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HEREFORDSHIRE ARCHAEOLOGY

Longtown Castles Project A Community Archaeology Project Archaeological investigation and recording during 2017



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Longtown Castles Project A Community Archaeology Project 2017.

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Summary:

Longtown & District Historical Society successfully applied for a Heritage Lottery Grant in order to run a community project, researching the historic and archaeological development of Longtown and Ponthendre Castles over three years. Herefordshire Archaeology was contracted to undertake and manage all aspects of the archaeological works which include field survey and two seasons of excavation, with the involvement of the local community, schools and other interested groups.

Both castles were subjected to Structure from Motion 3D scanning by Drone. Ponthendre was subjected to additional earthwork survey in order to record profiles of rampart and ditch.

The excavations during 2016 and 2017 at Longtown Castle have now confirmed that the turf "core" of the Medieval rampart is Roman or late Iron Age in origin and that this was constructed sometime after 156 BC. Severely truncated but *in-situ* deposits including the stone base of what appears to be an oven and a row of carbonised planks from Roman deposits within Trench 2 have been securely dated to the 1st century AD period. A pre Roman date from a charcoal sample recovered from immediately above the natural (along with the recovery of a flint blade and two flint flakes) suggests that there may have been an Iron Age or earlier settlement of some type on the site.

It would therefore appear that the late 11th century earthwork castle was constructed on the north western corner of the Roman fort and the Roman turf rampart was substantially added to in order to recreate a defensive perimeter during the early medieval period. This explains why the defensive circuit of Longtown Castle is the size and shape that it is. Pottery evidence and C14 dating has strongly suggested that the construction of the stone keep and possibly the remodelling of other elements of the early castle took place during the 1150's and that subsequent additions, including the gatehouse and inner bailey wall, were added in the 13th century. This coincided with a further enhancement of the defensive rampart.

The excavations at Ponthendre Castle over the two seasons failed to find archaeological deposits and / or features that could be associated with it being used and garrisoned as a castle. From the 8 trenches excavated during the two seasons, a total of 12 sherds of pottery were recovered. Ten of these were recovered from the trench over the entrance through the rampart, (Trench 7). The recovery of late 12th / early 13th century pottery from directly under the rampart may well provide a construction date for the castle. Ponthendre therefore seems to be similar in date to the earliest phase Longtown in terms of its establishment and whilst constructed in its earthwork form, does not appear to have ever been developed further.

Disclaimer: It should not be assumed that land referred to in this document is accessible to the public. Location plans are indicative only. National Grid References are accurate to approximately 5m. Measured dimensions are accurate to within 1m at a scale of 1:500, 0.1m at 1:50 and 0.02m at 1:20m

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1. Introduction to the project

Longtown & District Historical Society consulted with archaeological professionals, staff of Historic England and local historians, before successfully obtaining a Heritage Lottery Fund grant for a community project to conduct historical research, surveys and archaeological excavations at the sites of both Longtown Castle and Ponthendre Castle. This was to be run over three years and was to include two seasons of fieldwork.

Longtown & District Historical Society produced a brief for the investigative works (A specification for archaeological investigation into the two Norman period castles at Longtown, Herefordshire, produced on 5th October 2015). In response to this brief a project design was produced, this set out a detailed methodology which addressed the research questions raised within the brief and made every effort to achieve value for money and as much community involvement as is possible throughout the life of the project. The project design and costings for the project were accepted by an independent panel comprising representatives from Longtown & District Historical Society, Historic England, an independent archaeological consultant and the National Lottery in December 2015. Herefordshire Archaeology was therefore contracted to undertake and manage all archaeological elements of the project during 2016 and 2017 and to produce an interim report describing the 2016 fieldwork, (HAR 364) and initial results followed by a full, final report and complete site archive after the completion of the 2017 fieldwork, (this document, HAR 375).

This project could not have come about without the vision and determination of the Longtown & District Historical Society, the support from the Heritage Lottery fund, support from a wide range of specialists and Herefordshire Archaeology's excavation team. However, the real success of both seasons of work is in large part due to the commitment of large number of volunteers who worked so hard and contributed so much to the project.

2. Historical Background to the sites

The two castles lie approximately 1km apart with Longtown Castle located on the crest of a ridge and Ponthendre Castle on the end of a small spur overlooking the Olchon Brook to its north and the River Monnow to its east.

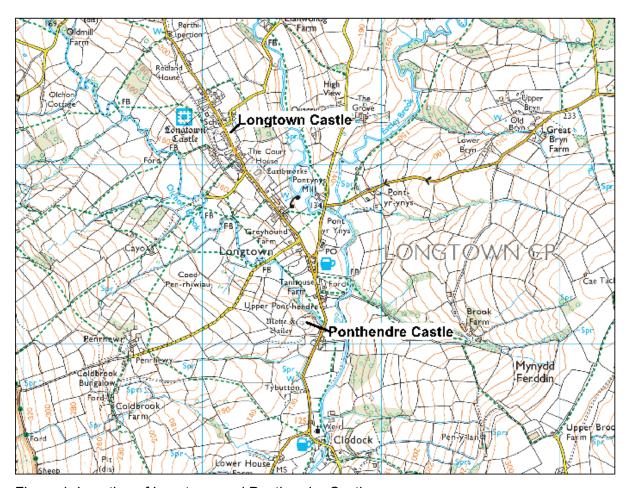


Figure 1: Location of Longtown and Ponthendre Castles.

Longtown Castle

Longtown Castle stands on the south end of a ridge overlooking the river valleys of the Monnow and the Olchon. The rivers flow past either side of the castle meeting about three quarters of a mile further south by Ponthendre motte and bailey.

The fortifications consisted of a rectangular enclosure of about four acres with a motte at the north-west angle on which stands a circular keep. The western half of the enclosure is divided into two parts of which the northern formed the inner bailey and the southern the outer bailey. The inner bailey was bounded by a curtain wall on the north-east, east and

south sides, with an entrance gateway in the south wall. There appears to be no wall on the west side where possibly the steepness of the scarp made any formidable masonry unnecessary. The keep is thought to have been constructed in the first half of the 12th century and the remains of the curtain-walls to the inner bailey, together with the remains of the southern gateway are believed to be of late 12th or early 13th-century date.

The earthworks consist of a rectangular enclosure with rounded angles enclosed by a rampart and ditch, the latter is now filled in on the north-west and the south sides. On the west side the rampart runs into the motte while on the north side there is a gap between the motte and the rampart. Near the middle of the south rampart there is an inner ditch or sunken entrance running from it and at right angles to the outer ditch, dividing the enclosure roughly into two halves. Only the southern part of this ditch remains, but it probably originally continued northwards across the enclosure and formed an outlet through the existing gap in the north rampart by the east side of the motte.



Figure 2: Structure from Motion 3D model of Longtown Castle produced from the drone survey in 2016.

The origins of Ewyas Lacy Castle, as it was once known, are unclear and theories abound concerning the development of this unusual site. It may have been built on an already well-defended site. Its prominent location, on a spur of high ground between two river valleys, and the evidence of its outer earthworks, suggest to some that an Iron Age camp may have been established here. The square nature of the massive ramparts has convinced others that its origins come from a re-used Roman Marching camp or fort. An alternative suggestion

is that the origins of the site lie in the late Saxon period, in the 10th century when Harold Godwinson's army camped beyond the Dore Valley in 1055. In 1086 Domesday Book recorded the land here as belonging to the De Lacy family, who exacted payments in honey and pigs from their tenants.

The first castle on this site was a timber structure, perched on top of the man-made motte, or mound. The De Lacys spent what was then a considerable sum of £37 improving this castle, and the present stone keep dates from about this time.

In 1233, Henry III visited, ordering the garrison to be enlarged. In 1241, the Lacy lordship ended; the castle then passed through a number of owners but retained its importance.

In 1403, Henry IV, finding the castle somewhat decayed, commanded it to be refortified for defence against attacks led by the Welsh chieftain Owain Glyn Dwr.

By the 1450s, however, it seems to have fallen out of use. Longtown, from which the castle now takes its name, was a planned medieval market town outside the castle ramparts. The town was not a success, perhaps as a result of the Black Death in the mid-14th century: it gradually shrank in size and importance to the small village seen today.

Ponthendre Castle

Ponthendre Castle sits on the end of a spur which juts out into the valley at the point where the River Monnow and the Olchon Brook meet and gives commanding views both to the north and south. It is therefore strategically a very suitable location for a castle. The name "Ponthendre" comes from the Welsh meaning "bridge at the old settlement" or "bridge by the winter farm". The earthwork appears to comprise the remains of a Motte and Bailey presumed to be Medieval in date. The tree covered motte is 10.5 metres in height and 44 metres in diameter. The enclosing ditch is 6 metres to 12 metres in width and 0.5 to 3 metres in depth, south-east to north-west. The scarp around the bailey is 3 metres to 4 metres in height and the rampart, 12 metres wide, 3 metres high on the south east side, 11 metres wide and 1 metre high on the north west side. It has been suggested that the castle was built by Walter de Lacy who died in 1085, and that the castle was replaced by Longtown Castle to the north in the twelfth century. (Pastscape)

Bruce Coplestone-Crow suggests that the administrative centre of the commote of Ewyas, (not under the commote of Ewyas Harold), in 1086 "was the motte and bailey castle at Walterstone....this was then within the castlery of Ewyas Harold. By 1100, probably the

caput had been moved closer to the old, Welsh centre of the commote at Cloddock, to the motte and bailey castle at Pont Hendre.....and by 1200 to the castle at Longtown." (Coplestone-Crow,1989.) (although both these suggestions have been disproved by this project).

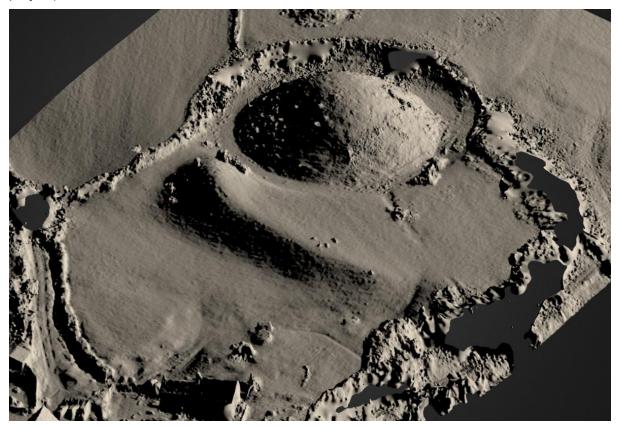


Figure 3: Structure from Motion 3D model of Ponthendre Castle produced from the drone survey in 2016.

3. Scope of the works.

The archaeological fieldwork, as outlined in the brief produced by Longtown & District Historical Society comprised:

- 1. The earthwork survey of Ponthendre Castle.
- 2. Excavation of Ponthendre and Longtown castle in accordance with Scheduled Monument Consent.
- 3. Location of trenches in order to address a series of research questions
- 4. The protocols and methodology for reinstatement of excavated areas.

5. The protocols and systems in place for the training and supervision of volunteers and for the engagement of the local community and visitors from further afield.

Research Questions at Ponthendre Castle:

- a) Over what period(s) was the motte and bailey occupied?
- b) Was it completed and was it a single or multiple phase construction?
- c) What form did any keep structures take and what materials were used?
- d) What were the form and materials of the bailey defences?
- e) What activities took place within the bailey?
- f) Are there any structural remains still in place?
- **g)** Were any of the structures subsequently robbed or slighted?
- h) Is there any evidence of earlier occupation of the site?

Research Questions at Longtown Castle:

- a) When was the square embankment constructed?
- b) Was the embankment a single phase or multiple phase construction?
- c) What materials were used to build it?
- d) Is there an internal structure to the embankment?
- e) Was it faced with either timber or stone?
- f) Was it topped by a wall or palisade?
- g) Was there an internal ditch as suggested by the geophysics?
- h) Is there evidence for buildings within the embanked enclosure?
- i) What activities took place within the embanked enclosure?
- j) Over what period(s) was the enclosure occupied?
- k) Is there evidence for earlier occupation of the site?

The 2016 season answered many of these questions but left some either unanswered or uncertain. The 2017 season of excavations were therefore targeted in order to answer these questions as fully as possible. The research questions which remained to be addressed are:

Research Questions at Longtown Castle:

When was the square embankment constructed?

Is there an internal structure to the embankment?

Was there an internal ditch as suggested by the geophysics?

Over What period(s) was the enclosure occupied? Is there evidence for earlier occupation of the site?

Research Questions at Ponthendre Castle:

Over what period(s) was the motte and bailey occupied?
What form did any keep structures take and what materials were used?
What activities took place within the bailey?
Are there any structural remains still in place?

4. Fieldwork at Longtown Castle during 2017

The full description of each of the works undertaken during the 2016 season can be found within the 2016 interim report, Longtown Castles Project: A Community Archaeology Project, archaeological investigation and recording during 2016: An interim report (HAR 364). However a brief resume of trenches excavated during the 2016 season has been given within this report due where they are relevant to the works undertaken during 2017 or where additional information concerning trenches from 2016 has come to light.

Site work began on the 3rd July and ran until the 21st July. The organisation and excavation was carried out in very much the same way as in 2016 with a core staff of six professional archaeologists supervising volunteers on both sites. The weather for the first two weeks was generally warm and dry, however, the final week, (and in particular the final two days), were extremely wet.

In addition to the trenches, it was intended to undertake two auger transects. These were located across the northern external ditch, close to the well and across the central green lane / ditch which runs along the eastern side of the inner bailey (figure 4). Attempts were made over both transects but in both locations the ground was found to be too stony to gain any useful depth.

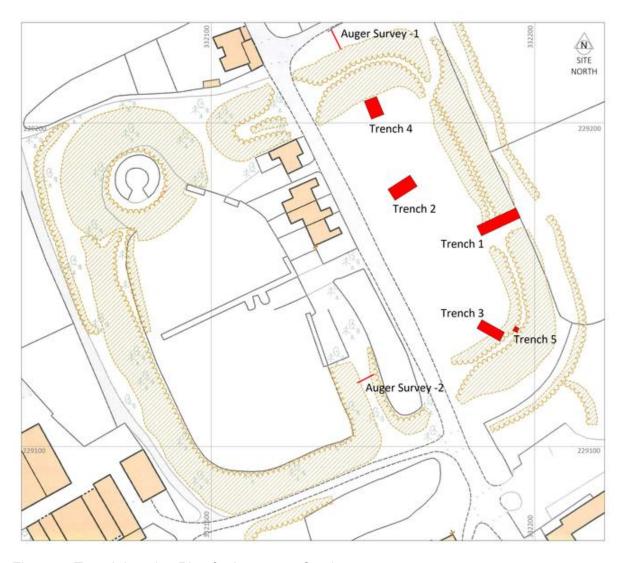


Figure 4: Trench location Plan for Longtown Castle

Trench 1 (excavated during 2016)

Trench 1 was designed to give a cross-section through the eastern rampart of the outer bailey of Longtown Castle while minimising disturbance to the earthwork, which stands approximately three metres high above the bailey interior. Advantage was therefore taken of an existing cutting through it: a post-medieval trackway dug through the rampart (at a date not later than the early 18th century from cartographic evidence) to give access to the field outside. Excavation of trench 1 commenced with a JCB on the northern slope of the post-medieval trackway, at first cutting steps into the slope to allow for safe excavation of the full height of the rampart, followed by the removal of turf and topsoil from the whole of the slope to reveal the truncated rampart stratigraphy behind. In the course of this operation, the distinctive green-grey-tinged turf horizon forming the earliest rampart strata was noted right across the base of the trackway cutting, demonstrating that the trackway had indeed cut

through the rampart and had not (for example) been installed on the line of any earlier, medieval, access through it.



Plate 1: Rampart section showing bedrock and tip lines of the turf core.

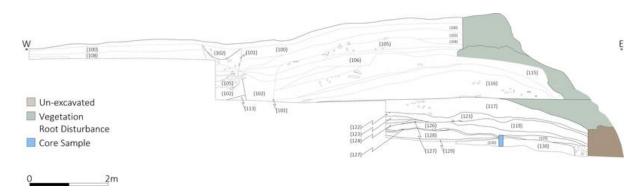


Figure 5: Section drawing of the excavated rampart section.

The earliest deposits encountered were of natural origin. Natural sandstone bedrock (context 133) was found at the eastern end of the trench just behind the front of the rampart. It was of variable character with solid peaks of rock alternating with smaller slabby sandstone pieces increasing in size and frequency with depth. The interstices were all filled with sterile grey silt (context 130) which continued westwards (unexcavated) under the main body of the rampart

and was identified as a buried soil. There was no evidence of any features (such as postholes) cutting down into the natural surface from or through the overlying rampart, and no evidence was found for any retaining structure or revetment at the front of the rampart.

The earliest rampart material consisted of alternating thin layers of brown and grey silty clay, to a height of 0.55m above the natural surface, clearly recognisable as individual layers of stacked, decayed turf (contexts 121 to 128 inclusive). These were excavated over a width of five metres westwards from the front of the rampart, but continued (unexcavated) further to the rear and also covered the cut through to the field indicating that this was not an original entrance.



Plate 2: Detail of rampart base showing the differing colour of silts, clays and turf remnants.

The turf core of the rampart was sampled during the 2016 excavation season and the sample was processed by flotation. A small amount of charcoal was recovered from this sample material and this was submitted for high precision, Carbon 14 dating during 2017. Although this dated the charcoal within the turf rather than the construction of the turf rampart, it was hoped that this would at least provide a *Terminous Post Quem* for the construction of the rampart. An uncalibrated date of 209 BC +/- 20 was returned for this sample (SUERC-77729). The date implies that the turf rampart was therefore constructed at

a point in time after this date and could therefore be late Iron Age or early Roman, although the scale and square shape indicates the latter.



Plate 3: The completed rampart section

Trench 2 (excavated during 2016 and 2017)

Trench 2 was located on the Green adjacent to the road, to the east of the stone castle, on ground sloping down towards the north-east. It was located over the corner of a rectangular earthwork with the intention of ascertaining whether the earthwork was modern spoil associated with the construction of the school during the late 19th century or whether it related to earlier activity on the site. The trench measured 6m (east-west) by 4m (north-south). The 2016 trench was excavated down to a lightly metalled surface (216) which underlay a series of medieval working surfaces or yards which in turn underlay dumped material from the construction and use of the school. Associated with the lowest metalled surface was the stone foundation of a structure aligned roughly east west which was not excavated during 2016.

The 2017 excavation comprised the reopening of the eastern half of the 2016 trench and extending it to the east by another three metres to make a 6m by 4m trench which overlapped the eastern end of the 2016 trench by 3m.



Plate 4: Aerial Photograph showing trenches 1 & 2 in relation to the castle during the 2016 season.



Plate 5: The gravel surface (216) and the flat larger stones as left in 2016



Plate 6: The 2017 season trench showing the extent of metalling 216 and the stones from 2016

2017 Excavations at Longtown Castle

The excavation of the extension to trench 2 commenced with the trench being stripped by machine under close supervision to the base of layer (207). From this level the trench was excavated by hand. The first deposit encountered under (207 / 218) was a layer of grey trampled soil (215) that was first encountered during the 2016 excavation. The deposit covered most of the trench and within it were 39 sherds of pottery. The pot mostly dated to the 13th century, with a single piece of residual Roman pottery. Layer (215) overlay a pebble/metalled surface (216) also encountered during excavations in 2016. Pottery finds from the metalled surface also dated to the 13th century with a single residual sherd from the Roman period. The surface was confined to the western half of the trench.

Also underlying (215) and located in the south-west corner of the trench was a roughly 2m long line of flat stones (219) extending from the west end of the trench and aligning east-west that were likely to have been the remains of a low stone wall to carry a sill beam for a timber building. This structure had partly been partly exposed by the 2016 excavation. The structure sat directly on the pebbled surface (216)

Towards the north-west corner of the trench lying below 216 there was a small circular depression in the surface of (216) approximately 0.60m wide representing a feature [226] and (225). This feature was not fully exposed and remains only partly excavated. No finds were present in the excavated part. It is likely that this represents the truncated base of a pit.

Along the northern edge of Trench 2 adjacent to [226] (225) layer (215) slumped away slightly and thickened considerably towards the north section. When excavating (215) it became evident that the layer was slumping into an underlying feature. This resolved itself as an east-west aligned ditch. The ditch [229], had been filled with a sooty charcoal deposit containing pottery and slag (227) and a rubble fill (228) partly overlying and partly within 227. The pottery from (227) (19 sherds in total) mostly dated to the mid 13th century but there was also some residual (3 pieces) Roman pottery within the deposit. The evidence from the fill deposits suggest they may have come from a demolished medieval metalworking furnace.

When (215) was removed from the area around and over the ditch it was evident that the pebbled surface (216) had partly slumped down, suggesting maybe that something else may have been causing the surface to slump. All the finds and deposits above this level had been medieval.

When the medieval deposits were excavated from ditch [229] it could be seen that the ditch was slumping into an earlier, larger ditch [239] that contained fills (234) (237) and (238). These fills contained only Roman finds. The uppermost deposit (234) was red brown clay deposit containing a single sherd of Roman pottery amphora and a blue glass bead. Deposit 234 overlay a layer (238) of mottled dirty grey mixed clay containing a lot of charcoal and a single piece of Roman pottery. Charcoal from deposit (238) was sent for C14 dating and returned an uncalibrated date of 17 AD +/- 20 (SUERC 77732).

Deposit (238) overlay a structure consisting of flat broken pieces of sandstone (237) that appeared to form the base of an oven or kiln. Associated with the structure was a collapsed flue (232) and [233] coming in from the south side and extending the full width of the trench.



Plate 7: Truncated remains of a Roman oven or kiln base, (237)

As part of the excavation a 1m wide slot trench was cut towards the west end of the trench, aligned north-south. When the pebbled surface (216) was removed from the slot underlying it in the north-west angle of the trench was a small patch of soot (222) overlying a soil horizon (223/231) consisting of dirty red brown clay and stone. There were no finds associated with (223/231).

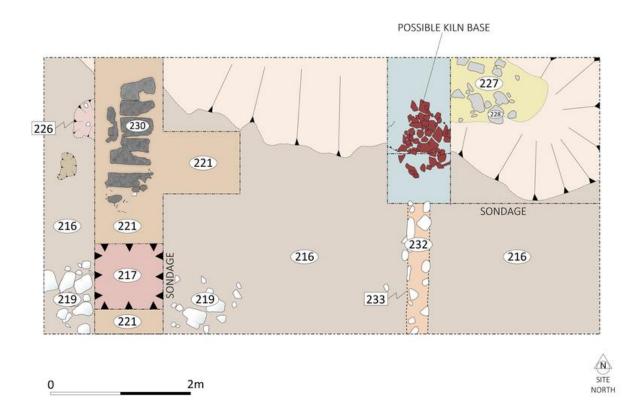


Figure 6: Plan of Trench 2 showing principal deposits and features including Kiln or oven base (237), its flue (232) and the carbonised timbers (230).

Below (231) lay a deposit of burned clay and charcoal (220) which contained exclusively Roman pottery. When the burned clay/charcoal deposit (220) was excavated, a sooty deposit (224) containing carbonized wood and ash was identified underlying its northern extent. There were no dateable finds at all within 224, however a sample was submitted for C14 Dating. This returned an uncalibrated date of 194 BC +/- 20, (SUERC 77740). Immediately below (220) and butting (224) there were several pieces of carbonized oak timber (grouped as 230). The timbers appeared to be 6 or 7 pieces that were roughly the same width and looked like they could have been planks or slats. It was noted that the timber was lying in a shallow depression in the ground, possibly suggesting the timbers had been placed over a soft surface that the planks had settled into. A piece of the timber was sampled for species analysis which proved that the timber was oak and that these were radially split planks. The timbers had been carbonised by indirect heat, the fire base being above the timbers, (burning deposits (222) and (224)). It is suggested that this line of planks or slats may well have continued to the north and to the south but because they were not affected by the heat from the fire above, these timbers have rotted away. It is assumed that the line of what appear to be regularly and therefore purposefully placed planks represents some form of flooring or perhaps walkway over the soft and wet ditch deposits below them. A sample was submitted for C14 dating and returned an uncalibrated date of 188 BC +/- 30

(SUERC 79152). This is dating the wood (the tree) rather than the time of its use. If the size of the tree from which the planks were hewn is bourne in mind, then a 1st century AD date for their use is highly probable.



Plate 8. The carbonised timbers (230)

There was evidence of an earlier metalled surface (221) underlying the timbers. The extent of this surface is not known as it was only seen within the sondage. Underlying the metalled surface was a grey clay soil horizon (236) that overlay deposit (217).

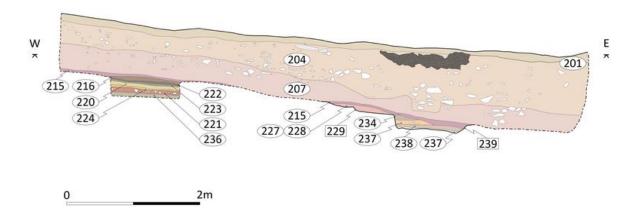


Figure 7: North section of Trench 2

A 1m square deep sondage was excavated from the level of the pebbled surface (221). The sondage was excavated to around 1m deep. Below (221) there was a thin soil horizon overlying (217). To the bottom of the sondage the only deposit encountered was (217), a mixed deposit containing grey silt sand and gravel. The pottery finds from this deposit (11 sherds) were exclusively Roman and a high precision C14 date from this layer provided An uncalibrated date of 39 AD +/- 20, (SUERC-77733). The Roman pottery has been largely dated to the 1st century AD with some possibly continuing into the 2nd century AD.

Trench 3

This trench was 8m long by 3m broad and was located towards the south-east corner of the bailey, with a view to sampling surface earthwork remains visible in that area and establishing relationships between the interior depositional sequence and the rampart tail further to the south.

The excavation commenced with a JCB under archaeological supervision: turf and topsoil (301) were removed, exposing an underlying deposit dominated by quantities of thin, slabby sandstone rubble, grey in colour with a distinctive greenish tinge, in a matrix of pink-grey clay with further small pieces of sandstone. This was recognised as a probably 19th-century deposit from the previous year's excavation of Trench 2, and it too was removed by machine.



Plate 9: Trench 3 immediately after machining and cleaning.

Removal of this rubble exposed a surface of compact grey-pink clay soil (303) with a concentration of pieces of what appeared to be burnt orange clay towards the southern, higher, end of the trench on the tail of the rampart. In the extreme south-east corner of the trench a cluster of sandstone slabs were exposed which were resolved into a short length of unmortared sandstone rubble wall (305) with a vertical face on the east side. Immediately to the north of the (truncated) end of this wall, a tip of sandstone rubble (307) – tipping downwards to the east – was found to be filling a cut, (313). The nature of this feature was never fully resolved: the majority of it probably lay beyond the excavated area, only 1.05m of its width extending into the trench. The short length of north-south wall (305) was probably all that remained of a lining wall, the rubble-filled context (307) representing its destroyed remains, tipping down towards the centre of the feature somewhere just east of the excavation trench. While it could have been a cellar, it was more probably a stone-lined latrine pit or similar whose primary fill lay beyond the excavated area.

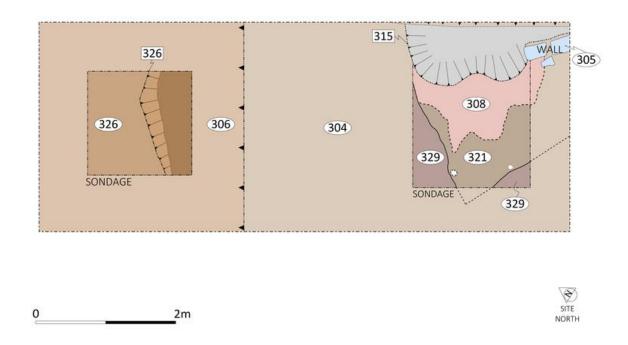


Figure 8: Plan of Trench 3 showing principal features and deposits.

Excavation of the fill within cut [313] exposed, as a sloping section, some of the sequence of layers underlying the general clayey layer (303), in particular it exposed the edge of a hard floor-like clay layer (321). Removal of (303) disclosed a distinctive layer (308) dominated by swirls of orange, blocky, burnt clay interleaved with clay silt similar in composition to the overlying material (303). Removal of (308) over a sample area exposed most of the remainder of (321). This had a green-grey upper surface and an orange core, was composed entirely of clay with some charcoal, and was extremely hard – its upper surface was almost polished. In plan, the northern and western edges of (321) were sharply defined and would have met at a right-angle just outside the sampled area. One probable stake hole and one definite stake hole (329) were driven/cut into (321) and sealed by the overlying silty material (303).



Plate 10: Wall (305) and burned clay floor (321).

Floor (321) is interpreted as one corner of a building orientated roughly NW-SE, set perpendicularly into the slope up towards the south-east corner of the bailey defences. It was almost certainly a clay-walled building, with some minor timber components on its perimeter. The overlying deposits (308) and (303) are interpreted as the weathered, spreadabout remains of its superstructure. After these deposits were laid down, its site was punctured by some kind of large negative feature, represented by the cut [313] and the short remaining length of wall (305) within it. Dating evidence for this building is reliant on the ceramics. Context (303) contained cooking-pot fragments of mid-13th-century date, context 302 contained pottery of mid-13th to mid-14th-century date. Much lower contexts (see below) yielded pottery possibly of the first half of the 13th century (the C14 date is somewhat earlier). The building can then only be dated to the mid-13th century or later, though without much doubt it belonged to the medieval occupation of the bailey, no post-medieval material at all being present.

Towards the north (bottom) end of the trench, removal of layer (302) exposed the top of a compact, hard layer of red-brown clay (304) with slabby sandstone rubble up to 25cms in size and some red/burnt clay pieces similar to the contents of layer 303. With the resilience of this deposit in mind, vis a vis the resources available to the excavators, further excavation

at the north end of the trench was at first limited to a 2.5m wide sondage and then, as the sequence of hard, rubble-filled deposits continued, the area was reduced further to a final 1.5m x 1.5m sondage.



Plate 11: Sondage within Trench 3 showing the extent of the medieval rubble and charcoal tipping.

Removal of 304 exposed a tip of grey-brown, orange and black clayey soil (306) across the width of the trench varying in thickness from c.1 metre to 0.25m, appearing in the east (drawn) section. It incorporated extensive charcoal and amongst the burnt clay content were pieces of burnt daub which clearly incorporated structural elements in the form of wattle or withy impressions. These and the presence of frequent cooking-pot sherds (dated to the mid-13th century), gave the strong impression of disturbed occupation debris removed from its original location and redeposited. The impression of a major re-deposition event was strengthened by the character of the underlying material (309), a tip of very compact clay with sandstone slabby rubble up to 20cms, followed by a 3mm-thick tip of dense charcoal flecks and pieces confined to the north-east corner of the trench (310), followed in turn by a charcoal rich clayey soil (311) and another rubble-filled clayey layer (312).

The excavation, now confined to the final 1.5m x 1.5m sondage, next removed a tip of compact red-brown clay (314) in the SE corner of the sondage, exposing a further thin

spread of charcoal (315) occurring in pieces and sheets, the direction of the wood-grain being apparent in various directions. Under this lay a brown, charcoal-rich, clay soil (316), followed by a clay soil with large rubble (317).

Beneath this sequence of layers lay a massive deposit (320) of large sandstone rubble (blocks of up to 30cms) with interleaved tips of grey-brown and red clay. This was strikingly hard to excavate, despite the presence of many air-filled voids between the rubble – probably a result of the clay-rich layers (317) sealing it and preventing soil ingress. A further tip of rubble in a compact red-pink clay lay under it on the north side of the sondage (318).

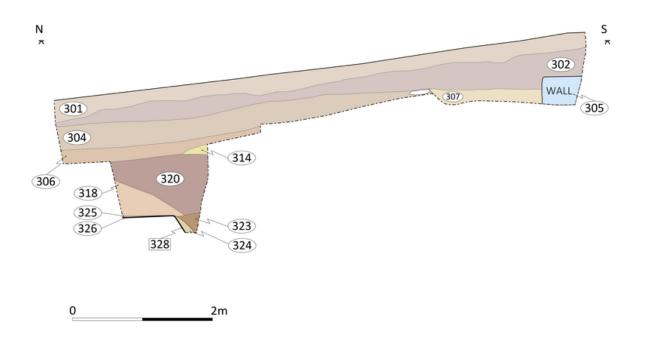


Figure 9: Eastern section of Trench 3.

This very distinctive sequence of dumped layers was found to overlie what appeared to be (in the limited sample given by the base of the sondage) earlier occupation deposits. The earliest of these to be excavated was a metalled surface (326) of compact red-brown clay with pebbles, thought to be either the floor of a building or an external yard surface. A further deposit of charcoal (327) was seen beneath it but left unexcavated in situ; a thin skim of charcoal (325) lay on the surface of the metalling this was sampled and provided an uncalibrated date of 960+/- 17 AD, SUERC 80738. On the south side of the sondage this metalled surface (326) was cut away by a pit or other negative feature (328). The cut was lined with a distinctive light grey-green very soft silt, highly indicative of the slumped primary filling of a cess pit or latrine. The later filling of this cut, compact red-brown clay with large

(up to 25cm) rubble (323), fairly certainly belonged to the disuse and backfilling of the feature, prior to or as part of the massive landfill operation represented by the rubble of context (320) and the layers above it.

The results of the excavation of Trench 3 are indicative of three distinct phases of activity. The earliest of these was exposed only at the base of the 1.5m sondage and cannot, at present, be dated, although two charcoal-rich layers associated with it were sampled. This phase is represented by a metalled surface (326), laid in position on top of a charcoal-rich deposit, and charcoal-generating activity thereafter took place on its surface. On its south side it was cut into by what was in probability a cess pit (328).

The surface, together with the partly-filled cess-pit, were then buried in the first phase of what is taken to be a single, massive, landfill operation. This was represented in the excavation trench by successive layers of stone rubble with some red clay, and much smaller tips that were rich in charcoal and associated with a quantity of medieval cooking pot sherds. This landfill event is taken to include the whole sequence of excavated layers between (304) (the latest, on top) and (323) (the earliest, completing the filling of the cess pit 328). It is certainly possible that this succession of contexts relates to more than one phase of activity, or a very protracted one, but the similarity in character from the top to the bottom of this sequence was suggestive of one episode. Certainly, the substantial rubble tip (320) with its air voids between stones was very suggestive of a single, rapid operation. If so, its consequence for the general development of the castle must have been considerable. Where sampled by trench 3, the successive rubble layers lay about 1.3m deep. Extrapolated across the south-eastern quarter of the bailey, this adds up to a very substantial quarrying operation, one most probably generated by the digging of a new, major, defensive ditch, rather than the routine scouring of old ones. The dating evidence is reviewed fully elsewhere, but cooking-pot sherds are indicative of a possible 13th-century date; C14 dating of charcoal from context (310) provided an uncalibrated date of 982+/- 20 AD, SUERC 77739. The presence in some of the smaller layers, interleaved with the rubble, of charcoal and burnt daub, in some cases with wattle impressions, is highly evocative of occupied structures being cleared away prior to ground being quarried.

The latest material associated with this phase, that seems to represent a substantial remodelling of the castle, was layer (304). A final phase of medieval activity is represented by the construction on top of it of a clay-walled building. This was used without occupation deposits forming on its floor before it was demolished, its superstructure spread around and

its remains weathered (303), before a new structure, perhaps a stone-lined latrine pit (305/313) was dug through its remains.

Trench 4

This trench comprised a 6m long and 4m wide trench, running south from the base of the north rampart on the internal side. The aim of this trench was to provide information regarding the existence of any internal ditch, any facing or revetting of the rampart, as suggested by the geophysical survey.



Plate 12: Trench 4 looking west

Immediately below the turf was a well mixed topsoil (401). This layer consisted of medium brown silty clay soil, well compacted with several inclusions including charcoal, small stone fragments, pottery and modern coins. The character of the material from this layer was very similar to that apparent within the topsoil layer within trench 2. Finds included stone roof tiles, slate sheets and pencils, also a fragment of an ink pot, suggesting that like trench 2 this area had been used for the tipping of waste material from the school both when it was being constructed and also when it was being run. Immediately below this, and covering the entire trench was a layer of stony mid brown clay, (402). This appears to have been a levelling

deposit used to create a lightly metalled work surface. On the surface of this deposit was a localised area of intensely burned clay approximately 0.9m wide and 1.2m long, (403). This feature appears to represent the remains of a hearth, possibly associated with the preparation and cooking of food, a small quantity of burned bone and black Medieval cooking pot were recovered from this deposit and includes (406) and (407), it covers (404). This layer consisted of reddish brown – orange silty clay, reasonably compact, with large amounts of charcoal and burnt orange flecks running throughout the layer. This archaeological horizon has been interpreted as a working surface that includes a hearth (403) and a pit (406). The only finds from this context include medieval cooking pot.



Plate 13: detail of hearth (403)

Small amounts of medieval cooking pot and small pieces of burnt bone were recovered from this context - strengthening the interpretation that 403 represents a hearth.

Context (404) consisted of brown greyish silty clay that is both friable and reasonably hard. Inclusions include burnt clay, charcoal pieces and yellow flecks; this context is very similar to

context (402.) This deposit has been interpreted as a second working surface that appears to be contemporary with (403) and (406).

Within the south-eastern corner of the trench was a deposit of clean, angular grey sandstone (405). The feature is covered by (402) and cuts (404). The top part of this feature consists of sandstone fragments which appear to be laid flat but have no bonding material present. It is suggested that this deposit represents a levelling deposit filling an undulation or depression within deposit (404) with the top of (405) levelled off to continue the surface of (404).

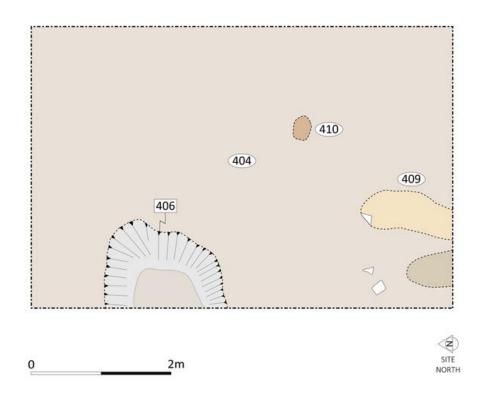


Figure 10: Plan of Trench 2 showing pit (406) and Burning / hearth deposit (409).

Context (406) was an irregular oval shaped pit that was not fully excavated as part of the feature ran into the Western section of the trench. It is covered by (401) and is a part of the working surface (402); it cuts (404) and was filled by (407). This feature appears to be a stone lined pit. The sides of this feature were lined with flat stones; it flattened out to the base which also included flat laid stones. The fill (407) consists of a pinkish brown, fine, movable sandy silt. It was both friable and loose in compaction and included small pieces of sandstone. Within this fill a small Iron blade was recovered along with a small amount of 13th century pottery and occasional burnt bone.

Context (409) sits immediately on metalled surface (411). This feature consists of orange, yellowish silty compacted clay which has clearly been used as a hearth. Inclusions include

small pieces of angular sandstone and large amounts of charcoal flecks. This feature has been interpreted as a hearth associated with working surface of (404). The hearth is oval in shape and continues into the southern section of the trench. It comprises a thin layer of charcoal 2cm in depth and a pale green/yellow layer with flecks of orange directly above the charcoal layer at 5cm. The dimensions of this feature are 1.2m in length and 0.6m wide and approximately 10cm deep. Along with a small quantity of medieval pottery, a single sherd of Roman pottery was also recovered from this context.

Context [410] is a cut, roughly oval in plan and very steep almost vertical sides. It is covered by metalled surface (402) and appears to completely cut through metalled surface (404). The cut has been interpreted as a post hole / pipe as it appeared during excavation as a void; there was no visible fill, just a definitive cut. The cut was 26cm in length, 19cm wide and had a depth of 29cm, (figure 10).

Almost midway along the eastern section of the trench was deposit (411). This consisted of a charcoal rich, dark brown loose silty clay. It was overlain by (404) and it covers (412), (primary fill). Due to this feature only just being within the trench and continuing into the Eastern section, only a small portion of this material was excavated. The deposit was almost black in colour due to the concentration of charcoal. In addition to a small quantity of medieval pottery, five sherds of Roman pottery were recovered from this context this material has been given a 1st century AD date, see Appendix 2). A carbon 14 sample was submitted from this context (SUERC 77730) which provided an uncalibrated date of 1021 AD +/- 20, confirming that the Roman pottery was redeposited and must have come from Roman deposits elsewhere on the site.



Plate 14: Deposit (412) with (411) above.

Context (412) consisted of pale grey/green very compact silty clay. It was very clean with no inclusions. It is suggested that (412) represents some sort of clay lining for what appeared to be a shallow depression. If this were the case it is possible that this represented some form of water tank, possibly associated with smithing or water storage.

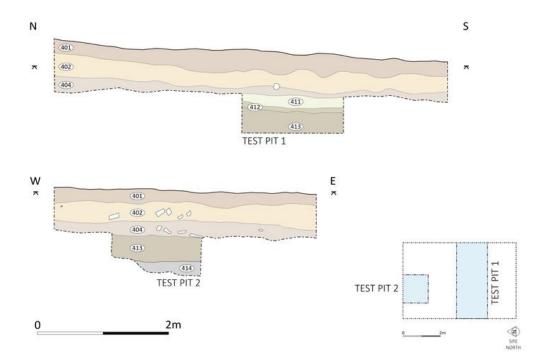


Figure 11: Eastern and Northern sections of Trench 4.

Context (413) was immediately above the bedrock, it comprised a red/orange silty clay, and may be redeposited natural. There were very few inclusions only very small amounts of stone within it. It covered the trench and filled natural joints within the bedrock. A small quantity of medieval pottery was recovered from this deposit, although the sherds were small in size and may have been crushed. It was noted that there was a lack of any natural subsoil within this trench suggesting that this area of the site had been cut down to bedrock and that this deposit was deposited directly onto the bedrock. The only undisturbed natural deposits were excavated from within the natural cracks / grikes within the bedrock.



Plate 15: Trench 4 looking North showing the bedrock.

Trench 4 appears to largely match the sequence of deposits within Trench 2 as excavated during the 2016 season. Due to the comparative difference in height between the two trenches, bedrock with in trench 4 was encountered at approximately 1.1m below the present ground surface. The bedrock slopes down to the south right across the site, (as can be seen from the profile of the road) meaning that trench 4 will be the shallowest trench. It would appear that during the mid 12th century "re-development " phase noted from the material within Trench 3, the ground surface within trench 4 was taken down to bedrock

before a series of mid 12th century hearths, (403) and (409) light buildings (as suggested by the post hole (410)) and other light industrial activities, deposits (411) and (412). The modern deposits within this trench again closely resembled the top deposits from Trench 2 with the recovery of material from the school. It is suggested that the geophysical anomaly which appeared to suggest that there was a wet ditch running along the base of the rampart, was picking up the groundwater which was running along the top of the bedrock from underneath the rampart.

Trench 5

A small 1.5m x 1.5m sondage was opened on the summit of the south-east corner of the rampart to re-examine a small sample of the rampart top as a control on the conclusions of a similar trench dug on the rampart top above trench 1 the previous year. The topsoil (501) was hand-excavated; it was grey-brown and friable to compact in texture. Its removal exposed the uppermost deposit of rampart material (502), a light grey to red-brown crumbly soil with much rubble, varying from rocks up to c. 35cm to small decayed pieces. The rubble was found to be tipping down to the south and to the east. The surface was minutely examined in a search for negative features (e.g. post-positions or a slot representing a palisade) but none were found. (502) appeared to be a dumped deposit and there was no sign of any structural features.



Plate16: Trench 5 Looking North.

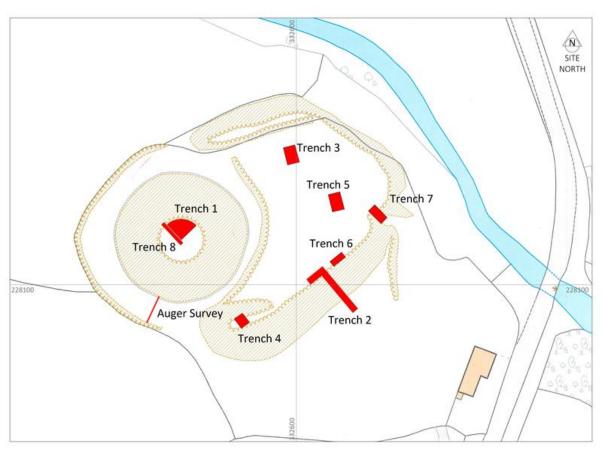


Figure 12: Trench location plan for Ponthendre Castle

5. 2017 Excavations at Ponthendre Castle

Trench 1 (2016) and re numbered as Trench 8 during 2017

Trench 8 was opened along the western edge of Trench 1 which was excavated on the summit of the motte in 2016 (figure 12). It measured 6.90m south-west north-east and 1.00m north-west south-east. The purpose of the trench was to confirm the findings of the previous year that there was no sign of any features in the deposits on the summit of the motte that may be associated with any structure.



Plate 17: Trench 8 looking North.

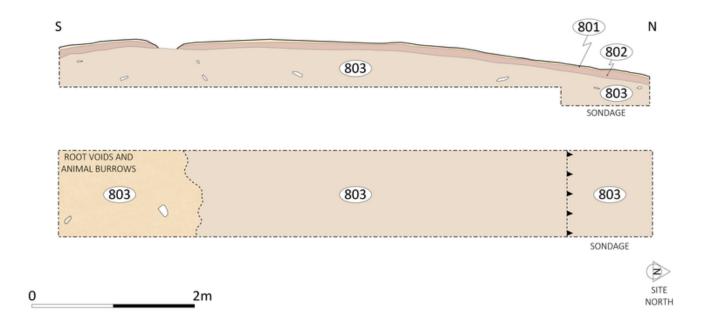


Figure 13: Plan and section of Trench 8.

Three contexts were recorded; the body of the mound (803), the weathered and root disturbed upper layers of the mound material (802) and the thin turf and topsoil (801). The undisturbed mound material was tested to a depth of 0.75m. It consisted of hard packed purple-red silty clay with green-brown flecks and inclusions of small green sandstone fragments. A concentration of tree roots at the south western end of the trench would appear to have been responsible for the geophysical anomaly recorded during 2016.

Trench 4

Trench 4 was located on the summit of a small knoll at the western end of, and integral with, the southern stretch of the bailey rampart. The knoll appears to have been constructed from material excavated from the adjacent motte ditch and may be a strengthening of the rampart where the latter joins the former. It has been suggested that this might be the location of a bridge leading from the bailey/rampart onto the motte. This is not out of the question but the primary reason for the feature would seem to be the increased defensive quality at an otherwise weak point in the defences. There is a similar arrangement where the northern rampart meets the motte ditch although this is not so obvious because of later quarrying and current tree cover. If enhancing the defences was the intended function it is possible that the mound may have been surmounted by a timber tower.

Trench 4 was therefore designed to test for the presence of structural remains of either a tower or a bridge abutment on the mound. It measured 3.80m north-south by 3.40m eastwest.



Plate 18: Trench 4 showing profile of top of mound and the redeposited natural (403)

Below modern turf and topsoil and subsoil (401), (402) the mound material was purple-grey silty clay with inclusions of small green, purple and black degrading stone fragments (403). The only artificial feature recorded cutting this was a linear slot (404). The fill (405) was reddish-brown silty clay the upper part of which contained a number of deliberately placed flat sandstone pieces. It had no obvious sensible alignment with either the rampart or the motte, it does not appear to be substantial enough for a timber slot nor does it have any associated features. This may be a relatively modern feature. A number of rabbit burrows were recorded

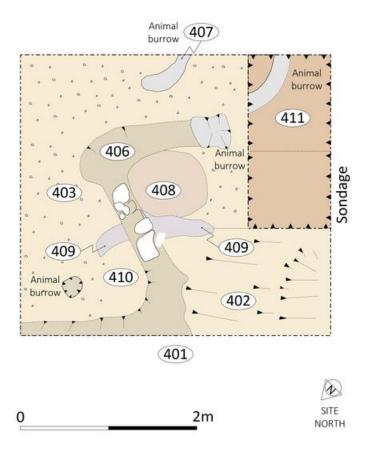


Figure 14: Plan of Trench 4 showing the stones covering burrow (406)

It is possible that the placed sandstone pieces formed the roof of an artificial rabbit run/nesting chamber constructed in the top of a pre-existing mound.

Trench 5

Similar to trench 3 in 2016 trench 5 was located within the bailey interior and was designed to test for activity, features and deposits. It measured 6.00m east-west by 4.00m north-south. The trench was placed so as to intercept a shallow ditch draining the "moat". This was to enable the removal of the ditch fills to test the deposits the ditch had cut through, in the event it was found that it only cut natural clay subsoils.

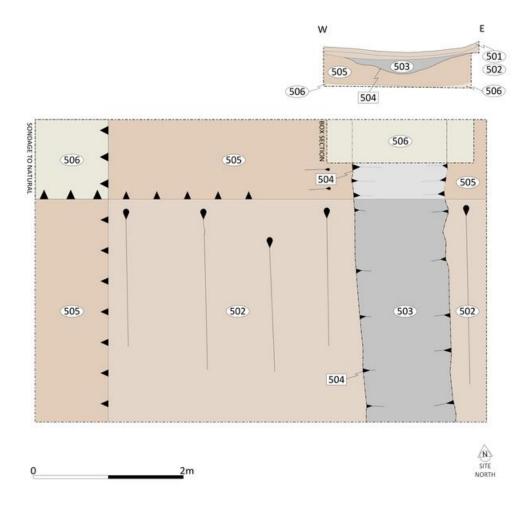


Figure 15: Plan of Trench 5.

Below 0.15m of turf and topsoil (501) was weathered natural subsoil (502) this was cut by the ditch (504) the fill of which (503) was dark red-brown silty clay. A sherd of blue and white Victorian pottery was recovered from the fill. The weathered subsoil (502) was removed straight onto featureless natural clay deposits (505) and (506). The former was red-brown silty clay with black manganese flecking and the latter bright green and red clay and degrading green stone fragments.

Trench 6

Trench 6 was effectively an eastern extension to the 2016 trench 2. A post hole had been recorded cut into the top of the rampart in trench 2 and it was possible that this was part of a structural element of the rampart, perhaps a timber palisade. Trench 6 was therefore placed to test for the presence of further post holes, it measured 5.00m south-east north-west by 2.00m south-west north-east.

No further features were recorded. Deposits consisted of the rampart material (602) which was hard packed light red-brown silty clay with small green sandstone inclusions. A sondage at the western end was excavated to a depth of c0.10m which showed consistent material to this depth. Partially overlying the rampart material along its northern edge was colluvial material (603) (equivalent to (202)) and overlying both a light reddish-brown silty clay loam topsoil and turf (601).

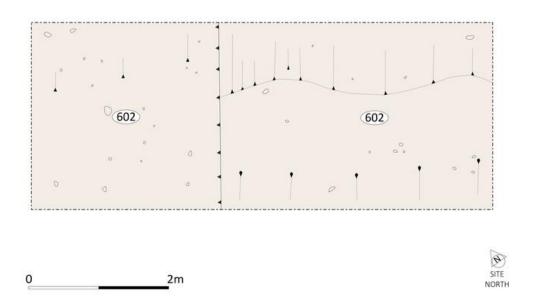


Figure 16: Plan of Trench 6.

Trench 7

Trench 7 was placed to examine what appeared to be a break in the rampart approximately at the centre point of its circuit and at the eastern extreme of the monument. This is the only indication of a possible entrance anywhere along the circuit and the trench was designed to record any structural elements that might confirm this interpretation and also if possible to recover dating evidence for the construction of the monument. The trench was located to include the possible eastern terminal of the rampart and part of the potential entrance

passage, it measured 6.90m south-west north-east and 3.10m north-west south-east. That this was indeed an entranceway was confirmed, the rampart ended and there was a sequence of stone deposits that surfaced what would have been the trackway into the bailey interior.



Plate 19: Top of rampart material showing through topsoil.

There was no consistent trackway surface but various deliberate stone deposits formed partial surfaces. The earliest deposits, which lay upon natural subsoils, were a layer and various lenses of redeposited natural (711, 718/19), the former with charcoal flecks. A packed metalled surface (7009) formed from small stone pieces up to 5cm, covered these deposits. It appeared to be aligned with the end of the rampart but was confined to the northeastern part of the trench (figure 17). It is not clear what amount of use the entrance/surface may have had but above the packed stone surface was a further layer of redeposited natural clay (708).



Plate 20: Stones (708)

A further stone deposit (706) (initially thought to be possibly natural bedrock) of very large freshly quarried stone slabs overlay (708). It is possible that they were from the quarry in the side of the stream valley only a few metres to the north-east, they were perhaps placed to create or enhance an agricultural access into the bailey area. The stones were associated with a spread of smaller stone (707) levelling the approach to the larger stones from the south. A colluvial deposit (702) covered these deposits and overlay the end of the rampart. A small quantity of pottery (3 sherds) was recovered from this deposit. These have been dated to the 13th to 15th century.

The rampart material (716) was as previously recorded in trench 2, a reddish brown silty clay with degrading sandstone showing as green flecks. It again overlay a brown-earth forest soil of dark red brown silty clay (714). Two sherds of pottery were recovered from the interface between the rampart material and the natural soil (714). These were abraded but fitted together and have been dated to the 12th century. An irregular, stony, deposit (703) capped the rampart but it is unclear what purpose if any this served.



Plate 21

The only structural stone element recorded within Trench 7 was an arrangement of stones placed at the end of the rampart (713), (Plate 21 and figure 17). This was essentially a large flat stone $0.50m \times 0.45m$ supported on two smaller stones and stabilised with a vertically placed stone between it and the rampart toe. It may have been associated with timber packing of some description or functioned as a post pad although exactly how and why is not clear.

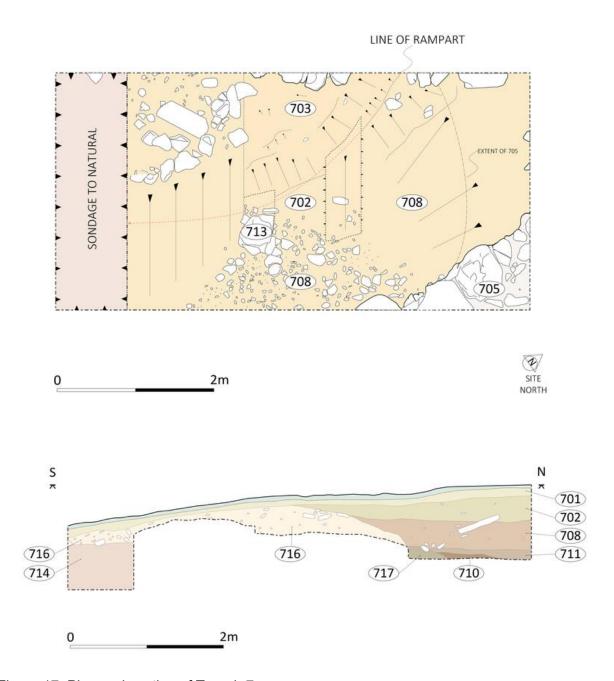


Figure 17: Plan and section of Trench 7.

6. Discussion

Longtown Castle:

The 2017 season of fieldwork has added a vast amount of knowledge to our understanding of the development of the site. The carbon 14 date from the turf from the rampart within Trench 1 has now confirmed that the unusual square shaped rampart, whilst being added to during the medieval period is late Iron Age or most probably Roman in origin. This has long been suggested but without any dateable material it has been difficult to verify. The presence of a reasonable quantity of Roman pottery recovered from trenches 2 and 4 would support the fact that even if the turf enclosure was late Iron Age in origin, there was most definitely a Roman presence within the square enclosure. The fact that a number of Roman dated features are present within Trench 2 suggests that the Roman occupation was of some scale and intensity. It should be remembered that the date provided from the charcoal within the turf rampart does not date the construction of the rampart and it may be that that the charcoal had lain within the turf for a considerable period of time. It may also have originated from a large tree. All these factors may suggest a date of construction which could be considerably later than the second century BC carbon date indicates. With this in mind it is certainly possible that the turf rampart was constructed in the Roman period. Interestingly no Iron Age pottery was recovered from any of the trenches which may add some weight to the argument for the turves being used for the construction of a Roman fort rather than a late Iron Age enclosure which continued to be used into the Roman period. The pottery assemblage contains fabrics which one would expect to find as part of a military presence. The pottery and C14 dates therefore all strongly suggest a 1st century AD Roman fort.

It is clear from the excavation of trenches 2, 3 and 4 that a major phase of re-development has taken place over much, if not all of Castle Green. The fact that Trench 4 was cut down to bedrock and no *in situ* pre medieval deposits survive, whilst the pre-medieval deposits within Trench 2 are severely truncated and in the main survive because they have slumped into a ditch, as the natural bedrock dips downslope. This, in turn, leads one to assume that the massive deposits of medieval dumping recorded within Trench 3 must cover the Roman deposits.

The implications therefore of Trench 3 for the long-term management of the monument are interesting. In summary, in this area, medieval surfaces and structures survive to within c. 0.6m of the current ground surface. The 12th or 13th-century rubble deposits on which these were built represents a protective, very resistant deposit over a metre in depth, sealing further occupation, which is presumed to be of 12th-century and earlier origin. The lowest

deposits of trench 3 were damp; quite possibly the pre-12th-century deposits in the SE corner of the castle – the lowest corner of the site – are permanently waterlogged, offering investigators of the future the potential of an uninterrupted sequence from the late Iron Age to the early medieval period.

The dating from the pottery and the C14 samples strongly suggest that the re-development phase (and by this it is inferred the re-building of the castle in stone), occurred no earlier than the middle of the 12th century and that this was very extensive and possibly fairly short lived.

Ponthendre Castle:

The 2017 season of excavations at Ponthendre have re-enforced the idea that this castle was never fully finished. It still appears, after what can now be described as a reasonable sample of the bailey, defensive circuit and motte top, that after the completion of the earthwork phase of construction; the castle, from a military point of view at least was abandoned. No evidence for any form of structure was found within Trench 8, and no further post holes were found within Trench 6 along the top of the rampart.

The scant pottery evidence leads us towards a construction date between the late 11th to mid 12 Century with what appears to be low level, probably agricultural, activity taking place within the bailey during the 13th to 18th centuries. This type of activity certainly included the ploughing, (and therefore manuring) of the inner bailey which will have introduced ceramics from the "night soil", domestic waste mixed with dung and human waste. The deposition of what appears to have been freshly quarried stone within the entrance way in Trench 7 may have aided access into the bailey for this purpose and could not be dated. The activity on top of the "mound" within Trench 4 is unusual however the stone slabs do appear to relate directly to what appears to be a section of rabbit burrow and all features within this trench appear to be burrow runs. Although the evidence is scant indeed it is possible that this could be the remains of a small warren.

7. Conclusions:

The archaeological elements of the Longtown Castles Project have successfully recorded and planned both castles using state of the art equipment and the excavations have surpassed expectations.

It is, in the author's experience, unusual to answer so many questions which were set prior to any work taking place. The fact that the project was able to be spread over two years ensured that enough time and resource could be spent on the siting of trenches and provided the ability to re-open trenches in order to ensure retrieving as much data as possible from them.

Both castles have their own fascinating stories and both have added greatly to our knowledge not just of these two castles, but of castle development and use within the Welsh Marches as a whole. The fact that Ponthendre Castle was constructed as an earthwork but never developed into a defendable military asset raises the possibility that this may not be a unique occurrence and therefore raises the question of how many other earthwork castles were built as earthworks but not actually used? This could have significant implications upon our understanding the "militarised zone" of the entire Marches. It seems likely that Ponthendre Castle became "overtaken by events" and was initially constructed as a "Forward Operating Base" as far up the valley as was possible, but by the time the earthworks were constructed, the site at Longtown had become available. It would appear that the date for the development of Longtown castle from timber to stone has now been confirmed, (as much as possible), as occurring during the 1150's or early 1160's and this has significant implications concerning the use of circular tower keeps.

The excavations have also shown that the square enclosure is not medieval in origin and that it is either late Iron Age or more probably Roman. The amount of Roman stratigraphy was patchy and truncated but proved more than enough to indicate intensive occupation from the 1st Century AD.

Therefore the research questions which remained to be answered after the 2016 season have now been addressed:

Research Questions and answers at Longtown Castle:

- a) When was the square embankment constructed? Sometime after the mid 2nd Century BC but probably during the 1st Century AD
- b) Was the embankment a single phase or multiple phase construction? Multiphase
- c) What materials were used to build it? Turf and earth
- d) Is there an internal structure to the embankment? Only the phase 1 Turf
- e) Was it faced with either timber or stone? No
- f) Was it topped by a wall or palisade? No
- g) Was there an internal ditch as suggested by the geophysics? No
- h) Is there evidence for buildings within the embanked enclosure? Yes
- i) What activities took place within the embanked enclosure? Light industrial
- j) Over what period(s) was the enclosure occupied? From at least the Roman Period
- k) Is there evidence for earlier occupation of the site? Yes, Roman pottery and structures as well as possibly earlier flints.

Research Questions and answers at Ponthendre Castle:

- i) Over what period(s) was the motte and bailey occupied? It was never occupied
- j) Was it completed and was it a single or multiple phase construction? It was not completed
- k) What form did any keep structures take and what materials were used? There were no structures
- I) What were the form and materials of the bailey defences? There were none
- m) What activities took place within the bailey? Nothing relating to the castle the activities were agricultural
- n) Are there any structural remains still in place? Nothing relating to a castle
- o) Were any of the structures subsequently robbed or slighted? No
- p) Is there any evidence of earlier occupation of the site? A background scatter of flint and Roman pottery

Appendix 1: Pottery Report by Stephanie Ratkai

Longtown Castles Project: Longtown Castle LC17

A collection of 440 pottery sherds, weighing 3038g were recovered from three trenches. All the stratified pottery and the unstratified medieval pottery have been catalogued and quantified. The unstratifed post-medieval and modern pottery from the topsoil of Trench 4 has been counted and weighed only. The medieval sherds were examined under x 20 magnification and divided into fabric groups following Vince's (1985) Hereford pottery type series. The results are shown in **Tables 1-3.** Several medieval fabrics were identified, all of which have been found in Hereford. The pottery catalogue forms **Appendix 1**.

The earliest pottery consisted of abraded Roman sherds. Most of these were found in Trench 2, a smaller number being in Trench 4 and none at all were found in Trench 3. The sherds were mainly oxidised wares, some of which could be identified as Severn Valley ware. One colour coat sherd, possibly an Oxford colour coat, from context 220, a large Dressel 20 amphora sherd from 238 were the other fabrics present. Information on vessel forms was limited but a flagon from 217, a small diameter bead rim jar from 216, a wide-mouthed Severn Valley jar from 411 (possibly 3rd-4th c) and a reeded rim fragment from 234 were noted. Contexts 217, 220, 234, 238 and 411 contained only Roman pottery and may therefore predate the castle.

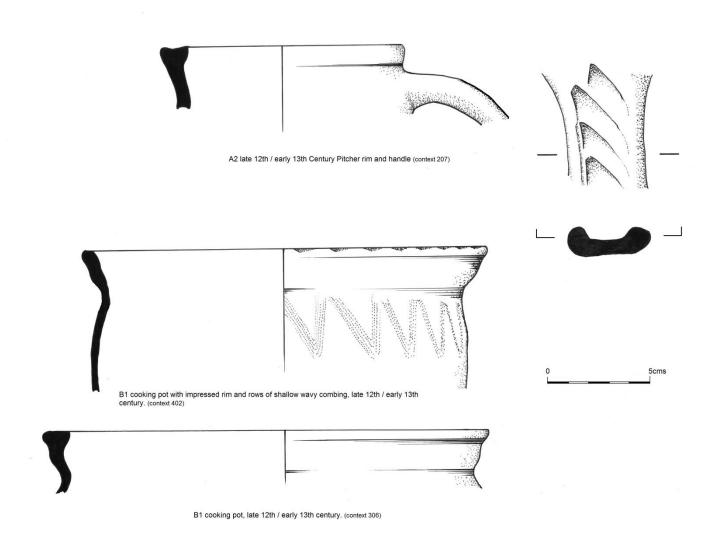
It is noticeable that the trenches containing Roman pottery also contained the potentially earliest medieval fabric Worcester-type cooking pot (Hereford fabric C1). Worcester-type cooking pot is known from the late 11th century in Worcester itself but the ware name encompasses a number of brown, grey and black sandy fabrics but which share similar vessel and rim forms and comprise a regional tradition. Worcester-type cooking pot is found extensively in the Welsh Marches and is often found associated with the earliest levels of 11th-century motte and bailey castles. Examples come from Clifford Castle, Wigmore Castle (Rátkai 2015) and Eardisley Castle (Rátkai 2012), Herefordshire, from Hen Domen, Montgomeryshire(Vince 19??) and further east (although still considered part of the Marcher lordships) at Stafford Castle (Rátkai 2007) and Dudley Castle (pers. inspection) Staffordshire. It is possible, therefore, that the Worcester-type cooking pot at Longtown would have been the earliest pottery used on the site, although this cannot be proved here.

Most of the remaining medieval pottery was made up of Malvernian cooking pot dating to the 12th-13th c and Hereford fabric A2 dating to c 1200. Vince believed that fabric A2 was quite short-lived and possibly made in or around Hereford. Given the distribution data that Vince had over 30 years ago, which showed an area south of Hereford, his conjecture was reasonable. However, Fabric A2 has been found in Eardisley Castle and village (Rátkai 2016; 2001) and Lyonshall (Rátkai REF) indicating that the distribution is much more extensive and extends northwards and westwards from Hereford.

The remaining medieval pottery suggests that most of the occupation was from before c. 1250. and consists of Worcester-type glazed ware (Hereford fabric C2) and Hereford fabric A3. Pottery dated later than this consists of A7b jug sherds dating to c.1250-1500 and B4 (later Malvernian ware) sherds dating to the mid-14th to16th century.

The pottery consisted mainly of cooking pots/jars nearly all of which were sooted. There was

one unusual Malvernian cooking pot (see illustrations) from 402 and 404, which had a finger impressed rim and rows of shallow wavy combing on the body. This is unusual for Fabric B1 but not unparalleled; a decorated vessel was found in Hereford (pers. inspection) at the Commercial Street site. Another finger impressed rim was found in context 306. The other vessel type associated with early occupation of the castle is the pitcher and examples were found in fabric A2 in 207 and 215. Jugs with somewhat decayed glazes were found in fabric A3 and included a frilled base and a very small body sherd with traces of applied decoration and roller-stamping both from 215. A fabric C2 jug or pitcher with complex roller-stamping and a jug rim-neck with an internal white slip were found in 207 and 215 respectively. Jugs, some with roller-stamped decoration accounted for the FabricA7b sherd.



Illustrated pottery (T. Hoverd)

Context	Roman	5	B1	B1?	A2	A2?	A3	A3?	C2	A7b?	B4	bsq	Total
207			2	1	4		1		1				9
215	1	1	32		3			2	1				40
215 *			1		1								2
216	2				1								
217	11												11
218											1	1	2
220	4												4
227	3		11		4			1					19
234	1												1
238	1												1
Tr2 u/s					1	1				1			3
Total count	23	1	46	1	14	1	1	3	2	1	1	1	95
Context	Roman	C1	B1	B1?	A2	A2?	A3	A3?	C2	A7b?	B4	bsq	Total
207			37	17	119		19		5				197
215	15	5	319		27			18	8				392
215*			1		1								2
216	10				15								25
217	54												54
218											8	22	30
220	12												12
227	4		178		32			7					221
234	7												7
238	236												236
Tr2 u/s					18	4				9			31
Total wght	338	5	535	17	212		19	25	13	9	8		1207

Table 01: Pottery from Trench 2 215* = cleaning over 215; bsg = 19th c brown salt-glazed stoneware

The pottery from Longtown Castle is fairly typical of the castles of the Middle and Southern March. There are a limited number types of pottery used in the later 11th to mid 13th-century and these tend to be local. Likewise, At Clifford Castle, the later pottery consists pretty much of Hereford Fabric A7b and later Malvernian ware (Fabric B4). Thus Hereford and the Malvern potters took care of most of the ceramic needs of those living at Longtown Castle.

Context	B1	B 1	A2	A2?	A3 (C1)	A3?	A7b	Total
302	2						1	3
303	1	17						18
304	42		1		1	1		45
306	53		2	2				57
310	1		2					3
311	11							11
Total count	110	17	5	2	1	1	1	137
Context	B1	B 1	A 2	A2?	A3 (C1)	A3?	A7b	Total
302	19						1	20
303	38	67						105
304	281		66		16	9		372
306	407		38	5				450
310	9		26					35
311	156							156
Total wght	910	67	130	5	16	9	1	1138

Table 02: Pottery from Trench 3

Context	Roman	C1	B1	A2	A4-type?	A7b	B4	Creamware	Mottled ware	Post-med & Modern	Total
401										106	106
402			49	1		2	3	1	1		57
403		4	4	3							11
404			8	2							10
407			2			1					3
409	1		9	1	1				2		14
411	5										5
413			2								2
Total count	6	4	74	7	1	3	3	1	3	106	208
Context	Roman	C1	B1	A2	A4-type?	A7b	B4	Creamware	Mottled ware	Post-med & Modern	Total
401										366	366
402			355	20		49	22	1	1		448
403		30	30	12							72
			53	12							65
			8			1					9
407										1	74
407 409	1		49	12	11				1		74
407 409 411	1 30		49	12	11				1		30
404 407 409 411 413 Total wght		30		12	11			1	2	366	

Table 03: Pottery from Trench 4

Pottery Appendix

Tr.	Ctxt	Fabric	qty	wght	MV	Comment	date
2	207	A2	4	119	1	one vessel, pitcher rim-handle	late 12th-early 13th c
2	207	B1	1	32	1	cpj	12th-13th c
_	201	ы		02	•	Cpj, fabric and rim form slightly odd for B1	1201 10010
2	207	B1?	1	17	1	- could be a crushed siltstone temper?	c1200-1250
2	207	A3	1	19		Jug, dull, decayed olive glaze	early-mid 13th c
2	207	B1	1	5		срј	12th-13th c
2	207	C2	1	5		jug with complex roller-stamping	early-mid 13th c
2	215	B1	1	16	1	rim form more like an A2 – pre 1250	c1200-1250
2	215	B1	1	11	1	rim form more like an A2 – pre 1250	c1200-1250
2	215	B1	1	11	1	mid 13th c?	mid 13th c?
2	215	C1	1	5	1	срј	12th-13th c
2	215	C2	1	8	1	jug/pitcher white slip on int. neck and over rim	early-mid 13th c
2	215	A2	1	3		срј	late 12th-early 13th c
2	215	A2	2	9		срj	late 12th-early 13th c
-	210	712	_	0		pitcher with applied horizontal strip, dull	•
2	215	A2	1	18		olive glaze	late 12th-early 13th c
2	215	A3?	1	15		jug, frilled base, decayed olive glaze	early-mid 13th c
						jug, dull, decayed brownish olive glaze, trace of roller stamping, and possible	
2	215	A3?	1	3		applied decoration	early-mid 13th c
2	215	B1	5	37		body sherds from different vessels	12th-13th c
2	215	B1	8	11		срј	12th-13th c
2	215	B1	2	15		срј	12th-13th c
						+ small fragment of calcined bone + two	
2	215	B1	16	137		pieces of stone (discarded)	12th-13th c
2	215	B1	3	118		Base-ba, sherds join	12th-13th c
2	215	B1?	1	2		срј	12th-13th c
2	215	C1	1	3		срј	12th-13th c
		Roman					
2	215	oxidised ware	1	15			Roman
2	216	A2	1	15	1	срј	late 12th-early 13th c
		Roman				-13	,
		oxidised					
2	216	ware	2	10	1	small bead rim jar	Roman
		Roman					
2	217	oxidised ware	1	19		possibly a flagon with white slip surface abraded away	Roman
-	217	Roman		10		ablaced away	rtoman
		oxidised					
2	217	ware	5	4		some possibly Severn Valley	Roman
		Roman					
2	217	oxidised ware	2	25		probably Severn Valley ware	Roman
2	217	Roman	2	25		probably Severn valley ware	Noman
		oxidised					
2	217	ware	3	6		probably Severn Valley ware	Roman
2	218	B4	1	8		unglazed	mid 14th-16th c
2	218	bsg	1	22		bottle base, v. worn, 19th c	19th c
_		Roman					D
2	220	colour coat	1	1	1	colour coat ?Oxford	Roman

		Roman					
		oxidised					
2	220	ware	2	5			Roman
		Roman					
2	220	oxidised	1	6		probably Sovern Valley ware	Roman
2	227	ware B1	2	66	1	probably Severn Valley ware sherds join, In-turned rim	mid 13th c?
2	227	B1	1	28	1	In-turned rim	mid 13th c?
2	227	B1	1	28	1	In-turned rim	mid 13th c?
2	227	B1	1	13	1	In-turned rim	mid 13th c?
2	227	B1	2	17	1	sherds join, In-turned rim	mid 13th c?
2	227	A2	4	32	'	Cpj one vessel	late 12th-early 13th c
2	227	A3?	1	7			early-mid 13th c
2	227	B1	1	11		cpj base	12th-13th c
2	227	B1	3	15			12th-13th c
2	221	Roman	3	15		срј	1201-130110
		oxidised					
2	227	ware	3	4		Severn Valley ware, 1 sherd + two slivers	Roman
		Roman					
		oxidised					_
2	234	ware	1	7	1	reeded rim	Roman
2	238 215 cleaning	Roman	1	236		marked amphora /005 Dressel 20	Roman
2	over	A2	1	1		cleaning over 215	late 12th-early 13th c
2	215*	B1	1	1		*cleaning over 215	12th-13th c
2	u/s	A2	1	18	1	срј	late 12th-early 13th c
2	u/s	A2?	1	4		cpj	late 12th-early 13th c
						jug, bands of horizontal roller stamping	,
2	u/s	A7b?	1	9		(narrow rectangular impressions)	c1250-1350
3	302	A7b	1	1		jug, complex roller stamp design	c1250-1350
3	302	B1	1	16		base	12th-13th c
3	302	B1	1	3		v abraded	12th-13th c
3	303	B1	1	38	1	mid 13th c?	mid 13th c?
3	303	B1	17	67		срј	12th-13th c
3	304	A2	1	66	1	срј	late 12th-early 13th c
3	304	A3?	1	9	1	срј	early-mid 13th c
3	304	B1	1	28	1	срј	c1200-1250
3	304	B1	1	22	1	срј	c1200-1250
3	304	B1	1	20	1	срј	c1200-1250
3	304	B1	1	17	1	срј	c1200-1250
3	304	B1	1	14	1	срј	c1200-1250
3	304	B1	1	8	1	срј	c1200-1250
3	304	B1	2	11	1	срј	c1200-1250
3	304	B1	1	6	1	cpj	c1200-1250
3	304	B1	1	6	1	Cpj , oxidised, abraded, in-turned form, intrusive?	c1275
3	304	B1	1	4	1	срј	c1200-1250
3	304	A3 (C1)	1	16	•	срј	early-mid 13th c?
3	304	B1	31	145		срј	12th-13th c
3	306	B1	2	20	1	cpj sherds join	c1200-1250
3	306	B1	3	38	1	cpj sherds join, like an A2 form, Draw?	c1200-1250
3	000	٥.	3		•	cpj pieces of rounded fine red sandstone in	
3	306	B1	1	17	1	fabric	mid 13th c?
3	306	B1	1	32	1	срј	c1200-1250
3	306	B1	1	34	1	срј	c1200-1250

						thumbed/impressed rim, very shallow –	
3	306	B1	1	20	1	unusual for B1 but not unknown, Draw?	12th c (possibly early 1
3	306	B1	2	14	1	срј	c1200-1250
3	306	B1	1	14	1	cpj	c1200-1250
3	306	B1	1	13	1	срј	c1200-1250
3	306	B1	1	12	1	cpj	c1200-1250
3	306	B1	1	8	1	heavily abraded	c1200-1250
3	306	A2	2	38		срј	late 12th-early 13th c
						looks oolitic, quite a large calcareous content with no obvious sandstone and	,
3	306	A2?	2	5		ferrous inclusions	late 12th-early 13th c
3	306	B1	33	146		срј	12th-13th c
3	306	B1	5	39		3 base angle-base sherds	12th-13th c
3	310	A2	1	18	1	cooking pot	late 12th-early 13th c
3	310	B1	1	9	1	cooking pot with early type of in-turned rim	mid 13th c?
3	310	A2	1	8		срј	late 12th-early 13th c
3	311	B1	1	10	1	срј	12th c
3	311	B1	2	40	1	cpj	12th c
3	311	B1	1	8	1	odd form, early? Rim incomplete	12th c?
3	311	B1	6	51		срј	12th-13th c
3	311	B1	1	47		base	12th-13th c
	• • • • • • • • • • • • • • • • • • • •	Post-med	•			includes fragment of bsg bottle & one piece	
4	401	& Modern	36			of clay pipe	19th c
4	401	Post-med & Modern	70			mainly 19th c, some resid med and post— med but not much	19th c
4	402	A2	1	20	1	срј	late 12th-early 13th c
4	402	B1	1	20	1	everted rim type	early-mid 13th c
						cooking pot with impressed rim and rows of shallow wavy combing, atypical but a similar pot from Hereford, more of this in	·
4	402	B1	15	131	1	404, Draw?	12th-early 13th c?
4	402	B1	1	13	1	In-turned rim, dark grey fabric jug handle, pale green glaze dark cu	mid 13th c?
4	402	A7b	1	43		mottles	mid 13th-15th c
4	402	A7b	1	6		pale green glaze dark cu mottles base, band of heavier soot above ba,	mid 13th-15th c
4	402	B1	2	32		sherds join	12th-13th c
4	402	B1	2	22		base, heavy ext soot	12th-13th c
4	402	B1	3	19		base, band of heavier soot above ba, base abraded two sherds join	12th-13th c
4	402	B1	1	10		base, ext soot	12th-13th c
4	402	B1	19	79		plus one piece of micaceous siltstone	12th-13th c
4	402	B1	2	10		pale brown fabric unsooted	12th-13th c
4	402	B1	3	19		pale brown fabric, base sherds, heavy int soot, some ext abrasion	12th-13th c
4	402	B4	3	22		base, slightly atypical fabric	mid 14th-16th c
						also small calcined bone frag and small frag	
4	402	Creamware Mottled	1	1		of PM bottle glass	late 18th c
4	402	ware	1	1		срј	later 17th-18th c
4	403	A2	3	12		срј	late 12th-early 13th c
4	403	B1	3	21		срј	12th-13th c
4	403	B1	1	9		base	12th-13th c
4	403	C1	4	30		срј	12th-13th c
4	404	B1	1	16	1	more of odd pot from 402	12th-early 13th c?
4	404	A2	2	12		срј	late 12th-early 13th c
4	404	B1	7	37		Includes one base sherd	12th-13th c

4	407	A7b	1	1			mid 13th-15th c
4	407	B1	2	8		срј	12th-13th c
4	409	A2	1	12	1	срј	late 12th-early 13th c
4	409	B1	1	19	1	срј	early 13th c
4	409	A4-type?	1	11	1	срј	13th-14th c
4	409	B1 Mottled	8	30		срј	12th-13th c
4	409	ware	2	1		v small sherds	later 17th-18th c
4	409	Roman	1	1		v small sherd	Roman
		Roman oxidised					
4	411	ware	5	30	1	Wide-mouthed jar (3rd-4th c?)	3rd-4th c?
4	413	B1	2	25		early, black fabric, sherds join	12th c

PONT HENDRE CASTLE PH17

Comment on the pottery

A very small amount of pottery, 12 sherds in total, was found in Trenches 5 and 7. The pottery is generally consistent with activity from the mid-13th century to the 16th or 17th century. A Worcester-type cooking pot sherd marked as coming from below the rampart, context 714/16, could date to the late 11th century. Similar sandy cooking pots are known from below the rampart at Stafford Castle (Rátkai 2007) and Wigmore Castle (Rátkai 2015). A glazed sherd found with the Worcester-type cooking pot in 702 is unlikely to pre-date 1250 and could be considerably later. This one sherd appears to be from the same vessel as sherds in 704.

Tr.	Ctxt	Fabric	Code	qty	wght	MV	Comment	Date
5	5001	Marches Redware	A7b-t	1	15		very abraded, bowl, trace of int. glaze	14th-16th c?
5	5002	Post-medieval redware	A7d/e	1	1		bowl or mug, abraded, int. and ext. dark brown glaze	16th-17th c
7	7001	Post-medieval redware	A7d/e	1	4		bowl, int. yellowish-brown glaze	16th-17th c
7	7002	?Roman oxidised ware	n/a	1	5		very abraded	Roman?
7	714 / 16	Worcester-type cooking pot	C1	2	2		abraded, sherds join marked interface 714/716	late11th-12th
7	7002	Marches Redware	A7b-t	1	4		jug, ext glossy olive-tan glaze with cu mottles	13th-15th c
7	7004	Marches Redware	A7b-t	5	9		probably same vessel as from 7002, abraded	13th-15th c

Appendix 2: Roman pottery from Longtown LC17 by C Jane Evans

Introduction

Twenty five sherds of Roman pottery were submitted for analysis, most from trench 2 but including four sherds from trench 4. All were very abraded and fragmentary; the average sherd weight is only 5g if three heavy sherds of amphorae are excluded. Despite the limitations of this small assemblage there is sufficient evidence to suggest a predominantly 1st century date, with some evidence for activity continuing into at least the 2nd century.

Methods

The small assemblage did not justify detailed analysis by fabric so was recorded by broad fabric class, though diagnostic fabrics were noted. None of the pottery is illustrated; forms are described with reference to examples published elsewhere. The pottery was quantified by count and weight. The surfaces were too abraded to note any surface treatment or evidence for use.

Analysis

trench	context	fabric class	count	weight
T2	215	oxidised	1	13
	216	oxidised	2	9
	217	oxidised	12	50
	227	oxidised	1	3
	234	oxidised	1	6
	238	amphora	3	221
T4	411	oxidised	4	24
		samian	1	1
total			25	327

Table 1: summary of the Roman pottery by trench, context and fabric class

Most sherds were in oxidised coarse wares, amongst which a range of fabrics was noted. Some sherds had grog/clay pellet temper, characteristic of early Roman assemblages. Others were either sand tempered or similar to Severn Valley ware with few macroscopically visible inclusions. The diagnostic forms from trench 2 comprised a medium mouthed jar with a rounded, everted rim and in-sloping neck (context 216) and a ring necked flagon, with a slightly out-curving neck and multiple mouldings. The flagon was represented by a rim and a body sherd from different contexts (234 and 217 respectively) which although not joining might be from the same vessel. Both forms are types noted in 1st century assemblages elsewhere, for example at Wroxeter (cf Timby et al 2000, fig 4.59 JM6, fig 4.49 F3.2). Ringnecked flagons appear in the Flavian period/ later 1st century. Trench 4 (context 411) produced a triangular rim from a Severn Valley ware jar, a type dated very broadly from the 2nd to 4th centuries (Webster 1976, A4/5).

The assemblage included three sherds of Dressel 20 amphora (trench 2, context 238), produced in Spain and used for transporting olive oil, and a sherd of South Gaulish samian from La Graufesenque. The amphora can only be dated to the 1st to 3rd centuries, though given the associated pottery in trench 2 is also likely to date to the 1st century. Although abraded the amphora sherds appear to have inscribed lines on the external surface which might be a graffito and thus worth further analysis. The samian dates to the 1st century.

Discussion

The small assemblage provides an interesting insight into earlier Roman activity on the site of the Castle. Most of the diagnostic sherds suggest 1st century activity, though there is evidence for some level of activity continuing into at least the second century, perhaps later.

The amphora and samian, as well as the coarse ware forms, are consistent with the postulated Roman fort, but might equally reflect the influence of the nearby Roman road.

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Appendix 3: Charcoal identification by Dana Challinor

LONGTOWN CASTLE, HEREFORDSHIRE Charcoal from the Late 12th/Early 13th century AD castle bailey Dana Challinor MA (Oxon), MSc January 2018

Two samples of charcoal were examined for species identification. This was undertaken following standard procedures; the charcoal was fractured and examined in transverse section at low magnification (up to X45), with reference to identification keys (e.g. Hather 2000) and modern reference material. It was not necessary to examine the material in longitudinal sections, nor at high magnification. Observations on maturity were made where possible.

Charcoal from [230]

This sample comprised a block of sediment, within which the remains of a charred plank were encased. The charcoal was of *Quercus* sp. (oak). There were no tyloses visible, indicating that the wood probably derived from sapwood. The charcoal, however, exhibited strong orange staining and modern fungal hyphae, which inhibits definitive confirmation of the total absence of tyloses. It is likely that the original plank would have been thicker than the narrow surface represented in the sample block (due to shrinkage during charring and depositional processes). Apparent absence of any ring curvature indicates that trunkwood is represented, and it is possible that both heartwood and sapwood rings would have been present originally. The orientation of the plank suggests radial splitting.

Charcoal from <14>

This was an abundant assemblage of charcoal from a ditch fill. Around 20 fragments were examined and all identified as *Quercus* sp. (oak). The remaining fragments also appeared to be of the same taxon. Most of the material was fragmented along the rays, which is typical of oak. High levels of vitrification were observed, along with some orange staining. Both sapwood and heartwood pieces were recorded and a single fragment exhibited moderate ring curvature. Some of the heartwood was slow grown, with little or no late growth pores visible and representing >25 years' growth. This suggests that some mature trees had been utilised. It is unclear whether the material represents fuel waste, dumped into the ditch, or burnt structural remains.

References

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Appendix 4: Assessment of archaeometallurgical residues and metalwork from Longtown Castle, by Dr. Tim Young.

Assessment of archaeometallurgical residues and metalwork from Longtown Castle

Dr T.P. Young

Abstract

The submitted materials included a small collection of archaeometallurgical residues (124g; 4 pieces) and 70 pieces of metalwork (64 ferrous, two of lead, three of copper alloy and one compound).

The upper level of Trench 4 (401) contained many pieces of modern metalwork, whereas that of Trench 3 (301) contained a single $19^{th} - 20^{th}$ century shoe iron. Trench 2 produced several clothing related items of the 17^{th} -early 19^{th} centuries, but only a single unstratified ring-pull tag that was certainly younger.

Trench 3 produced three medieval horseshoe nails (contexts (303) and (304)). Context (304) also produced some blacksmithing slag with an adhering fragment of probably medieval pottery.

No certain medieval objects were recovered from the other trenches, although Trench 4 (context (407), SF #1) produced a broken object that appeared to be part of a thick knife blade, of possible medieval date.

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Methods

All materials were examined visually, using a low-powered binocular microscope where required. As an assessment, the materials were not subjected to any high-magnification optical inspection, not to any form of instrumental analysis.

The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional.

This assessment was conducted in March 2018 and was commissioned by Tim Hoverd.

Results

General description of the assemblage

The assemblage comprised a very small collection of material, submitted as probable archaeometallurgical residues (112g; 3 pieces) and as metalwork (1.2kg; 84 items).

The majority of the metalwork collection comprised iron objects (dominated by 35 certain or probable wrought iron 'standard' nails). There were four modern steel objects, three items of cast iron, three items of copper alloy and two of lead. One object contained both ferrous and non-ferrous components.

Archaeometallurgical residues

The material submitted as archaeometallurgical residues comprised two pieces (from contexts (223) and (304)) that were partially melted stones or ceramic. Such items may be generated from the accidental placement of a stone into the hearth (for instance as an accidental inclusion in the fuel, either as an accidental inclusion in charcoal or an impurity in coal) or from the hearth surround, particularly in cases where a floor level hearth was cut into a gravelly substrate. Their derivation from a fragment of hearth cermaic that had been lost into the hearth is also possible, though less likely.

The larger fragment of slag from context (304) is a deformed slab of low-density, iron-poor, slag, with a strong component from the partially melted hearth wall, and with a maroon upper surface. The lower surface is largely obscured by ferricrete accretion and by lime, but appears to be pale, dimpled and bearing small inclusion of charcoal. This piece is most likely to be a smithing slag from blacksmithing (the end use of iron), where the work has been fairly light (i.e. not involving extended periods of welding).

Context (215) produced a small fragment of ceramic (included within the metalwork collection as #84) that was strongly oxidised-fired, except on one surface where it was slightly reduced. The fabric contained an organic temper. This piece is most likely to be fragment of lining from a metallurgical hearth or furnace, although a lower-temperature origin cannot entirely be excluded.

Metal objects

The assemblage included a total of 39 nails, three identifiable as Goodall Type A 'fiddle-key' horseshoe nails of medieval age (#1 - #3), one a modern steel wire nail (#4), but the remainder were generally rather poorly-preserved wrought iron nails (#5 - #39).

Fastenings were also represented by a modern steel bolt (#40). There was also a wrought iron-spike of uncertain nature (#41) and two eyed-spikes (#42 - #43).

A broken wrought iron hook (#44), a short length of wrought iron chain, together with a broken single link (#45 - #46) are also undated.

A shoe iron (#47) was of 19th to early 20th century date. Non-ferrous clothing-related items included two buttons (#45 - #46) and a fragment of a shoe buckle (#47). One button (#48) was a simple pressed shirt button probably of 18th to 19th century date, whereas the other (#49) was somewhat damaged, but probably of similar date. Part of a copper alloy shoe buckle, of 18th to early 19th century date (#50) was unfortunately unstratified.

Two items may be furniture-related. The first was a small cast iron 'beehive' pull, probably from a drawer or cupboard (#51). This is not closely datable but is likely to be 18th to 19th century. The second item is a thin sheet (or possibly sheets) of copper alloy penetrated by a ferrous rod, with an unknown fastening. This compound item derives from an unidentified object, but which is likely to have been a domestic fitting.

Four items may have been derived from knives (or other thin-bladed tool), but each is somewhat problematic. The first (#53) is an iron spike, one end of which is flattened and extended asymmetrically to one side. It is possible that this is a fragment from an bladed tool with a large tang. The second is a broken iron object with a wedge-shaped cross-section (#54). It appears to be a blade, although the back is very thick (8mm) for a blade only 20mm wide. If the tip preserves the original shape, the outline suggests a straight-backed tanged whittle knife, comparable with Goodall's Type C. The other two objects are small pieces of thin iron that may be blade fragments (#55 - #56).

Indeterminate fragments of iron rod and strip are presented by eight pieces (#57 - #64). A fragment of bent steel bar with green paint (#65) was also present.

Two pieces of rolled lead strip, both from Trench 2, were of uncertain purpose (#66 - #67).

Two fragments of cast iron, one irregular, one an angular fragment from a thin iron plate (#68 - #69) were also of uncertain purpose.

A modern ring pull tag was amongst the unstratified material from Trench 2 (#70).

Eleven pieces of concretion (#71 - #81) probably contained fragments of iron, but the nature of the iron was concealed.

Other material present in the collection included two pieces of natural stone (#82 - #83) and one fragment of ceramic (#84), probably a fragment of metallurgical hearth lining (see above).

Distribution of the material

Trench 2: this trench yielded two items likely to be archaeometallurgical residues: a probable partially-melted stone from context (223) and a piece of probable heath lining (#84) from context (215). Contexts (207), (207/218) and (227) yielded small collections of metalwork of indeterminate age. Context (215) yielded a more diverse assemblage of metalwork, including a sew-through stamped copper alloy shirt button of 18th century or 19th century date. Unstratified material from Trench 2 included, notably, both a modern ring-pull tag (#70), an 18th to 19th century button (#49) and part of an 18th to early 19th century copper alloy shoe buckle (#50).

Trench 3: Context (301) produced a shoe iron heel of 19th to 20th century date (#47). Context (302) produced what may be the tang of an indeterminate bladed tool (#53). Contexts (303) and (304) both yielded 'fiddle-key' horseshoe nails, probably of 11th to 13th century date (#1-#3). Context (304) also produced a variety of undated metalwork and context (311) a single piece.

Trench 4: context (401) produced an assemblage including several 20th-21st century items (#65, #40, #4), together with several others that were 17th century or later (#68, #51, #52). Contexts (402), (403), (404), (409) and (411) produced only undatable iron artefacts. Context (407) yielded an iron bar with a wedge-shaped profile, suggestive of an edge tool, possibly a very heavy knife, with a form somewhat similar to that of a Goodall Type C straight-back whittle tang knife. Although the incomplete preservation makes this identification only very tentative, it indicates compatibility with, although not certainty of, a medieval age.

Interpretation

The metalwork assemblage provides some indication of date, although the commonest artefact type, the wrought nails, are not datable except as probably earlier than 20th century. In Trench 2, context (215) produced a button of 18th or 19th century age, and a second button and shoe buckle, both of 18th to early 19th century date were also recorded from the trench (although unstratified). In Trench 3, context (301) produced a 19th to 20th century shoe iron, but contexts (303) and (304) produced the only certainly medieval artefacts, fiddle-key horseshoe nails. Trench 4 produced a variety of modern artefacts from context (401) and no datable artefacts from deeper contexts, although a possible blade fragment from context (407) might be medieval.

The assemblages from the three trenches also differed in character. Trench 2 (context (215) and unstratified material) yielded clothing associated items of 17th to early 19th century date. Trench 3 produced the only clothing-related item of 19th to 20th century date, a shoe iron, but also the only medieval horse-related items, three fiddle-key nails. The co-occurrence in this context of a low-density blacksmithing slag would potentially be compatible with the residue of a farrier. Trench 4 produced typical 19th to 21st century domestic and structural items from context (401).

The archaeometallurgical residues are very sparse but are likely to be indicative of blacksmithing – although presumably not in the immediate area of the excavations. At least some of this activity is likely to be of medieval age, for two of the four items of archaeometallurgical residue occur in the same context (304) as two medieval horseshoe nails, and the larger piece of slag has accretion containing what appears (subject to specialist confirmation) as a sherd of coarsely-gritted grey medieval pottery.

Further work

The limited assemblage means that there is little research potential for the metalwork. X-radiography of the collection might aid with the identification of some of the pieces carrying ferricrete.

The sparse archaeometallurgical residue assemblage does not require any further analytical investigation.

Reference

Goodall, I.H. 2011. *Ironwork in medieval Britain*. The Society for medieval archaeology monograph 31.

Table 1: summary catalogue of material submitted as archaeometallurgical residues. Weights in grams.

Context	Trench	Sample wt.	Item wt.	Notes
223	T2		9	slightly flowed, viscous appearing grey/green glazed material - probably partly-melted stone or ceramic
304	Т3	103	24 79	rounded dense nub of slag, one end of which has a dull maroon surface, rather than greenish glaze. ferricrete attached to contorted piece of lining-rich pale green slag with deep maroon surface, ferricrete contains sherd of coarsely-gritted grey pottery.

Table 2: summary catalogue of material submitted as metalwork. Weights in grams.

Context	Trench	Sample wt.	Item wt.	Item No.	Notes
207	T2	11	<1 7 2	5 6 82	3.5mm square iron rod, nail shank? accreted object - elongate, possible nail stone or fired clay
207/218	T2	50	18 32	7-9 71,72	very poorly preserved nails iron-bearing concretions
215	T2	145	<1	48	8x4mm impressed area with two 3mm
			31	66	holes, 15mm diameter folded lead strip, probable hole near margin, 30mm wide at wide end, 18mm at
			44	41	narrow, probably 95mm long 137mm long, 11x9mm at wide end, tapering to point, iron spike
			12	10-12	highly corroded nails, two shanks, one possibly with a thick shank, but small head
			3	13	corroded large headed nail or stud, 22mm long, head 18mm across
			31	73-75	——————————————————————————————————————
			6	76,77	ferruginous concretions, probably spalled from iron objects
			7	83	stone
215	T2	98	22	58-62	accreted fragments of iron strip; one piece shows 18x3mm cross-section, other fragments less certain
			23	57	9x6mm rectangular section iron rod, 55mm long
			33	14-18	concretions bearing square-sectioned mineralised iron - probably nails
			12	84	mostly oxidised ceramic (daub or more likely hearth lining?) with organic temper
			7	19	heavily accreted iron nail with large, head 12x8mm, 6mm square cross section of broken shaft
215	T2		5	20	pear-shaped concretion with 3mm square mineralised iron at narrow iron - suggest heavily accreted nail
227	T2		8	21	27x18x17mm, corroded iron lump, possible square shank protruding from one end

u/s	T2	12	4	42	small ring-headed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long
Context	Trench	Sample wt.	Item wt.	Item No.	Notes
			<1 <1	70 49	ring-pull tag 14mm diameter button (?), with groove 1mm from margin (edge outside groove commonly corroded away), eccentric raised
			3	67	rectangular lug, 1mm x 4mm. small fragment of rolled lead, 18mm wide
			2	50	strip cast copper alloy fragment, curvature approximately 70mm external diameter, tapers towards ends, but corroded, centrally swells to 5mm wide with perforation, 5mm wide centrally, 36mm long, but if almost complete and hole central originally 38mm. Side bar of Georgian shoe buckle.
301	T3		62	47	80mm w x 90mm l x 4mm t, shoe-iron for heel, with rectangular holes, approximately 2mm x 5mm
302	Т3		36	53	105mm long spike, flattened to one side at tip, maximum of 25mm wide, 5mm thick, no indication of blade profile. Approximately 6x3mm at tip, 15x7mm at widest, possible tang of bladed tool.
303	Т3		6	1	fiddle key nail, 40mm long, 4mm thick, 18mm x 10mm flat head, probably square shank. Goodall Type A, 11th-13th or 14th century
304	T3	150	60	78,79	fragments, probably joining, of irregular mineralised iron, object uncertain
			20	63	14x3mm iron strip, folded around, possibly only on itself or possibly with iron core, 35mm long, 8mm tall, 14mm wide
			14	2,3	two fiddle key nails with rounded heads, one with incomplete shaft, complete example 40x20x5mm including 27mm tapering shaft 8mm wide at head. Goodall
			30	44	Type A, 11th-13th or 14th century 55x37x10mm, iron hook, shaft broken, approximately square sharp point, bow 15mm wide on lower side, shaft side 6-

					7mm square
			10	22	heavily corroded nail, 40mm preserved, possibly with small head
			2	23	small curved object (nail?) with T shaped head - now fragmented
311	Т3		4	24	mineralised iron, probably square-sectioned nail shank, hollow
401	T4	459	44	68	slightly concreted, angular fragment of cast iron plate, 67x27x3mm
			50	65	bent steel strap (or, les likely, bracket) fragment with green paint, 95mm length with right angle bend and possibly a second on one fracture. One nail hole preserved, 25mm (1 inch wide), c.4mm thick
			6 5	40 4	5mm x 40mm modern steel hex bolt 80mm wire nail
		Sample	Item	Item	
Context	Trench	wt.	wt.	No.	Notes
			32	25-30	miscellaneous iron nail shanks, mostly equant, but one 7x5mm at wider end and
			97	45	tapering three chain links in concretion, graduated size from 55mm long and 7mm diameter, 45mm long and 6mm diameter and 47mm long and 3.5mm diameter
			38	46	68mm x 48mm x 8mm maximum diameter, chain link, one end broken open
			10	64	broken in three, fragment of narrow iron bar, 60mm x 12mm x 4mm
			65	51	35mm tall, maximum 30mm tall, cast iron knob with 12mm hole through centre, external surface shows ribs every 2mm in height; probably a beehive drawer/cupboard pull
			10	31	probable mineralised square-sectioned nail shank
			22	69	irregular rounded scrap, probably cast iron
			8	32	corroded nail, 18x12mm head
			6	33	corroded nail, 18x12mm head, head strongly asymmetric on shank
			8	52	25x8x2mm fragmented sheet of copper alloy, pierced by iron spindle of uncertain nature. Junction of two too corroded to ascertain nature of join
402	T4	41	38	43	mineralised iron spike with rolled end.

			2 <1	34	Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long 22mm long section of probable nail shank
			<1	80	small fragment of mineralised iron
403	T4		6	35	38mm long nail, rectangular-sectioned shank; small head, but with unknown loss
404	T4		6	36	stout nail with curved shank and oblique 17x10mm head 3-4mm thick, 35mm of bent shank
407	T4 SF 1		53	54	tapered section bar, broken in two, 20mm wide, 8mm thick at back, possibly a stout knife blade, back appears flat, edge curves up from 10mm from tip, where it was 16mm wide. If blade, no evidence for preserved handle/tang, but overall shape resembles a Goodall Type C whittle tang knife. If a blade, it is unusually thick at the back.
409	T4		9	37	57mm long curved nail shank, tapers to a point, cross-section uncertain
411	T4	20	9 1	38 39	nail shank length, 40mm long 23mm long nail point
Context	Trench	Sample wt.	Item wt.	Item No.	Notes
			6	55,56	possible small blade fragments, thin iron sheet, highly mineralised
			3	81	iron concretion

Table 3: metalwork and related material sorted by type

Item #	Context	Trench	Weight	Number	Notes
1	303	Т3	6	1	FIDDLE-KEY NAILS fiddle key nail, 40mm long, 4mm thick, 18mm x 10mm flat head, probably square shank. Goodall Type A 11th 12th or 14th century
2, 3	304	Т3	14	2	Type A, 11th-13th or 14th century two fiddle key nails with rounded heads, one with incomplete shaft, complete example 40x20x5mm including 27mm tapering shaft 8mm wide at head. Goodall Type A, 11th-13th or 14th century
4	401	T4	5	1	STEEL WIRE NAIL 80mm wire nail
					MISCELLANEOUS WROUGHT IRON NAILS
5	207	T2	<1	1	3.5mm square iron rod, nail shank?
6	207	T2	7	1	accreted object - elongate, possible nail
7-9	207/218	T2	18	3	very poorly preserved nails
10-12	215	T2	12	3	highly corroded nails, two shanks, one possibly with a thick shank, but small head
13	215	T2	3	1	corroded large headed nail or stud, 22mm long, head 18mm across
14-18	215	T2	33	5	concretions bearing square- sectioned mineralised iron - probably nails
19	215	T2	7	1	heavily accreted iron nail with large, head 12x8mm, 6mm square cross section of broken shaft
20	215	T2	5	1	pear-shaped concretion with 3mm square mineralised iron at narrow iron - suggest heavily accreted nail
21	227	T2	8	1	27x18x17mm, corroded iron lump, possible square shank protruding from one end
22	304	Т3	10	1	heavily corroded nail, 40mm
23	304	T3	2	1	preserved, possibly with small head small curved object (nail?) with T shaped head - now fragmented
24	311	T3	4	1	mineralised iron, probably square- sectioned nail shank, hollow
25-30	401	T4	32	6	miscellaneous iron nail shanks, mostly equant, but one 7x5mm at

31	401	T4	10	1	wider end and tapering probable mineralised square- sectioned nail shank
32	401	T4	8	1	corroded nail, 18x12mm head
33	401	T4	6	1	corroded nail, 18x12mm head, head
					strongly asymmetric on shank
34	402	T4	2	1	22mm long section of probable nail
					shank
35	403	T4	6	1	38mm long nail, rectangular-
					sectioned shank; small head, but
					with unknown loss
36	404	T4	6	1	stout nail with curved shank and
					oblique 17x10mm head 3-4mm
					thick, 35mm of bent shank
37	409	T4	9	1	57mm long curved nail shank,
					tapers to a point, cross-section
					uncertain
38	411	T4	9	1	nail shank length, 40mm long
39	411	T4	1	1	23mm long nail point
Item #	Context	Trench	Weight	Number	Notes
					STEEL BOLT
40	401	T4	6	1	5mm x 40mm modern steel hex bolt
					WID OLI OLITE ID ONLODIVE
<i>A</i> 1	215	тэ	11	1	WROUGHT IRON SPIKE
41	215	T2	44	1	137mm long, 11x9mm at wide end,
41	215	T2	44	1	
41	215	T2	44	1	137mm long, 11x9mm at wide end, tapering to point, iron spike
					137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES
41	215 u/s	T2 T2	44	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm
					137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at
					137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-
					137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately squaresectioned shank tapering to point,
					137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately squaresectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened,
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less);
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately squaresectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately squaresectioned, but mineralised and
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42	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK
42	u/s	T2	4	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft
42	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft broken, approximately square sharp
42	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft broken, approximately square sharp point, bow 15mm wide on lower
42	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft broken, approximately square sharp
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42 43 44	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft broken, approximately square sharp point, bow 15mm wide on lower side, shaft side 6-7mm square WROUGHT IRON CHAIN
42	u/s 402	T2 T4	38	1	137mm long, 11x9mm at wide end, tapering to point, iron spike WROUGHT IRON EYED-SPIKES small eyed spike, 44mm long, 8mm i/d incomplete loop, 5mm thick at ring, approximately square-sectioned shank tapering to point, 30mm long mineralised iron eyed spike with rolled end. Rolled end flattened, forms very small eye (8mm or less); main shank approximately square-sectioned, but mineralised and hollow; 78mm long WROUGHT IRON HOOK 55x37x10mm, iron hook, shaft broken, approximately square sharp point, bow 15mm wide on lower side, shaft side 6-7mm square

46	401	T4	38	1	7mm diameter, 45mm long and 6mm diameter and 47mm long and 3.5mm diameter 68mm x 48mm x 8mm maximum diameter, chain link, one end broken open
47	301	Т3	62	1	CLOTHING: SHOE IRON 80mm w x 90mm l x 4mm t, shoe- iron for heel, with rectangular holes, approximately 2mm x 5mm
48	215	T2	<1	1	CLOTHING: BUTTONS two-hole, copper alloy sew-through button, 8x4mm impressed area with
49	u/s	T2	<1	1	two 3mm holes, 15mm diameter 14mm diameter button (?), with groove 1mm from margin (edge outside groove commonly corroded away), eccentric raised rectangular lug, 1mm x 4mm.
50	u/s	T2	2	1	CLOTHING: SHOE BUCKLE cast copper alloy fragment, curvature approximately 70mm external diameter, tapers towards ends, but corroded, centrally swells to 5mm wide with perforation, 5mm wide centrally, 36mm long, but if
					almost complete and hole central originally 38mm. Side bar of Georgian shoe buckle.
Item #	Context	Trench	Weight	Number	originally 38mm. Side bar of Georgian shoe buckle.
Item # 51	Context 401	Trench T4	Weight 65	Number 1	originally 38mm. Side bar of Georgian shoe buckle. Notes FURNITURE? 35mm tall, maximum 30mm tall, cast iron knob with 12mm hole through centre, external surface shows ribs every 2mm in height; probably a beehive drawer/cupboard
					originally 38mm. Side bar of Georgian shoe buckle. Notes FURNITURE? 35mm tall, maximum 30mm tall, cast iron knob with 12mm hole through centre, external surface shows ribs every 2mm in height;

54 55, 56	407	T4 SF 1	536	2	wide, 5mm thick, no indication of blade profile. Approximately 6x3mm at tip, 15x7mm at widest, possible tang of bladed tool. tapered section bar, broken in two, 20mm wide, 8mm thick at back, possibly a stout knife blade, back appears flat, edge curves up from 10mm from tip, where it was 16mm wide. If blade, no evidence for preserved handle/tang, but overall shape resembles a Goodall Type C whittle tang knife. If a blade, it is unusually thick at the back. possible small blade fragments, thin iron sheet, highly mineralised
57	215	T2	23	1	INDETERMINATE IRON ROD 9x6mm rectangular section iron rod, 55mm long
58-62	215	T2	22	5	INDETERMINATE IRON STRIP accreted fragments of iron strip; one piece shows 18x3mm cross-section,
63	304	Т3	20	1	other fragments less certain 14x3mm iron strip, folded around, possibly only on itself or possibly with iron core, 35mm long, 8mm
64	401	T4	10	1	tall, 14mm wide broken in three, fragment of narrow iron bar, 60mm x 12mm x 4mm
65	401	T4	50	1	INDETERMINATE STEEL BAR/STRAP bent steel strap (or, les likely, bracket) fragment with green paint, 95mm length with right angle bend and possibly a second on one fracture. One nail hole preserved, 25mm (1 inch wide), c.4mm thick
66	215	T2	31	1	INDETERMINATE LEAD STRIP folded lead strip, probable hole near margin, 30mm wide at wide end, 18mm at narrow, probably 95mm long
67	u/s	T2	3	1	small fragment of rolled lead, 18mm wide strip
68	401	T4	44	1	INDETERMINATE CAST IRON slightly concreted, angular fragment

					of cast iron plate, $6/x^2/x^3$ mm
69	401	T4	22	1	irregular rounded scrap, probably
					cast iron

Item #	Context	Trench	Weight	Number	Notes
					RING-PULL TAG
70	u/s	T2	<1	1	ring-pull tag
70	u/S	1 4	`1	1	ing pun ug
					MINERALISATION &
					CONCRETION
71, 72	207/218		32	2	iron-bearing concretions
73-75	215	T2	31	3	rounded ferruginous concretions
76, 77	215	T2	6	2	ferruginous concretions, probably
,					spalled from iron objects
78, 79	304	T3	60	2	fragments, probably joining, of
,				_	irregular mineralised iron, object
					uncertain
80	402	T4	<1	1	small fragment of mineralised iron
81	411	T4	3	1	iron concretion
01			5	•	non concretion
					NON-METALLIC
82	207	T2	2	1	stone (or less probably fired clay)
83	215	T2	7	1	stone
84	215	T2	12	1	mostly oxidised ceramic (daub or
					hearth lining?) with organic temper



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Appendix 5: Carbon 14 Dating Certificates SUERC



Scottish Universities Environmental Research Centre

Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK Director: Professor F M Stuart Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc



RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code

SUERC-77729 (GU46445)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference

Longtown Castle 2016 Trench 1

Context Reference

128

Sample Reference

Material

Charcoal

δ13C relative to VPDB

-26.0 ‰

Radiocarbon Age BP

 2159 ± 20

The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) Radiocarbon 58(1) pp.9-23.

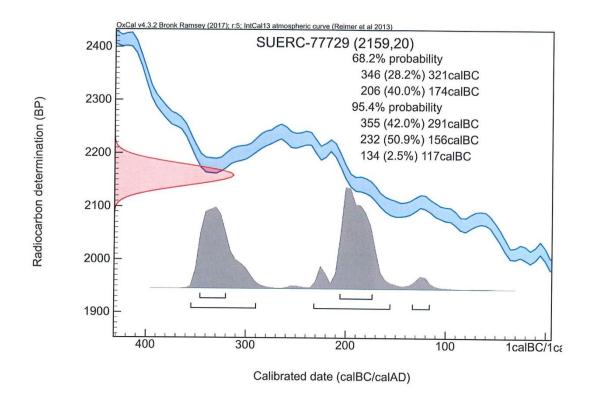
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by:

E Dunbe







The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve.

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60

[†] Reimer et al. (2013) Radiocarbon 55(4) pp.1869-87



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RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code SUERC-77730 (GU46446)

Submitter Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference Longtown Castle 2017 Trench 4

Context Reference 411 Sample Reference 11

Material Charcoal

δ¹³C relative to VPDB -28.4 ‰

Radiocarbon Age BP 929 ± 20

N.B. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

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For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

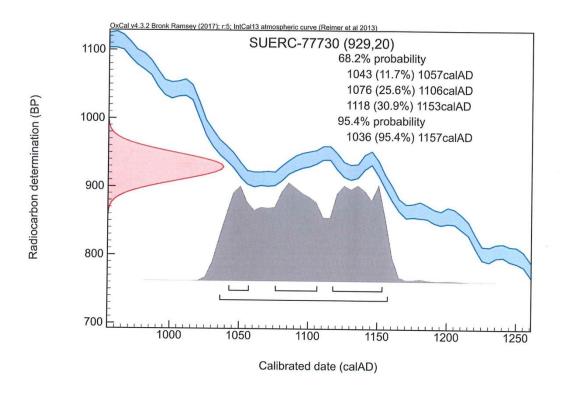
Conventional age and calibration age ranges calculated by : E Dunbo

Checked and signed off by:





The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336



The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve. †

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60

[†] Reimer et al. (2013) Radiocarbon 55(4) pp. 1869-87





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RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code

SUERC-77732 (GU46447)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference

Longtown Castle 2017 Trench 2

Context Reference

238

Sample Reference

20

Material

Charcoal

δ13C relative to VPDB

-26.0 ‰

Radiocarbon Age BP

 1933 ± 20

N.B. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

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For any queries relating to this certificate, the laboratory can be contacted at $\underline{suerc\text{-}c14lab@glasgow.ac.uk}.$

Conventional age and calibration age ranges calculated by :

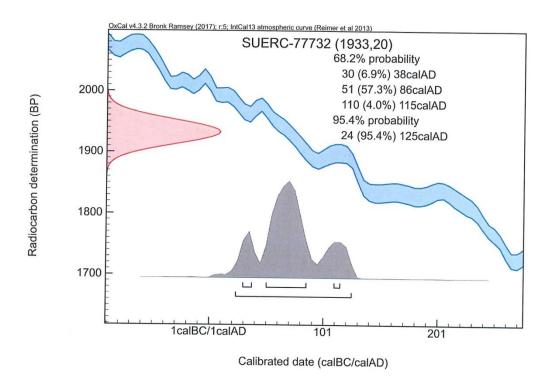
C Dunha

Checked and signed off by:

University of Glasgow

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registered in Scotland, with registration number SC005336



The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve. †

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60 † Reimer et al. (2013) Radiocarbon 55(4) pp.1869-87



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RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code

SUERC-77733 (GU46448)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference

Longtown Castle 2017 Trench 2

Context Reference Sample Reference 217

Sumple Reserving

6

Material

Charcoal

δ13C relative to VPDB

-27.4 ‰

Radiocarbon Age BP

 1911 ± 20

N.B. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

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For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

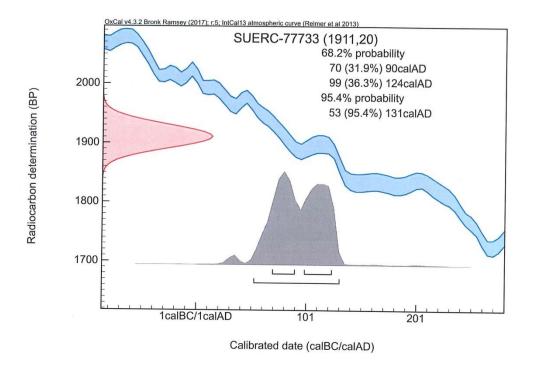
E Dunbo

Checked and signed off by:

The University of Glasgow, charity number SC004401



registered in Scotland, with registration number SC005336



The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve.

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60 † Reimer et al. (2013) Radiocarbon 55(4) pp.1869-87









RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code

SUERC-77739 (GU46449)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference

Longtown Castle 2017 Trench 3

Context Reference

310

Sample Reference

Material

Charcoal

δ13C relative to VPDB

-27.5 %

Radiocarbon Age BP

 968 ± 20

The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the N.B. calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

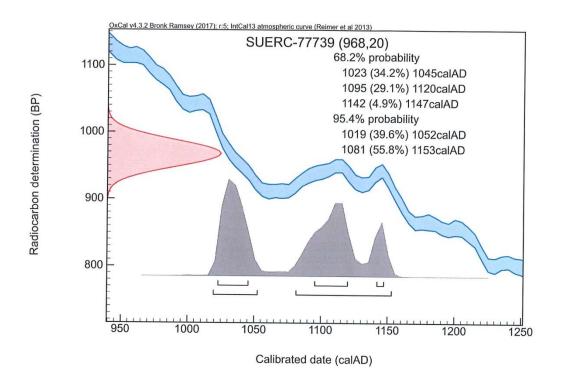
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For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

C Dunba





The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve.

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[†] Reimer et al. (2013) Radiocarbon 55(4) pp. 1869-87





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RADIOCARBON DATING CERTIFICATE 27 February 2018

Laboratory Code SUERC-77740 (GU46450)

Submitter Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference Longtown Castle 2017 Trench 2

Context Reference 224 Sample Reference 14

Material Charcoal

δ¹³C relative to VPDB -26.5 ‰

Radiocarbon Age BP 2144 ± 20

N.B. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

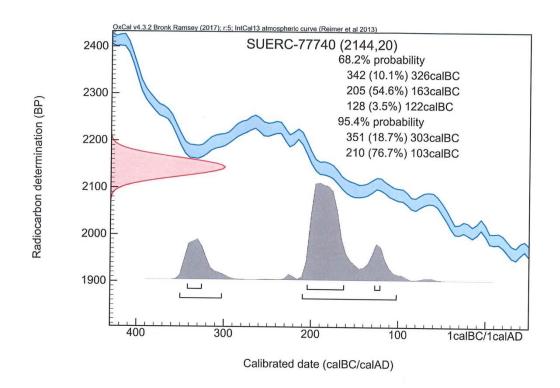
Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon 58(1) pp.9-23*.

For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by:







The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve. †

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60 † Reimer et al. (2013) Radiocarbon 55(4) pp.1869-87





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RADIOCARBON DATING CERTIFICATE 02 May 2018

Laboratory Code

SUERC-79152 (GU47818)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference Context Reference Longtown Castle

230

Material

Carbonised Wood: Oak

δ13C relative to VPDB

-26.3 %

Radiocarbon Age BP

 2138 ± 30

The above 14C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) Radiocarbon 58(1) pp.9-23.

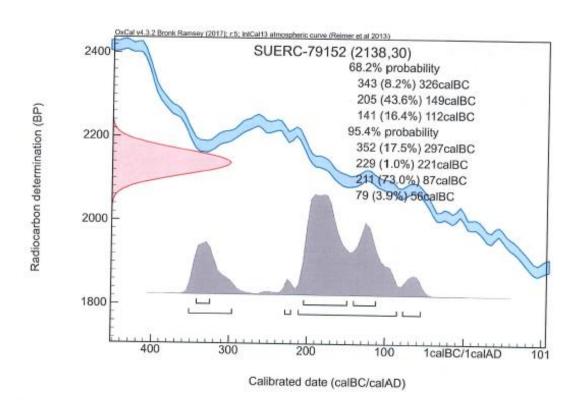
For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by:

E auto







The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve.†

^{*} Bronk Ramsey (2009) Radiocarbon 51(1) pp.337-60

[†] Reimer et al. (2013) Radiocarbon 55(4) pp. 1869-87





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RADJOCARBON DATING CERTIFICATE 26 July 2018

Laboratory Code

SUERC-80738 (GU48125)

Submitter

Tim Hoverd

Herefordshire Archaeology Herefordshire Council HARC, Fir Tree Lane

Rotherwas

Hereford HR2 6LA

Site Reference

Longtown Castle 2017 Trench 3

Context Reference Sample Reference

325

21

Material

Charcoal

δ¹²C relative to VPDB

-28.7 %

Radiocarbon Age BP

 960 ± 17

N.B. The above "C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

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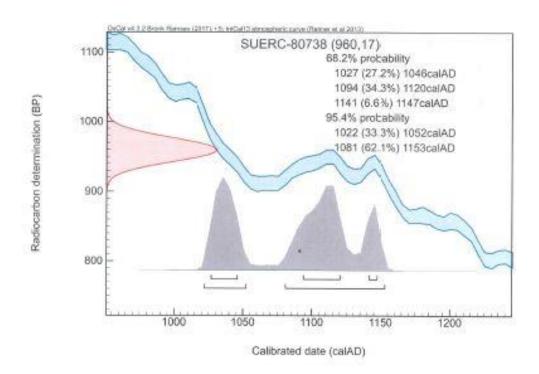
Conventional age and calibration age ranges calculated by :

E Burker.

Checked and signed off by: P NaySmuto







The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve.1

Brank Ramsey (2009) Rediscarbon 51(1) pp.327-60
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Historic England (PastScape) Defra or Monument number(s) 105674.

County Historic Environment Record (or Sites and Monuments Record)

number(s) 1036; 1037.

10. Acknowledgements

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The author and the fieldwork team of Herefordshire Archaeology would particularly like to thank Martin and Jill Cook for their hospitality over both seasons of fieldwork. Neil Kidd and Martin Cook for their assistance, hard work and patience. And of course every one of the large number of volunteers who worked so hard over both seasons – without you all, these results could not have been achieved!