Wales. Towards the end of the century a number of fine castles were rising on the northern coasts of the Principality. The Marches of South Wales had already been rendered secure by the erection about 1267 of the first of the great "Edwardian" castles, the lake stronghold of the Earls of Gloucester at Caerphilly in Glamorgan. In 1277, Edward commenced the building of the curious castle at Flint (111), consisting of a sort of masonry version of the early Norman motte-and-bailey plan, having a foursquare bailey with three circular angle towers and a huge round keep, surrounded with a ditch, at the fourth angle.

In 1282, Henry de Lacy, Earl of Lincoln, sent for by Edward to assist in the work of conquest, contributed the fine castle of Denbigh, with its curious gatehouse, which has a third tower inside the bailey blocking the entrance passage and necessitating a turn at an angle between the rear tower and one of the side towers. This most elaborate of our gatehouses was all too thoroughly slighted after the Civil War.

In 1285, Edward himself commenced the magnificent coastal castles of Conway (84-5) and Caernarvon (87-8), the building of which took thirty-seven years. The latter at any rate was

on an old site, and neither show the characteristic plan of the Edwardian castle, being long, rather hour-glass like structures surrounded by straight lines of very lofty curtains and many lofty towers. The towers at Conway are circular and those of Caernarvon octagonal. The walls and towers of both castles are immensely thick and high, and against them were erected the domestic buildings of the castle. Neither of these castles is really typical, and their gatehouses are not of the normal Edwardian type.

A curious architectural feature of the castles of the end of the thirteenth and beginning of the fourteenth centuries is the form adopted for the heads of some of the doorways. Instead of an arch, we may often see a flat lintel supported upon two small corbels. This is called by archaeologists a "Caernarvon arch" from the prevalence of the feature in that castle.

In 1286 we find an almost perfect example of the Edwardian castle being begun—at Harlech (83). This castle consists of a rectangular enclosure with the usual four angle-towers and a very fine example of the Edwardian gatehouse. The castle has list walls with their own little barbican gatehouse (79). A very fine example of the skill of the military architect during the heyday of the mediaeval castle, Harlech was considered impregnable, but siege after siege showed that however skilfully the castellan designed and built his walls and towers, the besiegers seemed always in the end to have beaten him.

The last of the great Welsh fortresses of Edward I was commenced at Beaumaris in Anglesey in 1295. This castle was planned much more elaborately than its predecessors, and possibly represents the highest degree of impregnability ever reached by the mediaeval architect. The main ward was a square, with a round tower at each corner and semicircular ones at the centre of two of the opposite sides. The other two sides have each one of the great gatehouses of the period, an unusual duplication, although the provision of a greater and lesser gatehouse was quite a usual feature in castle planning. The lists are surrounded by a low list wall, plentifully provided with towers (98). Outside this wall was the castle moat, now in part filled in.

The plan of Beaumaris, after modifications and without the list wall, formed the basis of most of the later castles and fortified manor-houses, as will be seen in the next chapter.

There are other Edwardian castles in North Wales, but

88  CAERNARVON: a detail of the mighty Walls

89  RHUDDLAN, FLINTSHIRE, rising above Marshes which once witnessed a fierce Battle

few are of great interest. The gatehouse of Criccieth forms a prominent object in the view of that castle from most directions, and the plan of Rhuddlan, with its two gatehouses placed at the opposite angles of a rectangular enclosure (89), provides an interesting variation from the customary type. The gatehouse towers of this castle, besides protecting the entrances, serve to enfilade all four walls, and no towers were thus required at the other two angles. This economy of wall-towers was a trick of the Scottish military architects, and it
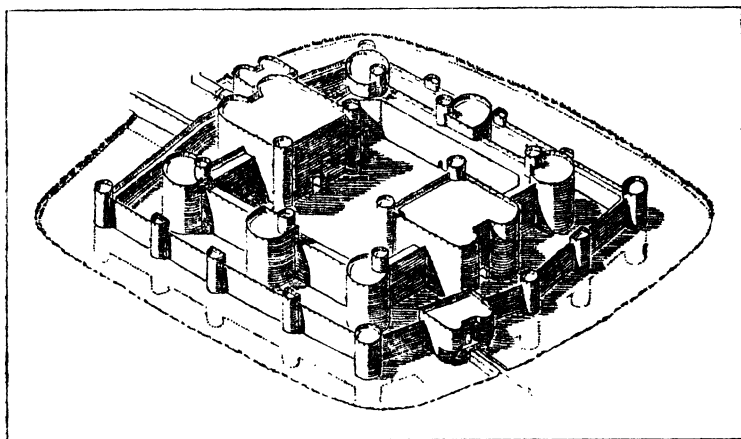


BEAUMARIS CASTLE: A SKETCH
ISOMETRIC RESTORATION

is often found that their castles have towers at their opposite angles only. The gatehouse of Bothwell and Caerlaverock are at the angles of these castles.

The castle of Beaumaris presenting as it does the culminating achievement of the mediaeval military architect, it might perhaps be of interest to note some figures connected with its erection. The work was expedited and lasted for three years only. Four hundred masons were assisted by a thousand labourers in building the walls, and their material was brought to the site by thirty boats and a hundred carts and wagons. Thirty smiths and carpenters were employed. Each of the great gatehouses was to have three portcullises. The whole castle cost over £7,000, or £280,000 of to-day's money.

O

The garrison of this great fortress consisted of ten men-at-arms (equivalent to the twelfth-century knight), twenty archers and a hundred foot-soldiers.

The Edwardian period saw much activity in connection with the fortification of towns and cities with stone walls. From earliest Norman days our towns had been fortified with earth and timber defences similar to those of the castles. As with the castles, most of these have been obliterated by the later stone walls, but in some places the old earthwork defences remain round little lost towns whose populations have sometimes completely deserted them, perhaps at the time of the Black Death of 1350.

At Mileham in Norfolk and Ludgershall in Wiltshire the ramparts of town and castle are all that exist to remind us of the population they once protected. There are many other towns and villages in this country, Pleshey and Ongar in Essex, Framlingham in Suffolk, Totnes in Devon, Old and New Buckenham in Norfolk, and many others too numerous to mention, which still have traces of their early Norman ramparts. The finest earthwork is possibly that of the little town of Castle Acre in Norfolk, to-day almost yearly shrinking within itself until perhaps one day it, too, will be gone, leaving only those eternal ramparts as its monument, and that of the great lords de Warrenne, its overlords.

Towards the end of the thirteenth century not only towns but monastic buildings and cathedral closes were being fortified with stone walls, wall-towers and gatehouses. The subject of such fortifications does not come within the scope of this book, but it will be appreciated that their architectural design and treatment were much the same as in the case of castle defences. The number of men suitable for the defence of a town wall seems to have been considered as three men to each two crenels in the parapet, which appears to make allowance for casualties.

The early years of the fourteenth century saw the great days of castles in this country, when the land was still governed by and within their mighty walls. In 1322 the foolish Edward II was beginning to fear the anger of the baronage of England he had so persistently irritated, and sent word to all the royal castles to see that their garrisons, armaments and provisions were being properly maintained. As this date would roughly represent the zenith of the English castle, let us quickly scan the list of the royal fortresses to which the summons was sent.

First are four south-eastern castles: Dover, Leeds (a dream-like castle set in the midst of a lovely lake) (90), Rochester and Hastings. Next come five western fortresses, Exeter, Sherborne and the now vanished castles of Bridgwater, Bristol and Gloucester. Then the two great East Anglian castles of Norwich and Pleshey (only the earthwork of the last remains). The two Midland strongholds of Elmley and Warwick present strange contrasts, the former deserted in favour of its mighty rival, which has stolen its glories away and now forms the home of an Earl whose predecessors once dwelt in lonely Elmley, where old Leland saw the last tower being broken up "to amend Pershore Bridge."

Of the four Salopian castles of Ludlow, Bridgenorth, Redcastle and Hodnet, the first to-day totally eclipses in magnificence its three neighbours. Three Midland castles follow: Tutbury, of which a good deal remains, Donington, represented by a great mound, and vanished Horeston or Horsley. Cambridge and Colchester next follow, the former but a mound in a public park. Six northern castles are next on the list, Melbourne (once a large and strong castle and now utterly vanished), Nottingham (a tower or two remaining), Conisborough, Sandal (sorry ruins), Tickhill (a great motte-and-bailey) and Lincoln, of which a good deal may still be seen.

Four great episcopal castles always go together: Somerton, Banbury (vanished), Newark, Sleaford (not much left). Then come the Pennine strongholds: Bolsover, Brough and the Peak. Then a group of Yorkshire castles: Pickering, Pontefract, Skipton-in-Craven (still a great castle), Knaresborough, York and Scarborough. Five more Midland castles follow: Bolingbroke (its fine mound remains), Northampton (now the L.M.S. Goods Yard), Oxford, Oakham and Marlborough (a fine motte remains). Lancaster castle comes all by itself, and then are noted the great castles of Windsor, Devizes and Wallingford, of which last two fine earthworks remain. Then come six Marcher strongholds: Denbigh, Beeston (a great gatehouse and ruined walls still crown the cliff), Holt and Hereford (vanished), St. Briavels (still inhabited) and Hanley (its moat remains). Then three eastern castles: Clare (a fine motte-and-bailey), Rockingham (still inhabited) and Kimbolton (vanished). Lastly comes the Newcastle-under-Lyme, which, like so many of its sister strongholds of 1322, has vanished also.

What a sorry business this is of going through the casualty list of these castles of the days of chivalry. Six centuries is not such a very long time in the history of the world; yet even among the ruins of such castles as remain to us it seems an almost hopeless task to try to conjure up the days that are gone from us, whose ancestors paced those courts and wall-tops, feasted in those empty halls and slept betimes in those lonely chambers. Try as we may, we can catch not the faintest echoes of the ponderous footfalls of great warhorses trotting in their magnificent way beside the jousting barriers, while their masters attempt, with varying degrees of success, both to unseat an opponent and to avoid being themselves somer-saulted over the cantles of their saddles by the impact of close on a ton of flesh and bone and steel moving at sixteen miles an hour

—and laughter of lovely ladies, as mighty trebuchets bombard them with great showers of full-blown roses in the Tournament of Love.

Where are the flaunting banners—the blue and the silver—the blood-red pales and saltires—the great sprawling lions and leopards?

Old Froissart, marching with the army upon a castle of those distant days, mentions, with obvious enjoyment at the recollection, that when the watchman spied them he "sounded his horn so agreeably that it was quite a pleasure to hear him."

Would that we could catch but the faintest echo of that cheerful fanfare.

90  LEEDS, KENT: a beautifully situated Lake Castle, much restored
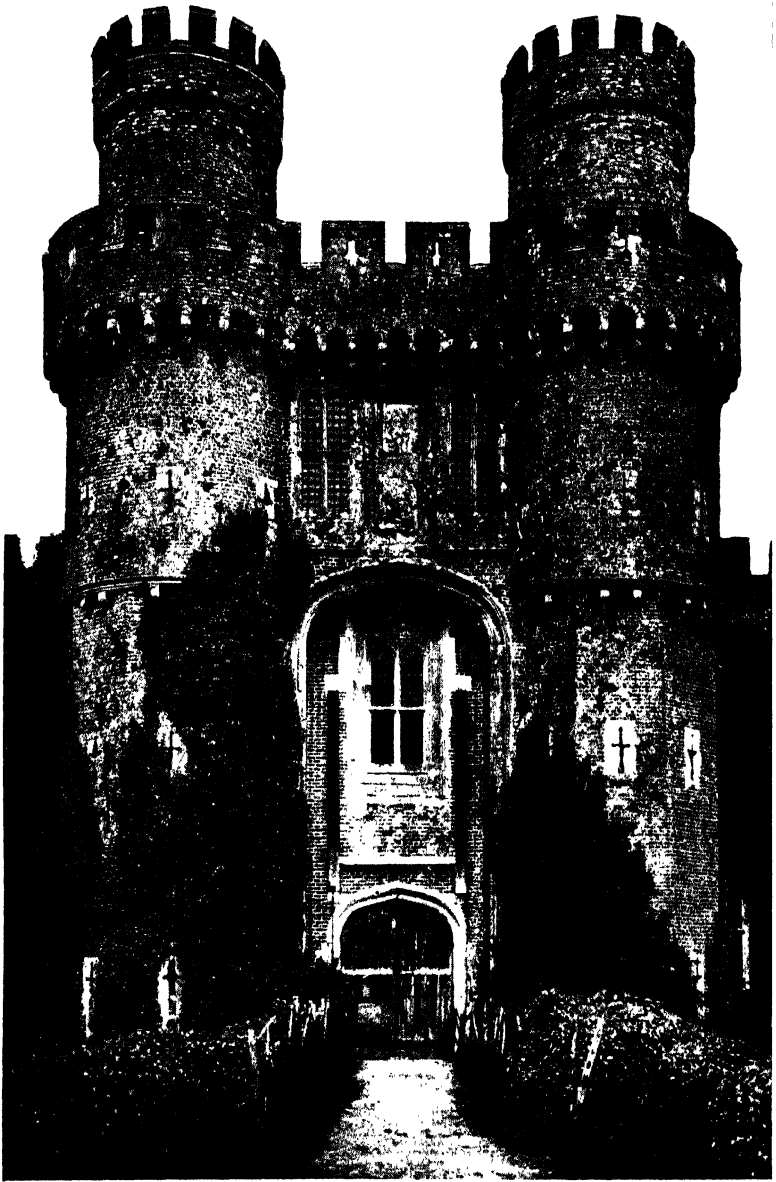
91 HURSTMONCEUX, SUSSEX: the Gatehouse, before its recent Restoration
Note the Slots for the Arms of the Drawbridge Counterpoise

# TWILIGHT OF CASTLES

"The Castell was erected at the first but for speare
and shield and for that force it may be maynteyned."

I ONCE endeavoured to make as complete a list as possible
of all the castles in this country of which traces could be
found either on the ground or in documentary records of
various dates. I came to the conclusion that there have been
at some time or another on different sites in England some
fifteen hundred castles, of which perhaps seven-eighths were
of eleventh- or twelfth-century foundation. In addition there
were possibly two hundred or so in Wales, most of them of
early date.

It will thus be seen that by far the majority of castles in
this land were built by the Normans in the century or so
following the Conquest. The castle, besides being a product
of Feudalism, was a necessary feature of feudal society, in
the same fashion as the country house of the eighteenth
century was the outward symbol of the squirearchy of that
period.

The renaissance of castle-building at the end of the thir-
teenth century was not originally, however, the result of a
universal desire for a fortified home such as had possessed
the Norman colonists of two centuries previously. The
great castles of Edward I were simply due to his campaign
for the final subjection of ever-turbulent Wales. After the
commencement of Beaumaris in 1295 no other great for-
tresses were built in this country, either as royal or private
castles. The sixty-three royal castles of 1322 were adequate
for the policing of the country, and the new Welsh castles
could be relied upon to complete the pacification of the
Principality.

By the end of the thirteenth century the Norman land-
owner had become completely nationalised and as English
as his tenants, and no longer was there any need for him to
live in the defensible house of his eleventh-century ancestor.
A national language was replacing the French and Latin of
nobles and churchmen; English poets were to sing of the

lot of Piers the Plowman or to tell tales of the comfortable middle-class pilgrims who journeyed to the shrine of St. Thomas à Becket.

Among the upper classes the fashionable craze of the time was Chivalry. It was Edward I who set the fashion in this respect. A great soldier and general, he was nevertheless one of the most human of our kings, loving to pose as the model of the knighthood of his day. A devout student of the old French romances, he introduced the sham warfare known as the Tournament into England and encouraged would-be Galahads and Lancelots to venture their persons in this rather strenuous sport for the honour of their ladies and to the greater glory of their arms. At Kenilworth he even attempted to revive the fabled glories of Arthur's Court. Personal virtue was as much the mode as vice appears to have been four centuries later. Edward III, falling violently in love with the beautiful Countess of Salisbury at the castle of Wark in Northumberland, was so impressed with her virtuous resistance to his advances as to found the Order of the Garter to celebrate such model conduct.

Nothing would suit such marvellous persons as these fourteenth-century lords and ladies but that they must live in castles. The fact that there was very little need for such was a small consideration; those who had not already a (more or less obsolete) castle had to see about building one as soon as they could afford it and acquire the necessary licence. And who are we to grudge them their toy fortresses. This country would be much the poorer had there been no Bodiam (92), no Maxstoke (113), no Nunney (99), to say nothing of glorious Raglan (116). The pleasure these beautiful homes must have given to their creators and owners must be fully equalled to-day by those among us who may be fortunate enough to come upon one of these lovely little buildings, mirrored in their placid moats, stern fortresses of the bad old days become fairy castles of Romance.

Beginning in the early part of the fourteenth century, these so-called "castles"—more properly fortified manor-houses (as castles they would not have stood up to a tre-buchet and the artillery of the Civil War crumpled them up like packs of cards)—continued to be built right up to the middle of the next century, ending up with such structures as Hurstmonceux (117), with its thin brick walls, slender turrets and chimney-stacks, and crossed arrow-slits looking

92 BODIAM, SUSSEX : the Entrance Front

93 SCOTNEY, SUSSEX : the Angle Tower of a small Fortified Manor-house of the late 14th Century

extremely foolish cheek by jowl with large mullioned Tudor windows.

By the middle of the fourteenth century the Hundred Years War had begun, and thus some of the "castles" of this period in our country may have been copied from Continental *châteaux* which perhaps served as the billet of some English captain who, on returning home with a wealthy captive, built himself a copy of his temporary home with the ransom money. Such was the case, for instance, at Caister near Yarmouth, where Sir John Fastolf, having in 1433 captured the Duc d'Alençon, arranged with his illustrious captive that he should, as the price of his ransom, build a castle at Caister to match his own at Verneuil.

In the absence of more reliable evidence, however, it will be best to explain that the model which appears to have been chosen for the little castles of the mid-fourteenth century and after was the last of the real castles—that at Beaumaris in Anglesey. The surrounding lists, with their secondary wall, were of course omitted, as was also the second gatehouse, but the main form of the castle seems to have been followed. This is a square, having a tower at each angle and one in the centre of each of three sides, with the gatehouse taking the place of the fourth.

The first series of castles built on this plan may have been those begun in 1338 by Nicholas de la Beche at Aldworth and Beaumyss in Berkshire and Watlington in Oxfordshire. Only the moats of the last two remain, but the foundations of part of the southern side of Aldworth have been uncovered and suggest the standard plan mentioned above.

In 1343 the castle of Mettingham in Suffolk was begun by John de Norwich, one of Edward III's admirals who had been present at the battle of Sluys. This castle is on a special plan, as it was a coastal castle built under licence for the protection of the local population in the event of a raid from the sea. It has therefore a rather diminutive inner ward with just a tower at each angle and beyond this a very large outer enclosure three or four times as large, also surrounded by a high wall. This plan is seen at Cooling on the Kentish shore of the Thames estuary, where in 1380 John de Cobham built a castle, on the outer gatehouse of which (8) he inscribed the lines which are quoted at the end of the Introduction to this book.

A fine castle built on the normal "seven towers and a gate-house" plan is that at Westenhanger in Kent, built in 1343 by John de Kiriel. Although about half of this castle is gone, its ruins still present a fine sight from the Dover line of the Southern Railway.

In 1346 was built the beautiful little castle of Maxstoke in Warwickshire (113), which is still practically perfect and, reflected in its moat, forms one of the prettiest sights in England. This is a very weak little castle, with low walls and no wall-towers other than those at the angles which are also very low. Its chief glory is its great gatehouse (96).

It will be appreciated that these little castles, being all on new sites, were laid out in a quite different fashion from the castles which, founded in Norman days, had their earthwork plan, curtains, towers, keeps, all adding to the confusion within their high walls. Although, therefore, as fortresses the fourteenth-century castles could go no better than the Edward-ian strongholds of the end of the previous century, they were able to make some improvements in the planning of the domestic buildings which were, in fact, their only *raison d'être*.

It will be remembered that the first castles consisted of a timber house surrounded by a timber defence. Then came the stone defensible house still surrounded by a timber palisade. The palisade being replaced by defensible stone walls, the house could then be of timber. When the walls were raised into high curtains, it was obviously convenient to build timber, or even stone, houses up against these. Thus at last we get the ideal combination of dwelling-place and defences —the true fortified house.

In the East they had been building fortified houses for very much longer than we had been in this country, and as long ago as perhaps 5000 B.C. the ancient peoples of Meso-potamia had been living in houses which were the prototype of the modern Arab's house. The ordinary home of the Arab consists of a series of rooms arranged around a courtyard, into which all the windows look, so that except for the door-way there are no external openings.

This is the ideal fortified house, and an appreciation of its advantages had been gradually spreading westwards across the Continent, becoming adopted in the fourteenth century by the castle-builders in Central and Southern Europe. Take away the towers of a "standard type" English castle of this
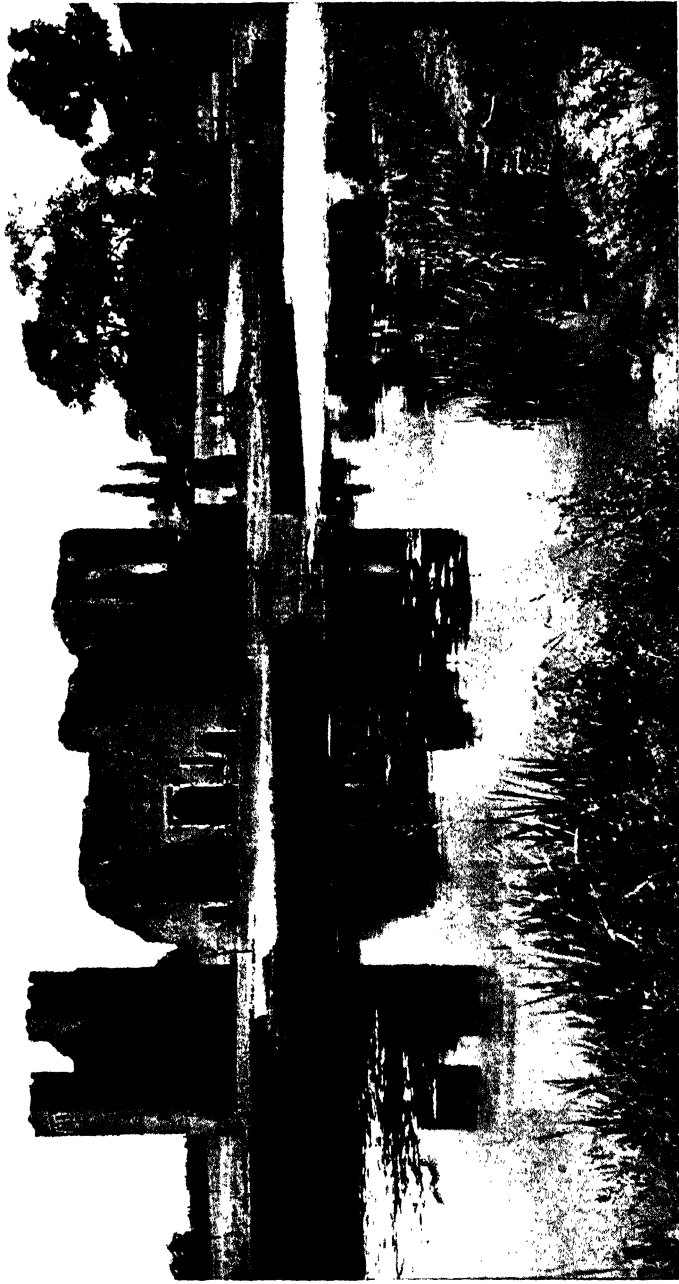
94  KIRBY MUXLOE, LEICESTERSHIRE : an Interior View of the Gatehouse

95 MAXSTOKE, WARWICKSHIRE: a fine but feebly fortified Manor-house of the mid-14th Century

96 MAXSTOKE, WARWICKSHIRE : the great Gatehouse adds a note of military dignity to otherwise weak fortifications
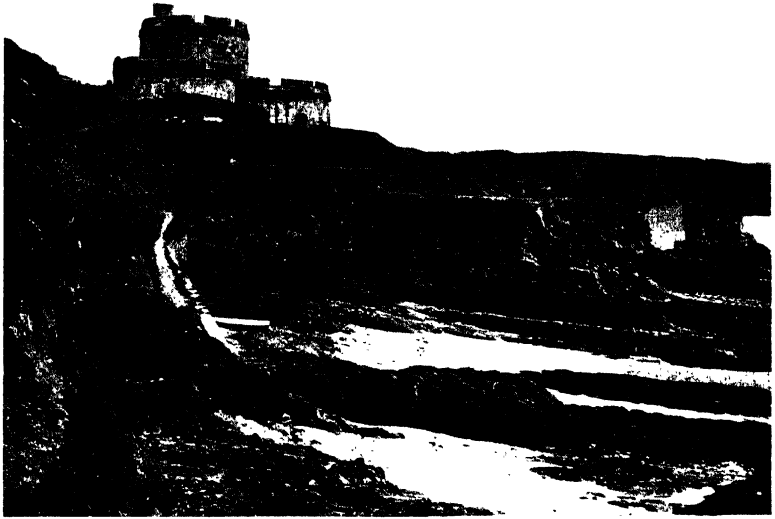
97 ST MAWES, CORNWALL: the most attractive of Henry VIII's Coastal Castles



98 BEAUMARIS, ANGLESEY: the List Walls above the Moat

period and you have an Arab house, its rooms arranged around the square courtyard of the castle with most of their windows looking into it (although, of course, as the defensive factor became more and more neglected, windows were also pierced in the outer wall above the moat to give a better view).

The wall-towers, however, remained to the bitter end to give the full flavour of Feudalism to the castle. So, too, does the great gatehouse, although this suffers various necessary modifications. At Boarstall in Buckinghamshire, erected in 1312, the huge twin towers have shrunk to the scale of mere overgrown angle-turrets, although the two internal stair-turrets remain flanking the side rooms of the gatehouse. With the development of the courtyard plan, however, these rooms became absorbed in the rest of the range of buildings, and only the entrance passage itself remains to be raised into a lofty block in proper gatehouse fashion. The whole arrangement being, however, much narrower, there was no room for the twin towers at all, so the two stair-turrets were moved forward to the external angles of the gatehouse and made the chief features of the design, as at Maxstoke (96), dating from 1346, or the very fine example at Donnington in Berkshire (101) erected in 1386.

This is one of the very few new fourteenth-century castles to be erected on an old site. The oval Norman mound consequently distorts the normal plan somewhat, making the castle an oval version of the ordinary seven-towered type with the huge overgrown gatehouse at one end.

Some of the older castles had gatehouses added to them at this period, as witness the fine example at Saltwood in Kent, erected in 1381, with a fine pair of round towers more reminiscent of its prototype.

Town walls also were at this time being improved by the rebuilding of their gatehouses, as witness the magnificent West Gate at Canterbury, built in 1380.

Some of these lofty gatehouses of the middle and end of the fourteenth century had elaborately arranged drawbridges, very often with walls on either side of the bridge-pit, as at Donnington, or at Launceston, where the walls have been added in advance of an earlier gatehouse. At Mettingham the side walls of the pit have wall-walks above them entered from the gatehouse, making an elaborate advance-guard or barbican.

Throughout the centuries it will be noticed that the tendency was to make the entrance passage longer and longer so as to give the besiegers as much of a journey as possible when they were trying to force an entry. At Portchester the gatehouse was added to externally no less than three times, so that to enter the castle you have to pass through four gatehouses one behind the other.

Sometimes a separate stone barbican, rather like the front wall of a fourteenth-century gatehouse with its twin stair-turrets, was added in advance of the gate, as at Carisbrooke (103) or Lewes (102). These barbicans usually date from the middle of the fourteenth century.

The turreted gatehouse was the last survivor of the old military features in our mediaeval architecture, being retained throughout the Tudor period to give a sense of dignity to the entrances of great houses such as St. James's Palace and Hampton Court, structures of the early sixteenth century, or the later country mansions of Elizabethan times. Sometimes isolated gatehouses were erected as entrances in the boundary wall of a Tudor mansion, as at Lullingstone in Kent or Beckingham Hall in Essex.

One of the most perfect of the fortified manor houses, as well as possibly the most beautiful, is that of Bodiam in Sussex (92). Built by Sir Edward Dalyngrigge in 1385, it stands rather apart from most of the castles of the period in that it was not merely the residence of a wealthy landowner but was built under licence from the king with the definite view of protecting the country in the event of French raids on the coast. It is thus stronger than many of its contemporaries, being situated in an elaborately engineered artificial lake and sturdily built with walls and towers, looking much more like a castle of a century earlier. The gatehouse is between a pair of square towers, and in front of it the entrance arrangements are unusually elaborate. Beyond the bridge-pit is a stone causeway leading to an outer gatehouse or large barbican having in front of it another bridge-pit. The outer edge of this pit is on an octagonal island built in the middle of the lake, and from this island a long timber bridge, 150 feet in length, crossed the lake at right angles to the entrance to the castle, the octagonal island having provided the turning-point. Opposite the main gatehouse, a postern with its own timber bridge was formed in the square middle tower on that front (4).
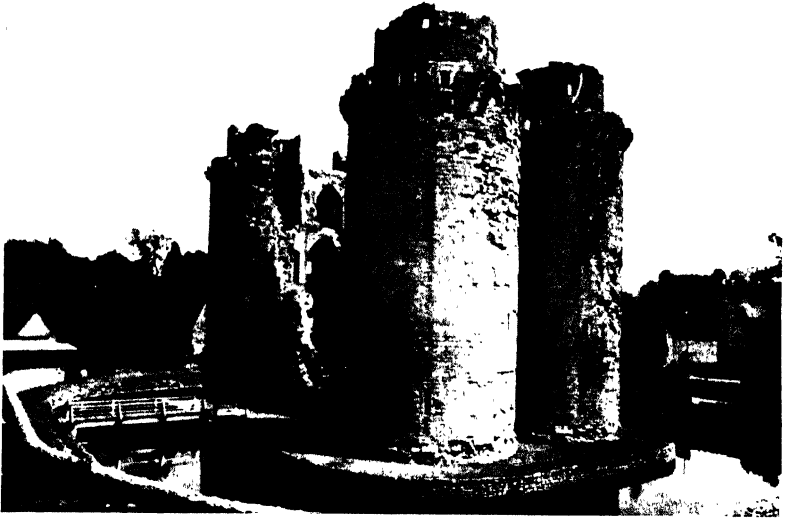
99   NUNNEY : a little Somerset Castle, possibly modelled on the Bastille



100   HARLECH, MERIONETHSHIRE : showing the Edwardian
Gatehouse with one of its rear Stair Turrets

101 DONNINGTON, BERKSHIRE: a Typical Example of the
late 14th-Century Gatehouse

There is no space in this little book to refer to all the fortified manor-houses of the fourteenth and fifteenth centuries. There are still plenty of lovely homes to be found throughout the land, such as the two lake castles of Broughton and Shirburn in Oxfordshire, the fine little fortress of the de la Poles at Wingfield in Suffolk, the forlorn but still beautiful remains of Scotney in Sussex (93), the queer polygonal structure at Wardour in Wiltshire, to-day embowered in lovely old trees. In the North are the grimmer-looking piles of Bolton (109) and Sheriff Hutton in Yorkshire. These northern castles of the end of the fourteenth century vary in site and planning from those of the South, being often on high rocky sites and with no water defence, mining being out of the question. Their plan is usually smaller and their walls loftier, with just four sturdy square angle-towers instead of the array of seven or eight so beloved of the southern castle-builders.

It will be remembered that round about the end of the thirteenth century and the beginning of the next certain experiments were being made in connection with small tower-houses or keeps, such as those at York and Pontefract. As early as 1264, a curious structure had been erected at Dudley in Staffordshire consisting of a rectangular tower with large circular towers at the angles (119), somewhat resembling in style the great Edwardian gatehouses which were then coming into fashion. In 1348 a similar but larger structure was erected on the summit of the mound at Stafford itself: a rectangular tower with large octagonal towers at the angle and another in the middle of one of the long sides. This tower was demolished after the Civil War, but part of it was rebuilt on the old foundations a century or so ago. Rectangular turreted towers of this type were becoming very popular on the Continent during the end of the fourteenth century, and in 1373 a beautiful little structure on this plan was constructed at Nunney in Somerset (99) probably modelled on a French example visited by its builder, John de la Mare, during the wars in which he had apparently done very well for himself in the way of ransoms and loot.

Four years earlier the great stronghold of the Bastille had been built in Paris, and from the pictures remaining of this dreaded fortress it would appear that it was very like an enlarged version of Nunney, with four intermediate towers as well as those at the angles.

The greatest of these tower-houses is the fine brick struc-

ture built by Ralph, Lord Cromwell, at Tattershall in Lincoln-
shire in 1433 (115).

In 1361 was built a castle which stands unique in that it
is an isolated example of a royal castle raised after the end
of the thirteenth century. This is the castle of Queenborough
in Sheppey, now unfortunately vanished. Designed by no
less a person than the great William of Wykeham, its plan
seems to have been based on the little structures with which
the summits of some of the old mottes were being crowned
half a century earlier. It was a circle, with its buildings placed
against the interior of the walls round a circular courtyard
rather like the little round thirteenth-century castle of Res-
tormel in Cornwall. At Queenborough, however, the walls
were surrounded by a ring of six lofty wall-towers, two of
these being placed close together with the entrance between
them. Round the whole of this centre block were wide lists
surrounded by a low list-wall with a small outer gatehouse.
Something of the plan of this little coastal castle can be
detected in the next series of royal "castles," the artillery
forts built by Henry VIII in 1539 for the protection of the
south coast.

Before passing on to those castles which were built with
the definite view of artillery defence, let us take a farewell
glance at the last of the fortified manor-houses which were
vainly trying to maintain the old traditions of the feudal
stronghold.

We have seen how at Tattershall a new material was coming
into use in the eastern parts of England—brick. Two cen-
turies earlier the houses near the east coast were being built
of this material, some of it from Flanders and, later on,
actually made in this country. The first castle to be built in
brick, however, was that of More in Hertfordshire, licensed
in 1426. Unfortunately this structure has been completely
destroyed, and only its foundations remain within an enor-
mous moat. Fourteen years later, however, a castle of about
the same size was built at Hurstmonceux in Sussex (117),
which is still almost perfect, having been from time to time
restored by its fortunate owners. At Hurstmonceux we can
detect the last desperate effort of the wealthy landowners of the
south who had been too much imbued with Romance and were
determined to live in castles as in the days of Chivalry. It
has brick walls—lofty, but very thin—many slender turrets,
a glorious moat reflecting spacious mullioned windows and

102  LEWES, SUSSEX: the Barbican, set in front of an early Norman Gatehouse, which can be seen beyond
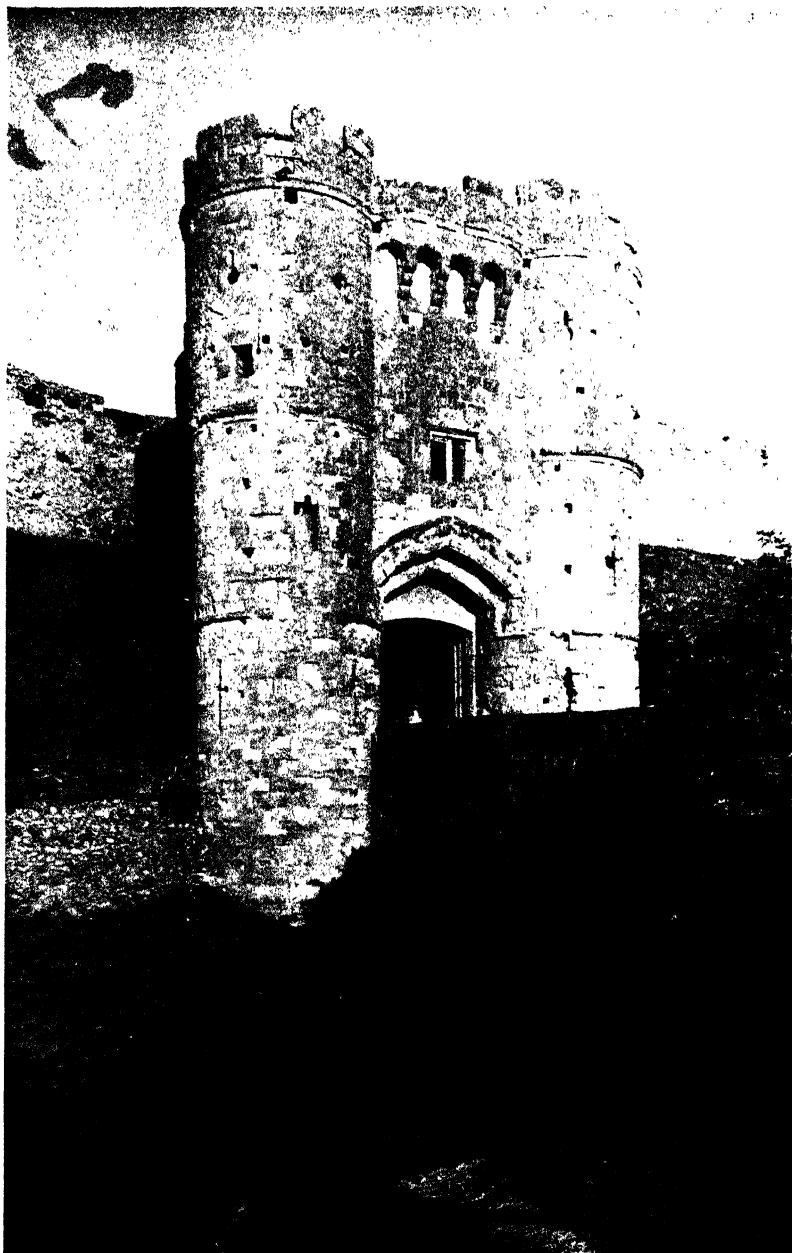
103 CARISBROOKE, ISLE OF WIGHT: a late 14th-Century
Barbican, with ports for Hand-Guns in its Upper Storey

cross-cut arrow slits lighting the turrets in the great gate-house. From Hurstmonceux we may pass on to Cowdray at Midhurst in the same county where the beautiful Elizabethan manor-house keeps its turreted gatehouse (106) but gives up the struggle to be a castle—content with the glories of mullioned windows gazing over green turf and pleasant gardens.

The early fifteenth century, however, produced at least one really fine effort in castle-building, the magnificent pile of Raglan in Monmouth. Lofty walls with very elaborate machicolations, fine towers and gatehouse and—wonder of wonders!—a huge hexagonal keep standing, moated about, in pompous isolation: that is Raglan, proudest of castles, a fitting swan-song for the military architects of the Middle Ages (116).

Fire artillery had first appeared in this country about 1325, and by the end of the fourteenth century it must have become obvious to all military experts that it had come to stay. The great gatehouse at Cooling (8), built in 1380, has tiny ports for hand-guns in its lower storey. The magnificent West Gate at Canterbury, built in the same year, has much larger ports, each with a long sighting slit, on every floor of the lofty towers. By the end of the century, the building of strictly military structures had practically ceased in this country, but we find that throughout the next century great houses are being built with a view to artillery defence. The brick manor-house of Kirby Muxloe in Leicestershire, built in 1474 on the old standard rectangular plan, has circular gun-ports at the base of each of its square angle towers (104), so arranged as to enfilade the base of the main walls.

Coastal defence was being improved in the Tudor period, and the ports of Fowey and Dartmouth were protected by pairs of towers with chains between them booming the har-bour. At Dartmouth Castle, reconstructed in 1481, can be seen large square ports for cannon instead of the round hand-gun type.

It was not until 1539, however, that the whole matter of the fortification of the southern coast of England was taken in hand systematically by Henry VIII, who built a series of artillery forts (called at the time "castles" and, in the case of the smaller structures, "bulwarks") along our hitherto almost defenceless southern shores.

The arrangement of each of these little structures seems

to have been based on that of the artillery forts of the Cinque-cento Italian architects (such as the perfect example remaining at Ostia). Each has a central citadel looped for cannon, and most have in addition a ring of three, four or six semi-circular casemates, rather suggestive of those of a nineteenth-century ironclad, with a broad deep moat surrounding the whole.

These castles were for the most part built out of the material obtained from destroyed monasteries nearby. The list of the 1539 castles is as follows, passing from east to west.

Tilbury (rebuilt in the next century), Sandown, Deal and Walmer (the "Three Castles that keep the Downs"), Sandgate, Camber (110 and 112), Southsea, Netley (built out of the Abbey material), Calshot, East and West Cowes (built out of Quarr Abbey material), Yarmouth, Hurst (*sic transit* Beaulieu Abbey!) Brownsea, Portland and Sandsfoot. The Great Castle of Torre (now undiscoverable—built out of the ruins of Torre Abbey), Salcombe, Fowey St. Catherine's, St. Mawes (97) and Pendennis, Tresco in Scilly. Of these the most beautiful is that of St. Mawes, an architectural gem of the Tudor period.

Henry also added the semicircular casemates for artillery around the Tower of London.

Queen Elizabeth, continuing the policy of her father in strengthening the coast defences of the South, called in the eminent Italian engineer Gianibelli to re-fortify the castle of Carisbrooke in the Isle of Wight. Some attempt had already been made in 1587 by an English engineer to bring its fortifi-cations up to date. The castle was one of the original large rectangular motte-and-baileys similar to those constructed by William the Conqueror in 1068 and the following years. It had been enlarged with an outer bailey beyond the motte in "hour-glass" fashion, and a shell-keep and rather elementary curtain walls with rectangular wall-towers at the angles round the original bailey had completed its transformation to a stone castle. In 1587 the angle towers had been converted into pentagonal "bastions" for cannon, and the angles of the earthwork outer bailey received pentagonal bastions in earth-work of the type which was to become so familiar during the Civil War, but without the acute angle towards the field which is so noticeable a feature in the forts of the seventeenth century. In 1597 the whole castle was surrounded with an elaborate system of earthwork defences, with several large

104   KIRBY MUXLOE, LEICESTERSHIRE: a 15th-Century Manor-house, with Ports for Guns at the Base of its Walls



105   NEWARK, NOTTINGHAMSHIRE: a great Episcopal Castle on the Trent

106 COWDRAY, SUSSEX : the Ruin of a great Elizabethan
House, showing the last traces of Castellation



107 KENILWORTH, WARWICKSHIRE : the Remains of one
of the finest Castle Halls

108 CALDICOT, MONMOUTHSHIRE : a late Gatehouse of
unusually effective Design



109 BOLTON, YORKSHIRE : a grim North-Country Version
of the Fortified Manor-house
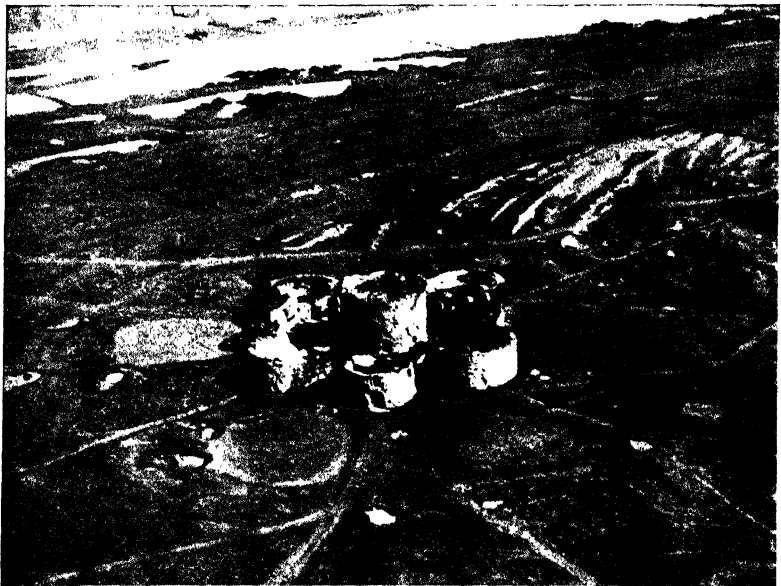
110 CAMBER, SUSSEX: a typical Example of one of Henry VIII's Artillery " Castles "
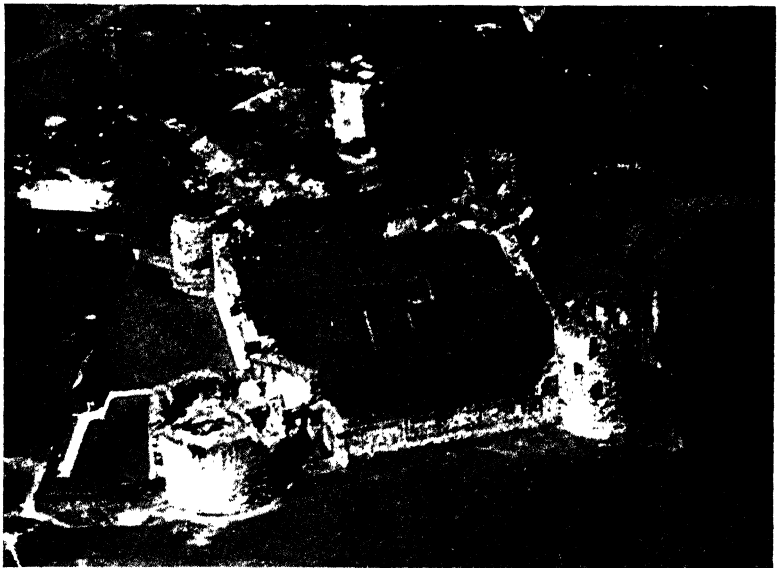


111 FLINT: Edward I's earliest Castle

bastions for cannon. Gianibelli, who was responsible for these works, also designed the defences of Berwick-upon-Tweed, now almost entirely disappeared.

Queen Elizabeth also built the remarkable little "castle" at Upnor on the estuary of the Medway, somewhat resembling a small fortified manor-house but much more efficient-looking, with its sturdy walls and ports for cannon.

We now come to the saddest period of all in the history of the English castles. We have seen their walls and towers rising from the humble mound of the Conquest castle to the soaring glory of Edwardian Caernarvon. We have followed the fortunes of the fourteenth-century *nouveaux riches* and admired some of the lovely little buildings erected by their architects in the castle style of an age which was rapidly passing away. For two and a half centuries since the building of Beaumaris—the perfect castle—no strong fortress or moated manor-house in this country had been forced to stand a serious siege. Throughout the Wars of the Roses the voices of cannon had been heard on more than one sad battlefield, but as yet the walls of castles, old and new, had still to hear their resounding summons. Then a century and a half of peace, and still the ancient castles dreamed away their pleasant twilight hours.

In 1642 their dreams were shattered. Twilight was fast fading—the doom of Castles was at hand.

On August 23rd King Charles raised his standard at Nottingham, a rebel against his Parliament. The owners of most of the castles garrisoned them for the king. The ancient Norman mound of Basing, the lofty-towered Donnington, and many another hopelessly obsolete fortress, were hastily surrounded with strong lines of ramparts, with great spear-shaped bastions thrusting towards the enemy soon to be storming their scarps.

"Basing House is called Loyalty," says the gallant old Marquis of Winchester, as he prepares his beautiful home for a siege which was to last for over two years, and end in the destruction of all he possessed. Few places offered a resistance comparable with that of Basing.

The old fortresses of bygone days were best off when it came to a siege. At Corfe, the gallant Lady Bankes, in the absence of her husband, held the old stronghold for three years, sometimes staving off an assault assisted only by her maids and serving-men, who poured hot water and cinders

from the domestic fires on the heads of the besiegers, who would not approach the grim old walls until they had acquired the requisite amount of Dutch courage. Their commander became an abstainer for the duration of the siege in case he should forget himself and go too near the castle!

The later castles were much worse off. At Raglan the Marquis of Worcester, "entertaining his friends with his pleasant discourses after dinners and suppers in his with-drawing room," had to put up with musket balls coming in through the completely unprotected windows and dropping in the room, to the alarm of his daughter-in-law, the Countess of Glamorgan, who, on one occasion finding the bombard-ment somewhat trying and leaving the room, soon returned, however, to apologise to the Marquis for her rudeness.

Worse and worse—at Lathom House in Lancashire, which stood another very long and bitter siege, the garrison were dreadfully harassed by the frequent arrival of "granadoes" which would come hurtling in through the windows and burst among the children!

Thus come the great guns, and soon they make it clear that the day of the castles is over for all time. "More sulphur for Basing!" scream the pulpit-thumping Puritan parsons, and it comes in the form of Dalbier the Dutchman and his train of siege-cannon, and poor old Basing House goes up in fire and smoke and screams of burning men, as the ancient home of the Paulets is sacked and fired, wounded, prisoners and all perishing in one great holocaust.

What more pathetic place is there in all England than Basing to-day, the wreckage of the great house cheek by jowl with the patched old cottages, the great barn, the bullet-pocked church, very much as it must have been three hundred years ago after the greatest siege in English history?

The great guns made short work of the old castles. One by one down came the outer walls of the strong keep-towers of Scarborough (34), Knaresborough, Helmsley (118), Dud-ley (119) and Raglan (116). The garrison of the last were allowed to march out with drums beating and banners flying and all the honours of war. At Scarborough the garrison had barri-caded their gatehouse with such determination that, when the time came for them to surrender, so starved and ill that they could hardly stand on their feet, a hole had to be made in the wall to let them out.

At Colchester its brave defender, Sir Charles Lucas, facing
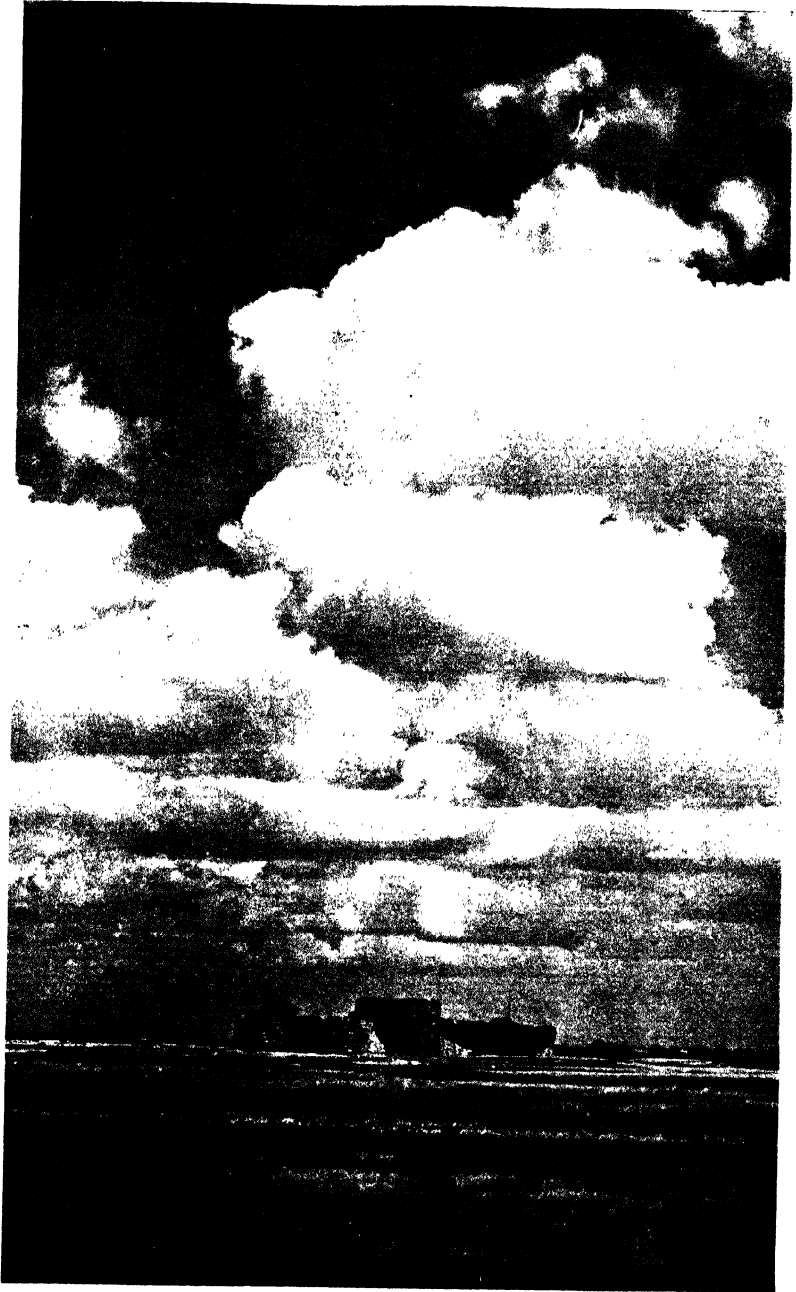
112 CLOUD OVER CAMBER, SUSSEX
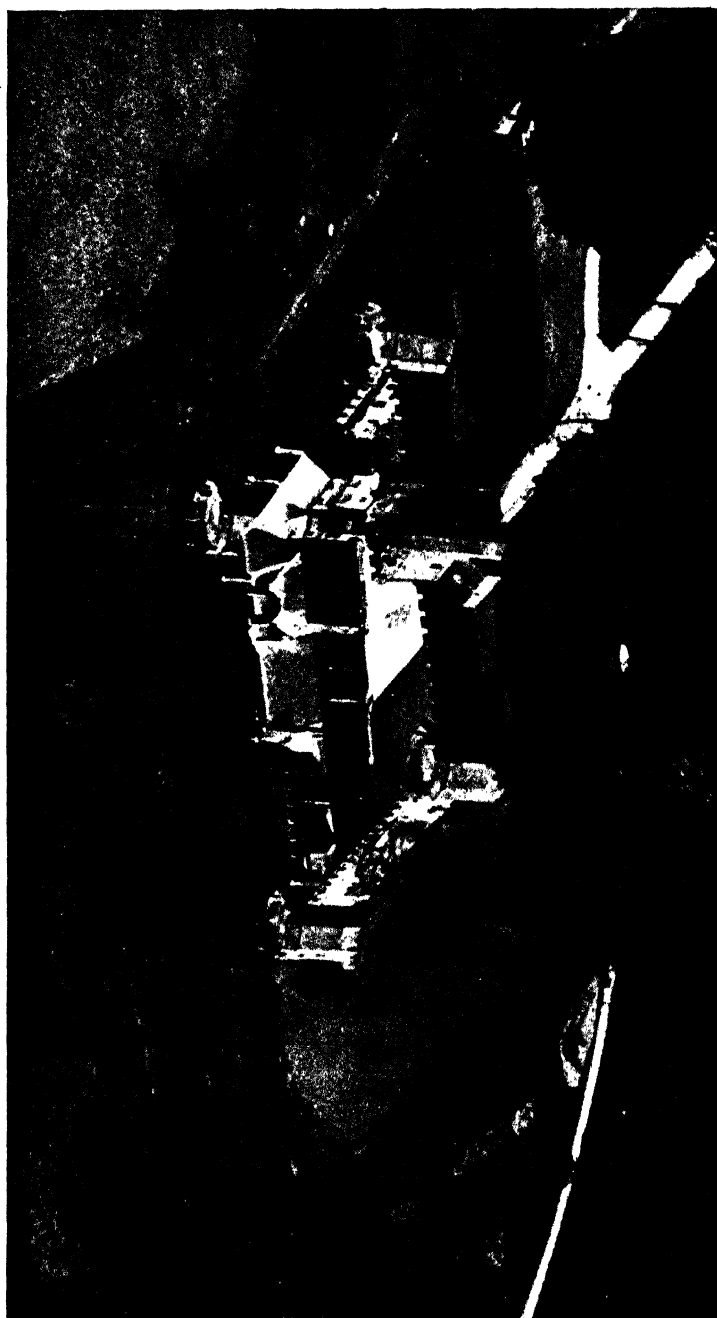
113  MAXSTOKE, WARWICKSHIRE : an Aerial View of one of the most picturesque little Moated Castles

114 CORFE, DORSET: the Wreck of the proud Castle that once held the Key to Purbeck
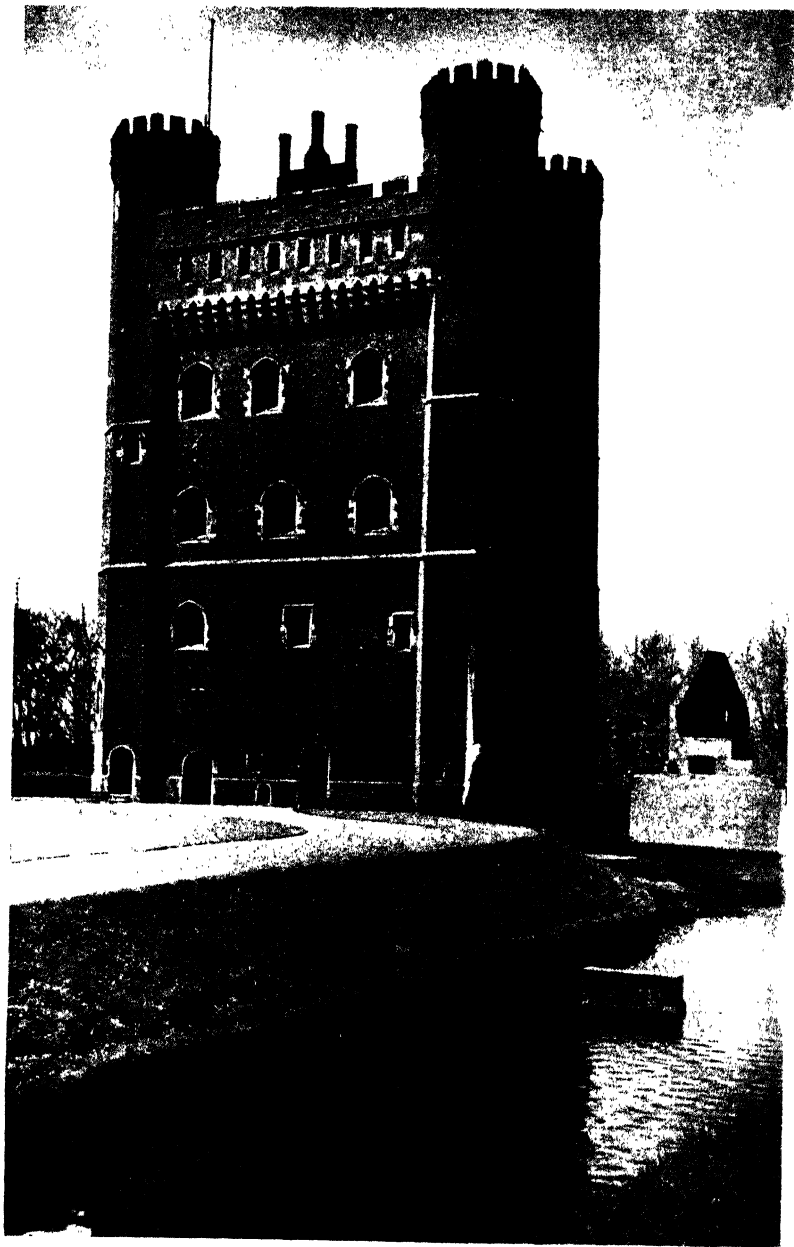
115　TATTERSHALL, LINCOLNSHIRE: a great Brick Tov
of the 15th Century

116  RAGLAN, MONMOUTH: the Gatehouse from the Keep Moat

117 HURSTMONCEUX, SUSSEX : one of the last and loveliest of the Castles

118 HELMSLEY, YORKSHIRE : a Norman Castle which suffered badly during the Civil War
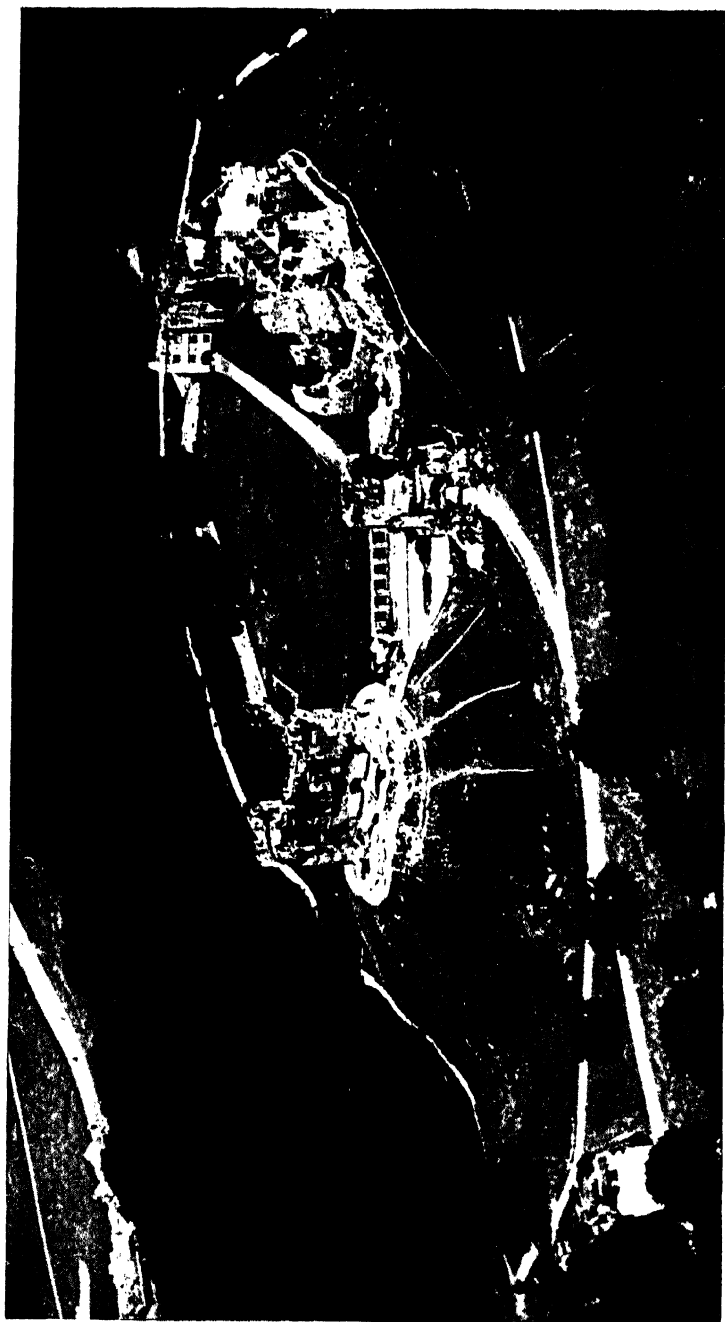
119 DUDLEY, WORCESTERSHIRE: the outer half of the Keep was battered down by Cromwellian Artillery
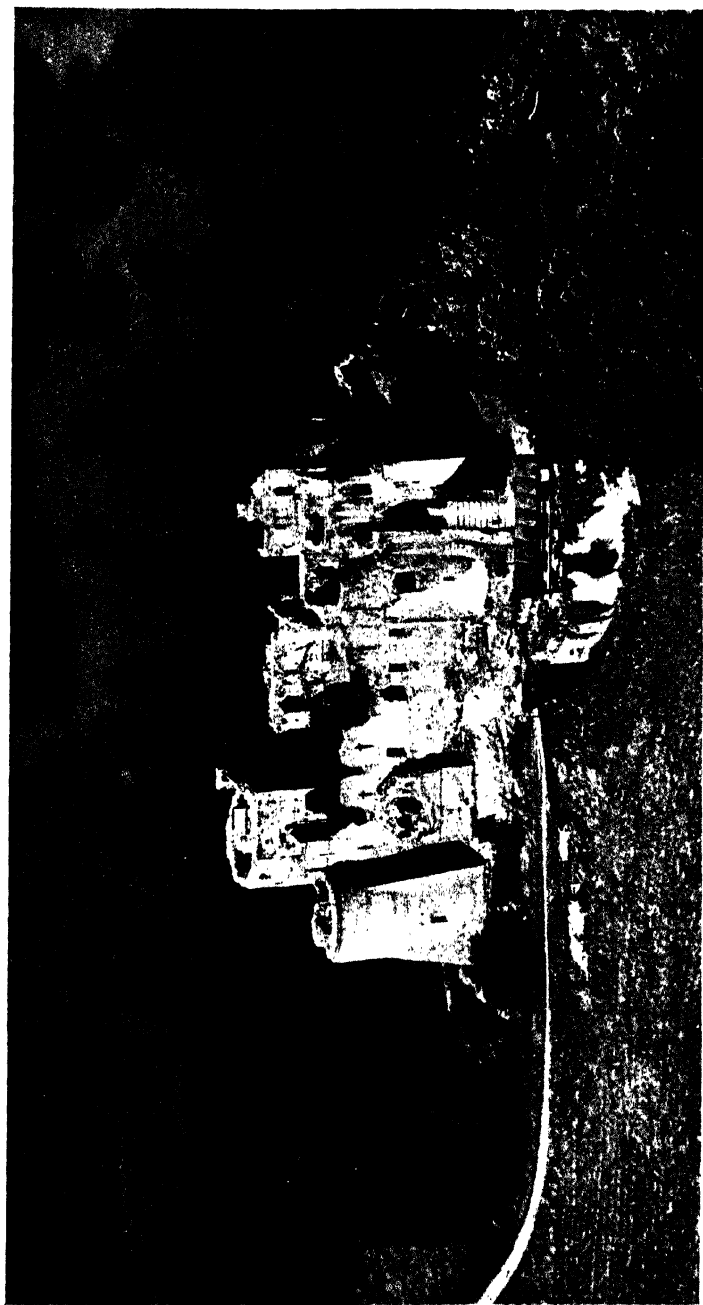
12c GOODRICH, HEREFORDSHIRE: to-day peacefully situated among Woods

121 KENILWORTH, WARWICKSHIRE: now a stately Ruin among the Meadows

the firing squad under the walls of the mighty keep, suggested that the soldiers should approach him more closely as they had missed him before on occasions when they had been much nearer to him.

Such was the spirit of the last castellans of our English castles.

I sometimes think that the ultimate tragedy of these ancient fortresses was the manner in which they met their end at last. For five hundred years their architects had been striving against one great enemy, the miner. They had won their fight all along the line. Since the days of John no castle had been taken by the mine. Now, surrendered and deserted, they were given over to the enemy they had fought against for five long centuries.

If you wish to see how a castle was "slighted" by the Puritan miners of the seventeenth century, you should take a walk round the shattered ramparts of Corfe. The great keep has had three of its four angles cut off by mines and its north wall overturned (23). Galleries have been driven under the outer faces of the semicircular wall-towers and mines sprung there, and the towers have tipped forward and slid down the slope of the hillside (114). One tower of the middle gatehouse has been undermined and has sunk on a level keel into the mine so that the gatehouse is split in two with one side of it hanging well below the other.

Ruin is complete!

The miners of the Commonwealth made short work of what the cannon of their army had left standing of the castles of England.

The coming of the Renaissance, with its encouragement of learning in place of the superstitions and fantasies of more ignorant times, had put behind for ever the castle-building mania of the past age. Beautiful houses were still being built, but their architects were unhampered by having to make them look like the obsolete castles of other days.

Fortification still went on, of course, limited thenceforth to coastal defence. In the Stuart period the present large fort at Tilbury was built on the site of the old castle of Henry VIII. Forts were also constructed at Gillingham, Portsmouth, Dartmouth (Mount Ridley), Plymouth, and on the east coast at Landguard over by Harwich, and at Yarmouth.

These forts were all of the earthwork variety so frequently met with on the Continent, with deep wide moats lined with

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brickwork and acutely pointed bastions ("star-forts," they are sometimes called), upon which were mounted the great guns. Some of the Civil War forts still remain, the finest being the "Queen's Sconce" just to the south of Newark-upon-Trent. There is also a fine "sconce" at Earith in Hunting-donshire, apparently built by the Dutch engineers who were engaged in draining the Fens to protect them from the irate Fenmen who were losing their living as the wild-fowl were driven off.

To descend still further from the sublime to what is almost the ridiculous, we find the array of Mr. Pitt's pork pies, the "Martello Towers" of 1800, lining the south-eastern shores of England in somewhat feeble defiance of Old Boney, who, however, never sampled them. Are these queer objects *really* lineal descendants of the Norman mottes?

The last experiment in fortification on a large scale in this country was the system of great forts begun in 1860 for the defence of some of our ports. Behind Chatham may be seen some of these extensive structures, and also on the heights above Dover. The ridge of the Portsdown is sown thickly with them, and the flanks of Portsmouth harbour too have several large forts. At either extremity of the Island are forts to protect the way to Southampton, oldest of English ports. The great crag of Portland is fittingly crowned with its forts, and Plymouth also was strongly fortified. Finally, the western harbour of Pembroke was rendered secure with a ring of forts.

These forts of the nineteenth century were never used and are now for the most part disarmed and abandoned, the custody of our coast being left to the floating fortresses of the Royal Navy. Well have they kept their trust, for all that the poor old castle of Scarborough, long ago placed on the retired list, had not so very long ago once more to face bom-bardment, and further south I recently saw a shell-fragment lying among the ruins of the fortress that the Romans built in Broadland to protect our eastern coasts.

But to our generation the fortress in this country seems to belong to a past age—farther back than Napoleon—farther back than Fairfax and Waller and their tragic days of death and destruction—farther back even than the spacious days when the little palaces of Tudor times were rising above their shining moats.

Bigod and Bohun, Ferrers and Mandeville, Vere and Plantagenet—these and their fellows were the real castle-

men. By ditch and mound and tower and wall they have set their mark on England.

Their ancient homes still cover the land. The tempests of many winters have weathered them and the sunshine of as many summers have decked them in green for the clouds to admire.

Mowbray and Tankerville: Bolebec and Albemarle: Glanville and Mortimer: Clare and Montgomery——

Grey stone and gilliflowers—and the soft green velvet of an English lawn.

*        *        *        *        *

And so in 1936 we could close our survey of the castles of England on a note of peace. Their picturesque settings in our English landscape served but to remind us of a dim remote past, when man preyed on his neighbour or sought safety behind walls and battlements. Though clouds might seem to gather across the Rhine, they were scarcely portents of the perils to our island which now we know. Few could foresee the world ambitions of the new Attila or the night which was to fall over Europe.

To-day man once more seeks protection, not in walls of stone or battlements, but in steel and concrete. He moves to battle in mobile armour. He seeks to stem the tide of invasion by vast fortified zones. Yet, as in the age of our forefathers, it is the spirit of man, and not his armour, which alone can prevail.

The present perils over, that spirit must so contrive that our castles remain once more, and for all time, relics of an age that is past and not a sinister reminder of direful things to come.

# INDEX

(The numerals in italic denote the *figure numbers* of illustrations)

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