

Fig. 1. A bird's-eye view of Windsor Castle in 1658, by Wenceslaus Hollar (detail). Within the shell-keep are 14th century ranges. From the University of Toronto Wenceslaus Hollar Digital Collection. Reproduced with thanks.

Shell-keeps revisited: the bailey on the motte?

Robert Higham, BA, PhD, FSA, FRHistS

Honorary Fellow, University of Exeter

*Dedicated to Jo Cox and John Thorp,
who revived my interest in this subject at Berkeley Castle*

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Fig. 2. Lincoln Castle, Lucy Tower, following recent refurbishment. Image: Neil Guy.

Abstract

Scholarly attention was first paid to the sorts of castle discussed here in the later 18th century. The “shell-keep” as a particular category has been accepted in academic discussion since its promotion as a medieval design by G.T. Clark in the later 19th century. Major works on castles by Ella Armitage and A. Hamilton Thompson (both in 1912) made interesting observations on shell-keeps. St John Hope published Windsor Castle, which has a major example of the type, a year later (1913). Twenty years on, Sidney Toy published several case-studies in south-west England (1933). The “shell-keep” has been with us ever since.

While many sorts of castles have been subject to new interpretation in the last twenty years, the shell-keep has not figured in this revisionism. This essay revisits the historiography, history and archaeology of shell-keeps, offering a critique both of past applications of the term and of the sites themselves. It is suggested:

- *that the value of the “shell-keep” category has been reduced by a lack of clarity about essential characteristics, leading to a loose application of the term for too wide a variety of sites;*
- *that ring-walls built on motte-tops to enclose free-standing donjon structures should be seen as a separate form;*

- *that multi-lobed towers built on motte-tops should be seen as a separate form; that truly circular forms (not on mottes) should be seen as a separate form;*
- *that the term “shell-keep” should be reserved for mottes with structures built against or integrated with their surrounding wall so as to leave an open, central space with inward-looking accommodation;*
- *that, defined in this way, they are found primarily in England, normally built by wealthy castle owners on larger mottes;*
- *that, despite an early (and sometimes repeated) view of shell-keeps as widespread and numerous, when defined thus it appears that this was not so;*
- *that, despite the influential idea of shell-keeps as transformations into masonry of originally timber-built structures, this putative transformation cannot be demonstrated archaeologically or historically;*
- *that, in contrast, the analogy of the shell-keep with the domestic and defensive planning of some early baileys - an idea first tentatively suggested more than a century ago - provides a more convincing model of development.*

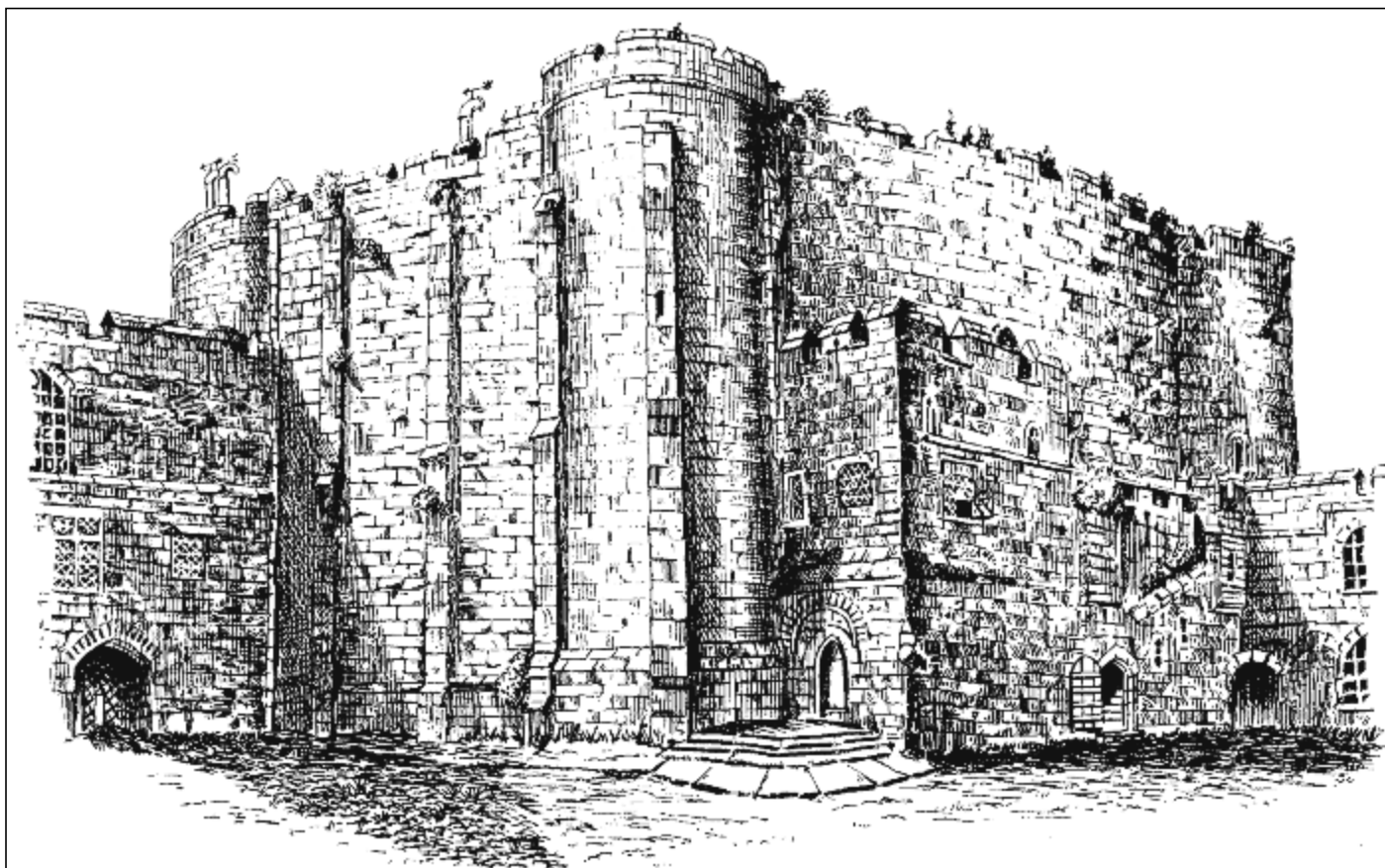


Fig. 3. Berkeley Castle. Shell-keep, from the Inner Courtyard. G. T. Clark, 1884.

Introduction

In recent decades, many aspects of castle studies have been revisited. The reappraisal of the form and function both of specific buildings and of overall planning has contributed much to the new thinking. Some of this reappraisal has come through excavation, which has illuminated non-surviving stone structures as well as revealing what timber castles could be like. But a lot of progress has been made simply by re-examining standing masonry structures: structures examined previously by many people, often repeatedly since the late nineteenth century. Through the questioning of old ideas and the application of new architectural analysis in an historical context, important new ideas have emerged on castle *donjons*, gatehouses, domestic planning and much else.

The purpose of this essay is to remind us of a well-known category of castle building - or rather what we imagine to be a well-known category, since my purpose is partly to show that it is not as well-understood as it should be - which has not had the benefit of reappraisal during the recent decades of castle revisionism: I am referring to the “shell-keep”. The phrase is problematic in the modern parlance of castle studies. It consists of two elements. One (shell) was always fairly vague and the other (keep) is now

(in some circles) rather discredited. I cannot be confident of the earliest use of the term, but certainly it was used by the late nineteenth century and probably originated with G. T. Clark (see below). It is best applied - as argued below - to a masonry wall, surrounding the top of a motte, which encloses structures built against that wall. It has often been assumed that these were versions in masonry of timber palisades and other structures which were assumed to have encircled many motte tops in the eleventh-twelfth centuries. It has also often been assumed that this was an effective way of developing a motte top because the top of an artificial mound would not normally withstand the thrust of a great tower or *donjon* of the sort which could be built free-standing on solid ground: hence, I suppose, their designation as a variant of the category called “keep”. In castle-planning generally, the principle of a wall surrounding conjoined buildings was applied in various ways. But with “shell-keeps” we are dealing with things built on mottes.

Why they came to be called “shell” I do not fully understand. It has occurred to me that, in a general way, a shell goes around something, but Neil Guy (personal communication) has helpfully observed that what G. T. Clark - and others of his era - saw were

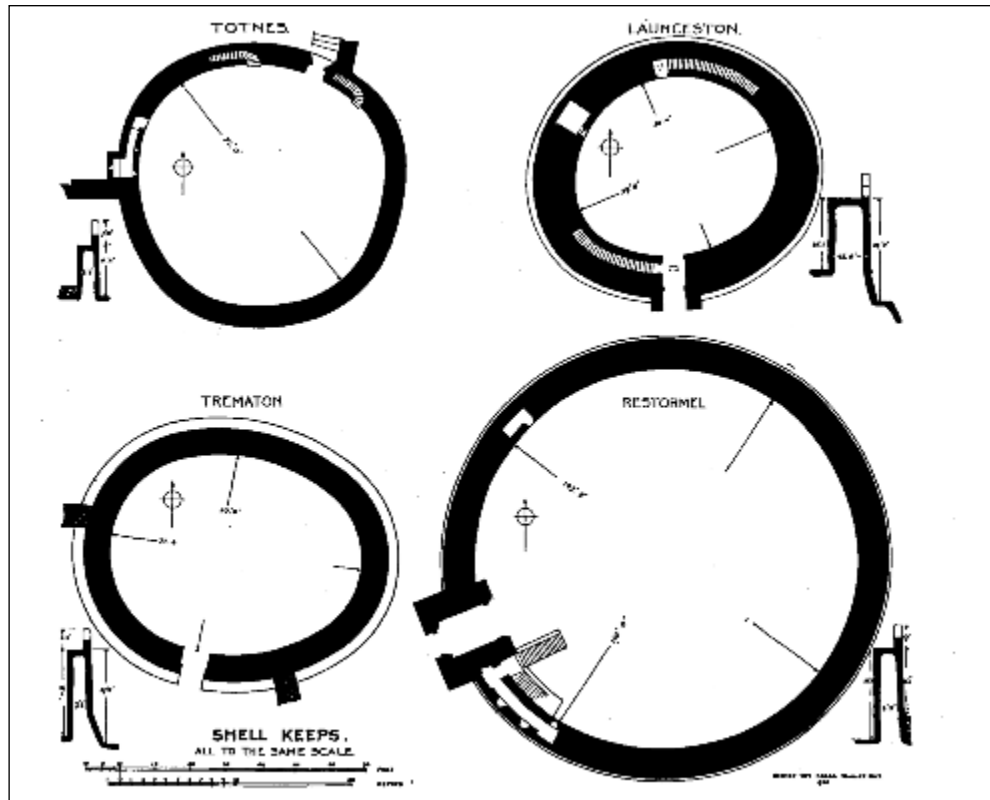


Fig. 4. Sidney Toy, 1933. Clockwise: Totnes, Launceston, Restormel, Trematon. All drawn to same scale. Reproduced by kind permission & © the Sidney Toy Estate.

“shells” in that (with a few exceptions) they were “empty” of internal structures. There are two problems with the “keep” designation. First, in the recent reappraisal of great towers or *donjons*, the word “keep” has - to a degree - fallen out of favour: it was a late (English) addition to the terminology (see below) which did not convey the original - it was argued, social - significance of these structures. No-one has suggested (as far as I am aware) that we should talk of shell-*donjons* or shell-great-towers. The other problem is that the suitability of motte-tops for various sorts of building cannot be generalised about. Some evidently *were* considered stable enough to have major stone structures of the great tower variety built on them at an early stage (sometimes actually primary). But here, two variables were at play: first, the inherent stability of whatever the motte was made from and constructed on; second, the lapse of time involved between the motte's construction and the addition of a major masonry construction.

So, my starting point is that we have a type of castle structure whose nature was thought explicable by early commentators, but which has escaped reappraisal in the recent trends of re-visiting castle studies. My purpose is to suggest that a re-examination of these structures is overdue: they deserve the critical scrutiny which many other structures have now received. My initial stimulus was three-fold: starting first with a

long-held interest in mottes; second, living in the South West, familiarity with some of the country's best examples at Totnes, and Trematon (figs. 4, 81); third, having in 2008 visited Berkeley (Gloucestershire), (figs. 3, 50, 72), a castle with a different sort of shell-keep, encasing its motte. It struck me that shell-keeps were worth another look.

I began this journey with an open mind and with no destination in view. At an early stage, however, I concluded that, amongst all the motte-top structures which have - at some time - been called shell-keeps, the only sort deserving this label are those with buildings against the inside face of the enclosing wall. It also struck me that this form is less numerous - at least in an identifiable state - than has often been assumed. I was therefore gratified to discover, while pursuing my reading, that Edward Impey had briefly made similar observations - using published data (from King 1983) - in his discussion of Kilpeck (1997) (fig. 5). Though he perhaps exaggerated the importance of Kilpeck's remains within the overall subject, and made a traditional argument (about the assumed timber-built precedents for masonry shell-keeps) which my own thoughts have led me to question (see below), I was encouraged by his critical remarks on shell-keeps (and other types of motte-top structure) and so continued to develop my own ideas.

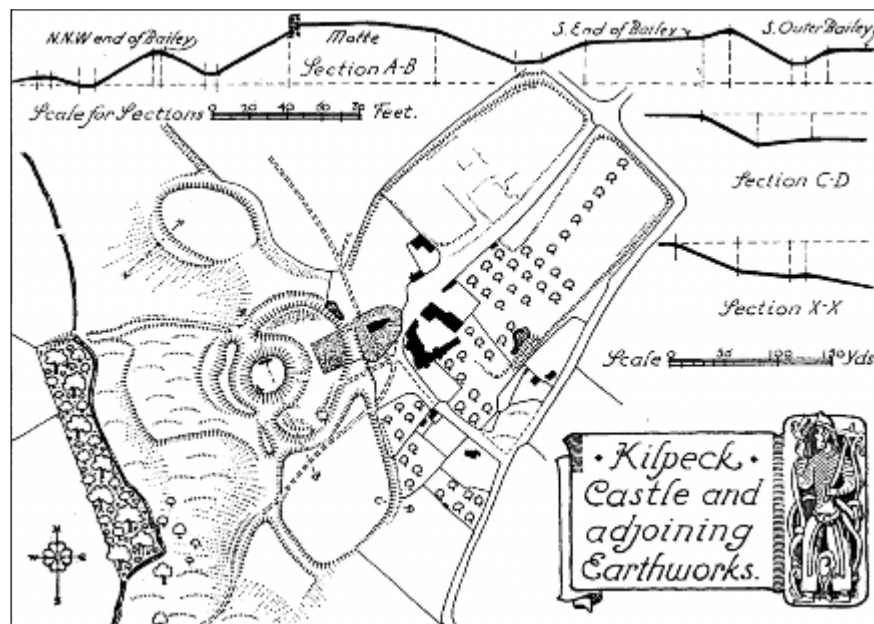


Fig. 5. Kilpeck. Site plan by the RCHME, 1931.

Apart from observations drawn from site-visiting, what follows is based on my own thoughts and on published data, rather than new primary field analyses. Nevertheless, the background described and the ideas suggested may be of interest and may, hopefully, encourage others to address the subject further at the primary level of field-work. The list of published references may also be a useful starting-point for others. Limited though what follows may be, I am convinced that we have here a subject deserving of further study. I have avoided attempting to compile “a full list” of relevant sites, since previous attempts have been unsatisfactory for a number of reasons (see below) and I am conscious of a danger of making things worse rather than better. The following general questions were developed as I proceeded: they are approachable, variously, through physical, documentary and pictorial sources. Some have been tackled in what follows here, whereas others remain for future enquiry.

1. How common were castles with such structures? And at what sorts of date?
2. Did their use display variables of choice: in regional preference, or preference of builders?
3. How many broad forms did they take, and how many minor variations in form occurred?
4. How did they function, and how many variations in function can be identified?
5. Can relationships in form or function with other castle designs be demonstrated?
6. Can they be drawn into ideas about domestic planning, into the *donjon*-debate and so on?

The medieval terminology

Kenyon & Thompson (1994) showed that the English word “keep”, in use from the 16th century onwards, derived from Middle English *kipe*, *kype* or *cupe* and was perhaps first used in a castle context in reference (dating from 1375-76) to the roofed circular tower on the motte at Guines (near Calais) which was in English hands from 1352 until its destruction in 1558 (fig. 6). The literal meaning of *kipe* was “basket” and it occurred also with reference to Guines at various subsequent dates, the last of which was in 1547-48 when it was spelled *kepe*. The authors suggested, on the basis of a 16th century drawing of Guines showing the circular tower had banded masonry, that such structures may have reminded observers of large circular baskets with prominent weave patterns. But eventually the word (as “keep”) became more generally applied to large castle towers, whether on mottes or not. The original significance of *kipe* was lost and it later took on its second (and misleading) meaning of strong and secure building, gradually replacing the earlier word *donjon* (later transformed into “dungeon”; cf the transformation of *mota* - motte - into “moat”).

The significance of the vocabulary of our topic is two-fold. First, the “keep” idea originated with a structure (at Guines) on top of a motte. Second, this structure was circular in plan. Both qualities apply to what, in castle studies, have been called shell-keeps (though their circularity is distorted: they are polygonal, oval or elliptical). Moreover, as the use of “keep” emerged in 16th-century English, some of its earliest applications were to structures which we would classify as shell-keeps. Kenyon and Thompson

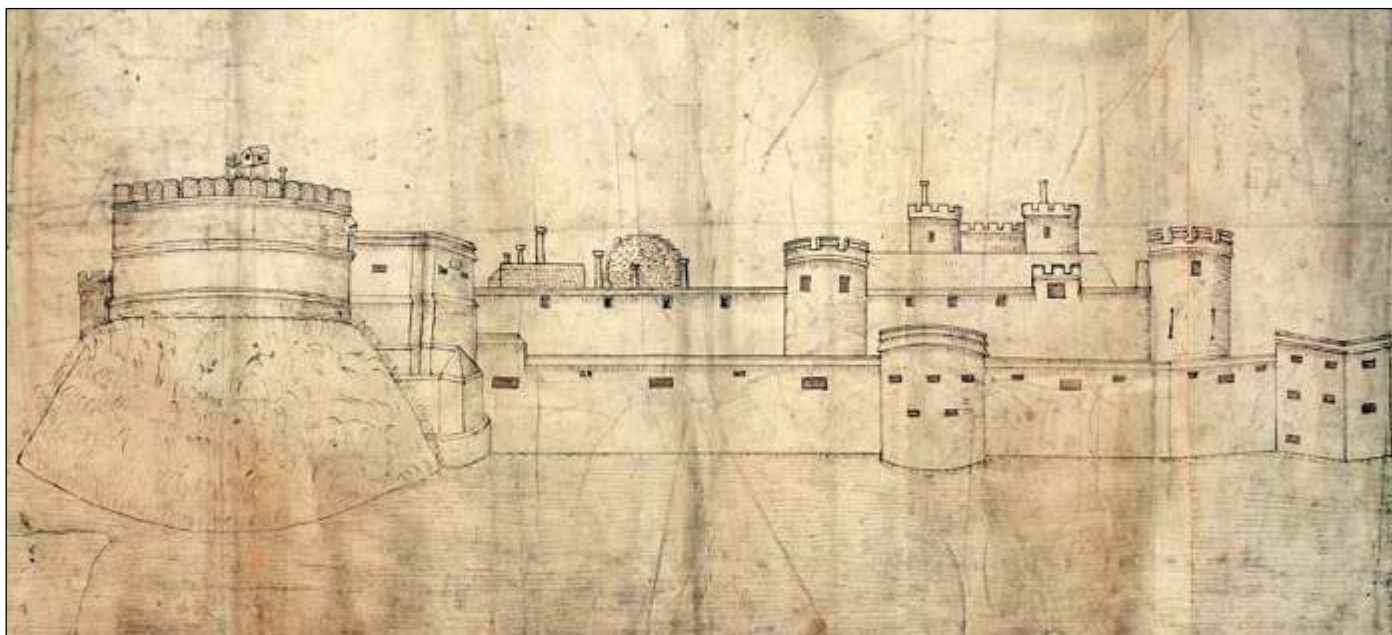


Fig. 6. View of Guines Castle, seen from the town, looking north-east. It is likely that the drawing dates from around 1540. Guines was the main outpost of English authority in the Marches of Calais. © The British Library Board: Cotton Augustus I.ii. Item number: f.12. Length: 39.6 Width: 63.7 Scale: Centimetres. Ink on cartridge. Reproduced with thanks.

(quoting King 1988, 188ff, where fuller detail will be found) noted that in his *Itinerary*, John Leland used “keep” (his spelling was *kepe*) for several places (Pickering (fig. 78), Warwick, Nottingham (fig. 46) Rockingham, Devizes, Brecon and Launceston, (figs. 8, 9) in the 1530s, some of which were structures on mottes which we would call shell-keeps (Kenyon & Thompson added Northampton to Leland’s list). In two cases, Nottingham and Devizes, “*dungeon or kepe*” are given as synonyms by Leland.

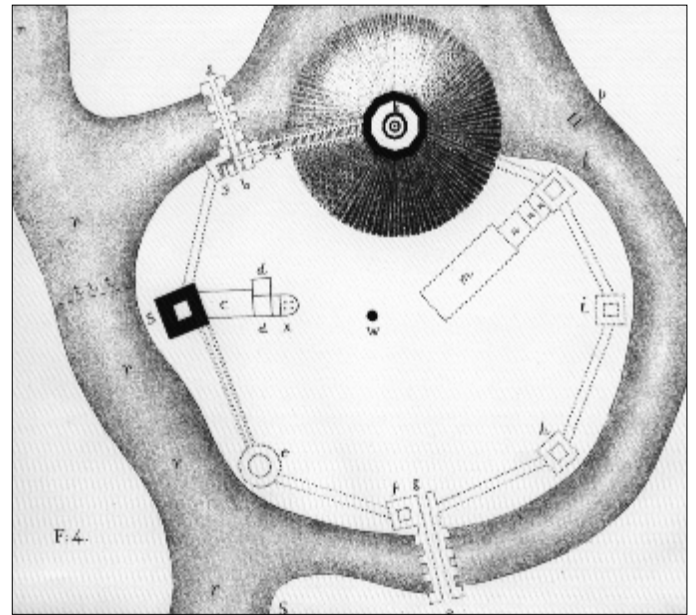
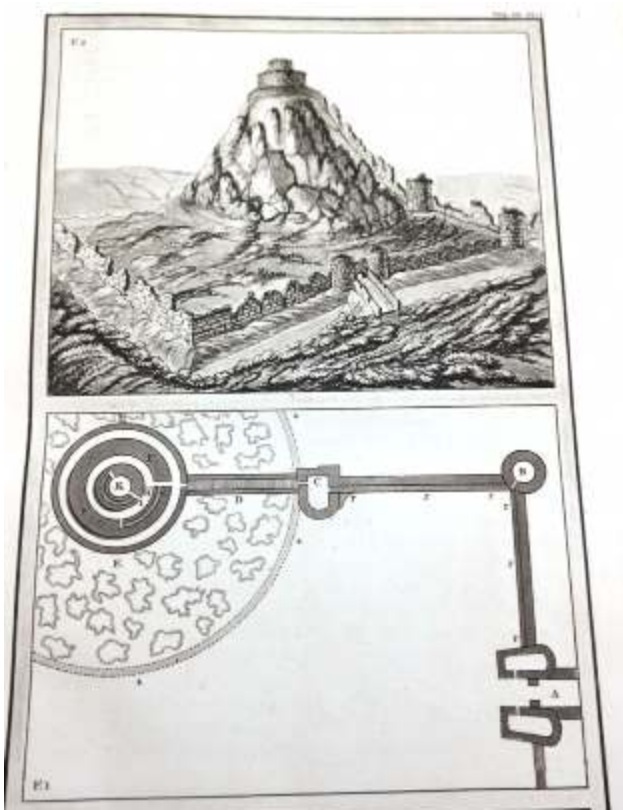
Thus, the classification of such things within the broad family of “keeps” was established very early on. It is quite likely that the original meaning of Modern English “keep”, if Leland’s usage is indicative, followed that of Middle English *kipe* in applying to a structure specifically on a motte. In the seventeenth century, in his *Lives of the Berkeleys*, John Smyth referred to the whole structure at Berkeley - which to our eyes is a shell-keep encasing a motte - simply as a keep. Eventually, of course, the word “keep” became applied in academic writing to free-standing great towers built on flat ground as well as to great towers built on mottes.

In the period when most structures on the tops of mottes were built, however, we can be confident that one of the terms appearing in medieval written sources would have applied. What we call a shell-keep today, what Leland called a *kepe* in the sixteenth century, and what some English people called a *kipe* at Guines from the later 14th century would all have been known in earlier times by such terms as *mota*,

magna turris, *domus in mota* or *donjon*. Examples of shell-keeps on mottes with medieval references include the following, all of which were royal castles or others in royal hands at some time. In 1406-07, Windsor was referred to as a *le dounjon* whereas in works carried out in the 1350s it had been referred to as “the high tower” and in the 13th century either as “the great tower” or as the *domus in mota* - the houses on the motte (Brown, Colvin, Taylor 1963, II, 875-876; Hope 1913, I, 60-62, 159-177, 227), (figs. 1, 13). At Carisbrooke (fig. 79), expenditure in 1294-98 referred to “the great tower” and in 1378 to the *dongeon* (*ibid*, 591-5). At Pickering (fig. 78), the structure was called “the king’s tower” in the 14th century (*ibid*, 779-781). At Berkhamsted (where, however, the existence of a shell-keep is questionable - see below), works in the 1150s and 1160s referred to “the king’s houses on the motte” and in the 14th century to “the great tower on the motte” (Brown, Colvin, Taylor 1963, II, 561-3). The impression is that, to contemporaries, what we call a shell-keep carried the same functional and symbolic message as any other structure on a motte. We must not allow modern terminology to create anachronistic issues.

The evolution of modern interpretation

It is customary to place the origins of academic castle studies in the Victorian period, but here it is appropriate to look further back. The first volume of *Archaeologia* (1, 1770) contained a brief piece (by Daines Barrington) on some aspects of castles in Wales. Other early contributors to the journal focussed on individual



ABOVE: Fig. 7. Oxford Castle, plan, Edward King, 1796.

LEFT: Fig. 8. Launceston Castle with plan. Edward King. From *Munimenta Antiqua, or Observations on Ancient Castles*, Vol. 3. 1799. Image: Neil Guy

sites: Henry Englefield on Lincoln (figs. 2, 38) and Samuel Denne on Rochester (both in Vol. 6, 1782). The most substantial were two pieces by Edward King (1776; 1782) in which several castles were subjected to varying levels of scrutiny, sometimes in great detail with plans, elevations and other illustrations. In the earlier article, King concentrated on rectangular *donjons* (calling them “keeps”). The later article was devoted to circular *donjons* (which he also called “keeps”) and gave accounts not only of roofed examples but also of some which a century later would be known as shell-keeps: Lincoln (1782, 261-266), Tunbridge (as it was then spelt; 1782, 270-290) and Windsor (1782, 327-329). He also called this last group “keeps”.

While King’s ideas on the origins of castles were speculative (he often imagined them to have had long histories before the Norman Conquest), his approach to their study in these articles was based on analysis of fabric, form, function and dateable architecture and was, in this sense, recognizably modern. Later, he published (1799-1806, in four volumes) his *Munimenta Antiqua, or, Observations on Ancient Castles*, where he addressed sites of all sorts from prehistoric through to medieval. Some sites relevant to our theme occurred in Volume III (e.g. Launceston, 9-13 (fig. 8); Tretower, 38-42; Guildford, 229-245) but his discussion was less focussed than in his earlier articles. King was a lawyer by profession but was also FRS (1767) and FSA (1770); he also published in

other fields including law, national finance and theology. He was born in 1734/1735 and died in 1807 (see Sweet 2004, 613-614, for details). He was President of the Society of Antiquaries in 1784-85: a short term of office because his opinionated personality made enemies amongst the Fellowship, but his contribution to castle studies deserves acknowledgement.

Nor should the contribution of locally-based scholars of this period be overlooked. In *Antiquities Historical and Monumental of the County of Cornwall* (1769, 2nd edition, 354-366) William Borlase (1696-1772) included “walled castles for residence and defence, which have keeps”. He described Trematon, Restormel and Launceston and provided a plan and view of each site. In each case he made observations which reveal a fairly modern understanding of how their keeps were designed. He noted that Trematon was oval in plan, had no external windows and must have had internal buildings looking into a small central courtyard; that Restormel was unusual in having an exactly circular wall around its buildings; that Launceston had a double plan (central tower and surrounding wall) which, while separated as ruins, had originally been joined by a timber roof to form a single structure. Borlase was a noted antiquary and naturalist, as well as a friend of Charles Lyttleton and Jeremiah Milles, both Deans of Exeter Cathedral and Presidents of the Society of Antiquaries (Haycock 2004; Borlase 1769, Pool 1986, Introduction). He belonged to a fruitful period of antiquarian effort.

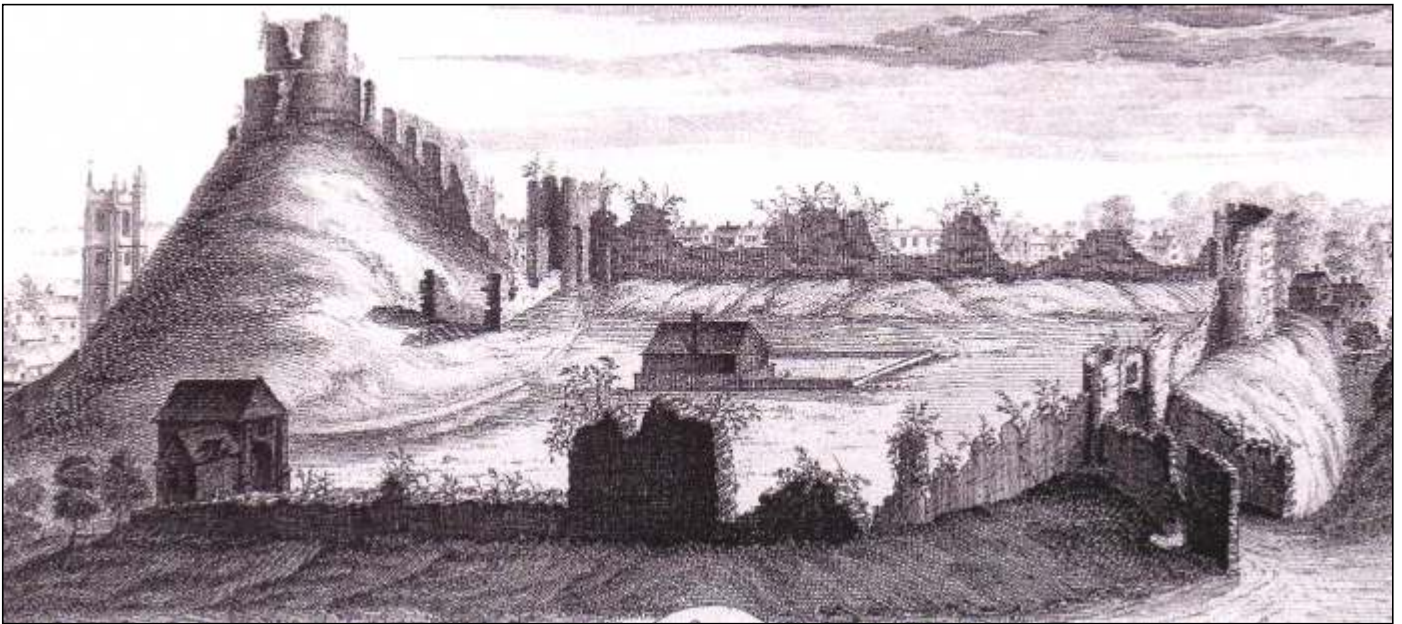


Fig. 9. Launceston Castle from the west. Samuel and Nathaniel Buck, 1734.

Modern discussion

Modern discussion (in book form) about castles started with the chapter “Of the Shell Keep”, in the first volume of G. T. Clark's *Mediaeval Military Architecture in England* (1884, I, 139-146). Here he laid out the main lines of thought about shell-keeps which have been largely adopted by later commentators. He had already been thinking and writing about the subject for forty years and was probably the inventor of the “shell-keep” phrase. In an essay on military architecture, published in the first volume of the *Archaeological Journal* (Clark 1844), he noted circular forms of “keep” at Trematon, Restormel, Launceston (figs. 9, 10, 54) and elsewhere but observed that such places “have not been critically examined”. In another piece (Clark 1867) he developed the idea further: the standard form had buildings against the outer wall, with a central, open space. His subsequent castle articles included sites with shell-keeps (e.g. on Guildford, 1872; on Pickering, 1873).

By 1884, he had concluded that shell-keeps had been more important and numerous than surviving numbers indicated: more numerous, in their heyday, than free-standing keeps (but now less understood than the latter because they had not survived the passage of time as successfully). He acknowledged variety in their planning and knew that some places with shell-keep characteristics are difficult to classify: Restormel he noted as “rather a round castle than a shell-keep” but nevertheless thought it shared sufficient characteristics for inclusion. He recognised the difficulty of finding any examples earlier than the 12th century. He stressed that, while to modern eyes, less impressive than a free-

standing keep of the tower variety, the shell-keep on a motte created for the medieval viewer an elevated and imposing sky-line which was not only functional but also visible at considerable distance and deeply symbolic of the castle image. Indeed, the presence of a motte was crucial to his view of what a shell-keep was. He felt the shell-keep was generally a masonry replacement for earlier timber structures, without actually specifying that their plan *replicated* the precise timber plan. He printed a list of some 120 examples (1884, I, 145-146) of which he thought 40 had good surviving remains, but also including others he felt to be of uncertain identity. He dealt with many of the better-preserved sites in the descriptive entries of his two volumes, and his observations on size-range, heights, wall-thickness *et cetera* accord with modern conclusions (James (ed.) 1998).

That he believed that the mottes on which shell-keeps stood were of Saxon origin does not diminish his achievement, since he knew that the shell-keeps themselves were Norman. As with other aspects of medieval castles, modern studies of the shell-keep castle design owe much to this multi-talented man (lived 1809-1898: see James 2004 for details) who was also a surgeon, engineer and industrialist.

In a book which is rarely mentioned these days (Ashdown 1911, 64-75) shell-keeps were construed in largely Clark-derived terms but with benefit of the recent demonstration (Round and Armitage) that the mottes upon which they stood were also Norman. The subject was included by A. Hamilton Thompson in his *Military Architecture in Medieval England* (1912, 113-116). He referred there to “the so-called ‘shell’-



Fig. 10. Trematon Castle (detail). Samuel and Nathaniel Buck, 1734 (later coloured). From the north-west.

keep, which converted the summit of the mount into a strong inner ward, the centre of which was clear of buildings”. By now, Clark’s idea of shell-keeps as stone replacements of timber structures had gained a wider hold, appearing in the “Earthworks” chapters of volumes of the *VCH* (e.g. *Kent*, I, 424: Tunbridge). In her *Early Norman Castles of the British Isles* (1912), Ella Armitage used the term shell-keep of some places, such as Windsor (238), while illustrating the phenomenon at other places without actually using the term, as at Cardiff (294 and fig. 51). But she was not happy with it as either terminology or concept. Of Arundel (99), she wrote, “Round the top of the motte is a slightly oval wall, of the kind called by Mr. Clark a shell-keep. We have elsewhere expressed our doubts of the correctness of this term”. The “elsewhere” in question was Appendix R (393) entitled “The So-Called Shell Keep”, in which she pointed out that walls of timber or stone had been common features around the summits of mottes, enclosing buildings of timber or stone, and regarding them as a separate sort of keep was not helpful. Perhaps she had not grasped what Clark meant by a shell keep whose internal buildings were integrated to the inside face of the wall?

In Hugh Braun’s *The English Castle* (1936, 49-52), the shell-keep was usefully placed in a wider context, alongside circular or polygonal “keeps”, whether built on mottes or not, starting with the (cross-walled) round keep at New Buckenham (1140s) and expanding later in the 12th century at Conisborough, Orford, Pembroke, Skenfrith and elsewhere. Shell-keeps in this scheme were part of a wider change of fashion as well as a specific part of the evolution of mottes (1936, 91). This was a

valuable, and broader, way of looking at the topic. Another writer of this period was Sidney Toy, whose book *The Castles of Great Britain* was first published in 1953. In all editions (e.g. 1963, 42-66) it contained a chapter entitled “Norman Castles with Shell-Keeps” where he offered the idea (not adopted by other writers) that in England, despite the 12th-century and later dates of surviving fabric, the shell-keep originated in the later 11th century and had sometimes been a primary feature, especially in regions where building-quality timber might not be plentiful: thus, in Cornwall, why should mottes at Launceston and Trematon not have carried masonry from the outset? He discussed many of the well-known sites in England, as well as Rothesay, Bute, (fig. 28) which he noted as being not typical. A briefer treatment of the topic had occurred in his earlier book (1939, 55-65), where he drew attention also to the relevance of Gisors, in Normandy.

When excavations at Abinger (Hope-Taylor 1950) revealed in detail a timber tower surrounded by a timber palisade, the main lines of Clark’s discussion were repeated but with one component further developed even more emphatically: the shell-keep as a popular way in which the motte-top of a timber castle could be transformed with masonry structures. Thus, from 1954 when the first edition of R. Allen Brown’s *English Castles* appeared (42-43; also in later editions: 84-88 in 1976) we have the still-enduring and classic academic image of the shell-keep. Its perimeter replaced an earlier timber palisade and was joined to the bailey curtain by wing-walls, descending the motte (as timber predecessors were assumed often to have done) and incorporating a protected stair up the side

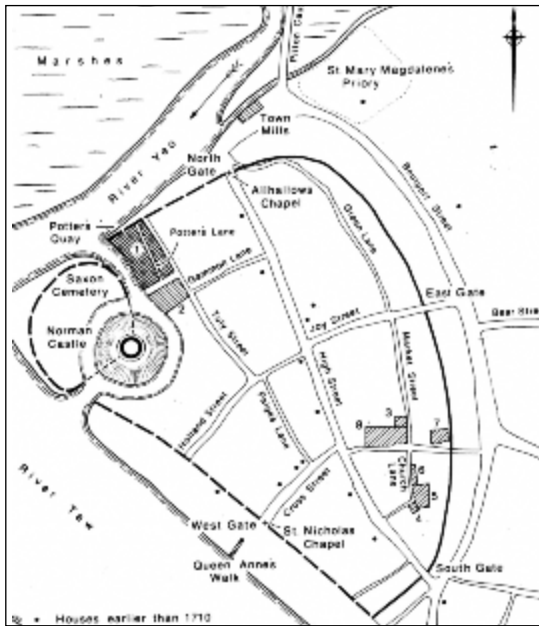


Fig. 11. Plan of Barnstaple historic town centre. From T. Farrell, 1984, Reproduced by permission of the Devon Archaeological Society.

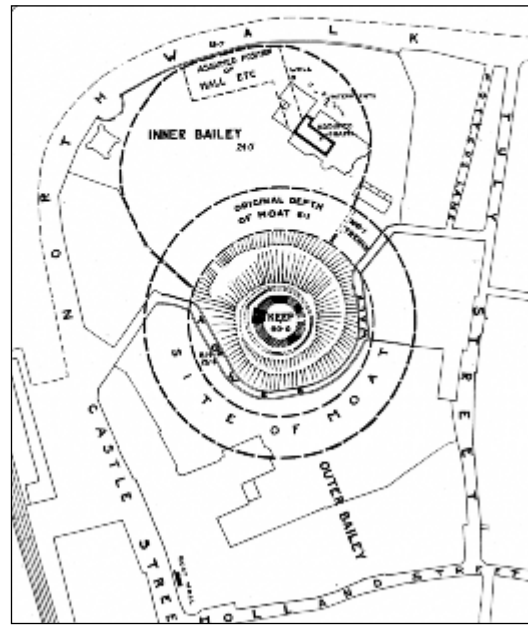


Fig. 12. Barnstaple Castle. Oliver, 1928. Reproduced by permission of the Devonshire Association.

of the motte. The buildings of a classic shell-keep, normally of a single storey but sometimes of two, were ranged against the internal face of the shell wall, around a central open space.

Much the same sorts of emphasis occur in a number of other good modern discussions. Derek Renn dealt with shell-keeps briefly in the opening chapters of his *Norman Castles in Britain* (1968, 1973) and gave valuable information, as well as simple plans, of numerous relevant sites in his Gazetteer. In *The Castle in Medieval England and Wales* (1982, 27-34), Colin Platt argued that the main period for shell-keep building deduced from documentary and architectural evidence, was in the 12th and 13th centuries, with occasional exceptions: Lewes in Sussex being probably late 11th and Totnes in Devon being probably early 14th. Restormel was suggested as an exceptional and very complex example, with two-storey buildings, paralleled by the hunting lodge at Castel del Monte (Apulia) built by the Emperor Frederick II. Platt suggested that Restormel, in turn, may have been the model for the rebuilding of Totnes. In a similar vein, my own article on Plympton Castle, Devon (1985) extended the regional discussion by suggesting that the Earl of Cornwall's double structure at Launceston may have been the model for Plympton (figs. 29, 31-2) and Barnstaple (figs. 11,12) (circular *donjons* surrounded by ring-walls).

In *The Castle in England and Wales: an interpretative history* (1988, 64-66), David King repeated some orthodox ideas, especially the theme of timber structures replaced by stone, but admitted some

important issues. He was not convinced that all shell-keeps contained the lord's residence (unlike, he assumed, the free-standing *donjon*) and wondered how permanent had been the use of apartments on this sort of motte top. He suggested that a variant of the standard form (buildings against a surrounding wall) was the ring-wall on the motte surrounding a central tower in an open space: a surviving timber one, or a stone replacement of such. He reminded us that some (now) "empty" shell-keeps, including Trematon, were tall enough to have held two-storey buildings such as survive at Restormel.

Where most had been content to include stone-enclosed mottes, as at Berkeley (figs. 3, 50, 72) and Farnham (fig. 14), as variants of shell-keeps, King suggested we should regard such (he did not actually name them) as a different sort of development: "small inner wards built on or around the motte". Importantly, in the present context, he thought the term "shell-keep" unsatisfactory, observing "arrangements for life inside one of these ring-walls remain one of the principal mysteries in the study of medieval fortification". In his earlier compendium work (1983), he generally enclosed "shell-keep" in inverted commas, probably indicating the same misgivings.

In 1991, Michael Thompson's *The Rise of the Castle* (60-61) reaffirmed the traditional view of the shell-keep's main significance: being a method of transforming a timber-built motte into a stone-built one. Of all the points repeated on the subject during more than hundred years of commentary, this is the one with the most enduring impact. It remains part of



Fig. 13. Windsor Castle, Paul Sandby. c. 1767. 'Windsor Castle The Round Tower, Royal Court and Devil's Tower from the Black Rod. © National Gallery of Victoria, Australia' Watercolour and gouache over traces of pencil. Reproduced with thanks.

current thinking, repeated in both site-specific discussions (e.g. Dudley Castle; Hislop 2010, 220) and more general discussions, for example John Goodall's *The English Castle* (2011, 107-108). Published at about the same time as Thompson's book, a theme explored in Robert Higham's and Philip Barker's *Timber Castles* (1992/2004/2012, Chapter 6) was the mixture of timber and stone technology employed in castles. Since some shell-keeps consisted of a stone wall surrounding domestic structures built wholly or partly of timber they made a contribution to this wider discussion of building technology and its relationship to mottes and their buildings. Famous examples with stone perimeters and wholly or partly timber interiors include Windsor and Tamworth. Some shell-keeps, including Lewes and Plympton, display another mixed-building technology: the use of structural timbers within the masonry itself to provide extra strength (on which, see below).

Particular studies

In addition to commentaries in general books, the twentieth century also saw individual discussions of shell-keeps, addressing their date, form and function in specific cases, carried out in the context of studies

of particular castles or groups of castles. The various categories of study included:

a) **architectural and documentary study**: the classic case, published in 1913, was William St John Hope's two-volume study of Windsor castle, a central feature of which is the Round Tower (figs. 1, 13). This 12th-century shell-keep, subsequently rebuilt and internally reconstructed in the 13th and 14th centuries, was transformed and heightened in the 18th and 19th centuries to its present form as a prominent feature in a parkland setting.

b) **comparative study**: the main example was Sidney Toy's essay 'The Round Castles of Cornwall' (1933), an evaluation of Trematon, Restormel and Launceston (in Cornwall) and Totnes (in Devon); Derek Renn (1969) explained some of these sites to a popular audience; south-western study was extended in respect of Plympton and Barnstaple by Higham (1985).

c) **architectural and documentary study combined with excavation**: an early example was Berkeley, where limited excavation was carried out between the two world wars (see Berkeley 1938-39) but the first study in modern excavation mode was Stuart Rigold's work at Totnes (1954). Other sites explored through

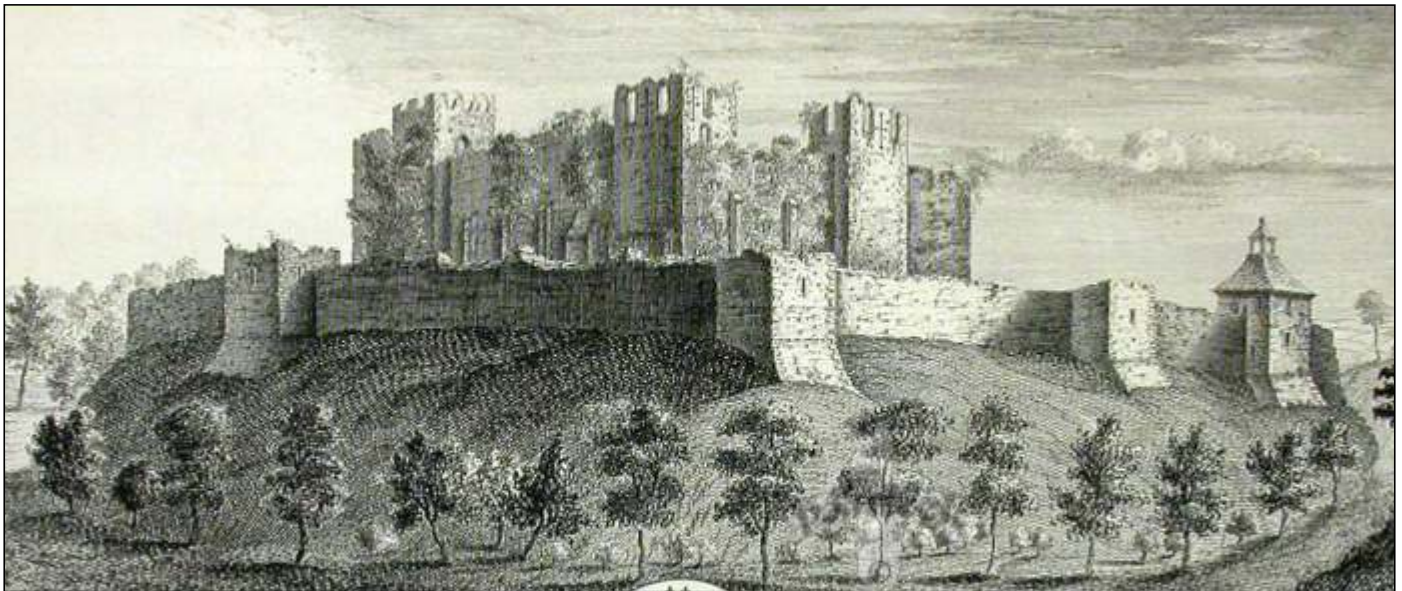


Fig. 14. Farnham Castle, from the north. Samuel & Nathaniel Buck, 1737.

a synthesis of excavation, fabric survey and historical study include Carisbrooke (Young 2000) and Launceston (Saunders 2006). Cardiff's shell-keep has been discussed in great detail, but does not have the excavated dimension (RCAHM(W) 1991, 191-199).

d) **documentary synopses**: in common with the rest of castle studies, the study of sites with shell-keeps always, or sometimes, in royal hands benefited greatly from the historical analysis of *The History of the King's Works: The Middle Ages* (eds., Brown, Colvin & Taylor, 2 vols, 1963). Here is found information on specific building works which illuminates the context and date of their construction. Examples (surviving) include: Arundel, Carisbrooke, Lincoln, Pickering, Restormel, Trematon and Windsor. In some other cases, where no fabric now survives, the editors speculated from the terminology employed in the records that the documented works may have related to shell-keeps: as at Marlborough and Rockingham (Vol. II, 735, 817) and Builth (Vol. I, 296).

e) **studies for public promotion**: some shell-keep castles are in ex-state, now charitable care and have informative hand-books: Totnes (Rigold), Launceston (Jones; later Saunders); Pickering (Thompson; later Butler); Farnham (Thompson); Carisbrooke (Peers; Chamberlin; later Young); Restormel (Radford; later Molyneux); Tretower (Radford; later Robinson); Wiston (Turner). Some sites in local authority, private or institutional ownership also have guidebook literature: Tonbridge (Oliphant), Arundel (Robinson), Durham (Bythell), Lewes (Poole), Berkhamsted (Remfry). Some literature of this sort is cited in the *Catalogue* and in the Bibliography, but selectively.

f) **studies in landscape contexts**: Restormel and Launceston have been studied in their parkland settings and linked with seigneurial borough development (Herring 2003). A wider view of landscape-related issues of such sites in a national context has also been pursued (Creighton 2009).

g) **current issues**: it is interesting to see that in a recent issue of the *Journal* of the Castle Studies Group (23, 2009-2010) no less than four castles with known or presumed shell-keeps of some sort figured in the news items relating to current work: Farnham, Lincoln, Tamworth and Wallingford.

The problem of producing a reliable list

One might think it a straightforward task to make a reliable list of existing and former shell-keeps, illustrated on a single map, but this is not so, as earlier commentators have discovered. A number of issues conspire to defeat the compilation of a "comprehensive *corpus*". These include:

a) the numerous "empty" motte tops, whose structures have entirely disappeared, some of which may have at some time carried shell-keeps. New discoveries can occur. A "new" motte was noted in the 1990s by the RCAHM(E) near Poundstock, Cornwall (Higham 1999, 136). Recent geophysical survey here by Oliver Creighton and Duncan Wright (pers. comm.) suggests a perimeter wall around its summit: perhaps a "new" shell-keep? Since extant shell-keeps required large motte-tops (see below), larger examples of "empty" motte tops may be particular candidates for shell-keeps. A shell-keep or tightly-planned ward has been suggested, for example, on the large earthwork at

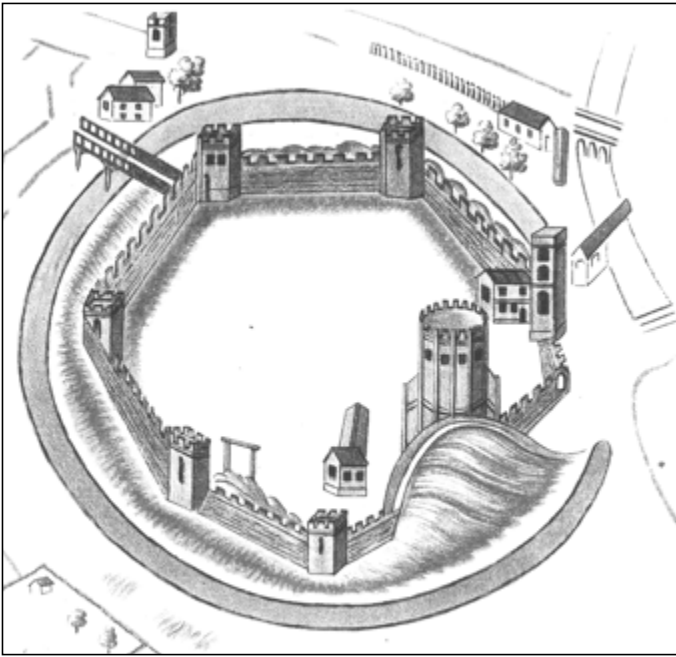


Fig. 15. Oxford Castle, from the north. The Ralph Agas bird's eye view of 1538, published by William Williams. *Oxonia Depicta*, in 1733.



Fig. 16. Speed's map of Hereford. Hereford Castle (detail). From John Speed's 'The Theatre of the Empire of Great Britaine' published in 1610/11.

Worksop, Nottinghamshire: a platform representing a ringwork or lowered motte? (Speight 1995).

b) the generality of medieval terminology (see above) which does not distinguish different sorts of motte-top structure or free-standing structure within the broad *donjon* or great tower family; thus documentary references cannot be easily used to "re-create" shell-keeps which have disappeared.

c) the difficulty involved in interpreting some surviving stone foundations on mottes, which could represent the perimeter of true (ie. building-wall integrated) shell-keeps, or the enclosing wall of a free-standing central tower, or the footings of circular or polygonal roofed *donjons*.

Thus, instead of listing "known or probable shell-keeps" as though to reveal the full historical reality, it is more honest simply to assess the published data. Published general discussions (see above) have repeatedly drawn attention to the following places, numbering just over twenty. These are, broadly, the sites included in the *Catalogue* of the present study, though those marked (*) are excluded from the *Catalogue*, and a few others are included, for reasons explained in the text: -

shell-keeps on motte tops, ruined or turned into structures of later date: Arundel, Berkhamsted (*), Cardiff, Carisbrooke, Clare, Durham (*), Kilpeck, Lewes, Lincoln, Pickering, Plympton (*), Tamworth, Tonbridge, Totnes, Trematon, Tretower, Tutbury (*), Warwick, Windsor, Wiston.

shell-keeps which also encase mottes with masonry: Berkeley and Farnham.

shell-keeps which surround a donjon inserted at a later date: Launceston and Tretower.

shell-keeps (?) with a hybrid motte - ringwork appearance: Restormel (but problematic).

While a good degree of general consistency is to be found within the examples chosen for inclusion in discussion by various authors, Clark's (1884) list of shell-keeps is much longer than anyone else's and Braun (1936) includes a number (probably drawn from Clark's list) not mentioned by other 20th-century authors. The impression is that later commentators felt Clark had cast his net too widely and rejected many of his suggestions. To be fair to Clark, he was attempting to give due attention to a form of castle building which had hitherto been insufficiently noticed and therefore perhaps exaggerated his case. But some places on his list are not shell-keeps and others seem to lack appropriate evidence: at least, as testable in the context of this exercise, against either my own knowledge or the data given in Renn's (1968) and King's (1983) compilations. Clark did not describe fully all the places in his list. Thus, in the *Catalogue* (below) some sites occur without a Clark citation; but all places in the *Catalogue* are in Clark's longer list (I, 145-146).

Different authors apply different emphases. Some point out that encasing of mottes in masonry (as at Berkeley, Farnham) was not confined to shell-keeps:

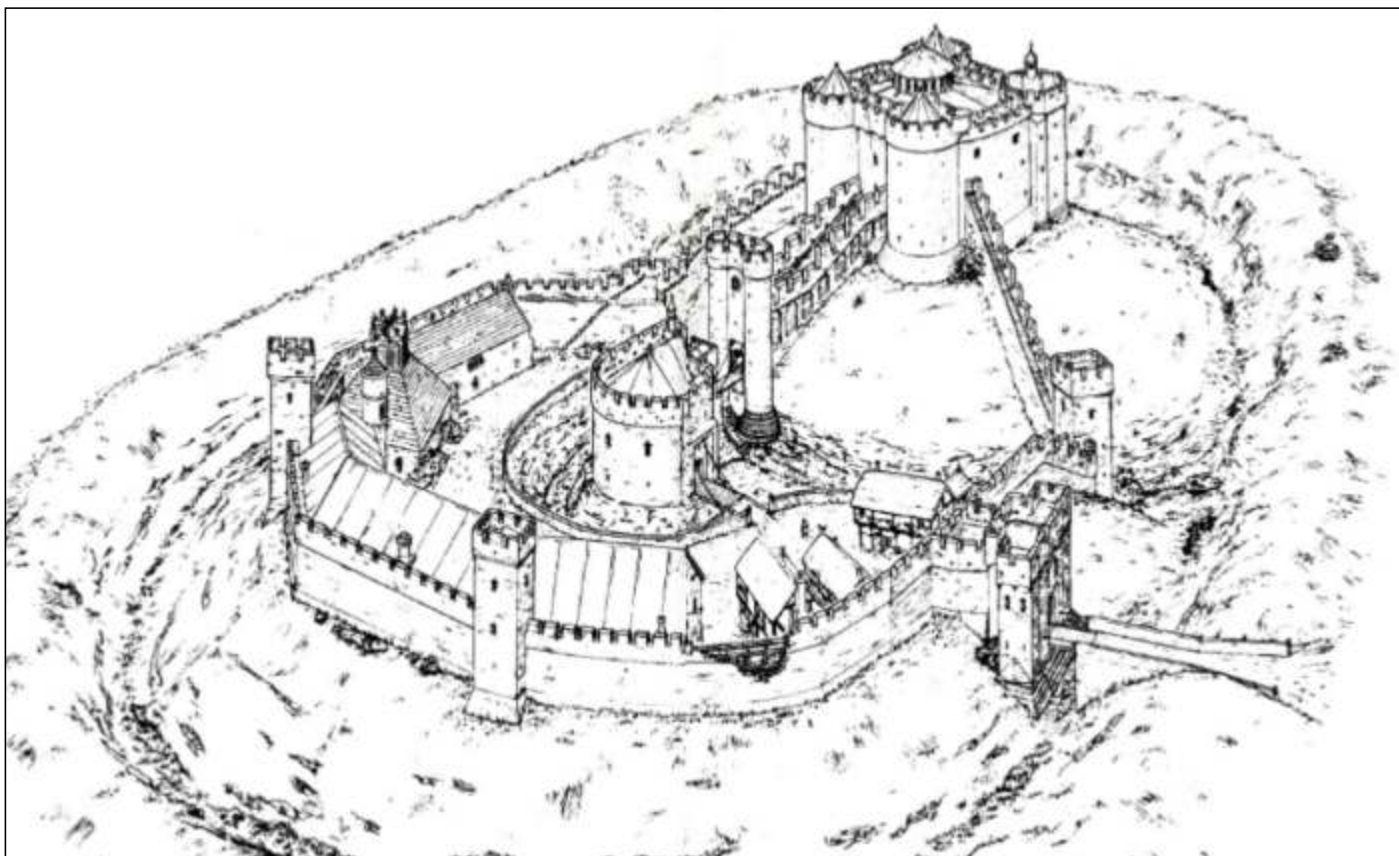


Fig. 17. Sandal Castle. Phase III. Reconstruction of the stone castle in c. 1250, with lobed tower. From Butler, 1991.

it occurred at tower-keeps at Kenilworth (rectangular) and Pontefract (multi-lobed, figs. 70, 75.4) in the 12th and 13th centuries respectively. The stone keep at Taunton may have had a stone-enclosed motte (Chris Webster; personal communication). South Mimms was probably a timber-encased motte. Encasing or revetting may have been more widespread than we know. Some commentators have also cast the “shell-keep” definition more widely than others, to include also the enclosing wall, around the perimeter of a motte or ringwork, within which stood one or more free-standing structures: of the tall *donjon* tower variety or of more hall-like buildings. Launceston (where the tower survives) and Plympton (where one is suggested by pictorial evidence) were perhaps shell-keeps at earlier stages of their development (figs. 31, 33). Others have noted that a central open space could be applied in a minimalist way in later medieval motte *donjons* of complex form: at Sandal and York (13th century) and at Warkworth (15th century) this space was limited to a narrow (but deep) light-well.

While there may be some loose shell-keep analogy in such forms, they seem (to me) to be different enough not to be included in the present discussion. While some shell-keeps (for example, Farnham, Lewes) have towers on their perimeter wall, they are well-spaced and the wall itself is still the dominant feature. But at

some sites the towers are very large and are (in varying degrees) so close together that the result is more that of a large structure with lobes, the wall connecting them being of less significance. In internal planning and external appearance, we have here something distinct. The classic ones on mottes are in Yorkshire, perhaps reflecting another regional fashion in castle-building: at Sandal (Mayes & Butler 1983; Butler 1991) (figs. 17, 75.1), York (RCHME 1972, 66-74), (fig. 69.3) and Pontefract (Roberts 1990; Roberts 2002), (fig. 70). At York, however, recent work by English Heritage has shown the central pillar base to be a modern creation. This raises the possibility that, rather than being a roofed structure, Clifford’s Tower had internal structures ranged against the outer wall, with a central open light well. At Nunney (Somerset) a not dissimilar *donjon* with four prominent corner towers stood at ground level.

Evidence for destroyed shell-keeps

Documentary or pictorial data reveal the existence of shell-keeps no longer extant. At Wallingford, documentation may suggest the motte had a shell-keep, but it does not reveal this clearly because the 16th century surveyor focussed on internal rooms: a priority that we should (now) perhaps bear in mind (Brown, Colvin & Taylor 1963, II, 850-852; Christie, Creighton *et alii* 2013, 157, 162). At Oxford, the motte structure demolished in the 17th century is depicted on earlier drawings

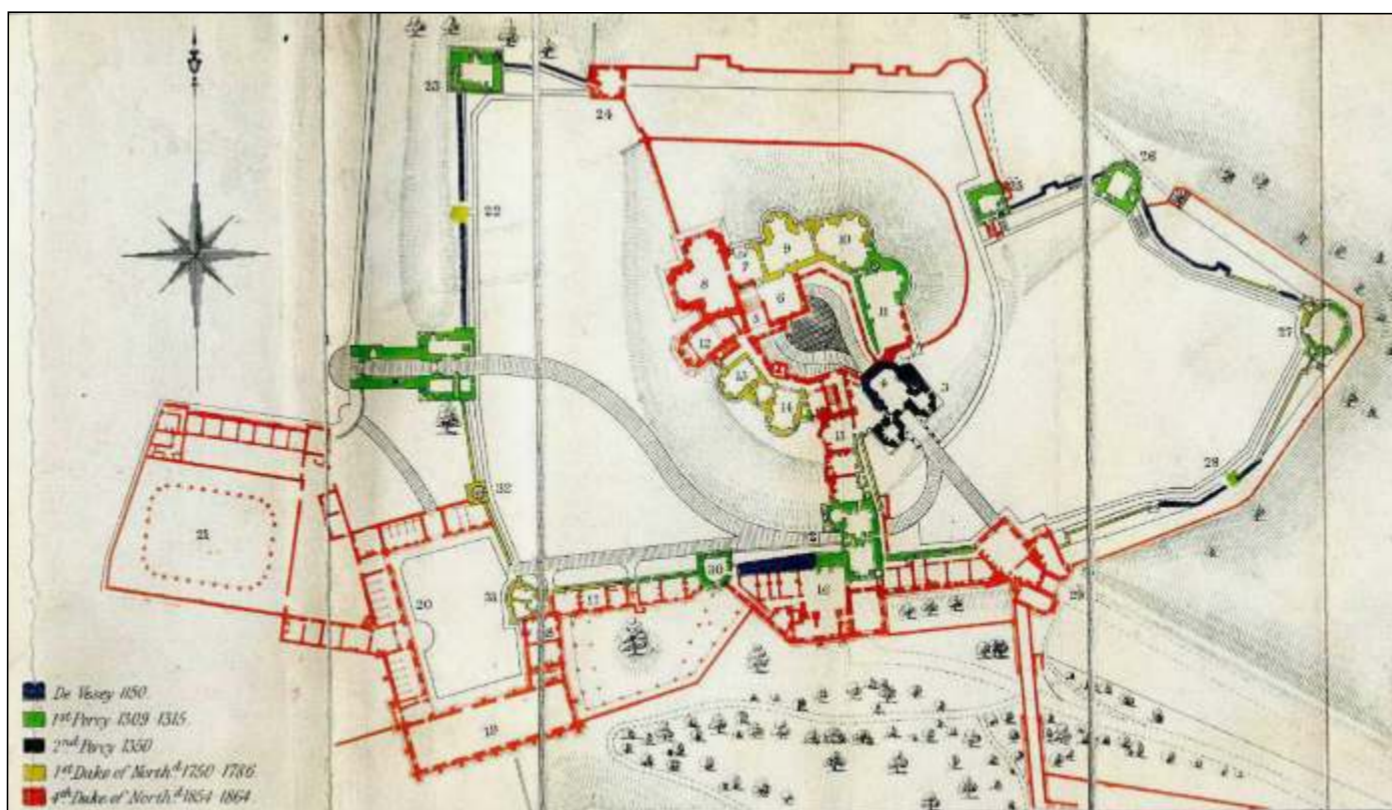
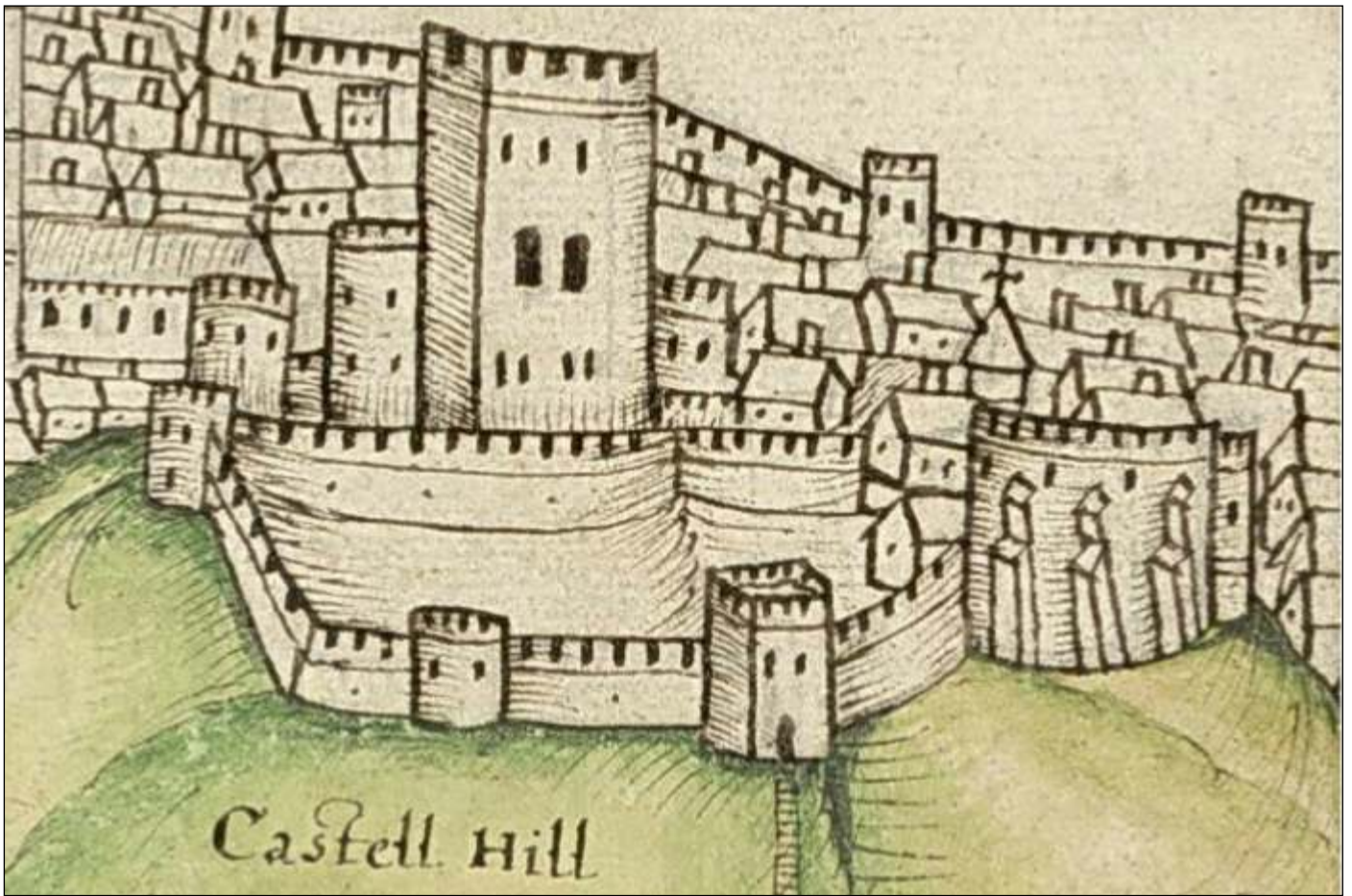


Fig. 18. Alnwick (fold-out) plan. From C. H. Hartshorne, 1865, *A Guide to Alnwick Castle*. The plan suggests a cluster of D-shaped towers spreading out from a polygonal courtyard (Assumes a first-floor plan rather than the ground). Most towers date to the 13th century and later.

as a decagonal building (figs, 7, 15). Expenditure was recorded in the 12th-13th centuries and it is normally regarded as a shell-keep (Guy 2005-2006). At Hereford, Speed's map of 1611 shows a motte structure: possibly the *dungeon* described by Leland as a great tower encircled by ten semi-circular ones (Brown, Colvin & Taylor 1963, II, 673-677), (fig. 16). At Truro, alteration of the motte in 1840 revealed a circular wall, enclosing an area some 75ft in diameter, with entrance and small forebuilding (*Devon & Cornwall Notes & Queries*, 13 (1924-25), 40-42). At Newcastle upon Tyne, a view of 1545 (figs. 19, 20) and the Buck Brothers' view of c. 1723 suggest the 11th-century motte (surviving to around 1800, east of the late 12th century *donjon*) was revetted in buttressed masonry rising into a shell-keep, as at Berkeley and Farnham (Rowland 1987, 80-82; Guy forthcoming and references cited). Some later structures may have replaced earlier shell-keeps: suggested for Alnwick's tightly-planned inner ward on the probable remains of a motte (fig. 18) (Clark 1884, I, 176; Renn 1968, 89; Allibone 1976; though the idea has not been adopted in Goodall 2013) and for Warkworth's motte-top *donjon* (Goodall 2011, 165). The case of Durham is slightly different. The massive structure on the motte is of 1840 (by Salvin) and reproduced the ground-plan of its predecessor (perhaps preserving some of its fabric - opinions differ on this - see Guy, 2012-13) -

while providing a totally different interior designed for the city's new University (VCH 1928, 64ff; Bythell 1992; Rollason *et al* (eds) 1994; Leyland 1994; Thompson 1994; Roberts 1994, 22ff). The shell-keep of c. 1370 by Bishop Hatfield (1345-1381) was largely destroyed in 1840 but we know it through Hutchinson's *History and Antiquities of Durham* and various pictorial sources. It was an irregular, buttressed, octagon, some 76ft by 65ft, with internal apartments on three storeys (over vaulted basements) against the wall, a central, open space and staircases in the angles of the octagon. A doorway faced the bailey, reached by steps up one of the wing-walls linking the bailey with the motte top. By 1840, the wall-tops and the internal structures had long since disappeared. The new building was not as tall as its medieval predecessor, whose interior had already been affected by works carried out in the late 15th and 16th centuries. By the 18th century, it was redundant and in 1789 its upper portions were demolished as they were felt unsafe. Hatfield's structure was part of a building programme in which he also enlarged the hall range in the bailey. So, the motte was still an important part of the site and a shell-keep was considered suitable to impress the outside world. In order to create a sufficiently large site for its construction, the motte was lowered and widened: the spoil blocked the east windows of the



ABOVE: Fig. 19. Newcastle upon Tyne castle. Detail from the 1545 drawing by Gian Tommaso Scala. © The British Library Board, Shelfmark: Cotton Augustus I. II. Item number f.4. Reproduced with thanks.

BELOW: Fig. 20. 'The South-East Prospect of Newcastle upon Tyne'. From Samuel and Nathaniel Buck's *Town Prospects*, c. 1723, showing the Great Tower, the revetted and buttressed 'shell-keep' (or half-moon battery) to the east.

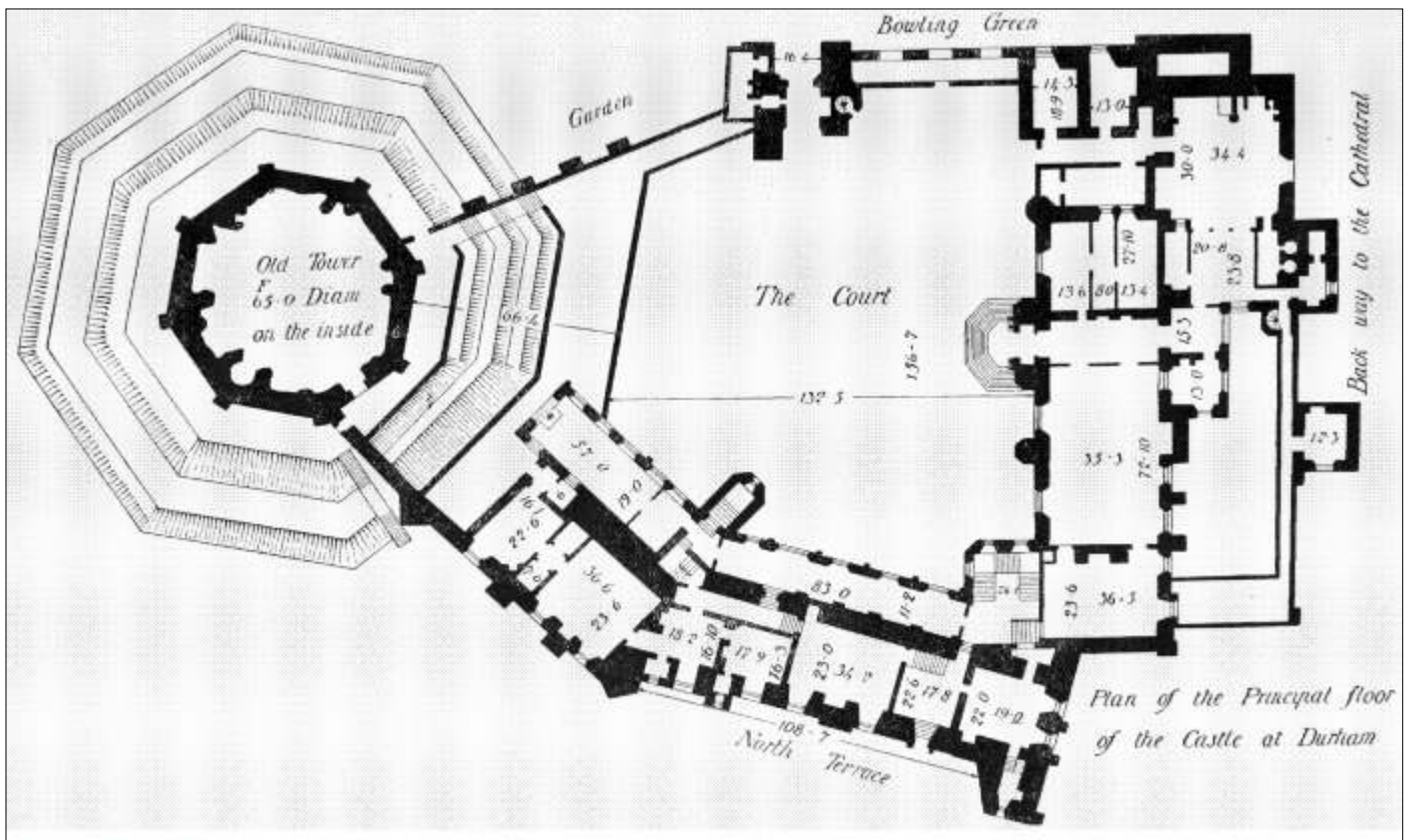




ABOVE: Fig. 21. Keep, Durham Castle. S.H. Grimm's sketch of c. 1775–80. The 'shell-keep' and motte from the south. © The British Library Board, Shelfmark: Additional MS 15538. Reproduced with thanks.

BELOW: Fig. 22. Durham Castle. The 'shell-keep' from the Inner Courtyard. It shows the rebuilding made by Anthony Salvin in the 1840s. Just how much medieval masonry was left in situ remains controversial. Image: Neil Guy





ABOVE: Fig. 23. Durham Castle. Adapted from a plan of about 1775, found in the old Exchequer Offices, Durham. Plan is shown showing the south at the top. From *VCH Durham III*, 1928.

BELOW: Fig. 24. Durham Cathedral and Castle. S. H. Grimm. 1780s. Looking towards the south-west from across Elvet Bridge. North Gate (rebuilt by 1421) to the right of the centre foreground. The North Gate was demolished in the 1820s. The dominating Hatfield 14th-century shell-keep is shown without fenestration on its north and east façades. Image © The British Library Board. Shelfmark: Additional MS 15538. Reproduced with thanks.





Fig. 25. Clare Castle, Suffolk. From the east. From Francis Grose's *Antiquities of England and Wales*, Vol. VIII. Published in 1787 by S. Hooper, engraved by J. Newton.

chapel below. A view of 1799 shows no windows in the outward-facing sides of the shell-keep, but earlier ones (Schwyter in 1595; Buck brothers in 1728) show windows on two storeys. A plan - perhaps in more regular form than the building had actually been - of around 1775 (*VCH* 1928, 67) shows the outer wall and stubs of masonry (perhaps belonging to the staircases). The terraces on the motte sides were created only in the 17th century and do not replicate medieval features. Although it still stands as a most impressive structure, because its 19th century remodelling was so extensive, the shell-keep at Durham does not figure in the *Catalogue* and it appears on the distribution map as a "destroyed site" (Map. 2). This may surprise some readers, but appears (to me) fair to the evidence (figs. 21-24, 77).

Some general issues

1. Dating

Despite speculations (for example, by Toy: see above), no shell-keep has been *demonstrated* to be of eleventh-century date. Even where the motte is this early, the shell-keeps - dated by architectural detail, by specific documentary reference or by likely family context - emerge from the second quarter of the 12th century onwards. It is likely that they existed by the 1130s. The period over which they were built and re-built

lasted for some two hundred years. Early in this sequence were Arundel and Carisbrooke. Late in the sequence were Totnes and Durham.

2. Distribution in the British Isles

Considerable though the limitations of this exercise may be, as a "non-list" it does reveal something to be broadly true. On the basis of surviving evidence, shell-keeps of the integrated sort - as defined above - were found in England, much less so in Wales, but hardly (if at all) in Scotland and Ireland. The distribution of related motte-top plans - rectangular, circular or polygonal *donjons*, ring-walls enclosing structures on mottes, ringworks and small enclosures - was, however, much more generalised throughout the British Isles. It is hard to imagine that the disappearance of evidence could have been so much greater outside England that it gives a completely distorted picture today. The English emphasis in the distribution of the integrated shell-keep may be seen as an additional reason - on top of considerations of morphology - why it should be regarded as a distinct "type".

The motte at Whittington (Shropshire) was encased with a stone wall (with gatehouse and towers) and its slopes in-filled during the rebuilding of the 1220s (*Med. Arch*, 48 (2004), 287-28). So it is possible that the famous "encased mottes" at Farnham and Berkeley



ABOVE: Fig. 26. Clare Castle, Suffolk. Motte top / shell-keep from the south-west. The tomb plaques with rain hoods indicate burials below and are post-medieval. Image: Neil Guy

BELOW: Fig. 27. Clare Castle. The 1846 Tithe Map, anon., held by Suffolk Record Office, Bury St Edmunds



may be grand examples of a tradition whose principles were more widespread. Renn (1968, *passim*) lists masonry on motte-tops which may represent shell-keeps (in addition to those included in the *Catalogue*, below). These are impossible to interpret fully, cannot be distinguished from ring-walls of other sorts, and are thus not shown on Map 1. But they are at least the possible sites of former shell-keeps, and they are also all in England. They include: Caus and Oswestry (Shropshire); Marlborough (Wiltshire); Miserden (Gloucestershire); Mitford (Northumberland); Waytermore (Hertfordshire). Clare (Suffolk) is a classic problematic site. Its fragmentary remains suggest (just) sufficient evidence for classification as a shell-keep (figs. 25, 26, 27).

Wales

In Wales, only Cardiff in Glamorganshire, Wiston in Pembrokeshire and Tretower in Brecon (with later *donjon* inserted) are regularly quoted as classic shell-keeps (RCAHMW 1991; Turner 1996; Radford 1969). Builth, rebuilt by Edward I, may have been a shell-keep (Brown 1976, 122) and remains at Brecon have been suggested as one (King 1983, I, 16) but at neither site is the situation clear. Crickhowell's fragmentary masonry was suggested as a shell-keep by Clark (1876, 284) but King's comment - "traces of a shell-keep or ring-wall" (1961, 76) highlights the problem of distinguishing - where no internal evidence survives - a shell-keep from a wall around a central building. Bronllys has polygonal footings possibly of a shell-keep, superseded by a circular *donjon* (*Archaeology in Wales*, 48 (2008), 140-141). Fabric analysis at Powis Castle suggests the earliest surviving masonry is a length of curved wall pre-dating the later 13th century phase. This could be extrapolated into a shell-keep: perhaps the great tower referred to in 1274 (Arnold 1993). Limited interventions on the motte at Carmarthen suggest that a lobed perimeter wall of *c.* 1200, surrounded a central, slender tower. After, or in conjunction with, the demolition of this tower in the 14th century, the SE quadrant of the wall was rebuilt and internal structures seem to have been placed against its inner face, so creating a shell-keep (Ludlow, 2014, 181-183 & figs. 115-6) (fig. 72). Thus, while certain examples of shell-keeps in Wales are few, it is possible that Wales originally had more of the type.

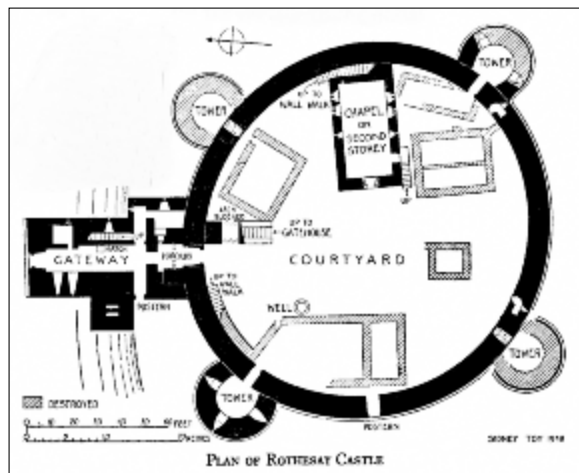


Fig. 28. Rothesay Castle. Shell-keep?, early 13th century. Sidney Toy, 1953. Reproduced courtesy of & © The Sidney Toy Estate.

It may be that most of the sites sometimes referred to in Wales as shell-keeps were of the ring-wall-surrounding-*donjon* variety, but three sites were true shell-keeps (see *Catalogue*). Tretower was a shell-keep in the 12th century before its 13th century transformation with the insertion of a *donjon*. The evidence at Cardiff and Wiston also reveals that both were of the integrated type which deserves the proper shell-keep designation. In this sense, these sites connect Wales with the English tradition, enhancing the "differentness" of the Scottish and Irish experience. Tretower, Cardiff and Wiston were built in heavily colonised parts of Wales.

They are not "Welsh" castles: Tretower was founded by a tenant of the Norman lord of Brecon; Wiston was in the Flemish-settled part of Pembrokeshire and took its name from its founder (Wizo); Cardiff was established by king William I in 1081 and was the *caput* of the lordship of Glamorgan from the 1090s.

Scotland

Further north, Cruden (1960, 27) asserted that "the type is seemingly rare in Scotland", quoting Rothesay (Bute) (fig. 28) as the surviving example and suggesting that the mottes at Invernochty and Lumphanan formerly had shell-keeps. But the last two instances seem far more like castle wards, raised on big (and largely natural) oval eminences and containing free-standing buildings. The survey of Invernochty by RCAHM Scotland (2007, 152-153) does not reveal any significant shell-keep analogy. At Lumphanan, the work by Newton and Talbot (1998) showed the surrounding wall to be of eighteenth century date and to have had no medieval predecessor. Even Rothesay, whose circular plan and surrounding wall invite shell-keep comparisons, does not really fit in the category. It has been suggested (Pringle, 1998) that the plan arose from rebuilding in stone (by around 1230) of a timber ringwork constructed around 1200. Four projecting rounded towers were added later in the thirteenth century. The entrance went through various enlargements from the 13th to 16th centuries, when the surrounding wall was also heightened. A building account of around 1520 referred to it as "the great tower called *le dungeon*". The domestic buildings seem to have

been free-standing and not integrated with the enclosing wall. The site had no motte: it occupied a position near the shore. Pringle wisely avoided describing the site as a shell-keep and instead drew more general analogies with circular or near-circular castle planning in Europe. A recent review of Scottish castles suggests (Oram 2008) that Urquart castle was a shell-keep in one phase of its development but also points to a connection between some aspects of Scottish castle planning and the wider (and pre-existing) tradition of stone enclosures containing free-standing buildings. The author also emphasised the indigenous character of much early Scottish castle design, rather than relying on an interpretation based on an assumption of Anglo-Norman models.

Ireland

In Ireland, the only shell-keep mentioned in David Sweetman's survey (1999, 40, 55, 56-7, 84-5a) is at Dungarvan (Co. Waterford). This polygonal example (by king John) has some shell-keep analogies but was built not on a motte but at shore level by a river mouth: the site's primary form, on which the shell-keep was later built, may have been a ringwork; in the rebuilding, the site was also given a sub-rectangular bailey. Another irregular polygonal plan, Carlingford (Co. Louth) had a tightly-planned and fairly small ward with some shell-keep analogies, built on a rock outcrop (Sweetman 1999, 48; Leask 1941: using 1986 printing, 61-63).

However broadly analogous with the shell-keep tradition such sites may be, however, they are not the fully integrated, motte-top version which occurs in England. Since, at least in England, some shell-keeps were built on mottes whose summits were broadened by truncation of the motte, we might expect more shell-keeps in Ireland. Here, it has long been known (Higham & Barker 1992, 70-77) that mottes were often broad and flat in profile. They would have easily lent themselves to the planning of the integrated shell-keep. Perhaps, on some Irish mottes, there awaits discovery of the (so far) elusive timber equivalent of the masonry shell-keep? Very telling, however, is the total avoidance of the term "shell-keep" in a general survey by another authority on Irish castles whose discussion demonstrates, in contrast, the successful importation into Ireland of the Anglo-Norman circular /polygonal *donjon* form which was already popular in parts of south Wales, the region of origin of some influential conquerors of Ireland (McNeill 1997).

At Shanid (Co. Limerick) the motte carried a polygonal keep surrounded by a ring wall (see Sweetman 1999, 85; Leask 1941, 11, 41-42). At Athlone (Co. Westmeath) secondary development of the motte had

a revetment in stone and a polygonal keep on top (Sweetman 1999, 85-86; Leask, 42-43). Renn (1968, 1973) mentions other possible ring-walls on mottes in Co. Westmeath, at Ardmurcher, Athlone and Kilbixie: these, too, may have enclosed a *donjon*.

The "differentness" of Scotland and Ireland with respect to shell-keeps may be explained partly by the independent traditions of castle-building which developed there. It has usually been argued that those traditions were more prevalent after *circa* 1300 and that both countries shared many English and Welsh castle-building forms before that date. Moreover, large numbers of mottes - the basis of shell-keep development - were built in both Scotland and Ireland. Thus, we might have expected the shell-keep - which flourished in England in the 12th-13th centuries - to have been equally popular in Scotland and Ireland. Richard Oram (2008) has recently suggested, however, that distinctively Scottish traditions of castle design developed at an earlier date and that less reliance should be placed on the importance of "English models". Another relevant factor may be the different histories of motte use in Scotland and Ireland compared with England and Wales. It has long been recognised that in both countries the occupation of mottes, newly-built or rebuilt in traditional form with *timber* superstructures, continued into the 14th century whereas in England (allowing for late survival of individual examples) this practice had faded away at an earlier date (for a brief discussion of the Scottish and Irish evidence, see Higham and Barker 1992/2004 /2012, 139-143). So the eventual distribution of shell-keeps may simply mean that castle-builders in England (and to a limited extent in Wales) chose to develop the use of motte-tops in a distinctive way whereas their counterparts in Scotland and Ireland continued to use them in older fashions.

3. Definition

Although different authors have construed "shell-keep" differently, in order to proceed with more detailed analysis we should establish clearly *what we mean* by the phrase. As noted earlier, the medieval terminology itself does not help us. While many writers, from Clark onwards, have been happy to use the term, at least one thoughtful commentator (King 1988, above) expressed doubts as to its usefulness. It seems, to the present author at least, that it is not helpful to use the term to embrace all forms of motte-top structure (or motte-ringwork hybrid equivalent) which simply had some "surrounding wall" quality.

While the notion of "replacement of timber with stone" is helpful in some ways (but see below on the specific difficulty in demonstrating it) the implication



Fig. 29. Plympton Castle. Devon. Detail from a 1540s map of the area around Plymouth and Plympton. Reproduced courtesy of and © The British Library Board, Ref: Cotton, Augustus. I, I, fol. 39.

of the argument is that we might call a motte palisade (as excavated at Abinger, for example) a “timber shell-keep” since it fulfilled exactly the same function in relation to the timber tower which it surrounded as did the stone walls which surrounded stone towers on some other mottes (see above) and which some commentators have called shell-keeps or “sorts of shell-keeps”. The choice of building material in castles - whether timber, stone, or a mixture of both - was affected by a whole range of circumstances, but what builders sought to achieve was a broadly identical range of building functions (see Higham and Barker 1992/2004/2012).

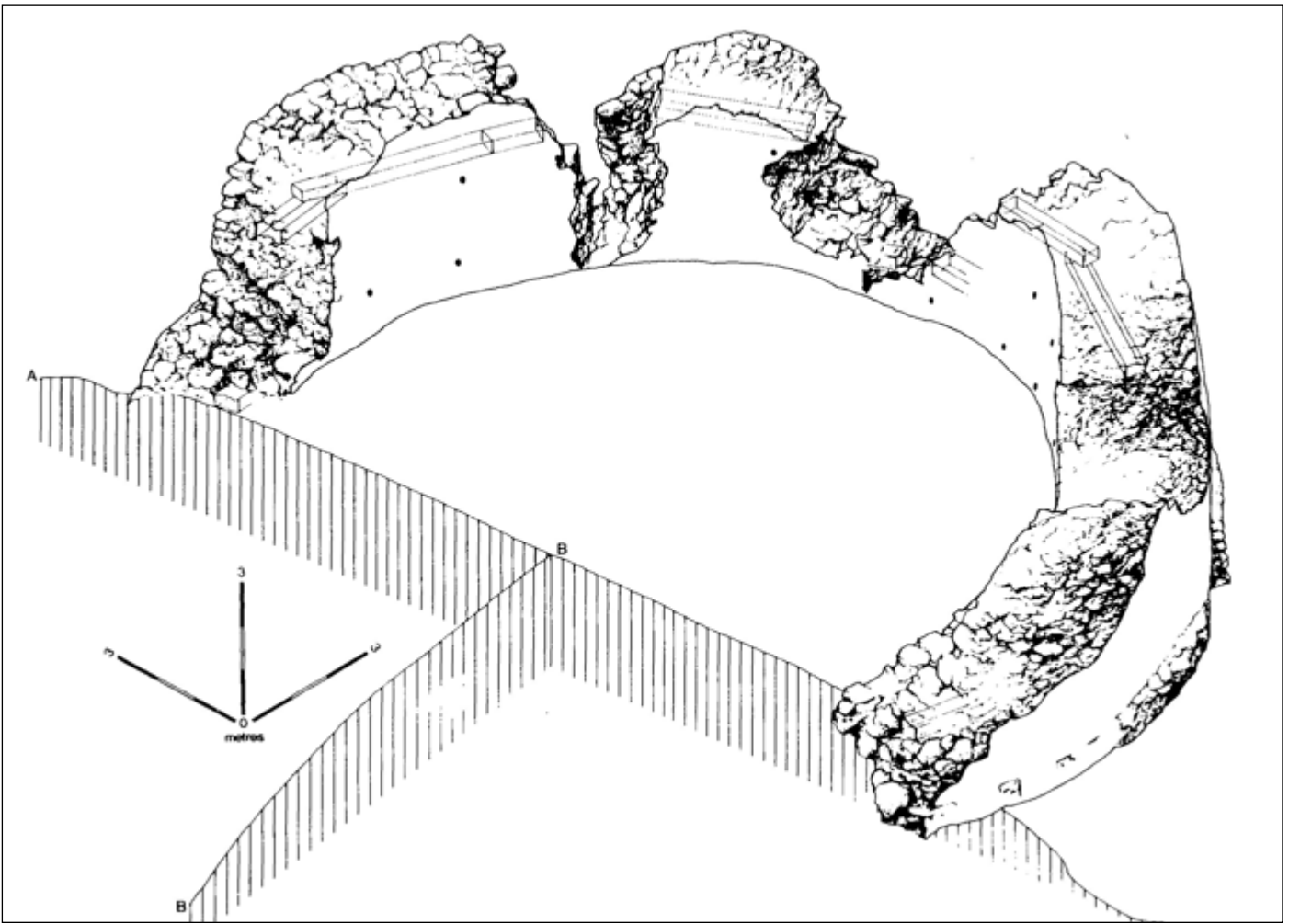
It seems (to me) that, if we are to seek some meaningful analysis of form and function and identify something distinctive about the “shell-keep”, then we should really leave motte-top *donjons* (whether of timber or stone) with surrounding walls (of either material) out of the discussion. Such sites, while certainly perpetuating the importance of mottes and the emphasis on raised building sites as a reflection of both defence and social status, have more in common with other *donjons* - that is, those not built on mottes - when it comes to analysis of their architecture, domestic planning and general symbolism. The exception may be allowed when - as at Launceston - excavation or building analysis suggests that the surrounding wall pre-dated the *donjon* within, so that



Fig. 30. A near contemporary drawing by Matthew Paris (d. 1250) of the keep and tower of Bedford Castle during the 1224 siege. From: *Chronica Majora*, II, fol. 64r. Reproduced by kind permission of the Master and Fellows of Corpus Christi College, Cambridge.

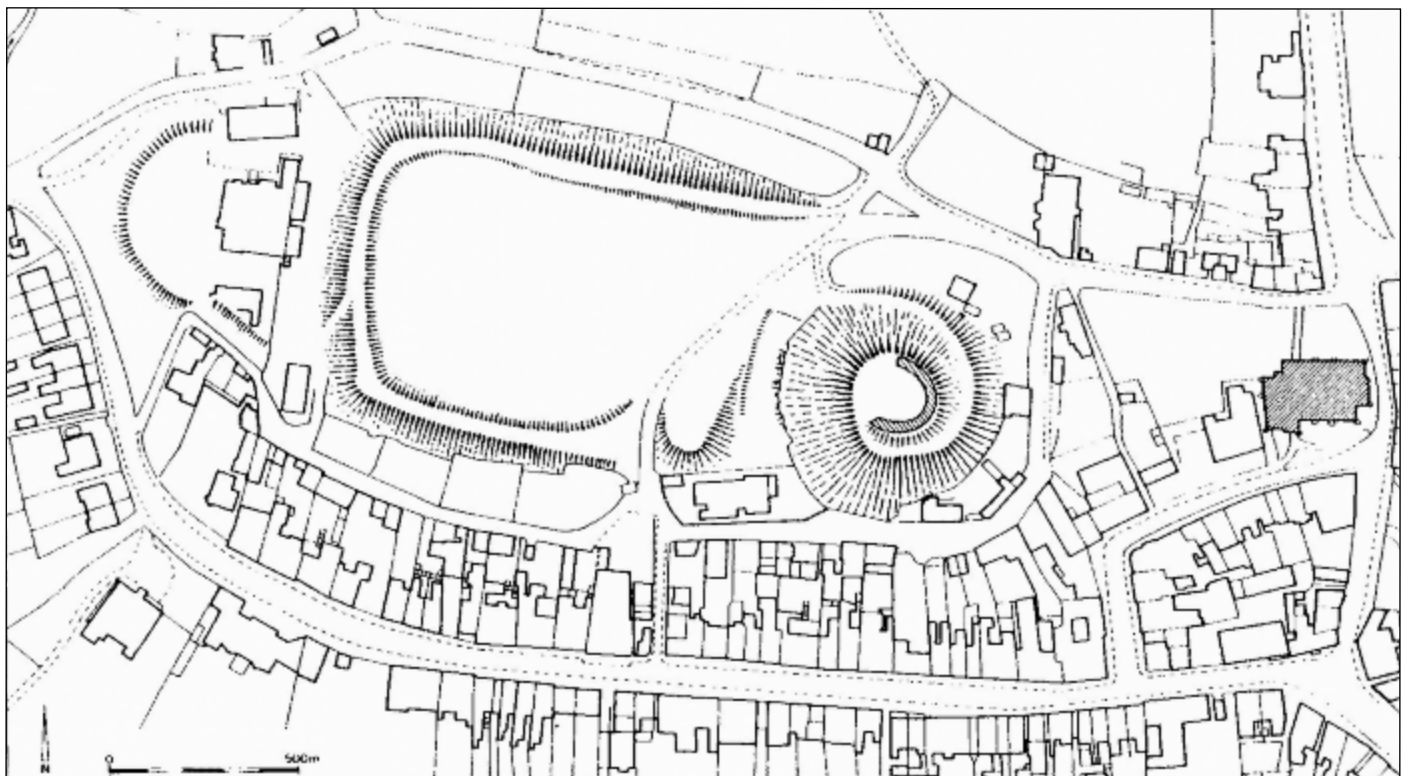
initially it was the surrounding wall (and whatever accompanied it) which was important: here we *may* infer an earlier shell-keep though it is possible that the extant surviving central *donjon* may have replaced an earlier, similarly located, tower and that the overall plan had always been a multiple structure.

This is not to understate the importance of the motte-top *donjon* inside a surrounding wall: this was clearly an important variation on the theme of motte use. It was illustrated in the 13th century by Matthew Paris, in whose *Chronica Majora* there is a picture of Bedford motte (figs. 30, 37), with a crenellated wall surrounding a crenellated (and off-centre) round tower (Petre 2012, 31). With this manuscript illustration a caveat should be noted. Paris did an almost facsimile copy when depicting Lincoln (Lucy Tower) where there is no evidence for a motte-top *donjon* (fig. 38, and details in the *Catalogue*). Hence we cannot be certain of the accuracy of *any* of the medieval depictions, and there is a possibility, as with the Bayeux Tapestry, of stylization. In a 16th-century depiction of Plympton (fig. 29) such a double-structured motte is shown, and something similar may have existed at Barnstaple (fig. 80) (Higham *et alii* 1985). At Tutbury (Staffs) a cylindrical *donjon* surrounded by a hexagonal (?) mantlet wall around the motte edge is shown on a drawing of around 1562 (fig. 39). This double structure was replaced in the late 18th century by a



ABOVE: Fig. 31. Plympton Castle. Isometric projection of motte top from the south west with motte profiles. Reproduced courtesy of the Devon Archaeological Society.

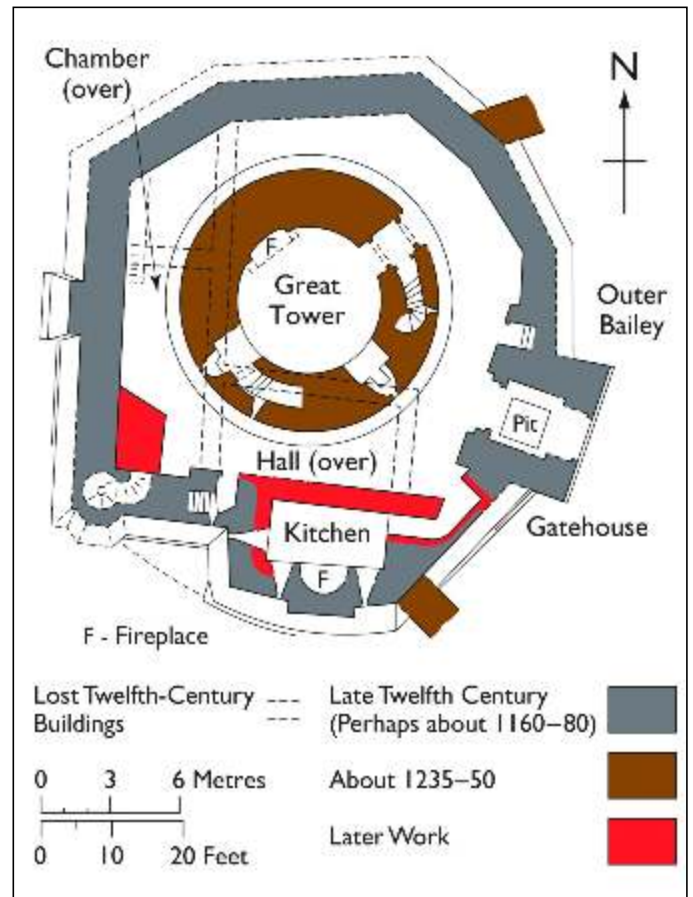
BELOW: Fig. 32. Plan of Plympton based on the OS map of 1:25,000 map with church of St Lawrence shaded.





ABOVE: Fig. 33. Launceston Castle, showing the later circular donjon within the earlier outer shell-wall. Image © Author.

BELOW: Fig. 34 Left: Tretower Castle. Image © Neil Guy. Right: Fig. 35. Tretower - ground plan, from Radford, 1969. © Crown Copyright (2015), Cadw. Reproduced with thanks. See the full entry in the Catalogue.



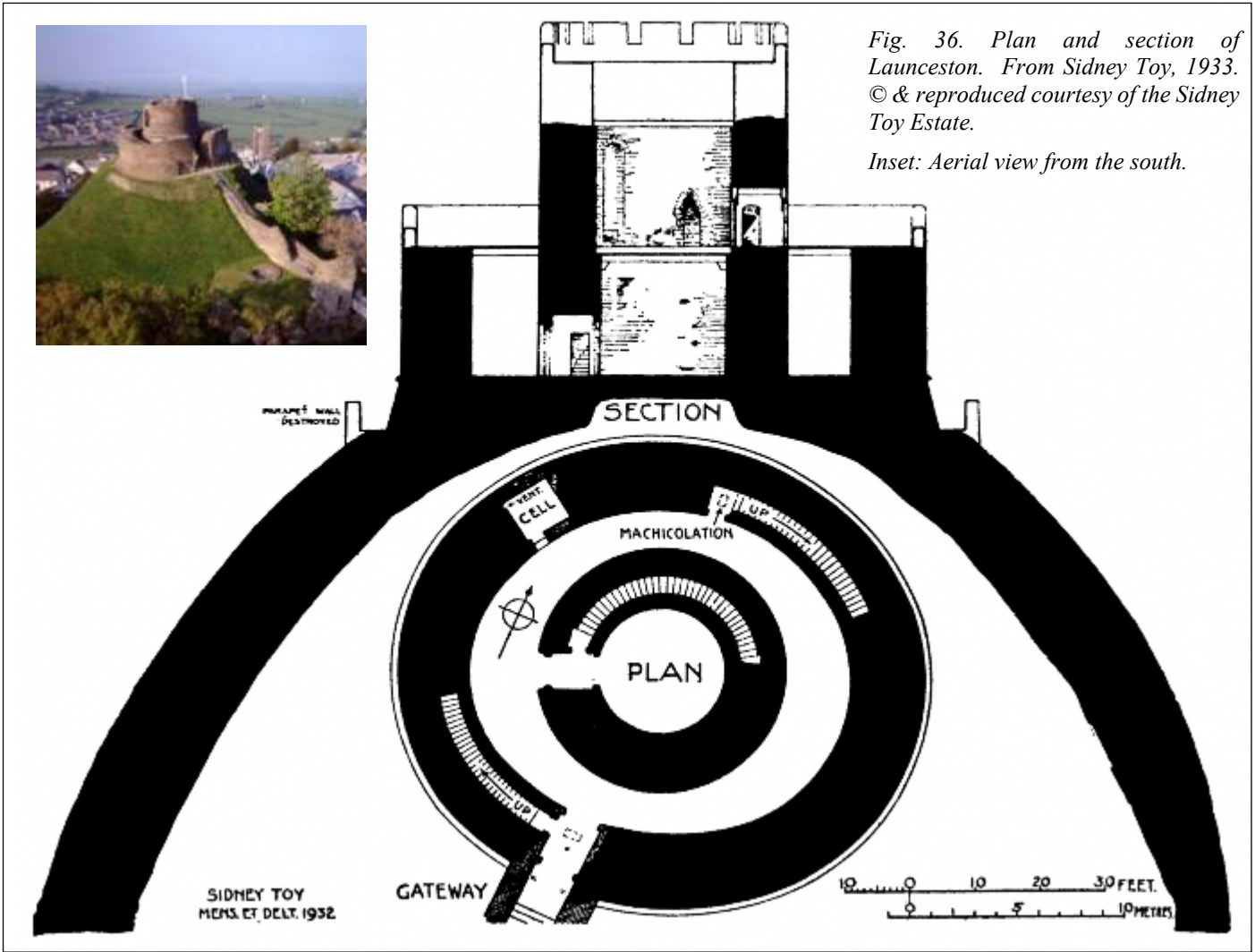
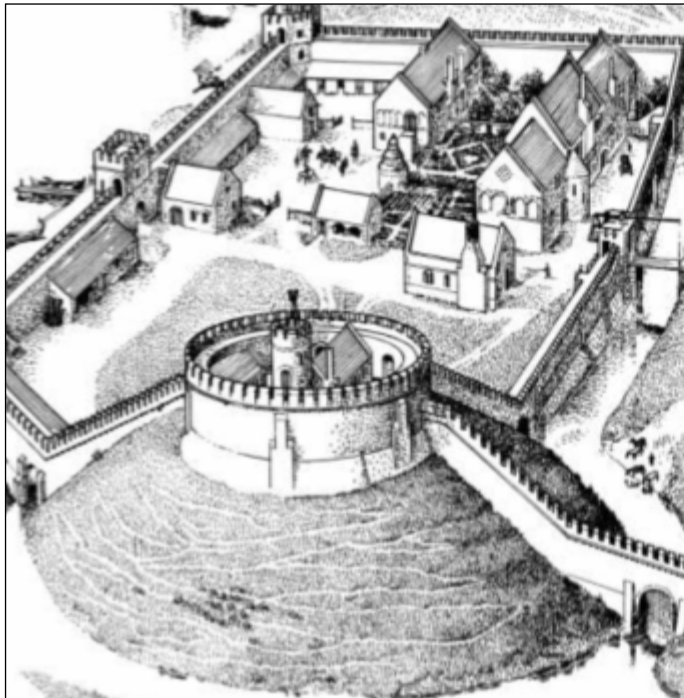


Fig. 36. Plan and section of Launceston. From Sidney Toy, 1933. © & reproduced courtesy of the Sidney Toy Estate.
Inset: Aerial view from the south.

BELOW: Left. Fig. 37. Bedford Castle: (detail). Reconstruction of Bedford Castle as it may have appeared at the time of the Great Siege of 1224. Image © Peter Froste. Reproduced with thanks. See James Petre's Castles of Bedfordshire, p. 31

Right. Fig. 38. A near contemporary sketch by Matthew Paris (d. 1250) of the keep and tower of Lincoln Castle during the 'Battle of Lincoln', 1217. From: Chronica Majora, II, fol. 55y. Reproduced by kind permission of the Master and Fellows of Corpus Christi College, Cambridge.



folly (Hislop *et alii* 2011, 132-134, 168-174). In its eventual (and surviving) form Launceston (Cornwall) is a vivid reminder of the power of this type of image in the mid-thirteenth century (Saunders 2006) (figs. 36, 40). It has been discussed more generally, in the context of the career of its builder, Richard, Earl of Cornwall, and of wider castle-related issues (Higham 2009-2010). Other examples of this *donjon*-in-ring-wall category are Tretower (Brecon, in its later phase), (figs. 34, 35) and Southampton, where a circular tower may have been inserted in a shell-keep in the late 14th century (Oxley 1986, 114-117), (figs. 41, 42, 43). The form was probably common, in a mainly 13th-14th century date-range.

But for the purpose of this analysis, from this point onwards the “shell-keep” is taken to mean a motte-top with enclosing wall and domestic buildings against the whole or part of its inside face, leaving an open, central courtyard. In some cases, buildings may also be free-standing within the enclosed space. For the most part - occasional gabled buildings may have created the exceptions - domestic roof-lines were no higher than the surrounding wall. This last point should be a significant element in our discussion of shell-keeps: it is what makes such a motte-top very different from one with some sort of tall *donjon*.

The two categories presented very different sky-lines to the viewer, both from outside the castle and from within any associated bailey: the first presented the two-tier image of a central tower rising out of its surrounding wall, whereas the second presented (mainly) a one-tier image of an enclosure with crenellations (though these may not always have been apparent – see below). They also embodied different approaches to defence and domestic accommodation, with potentially different messages in the details of symbolism.

Of course, it may be objected - reasonably - that medieval castle designers will always end up defeating our efforts at categorization: because at some places the shell-wall had towers (Lewes and Farnham) or even a small laterally-placed *donjon* (Tamworth). I think it nevertheless remains true that we should stick to a specific use for the term shell-keep: the essential feature should be internal buildings at least some of which are ranged against the inside face of



Fig. 39. Tutbury Castle. George Vertue's 1733 engraving of the Duchy of Lancaster original surveys of the 1560s. Originally published in *Vetusta Monumenta*, Vol. 1. Pl. 39. by the Society of Antiquaries of London.

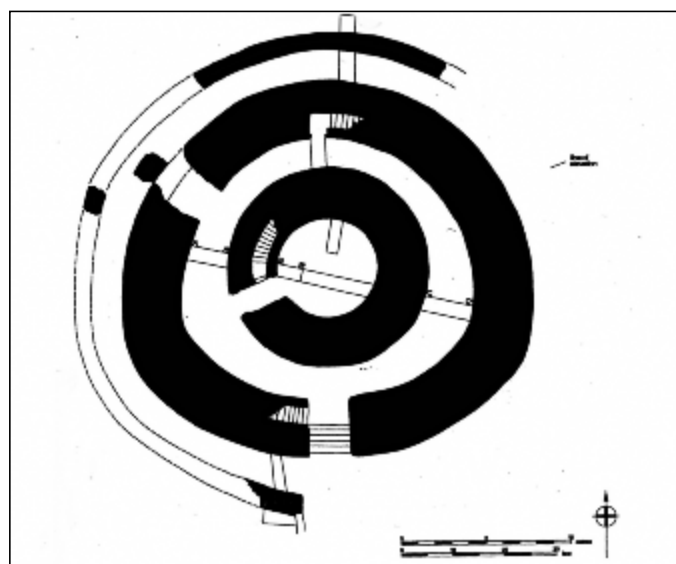
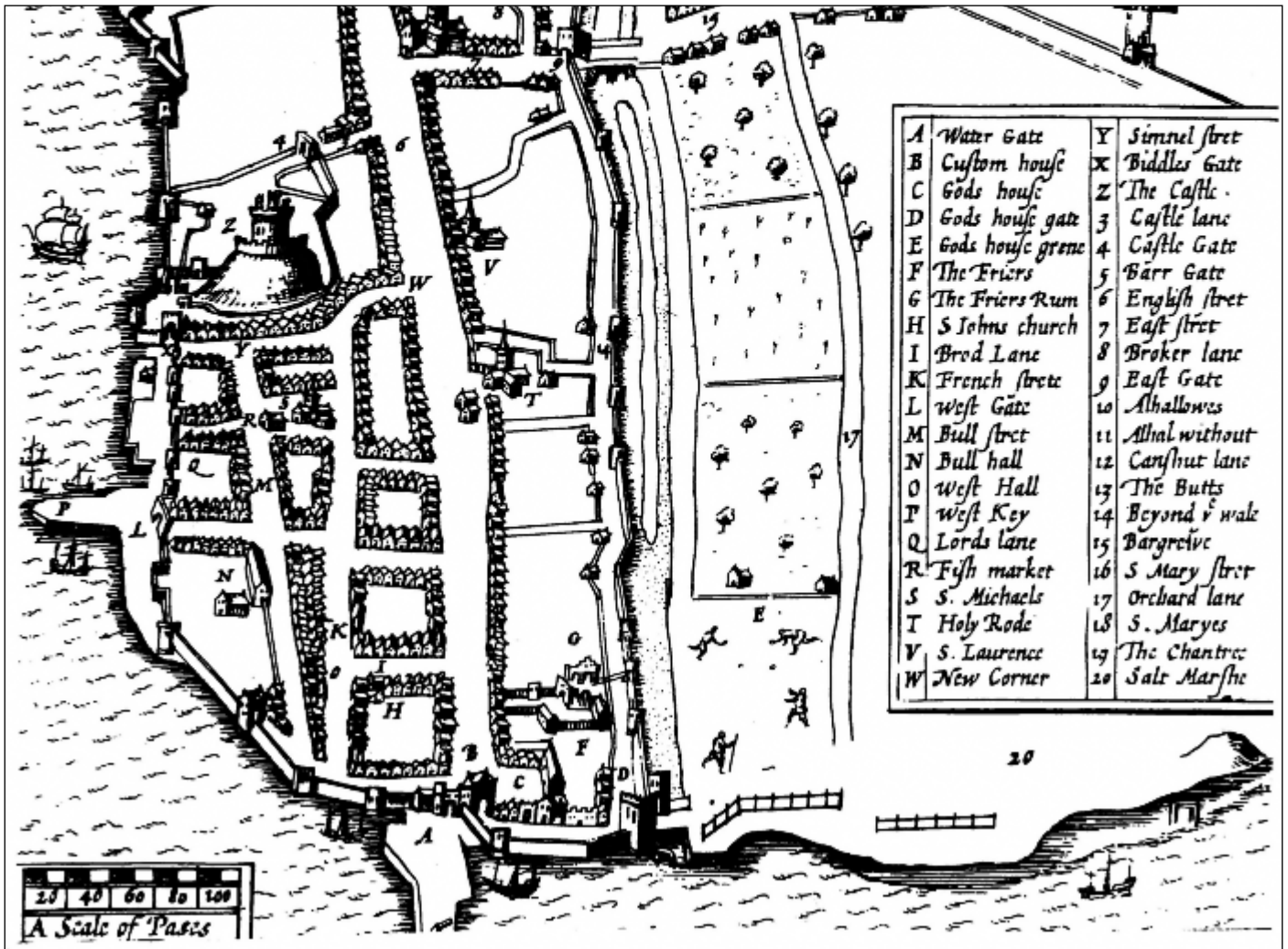


Fig. 40. Launceston Castle shell-keep and donjon: from Saunders, 2006. © Society for Medieval Archaeology. Reproduced with thanks.

the surrounding wall. In this form, there is a (normally) one-tier sky-line, a central open space and only rarely (see below) windows through the surrounding wall. In the other forms, there is much greater variability on all counts and they have been too often drawn into the shell-keep category through use of analogy that is so generalised as not to be helpful.

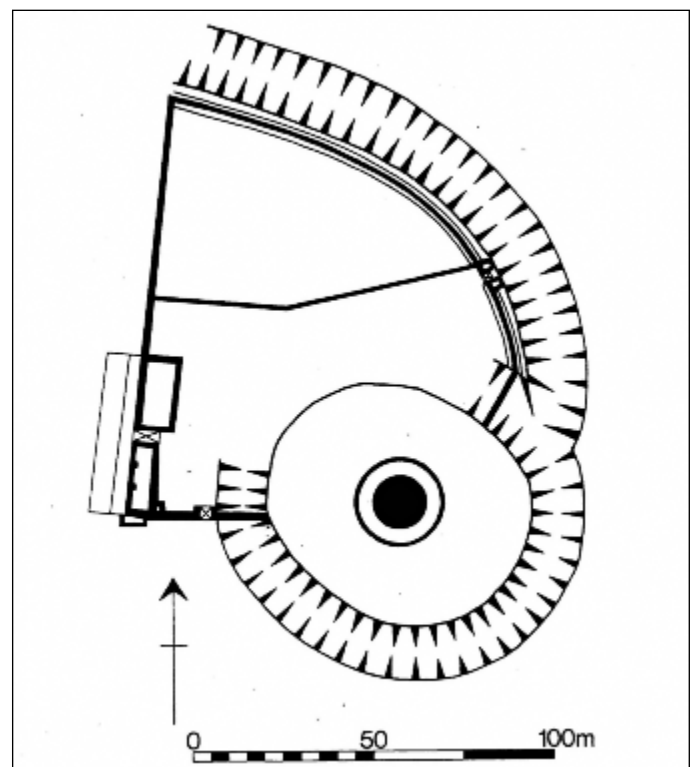
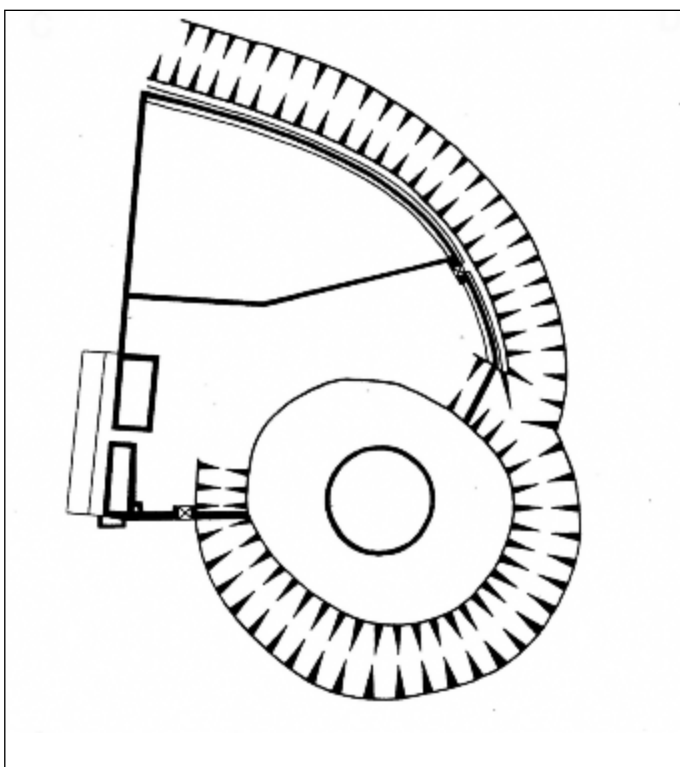
4. The timber-masonry transformation

The idea that shell-keep design emerged from the transformation of timber-built mottes to stone-built ones is embedded in the historiography of the subject (see above). It is an appealing idea. But it is an idea which is not based on significant primary data, documentary or archaeological. No medieval written source (known to me: see Higham and Barker



ABOVE: Fig. 41. Detail of John Speed's map of Southampton, 1611. (Part of the Isle of Wight map).

BELOW: Left. Fig. 42 & Right. Fig. 43. Suggested sequence of the development of Southampton Castle. Left: By the late 13th century. Right: By the late 14th century. (Donjon inserted into the C13 shell). Plans from Oxley, 1986, p. 115). Reproduced by kind permission of John Oxley.



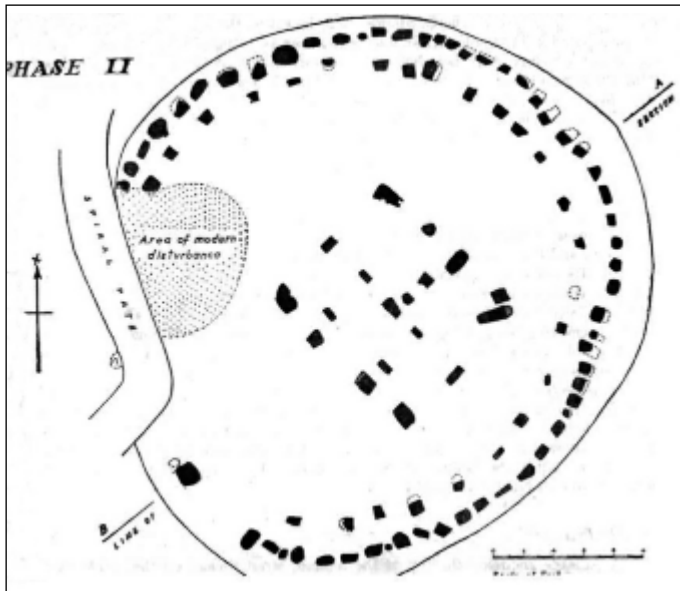


Fig. 44. Abinger motte. Hope-Taylor 1950. Example of an excavated motte top with clear evidence of a palisade. By kind permission of the estate of Dr. B. Hope-Taylor

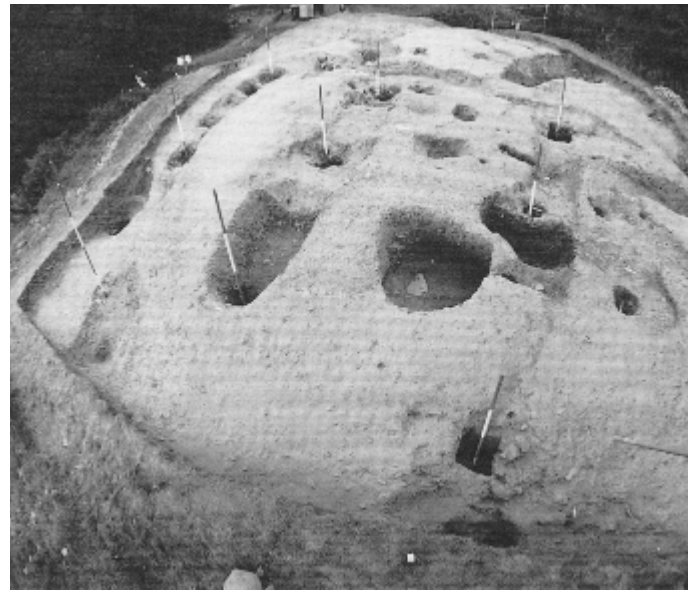


Fig. 45. Hen Domen, Montgomery. Example of an excavated motte top without clear evidence of a palisade. From Higham & Barker 2000.

1992/2004/2012, Chapter 3) describes a timber motte-top planned in the manner of what we call a shell-keep nor describes the masonry re-building of a timber motte-top in the manner of a shell-keep. At no motte-top (known to me) has excavation or building analysis demonstrated such a masonry re-building from a timber model. The hypothesis rests rather on two sorts of evidence.

First, we know from some documentary references that mottes could have a palisade around their circumference. The classic example is *Merchem*, in the Low Countries, described soon after 1130 (Higham and Barker 1992/2004/2012, 118). Here, we are told, a timber wall on a motte enclosed a *domus* or *arx*: but the implication is that this was free-standing. So, when we see a stone wall encircling a motte, it is easy to *imagine* it having replaced a timber predecessor.

Second, we know from excavation, especially at Abinger in Surrey (Hope-Taylor 1950) (fig. 44) and Clough in Co. Down (Waterman 1954) that some mottes indeed possessed such palisades. That actual re-building in stone has virtually never been observed, in places where excavation has been carried out, is usually explained by the assumed destruction of the timber palisade foundations arising from the stone wall having followed the same course. Thus, for example, at Totnes a timber predecessor of the stone wall is normally assumed because excavation revealed an early timber tower (on stone footings): but no specific evidence for this putative early timber wall survived (Rigold 1954). Only at Windsor (Kerr 1990) and Launceston (Saunders 2006) have any (and few

in number) timber foundation features preceding the shell-keeps been discovered in excavation, and what these represent is by no means clear.

The problem with the timber-to-stone replacement hypothesis, however, goes further than the general lack of its clear demonstration. It should also be noted that only a few excavations of timber-built mottes have produced clear evidence of palisades around their summits: that at Hen Domen in Powys produced no such evidence (Higham & Barker 2000) (fig. 45) and many other examples also lack this feature (Higham & Barker 1992/2004/2012, Chapter 8). Even if true, however, what this timber-to-stone process would give us would be simply a stone wall around the perimeter of a motte-top, enclosing a free-standing building or buildings just as a timber palisade had earlier done.

Thus we arrive at the “stone *donjon* with surrounding ring-wall” sort of motte-top: it is in *this* category, rather than the integrated shell-keep, that the traditional idea of a timber-into-stone transformation makes sense. On the basis of known timber models, what we do not arrive at is what we should regard as the classic shell-keep: a surrounding wall with buildings integrated into and built against its inner face. For this sort of plan, there appears to be no timber precedent or parallel in available motte-top archaeological evidence. Given, however, the hundreds of mottes which exist compared with the small number from which excavated data is available, it may simply be that such plans in timber still await discovery: so pedantry on the point is unwise.

It is also useful to speculate - and I see no way of going beyond speculation on this point - about what influenced the manner in which a castle-owner decided to redevelop a motte top: either as a ring-wall and tower or as an integrated shell-keep. Possibilities might include the following: some regional fashion (as has sometimes been suggested in south west England); consideration of the size/shape/stability of the motte top and how much alteration this might require; whether or not the motte-top was intended to be a self-contained area or dependent on facilities in an adjacent bailey. A very important influence was the summit area of the motte (as built, or as increased by truncation and lowering of the motte) since a shell-keep required more space than the limited top of a small, conical mound.

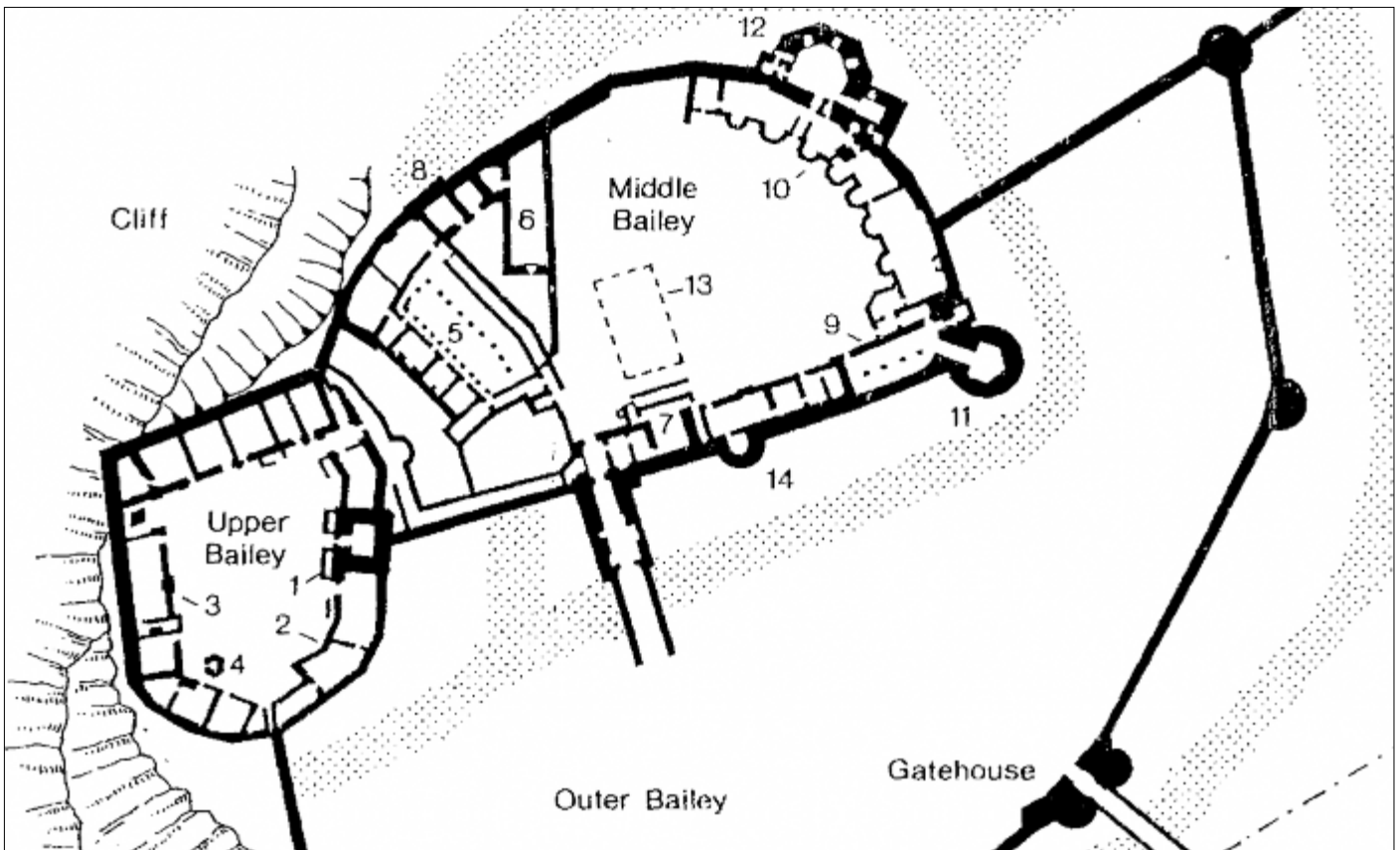
Taking a strict view of the evidence, we must allow that our classic shell-keep might combine some timber-to-stone replacement (of palisade by masonry wall) but with a new idea about the domestic planning not drawn from timber-built motte antecedents: it was either a wholly new idea, or drawn from elsewhere in the repertoire of castle-planning. An important factor (suggested to me by Neil Guy) may simply have been the need to foresee - and prevent - a major threat to a castle, that is, fire hazard. In the case of a timber castle, it would make sense to keep all structures separate, to limit the spread of fire: thus, a timber palisade, where built, might be more likely to surround a free-standing *donjon*. But where the perimeter was a thick masonry wall, the spread of fire would be less of a threat and domestic buildings could be placed directly against its inner face. It must, however, be noted that in the case of timber-built baileys (as at Hen Domen and Sandal) this fire issue had not prevented the placing of structures against the inside face of the bailey perimeters.

A few commentators (Thompson 1912 for the form in general; King 1988 for the encased motte variety) drew the analogy of the shell-keep with small, elevated wards or baileys whose buildings are ranged against the curtain wall and around an open space. Most 20th century ideas, however, were firmly wedded to the “timber-to-stone replacement theory” of *motte* antecedents but neglected an alternative explanation of *bailey* antecedents: that the classic shell-keep marked the translation to the motte-top of a practice already found in the planning of timber-built baileys. Baileys excavated at Hen Domen (Higham & Barker 2000) (fig. 75.5), Sandal (Mayes & Butler 1983) (fig. 75.1) and elsewhere (see below) display the peripheral planning - of domestic struc-

tures built against (and joined to) the perimeter wall - as we find in a classic shell-keep. In the lay-out of some baileys of masonry construction, analogy is also evident: Faulkner (1958) identified buildings against curtain walls as one form of 12th-14th century castle-planning. A most informative case is the royal castle Nottingham, where the late 12th-century upper bailey was created from the site of an earlier motte which had been fashioned from natural rock rather than from earthwork (Brown, Colvin, Taylor 1963, II, 755-765) (figs. 46, 47). Its domestic buildings (now destroyed, but shown on a plan of 1617) were arranged in a tightly-planned circuit around an open courtyard, with a modest lateral, rectangular *donjon* (with chapel), and “enclosed by a curtain wall in the form of a *shell-keep*” (Drage 1983; Drage 1989, 39-40; plans, reconstruction drawings, model illustrations, *passim*). At Wigmore and Clifford (Herefordshire) mottes created by enhancement of natural topography carry small, elevated inner wards which have sometimes been referred to as shell-keeps but which are otherwise not planned like the sites described in this study. Not far away, Snodhill (see plan in RCHM(E) 1931, 212-213) is another site sometimes called a shell-keep. But here, the structure - recently cleared of vegetation - is so small that a single, roofed structure is more likely.

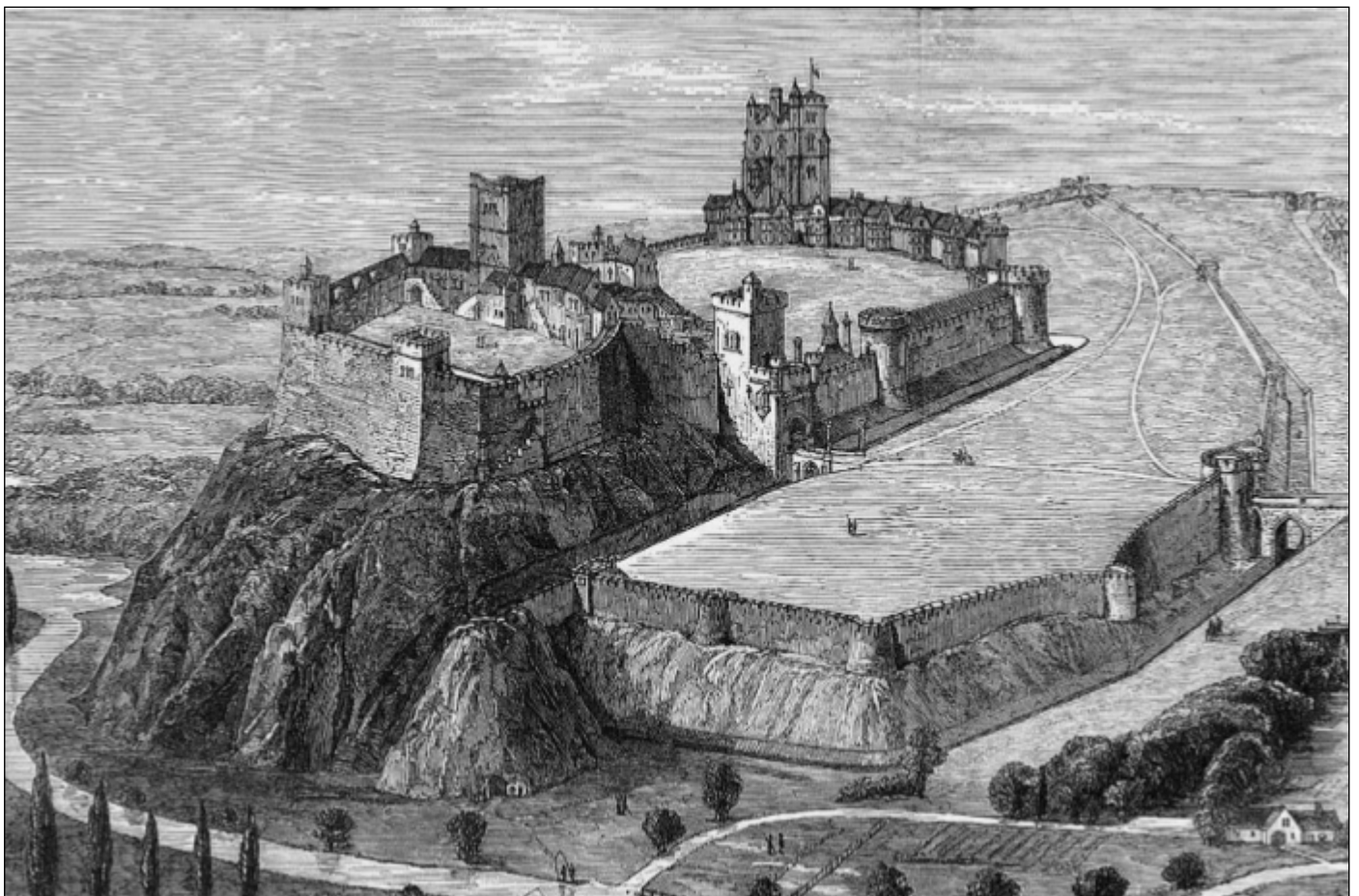
5. Domestic and defensive planning

In extension of this idea of the analogous nature of integrated shell-keeps with certain sorts of bailey planning (and, for that matter, of the planning of some ring-works) the present discussion is sub-titled *The Bailey on the Motte*. In the case of baileys, we expect to find a full array of domestic facilities available: accommodation (in hall-chamber format, and perhaps individual lodgings) whose units may be distinguishable in terms of status by their size and details; kitchens and other ancillary structures; a chapel. In the case of a *donjon* (whether on a motte or not) all or some of these facilities may be available, according to the size of the structure. So, an important way in which the evidence presented by shell-keeps needs to be addressed is to judge the extent to which they were self-contained and, in contrast, the extent to which their occupation was, in practice, dependent upon facilities found in an adjacent bailey. Upon this distinction depends, to a considerable degree, the issue of whether the shell-keep is to be seen - in relation to its bailey - as “more of the same (and repeating what the bailey provides) but elevated (in status as well as physically) and totally private” or simply as “more of the same, using space too valuable to abandon, but integrated with and dependent upon, the bailey buildings”.



ABOVE: Fig. 46. Nottingham Castle plan made by architect John Smythson in 1617. From Drage, 1983. The illustration was drawn by Richard Sheppard of TPAT (Trent & Peak Archaeological Trust). Reproduced with thanks.

BELOW: Fig. 47. Nottingham Castle. Reconstruction of the likely appearance of the castle in the late medieval period. Wood engraving in James D. Mackenzie, 1896.



Fundamentally, shell-keeps deserve to be rescued from a common generalisation, along the lines of: “they contained domestic accommodation and related facilities, protected by a surrounding wall with a defensible wall-top”. For many years, this sort of comment has no longer been sufficient in castle studies.

In studying free-standing and motte-top *donjons*, baileys and gatehouses, we have sought to analyse the nature of accommodation, to identify room functions, to observe the relative status of rooms, to distinguish suites of rooms from individual ones, to categorise the basic building blocks of domestic planning: halls, chambers, lodgings, kitchens, chapels, store rooms and so on. If we are to make progress in understanding shell-keeps we must address this same analytic task.

It is unfortunate, however, that while fragmentary evidence for shell-keeps is extensive, the number of sites sufficiently well-preserved for such analysis is quite small. At some places, foundations on mottes have been, at different times, identified either as representing a free-standing *donjon* or a shell-keep: for example, Tickhill (Yorkshire), which has remains of an eleven-sided polygonal structure, sometimes called a shell-keep but equally probably a roofed *donjon* (Renn 1968, 322-323) (fig. 48). There are many places where the evidence is fragmentary and (in our context) unhelpful: they have virtually no surviving features on the internal face of the surrounding wall: this means we cannot know whether they were integrated shell-keeps, whether their walls surrounded free-standing towers, or whether they may have evolved from one form to the other. Even at some sites with considerable survival of fabric, the fabric is not necessarily informative about internal planning. Thus, for example, a well-known site omitted from the *Catalogue* is Plympton (Devon). Here no indication at all survives of internal domestic structures, and, while the site could originally have been a shell-keep, there is an equally strong possibility that the wall’s eventual – or even, only – purpose was to enclose a circular *donjon* (Higham *et*



Fig. 48. Tickhill Castle. George Vertue’s 1737 engraving of the Duchy of Lancaster original surveys of the 1560s. Originally published in *Vetusta Monumenta* Vol. 1. Pl. 46. by the Society of Antiquaries of London.

alii 1985). Many other places, mentioned at various points in the foregoing discussion, do not figure in the *Catalogue* for similar reasons.

The case of Berkhamsted (Herts) presents a different sort of issue: a site long-regarded as a shell-keep but whose recent reappraisal suggests

was probably not. It is worth commenting on this in some detail, as there is a significant methodological lesson to be learned here. Just as reappraisal of “formerly-well-understood” structures has dramatically enhanced our understanding of castle *donjons* in the last twenty years, we must allow that some at least of our “shell-keeps” have been misinterpreted - and here I mean in site-specific terms, rather than in the overall way suggested by this article - and that they will be reinterpreted to better effect through - as *donjons* have been - the availability of new evidence and re-examination of old evidence that was considered “understood” (fig. 49).

The large motte and bailey castle at Berkhamsted may have been a royal foundation but was soon the property of Robert of Mortain, passing thence (but sometimes in royal hands) to the earldom and (later) duchy of Cornwall. The earliest castle reference was in 1104 (to its chapel). Stone foundations on the motte top were said to represent a shell-keep long ago (VCH 1908, 165-170) and the site has since been much quoted as such. The structure, 15m in diameter with two external buttresses and walls 2.5m thick, was connected by wing walls (one massive and probably bearing a stairway) to the bailey curtain. It had a well inside and a forebuilding at its entrance. Expenditure on buildings on the motte occurs in 1157-58, 1213-14 and 1269. According to Dunstable’s annalist, in 1254, earl Richard of Cornwall - for whom the castle was a favoured residence - built a three-storey tower with lead roof. Though its location was unspecified, it was probably on the motte. Surveys made in 1227 and 1337 reveal much dilapidation of the whole site, including “the great tower” - presumably earl Richard’s structure and

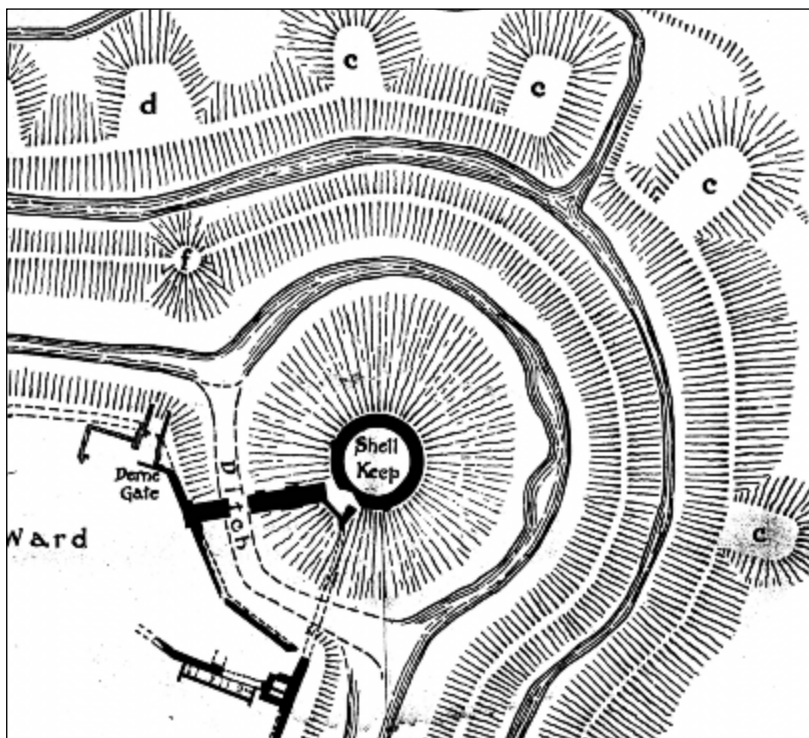


Fig. 49. Plan of Berkhamsted Castle (detail), VCH Vol. II, 1908.

on the motte - whose walls were split and in need of a new roof. The castle never recovered its 13th-century glory; by Leland's day it was ruined.

Although sometimes quoted as a shell-keep (Brown *et alii* 1963, II, 561-563), evidence discussed in the most recent study of the castle (Remfry 2009, revising Remfry 1995) casts serious doubt on this interpretation. The fragmentary remains cannot be satisfactorily reconstructed. Apart from the well, only one internal domestic detail (a fireplace) survived the structure's collapse. Where in the site's building history the remains belong cannot be demonstrated, but they are more likely to be the 13th-century structure built by earl Richard than its 12th-century predecessor. How much of this structure (and its predecessor) lies buried within the motte, and whether it was built on the motte or whether the motte was piled around it, is unclear (fig. 49).

Whether any motte structure here was ever a shell-keep at all must remain an open question. The 12th-century structure is unknown and the 13th-century one was probably a single tower rather than a shell-keep. This is indicated not only by the "three storey with lead roof" reference of 1254, but also by the excavations of the 1920s/1930s which discovered part of an octagonal pillar, with a base diameter of 1.5m, which was presumably the support for a vault. Another open question is whether - as at Launceston, another of earl Richard's castles - the tower of 1254 may have been built within an earlier shell-keep to produce a double structure.

6. General characteristics

Some general observations may be made (see the *Catalogue* for full descriptions and illustrations). Measurements are those given in published texts or taken from published plans. It is clear - perhaps unsurprisingly - that in one respect shell-keeps were comparable with other forms of castle design: they were built in various sizes and with varying degrees of defensibility, domesticity and architectural sophistication. They had some common characteristics but were not built "to a pattern". Individuality was important.

a) Shapes: the only truly circular (and radially-planned) site is Restormel (fig. 54), which (with its other atypical characteristics, notably the fact that it does not sit on a motte top) means it should be considered in the wider context of European circular forms (see *Catalogue*, and Conclusions below) rather than in the

(generally) English context of shell-keeps. The shell-keeps proper were normally distorted circles, ovals, or polygons of either regular or irregular form. Amongst the polygonal plans, Lincoln and Wiston had 15 sides; Carisbrooke and Cardiff had 12 sides; Farnham had 20 faces between its buttresses; Windsor had 12 faces between its buttresses; Tamworth had numerous (at least 12) faces of unequal length; Durham (pre-1830) was octagonal in plan. A significant issue in analysing the significance of shell-keep shapes is our not knowing for certain the shapes of the motte summits on which they were built *at the time when they were built*. It is possible that these irregular circles, ovals and polygons were more influenced by contemporary motte shape than is now apparent from the (frequently) eroded or recently-consolidated forms of the mottes.

Another influence may have been the need to fit buildings against their internal faces: easier to do with the "straight" stretches of a polygon or the longer curves of an oval. Indeed, at some of the more oval-shaped sites, the shell-wall exhibits a distinctly "straight" stretch (as at Carisbrooke, Tamworth, Trematon, Tretower and perhaps Lincoln) which presumably reveals the location of a main building range, perhaps a hall. Whereas in some church-building traditions, circular towers were built when ashlar stone for quoins was scarce, this determinant seems not to be relevant to shell-keeps. Here, ashlar was employed in doorways, buttresses, angles of polygons and elsewhere.

b) Heights and wall-tops:

at some places this is unknown (insufficient fabric). At Berkeley (fig. 50) and Farnham, height is enhanced because the masonry encloses the motte as well as rising above it: even so, both were very tall in the latter dimension (approx 40ft and 35ft). Where fabric survives to wall-walk level, heights above the interiors were commonly from 20ft to 30ft (approx 6m - 9m). Evidence, especially Arundel, Cardiff, Carisbrooke, Lincoln, Totnes, Restormel, Tamworth, and Trematon, suggests that wall-tops always had wall-walk and parapet with battlements. Access was normally from stairs within shell-walls, either from domestic buildings or from courtyard space. Many internal structures had two storeys, though single storey ones also occur and, where mural towers or gatehouses occurred, a third storey might occur.

c) Areas: in his excavation report on Totnes (1954, 233), Rigold compiled a list of some twenty sites, mainly in England, and graded them in twelve categories of size (by diameters). These categories ranged from the broadest (Farnham), through other large examples (including Berkeley, Restormel), to middling sizes (including Windsor, Lincoln, Totnes, Lewes, Trematon, Pickering, Arundel, Carisbrooke, Clare (figs. 25-27), and thence to smaller ones (Launceston, and - excluded from the present *Catalogue* for reasons explained above - Berkhamsted (fig. 49), Barnstaple (figs 11, 12), and Plympton (figs. 31-32). His quoted diameters were, by his own admission (his sources of data not stated) approximate, and he knew that these sites were generally not circular, so that a single diameter was only partly revealing. He thus made the only recorded whimsical observation (at least in print, and known to the present author) about shell-keeps, for which he deserves much credit. "The figures, in feet", he wrote, "are very round, because the keeps themselves are not".

Approximate in its nature though Rigold's exercise may have been, it was useful in indicating overall range and in identifying a hierarchy of size. In refining this exercise, the present study has taken measured data from published plans, which do not always agree with



Fig. 50. Berkeley Castle. Shell-keep, N-E side, over 40ft high. Three cruciform 'arrow slits' visible on or adjacent to the lobed towers. See (o) 'Defensive features'. Image: Neil Guy.

Rigold's measurements in detail, though the differences do not affect the overall outcomes in terms of range or hierarchy. Actual data for internal diameters are given in the *Catalogue* as both imperial measurements and metric equivalents. In what follows, only (rounded) imperial measurements are quoted since they bring us closer to the work of the craftsmen who built these structures. Two emphases emerge: first, their size range; and second, their non-circularity. Where

two measurements are given, the ovalness of plan is clear. Where just one measurement is given, only at Restormel does it reflect true circularity. Elsewhere it reflects irregular or multi-faceted circularity. Guildford, and Warwick are excluded as they are too fragmentary for measurement.

The other sites in the *Catalogue* can be ranged as follows, but it will be observed that, in reality, there is some *continuum* in the size range. The one non-extant site for which there is good data (Durham, 76ft x 65ft) (fig. 21), would have fitted into (iv). It is difficult to conclude a great deal from this aspect of the study, except that some sites are very large and that even the more modestly-sized required substantial motte-tops: this is not a form of castle design that could be effectively fitted on to the tops of the smaller and almost conical mottes which figured so prominently in mediaeval landscapes, particularly in the 12th century. On the latter, a single tower *donjon*, with or without a surrounding wall, would have been more appropriate.

- i) Farnham (150ft)
- ii) Berkeley (100ft); Restormel (110ft); Windsor (100ft x 90ft)
- iii) Lewes (85ft x 79ft); Lincoln (85ft x 66ft); Tamworth (90ft x 75ft); Tonbridge (86ft x 76ft)
- iv) Cardiff (77ft); Totnes (70ft); Trematon (72ft x 57ft); Kilpeck (75ft).
- v) Pickering (60ft); Arundel (60ft x 67ft); Carisbrooke (60ft x 50ft); Clare (52ft x 64ft).
- vi) Launceston (50 x 55ft); Tretower (50ft); Wiston (43ft)

d) Wall-thicknesses: while data is not available at every site, the general range recorded is between 5ft and 10ft (approximately 1.5m – 3.5m). Battered wall-bases, providing extra width at foundation level, were common. Windsor's shell-wall, for a building of its size, was quite slender.

e) Pilaster buttresses occur quite regularly (Lincoln, Farnham, Berkeley, Arundel, Windsor, Durham; also on Tamworth's lateral *donjon*).

f) Mural towers sometimes occur (Lewes, Farnham, Berkeley). The function of the 14th-century Thorpe tower at Berkeley remains enigmatic.

g) Gatehouses sometimes occur (at Restormel, Arundel, Carisbrooke, Tretower) and sometimes with *fore-buildings* and protected access routes (at Berkeley, Cardiff, Farnham). At Windsor, a forebuilding led to the staircase descending along the wing-wall. Fore-buildings and protected passages sometimes had their own defensive features (see below), and such structures sometimes led, in turn, to (or very close to) other gatehouses in the bailey planning, as at Arundel, Cardiff and Windsor.

h) Entrances were normally reached by stairs on top of (or protected by) ascending wing-walls, but at some places (Lincoln (fig. 2), Cardiff (fig. 51), possibly Trematon) a stairway rose directly from the bailey below. The variety in grandness of the doorways is notable. Many were plain but some - a good example is Berkeley's 12th-century doorway - were built with fine decoration in the style of their day. It is also notable that while an ornate example such as Berkeley was masked from general view by a forebuilding (its splendour was visible only as the visitor reached the top of the enclosed stairway), at some other sites large doorways were left unencumbered in order, presumably, to maximise their visual impact when viewed from the bailey below: one example is Lincoln; another may have been the doorway at Arundel which preceded the present gate-tower (its interpretation is problematic). The majority of sites had only one entrance to the shell-keep. But at Windsor, Lincoln, Tamworth (fig. 53) and Pickering (fig. 78) there were two, whose relative status is generally evident from their size and grandeur. In most sites, it was normal for doorways to be secured by draw-bars, whose sockets often survive.

i) Windows through the shell wall were rare, though where an entrance had a gatehouse, its upper floor(s) generally had them. External (shell-wall) windows occurred: at Windsor, Restormel (fig. 74), at Tretower and perhaps at Kilpeck. They occurred in mural towers at Durham and Farnham (from pictorial sources at both) and at Lewes (fig. 55). At Tamworth they appear



Fig. 51. Cardiff Castle. Shell-keep and stepped approach from the south. Image from the Author's collection.

in the lateral *donjon*. There may have been a shell-wall window at Cardiff, and in a mural tower at Guildford, but the evidence is not conclusive (though the windows at Cardiff in the gatehouse and hall gable are secure).

j) Timber reinforcement was employed at some, either at foundation level or within the walls. Lewes, Plympton, Lincoln and Tretower are listed by Wilcox (1981, 30-31). This technique was widely employed in many sorts of medieval building, secular and ecclesiastical. It may have been chosen where the stability of the underlying ground was in question, or to enable masonry to be laid more quickly. Either consideration could have been relevant to its use for structures on motte tops.

k) Water supplies were often from a well dug to the underlying water-table. At Arundel, the well was in a tower at the edge of the shell-keep. At Cardiff, it was in the forebuilding and at Launceston it was down the motte slope. At Farnham, it was in the basement of the *donjon* that preceded the shell-keep but presumably retained in use. At Berkeley, it was in the basement of a tower on the shell-keep perimeter. At Carisbrooke, Lincoln and Tamworth, it was off-centre in the motte-top. At Windsor, it was just inside the entrance. At Pickering at the base of the motte close to the wing-wall. Not too much should be extrapolated, however, from these survivals of wells about the supposed "self-sufficiency" of shell-keeps. Other sites may have



Fig. 52. Totnes Castle. The shell-keep from the inner bailey, (from the north). The present diagonal path up to the entrance post-dates the infilling of the ditch. The entrance is sheltered by the eastern wing wall (left). (See page 39). Details of the internal layout are also discussed and illustrated in the Catalogue entry for Totnes. Image: From the Author's collection.

had wells whose heads no longer survive. We do not know whether the wells in shell-keeps were dug for them or inherited from an earlier phase of use of the motte top, but perhaps centrally-placed wells had belonged (as at Farnham) to an earlier and centrally-placed *donjon*? Effective water collection may also have been achieved through the use of clean gutters and covered cisterns.

l) Cooking and heating facilities are reflected in surviving fireplaces, hearths, chimneys and ovens. The possible use of open fires and free-standing braziers should not be overlooked. Fireplaces and similar features are found in the shell-walls at Arundel, Cardiff, Carisbrooke, Kilpeck, Lewes and Tretower; and in a perimeter tower at Farnham. They often related to chambers (sometimes in conjunction with a garderobe), but concentrations or sizes of such features reveal specific kitchens in some places, including Restormel, Lewes and Tretower. Windsor's shell-keep kitchen/bakehouse occurs in the expenditure of the 1350s.

m) Chapels would also have been necessary for a completely self-contained life-style, but survival of indicative fabric is not common. There are remains at Arundel (in the forebuilding, though perhaps of

questionable authenticity), Berkeley (in a mural tower), Restormel (in a single, purpose-built extension). That at Windsor occurs in 13th century documented works, so its replication in the 14th century is normally assumed. The 19th century restorers of Lincoln thought they saw evidence of a chapel on the east side of the shell-keep. The lateral *donjon* at Nottingham (see above) had a chapel.

n) Latrines/garderobes would have been essential to the self-contained qualities of a shell-keep. Evidence for them survives at several sites (Arundel, Cardiff, Carisbrooke, Farnham, Kilpeck, Launceston, Lincoln, Totnes). Some were situated on the shell wall, or in mural towers or in a gatehouse. They normally emptied outwards on to the slopes of the motte.

o) Defensive features occur in various forms (also - above - mural towers, gatehouses, entrances, wall-tops). Some forebuildings had internal obstacles as well as doors at top and bottom. The forebuildings at Arundel, Carisbrooke, Farnham and Windsor contained a portcullis. The forebuildings at Berkeley, Cardiff, Restormel and Tretower contained a draw-bridge. Arrow-loops of various designs (simple slits or cruciform) occur at Berkeley (in various locations,



Fig. 53. Tamworth Castle. Detail for Samuel and Nathaniel Buck, 1729. From the south-east.

fig. 50), Cardiff (in the second floor, gatehouse), at Lewes (in two storeys of the mural towers), at Pickering (in the shell-wall below wall-walk level), at Totnes (in the battlements on the wall-walk), at Trematon (a single survival, overlooking the western wing-wall) and Tretower (in the 12th-century kitchen area and, later, in the parapet of the higher, 13th-century shell-wall). Tamworth is unusual in having loops not only in its surviving parapet, but also in an intra-mural passage that seems (originally) to have run all around the shell-wall at a lower level. As in all castles, the degree of defensibility seems to have varied according to need, and, as elsewhere, such features were sometimes intended for use and sometimes part of the architectural repertoire of “image”.

p) Domestic planning within shell-keeps presents the most challenging aspect of their interpretation, as acknowledged by others (e.g. Goodall 2011, 108). Standing structural evidence (that is, internal buildings rather than the surrounding wall) is unusual. At many places, the internal remains are so fragmentary that reconstructing the domestic ranges is impossible. It is for this reason that, in the secondary literature, we have become accustomed to finding reference simply to the domestic accommodation on the motte but with little attempt at its analysis. In fairness to earlier authors, there is good reason for caution. Locations of garderobes, fireplaces and stairs can indicate building positions, and visible features such as masonry scars, corbels and joist-holes can indicate the points at which buildings were joined to the internal faces of a shell-wall. But enough is understood about medieval building in general for us to know that

structures - whether of masonry or timber - could stand butted up against each other, in lean-to fashion, in ways that would not necessarily leave visible evidence. So this is a classic context where we cannot simply argue the absence of past activity from the absence of present evidence. In addition, the paucity of excavations carried out within shell-keeps means that we rarely have ground evidence either to complement the evidence visible in the shell-walls or to compensate for its absence. So artists’ reconstructions of shell-keep interiors - in guidebook literature or in on-site information panels - have been (understandably) drawn with some optimism. Some pictorial sources show details no longer surviving: for example, windows in the (now disappeared) mural towers at Farnham which suggest chambers there. The sites at which data actually survive physically - that is, the majority of sites included in the *Catalogue* - are as follows:

- i) complete internal standing buildings: Restormel; Tamworth; Windsor (encased in later work).
- ii) fragmentary standing buildings: Berkeley (encased in later work); Tretower.
- iii) some indicative evidence on internal wall-faces: Arundel; Cardiff, Carisbrooke; Farnham; Kilpeck; Launceston; Lewes; Lincoln; Pickering; Trematon; Totnes; Wiston.
- iv) chambers/chapel in gatehouse/towers: Arundel; Berkeley; Cardiff; Farnham; Lewes; Restormel.
- v) excavated evidence of wall footings: Farnham, Lewes; Pickering; Totnes; Wiston.

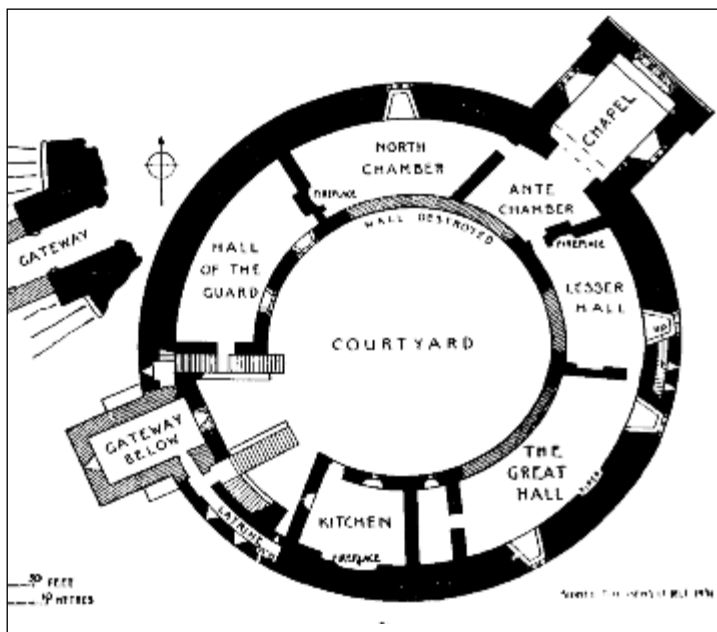


Fig. 54. Restormel Castle. First floor radial plan. Toy 1933.
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The domestic planning of castles in general displays an enormous amount of individuality. Despite sometimes displaying common trends and features, and despite sometimes providing individual models for each other, they were not built from a pattern-book. In the context of shell-keeps, it is worth noting, for example, that while we generalise about a circuit of structures against all or part of the wall, not all may have been like that, as the case of Cardiff shows: here the evidence for a gable end against the wall reveals the hall - presumably the biggest structure there - lying not against the wall but projecting from it into the centre of the enclosed space. Before the shoulders of the motte at Farnham were finally in-filled, domestic units cannot have been set directly against the shell-wall and it may have been only the towers that provided accommodation. At Berkeley, the stone piers discovered in excavation within the motte hint at a form of planning not known elsewhere. There may have been other examples of unusual planning, but where no evidence is now visible.

There seems to have been, however, a distinction between a small group of sites where the domestic buildings occupied a complete circuit and a larger group where, to judge from available evidence, the buildings occupied only part of a circuit. The first group included Restormel (where all the late 13th-century buildings survive), Trematon (where a continuous row of corbels suggests the whole circuit was built up), Windsor (at least in its 14th-century design, whose timber structures have survived) and Durham (where a combination of documentary and pictorial record

suggests this was so). Since all these places were associated with either a king, an earl or a bishop it may be that other places associated with such owners, but where the evidence is less well-preserved, also took this form of a complete circuit: in its final development, Farnham (episcopal) is an obvious possibility.

The second group, where domestic units occupied only part of the circuit, is more numerous in the surviving architectural record and was presumably also more common in the medieval centuries. Where a very grand owner might need to accommodate, on occasions, not only his/her own household but also the households of guests, it is likely that in many other cases the shell-keep offered accommodation only for a lord's household, when in residence, or perhaps for a steward or constable on a more regular basis. To simplify somewhat, perhaps most shell-keeps provided "a house" and only the grandest provided "houses". While available to the lord if visiting, it is perhaps easier to imagine this being

occupied on a regular basis by a steward or other officer. Such issues of interpretation aside, one approach to the reconstruction of shell-keep interiors is to take those examples where the evidence - from above ground or below ground - is best preserved and simply try to show what they were like as particular places. Taking this approach, concentration must inevitably focus on Restormel (fig. 54), Tamworth, Tretower and Windsor for their surviving above-ground fabric, and upon Lewes (fig. 55) (and to a lesser extent Totnes) for their additional excavated data.

i) **Restormel:** while not (as argued above) a true shell-keep, its radial planning provides a useful analogy. It contained a kitchen, hall, main chamber, chapel, second main chamber, guest-chambers. These structures, many in two storeys, built over stores or servants' quarters, were contemporary (late 13th century) and reveal the needs of a very high status household (of an earl) as well as of guests (fig. 54).

ii) **Tamworth:** contains an accumulation of 13th-century hall, 15th-century hall and 17th-century house (in a mix of single and double-storeys). This reveals use over a long period but masks the 12th-century planning. Even if its original lay-out followed the shell circuit, this plan was later abandoned: the central area was filled with a hall. By the 17th century, the whole complex approached an "H" shaped plan (fig. 53).

iii) **Tretower:** in the 12th century, contained a hall with adjacent kitchen and another range of chambers, all mainly on two storeys. This pattern was displaced by the later insertion of a central *donjon* (figs. 34, 35).



Fig. 55. Lewes Castle. The shell-keep from the north west. Image from the Author's collection.

iv) **Windsor**: contained 14th-century structures of single-phase development, within an earlier shell-wall, comprising four ranges of hall, kitchen and (in 2 ranges, probably incorporating a chapel) two-storey chambers. As at Restormel, the interest here (to us) lies in the contemporaneity of structures (figs. 1, 13).

v) **Lewes**: contained a hall and kitchen range on one side of the courtyard and, on the other side, either two chambers or a chapel and chamber, all single storey. Here, however, how these buildings were used has also to be seen against the availability of the chambers within the three-storey mural towers. Whether the latter were self-contained lodgings, or were served by the hall is an interesting question. The same issue would arise at Farnham and Berkeley if the circuits of accommodation there were understood (fig. 55).

vi) **Totnes**: with an early 14th-century shell wall, contained a residence on its west side, as indicated by a passage to a garderobe, a row of corbels and part of an axial wall revealed in excavation. This side, like the east and north (the latter also containing the entrance and two stairways to the wall-walk), is fairly straight in comparison with the curvilinear southern perimeter. So perhaps the structures - single storey - were fitted into the northern half of the interior, the southern half being an open courtyard (fig. 52).

Another approach is to work from “the known” to “the unknown”. The “knowns” include positions of entrances or rooms whose location and function are clear. It might then be possible to extrapolate other locations/functions. We might ask, when we enter a shell-keep, in what positions might we expect to find the principal rooms (a) in relation to the entrance (b) in relation to each other. We might also ask whether any other forms of medieval domestic planning provide parallels, such as (a) castle baileys and castle ringworks (b) non-defended courtyard houses. Further primary field survey (on which this essay is hardly based) might permit progress here by recovery of structural detail hitherto unobserved or not understood, but in the present state of knowledge not much can be said. We might assume that the most private domestic rooms would be sited furthest from the entrance, but even this simple assumption is not borne out in all cases. At Windsor, it was the hall that was furthest from the entrance and the kitchen and chambers which occupied the flanks. At Trematon, the straight stretch of wall opposite the entrance suggests the site of the principal residence. But elsewhere, the situation differed. At Tretower, the hall was left of, and the chambers were opposite the entrance. At Tamworth, the hall was right of the entrance, as was the structure indicated by the remains at Totnes. At

Lewes, if (we cannot be certain) the entrance was near the postulated eastern wing-wall, then hall and chapel occupied opposing flanks and the kitchen was closest to the entrance. At Restormel, we seem to be on more predictable - from our point of view - ground: the rooms furthest from the entrance were the lord's and lady's chambers and the chapel. Kitchen and rooms for guards and guests lay closest to the entrance. The hall lay in between, on the right.

Another point which, theoretically, should be simple but is not so, is the orientation of the main building range to the predominant source of sunlight. At Tamworth (fig. 53) and Trematon (fig. 81), the relatively straight side of the shell-wall is situated on the north side. At Tamworth, this is still occupied by a major domestic range of thirteenth-century (and possibly earlier) origin. Its windows, and those of the range which may be postulated in a comparable position at Trematon, would catch sunlight from the south. But - for whatever reason, and, at least, to judge from the few sites at which sufficient evidence survives - this orientation seems not to have been a general rule of shell-keep planning. At Carisbrooke, the straight stretch of the shell-wall is on the east side. At Tretower, it is on the west.

Two other issues seem not to have been addressed. First, is how rooms within mural towers (as at Lewes, Farnham) related to the other buildings. Second, is how a lateral *donjon* was integrated with the domestic planning of a shell-keep. For example, when at Guildford a rectangular *donjon* was inserted on one side, did the earlier structures of the shell-keep become redundant or did they carry on in use? How large can a mural tower be before it is considered a lateral *donjon*? Tamworth is important here: its modest lateral *donjon* was a primary feature of the 12th century shell-keep and its internal refurbishment in later centuries reveals its use was integrated with adjacent structures. Leiden (fig. 56) (The Netherlands, see below) also had a small rectangular *donjon* on its perimeter, but projecting wholly inwards. Gisors (fig. 57) (Normandy) is also relevant to this issue. We might suggest that shell-keeps with lateral *donjons* should be seen as an important sub-category within the class.

European parallels

Western European castle builders enjoyed a life-style with many common attributes. As with other aspects of their material culture, however, the designs of castles displayed much variety while employing common components. Thus castles varied in appearance at many levels: local, national and international. Choice of design was governed by many variables:



Fig. 56. *The Burcht van Leiden*. A 1698 print by Frederick de Wit. From the collections and © of the Dutch National Library. Reproduced with thanks.

richness and resources of builder; influence of pre-existing site plan; relative importance of attributes (defensive, domestic, symbolic); general or regional fashion; specific copying. It was suggested above (see *Distribution in the British Isles*) that the fully-integrated shell-keep was an essentially English phenomenon (with some occurrence in Wales). It is important to examine this hypothesis against the evidence from Western Europe. The following data are drawn from basic published sources and are not known to this author in the field. Further work would no doubt clarify their relevance to British circumstances. Since our theme is motte-related, it is western areas of Europe that are relevant here: further east the tradition of motte-building, while still present, became less common (see Higham and Barker 1992 for social and technological aspects of this distribution).

The Netherlands

a) The area eventually had numerous mottes of modest size built by families of modest means, but in the 12th and early 13th centuries a limited number of larger mottes were built, representing power-bases of the territorial nobility. These sites were “characterised by larger platforms, crowned by a round or oval brick or stone curtain wall, sometimes with projecting towers. The diameter of the platform varies between 20m and 45m. Generally the platform had a large keep, sometimes free-standing, sometimes included in or adjoining the curtain wall” (Janssen 1990, 228-233; quotation at p. 230). Sites of this sort included Leiden, Oostvorne, Stein, Borssele and Kessel. Research carried out at Leiden (fig. 56), in conjunction with its restoration, suggests that the motte reached its present height as a result of enlargement c. 1150. The stone wall which subsequently

surmounted it (bricks were used in the Netherlands from *c.* 1200) was a (near-perfect) circle whose walkway and its supporting arches were brick-built. A small rectangular *donjon* projected internally (unlike a mural tower) on the eastern side of the perimeter. It seems unclear what other structures may have been enclosed by the wall. Carbon14 dating of mortar samples gave a building date in the mid-later-13th century by one of the Counts of Holland (probably Floris V, reigned 1256-96). The authors of this research (Orsel 2012) consider a circular form (as well as the tuff building stone) to have been archaic in Holland by this date and suggest that the structure had symbolic rather than defensive value, a creation of an imposing building in a castle which had become associated with Comital power. They also suggest that its form may have been inspired by the 12th-13th century structure on the motte at Windsor (which, avoiding the term shell-keep, they refer to as “a curtain wall on a motte”) because there is other evidence that Floris V had close English connections: his children married those of king Edward I; he visited Edward in 1281; his Grand Hall in the Hague was modelled on Westminster Hall; in his conquest of West Frisia (1282-1287) he constructed there five castles (in brick) of square plan rather as Edward (to whom he wrote about his campaign in 1282) constructed up-to-date castles in his conquest of north Wales (1277-1295).

b) Between the early 13th and early 14th centuries, alongside the more numerous and smaller mottes, there developed a new group of major castles, built by the nobility, which replaced the earlier great mottes in popularity. These comprised various forms of irregular round, oval or polygonal plans, with a surrounding wall enclosing domestic structures which were either free-standing or placed against the wall. Some were built on flat sites, whereas others were created by lowering or flattening earlier mottes (Janssen 1990, 233-238). In one group, the surrounding wall lacked mural towers: as at Warmond, Egmond, Teylingen and Wouw. In another group, one or more towers were situated on the surrounding wall: as at Moermond, Vianden, Waardenburg and Montfort. At one site, Borssele, the earlier large motte was now lowered, flattened and encased in masonry.

Clearly, there are some general analogies here with various planning features encountered in the British Isles: a surrounding wall on a motte top; buildings against the inside of such a wall; towers on such a wall; a free-standing keep within such a wall; lowering and encasement of mottes. Nevertheless, none of the sites (at least to judge from illustrations published in the sources quoted) provides an exact parallel for the integrated shell-keep form which occurs in England.

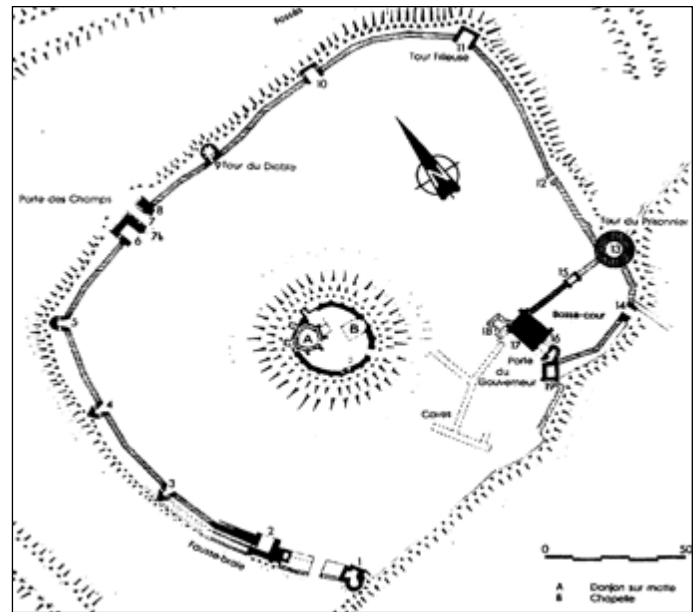


Fig. 57. Gisors Castle. Plan of the castle's extent. From Mesqui 1990, p. 293, Pl. 1. Reproduced with thanks.

France

In an attempt to survey the data from this very large country, albeit superficially, the plans and photographs in Salch's *Dictionnaire* (1979) were examined. This exercise produced little data with direct parallels to the English sites. A subsequent trawl through Mesqui's later (1997) compendium did nothing to alter this impression. Results were as follows:-

Donjons (rectangular or circular) with a surrounding wall creating a small inner (or sole) ward occur in a variety of castle plans, many of which lie on naturally-elevated topography. While not strictly relevant to the present motte-related theme, they share in common the undoubtedly impressive (both militarily and socially) visual impact of the motte-top *donjon* rising from within an encircling (and lower) wall. An impressive example is Scherwiller (Bas Rhin), a 13th-century castle whose pentagonal tower rises from within an enclosing wall only narrowly separated from it for much of its circuit (Salch 1979, 1124-1125). The two famous *donjons-en-bec* in Normandy, Château Gaillard and La Roche Guyon, also rise from within a tightly-spaced inner enclosure wall. Moving to the specifically motte-related material, we find the following:

a) **The motte-top integrated shell-keep** of the English pattern seems hardly to exist, either in its standard form or where the motte itself has been encased in masonry. A few sites have some characteristics of shell-keep planning, for example Billy (Allier) and Clisson (Loire Atlantique), but these are not associated with a motte (Salch 1979, 153-155, 342-343) and any analogy is very loose. Absence - more or less - of the English form in France is supported by an authoritative French



Fig. 58. Gisors, from the south. The shell-keep, possibly built by Henry I, c. 1120-30, with later interior additions. Dating and phases remain, however, controversial. Image © and reproduced courtesy of Pamela Marshall.

commentator, who wrote “celle que les Anglo-Saxons appellent *shell-keep* est très rare en France” (Châtelain 1988, 41) and noted but a few possible examples, all in Normandy: Le Plessis-Grimoult (on a ringwork; Calvados); Vatteville-la-Rue (on a motte; Eure); Gisors (on a motte; Eure). The term “shell-keep” has also been applied to the 12th to 14th century castle at Brandes (Isère) and a broad comparison with Restormel drawn for it (Bailly-Maître 2006). Mesqui (1990, 267; see below) cautiously adds Préaux (Seine Maritime) and Saint-Gordon (Loiret). Recently, the possibility that other northern French sites bear comparison with English integrated shell-keeps has been raised (Corvisier 1998, quoted in Mesqui 1998), so the question perhaps remains open.

Gisors

It is the Norman site at Gisors (Eure), by virtue both of its surviving fabric and its known history, which has been traditionally regarded as of most relevance to the English discussion. Unfortunately - this is no understatement - the uncertainty which surrounds its interpretation is a major problem to an understanding of the origin of what, in England, we call a shell-keep. Gisors was established by king William II (through the agency of Robert of Bellême) in 1096-1097, as one of a number of castles on the border of Normandy and

France. According to one school of thought, the large motte at Gisors (with a 30m summit diameter) situated in the centre of an enormous bailey and assumed to be a primary feature of the site, was first crowned with timber structures which may have been replaced by king Henry I with a stone shell-keep. This in turn had a later octagonal *donjon* tower inserted into it - at one edge rather than centrally - by king Henry II. In this view, promoted by authors on both sides of the Channel (eg. Brown *et alii* 1963, I, 77 & n. 2; Platt 1982, 33; Châtelain 1988), the shell-keep at Gisors was built shortly before some early English ones (e.g. Arundel, Carisbrooke, Lincoln) and may even have been their model. Similarities of design have been noted particularly between the shell-walls at Gisors and Lincoln (Mesqui 1990, Marshall 2004) (figs. 58-61, *cf.* fig. 2). The octagonal shape of the *donjon* has been crucial to this dating scheme, since English polygonal examples (e.g. Orford, Tickhill, Odiham, Chilham) are associated specifically with Henry II's documented works.

In contrast, the most substantial study of Gisors (Mesqui 1990; summarised in Mesqui 1997, 186-189) (figs. 57-64) puts forward a quite different sequence of events. Here, a (presumed) primary timber tower of the 1090s was replaced first, by an early 12th-century (octagonal) three- or four-storey



ABOVE: Fig. 59. Gisors Castle. Looking east. Central shell, with polygonal inner tower left, and chapel apse directly ahead.

BELOW: Left. Fig. 60. Left. Polygonal tower, late C12. Stair turret C15. Right: Fig. 61. Tower interior. All images on this page © and courtesy of Pamela Marshall.



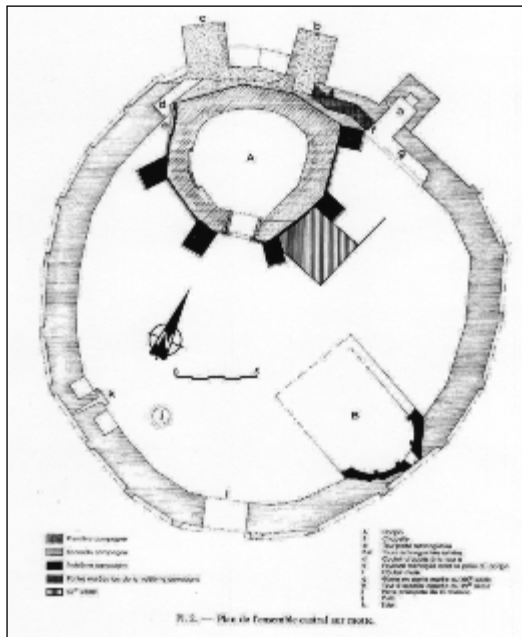


Fig. 62. Gisors - plan as established by all buildings inclusive from C12 up to the 15th century. Mesqui, 1990, Pl. 2.

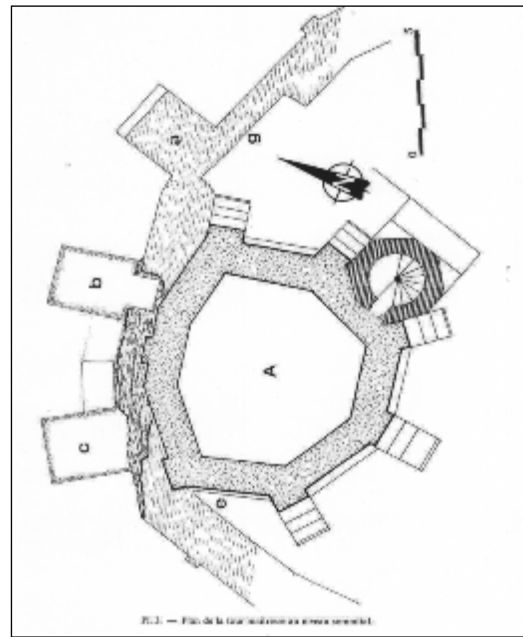


Fig. 63. Gisors - plan of the central polygonal tower or tour maîtresse abutting the shell wall. Mesqui, 1990, Pl. 3.

stone *donjon* around which the (presumed) timber palisade was initially retained. The latter was subsequently replaced, late in Henry I's reign, by the polygonal shell-wall, some 6m high with twenty-two faces, some timber reinforcement, pilaster buttresses and three rectangular towers (one with a secondary entrance) adjacent to the *donjon*. Finally, in Henry II's reign, the *donjon* was heightened (by two storeys) and given five buttresses (the secondary nature of these changes seems not to be in doubt), the chapel inserted into the internal face of the shell-wall (including its only external window) and the main entrance to the shell-wall redesigned in its present form (large round-headed doorway, 2.7m wide) giving on to a motte stairway which was eventually flanked by walls and probably roofed. If this interpretation is correct, then not only was the shell-wall slightly later than argued by others, but – more fundamentally in our context - Gisors never was a shell-keep of the English style at all: the shell wall always accompanied a tower *donjon*.

Moreover, if this *donjon* was indeed first built by Henry I, then its octagonal design was many decades in advance of the popularity of this shape in late 12th-century England. Apart from the chapel, the main sign of domestic use in the shell-wall is a group of features indicating a kitchen: a well, and two recesses flanking a drain or sink. The data can be interpreted either as evidence of fuller internal ranges (otherwise disappeared and perhaps of timber, lean-to construction) characteristic of a shell-keep or as evidence of limited (and specialised - chapel and kitchen) functions serving the *donjon*. These issues of interpretation at Gisors are com-

pounded - as Mesqui (1990) noted - by both a lack of complementary dating evidence derived from (non-) excavation and the not entirely helpful nature of the documented history of the site. The latter relates partly to ownership and partly to building works and may be summarised as follows. It was a royal site from 1096 to 1101; in the hands of a local lord to 1109, then recovered by Henry I; successfully defended (and strengthened with new walls and towers) by the latter in 1123-24 against the rebellious Norman lords; in the hands of the French king, Louis VII from 1145 (administered by the Knights Templar); recovered in 1161 by king Henry II and much strengthened by him in the 1170s-1180s; suffered extensive destruction in a fire of 1189; passed into the control of the French king, Philip Augustus in 1193 and remained a French castle thereafter.

The documented works of around 1180 were considerable (total: 2,651 *livres*, probably including also works on the town defences) but often non-specific, though some structures were mentioned, including a chapel, various houses, "the tower", "the wall around the motte", a kitchen and the king's chamber. The impression is largely of renovation of existing structures rather than building *de novo*. Alterations to *donjon* and shell wall (described above) can easily be construed in this context. However, recent work by Christian Corvisier (1998) sees all the building work - walls and tower - started and completed by Henry II (quoted in Mesqui 1998). There is clearly an important issue to be resolved here. In the absence of personal knowledge of the site, I quote here (*personal communication*) the

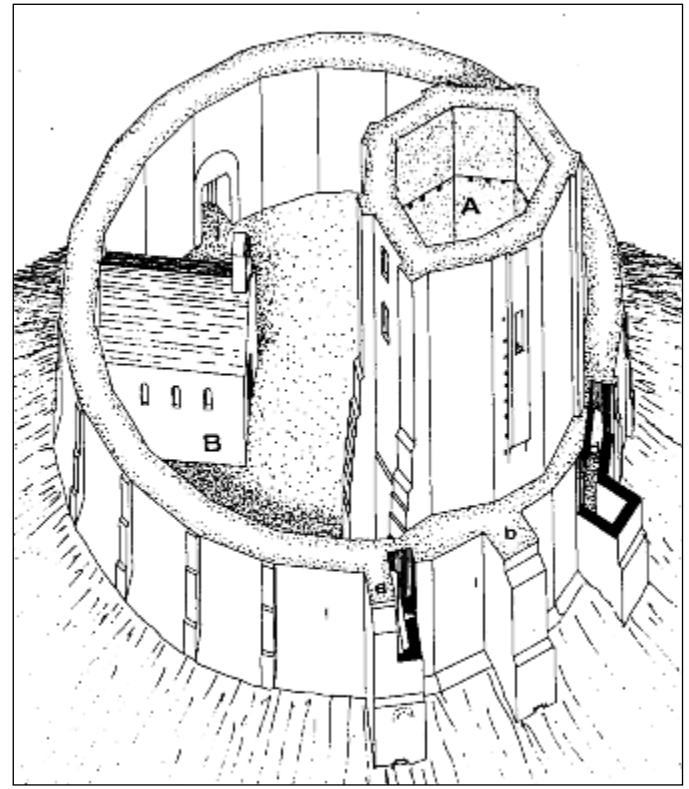
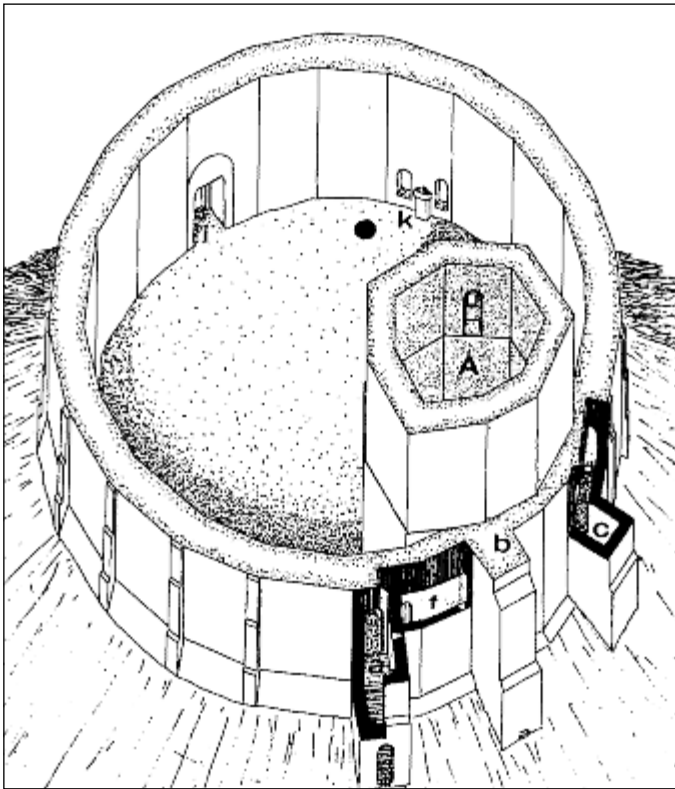


Fig. 64. Gisors. Shell-keep and tower. After the second phase of development, according to Mesqui (Plate 4 Mesqui, 1990).

Fig. 65. Gisors. Shell-keep and heightened tower. After the third phase of development which included the chapel, according to Mesqui (Plate 5 Mesqui, 1990).

interpretation of Pamela Marshall, based on her own on-site observations: “The shell is fairly certainly by Henry I and is very like that at Lincoln in its construction, but bigger and the interior was more sophisticated. There is ample evidence for buildings within it, ranged against the wall: there is good evidence for a kitchen and a fine chapel. The chapel is similar to that built by Henry II at Angers. The *donjon* is secondary and probably built by Henry II. It is two-phased, with a still later 15th century access turret. There is an intriguing connection between the *donjon* and the shell - a postern gate - contemporary with the *donjon* whose building has interrupted the earlier shell”. In the light of all these views, Gisors is omitted from the *Catalogue* for the time being.

b) Mottes with *donjons* (circular or polygonal) surrounded by enclosing walls (as a higher curtain or a lower chemise) occur in France, with published date-ranges in the 12th - 13th centuries. Salch’s compendium includes the following: Beaussault (Seine Maritime; 129); Château-sur-Epte (Eure; 296-297), (fig. 67); Châteaurenault (Indre et Loire; 298-299); Longchamps (Eure; 689); Châtillon-sur-Indre (Indre; 315); Vievy-le-Raye (Loir et Cher; 1222-1223). Given the proliferation of mottes in France, it is easy to imagine this form arising naturally out of timber-built antecedents. As elsewhere, of course, France also had mottes which carried *donjons* without surrounding walls.

c) England’s complex lobed-plan *donjons*, built on mottes at York (fig. 69.3), Pontefract (fig. 70) and Sandal (fig. 17) have parallels in the structures at Houdan (figs. 66, 68) and Étampes (fig. 69.2) (both Seine et Oise) built around 1130 - 1140. Houdan was the work of the Count of Dreux; Étampes a French royal work. A third example is Amblèny (Aisne) (fig. 69.1), built in the late 12th century (king Philip Augustus acquired the site in 1185). These sites were not built on mottes and their dates are all a century earlier than the English sites. They have, nevertheless, generally been regarded as the ultimate inspiration of the English ones (e.g. Brown *et alii* 1963, I, 116; Roberts 2002, 26-27). At Houdan and Provins (fig. 71) the four corner towers are joined by convex sides (see above). At Amblèny, four lobes are connected by very short straight walls. At Étampes, the four lobes are conjoined, so that there are no “sides” at all.

d) Centrally-planned circular or polygonal plans (as at Restormel) are not common, but Salch (1979, 441-442) noted that the 13th-century octagonal central element of the plan of Eguisheim (Haut Rhin) may have been inspired by Castel del Monte (Italy). Boulogne-sur-Mer also had an octagonal central element of the same period (Salch 1979, 182-184). More closely related to the theme of mottes is Fère-en-Tardenois (Aisne; 471-472), where the castle occupies the flat summit of a very large motte. Comprising an irregular polygon with seven round towers on its perimeter, it was a significant



Fig. 66. Houdan Castle c. 1130. Square interior with splayed corners but on the outside circular with four projecting turrets. Source: Henry Salomé, via wikipedia Creative Commons Attribution-Share Alike 3.0 Unported



Fig. 67. Château-sur-Epte, from the south-east. The castle was founded by William Rufus as king (1087-1100) and restored by Henry II. © claudius1207 via Panoramio, Reproduced with thanks.

development in France in the early 13th century: a castle without a tower *donjon*. In Brittany, at Guingamp and Clisson, polygonal enclosures occurred part-way through the sites' development, but what they contained is unclear and their relevance to this theme of planning uncertain (Beuchet & Martineau 2008).

In assessing the relationship of English and French sites, an important political and chronological change must be emphasised. First, from 1066 to 1204, England and Normandy were jointly ruled by the same kings/dukes and the richer parts of the castle-building class had lands on both sides of the Channel in an "Anglo-Norman" world. Second, after the loss of Normandy to the French, there were periods when French culture was enthusiastically espoused by the English. This was particularly so in the reign of king Henry III, whose architectural and artistic tastes (seen, for example at Westminster Abbey) displayed a clear French inspiration. In this period, castle design - like other aspects of the world of English building - was open to French influence. We can therefore note that, first: the period when shell-keeps appeared and first flourished in England coincided with an Anglo-Norman culture; second, the period when complex lobed keeps on motte-tops became popular in England coincided with the later period of French fashion in England.

Germany

Mottes were extensively employed in German castle design, especially so in the Rhineland and adjacent areas and to a lesser extent elsewhere. Perusal of major books on German castles does not reveal direct analogies for the English integrated shell-keep (with or without motte encasement in masonry), or for the circular/polygonal and centrally-planned castle. German castles did, however, adopt the design of a stone *donjon* (a *Turm* of some sort) surrounded by a ring-wall on top of some mottes. Two good published examples (situated in Landkr. Offenbach) are at Dreieichenhain (Stadt Dreieich) and Obertshausen (Böhme 1991, II, 24-27, 50-51). Given the importance of mottes in Germany (Böhme 1991, II, 177ff; Higham and Barker 1992, 88-91) it is likely that their originally timber-built summits provided precedent for the tower and ring-wall, as was the case elsewhere.

Denmark

In the 12th-13th centuries, castle-building was restricted to kings and to a small number of powerful families. But from the late 13th and throughout the 14th centuries, a wider class of rural society built larger numbers of castles, many of which were timber sites with low mottes (see Higham and Barker 1992, 79-84). None, however, seem to bear evidence of anything

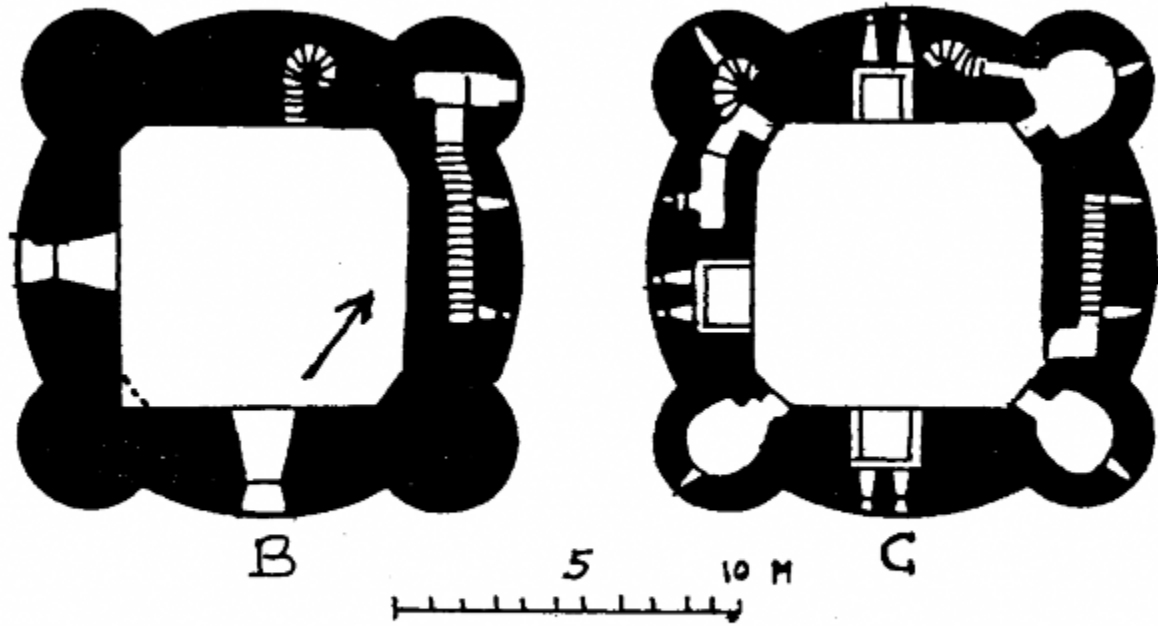


Fig. 68. Château de Houdan, the donjon. B: Basement, G: First floor. After Toy, 1939. © Sidney Toy Estate. Reproduced with thanks.

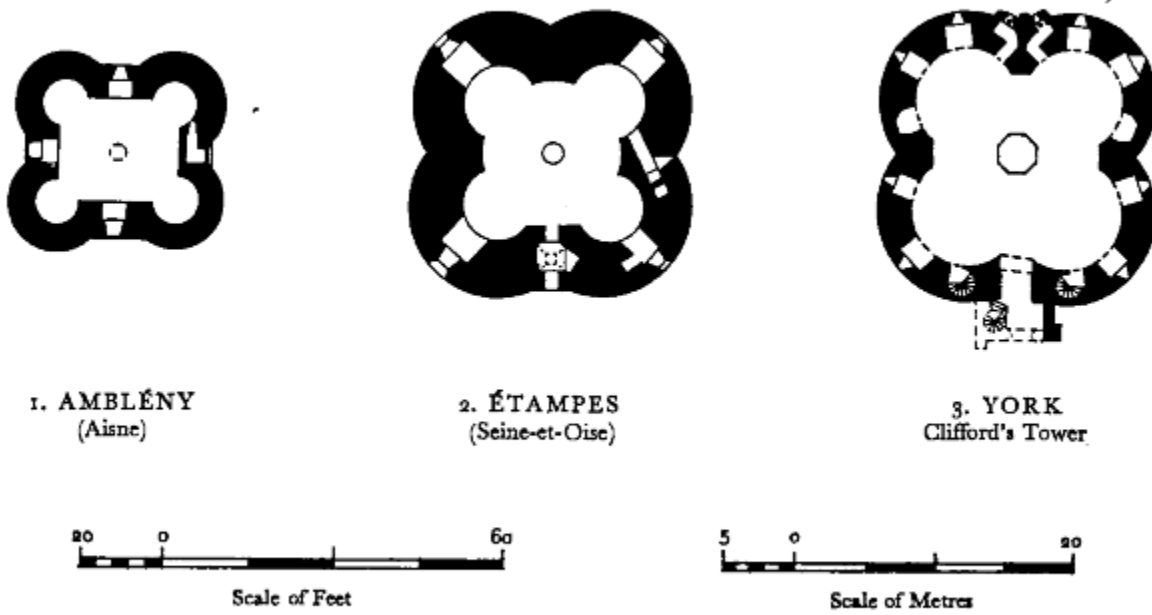


Fig. 69. Comparative sizes of lobed towers, Brown, R. A., Colvin, H. M. Taylor, A. J., 1963.

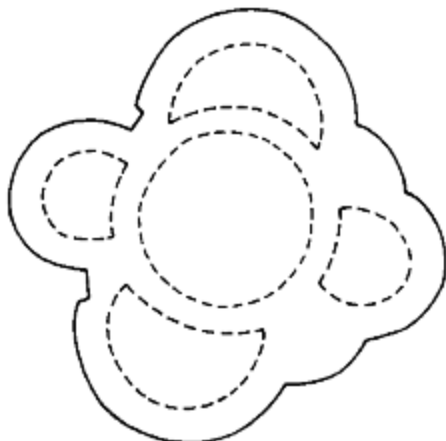


Fig. 70. Pontefract. After Roberts, 2002. p. 27

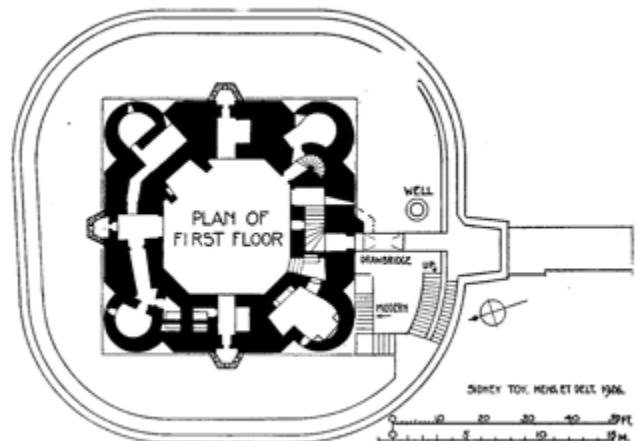


Fig. 71. Provins, Tour de Cesar, after Toy, 1939

analogous with the shell-keep or other related forms. Christiansborg in Copenhagen (quoted by Rigold 1954 in his list of parallels) was a circular curtained enclosure established in the 12th century, but it was on an island near the harbour and thus not strictly relevant to the motte-related theme of shell-keeps.

Overall Impressions: The impression gained from brief inspection of the European evidence is:

- a) the integrated motte-top shell keep of the sort found in England was very rare in Europe, but -
- b) there are *some* parallels for (a) with aspects of castle-planning in Normandy and Holland, and -
- c) the building of stone *donjons* (with or without a surrounding ring-wall) on motte tops was a more generally western European, as well as British tradition; where *donjons* had surrounding ring-walls the question of whether these had first been shell-keeps is often difficult to resolve.

Conclusions and Observations

Numbers and Distinctiveness

The importance which Clark (1884, I, 139-146) attached to the shell-keep was justified, but he spoiled his case by claiming too many examples which were not sites of this sort. On the other hand, many (now) empty motte-tops could have carried shell-keeps: so, a “numbers game” proves elusive. Clark (*ibid*, 121-122, 139) argued that shell-keeps - in whose definition he thought a motte essential - had been more common than *donjons* but that the latter had survived better, thus distorting the available evidence. It is notable, however, that his view of *donjons* - rectangular, cylindrical and polygonal - was influenced as much by the larger and free-standing sort as by those built on mottes. A main thrust of the present study has been to promote a contrary opinion, namely that (within the definition suggested here) shell-keeps - while undoubtedly important - were fewer in number than Clark stated.

In the intervening period, it has too often been assumed that shell-keeps were common. This assumption has been fed by: first, the legacy of Clark's text, which cast too wide a net; second, a loosened definition of the term (embracing many sites with ring-walls on motte tops); third, an allowance for non-surviving evidence on the many “empty” motte tops where it has been easy to imagine former shell-keeps. But, when we use “shell-keep” only as suggested in this essay, and examine the evidence which actually survives, this assumption of “commonness” is questionable. The data suggests that while not “rare”, the type was built mainly by wealthy and influential people whose castles possessed large

mottes: the fully-integrated shell-keep requires a sizeable motte-top - whether original or transformed (see below) to allow for wall, buildings and central open space.

The data presented in this discussion leads the present author to conclude that shell-keeps were a distinctive, but minority type within the wider traditions of motte-top structures. This point has already been made by two recent commentators, though not, as here, in the context of a full discussion of the surviving data.

a) First, John Goodall - examining English castles generally and so not dealing with shell-keeps in detail - concluded (but without analysing numbers) that shell-keeps were not common compared with the much wider tradition of tower *donjons* on mottes, and suggested that the round castle form in the Netherlands might be the closest parallel for the English sites. On the other hand, he also restated the traditional view, that the building of a shell-keep was the commonest way of transforming a timber-built motte-top into a masonry structure and that shell-keeps had commonly had timber parallels (Goodall 2011, 107-108). It seems to the present author that these two observations - one very traditional and the other more modern - do not sit happily side by side: given the hundreds of surviving mottes, there should be - in this case - many more shell-keeps than there appear to be?

b) Second, in concluding his study of the fragmentary shell-keep at Kilpeck, Edward Impey (1997, 106-107) quoted data drawn - a weighty task which the present author has not attempted to replicate - from King's compendium (1983). This exercise revealed some 94 mottes with masonry on their summits, from a total of known mottes exceeding 800. Of these 94, the majority had indications of *donjons*: 25 with ring-walls and 37 without ring-walls. Only 32 - that is, fewer than one third - had a ring-wall with no surviving *donjon*. This lower figure is an upper limit for *surviving* remains of integrated shell-keeps (though the true shell-keep figure may be lower as some of these may have had central *donjons* which have disappeared). Impey argued that as few as 19 of the 32 may have been shell-keeps with wall-integrated (rather than free-standing) buildings. That the *Catalogue* of the present author's study includes about twenty sites suggests that, while approaching the exercise from quite different starting points, we have reached a broadly similar conclusion.

Arguments based on numbers, however, must remain partly speculative, given the disappearance of so much evidence and the unknown evidence awaiting discovery on “empty” motte-tops. The data in the present discussion emphasise also the Englishness (and limited Welsh-

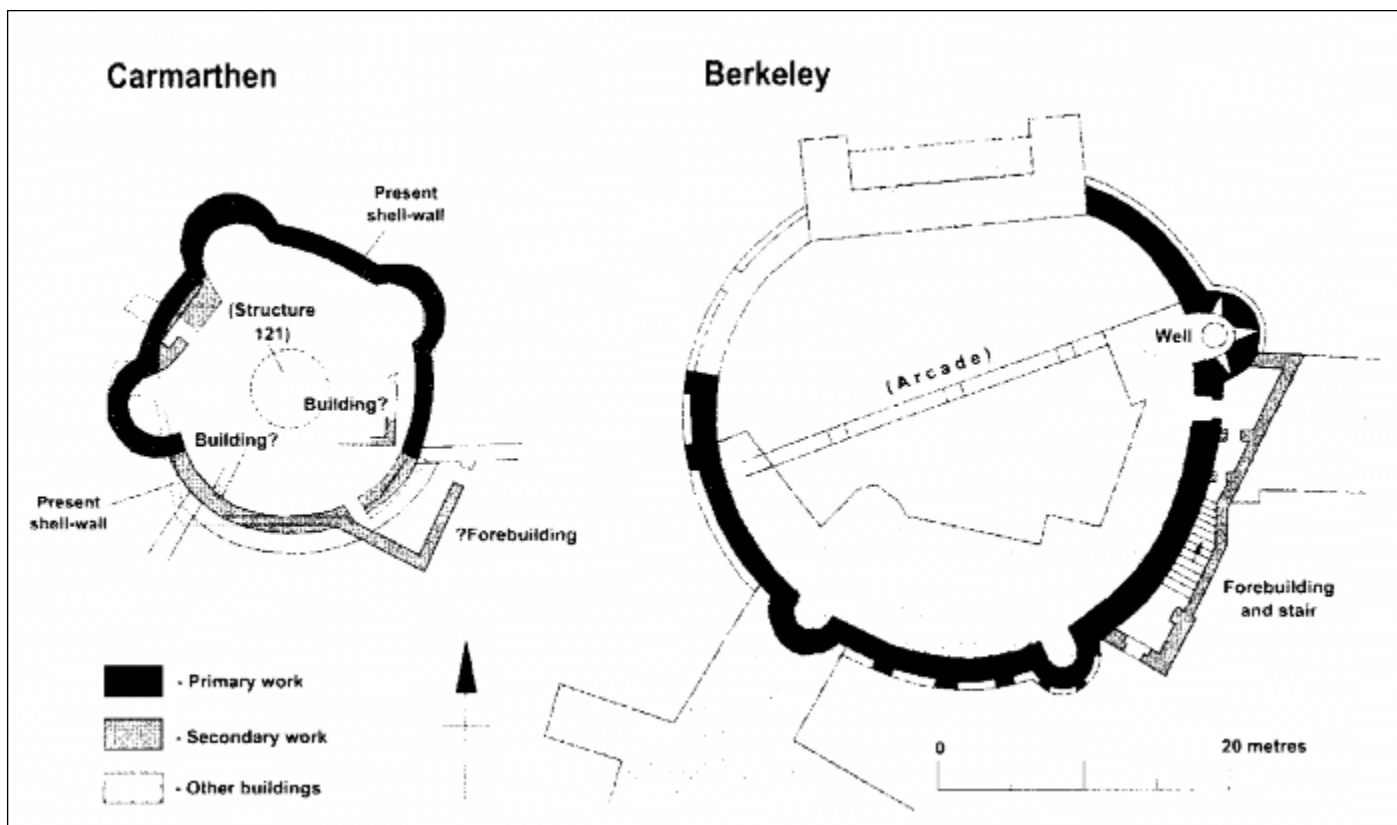


Fig. 72. Comparative plans of the shell keeps at Carmarthen Castle and Berkeley Castle. (Carmarthen conjecturally restored). © Neil Ludlow, 2014. Reproduced with thanks.

ness: though, strictly, “Anglo-Norman built in Wales”) of shell-keeps in contrast to the wider British and European traditions of building tower *donjons* on mottes. The integrated shell-keep, often seen as the poor relation of the tower *donjon*, deserves rehabilitation in the on-going debate about castle design and function. Its apparent “Englishness” (not even Britishness) enhances the importance of trying to understand it.

Traditions

It is suggested here that the shell-keep with buildings integrated into its surrounding wall was not an expedient - or even a systematic - way of transforming a timber plan into a masonry plan, as has been assumed by many commentators: it was a specific form with its own distinctive character. The evidence suggests it emerged (in England) by the 1130s, became more numerous in the second half of the 12th century and remained popular through the 13th century. Some were rebuilt (even built) in the 14th century. It is not necessary to see (*contra* Rigold 1954, 233; and Platt 1982, 34) the “late” examples as “archaic”. Indeed, at Arundel, Cardiff and Carisbrooke, whose strong gatehouses and/or forebuildings were late 13th- or 14th-century additions, we see the shell-keep’s continuing value as one means of maintaining the effective use of motte-tops. There was no general drift from the “inconvenient” motte to the “convenient” bailey.

Donjons at Dudley (14th century) and Warkworth (15th century) marked late forms of perpetuating motte-tops, in a tradition of *donjon*-without-ring-wall, going back to the 11th century, as (in stone) at Okehampton and (in timber) at Hen Domen, Montgomery. Shell-keeps were one way - amongst many - of using motte-tops in stone or timber.

Mottes with ring walls and central *donjon*

If the shell-keep was one way of utilising a motte, alongside *donjons* with or without ring-walls, then mottes with a ring-wall and central *donjon* were part of a wider tradition. Extant or destroyed examples in England are: Bedford (figs. 30, 37), Southampton (figs. 41-43), Launceston (figs. 9, 36, 40), Plympton (figs. 31-32), Barnstaple (figs. 11-12) and quite possibly Berkhamsted. Examples in Wales are Carmarthen (fig. 72) and Tretower (figs. 34-35); in Ireland, Shanid (Limerick). None is known in Scotland. In France, *donjons* with ring-walls on motte-tops occur at Château-sur-Epte (Normandy), at Châtillon (Indre) and elsewhere. Examples in Germany occur at Dreieuchenhain and Obertshausen (Landkr. Offenbach). This form, however, was sometimes the result of inserting a *donjon* into an earlier (and proper) shell-keep: demonstrable at, for example, Launceston and Tretower and postulated at some other places. More research is required to establish examples where both elements were built *de*

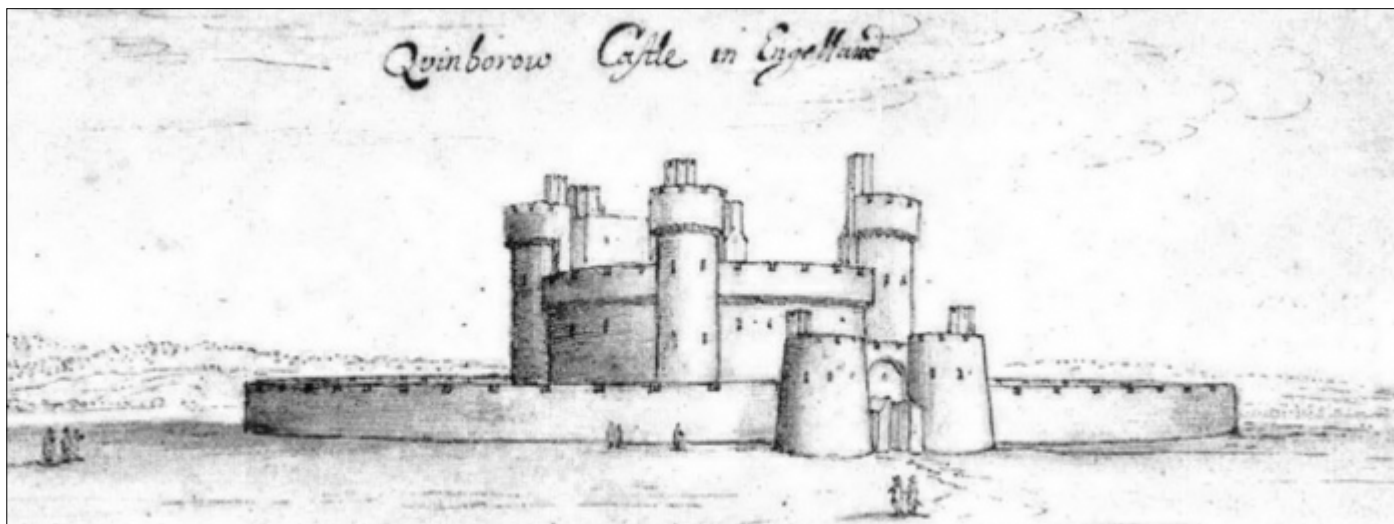


Fig. 73. *Queenborough Castle, Kent*, by Wenceslaus Hollar, circa 1660. Castle built c. 1360-68. © Mackelvie Trust Collection, Auckland Art Gallery Toi o Tāmaki, bequest of Dr Walter Auburn, 1982. Reproduced with thanks.

novo at the same time. This issue has a bearing on identifying other examples of shell-keeps which may have been subsequently transformed.

As a parallel for English shell-keeps, attention has been drawn (Platt 1982, 30-33) to the Emperor Frederick II's Castel del Monte in Apulia, of around 1240, and its possible influence on Restormel. This parallel is really with the wider - and different - European tradition of centrally-planned castles: Castel del Monte is octagonal, while Restormel is a true circle (thus, its buildings may be described as radially-planned, since the whole site possessed a radial measurement). Some circular castle forms on mottes (eg. Oostvorne) and later ones built independent of mottes (eg. Wouw) are known in the Netherlands (Janssen 1990). High status late 13th -14th -century circular castles in Europe have been discussed in relation to Edward III's "round table" at Windsor castle: Castel del Monte, Castell de Bellver (near Palma), Château de Montaner (southern France), and Restormel and Queenborough (destroyed, known from documentary sources - fig. 73) in England (Munby *et alii* 2007, 127-136). Castel del Monte is a most unusual monument, whose design was based not only in precise geometry but also in a background of European Gothic and Middle Eastern Arabic influences (Götze 1998).

Antecedents - Peripherally-planned baileys

It is impossible to demonstrate - despite a long-standing belief to the contrary - that the integrated form had motte antecedents in timber; the model is as likely to have been some form of bailey or ringwork planning, adapted and applied to the more restricted space on a motte-top. Peripherally-planned baileys (properly-called since, being non-circular, such baileys were not radially-planned) with buildings

against the perimeter defence, such as known at Pontefract, Sandal, Hen Domen and Conisbrough (see fig. 75 and refs quoted there) exhibit the same principle of planning, though obviously occupying a bigger area. The relevance of Nottingham, which had a tightly-planned inner ward on a former motte, has already been commented upon (see above). Also relevant may be Clun, in Shropshire (Renn 1968, 148-149), which comprises a motte with two baileys. Only the motte has visible surviving masonry: a rectangular keep on its extreme flank and parts of an enclosing wall, with twin-towered entrance, around its perimeter. This area creates, in effect, a small "keep with ward" on top of the motte, the area of which is hardly any smaller than that of either of the two adjacent baileys. Like the classic shell-keep, we have at both sites a little castle on the motte. To extend the analogies, note should also be taken of some ring-work castles which also, like shell-keeps, had peripherally planned buildings. In the southern Welsh Marches, for example, the 13th-century phases of Grosmont and White Castle consisted of a surrounding wall with domestic buildings ranged against their inner face.

What we do not know - and perhaps never will - is whether (as usually assumed) all shell-keeps are secondary structures added to earlier mottes, or whether a shell-keep was ever the primary choice of design on a newly-built motte. Lewes has been suggested as a primary shell-keep (Platt 1982, 28). Given the short time-span between its foundation (early 1100s) and its documented defensibility (in 1136), Carisbrooke's shell-keep may be a primary feature (fig. 79). The occurrence of timber reinforcement in some shell-keeps (Lewes, Lincoln, and



Fig. 74. Restormel Castle from the south, illustrating original exterior low-level hall windows, although within the courtyard the hall is at first-floor level. Image: Neil Guy.

elsewhere: see above) may point to their having been built on mottes whose stability was in question: but this cannot be demonstrated. On and within the numerous (now) empty motte tops there may await discovery of significant evidence which could alter our views on this and other issues.

A related issue is whether some sites were models for others. It has been suggested that Totnes was influenced by Restormel (Platt 1982, 32), (fig. 74); that Plympton and Barnstaple were influenced by Launceston (Higham *et alii* 1985). Trematon may also have been influenced by Restormel: though on a motte, its continuous corbels also suggest a complete circuit of structures and both are probably the work of earl Edmund (figs. 10, 81). Another possible instance is Durham, which may have been inspired by Edward III's work at Windsor (Emery 1996, 76-81; though there was a shell-keep, created out of an earlier motte, not far away at Newcastle). Such relationships may have crossed the English Channel: similarities between Lincoln and Gisors, both by Henry I, have been noted, as has a possible inspiration by Windsor for Leiden (Marshall 2004; Orsel 2012).

The phrase "shell-keep" has often been used too diversely. Surrounding ring-walls with central *donjon* have - as in the classic case of Abinger - clearer motte/timber antecedents. But they were different in emphases - in appearance and domestic planning - from the integrated shell-keep form. Different sorts of plan

deserve separate labels, but bearing in mind that, to contemporaries, all motte structures, of whatever sort, were great towers or *donjons*. By restricting the term "shell-keep" to the "integrated forms" - buildings ranged against the face of the enclosing wall, with a central, open space - it is possible to reveal more about their distribution, chronology and use. Shell-keeps with lateral *donjon* may be a significant sub-category.

Symbolism and circumstances

All of these various forms represented ways of utilising motte-tops which provided distinctive castle images and sky-line profiles as well as distinctive features of domestic provision. But - and this is an important proviso - where wooden shutters and/or hourdes were present on the wall-tops (as would often be the case, to judge from pictorial and documentary sources for castles generally) this skyline profile would not be a crenellated one: even shutters in the open position would interrupt the "up-down-up" profile of battlements to which we are now accustomed. This has an important bearing on how the sites (indeed, *all* castles) were appreciated in contemporary or later parkland settings, and how they are viewed today.

Paradoxically, the lesser fortified houses with un-shuttered crenellations, as well as the battlemented parapets found on Perpendicular Gothic churches, presented potently symbolic images despite their lack of actual defensibility. Shell-keeps were thus one way in which an external image of lordship was maintained

Examples of Peripherally-planned baileys

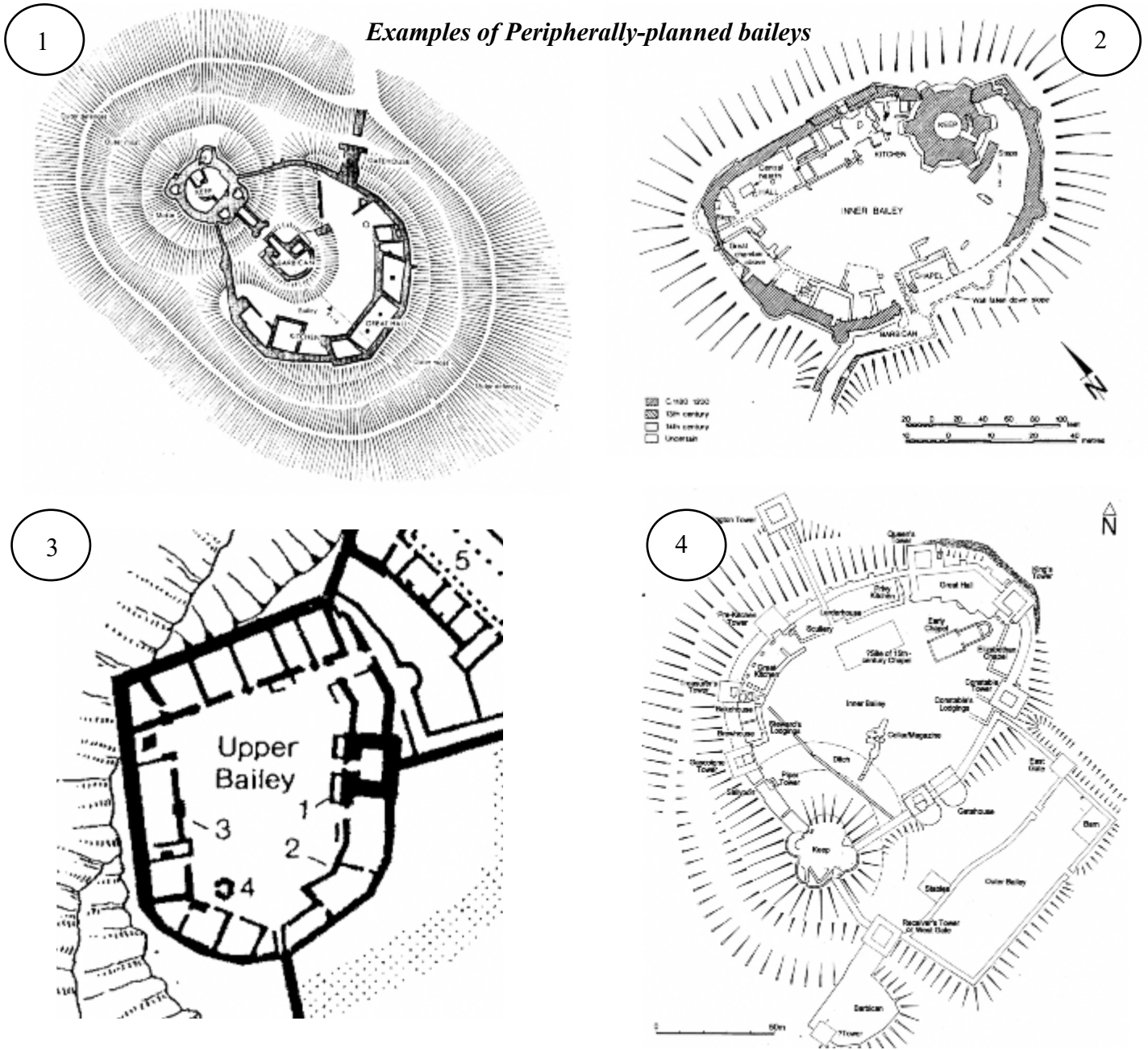


Fig. 75

1. Sandal. c. 1480s from Mayes & Butler 1983.

2. Conisbrough. c. 1200, From Brindle 2012, p. 62.

3. Nottingham Castle plan made by architect John Smythson in 1617 (detail).

4. Pontefract. Site plan from Roberts, 2002, Fig. 2.

5. Hen Domen. Northern half of bailey, phase X c. 1150. From Higham & Barker, 2000, fig. 1.2.

Whilst some plans above show late-medieval work, the earliest phases of Hen Domen and Sandal (not illustrated) also showed signs of peripheral planning of baileys.



Fig. 76. *Arundel Castle (detail). The Shell Keep from the lower bailey. Samuel Hieronymus Grimm, 1781. © The British Library Board. Shelfmark: Additional MS 5674; Item number: f. 30 (no. 54). Reproduced with thanks.*

alongside provision of accommodation and defence: they provided a lasting legacy of the castle-image no less potent than the *donjon*. That the shell-keep could provide a traditional castle image situated on a motte - a very strong visual statement - while, simultaneously providing an inward-looking and private space whose use was totally invisible from the outside world - is another reflection of the complex uses (and hence, visual messages) inherent in medieval castle design.

In his discussion of Launceston (2006, 232; see also Higham 2009-2010) (fig. 36), Andrew Saunders wondered whether the profile of a central *donjon* rising from within a former shell-wall was intended to suggest a crown, symbolic of the crowning of the likely builder, earl Richard of Cornwall, as King of the Romans in 1257.

As well as being part of the “general evolution” of castle designs, consideration should be given to the building of shell-keeps in the context of specific political, social or family circumstances: as has been argued for tower *donjons* and for castle-building and rebuilding in general. We might, for example, relate the foundation of Berkeley's shell-keep to the elevation by Henry II (in about 1154) of his local supporter, the English merchant, Robert Fitzharding of Bristol (Berkeley 1938-1939; Townsend (ed) 2009). A later example might be the rebuilding of Totnes by

William de la Zouche in 1326, in the year when Zouche and others controlled Edward II. The king was presumably pressured into granting permission, recorded in a royal writ (Rigold 1954).

We should think of shell-keeps as of other castle forms: reflecting the spectrum not only of technological choice and necessity but also of social status. Many shell-keeps were built by the richest in society. Windsor, Pickering (fig. 78) and Guildford were royal castles and Lincoln was part-royal; Farnham was in one of southern England's richest bishoprics; Restormel, Carisbrooke, Arundel (fig. 76), Lewes, Cardiff, Launceston, Tamworth, Totnes, Trematon, Tonbridge and Warwick were properties of comital or prominent baronial families; Berkeley was built by a family projected to new power by a new king; Tretower and Wiston were built by important colonisers of Welsh territory. Some known destroyed examples were also in very high status contexts: such as Durham, Hereford, Newcastle, Oxford. Bearing in mind the problem of unknown data from (now) empty motte-tops, we might suggest that shell-keeps in the full and integrated form were, by and large, a choice of the rich and powerful. Although beyond our scope, we should note the use made of particular castles - of all designs - by powerful owners who possessed several



Fig. 77. Detail from Christophe Schwyter's map of Durham, 1593, from the south. C14 shell-keep. © The British Library Board. Shelfmark:Maps 2265.6. Reproduced with thanks.



Fig. 78. Pickering Castle. A royal castle. It received its stone shell keep c. 1220. The screen wall protects the stair approach to the keep. Image: Neil Guy.

castles or grand houses. Individual castle use by owners (as opposed to their officials) was at best periodic, and in some cases only sporadic. A castle of ancient foundation might be more important for what it “stated” about the origins of those associated with it than for its regular use, but this did not necessarily result in physical neglect. On the contrary, major investment might be put into a site because it was ancient - and thus symbolic of authority - rather than because of its everyday use. In the case of shell-keeps, this applied at Launceston in the 13th century (Saunders 2006; Higham 2009-2010) and Totnes in the 14th (Rigold 1954). A northern example is Durham, where the shell-keep - the heart of the episcopal administrative centre - was built in the 14th century despite the bishops generally living elsewhere by this time (Emery 1996, 51-54) (fig. 77).

Integrated shell-keeps - Basic criteria:

External Views

The integrated shell-keep differs from other *donjons* in not usually having external views from windows. From a tower *donjon* - even surrounded by a lower ring-wall - views of both the castle and its hinterland came from upper windows. In an integrated shell-keep, window views were mainly internal and to the courtyard. An external view was often dependent upon

defensive features: from arrow loops in the surrounding wall and from the wall-walk along its crenellated top. One way to interpret this fact is that the shell-keep was designed more with defence in mind than with domestic display and enjoyment. However, the wall-walk also had “promenade” value, with attendant external views on parklands and other manipulated landscape areas, analogous with the “promenade” value of castle curtain walls and (eventually) town walls.

At Restormel and Windsor, however, views of such park-lands were available from both wall-walks and large external windows. The 12th-century phase at Tretower had windows looking away from the castle from its hall-chamber ranges (fig. 35). Pictorial evidence suggests Durham had external windows. Elsewhere, where there were outward-looking windows, as at Farnham and Lewes, they were in the towers along the shell-wall. Windows suggested in the shell-wall at Cardiff are problematic (unlike those in the hall gable and gatehouse). Most sites with windows were built by the richest owners, and it seems likely that wherever such windows occurred in shell-keep walls they were not much to do with views relating to security but much more to do with views relating to lordly appurtenances: parks, hunting chases, churches and boroughs.

Privacy & Family

When developed in its most sophisticated forms, the shell-keep provided not only a defensible core but also “a castle within a castle”. The shell-keep thus deserves attention not only for what is apparent from its physical remains but also for what may be less obvious: for example, the possibility of small gardens in the courtyard space. What is crucial is the essentially *internal* concept of “view-shed” which must have reflected what was important to the occupants: this may have been security, but it may also have been simply privacy. While providing “bailey-type” accommodation in an elevated position, shell-keeps perpetuated the traditional castle image of an impressive structure on top of a motte. Except in the few cases with windows and external views, use and enjoyment were “inward-looking” and only the wall-walk gave an outward view. At Windsor, the shell-keep was used by Edward III as accommodation while the baileys were being rebuilt.

We might consider whether shell-keeps elsewhere were ever used for the same purpose. Given the extreme privacy inherent in both the design and location of shell-keeps, we may also wonder whether they were sometimes felt especially suitable for households containing significant numbers of women and children.

Farnham & Berkeley

There are thus hints at different sorts of “castle-life” in the ways that motte-tops were used. A further example is provided by Berkeley and Farnham, where shell-keeps rose from masonry encasing the mottes (Newcastle upon Tyne may have been another). Some authors (eg. King 1988) have argued that this makes them a separate class, but their distinctiveness should not be exaggerated in terms of domestic planning. The evidence suggests that at Berkeley and Farnham the perimeters of the shell-keeps had buildings against their inside faces, and that the upper parts of their towers and entrances contained chambers. We might ask whether the inspiration of Farnham and Berkeley had something in common: transformation of both mottes took place around 1155 and soon after.

Footprint & Scale

Large motte tops were a prerequisite of a fully-integrated shell-keep: a fact which should be remembered when considering potential of (now) “empty” motte-tops as candidates for former shell-keeps. The conical motte, with a small top, did not lend itself to this adaptation. Spacious platforms were achieved in one of three ways. First, the primary motte may have taken this form, as seems to have been the case at various sites in south west England, such as Trematon

or Totnes. Second, it could be achieved by encasing a more conical motte and infilling its sloping shoulders, as happened at Berkeley and Farnham. Third, it could be achieved by truncating a conical motte, thus creating a lower and broader platform. We may wonder, then, how many mottes with shell-keeps may have been truncated from an original shape in order to enlarge their summit?

A very low example, such as Tretower, distinctly raises this suspicion. Where this is known to have happened, it strengthens the argument that shell-keeps were not a translation into stone of existing timber plans. At Durham, for example, the 14th-century shell-keep was built on a motte which had been lowered and widened specifically for this purpose (the resulting spoil blocked the windows of the chapel, below). The new building cannot have reproduced anything of the footprint of structures built from the eleventh to thirteenth centuries.

Approach & Stair access

In most shell-keeps, access was via a fairly simple stair, often protected by the “wing-wall” joining the bailey curtain to the shell-keep's perimeter (Carisbrooke, fig. 79). In such cases, the access to the shell-keep does not suggest grandness. But at Farnham and Berkeley, the approach is via elaborate staircases in forebuildings, originally incorporating drawbridges, and unrelated to wing-walls. At Cardiff (fig. 51), the approach led directly into the bailey via a magnificent forebuilding which survived until the 18th century. At Lincoln, the bailey-orientated stair to the entrance also suggests - despite the lack of a forebuilding - a more formal attitude to the approach than the (more common) stair along a wing-wall. Windsor's access stair (figs. 1, 13), while following the inner ward wing-wall, was also enclosed in a defensive structure with a forebuilding at the top.

Comparably significant variations existed in other matters, too: for example, whether defence additional to a wall-walk and parapet was provided by perimeter towers and/or by arrow-loops; whether a water-supply was available on the motte top; whether structures were provided with full facilities such as garderobes, fireplaces and ovens. Thus, within the shell-keep class, we find a range of sophistication and provision, as in castles generally.

Origin and Diffusion:

There remain basic issues of origin and diffusion. The form may have been invented in England, or had a prototype elsewhere, perhaps the royal/ducal site of Gisors in Normandy. Dating at Gisors and the earliest

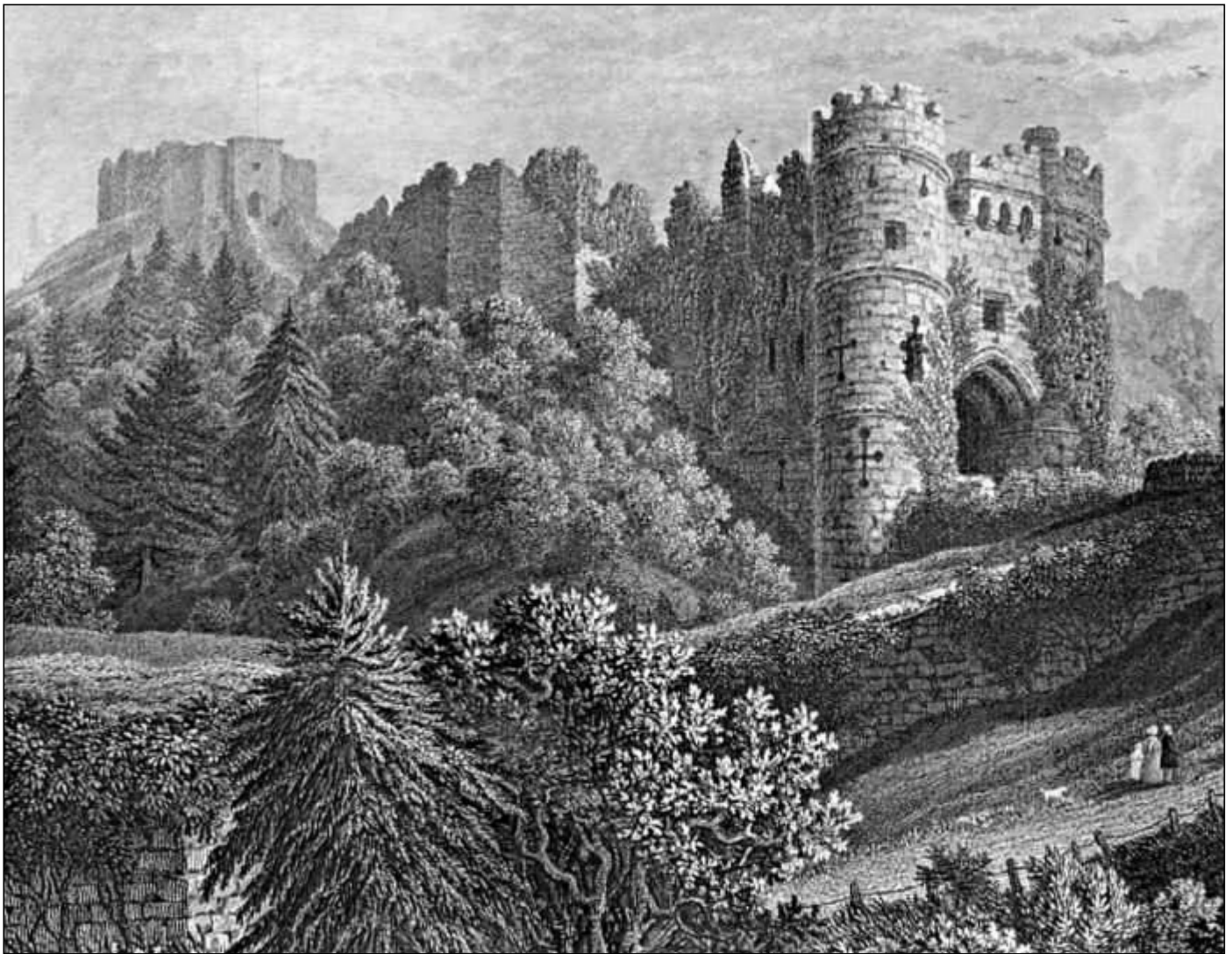


Fig. 79. Carisbrooke Castle with polygonal stone shell-keep that may have been added by 1136, on top of the motte. The shell-keep gatehouse was further added in 1335. Outer bailey gatehouse (right) c. 1335 & 1380s. Engraving c. 1841, by George Brannon.

English sites is too loose to show the relationship clearly. Borrowing of the English phrase “shell-keep” in French usage has a long history (Brown 1976, 85-86). Restormel influenced the illustration in the multi-lingual *Glossaire* of castellology, alongside an almost empty motte-top and one with a *donjon* and ring-wall (Villena 1975, 62-63). Gisors is relevant to the issue of origins, but uncertainty about the date of its shell-wall leaves an “Anglo-Norman issue” unresolved. But all authors agree that the form was very uncommon in France.

Maps

It is notable (**Map 1**) that some of the earliest English sites are in the south-east (e.g. Arundel (fig. 76), Carisbrooke, Lewes; Windsor’s earliest shell-keep might be Henry I, but the site where physical analogy with Gisors has been drawn is Lincoln, also royal but in a quite separate region. As well as a south-eastern group, there was a south-western group and another group in the

Severn, south Wales and border area: both, perhaps the result of fashion and imitation amongst (some of) the richest class. If suggestions of former shell-keeps at Alnwick (fig. 18) and Warkworth are also adopted, then, together with Durham (figs. 21-24) and Newcastle (figs. 19-20), there was also a north-eastern group reflecting perhaps another display of regional fashion.

The destroyed or problematic cases (**Map 2**) tend to reinforce these distributions. Close dating remains the fundamental problem which prevents an explanation of “diffusion”. Many sites cannot be closely dated; others are tentatively dated by association with (presumptively) suitable owner-periods. Rarely do specific documentary references to building activity occur, and even in these cases an association with the shell-keep, as opposed to the site in general, cannot always be assumed. Durham and Windsor are exceptions to this, but occur in the 14th century and so do not help with the “origin” issue.

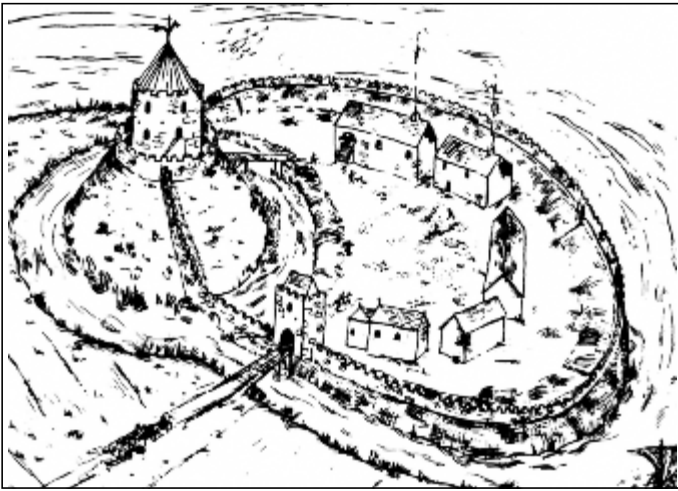


Fig. 80. Barnstaple Castle. Reconstruction drawing by Miranda Eland. Type: **C i** (see below). Reproduced by permission of the Devon Archaeological Society.

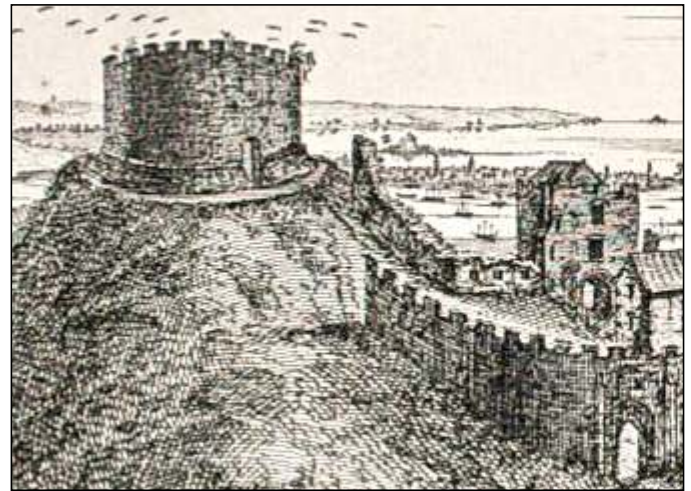


Fig. 81. Trematon Castle (detail). Samuel and Nathaniel Buck, 1734. From the north-west. Type **A i** (see below).

(A) New Concepts

The arguments and data given in this discussion contain many uncertainties and subtleties. Nevertheless, at the risk of over-simplification, the conceptual outcome is a proposition to replace (i) a set of ideas about shell-keeps on mottes with (ii) another set of ideas.

- (i) Shell-keeps were (a) very common (b) widespread (c) inspired by timber motte structures.
- (ii) Shell-keeps were (a) less common (b) mainly found in England (c) inspired by baileys.

(B) New Terminologies

It would greatly clarify future discussion about the masonry structures built on the top of mottes if we were to adopt separate terms for each of the following:

- A i**) an enclosing wall - polygon, distorted circle or oval - on a motte, with buildings in a full- or part-circuit, against or integrated with the internal wall-face; a central open space; a single sky-line - though sometimes interrupted by mural towers or gabled buildings; window views (usually) only to the interior. Example: Lewes (surviving).
- A ii**) a structure whose upper parts are of the (Ai) form but rising from a full masonry encasement of the motte. Example: Berkeley (surviving).
- B**) truly circular form, very rare, *not* on a motte, with a complete circuit of radially-planned domestic buildings; a single sky-line; sometimes with external windows. Example: Restormel.
- C i**) *donjon* or other free-standing building within an enclosing wall on a motte, with an open space between the two structures; a double sky-line; external window views (from the upper *donjon* storey). Example: Bedford (pictorial evidence).

Outcomes:

- C ii**) as for (i) except that the two structures on the motte are joined at first-floor level; no internal open space. Example: Launceston (surviving; *donjon* is secondary).
- D**) lobed *donjons* on mottes, of more complex plan with massive and tightly-spaced towers; roofed or with central open space / light-well; no surrounding wall. Example: Clifford's Tower, York (surviving).
- E**) roofed *donjons* on mottes, lacking an enclosing wall. Example: Okehampton (surviving).

With due respect to those who have sometimes accepted a fairly loose terminology for most of the above, it is suggested that separate descriptive terms are needed. The following are proposed:

- “**Integrated Shell-keep on Motte**” – for category **Ai**; mainly English.
- “**Integrated Shell-keep on Encased Motte**” – for category **Aii**; mainly English.
- “**Circular Castle**” – for category **B**; mainly European.
- “**Donjon** (with/without ring-wall) on motte” - for categories **Ci**, **Cii**, **E**; British and European.
- “**Complex Donjon on Motte**” – for category **D**; English & French.
- “**Simple Donjon on Motte**” - for category **E**; British and European.

Robert A Higham

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Captions to Distribution Maps

Map. 1: Shell-keeps. Map of sites included in the *Catalogue* (showing also Gisors, Normandy).

Map. 2: Shell-keeps: Map of sites *not* included in the *Catalogue*.

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Map 1: Shell-keeps: map of sites in Catalogue. Gisors (Normandy) is also shown



Map 2: Other sites discussed in the text.