Archaeological monitoring, test pits and building recording at Hedingham Castle, Castle Hedingham, Essex

June 2014 - December 2015



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1. Summary

Over the course of 18 months, a programme of archaeological investigation was carried out at Hedingham Castle during extensive restoration and modernising works. The monitoring of new service trenches, the excavation of exploratory test pits and a building recording survey were all undertaken during this period.

The most significant discoveries from these investigations are as follows.

- The site of the original Norman gatehouse and later Tudor repairs to it.
- Tudor construction and landscaping within the bailey.
- The date of the fore-buildings construction and the reason for its demolition.
- Foundations that supported curtain walls surrounding the motte and inner bailey.
- The original floor of the keep basement.
- A dumping of material and a burnt layer within the keep basement.
- Numerous other Norman and Tudor foundations.

These discoveries give a glimpse of the evolving layout and history of the castle and form the basis for any future work.

2. Introduction

This is the report on the monitoring, test pitting and building recording carried out by Colchester Archaeological Trust (CAT) at Hedingham Castle, Castle Hedingham, Essex (Fig. 1), TL 78699 35868), from June 2014 to December 2015. The work was commissioned by Mr and Mrs Lindsay with the intention of recording anything of archaeological interest exposed during the extensive renovation and modernising works on the keep. The project was monitored by Deborah Priddy of English Heritage (now Historic England).

All fieldwork and reporting was done in accordance with local and national standards as detailed in CIfA 2008a, CIfA 2008b, MoRPHE, EAA **8**, EAA **14**, and EAA **24**.

3. Archaeological Background

Hedingham Castle is a Norman motte-and-bailey castle built by the de Veres, the Earls of Oxford, in the late 11th to early 12th century. The manor of Hedingham was granted to Aubrey de Vere in 1066 and the earthworks on which the keep now stands were likely erected in very short order after he was confirmed in his new lands.

Sculpted out of a natural spur of land overlooking the northern bank of the River Colne, the earthworks are extremely impressive even today. By excavating a deep ditch across the spur and scarping the natural slopes, the Normans enhanced an already very commanding location.

The castle earthworks consist of a motte with two baileys – an inner bailey to the north-east and an outer bailey to the south-west (Fig 1). The inner bailey would have contained structures such as stables and barns, and today is the site of the current residence associated with the castle – a red brick mansion constructed in 1719. The outer bailey was larger in size and enclosed the early medieval settlement connected with the castle. Today the earthworks for the outer bailey are largely levelled and buried beneath the modern town, with only traces remaining (Medlycott, 1999).

It is likely that prior to the construction of the keep as we know it today, wooden buildings and defences would have stood on and around the earthworks, as they did with many early castles before their conversion to stone (Brown, 2004).

Hedingham Castle has a close kinship with Rochester Castle, both being extremely similar in architectural style and both dated to the early 12th century. Rochester is in an even finer condition than Hedingham, with its fore-building and surrounding curtain wall intact. During the discussions that follow, it will serve as an important comparison.

The stone keep was added to the earthworks at Hedingham in the first half of the 12th century, probably to mark Aubrey de Vere III being made the Earl of Oxford. The keep is one of the best preserved in northern Europe and, unusually for an Essex castle, is faced with blocks of ashlar from a quarry in Barnack, Northamptonshire.

Apart from the keep, no trace of the original Norman castle remains above ground. The inner bailey curtain wall, the keep curtain wall and various domestic outbuildings were all replaced during the Tudor period. A survey of the castle in 1592 (Plate XVI) shows the grounds as they appeared at this time, with brick towers and turrets, along with the keep and still surviving Norman gatehouse. With the exception of a heavily-restored Tudor bridge, these later brick structures and the stone gatehouse have all been subsequently demolished, leaving a solitary keep towering over impressive earthworks.

Only two previous excavations are known to have taken place in the grounds of the castle, both by members of the Essex Archaeological Society in the mid-19th century. The first was in 1853 under a Mr Harrod and Sir Beevor, of which no records survive. The other, in 1868 by the then owner Mr Majendie, was atop the motte and focused mostly on the western side of the keep, exposing several Tudor buildings including the great hall, a number brick towers and the chapel. Also briefly mentioned is the discovery of 'rubble foundations' of a 'wall which surrounded all the court', and a stone gatehouse tower to the east of the keep (Fig 2).

The fore-building of the keep is shown as being intact in the survey of 1592, but is now in a state of ruin. Sometime in the early modern period, two large entrances and doors were inserted into the north-eastern side of the keep, providing access into the basement from ground level.

On September 25th 1918, the Suffolk and Essex Free Press records a fire within the keep of Hedingham Castle while it was in use by the military:

"The interior of the ancient ruin was entirely burnt out. The old keep was built by the Earls of Oxford in the reign of King Stephen. This historical place which is visited by people from all parts of the country stands on commanding eminence was occupied by the military and used as a signalling station for aircraft. It is supposed the fire originated in a hut erected on the top for accommodation of the soldiers. The fire spread readily from one floor to another, entirely burning out the interior, only the massive walls remain intact."

Evidence of this fire was uncovered during the test-pitting within the keep basement (see section 7 below).

No further archaeological work appears to have been carried out within the castle after the excavations in the 1800s until 1995, when the Royal Commission on the Historical Monuments of England (RCHME) conducted a survey of the keep and earthworks (Brown, 1995). Then, just prior to the investigation detailed in this report, a ground-penetrating radar survey was undertaken immediately around the keep. The results of this survey were used to determine the route of the new service trenches.

This is the first excavation report on Hedingham Castle for almost 150 years, and an attempt has been made to bring together all previous evidence alongside new discoveries to lay the groundwork for any future archaeological investigation.

4. Aim

The aim of the investigation was to record and establish the character, extent, date, significance and condition of any remains and deposits likely to be disturbed by the proposed works, in particular with reference to any potential archaeological deposits relatable to the information provided in Section 3 above.

5. Methodology (Fig 3)

In total during this investigation, three service trenches and one new pathway were monitored, seven test pits were excavated and the fore-building of the keep was surveyed (Fig 3).

Monitoring

Three 600mm wide services trenches were excavated – one from the northernmost basement door of the keep across and down the motte into the inner bailey, around the post-medieval stables and into the back of the store (**T1**). Another from the northernmost basement door to the Tudor bridge linking the motte and the inner bailey (**T2**). And a third linking T1 down the slope of the inner bailey to a large septic tank to the north of the main earthworks (**T3**).

The service trenches were excavated under archaeological supervision using a tracked excavator with a toothless bucket. Where archaeological remains or deposits were uncovered, time was allowed for recording these before their removal. Where building remains were encountered, a solution was engineered to leave them in situ and have the services avoid them.

In addition to the service trenches, the strip for a new pathway outside the keep and the support pads for a new wooden platform above the fore-building were monitored (the support pads will be discussed in conjunction with test pit 7, due to their location).

Test pits

The seven test pits were excavated by hand and are spread over the investigation area:

Outside the keep

- TP1 was located at the top of the motte on the north-eastern side.
- **TP2** was located at the very base of the keep, in front of the northernmost basement door, where T1 and T2 entered the building.

Within the basement of the keep

- TP3 was located in the south-eastern alcove.
- TP4 was located in the south-western alcove.
- TP5 was located in the centre of the basement.
- TP6 was located to the west of the basement, against the wall and beneath an arrow slit.

Fore-building

- TP7 was located in the north-west corner of the fore-building.

Survey of the fore-building

A photographic record of the fore-building of the keep was made after the removal of an overgrowth of ivy, but prior to its restoration. Multiple photographs were taken of every elevation, and architectural details were singled out and photographed individually. An accurate measurement of the structure was taken using tapes and an electronic measurement device to create a large-scale plan of the structure. This also draws from pre-existing architectural plans. Every elevation was drawn to scale, and any architectural features noted (such as remains of facing, put-log holes etc).

In the archive associated with this report is a full photographic record, comprising digital photographs. It is accompanied by a photographic register detailing location and direction of shot. Select examples of the photographic record are clearly tied into the report and reproduced as fully annotated photographic plates.

As well as the photographic and drawn record there is an associated discussion which explores the form and function of the building, its details, and its context within Hedingham Castle as a whole.

Each area of the investigation is discussed separately below (monitoring, test pits and building recording).

A note on terminology

During this investigation, two differing types of foundations were uncovered.

The first type of foundation consisted of large nodules of flint (sometimes faced), bound together with yellow lime mortar. This has been identified as Norman in origin, matching very closely in appearance the core fabric and foundation of the keep itself.

The second type of foundation consisted of moulded unfrogged red bricks laid in English bond and bound together with yellow/white lime mortar. This has been identified as Tudor in origin, fitting both the stylistic traits of Tudor brickwork and also the known history of the castle (see section 3 above).

The presence of these foundations has allowed dating of layers cut by or sealing them. The terms 'Norman' and 'Tudor' are used extensively within the text. Where the provenance of a context cannot be as securely ascertained, the terms 'medieval' and 'post-medieval' are used.

6. Monitoring (Figs 4-5)

Results

Between them, the three new service trenches and strip for a new pathway exposed thirteen layers and twelve features:

Context	Description	Date
L1	soft dark black sandy silt topsoil and turf. heavily rooted in places. covers whole site. varies in depth from 300m within the inner bailey to 120mm on top of the motte.	modern
L2	medium/dark grey/brown sandy silt subsoil found below L1 in T1 and T2 . part of the post-medieval build up of the inner bailey and earthworks.	post-medieval
L3	soft yellow/brown sandy silt with frequent mortar flecks and inclusions – and a mortar lens through it. begins in T1 to east of F1 within the inner bailey. abuts against west side of F4. possible foundation for Tudor building.	Tudor
L4	friable medium grey/brown sandy silt below L2 in T1 , part of the Norman build up of inner bailey. cut through by Norman foundation F2.	Norman
L5	soft light yellow/orange redeposited natural sand making up the rampart around the top of the motte. observed in T1 and TP1 . cut by Tudor foundation F6.	medieval
L6	firm light yellow/brown silty sand, probably part of the initial Norman build up of the earthworks – only observed at very base of T1 as it ran across ditch separating inner bailey and motte.	Norman

L7	observed in T1 , T2 and TP2 beginning at a distance of <i>c</i> 7m from the keep walls and going right up to ashlar facing. a thick layer of light yellow mortar with large nodules of flint. differs from foundations uncovered in that it is very loose. possibly a postmedieval dump of Norman building material.	?post-medieval
L9	observed in T1 . thin layer of brick and tile below L11 on top of the motte. forms part of build up and levelling of the motte in the mid to late post-medieval period along with L10 and L12. could possibly have been a surface, although quite uneven.	post-medieval
L10	thin layer of mortared peg tile beneath L12 atop motte in T1 . similarly to L9, could have been a surface? or possibly a dump of building material. forms part of build up and levelling of the motte in the mid to late post-medieval period along with L9 and L12.	post-medieval
L11	observed in T1 . soft dark brown/black sandy silt lying just below the topsoil of L1 on top of the motte. possible placed topsoil on top of the post medieval build up of L9, L10 and L12. thin band of gravel at top of layer – possible surface?	modern
L12	clean layer of friable medium grey/brown sandy silt lying between the two thin layers of brick and tile (L9 and L10) on top of the motte in T1 . part of the mid to late post-medieval build up – a possible placed topsoil between the two dumps of building material.	post-medieval
L13	observed in T1 . friable medium brown sandy silt present from the motte rampart (L5) to the 'foundation' of the keep (L7). runs beneath later post-medieval build up of L9, L10 and L12. likely earlier Tudor build up of the motte.	Tudor
L14	friable light/medium brown sandy silt. very similar to L13, but slightly lighter. only observed below L13 just before L7 in T1 . likely part of the Tudor build-up of the motte.	Tudor
L30	friable medium grey/brown sandy silt, with some flecks of mortar. observed between Norman foundations F4 and F13 in T1 . part of the Norman build-up of the inner bailey.	Norman
L31	firm clean yellow natural clay. only observed outside castle earthworks in T3 .	post-glacial
F1	corner of brick foundations found in T1 . brick dimensions 25cm x 6cm x 11cm, unfrogged. remains of a Tudor building on the inner bailey. L3 only exists to east of the this feature.	Tudor
F2	large area of flint and lime mortar foundation cut through by T1 . cut to west by F3.	Norman
F3	cut for modern service, aligned north west-south east. observed in T1 . cuts F2 to east.	modern
F4	small section of wall foundation made of lime mortar and flint. appears to be truncated to the west, presumably when L3 was deposited. ends in edge of T1 .	Norman
F5	long foundation rising up the side of the motte in T1. constructed of lime mortar and worked blocks of flint. small area of trench widened, showing foundation has width of at least 1.3m.	Norman

F6	shallow brick foundations found just on top of the motte, cut into rampart material L5 in T1 . brick dimensions 20cm x 5cm x 11cm, unfrogged, and laid in English bond. more recent pavior bricks along the top of the foundation – suggesting it was reused or marked out in the early modern period.	Tudor
F7	flint and lime mortar foundation. begins at the very top of the slope of the motte in T1 , abutting L5. approximately 4m thick, and heavily damaged by rooting.	Norman
F8	modern steel waterpipe along most of length of T2 . cut varies in width, but is on average 30cm wide.	modern
F10	observed in T2 . Norman masonry and faced stones set into foundation F11. cut through by modern pipe F8.	Norman
F11	flint and lime mortar foundation along length of T2 from faced stones F10 to later Tudor wall F12.	Norman
F12	brick wall set into existing Norman foundation of F11 in T2 . brick dimensions 25cm x 6cm x 10cm, unfrogged.	Tudor
F13	flint and lime mortar Norman foundation. exposed at eastern end of T1 . is set into L3, in a similar fashion to F4. modern shed to south has foundations set into this feature.	Norman

Discussion

The service trenches exposed large amount of building remains, both Norman and Tudor, as well as key evidence concerning the motte's construction and subsequent landscaping.

Layers

Of the non-modern layers exposed in the trenches, all were identified as either initial Norman sculpting of the earthworks or Tudor and later post-medieval build up and infill.

L7 appears at approximately 7m from the keep walls in T1, and continues right up to the ashlar facing exposed in TP2. It is a thick layer of large flint nodules and lime mortar, but much looser in composition than any of the Norman foundations observed (F2, F4, F5, F7, F11 and F13 – see below). Although only containing Norman building material and no other finds, it is unlikely to be a layer associated with the construction of the keep. In TP2 (see below) it goes right up to and covers ashlar blocks that would have been visible when the keep was first constructed. This, combined with the loose nature of this layer, suggests that it was a later deposition of Norman building material in order to build up the motte. There is the possibility that it was deposited in the post-medieval period, but it could be earlier in origin (see TP2 below).

The only possible Norman layer encountered atop of the motte is L5 – visible in T1 (Fig 4). Consisting of redeposited natural sand and found only at the very edge of the motte, it is possible that L5 is the make-up of the original Norman rampart.

Between L5 and L7 lies a successive build-up of Tudor and later post-medieval layers (Plate I). The earliest of which is L13, which abuts both the rampart (L5) to the east and L7 to the west, before itself being covered by the later post-medieval layer sequence of L10, L12 and L9. Covering these post-medieval layers is the modern placed topsoil of L11, which itself is covered (as is the whole motte) by modern turf (L1).



Plate I Build-up of post-medieval layers on top of the motte in T1. View facing north-west.

It is clear that the motte has been built up substantially since its initial construction. With no original Norman layers encountered along T1 it seems the rampart would have been much higher than the plateau of the motte in the medieval period.

As T1 passes down the side of the motte and into the ditch separating it from the inner bailey, the stratigraphic make-up changes (Fig 5). L1 covers everything, as before, but beneath that is a post-medieval subsoil L2 – which seals all Norman foundations (see below). Beneath this, and cut by the foundations, is L4, a silty sand topsoil of Norman date. Lying directly beneath L4, and only just observed in section at the bottom of the ditch, is L6 – a light yellow/brown silty sand and part of the initial Norman build up of the earthworks.

As T1 makes its way up round the edge of the inner bailey, two more layers are encountered (Fig 4). L3 is a post-medieval layer associated with F1 – a thin layer of gravel runs along the base of L3, and F1 is resting upon it (Fig 5). Interestingly L3 runs up to the Norman foundation of F4, but then stops. F4 appears damaged on this side, so whether it was truncated by the deposition of L3 or it is being reused as one side of a structure (with F1) is unclear. L30 is a thicker layer of Norman topsoil, similar to L4, and cut by Norman foundations F4 and F13 (Fig 4).

Because T2 was following the line of an existing service trench (F8), the only layer encountered during its machining was L1, which sealed the existing service and Norman foundations (see below).

As T3 goes down the earthworks to the north its stratigraphy mirrors that of T1 in the ditch separating the motte from the inner bailey (see above). It is only when it reaches the bottom of the earthworks that it changes – below the more recent build up of L1 and L2 is L31, clean yellow natural clay. It is a testament to the size and scope of the earthworks that this is the only time the natural horizon was observed during this investigation.

The strip for the new pathway outside the keep reached a depth of 300mm, so only the modern layers L1 and the very top of L11 were impacted.

Features

Numerous Norman wall foundations were exposed in the service trenches (F2, F4, F5, F7, F10, F11 and F13) and they all have a similar make-up; flint nodules bound together with lime mortar. All the

Tudor foundations exposed were made of brick (F1, F6 and F12). In addition, two modern services were encountered (F3 and F8).

Interpreting small sections of foundation in narrow trenches is a case of extrapolation and some guesswork. But the interpretations that follow form a base for any future archaeological work on the site, and may in time be proved or disproved via further excavation.



Plate II F10 and F11 in T2. View facing north-east. Modern steel waterpipe (F8), running through the foundation.

Norman Foundations

The most prominent remains of a Norman building in the service trenches are the facing stones and foundation (F10 and F11, respectively) found in T2 on top of the motte (Plate II). These match the location of the 'rubble foundations' associated with the gatehouse uncovered in the 1868 excavation (Fig 2), as well as the broad location of the gatehouse from the 1592 survey (Plate XVI). Assuming that the facing stones are the western limit of the structure, and extrapolating from the 1868 excavations, it would have extended c13m from the location of the current bridge and would have had a width of at least c8m. If this is the gatehouse, and it seems likely from the substantial size of the foundations, it suggests that the primary entrance to the motte has always been in the location it is today, ie. the Tudor bridge is a direct replacement for an earlier Norman bridge (or drawbridge).

At the very edge of the motte is a solid lime mortar and flint foundation (F7) that is visible for 4m in T1 before ending as the trench makes its way down the slope (Plate III). This foundation is likely to be the remains of the curtain wall encircling the top of the motte – the remains of which were found on the other side of the motte during the excavations of 1868 (Fig 2). Although a stone wall surrounding the motte is not a common adaptation to motte-and-bailey castles, neither is it unheard of, as the castles at Sandal, Beckhamstead and Windsor all attest (Brown, 2004). With the width of this foundation being so great, it is possible that T1 may have coincided with the location of a buttress, in which case the actual width of wall would have been narrower elsewhere.



Plate III F7 in T1. View facing north-east.

Going further down the sides of the motte, T1 exposed the substantial foundations of F5 (Plate IV). This differed from the other Norman foundations encountered. Instead of irregular nodules of flint mixed with lime mortar, F5 consisted of large worked rectangular blocks of flint placed atop of one another and bound with lime mortar. Although the flint blocks were not faced in any fashion, F5 could be described as less of a foundation and more of a buried wall. It runs up the side of the motte before vanishing into the side of T1 as the trench turns (Fig 4). An exploratory slot was dug to ascertain the width of the wall. The other side was not encountered, but it has a width of at least 1.3m. Given its location, this wall presumably connected the curtain wall of the motte with a curtain wall around the inner bailey (Fig 9).

On the corner of the inner bailey in T1 a large area of Norman foundation was dug through (F2). This is likely related to a curtain wall around the inner bailey, although it does not appear to continue to the east. It could possibly be the foundation of a tower, overlooking the earthworks to the north (Fig 9).

The final two Norman foundations encountered were F4 and F13. Both were small segments of foundation observed within the inner bailey (T1). F4 appeared to be truncated to the west by L3 and possibly later reused as part of a Tudor structure (see above). F13 had the foundation of a modern shed built onto it, and continues to the south. Too little of these features survive to permit confident interpretation, but it seems likely they are related to a curtain wall around the inner bailey.

It is uncertain if these stone defences around the castle were built at the same time as the keep, at a later date, or even earlier. It seems reasonable to assume that the whole castle would have been converted into stone at the same time, but of course without any standing Norman walls or masonry to observe (save for the keep itself) it is impossible to be certain.



Plate IV F5 in T1. View facing south-west.

Tudor Foundations

Of the Tudor foundations observed, by far the most substantial is F6, uncovered on top of the motte (Plate V). This foundation is aligned north-west to south-east across T1, with a smaller section aligned south-west to north-east, both at 6 courses deep. Like the foundations uncovered in 1868 (Fig 2), this is likely part of a Tudor building erected in the motte before being subsequently demolished in the late post-medieval to early modern period. Alternatively, there is some possibility of this being the remains of a Tudor wall surrounding the top of the motte, intended to replace the Norman curtain wall. But as no 'Tudor curtain wall' was uncovered in the 1868 excavation this seems less likely.

One curious thing to note is the course of yellow pavior bricks present across the top of the foundation F6 (Fig 4). These are of a later date (c 18th century), and likely re-used from another structure. Why they've been placed onto this Tudor foundation is open to debate, but the most likely scenario seems to have been the marking out of known foundations by an earlier owner of the castle – they certainly don't appear to have ever had a structural purpose.



Plate V F6 in T1. View facing south-west. Note the course of lighter pavior bricks.

One much smaller example of Tudor foundations is F12, observed in T2 (Plate VI). It consists of a segment of brick wall set into the Norman foundation of the gatehouse (F10). While not architecturally impressive, this does show very clearly the re-use of Norman materials, and even foundations, in later periods of the castle's development. As for the foundation itself, given its location, it could be the remains of a Tudor gatehouse – although on the 1592 survey the gatehouse is clearly labelled as stone, not brick (Plate XVI). It seems more likely that it is merely a repair to the existing structure, instead of a complete replacement.

The final piece of Tudor foundation exposed during the monitoring works was the corner of a brick foundation (F1) within the inner bailey in T1 (Fig 5). Related to L3 (see above) and possibly forming part of a structure with the Norman foundation F4, the exact nature of this foundation is unclear.



Plate VI F11 and F12 set into it in foreground in T2. View facing south-west.

7. Test pits (Figs 6-7)

Results

Seven test pits were excavated and between them exposed a further sixteen layers and four features:

Context	Description	Date
L8	observed in TP2. friable medium brown sandy silt	?post-medieval
	with flecks of mortar. lays beneath L7.	
L15	medium brown compact sandy silt surface in TP3.	modern
	first surface encountered after loose debris and soil	
	cleared away. F14 and F15 cut into this layer.	
L16	very loose dark orange/brown sandy silt in TP3 .	modern
	contains large amount of decayed/burnt wood and	
	bottles. sealed by L15, likely related to the fire in	
L17	1918. hard medium grey/yellow layer of solid mortar in TP3 .	Norman
L1/	original keep surface. only survives in eastern part of	Noman
	TP3. sealed by L16.	
L18	solid flint and mortar foundation of the keep beneath	Norman
	L17. observed in both TP3 and TP4 . cut into by F14	Noman
	and F16 – has collapsed alot in TP4.	
L19	very firm medium grey/brown clay, set down as a	modern/post-medieval
	surface in TP4 . only visible in western half of TP4,	
	seems to be cut through by F16 (or laid after).	
L20	firm dark grey/brown sandy silt forming a possible	modern
	'ramp' into F16 in TP4 . much more compact and solid	
	than the rest of F16's fill.	
L21	very loose dark brown sandy silt, just below dust and	modern
	debris in TP5 . quite similar to L16 in TP3, but no	
	wood or bottles. likely associated with fire in 1918.	
L22	loose medium brown layer sealing burnt clay layer	modern
	(L23) within TP5 . lots of mortar flecks present, and	
	not an even thickness – possibly collapse or	
L23	deposition after fire in 1918?	modern/poet modieval
LZS	firm dark black/grey burnt clay floor surface at base of TP5 . damaged by 1918 fire? similar to surface L19 in	modern/post-medieval
	TP4, although at a lower level.	
L24	very loose dark brown sandy silt layer beneath dust	modern
	and debris in TP6 . quite similar to L21 in TP5 and L16	modern
	in TP3, although contains large amounts of peg tile.	
	likely a dump of material after the fire of 1918.	
L25	is the first layer encountered in TP7 after rubble and	modern
	vegetation cleared out of fore-building. loose dark	
	brown sandy silt topsoil. heavily rooted and contained	
	a large amount of flints (fallen from the walls).	
L26	dump of demolition debris uncovered directly beneath	modern
	L25 in TP7 . contains Tudor bricks, but also some	
1.07	more recent frogged and Pavoir ones.	l control Paral
L27	layer of infill beneath L26 in TP7 . soft medium	post-medieval
	yellow/brown sandy silt, much lighter than any layer	
	above it. numerous peg tile and brick flecks within fill,	
L28	likely Tudor/post-medieval infill of the fore-building. very soft light yellow sandy silt sealed by L27 in TP7 .	post-medieval
	occasional peg tiles recovered, very mortar rich layer.	post-ineuleval
	Tudor/post medieval infill? quite similar to L27 but	
	Tadon post modicial mini: quite similar to LZT but	<u> </u>

	slightly lighter.	
L29	a compact medium brown/black sandy silt with flecks of mortar observed during monitoring in fore-building. found directly beneath L25. quite similar to L8 on other side of keep (in TP2).	?Norman
F9	flint core and dressed stone of the keep wall found in TP2 . the dressed stone would have originally been above ground.	Norman
F14	pit/collapse in the centre of the keeps south/eastern alcove (TP3). modern glass, animal bone and clay pipe recovered from the very loose fill. cuts slightly into keep foundations (L18).	modern
F15	similar to F14, a possible collapse/pit on surface of south/eastern alcove of keep (TP3). plastic, peg tile and animal bone recovered from fill.	modern
F16	large pit cut through the foundation of the keep in its south western alcove (TP4). backfilled entirely with modern material – glass bottles, wire, pot. has caused heavy collapse underneath nearby walls.	?

Discussion

The test pits uncovered evidence relating to the fire that the keep suffered in 1918, and exposed the original floor of the keep basement. Additionally the build-up of material within the fore-building was examined. Each test pit is discussed individually below.

Test Pit 1 (Plate VII)

TP1 was located at the top of the motte on the north-eastern side, and was intended to identify traces of a curtain wall or outbuilding prior to the digging of T1. It was 800mm deep and its stratigraphy consisted of 300mm of topsoil (L1) before encountering rampart bank material (L5). No features were observed or finds recovered.



Plate VII Test Pit 1. View facing south-west.

Test Pit 2 (Plate VIII)

TP2 was located at the very base of the keep, in front of the northernmost basement door, and was intended to determine the existence and depth of archaeology prior to the excavation of T1 and T2.

It encountered the battered sides of the keep (F9) continuing downwards, cut by a modern steel waterpipe coming out of the basement door (F8). Also encountered were L7 and L8, two mortar rich layers that abut the side of the keep. The date of these layers is unclear. They cover the keep walls

F9, which would have originally been visible (judging by the worked stone) so they are unlikely to be associated with the keeps construction. However, no finds were recovered from either, and the mortar in both (and nodules of flint in L7) are all Norman building materials. These layers could be Tudor or later post-medieval dumps of Norman building material, possibly from the demolition of the fore-building (see below). Alternatively, they could be earlier depositions of material in order to support the keep (the could even be late Norman in date). Without dating evidence it is difficult to be certain. L7 seals L8.



Plate VIII Test Pit 2. View facing south-west.

Test Pit 3 (Plate IX)

TP3 was located in the south-east alcove of the keep basement (Fig 6). It was intended to examine the stratigraphy of the basement before the clearing of debris and laying of a new floor. It was also placed with the intention of identifying any wells or tunnels present within the alcove.

The test pit was 600mm deep. The first layer encountered after cleaning away the dust and debris within the alcove was L15, a compact surface that was 70mm thick. Immediately beneath this was a 400mm thick dump of material, including bottles and rotted wood (L16). Directly sealed by this dump of material was the patchy remains of the original keep floor surface (L17), and beneath that, the keep foundations (L18).

L17 was a very compact mortar surface, and only survived to the west of the test pit. L18 was a solid mortar and flint foundation, similar to the Norman outbuilding foundations uncovered in T1 and T2.

Two features were observed in TP3, the small pits F14 and F15. Both of these features were dug into L15 and L16, with F14 slightly impacting the keep foundations (L18). These pits were already pre-existing hollows in the floor of the alcove prior to excavation, and only partially backfilled. This suggests they were dug in the very recent past.



Plate IX Test Pit 3, fully excavated. View facing south-east.

Test Pit 4 (Plate X)

TP4 was located in the south-west alcove of the keep basement. Like TP3, it was intended to examine the stratigraphy of the basement and the possibility of any wells or tunnels within the alcove.

There was not as much dust or debris encountered in TP4 as in other test pits within the keep. It appeared to have been kept clearer than the other alcove. Similarly, there was no dump of material below the debris. The first layer encountered was L19, a thin compact layer of clay. This surface was only observed to the west of F16. Beneath the clay were patches of the original keep surface (L17) and below that, the keep foundations (L18).

The test pit was dominated by a large pit cut into the foundations (F16). The pit was 1.1m in diameter and 850mm deep with plastic, glass bottles, foil wrappers and other modern rubbish observed in its fill. The fill itself was generally loose, but there was a much more compacted segment which was identified as a possible 'ramp' into the pit (L20). Even though the feature reached a significant depth, the foundations of the keep still continue beneath it. The pit has clearly been in use as a rubbish dump in the modern period, and L20, L19 and the cleared area around the pit (presumably for access) are all testament to this. Although all the finds recovered from the pit are modern in origin, the date of its initial excavation is uncertain.



Plate X Test Pit 4. View facing north-east.

Clearly digging a large hole into the foundations of the keep would have been a time consuming and difficult task, as well as causing potential structural issues (the pit has caused collapse and undermined the nearby walls – Fig 7). Digging such a hole just for the purpose of depositing rubbish would make little sense, so there must be another reason for its excavation. A potential explanation is that the pit was dug in order to remove an object set into the floor of the alcove. Given the size of the hole, such an object would have been quite large in size, and removing it would not have been an easy task. What the object could have been is difficult to say, although it is likely to have been related to the storage of goods, given the use of the basement as a whole.

A more fanciful interpretation is that the hole was an icehouse, intend to keep ice during the summer months and preserve wine and meat for extended periods. Evidence for medieval icehouses is sparse, but the hole could have been dug into the foundations at a later date when icehouses were a common feature in aristocratic estates. If true, this would have been sometime between the 17th- and 19th-centuries (Buxbaum, 2008). However, the immense effort required to dig a hole of this size in the keep foundations seems illogical when an icehouse could have been constructed elsewhere on the estate with much greater ease.

The most feasible explanation could be antiquarian activity. Hedingham Castle was of great interest to antiquarians in the early modern period (as the excavations undertaken on the motte in the 19th century demonstrate). An excavation within the basement to discover the foundations make-up and depth (and search for any tunnels) is definitely within the realms of possibility. The lack of records of such an event does not disprove its occurrence, as many modern historians will attest!

Test Pit 5 (Plate XI)

TP5 was located in the centre of the keep, and was dug after the demolition of a modern wall. Like the other trenches present in the basement of the keep, it was intended to examine its stratigraphy prior to the laying of a new floor.

The test pit was 500mm deep, and sealed by a 100mm-200m thick layer of debris and dust. Beneath this was a 110mm-260mm thick layer of loose sandy soil (L21). This layer was very similar in composition to L16 in TP3, except it did not contain any broken bottles. It is likely that L21 represents the same dumping event as L16.

Below this layer was a 130-400mm thick layer of loose sandy silt with mortar flecks (L22), which directly sealed a heavily burnt clay floor with large patches of charcoal (L23). The burning of this layer almost certainly originates from the fire in 1918. Aside from the burning, L23 is very similar to the other clay surface uncovered in TP4 (L19). The possibility these are the same surface seems likely. Presumably the clay surface in TP4 would have been protected from the fire due to its location in the alcove.



Plate XI Test Pit 5. View facing south-east. Poor image quality due to lack of lighting and large amount of dust in air.

Test Pit 6 (Plate XII)

TP6 was located to the west of the basement, against the keep wall and beneath an arrow slit (Fig 6). Like the other trenches present in the basement of the keep, it was intended to examine its stratigraphy prior to the laying of a new floor.

The test pit was 880mm deep and sealed by a layer of dust and debris 130mm deep. Beneath this dust and debris was a 730mm deep layer of loose sandy soil containing large amounts of peg tile (L24). This layer was similar in composition to L16 in TP3 and L21 in TP5, but had a larger quantity of peg tile present than either.

Directly sealed by this layer is L17, the original keep surface. No evidence of a later clay surface was encountered (L19 in TP4 and L23 in TP5). Unlike other examples of the original mortar surface observed in TP3 and TP4, L17 in TP6 is stained with charcoal and has evidence of burning across it. As with the clay floor in TP5, this can be attributed to the fire of 1918.



Plate XII Test Pit 6. View facing south-west.

Test Pit 7 (Plate XIII)

TP7 was located in the north-western corner of the fore-building (Fig 6). It was intended to examine the stratigraphy of the interior of the fore-building prior to levelling and the installation of the supports for a new viewing platform.

The test pit was 1m deep. The first layer encountered after the overgrowth and collapse had been removed was a 250mm deep layer of sandy silty topsoil, built up over the time the outbuilding had been open to the elements (L25). This topsoil contained rooting, and also large nodules of flint that had fallen from the walls.

Beneath this topsoil was an 180mm deep deposition of demolition debris, made up of frogged brick and peg tile fragments (L26). This sealed a 450mm deep sandy silt infill containing peg tile, clay pipe and flecks of brick (L27). This layer could have been built-up over a substantial timeframe, although it is clearly of post-medieval date. Beneath this layer at the base of the test pit another infill was uncovered, very similar to L27 but with a lighter composition and large flecks of mortar (L28).

TP7 revealed a substantial amount of post-medieval infill within the fore-building. It seems reasonable to assume that during the Tudor and later post-medieval period the remains of the fore-building would have been used as a rubbish dump. When compared to the fore-building at Rochester Castle (the closest comparison to Hedingham architecturally), it appears that the base of

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Hedingham's fore-building could have originally been up to 2.1m lower than its current interior ground level (taken from elevations in Salter, 2001 (Hedingham) and Brown, 1977 (Rochester)).

The later monitoring of the reduction of the interior floor level and excavation of support pads gave more insight into the stratigraphy of the interior of the fore-building.

It transpired that the thick layer of demolition debris (L26) was only present to the north-west of the fore-building, and that the later support pads showed no signs of this compact layer of brick and peg tile. The lower layers of post-medieval infill were present in the support pads to the west of the fore-building, but in the east another layer was observed. L29 was a sandy silty brown layer with flecks of mortar present in its make-up. It appeared very similar to L8, observed around the other side of the keep in TP2.

As with L8, the dating of this layer is uncertain. It had no finds present and the only indicator as to its age are the mortar flecks.



Plate XIII Test Pit 7. View facing north-west.

8. Building recording survey (Fig 8 & Figs 10-16, Plates XX-XXXV)

The elevations of the fore-building were photographed and planned after the removal of an overgrowth of ivy, but prior to its restoration. Several notable architectural features were observed during this process and are described in detail below. Selected photos of the fore-building have been reproduced as plates after the discussion.

Almost all that remains of the fore-building at Hedingham is the core fabric of the structure, made up of lime mortar and flint nodules, rising to just below the first floor of the keep. Originally, as at Rochester, the fore-building would have surrounded and protected the entrance on the first floor.

Exterior

During work on the fore-building, it became clear that originally it would have been faced with the same ashlar blocks that adorn the keep. Although these blocks have been almost completely

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removed, some scars in the core fabric remain that show their locations (Plates XX-XXXV). A small number of ashlar blocks have survived and remain in situ, and are annotated on the elevations (Figs 10-16).

Like the keep itself, around the exterior of the fore-building are a number of putlog holes (Figs 10 - 16, Plates XX - XXXIII).

An attempt was made in the past to repair part of the damage inflicted upon the fore-building. The most obvious area of repair is on the north-west elevation (Fig 11), where an infill of ashlar blocks, flint and mortar has been used to block up a large hole in the wall (possibly caused by a collapse of a window). Another repair is on the side of the stairway, where a small gap between what remains of the archway and the rest of the structure is infilled, again with ashlar blocks and mortar (Fig 16).

The date of the repairs is unknown. The source of the original building materials used in the repairs is likely the fore-building itself or the curtain walls, and certainly these repairs have occurred after the fore-building became a ruin.

Interior

The interior of the fore-building is very similar to the exterior; by and large only the core fabric remains. The exceptions are two areas of intact facing, one in the north corner and one in the south. This interior facing consists of courses of flint nodules and worked ashlar blocks set into the core fabric of the building (Plates XXVII - XXX).

Within this facing and sporadically elsewhere within the fabric of the fore-building, broken pieces of Roman roof tile (*tegula*) were observed. The reuse of Roman building materials in later Norman structures is a common occurrence, especially in areas with no natural building stone (such as Essex). One of the earliest Norman keeps at nearby Colchester is made almost entirely of reused Roman building material. If the ashlar blocks were stripped from the keep itself at Hedingham, it is very likely that further evidence of reused Roman material would be visible. Although the source of the Roman tiles is not certain, it seems likely that they originated from a ruined villa or villas somewhere along the Colne valley.

Assuming the facing would once have been present around the entire interior of the fore-building, this gives us some insight into the level of damage it has suffered. The northern and western interior elevations only stand a short way back from the extrapolated line of facing, suggesting only slight collapse. The southern and eastern elevations show much greater damage, with as much as 600mm of collapse between the current wall and the extrapolated facing line. This was made even clearer when, during the of lowering the fore-building's interior ground surface, another small patch of intact facing was uncovered (Plate XXX).

This heavy collapse is at its worst on the eastern wall, where large patches of the fore-building have gone completely, exposing the faced stone of the keep. As well as the faced ashlar blocks, this collapse has also exposed the battered plinth at the base of the keep.

Although heavily damaged, enough remains of the northern end of the fore-building to suggest that the ground floor had a vaulted roof, as at Rochester (Plate XXXIV).

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Stairway and worked stone by Howard Brooks

During the renovations of the current stairway and clearing of the ivy encasing the fore-building, remnants of the original Norman steps and a later post-medieval brick stairway were uncovered (Plate XXXI XXXII, Fig 8 and Fig 15).

As well as this, a group of worked stones were recovered from the current castle staircase during its renovation. An obvious question arises - where are the worked stones from? Given that there are several periods of buildings at Hedingham, it is overwhelmingly likely that these pieces are from demolished structures on this site - either those contemporary with the keep (and since demolished), or those belonging to the Tudor rebuilding (also demolished).

On the first photograph (Plate XIV) is a rectangular slab with very finely worked edging. This is probably a lintel from above a door or window opening. Stylistically, it is certainly not from any Norman-period structure. They are probably from a high-status Tudor building. The 1592 Survey (Plate XVI) shows 'Stone Lodgings', 'Chapel' and 'Great Chamber'. Any of these buildings could be the source of these worked slabs.

The second photograph (Plate XV) shows three slabs with worked edges. Whereas the right-hand slab is not easy to describe, the other two are clearly mouldings from window or door openings. The left-hand slab is large, and almost certainly from a door opening, and the middle slab is slighter, and probably from a window opening. These pieces are medieval, and can probably be attributed to the original Norman structures.

As it is virtually intact, there is no reason to suspect that the mouldings are from windows or doors in the keep. They would be particularly suited to a chapel (if there were one), or perhaps to the recently-identified gate-house. None of these survive now, having been replaced during the Tudor period.



Plate XIV Worked stone from current stairway. Probably used as a lintel.



Plate XV Selection of worked stone. Probably from window or door openings. Medieval in date.

Discussion

The fore-building has clearly been in a state of ruin for some considerable time. With no floors above the ground level remaining and with almost all the facing and large amounts of the core fabric missing it contrasts sharply with Rochester, which still has an entirely intact fore-building. However, through its dilapidated state, it provides us insight into the method and date of its initial construction, something not as easy to accomplish were it fully intact. The three key questions then are when was the fore-building constructed, how did it come to be in this ruinous state, and when did that happen?

The date of the fore-building's construction is something of a curious question. Although seemingly intrinsic to the keep as a whole (providing as it does access to the first floor entrance), and being clearly of Norman date, the evidence uncovered during this survey strongly suggests that it was a later addition. At either end of the fore-building the ashlar blocks of the keep have been removed so as to bond the it directly into the core fabric of the keep (Plate XXXIII). But along the rest of the fore-building it has been bonded directly onto the keep's ashlar blocks. This would not form as strong a bonding surface and hides a large amount of carefully worked (and expensive) ashlar. Additionally the battered plinth at the base of the keep continues behind the fore-building, and segments of it are visible behind the east elevation (Fig 14).

Having a fully-faced facade on a segment of the keep that was never intended to be viewed would be unintuitive, and a battered plinth being present behind a fore-building (which would itself provide far more support than the plinth would) would be similarly illogical.

This evidence all points to the fore-building being a later addition to an already free-standing keep. Before the fore-buildings construction, the first floor entrance would likely have been accessed by a wooden walkway, similar to the earlier keeps at Colchester and the Tower of London (Brown, 2004).

Even though the fore-building is a later construction, the materials and techniques used mirror that of the keep exactly. The fore-building must have been erected soon after the keep's completion, probably only within a few years. On balance it is likely to have been erected by the mid 12th century.

The fore-building was still present in 1592, when it was depicted in a survey by Israel Amyce (Plate XVI).

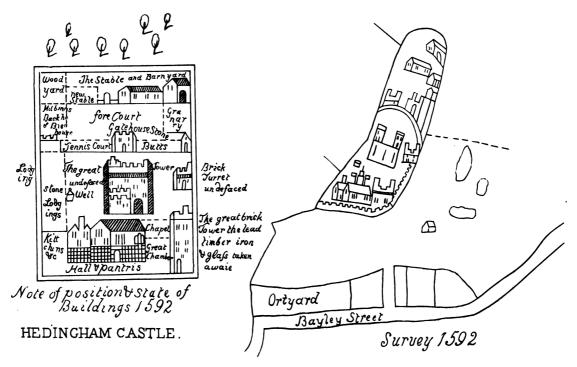


Plate XVI 1592 survey of Hedingham Castle. Of note is the intact fore-building and gatehouse, as well as the brick built structures within the motte and the curtain wall.

This survey also shows the surrounding Tudor outbuildings, as well as the still standing Norman gatehouse. A drawing from 1665 shows the fore-building intact, although at a much lower height than the fore-building at Rochester (Plate XVII). This is the first depiction of the fore-building that truly shows scale, the 1592 survey lacking perspective.

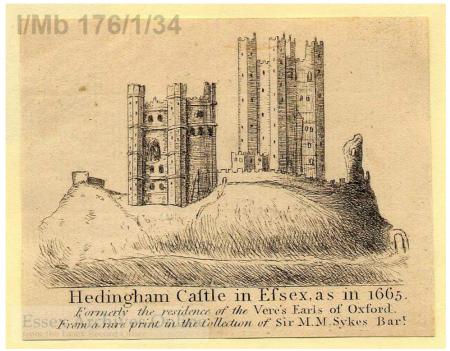


Plate XVII 1665 drawing of Hedingham Castle. Note the intact fore-building on the keep (the building in front of the keep is a Tudor brick tower that was uncovered in the 1868 excavations). ERO I/Mb 176/1/34.



Plate XVIII 1738 drawing of Hedingham Castle. Note the lack of fore-building and the new mansion. ERO I/Mp 176/1/12.

The apparent smaller size of the fore-building at Hedingham suggests that there was never a chapel above the entranceway (as is the case at Rochester). It appears to be a more basic affair, with just the entranceway above and the large vaulted room below. The scars present on the south-eastern side of the keep seem to bear this out (Plate XXXV).

A drawing from 1738 has the entrance visible, with no fore-building surrounding it (Plate XVIII). By the time a detailed survey of the keep was done in 1796 (Plate XIX), the fore-building was largely in the state it is today.

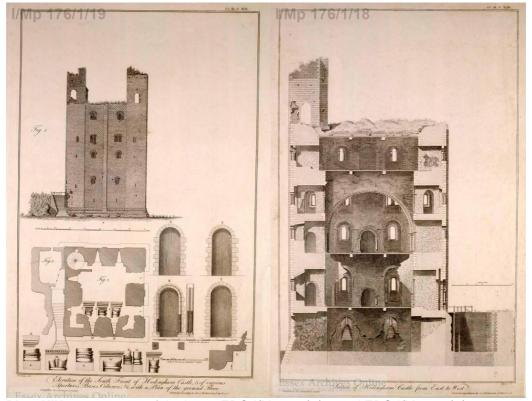


Plate XIX 1796 survey of the keep. ERO I/Mp 176/1/19 and ERO I/Mp 176/1/18.

So then, sometime between 1665 and 1738 the fore-building had been demolished. But for what purpose?

The most likely explanation is for building materials. As mentioned above, the lack of building stone in Essex would have made the fore-building a tempting target for quarrying to supply local building projects. The large blocks of ashlar with which the fore-building was faced would have been particularly sought after. It was not the only Essex castle to have received such treatment during this period. In 1683 the top two stories of Colchester Castle were demolished to acquire building materials (Crummy, 1997).

A change in ownership of the castle may also have contributed to the eventual decision to use the fore-building as a quarry. In 1703 the 20th and last Earl of Oxford died in London, leaving the title dormant and Hedingham Castle without an owner. In 1713 the castle was sold to Sir William Ashurst, a former Lord Mayor of London and a man who had no prior links to the castle or its heritage (Salter, 2001). Such an owner was far more likely to sanction the use of the fore-building as a quarry.

So where did the building materials from the fore-building end up? The flint and mortar core of the structure could have been incorporated into any number of buildings around the district, which themselves may have been demolished by now. The ashlar blocks, however, are far larger and more distinctive and would be easier to see within a building's make-up. They could have been broken up or shipped to another part of the country, but there is another alternative.

Having established that the fore-building was demolished between 1665 and 1738, one could look to large local building projects in that timeframe and assume that they were the source of the demand. The largest building constructed in the local vicinity during that period was by Hedingham Castles new owner, Sir Willam Ashurst - the 1719 mansion house in the inner bailey.

Given all the evidence, it seems very likely that elements of the fore-building were used in the construction of the mansion. However, the mansion is faced with red brick and appears to contain no Norman building material. But to quote Lewis A. Majendie from his excavation report in 1868:

"In making some alterations in the house I have discovered that the walls, which are unusually thick, though, of course, faced with new brick, are really built of old material from the Castle."

Although he did not elaborate, there is a possibility that building materials from the fore-building were incorporated into the mansion house. Of course, this theory cannot be proven unless there is substantial renovation work on the mansion that exposes some of the core of the building.

Plates of fore-building



Plate XX North-west elevation of fore-building. Repair visible in centre of wall.





Plate XXII South-west elevation of fore-building.



Plate XXIII Close up of putlog hole in south-west elevation.



Plate XXIV South-east elevation of fore-building.



Plate XXV Close up of putlog hole in south-east elevation.



Plate XXVI Elevation of fore-building stairway.



Plate XXVII South-east interior elevation of fore-building. Intact facing visible to right of frame.



Plate XXVIII Close up of intact facing on south-east interior elevation. Roman *tegula* visible centre frame.

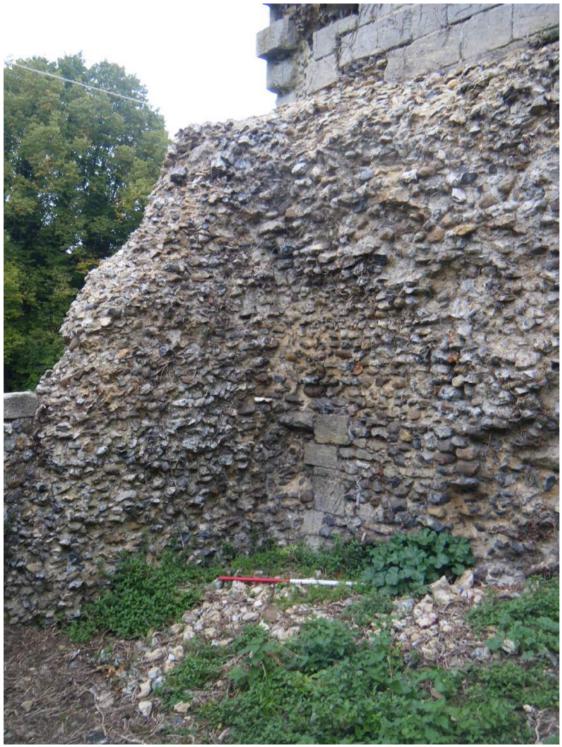


Plate XXIX Interior north-corner of fore-building. Intact facing visible.



Plate XXX Fore-building interior east corner after lowering of ground level. Small amount of intact facing visible.



Plate XXXI Stairs fully cleaned and excavated. Original Norman steps visible as well as later post-medieval brickwork. Current stairway to right of frame.

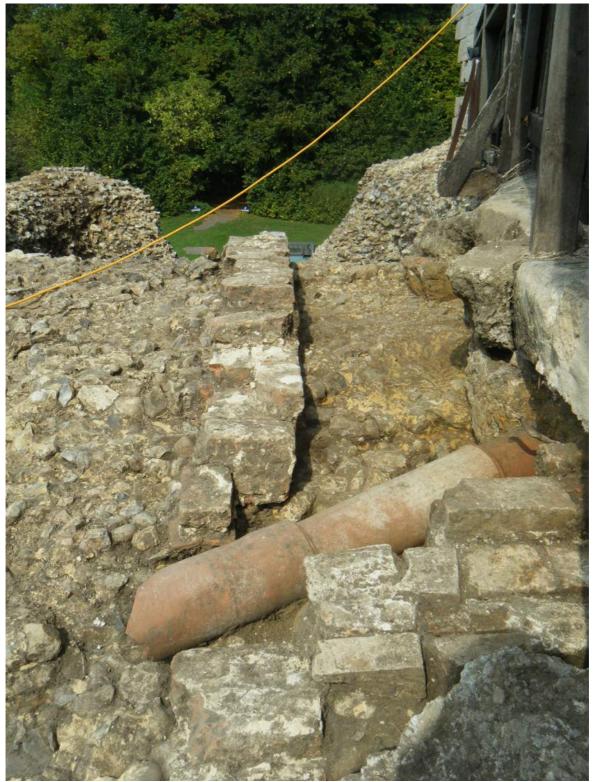


Plate XXXII Drainpipe at top of stairs, with original Norman steps and post-medieval brickwork visible.



Plate XXXIII North-west corner of keep, showing the removal of ashlar blocks in order to bond the fore-building to the flint and mortar core fabric.



Plate XXXIV View of fore-building from above. Beginning of vaulted ceiling clearly visible on north-eastern elevation.



Plate XXXV Fore-building viewed from west. Scars on keep wall show likely height of fore-building when intact.

9. Finds

Stephen Benfield

Introduction

Bulk finds consisting of pottery, ceramic building material (CBM), glass, clay pipe, slate, iron (fe) nails, miscellaneous iron (fe) objects, animal bone and oyster shell were recovered during the watching brief. The finds range in date from medieval to modern. All pottery and significant finds together with interesting single finds were quantified and described individually. However, a number of finds of limited archaeological significance were recovered from most of the contexts, these are simply listed together as miscellaneous under their relevant find number. Where closely dated these finds are of post-medieval or modern date. In addition to the bulk finds part of a medieval stone mortar was recovered. This is recorded as an individual small find (SF) and is described separately.

Bulk finds

The pottery (15 sherds, total weight 310 g) was recorded using the Essex post-Roman fabric series (Cunningham 1985 & *CAR* **7**). The pottery fabrics recorded are listed in Table 1 below. The dating of brick and peg-tiles follows Ryan (1993 & 1996). All of the bulk finds are listed with a spot date in Table 2.

Fabric	Fabric description	No	Wt/g	Period
13	Early medieval sandy wares	1	12	medieval
20	Medieval sandy greywares (general)	6	108	medieval
21	Medieval sandy orange ware (general)	2	39	medieval
40	Post-medieval red earthenware	1	18	post-medieval
45M	English stoneware	3	119	modern
48D	Staffordshire-type white earthenwares	2	14	modern
	Totals	15	310	

Table 1 Quantity of pottery by fabric

Ctxt	Feature/area	Find no	Find type	Fabric	no	wt/g	Form/ description	Period	spot date
-	under stairs	-	СВМ				Air brick, thin red brick 20 mm thick 175 mm wide (poss square)	P-med/ mod	19-20C
F14	pit	7	misc				Clay pipe stem (1) 18-19C(?); Window glass (1) 18-19C; A Bone (2)	mod	18-19C
F16	pit	9	Glass bottle				Complete cylindrical wine bottle, very dark green glass	P-med/ mod	L18- 19/19C
F16	pit	9	Glass bottle				Complete cylindrical wine bottle very dark green glass	mod	19-20C
L10	post-med build up of motte	1	misc				CBM glazed (grey) brick piece (1) 50-55 mm thick, 15-E17C, peg-tile (7) 10-15 mm thick, square peg holes, c 13C+; stone (3) flint and coarse sandy limestone (poss burnt); slate (1); fe nails (3); animal bone (4)	P-med/ mod	18-19C (?)
L11	post-med build up of motte	3	tile		1	5	TGE tile piece	p-med	17/18- 19C
L11	post-med	3	pot	40	1	18	Glazed both sides	p-med	17-18C

Ctxt	Feature/area	Find no	Find type	Fabric	no	wt/g	Form/ description	Period	spot date
	build up of motte								
L11	post-med build up of motte	3	pot	48D	1	5	cup	mod	19-20C
L11	post-med build up of motte	3	pot	45M	1	28	Firing faults	mod	L18- 19/20C
L11	post-med build up of motte	3	misc				Glass bottle base (1) L18-19C; CBM (4) inc. glazed brick 54 mm thick; Coal (1); A Bone (3)	p-med/ mod	
L11	post-med build up of motte	3	pot	13	1	12	Thick sherd, prominent coarse qauartz sand	med	11-E13C
L12	post-med build up of motte	4	pot	21	1	16	Brownish orange sandy fabric with grey core, (not strongly micaceous) wheel turning marks	med	13/14- 15C
L12	post-med build up of motte	4	misc				Clay pipe stem (1)	P-med/ mod	18-19C
L13	?Tudor build up of motte	2	pot	20			Neckless cooking pot rim,grey red-brown surface with grey core, some trace of white slip paint on rim with internal run	med	M-L13- 14C
L13	?Tudor build up of motte	2	misc				CBM grey-glazed brick (1) 15- E17C, brick frags (6) 50 mm thick, peg-tile (19) 10-15 mm thick, square peg holes, 13C+; oyster shell (5)	P-med/ mod	16-17C (?)
L16	modern infill	6	pot	45M	1	79	Bottle/jar base	mod	L18- 19/20C
L16	modern infill	6	Glass bottle				Complete amber-brown bottle T.F.ADAMS & SONS HALSTEAD - cap JARD & SONS LTD FJOXEARTH ESSEX 19-E20C, third plain glass beer or pop bottle	mod	L19- E20C
L16	modern infill	6	Glass bottle				Complete plain amber-brown bottle – cap BARRETT & ELERS PAITENT LONDON TRADE MARK B & E (bell symbol centre),	mod	19-E20C
L16	modern infill	6	misc				CBM p-tile (13C+); corroded fe chain (p-med-mod)		
L16	modern infill	6	Glass bottle				Complete plain glass beer or pop bottle	mod	19-E20C
TP3	dust and debris	8	pot	45M	1	12	Bottle, marked FOXEA [RTH]	mod	19C
TP3	dust and debris	8	misc				Clay pipe stem (1) L17-E18C(?); CBM p-tile (13C+); Glass bottle rims (2) 19-20C; A Bone (1)	P-med- mod	
u/s	spoil heap	10	pottery	20	1	42	Rim, flat-topped rim, cooking pot(?)	med	E/M13- E14C
u/s	spoil heap	10	pottery	20	1	5	Body sherd	med	L12-14C

Ctxt	Feature/area	Find no	Find type	Fabric	no	wt/g	Form/ description	Period	spot date
u/s	spoil heap	10	pottery	20	1	10	Body sherd, wheel thrown	med	L12-14C
u/s	spoil heap	10	pottery	21	1	23	Rim, large vessel, prob a bowl, quite micaceous	med	13-14C
u/s	spoil heap	10	pottery	20	1	15	Clouded red-grey surface	med	L12-14C
u/s	spoil heap	10	pottery	48D	1	10	Base, glazed blue & green	mod	19-20C
u/s	spoil heap	10	misc				Clay pipe stems (6) 17-19C; Glass (2) 18-19C; Animal bone (1) pig jaw	P-med/ mod	18-19C
u/s	spoil heap	10	Fe obj		1	104	Hollow, pointed iron sleeve, corroded, broken away at top, fixing nail/bar in place (lgth 110mm, max dia28 mm)		Not closely dated
u/s	dust and debris	5	misc				Clay pipe (2); fe nail (2); fe point, leather heel and section of shoe	P-med/ mod	19-E20C (?)
u/s	metal detecting of spoil heaps	-	misc				Clay pipe stem (1); fe nails (27) most 60-70 mm largest 90 mm; misc fe pieces (5) including overlapping riveted strip binding (poss from a barrel or similar); small lead(?) piece	P-med/ mod	L18/19- E20C (?)

Table 2 Bulk finds by context

Small finds

A section from the base of a medieval stone mortar (SF 1) was recovered from L10(1) (Plates XXXVI & XXXVII). The stone type is not closely identified but is a greyish-white, slightly grainy limestone, which appears to be composed of fine sand with small fossils, with occasional small dark (greenish-black) inclusions.

The wall of the mortar is broken away along the line of the junction with the base and it appears to have been reused as building material. This type of breakage and reuse has been noted among stone mortars from Colchester (*CAR* **5**, 40) and internal use wear at the junction of the wall and base noted among mortars from Kings Lynn (Dunning 1977, 321).

The mortar is not closely dated and the potential durability (long life) of these objects and their potential reuse makes close dating difficult (Dunning 321). Medieval stone mortars have been recovered from contexts dated to the 13th-early 14th century at Kings Lynn (Dunning 1977, 320) and finds of stone mortars are recorded associated with medieval and later house sites in Colchester (*CAR* 5, 40). The mortar can probably be dated as 13th-14th century. The context with which it associated also included a brick with grey glaze (dated 15th-early 17th century) and a small piece of slate indicating a post-medieval date, but the mortar piece, having been reused as building material, is clearly residual in this context.

SF 1 Limestone mortar L10(1) (Plates XXXVI & XXXVII). Section from the base of a large medieval limestone mortar. Triangular in shape and representing approximately 20% of the base. Diameter of base at foot approximately 350 mm. Rounded foot to base edge and scar where a rib (approximately 50 mm broad) has been removed. Smoothed base foot surface, outer body surface roughly finished with fine pecking, underside with smoothed areas and coarse pecking. Some mortar on broken edge extending onto internal surface indicating it has been reused as building material; the rib may have been trimmed away at that time and possibly the coarse pecking made to the base. (provisionally dated 13th-14th century).



Plate XXXVI Medieval stone mortar (SF1) interior.



Plate XXXVII Medieval stone mortar (SF1) underside showing rib scar and pecked base.

Discussion

The earliest closely dated finds are of medieval date, although these are residual in the contexts from which they were recovered as all of the numbered finds contexts contained finds types that can be dated to the post-medieval or modern period. Only the more archaeologically significant finds are discussed.

Small quantities of residual medieval pottery was associated with three finds contexts (3, 4 & 10). One sherd appears to be an early medieval sandy ware (Fabric 13) which is current in the period of the 11th-early 13th century (3). Small quantities of medieval sandy grey ware (Fabric 20) dating to the late 12th-14th century (6 sherds) and medieval sandy orange ware (Fabric 21) dating to the 13th-14th century (2 sherds) were also recovered (4 & 10). Among the greywares is a flat-topped rim (Form H1, Walker 2012, 55) which may be from a cooking pot, although the size (rim diameter) of suggests could be from a bowl (10). A rim in a sandy oxidised ware (Fabric 21) from the same finds number group is from a large vessel, almost certainly a large, slightly flared bowl (Walker 2012, 49-53). While this bowl is almost certainly a product of the local (north Essex) Hedingham pottery industry, most of the medieval sherds do not appear visually to closely match fabric

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descriptions for Hedingham coarsewares (Walker 2012). However, while other sources are possible, it seems most likely that that industry is the source of most the 12-14th century pottery here

Of significance is part of a medieval stone (limestone) mortar (SF 1), which was recovered from L10(1) and probably dates to the 13th-14th century.

Where closely datable, the other finds are of post-medieval and modern date.

The later pottery includes a single sherd of post-medieval (glazed) red earthen ware (Fabric 40) dated to the 17th-18th century together with sherds from modern factory produced pots consisting of English stonewares (Fabric 40M) and Staffordshire-type white earthenwares (Fabric 48D) which are broadly dating to the late18th/19th-20th century (3, 6, 8 & 10).

Among the small quantities of ceramic building material (CBM) are two bricks with some grey glaze, from L10(1) & L13(2). The nature of these suggests they are of broadly of 15th-early 17th century date (Ryan 1996, 95).

It can be noted that among the finds are two modern bottles (late 19th-early 20th century), one glass and one stoneware, which can be related to local suppliers at Foxearth, Essex (6).

10. Conclusions

The investigation at Hedingham Castle during the renovation of the keep has proved invaluable in progressing the archaeological record of the site. It has provided important information that can be used as a basis for any future work within the castle grounds.

A substantial amount of Tudor and later post-medieval build up was uncovered within the motte, butting up against the rampart (L5). The lack of Norman or later medieval layers encountered as T1 crosses the motte, despite going down to a depth of 1m, is very instructive. It suggests an extensive amount of terracing and infill between the keep and the rampart during the Tudor and later post-medieval period. Further evidence for extensive post-medieval terracing both on top of the motte and generally across the whole site exists in the assemblage of finds recovered during this investigation. They are largely post-medieval or later in date, with medieval finds all being residual in their contexts.

Aside from the brick foundation cut into the rampart material (F6), no other Tudor building remains were uncovered within the motte. This is in contrast to the excavations to the west of the keep in 1868, which uncovered numerous Tudor foundations and building remains (Fig 2). Judging from the 1592 survey this should not be too surprising as no buildings are shown to the north of the keep (Plate XVI). The foundation F6 is not shown on the 1592 survey, so may have only supported a small structure that was not deemed important enough to be recorded at the time – indeed the relative shallowness of the foundations (six brick courses deep), precludes it being the base for a tower or any substantial building.

The test pits within the basement of the keep provided no evidence of a well or potential tunnels, but did expose a large amount of infill and damage resulting from the fire in 1918. The modern rubbish and burning lying directly on the keep foundations suggests that up until the fire the basement was clear and at much the same depth as it was in the Norman period. It also seems likely that during the early modern period the keep surface was covered with a clay floor, as uncovered in TP4 and TP5 (Fig 7). It appears that after the fire the basement became a dumping ground for rubbish and building material, resulting in the original Norman floor and later clay floor being buried up to 900mm deep in places. The true reason for the large hole dug into the keep foundations in TP4 may never be uncovered, and is one of the more curious questions raised by this work.

The fore-building has been one of the most interesting aspects of this investigation, as the clearing and renovating of the structure has allowed access to the fabric and elevations that would not have been possible in recent times. This provided the opportunity to deduce a string of events, from its

initial construction onto the keep as a later addition, right through to its eventual demolition for building materials used in the construction of the 1719 mansion house.

This monitoring phase of this investigation has confirmed the location of both the gatehouse and the existence of a curtain wall around the motte, both of which were encountered by Mr Majendie in 1868. Several other foundations of either Norman and Tudor date were uncovered within the service trenches, the most substantial of which was a large flint and mortar wall rising up the side of the motte (F5). Although the foundations were only observed in a narrow trenches, some extrapolation can be undertaken to give an impression of the size of the structures they supported (Fig 9). This interpretation can only be proved or disproved with further work. However, it provides a tantalising glimpse into the scale of the defences of Hedingham Castle.

11. Acknowledgements

CAT would like to thank Mr J and Mrs D Lindsay for commissioning the project. The project was managed by P Crummy, and the fieldwork was carried out by M Baister. Figures and sections by M Baister. The project was monitored for English Heritage (now Historic England) by Deborah Priddy.

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		its production and distribution, EAA 148

13. Abbreviations and glossary

Ashlar finely dressed masonry

CAT Colchester Archaeological Trust

CBM ceramic building material (brick, tile, tessera) context specific location of finds on an archaeological site

ECC Essex County Council

EHER Essex Historic Environment Record, held by Essex County Council

ERO Essex Records Office

feature an identifiable thing like a pit, a wall, a floor; can contain 'contexts'

fill the soil filling up a hole such as a pit or ditch

HEA Historic Environment Advisor IfA Institute for Archaeologists

layer an accumulation or deposition of archaeological material

medieval the period from AD 1066 to AD 1500 modern the period from AD 1800 to present day

natural geological deposit undisturbed by human activity

NGR National Grid Reference

Norman the period from AD 1066 to AD 1154

OS Ordnance Survey

pavior a brick or slab used for paving post-medieval the period from AD 1500 to AD 1800 the period from AD 1485 to AD 1603

14. Contents of the archive

Finds archive

1 Museum box of finds.

Paper archive

1 A4 wallet containing:

this report

original site record (context and finds sheets)

section drawings

digital photo log

attendance record

sundry papers

digital photos on disc

15. Archive deposition

The paper and digital archive are currently held by CAT at Roman Circus House, Roman Circus Walk, Colchester, Essex, C02 7GZ.

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Distribution list:

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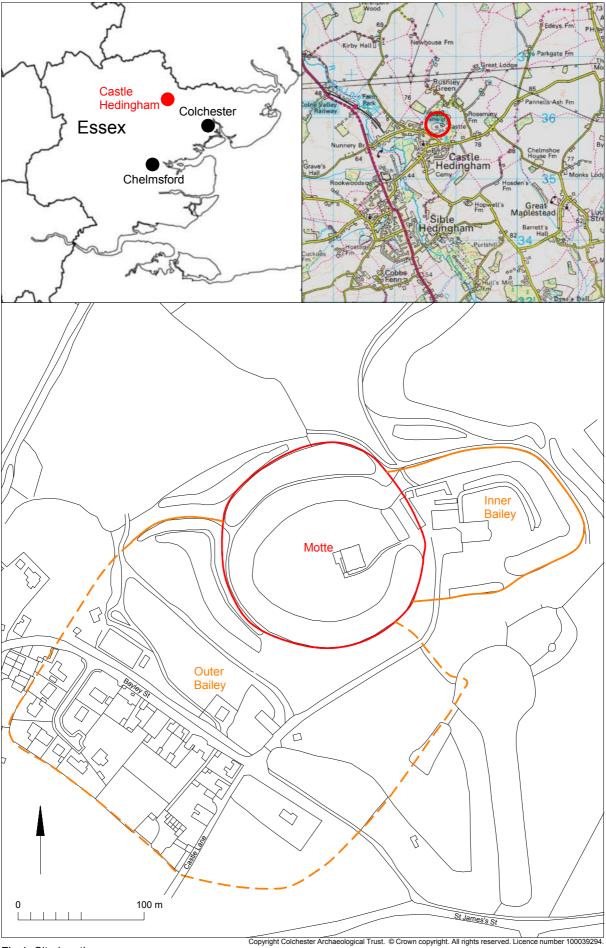


Fig 1 Site location.

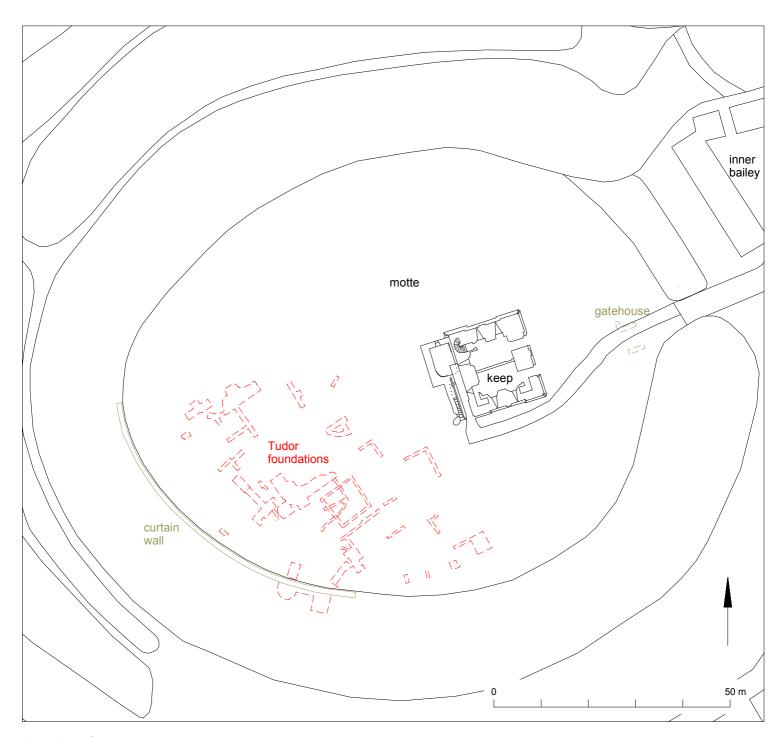


Fig 2 Plan of 1868 excavations.



Fig 3 Overview of archaeological investigation.

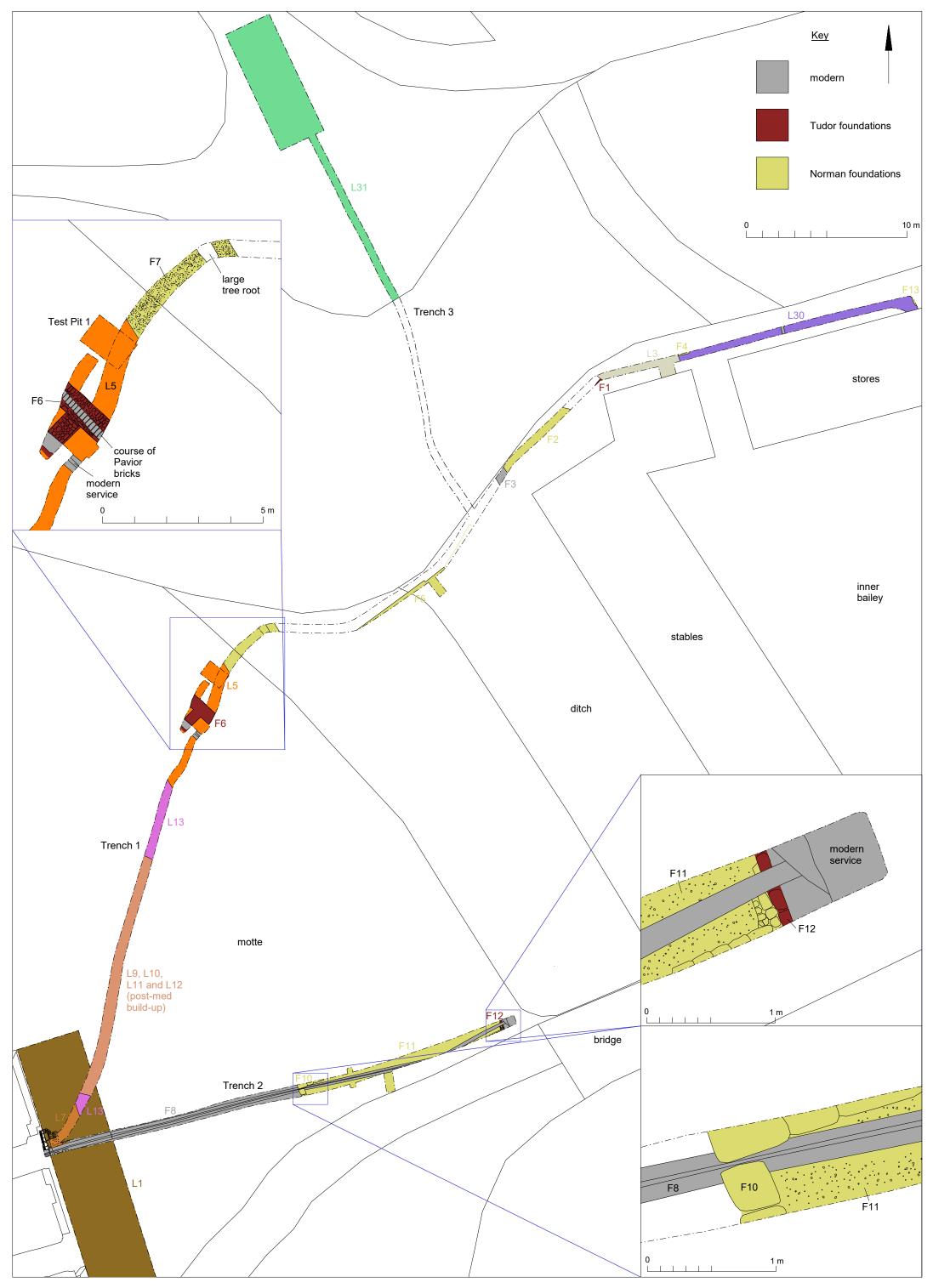
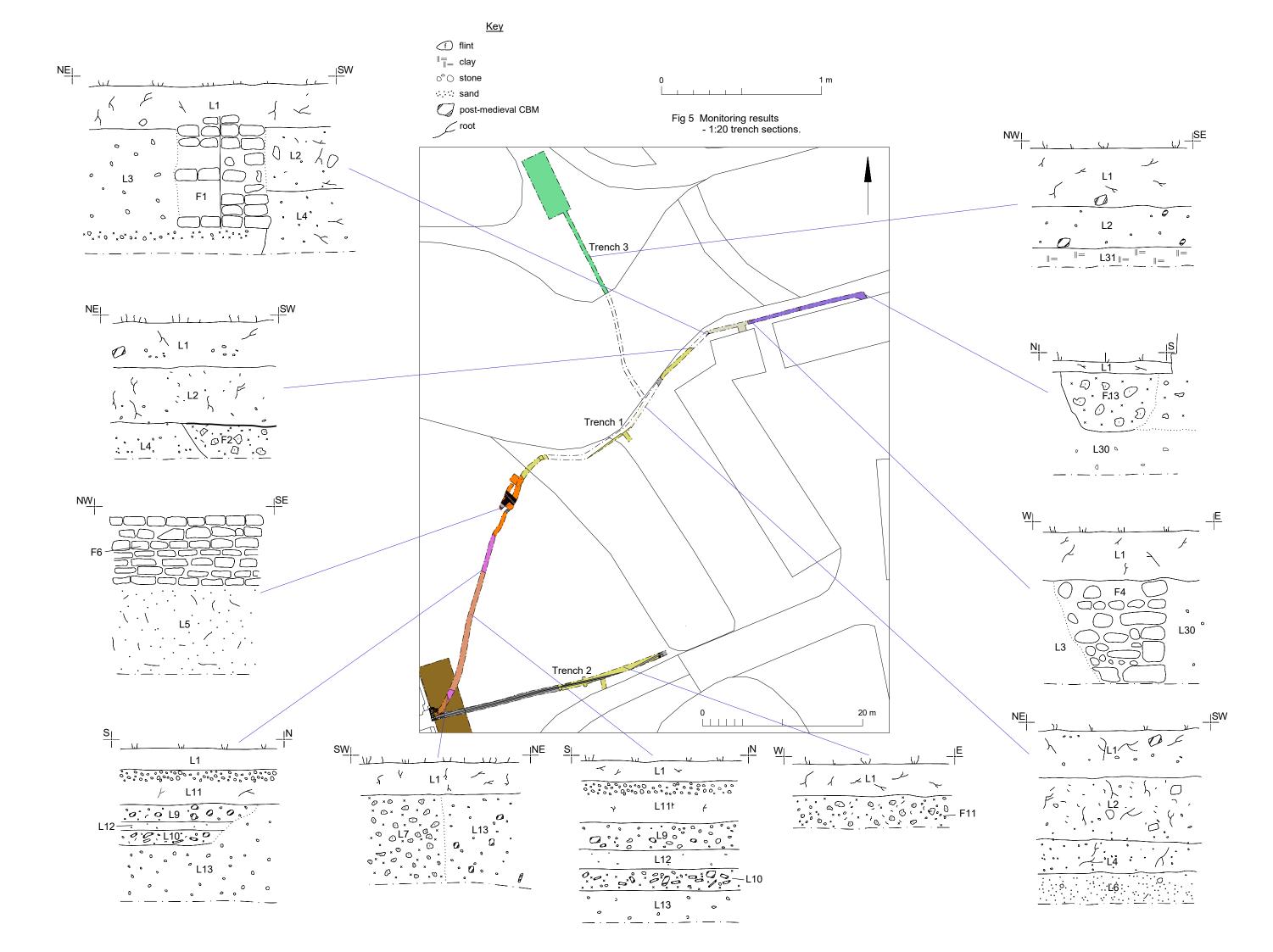


Fig 4 Monitoring results.



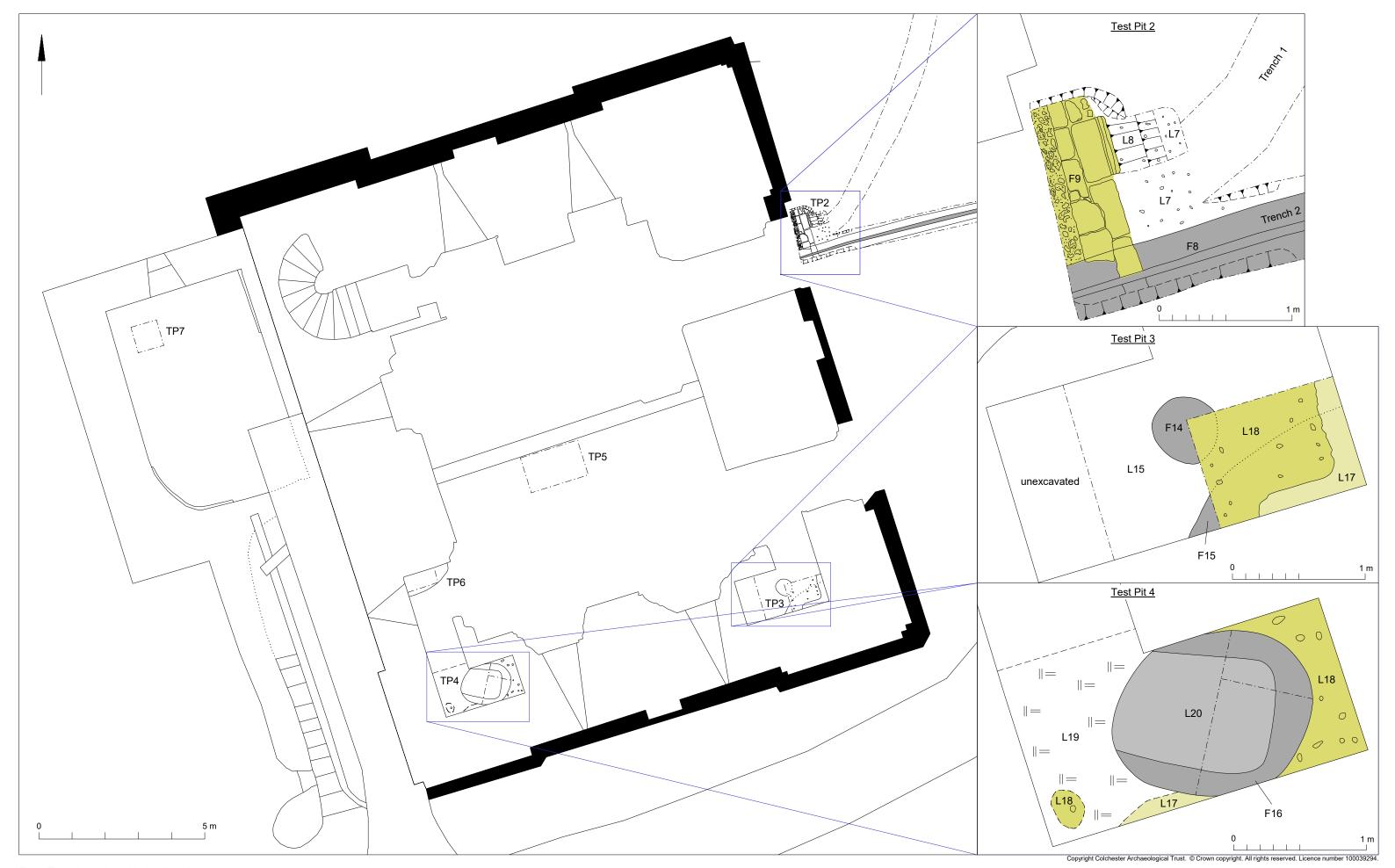


Fig 6 Test pit results, with detailed plans.

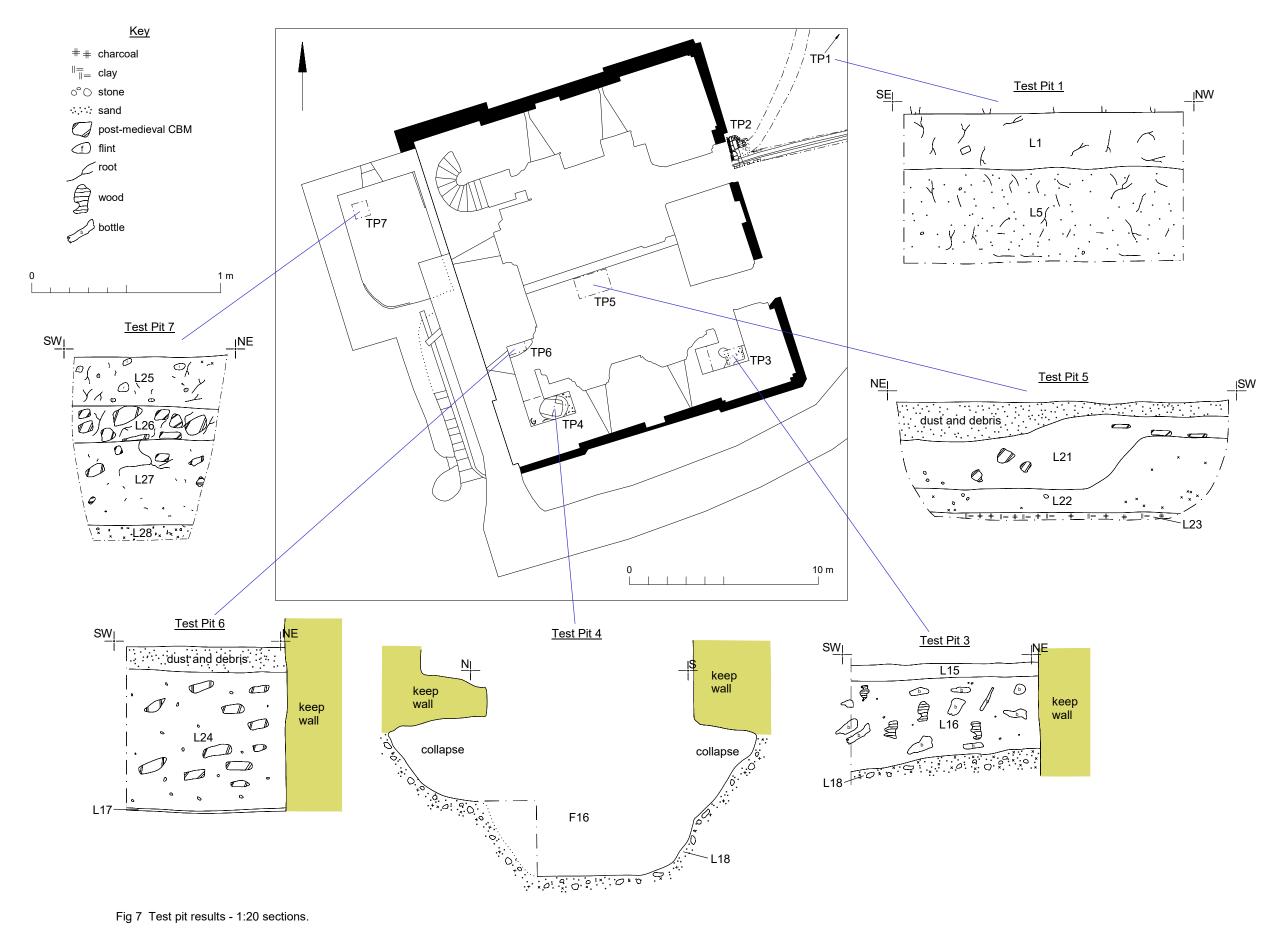


Fig 7 Test pit results - 1:20 sections.

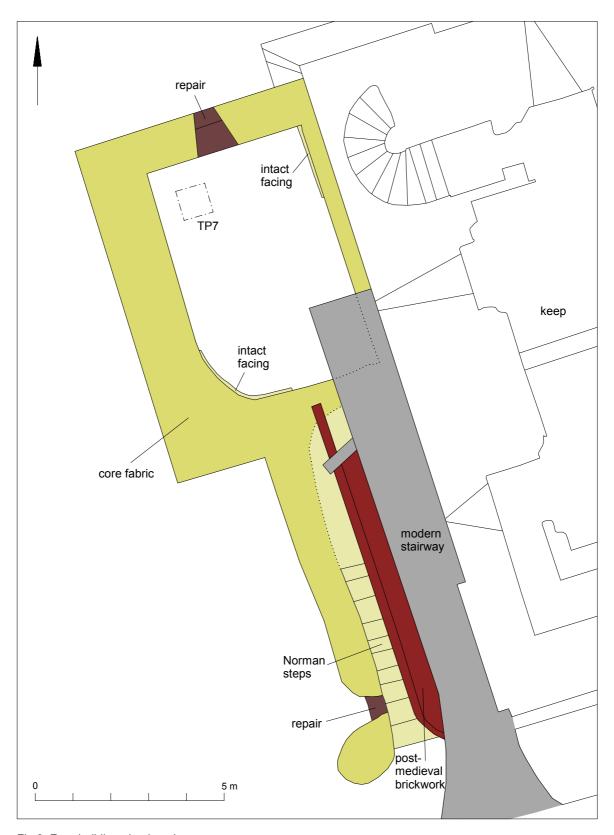


Fig 8 Fore-building phasing plan.

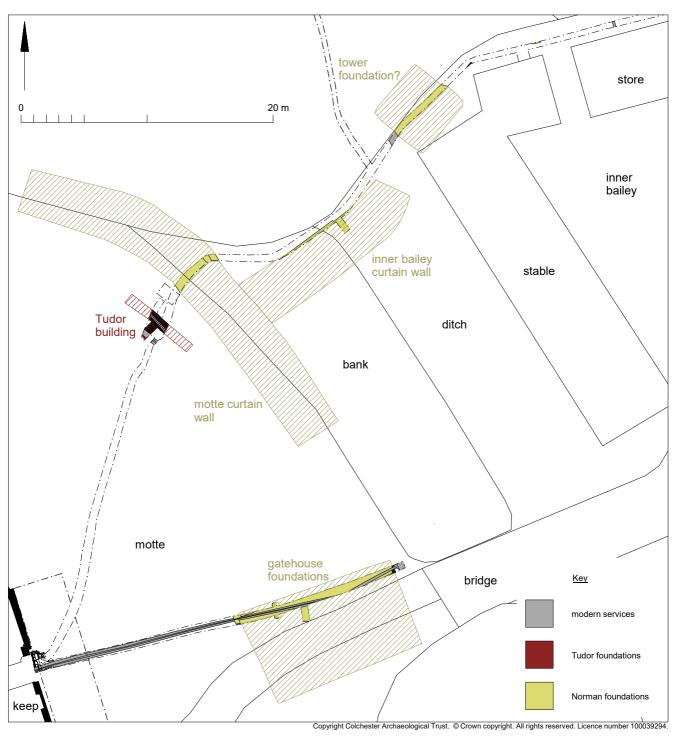
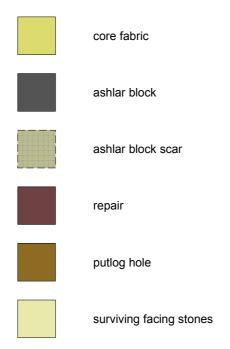


Fig 9 Norman and Tudor foundations with extrapolations.

Fore-building and associated stairway elevations

<u>KEY</u>



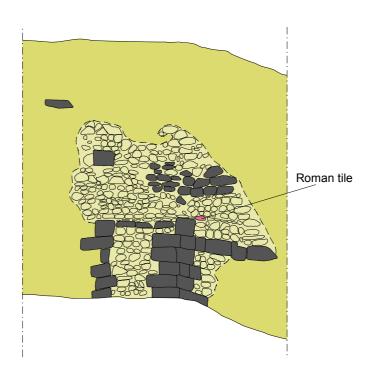
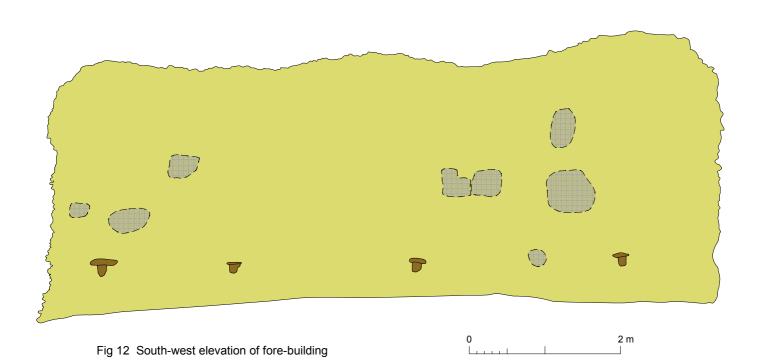


Fig 10 Interior elevation of remaining facing, south corner.

2 m





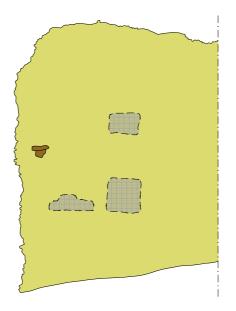
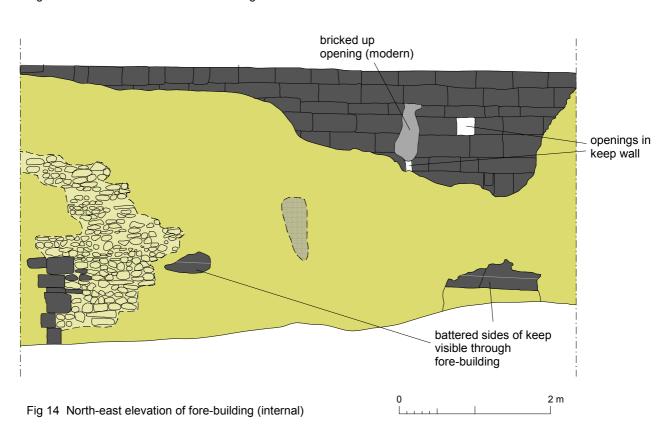
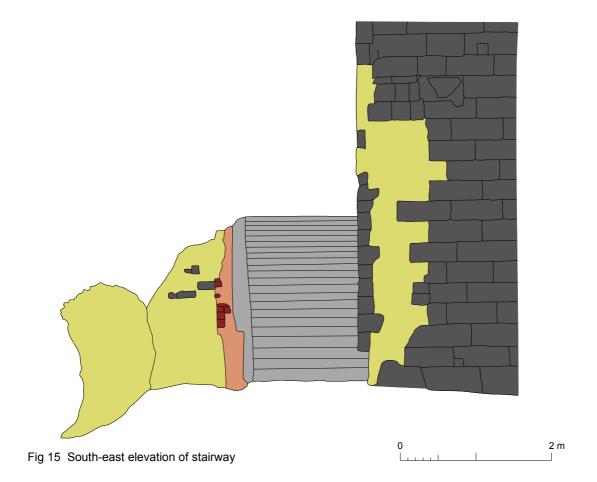
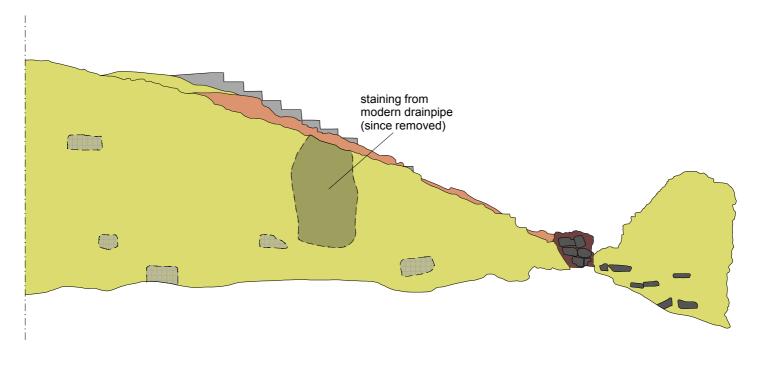


Fig 13 South-east elevation of fore-building



2 m





2 m

Fig 16 South-west elevation of stairway