Archaeology Wales

Harlech Castle Footbridge, Harlech, Gwynedd

Archaeological Excavation and Watching Brief

By

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Report No. 1331

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Summary

During work to construct a new footbridge at Harlech Castle, Gwynedd, in 2014, Archaeology Wales carried out a limited archaeological excavation, recorded elements of standing building fabric and undertook a watching brief. Three areas (Foundations 2, 3 and 4) were examined in preparation for the construction of foundation pads for new bridge supports.

The eastern pier base (Foundation 3) was excavated to bedrock and identified several phases of activity presumed to relate to the construction of the castle. The earliest, represented by indications of stone cutting, is likely to relate to activity undertaken either during the initial ditch cutting in 1285 or levelling associated with the building of the pier bases in the first quarter of the fourteenth-century. Levelling deposits were also identified, and these are likely to date to either the time of the construction of the fourteenth-century pier bases or to the time that they were rebuilt following the Glyndwr occupation in the early fifteenth-century.

The Drawbridge pit (Foundation 4) was excavated to bedrock and revealed evidence for rock cutting and water drainage. In the course of the excavation a medieval silver coin and a probable medieval copper alloy pin were discovered within the overlying deposits.

Watching Brief monitoring associated with the work did not reveal any significant deposits or features in Foundation 2, while monitoring during the construction of new bridge support sockets in the upper walls of the drawbridge pit showed that this work had resulted in only a very limited impact on the fabric of the structure.

1. Introduction

Harlech Castle is a Scheduled Ancient Monument (ME044) and World Heritage Site located in Merionethshire, Gwynedd (SH 58082 31244- Fig. 1). In 2012 Cadw commissioned Archaeology Wales (AW) to undertake limited archaeological investigative work in three areas on the eastern approach to Harlech castle (Smith 2012). The aim was to discover what impact, if any, the construction of new supporting access bridge piers bases would have on existing archaeological features or deposits.

The primary area was located in the northern area of the castle car park and found modern made ground up to a depth of at least one metre below ground level. The second area, within the ruined base of a tower or Pier within the eastern ditch, discovered a stone rubble deposit laid on bedrock, whilst the third evaluated area discovered a lime mortar and rough cobble surface within the base of the drawbridge pit located east of the external entrance to the gatehouse. Based on this information Archaeology Wales produced a Project Design (Project 2173; Appendix 1) which was approved by Cadw and the Snowdonia National Park Archaeologist and were commissioned by Cadw to carry out the work. The aim was to excavate, record and remove basal deposits within the bases of the pier (Foundation Base 3) and drawbridge pit (Foundation Base 4) and record wall

elevations that may be obscured or impacted by the development work. A Watching Brief was subsequently carried out to monitor the intrusive work in the car park (Foundation Base 2) and necessary stone removal at the top of the drawbridge pit walls.

2. Site Description

Location, Topography, Geology
Harlech is located 7.8km south-southeast of Pothmadog and 20km north-west of Dolgellau. The castle is located on a rocky crag (49m AOD) with a west facing cliff on the western side of the town overlooking Tremadog Bay. The main older town is located to the immediate east of the castle although Lower Harlech is located on reclaimed marshland and sand dunes (Morfa) at the base of the cliff, west of and below the castle (6m AOD).

The bedrock geology is Cambrian Rhinog formation, comprising conglomerate and laminated sandstone with thin siltstone and mudstone intercalations underlying freely draining acid loamy soils (BGS 2015).

3. Historical Background and previous archaeological work

The Neolithic Gwern Einion burial chamber and Muriau Gwyddelod Hut and Field system located on the hills south of Harlech, together with a findspot of a late prehistoric Bronze Mirror discovered on marshland below the town attest to settlement in this area dating back several millennia. The immediate area is described in the tale of Branwen, ferch Llŷr, in the Mabinogi Welsh mythical legends:

> '*One afternoon he was at Harlech in Ardudwy, a court of his. Seated on the rock of Harlech above the ocean were [Bendigeidfran] with his brother Manawydan son of Llŷr'* (Parker 2003)

Despite this reference there is no archaeological or historical evidence to suggest a native castle at Harlech prior to the thirteenth-century fortification. The 1221 Brut reference to Llywelyn's castle in the area only specifies the *cantref* (hundred) of Meirionydd and *cwmwd* (commote) of Ardudwy (Williams ab Ithel 1860, 309).

Construction of the Harlech castle began in May 1283 with 950 workers employed at the height of the building project in 1286 and the building complete by 1289 (Taylor 2002, 6). It is possible that sea access was from a dock near the present Water Gate (Lower Harlech) and building materials from Chester, Ergyn and Anglesey were carried up from there via a path that was formally recognised as such in 1289 (GAT 2009). It is likely that during the fourteenth-century sand inundation caused the lower castle docks area to become landlocked.

The castle was seized by Owain Glyndwr in 1404 and held until 1409 and also was held for the Lancastrians in the Wars of the Roses in between 1461 and 68. Harlech was the last royalist stronghold to fall in 1647 signifying the end of the English Civil War (Taylor 2002, 13).

The castle was transferred to the Office of Works in 1914 during which period repair and excavations were carried. In 1969 it became the responsibility of the Welsh Office and later Cadw in 1984. Two years later (1986) it was listed, together with Caernarfon and Beaumaris castles and Conwy town walls as a World Heritage Site.

Several phases of work associated with the eastern side of the castle are noted in primary and secondary source material. It is suggested that eastern entrance to the site was levelled as part of the primary building work (1283-4), but that the outer ditch cut was a secondary development (1285) to protect standing structures. Refortification of the eastern side of the castle approach was undertaken between 1323 and 1324 when a wooden bridge was removed and two stone piers measuring 6m by 5.2m by 12.2m high and 4.9m by 7m by 18.2m high were constructed within the outer ditch (Taylor 1986, 72; 2002, 9). The higher pier carried a gateway and the springing of two arches for an elaborate bridge across the ditch. Following damage during the Glyndwr occupation of the castle a new bridge was constructed at the main gate between 1417 and 1418 and further repair or rebuild phase is accounted for in 1458-9 (Taylor 1986, 73). An aerial image from 1946 (fig. 29) show a stone built causeway and a staircase into the castle gatehouse. An aerial image from 1971 (fig. 29), however, shows the entrance has changed with the causeway replaced by possibly rebuilt stone piers.

4. Excavation

4.1 Objectives and Strategy

In order to provide suitable foundation surfaces for the new bridge pier bases the areas within both Foundations 3 and 4 would be excavated to natural bedrock (Fig. 2). In Foundation 3 (eastern pier base), a full photographic and drawn record of elevations up to 51.935m AOD would be undertaken and also excavation of the 6m by 5m pier base. In Foundation 4 (drawbridge pit) it was originally planned to excavate the overburden (average depth of 0.1m) and following recording of this, excavate to bedrock the area of the planned foundation pad (2.3m by 2.4m). A full photographic and drawn record of interior elevations was also planned.

4.2 Excavation Results: Pier Base - Foundation 3

Elevations

Initial work in this area comprised the recording of the inner elevations of the four walls of the remaining pier structure ([**301**]-[**304**]) via photographic (Figs. 10-13) and scaled elevation drawings (Fig. 3). The four walls of the pier base were comprised of irregular, sub-angular, undressed stones, varying in size from 0.20m

to 0.40m. All four walls had varying types of bonding material within them, from a modern, very hard, greyish white mortar containing very small gritty pebbles, to a softer, more powdery, pinkish white mortar, which seemed only to exist towards the very bottom of the four walls, close to the interface with construction layer (**307**). Wall [**301**] comprised the south facing internal elevation and measured 3.14m long, east -west, 0.62m high at its central and western end and 1.05m high at its eastern end.

Wall [**302**] was the west facing internal elevation and measured 2.50m long, north-south. It measured 1.40m high at its northern end, 2.42m high in the centre and 2.15m at its southern end.

Wall [**303**] was the east facing internal elevation and measured 2.55m long north-south, 2m high at its southern end, 1.64m at its centre and 0.91m at its northern end.

Wall [**304**] was the north facing internal elevation and measured 3.27m east to west and between 2.00m and 2.10m from base to top along its entire length.

Pier Base

Hand excavation was conducted through possible floor deposits (**305** & **306**) and construction deposits (**307**, **308** and **310**) to the natural bedrock horizon (**309**) (Figs. 3, 4). Below the construction deposits (**007** & **008**) at the eastern end was revealed a mortar layer, floor or structure (**311**), and three probable natural deposits (**315 - 317**) within fissure [**314**] at the southern centre. Three small iron chisel/splitter fragments (**312 - 313**) were revealed fossilised in the natural bedrock horizon (**309**) in the centre, and a possible quarried or natural fissure [**314**] was visible in the natural bedrock (Fig. 4)

Two possible floor deposits were revealed during the initial hand clean of the pier's internal surface. Deposit (**305**) consisted of a very friable and powdery mixed mid pinkish grey lime mortar between 0.05-0.10m deep. This deposit is highly like to have originated from the construction or re-construction of walls [**301**]-[**304**] and formed through either natural erosion of the material from the wall faces during dereliction or demolition, or as a residue during construction/re-construction work. Though possibly medieval in origin, deposit (**305**) may well originate from much later renovation work or even conservation work from the 1960s.

Deposit (**306**) consisted of slightly compacted, moist, very dark yellowish grey, silty-sand, varying in depth from approximately 0.04 to 0.10m. This deposit is possibly a natural layer, which may have formed as a result of the ground surface within the structure being open to the elements, allowing decaying vegetation to form, combined with further silting forming from erosion from the internal walls. One sherd of thirteenth to fourteenth-century glazed Sandy Red Ware was recovered from this level, but it may actually originate from the construction layer (**307**) below, so cannot be relied upon to provide secure dating evidence.

The four walls and possible floor surfaces all appeared to be sitting on top of a substantial foundation pad, which comprised of a large stone rubble deposit (**307**), incorporated into levelling or consolidation deposits (**308**) and (**310**).

Deposit (**307**) consisted of a very compacted layer of large irregular and undressed sub-angular stones varying in size from 0.10m up to 0.80m in diameter. The depth of (**307**) varied from 0.30m at the western end to 0.50m at the eastern end. It appeared that some thought had gone into the placement and positioning of the large stones during construction to form an interlocking mass, which would greatly increase the strength and load bearing abilities of the foundation pad.

Deposit (**308**) consisted of a friable mid/dark reddish brown coarse sand, with frequent inclusions of grits and small gravels, charcoal fragments and seashells, and appeared incorporated into (**307**). The origin of (**308**) is uncertain, but the character of the deposit suggests it is a natural coastal or estuarine material brought up from the coast below during construction to be used as a bedding and consolidation material for (**307**) and (**310**). This deposit yielded a medieval silver penny dating to c. AD 1301-1314 (see below). This was recovered from deep within the deposit and it is likely to be secure dating.

Deposit (**310**) consisted of elements very similar to (**307**) and (**308**) above it, but with a much higher mid whitish grey mortar content, which gave the deposit greater solidity. Depth was approximately 0.25m and it was only evident beneath (**307**) on the eastern side of the pier. There was no trace of deposit (**308**) beneath (**310**). One large sample bag of (**310**) was recovered for possible further analysis.

During excavation it was established that deposit (**308**) was laid down first as a bedding layer over the natural bedrock (**309**) on the western side of the pier. The large stones of (**307**) were then laid on top of (**308**) then covered with further deposits of (**308**) to consolidate them. Deposit (**310**), dated broadly by a sherd of Malvernian glazed pottery to between the fourteenth and seventeenth-century, appeared to have been laid directly onto a white mortar deposit (**311**). It is almost certain that these deposits were laid in one single event, either during the construction of the drawbridge or, later, during the construction of the castle causeway.

Deposit (**311**) consisted of a very hard, concreted, light greyish white, charcoal-flecked lime mortar (Fig. 15), approximately 1.0m wide as excavated. It is quite possible that this deposit continued further under (**310**) to the east, and there was no evidence of it further to the west. Indeed, the western edge of this deposit seemed very regular and it appears to have been deliberately laid against the natural bedrock (**009**). Beneath or incorporated into this mortar were sub-angular undressed stones varying around 0.30m in diameter. Excavation of this deposit was extremely difficult due to its solidity, but enough was removed to ascertain that it sat directly on the natural bedrock (**309**) and tentatively appeared to cut deposit (**315**) to the south.

The natural bedrock (**309**) was exposed and three small iron stone chisel/splitter fragments were revealed fossilised in the bedrock (Fig. 17). These appeared to follow the east-west alignment of a fissure that was 1.40m long, 0.20m deep and

0.12m wide with an irregular concave V shaped profile [**314**]. Chisel/splitter (**312**) was 0.03m in diameter and sub-circular. Chisel/splitters (**313**) were a pair located side by side, each 0.01m in diameter, sub-circular and approximately 0.20m to the east of chisel/splitter (**312**).

The fissure [**314**] slightly further to the west may be the result of more successful quarrying attempts, but it may also be a natural water formed fissure that has seen attempts at quarrying. The fact that the fissure [**314**] did not have its own fill but was actually filled by (**308**) does suggest a quarried fissure that was subsequently backfilled with (**308**) during the construction process.

Approximately 0.40m to the south of the fissure [**314**] the natural bedrock dropped away sharply into a depression approximately 0.50m deep that had been filled with (**308**) 0.20m deep during the construction process. Below (**308**) the depression had been filled with three distinct deposits.

Upper deposit (**315**) consisted of a firm mid reddish brown sandy clay silt 0.05m deep.

Middle deposit (**316**) consisted of a soft mid yellowish brown clay silty sand 0.10m deep.

Lower deposit (**317**) consisted of a soft mid greenish brown sandy silt containing some iron panning, 0.05m deep. Below this deposit was the natural bedrock (**309**).

The origin of these three deposits is currently inconclusive. During their excavation and sampling process, the deposits appeared to be natural and of a low energy water borne origin, which suggests that the depression in which they sat was a natural feature in the bedrock that may have carried very slow running water or had allowed water to pond and form a deposit. Alternatively, the deposits are the result of bedrock being exposed during the initial quarrying and the subsequent construction phase, allowing man made deposits such as trample to form, possibly being washed in by rainfall. It was tentatively demonstrated that the white mortar deposit (**311**) cut at least the upper deposit (**315**) and had been sealed by the backfilling of the depression by (**308**).

Discussion and Interpretation

Both of the bonding materials used in the Foundation 3 walls may be very recent in origin, dating from conservation work dating from the 1960s or possibly even later. It is even possible that all four elevations are a reconstruction dating to the 1960s remodelling of the approach to the castle (see aerial photographs, fig. 29).

It was unclear from which phase of activity the bedrock stone chisels/splitters belong. They may date from the when the ground was being prepared for the construction of the bridge piers in the fourteenth or fifteenth century or, alternatively, could be from the initial ditch cutting in 1285. It appears the workforce was exploiting an existing fault line in the bedrock in order to break out and quarry away the stone. This would tally with initial ditch cutting in the thirteenth-century. The origin of undated solid deposit (**311**) is inconclusive,

largely because not all of the deposit was revealed during the excavation. The late medieval pottery discovered in deposits above (**311**) is indicative of a medieval date, suggesting that it was a levelling deposit of stone and mortar designed to provide a level construction platform on the sloping natural bedrock in this location. Once this platform was in place, all subsequent deposits (from **307** to **310**) were formed during the construction of either the pier bases or the later causeway.

4.3 Excavation Results: Drawbridge Pit Base - Foundation 4.

The objectives within the castle drawbridge pit were similar to those in Foundation 3. These comprised the photographic and graphic recording of each internal wall elevation of the pit, which was 3m deep in its entirety [**401 - 404**] (Figs. 5-7). Excavation of the floor of the pit revealed a modern layer of silty sand (**405**) and a culvert structure [**410**], which had been constructed into a backfill (**411**) of quarried gullies [**412** and **413**] in the natural bedrock (**406**) (Figs. 8-9).

Wall [**401**] was east facing and 2.50m long. It comprised of large to medium sub-rectangular dressed stones varying in size from 0.20m-0.35m laid in regular courses and bonded with a pale greyish white lime mortar. There appeared to be no foundation cut for this wall and it was built directly on top of natural bedrock (**406**). Approximately 0.50m of the uppermost part of this wall had appeared to have been reconstructed, most likely during the 1960s remodelling of the access to the castle and the placing of a concrete girder to support the modern bridge access.

Wall [**402**] was south facing and 4m long. It comprised of large to medium sub rectangular dressed stones varying in size from 0.20m-0.35m laid in regular courses and bonded with a pale greyish white lime mortar. There appeared to be no foundation cut for this wall and this was also built directly on top of the natural bedrock (**406**). Approximately 0.30m of the uppermost part of this wall had appeared to have been reconstructed.

Wall [**403**] was west facing and 2.50m long. It comprised of large to medium sub rectangular stones ranging in size from 0.20m-0.35m laid in regular courses and bonded with a pale greyish white lime mortar. There appeared to be no foundation cut for this wall and like the previous walls it was built directly on top of the natural bedrock (**406**). It was established during the excavation that only the first 1.50m of this wall from ground level was original construction. The upper 2m above it was a 1960s reconstruction associated with the removal of the causeway and the construction of the first wooden bridge access into the castle. Three circular tubes 0.16m-0.20m in diameter had been drilled through the wall close to the base to allow electrical cabling to be installed in the drawbridge pit and elsewhere in the castle. The culvert structure [**410**] passed underneath the wall to drain into the moat beyond.

Wall [**404**] was north facing and 4m long. It comprised of large to medium sub rectangular stones laid in regular courses and bonded with a pale greyish white lime mortar. This wall was also built directly on top of the natural bedrock (**406**).

At the base of the pit the initial cleaning process revealed a modern layer of a damp loose dark reddish grey brown silty sand (**405**), approximately 0.10m deep, which appeared to cover the whole of the pit base. This layer may have been deliberately laid immediately after the 1960s remodelling of the castle access to mask the bedrock, or it was a natural build-up of silt washed in from the castle surfaces above. This deposit contained frequent finds of early post-decimal coins and a 'Malteser' sweet wrapper with the (pre-decimal) price of '6d' was recovered within the culvert.

The removal of modern layer (**405**) revealed, at the western and southern end of the drawbridge pit, a layer of a firm mid-yellowish grey brown, lime rich sandy silt, with occasional charcoal flecking (**415**). Measuring approximately 2.5m by 2m in diameter, and varying between 0.10m-0.15m deep, this deposit may be a levelling deposit laid down over the exposed bedrock (**406**) to fill in the natural depressions immediately prior to the castle construction, and excavation did reveal that this deposit continued underneath wall [**401**]. It may have fulfilled a similar function to deposit (**408**) in the eastern Pier, though the character of both materials in comparison was quite different. Two finds were recovered from (**415**), two copper alloy pin type objects, one of which is likely to be medieval.

The removal of modern layer (**405**) at the north end of the drawbridge pit revealed a natural water channel in the bedrock [**407**]. This feature was approximately 2m long, 0.35m wide, 0.40m deep, with rounded edges and smooth slopes down to an irregular base comprising of bedrock and a very hard, iron pan encrusted mottled greenish grey natural clay. The central area of the channel was capped with small irregular stones (**409**) varying around 0.20m in diameter. Stone capping (**009**) was appeared to be an original feature, and incorporated a possible large circular ballista ball, although the fill below was modern and contaminated.

The only fill revealed within channel [**407**] was (**408**), which was identical to the modern layer (**405**), which as previously stated also filled culvert [**410**]. This could be the result of the original fills being removed on a regular basis throughout history or during the remodelling works during the 1960s.

The removal of deposit (**405**) in the western end of the drawbridge pit revealed a well-constructed open topped stone box culvert [**410**] into which water channel [**407**] drained. This culvert was 1.50m long and comprised of sub square and sub rectangular dressed stones varying in size between 0.20 - 0.30m in diameter, with only one course and a flat bottom of similarly dressed stone. The culvert continued underneath wall [**403**] and drained into the moat beyond.

Removal of the stone culvert [**410**] revealed a deposit (**411**) of a firm mid-yellowish brown silty clay with a high lime mortar content, 1.20m wide north to south, by 1.40m long east to west , 0.20m deep. Deposit (**411**) also included densely packed flat stones approximately 0.20m long by 0.03m wide, laid edge on to form a robust flat platform. The culvert [**410**] had been constructed into this matrix. The removal of culvert [**410**] subsequently prevented the water from draining out of the drawbridge pit, causing flooding during the evaluation work.

Removal of the deposit (**411**) revealed it had filled two partially quarried gullies in the natural bedrock (**406**). Gully [**412**] was an east to west aligned, vertical sided, flat based cut varying between 0.30-0.40m wide by 0.20m deep and appeared to continue underneath wall [**403**]. It was also interesting to note that culvert [**410**] veered off the alignment of gully [**412**] by approximately 0.15m to the north as it continued underneath wall [**403**] into the moat beyond. Gully [**412**] was quite possibly a natural water channel that had had been adapted and later abandoned.

Gully [**413**] was 0.30m to the north of gully [**412**]. It measured 1.20m long east/west by 0.25m wide, and 0.10m deep. Its character was very similar to that of gully [**412**], but it was isolated and did not continue underneath wall [**403**]. The edges within this gully were very sharp and angular, which strongly suggests that quarrying had been attempted here as is the case with gully [**412**] and been subsequently abandoned.

Discussion and Interpretation

The following sequence describing the hypothetical development of the drainage system in the drawbridge pit is suggested by the excavated evidence:

After the initial ground clearance and preparation of the site before construction, the natural water channel [**407**] was quarried on its approach to the moat to improve its drainage. Another attempt at quarrying a channel resulted in the creation of gully [**413**], which appears to have been abandoned, possibly because the bedrock was too difficult to quarry. Subsequently, both gullies were abandoned and backfilled with a firm, mid-yellowish brown, silty clay, with a high lime mortar content (**411**), doubtless during the period of castle construction. Stone culvert [**410**] was constructed within deposit (**411**) and incorporated into the base of wall [**403**] during its construction, presumably to control and further improve the drainage of ground and rain water emanating from within the drawbridge pit. Chisel or pick marks were revealed in the bedrock in the south east corner of the drawbridge pit that are undoubtedly associated with this phase of construction. Deposits recovered from within the base of the drawbridge pit included one possible medieval pin (see below) and modern coins (Pre and post-decimal) and debris.

5. Watching Brief

5.1 Foundation Base 2

A watching brief was carried out during the machine excavation of Foundation Trench 2 (see Fig.24) in the Car Park area to the east of the castle entrance on the 17th November 2014.

The area excavated was approximately 2.5m in diameter and 0.7m deep in the western section and 1m deep in the eastern section of the base. An older tarmac surface was visible 0.2m below the brick car park surface (see fig. 24). Below this, a mixed-dark brownish grey silt containing mixed angular and round stones was

uncovered. The deposit contained plastic sheeting fragments and appeared to be modern made ground used as a levelling deposit below the older tarmac surface. No older archaeological deposits, features or artefacts of note were recovered or observed during this work.

5.2 Drawbridge Wall

Archaeology Wales carried out a Watching Brief on the 16th and 17th of December 2014 as Cadw staff carried out work to prepare the drawbridge pit walls for new bridge supports.

The modern cement-beam sockets on the upper, east-facing, elevation of the western drawbridge pit wall were cut away with no disturbance to *in situ* masonry. Two cuts were made into the top of the northern and southern walls of the drawbridge pit (see figs. 25-26). Stones and bonding material were cut from the upper, south facing, edge of the northern wall of the drawbridge pit, between 0.84m and 1.32m from the eastern edge of the drawbridge pit. The maximum depth of the resultant disturbance was 0.85m deep and 0.5m wide. The wall facing appeared to be one course deep and comprised loosely packed stones set in a mix of dark-brown sandy silt and lime mortar. This was the maximum extent of disturbance to the northern wall.

In the southern wall, two *in situ* stones with relatively modern cement pointing were cut to produce an L–shaped hollow, measuring 0.8m at the base and 0.5m at the upper edge, with a maximum depth of 0.5m. The stones were located between 1.4m and 0.9m from the east end of the pit. The stones and bonding material were removed, revealing that the wall facing stone was one course only. The material behind the facing stones consisted of a loosely packed stone set in a matrix of dark brown sandy silt and lime mortar (fig. 26). This was the maximum extent of the disturbance to the southern wall.

6. Finds

6.1 Finds List

Number	Context	Description	Amount	Weight in grams	Kept/ Disc.
Pottery					
	306	Glazed Sandy Red Ware (13th-14th C) (see below)	1	3	Kept
	310	Oxidised Glazed Ware (14th – 17th C) (see below)	1	8	Kept
Metal					
	405	½ pence coins – 2 x 1971 + 1 1973	3	5	Kept
	405	½ pence coin 1966	1	6	Kept
	405	One penny – 1927	1	9	Kept

	405	One penny – 1971, 1980, 1989	3	10	Kept
	405	Two pence piece – 1987, 1979 and ?	3	21	Kept
	405	Mixed objects	12	397	Kept
	308	Silver coin, Medieval (c.1301-1314)- see below-	1	1	Kept
	415	CA Pin? – small find 1- see below	1	11	Kept
	415	CA fitting? – small find 2 – see below	1	< 1	Kept
Miscellaneous					
	405	Malteser bag	1	< 1	Kept
	405	Metal toy car	1	52	Kept
	405	Rubber shoe sole	1	8	Discard
	305	Brick fragment	1	4	Discard
		Total finds:			
		Pottery	3		
		Metallic items	26		
		Miscellaneous	2		
		Total:	**31**		

6.2 Pottery
Paul Blinkhorn

The pottery assemblage comprised 2 sherds with a total weight of 11g. The following fabric types were noted:

MA: Sandy Red Ware, 13th – 14th century (Owen 1994, 192). Hard, sandy orange-buff fabrics, often with an olive-green glaze. Found across a wide area of Cheshire and north Wales. Probably from a number of sources, including Rhuddlan Castle. 1 sherd, 3g.

LMO: Late Malvernian Oxidized Glazed Ware, 14th – 17th century (Vince 1984). Hard orange sandy glazed ware with rare to moderate rock fragments. Wide range of medieval and post-medieval vessel forms. 1 sherd, 8g

The sherd of MA, a bodysherd from a glazed jug, occurred in context (306) while that in LMO, from the rim of a similar vessel, came from (310). Both are in reasonably good condition, and appear reliably stratified.

6.3 Copper Alloy Finds from context 415
Dr Lynne Bevan

Introduction
The copper alloy small finds assemblage consisted of two items. These comprised a large copper alloy pin-like object (SF 1) and a small undiagnostic strip of copper alloy (SF 2).

Copper Alloy Objects (Fig. 28)

The large pin-like object (SF 1) has a malformed, irregular-shaped head, and a very thick shank with an average diameter of five millimetres which tapers slightly towards the end which has been crudely formed by the removal of flakes of copper alloy so that it resembles a sharpened pencil. There is a series of gouged marks down one side of the shaft or shank which could have been intended as decoration or to improve grip, depending upon its past usage.

Long thick pins were in use during the medieval period, though the majority were far narrower and more tapering than the crudely-made object discussed here. The closest parallel in terms of size and thickness of the shank is an iron pin from Winchester which had a looped head enclosing a penannular ring (Biddle 1990, Fig. 152:1466, 559-560). The Winchester pin conformed to Biddle's Type F (iron) pins and was dated to the fourteenth or fifteenth century (Biddle 1990, 560). Were the Harlech object a pin, and this identification is by no means certain, a similar date is probable. Such a date would accord with the general dating of the castle as well as with the dating of small finds from previous excavations there, including the small assemblage from the Visitor Centre which also included pins and other artefacts of medieval date (Bevan 2014). The thickness of the end of the object, which has a 'sharpened' appearance yet is also broad and blunt, may argue against its identification as a pin, though it may have been intended for use with a rough woven fabric, perhaps for securing a cloak. An alternative identification is as a stylus or writing tool of some kind, though the thickness of the head of the object and relative bluntness of the tip argues against this.

The profile of the metal strip (SF 2) is flat and therefore it is highly unlikely that this is part of a pin. It may be part of a fitting of some kind but it is too fragmentary for close identification.

Discussion

One of the small finds from Harlech Castle Footbridge is both potentially identifiable and to some extent datable, whereas the other small find is fragmentary and undiagnostic. While interesting from an artefactual point of view and as evidence for past material culture on the site the pin-like object is of local significance only. As such, no further work is recommended on this object apart from illustration or photography should the site be published.

6.4 Medieval Coin from context 308 (Fig. 27)

Nicholas Wells

Silver penny of Edward I or II

Obv; EDWA R ANGL DNS HYB

Crowned bust facing, initial mark cross pattée

Rev; CIVITAS LONDON

Long cross pattée with 3 pellets in each angle

Edward Long Cross Class 10 or 11 – struck in London between 1301 and 1314.

The coin is either Class10/Edward I (1301-10) or Class 11/Edward II (1310-14). The latter is in effect a continuation of the former, but unfortunately corrosion has hidden the detail that would distinguish the two (North 1991, 1038-43/1060-2).

7. Discussion and Conclusions

Excavation of the eastern pier base (Foundation 3) revealed several phases associated with constriction activity in the area. The earliest comprised evidence for stone cutting, and probably relates to either ditch cutting in 1285, during the primary phase of castle construction, or levelling associated with the building of the pier bases in the first quarter of the fourteenth-century. Subsequent activity was represented by levelling deposits. These either date from the time of the construction of the original pier bases in the fourteenth-century or their reconstruction following the Glyndwr occupation in the early fifteenth-century. The facing stones of the upper walls of the current pier base were not visible on photographs taken in the mid-twentieth century, so are likely to date from the time when the eastern entrance was remodelled, i.e. between 1950 and 1970.

The drawbridge pit (Foundation 4) walls appear to have been constructed directly on top of bedrock. Two of the walls appear to have substantial sections of rebuilding that appear to be twentieth century in date. The construction work undertaken in 2014 appears to show that the top courses of the walls are one course deep, with mixed stone rubble located behind the facing masonry. The rock-cut pit floor included evidence of a number of attempts to provide efficient drainage from this area into the eastern castle ditch. The deposits located above this probably result of weathering and accidental deposition, especially during the twentieth-century.

The Watching Brief in Foundation 2 exposed made ground underlying a previous tarmac car park surface. No other archaeological features or deposits were revealed.

8. Acknowledgements

Archaeology Wales would like to thank Dr Kate Roberts, Jonathan Berry and Ian Halfpenney (Cadw), Dr John G. Roberts (Snowdonia National Park), R. L. Davies staff and the Harlech Castle visitor centre staff for their kind assistance during the excavation period. Archaeology Wales would also like to thank the Aerial Photography Unit, Cathays Park, Cardiff.

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Aerial Photographs:
1946 Black and White: 04/05/1946 - F2414
1971 Black and White: 21/05/1971- OS 71234

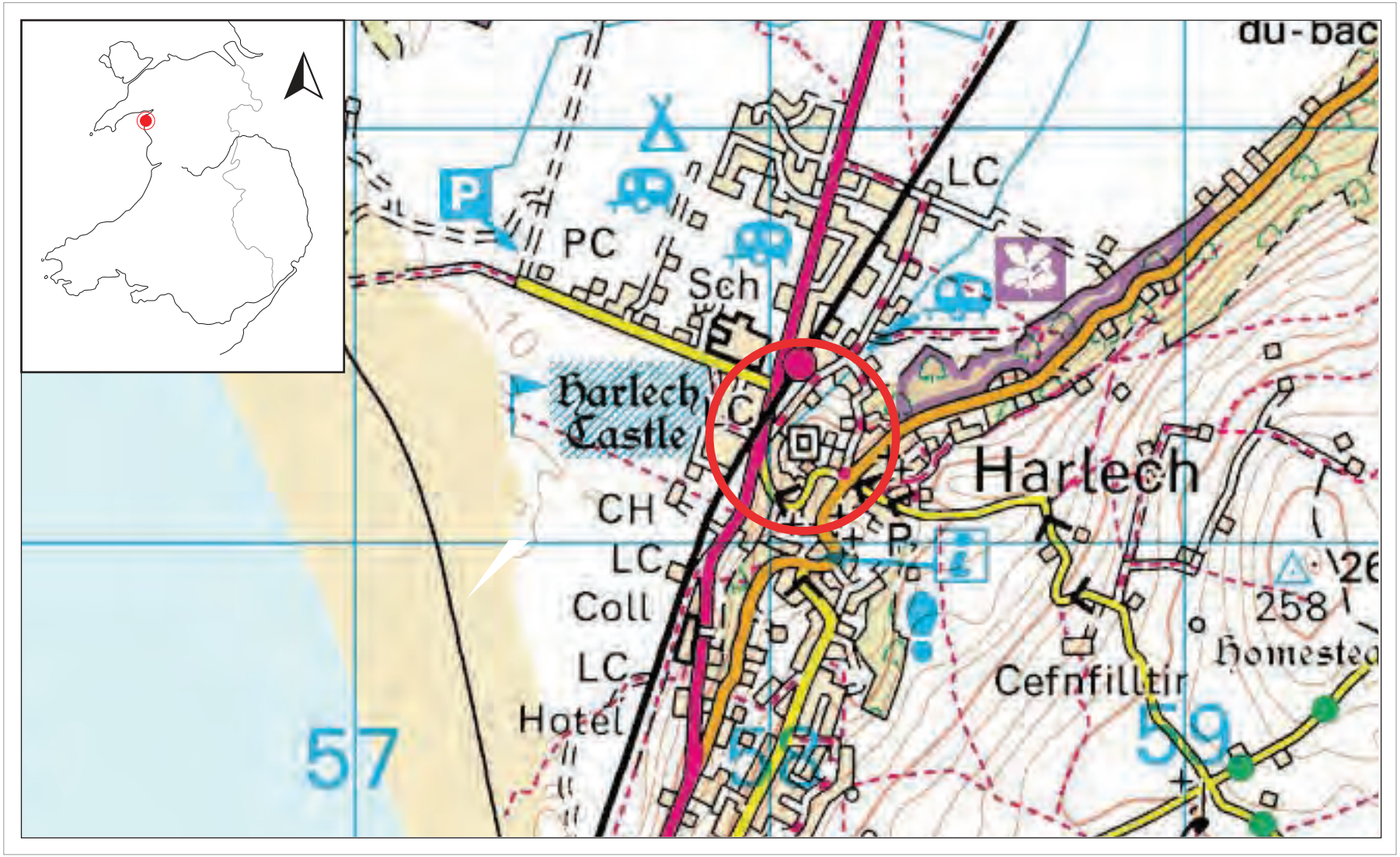


Fig 01: Map showing site location

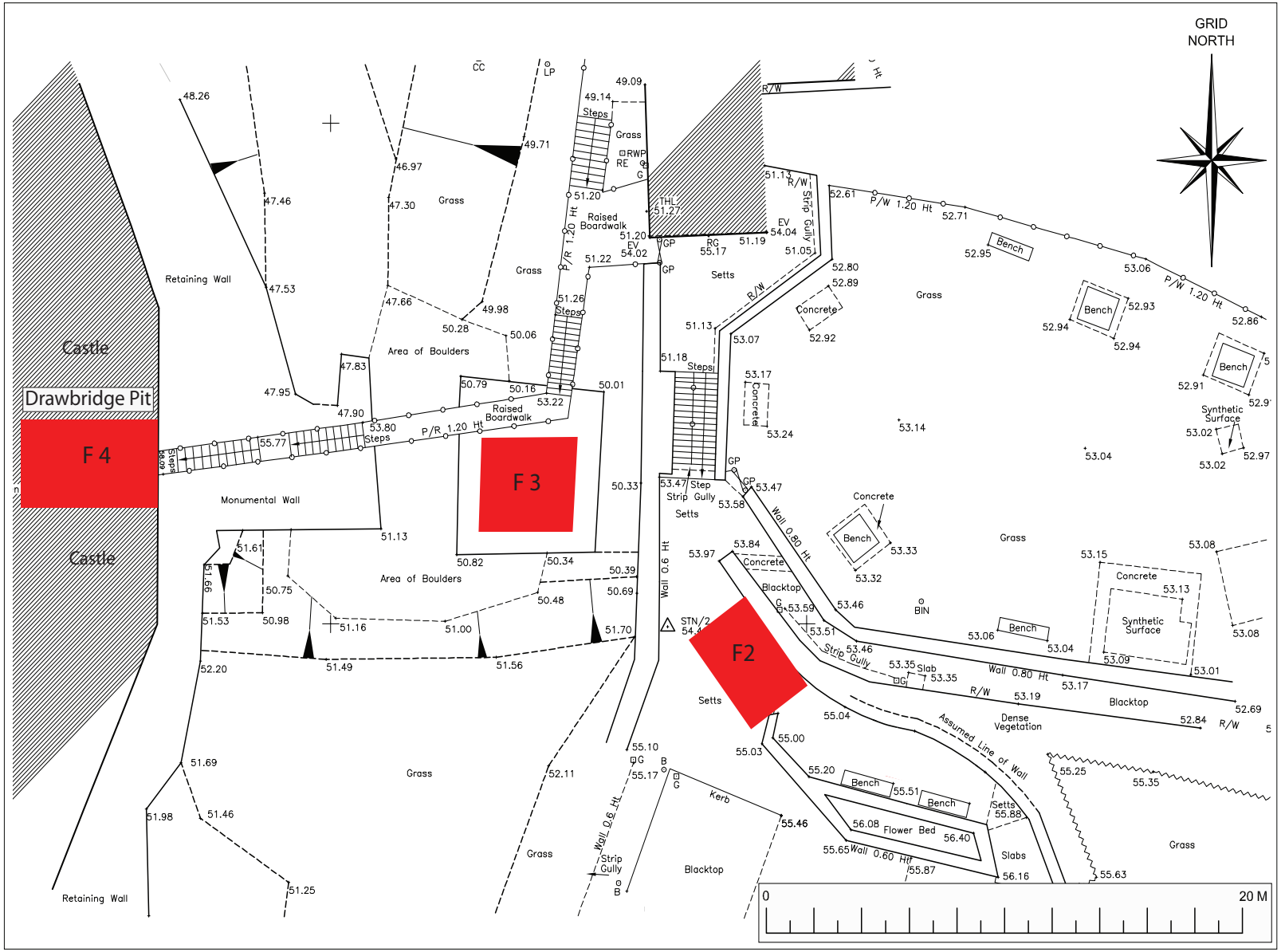
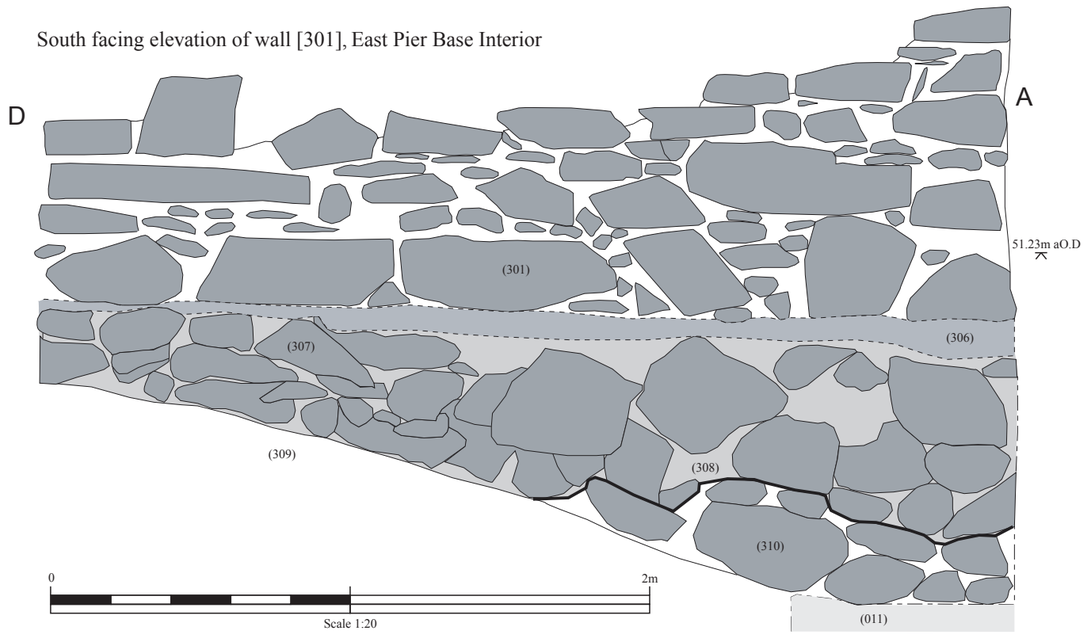


Fig. 2

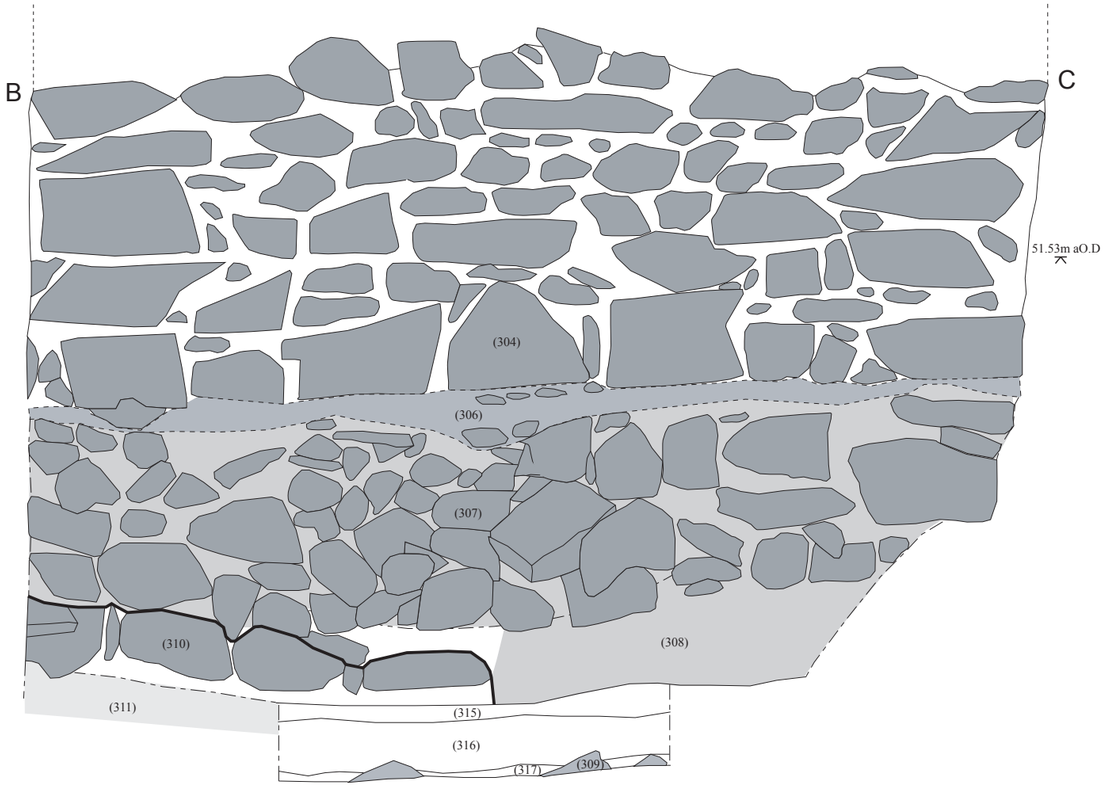
Location of sites: Foundations (F) 2-4 in relation to 2014 entrance

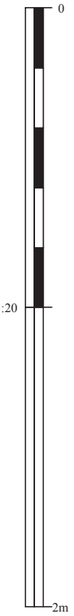
South facing elevation of wall [301], East Pier Base Interior



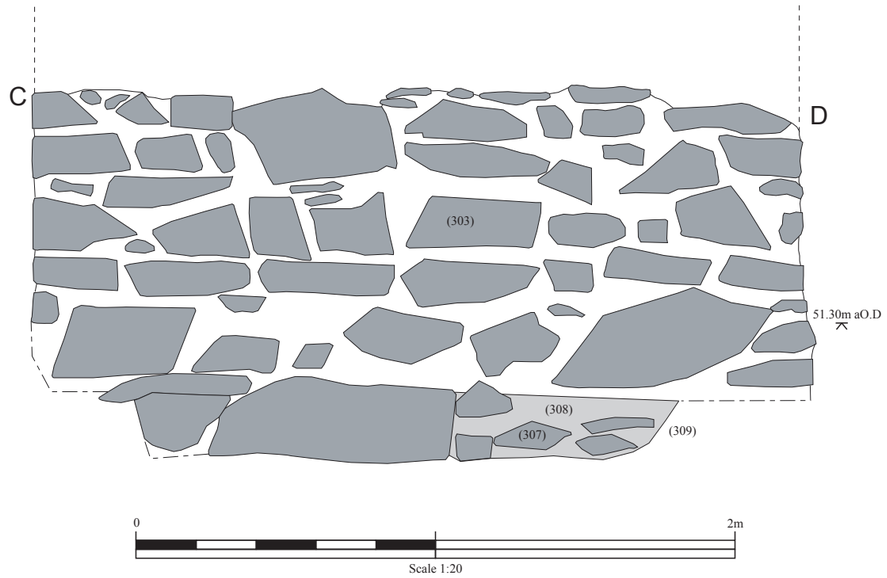
West facing elevation of wall [302], East Pier Base Interior

North facing elevation of wall [304], East Pier Base Interior





East facing elevation of wall [303], East Pier Base Interior



Key

- Stone
- Bedrock
- Bedding Sand
- Mortar

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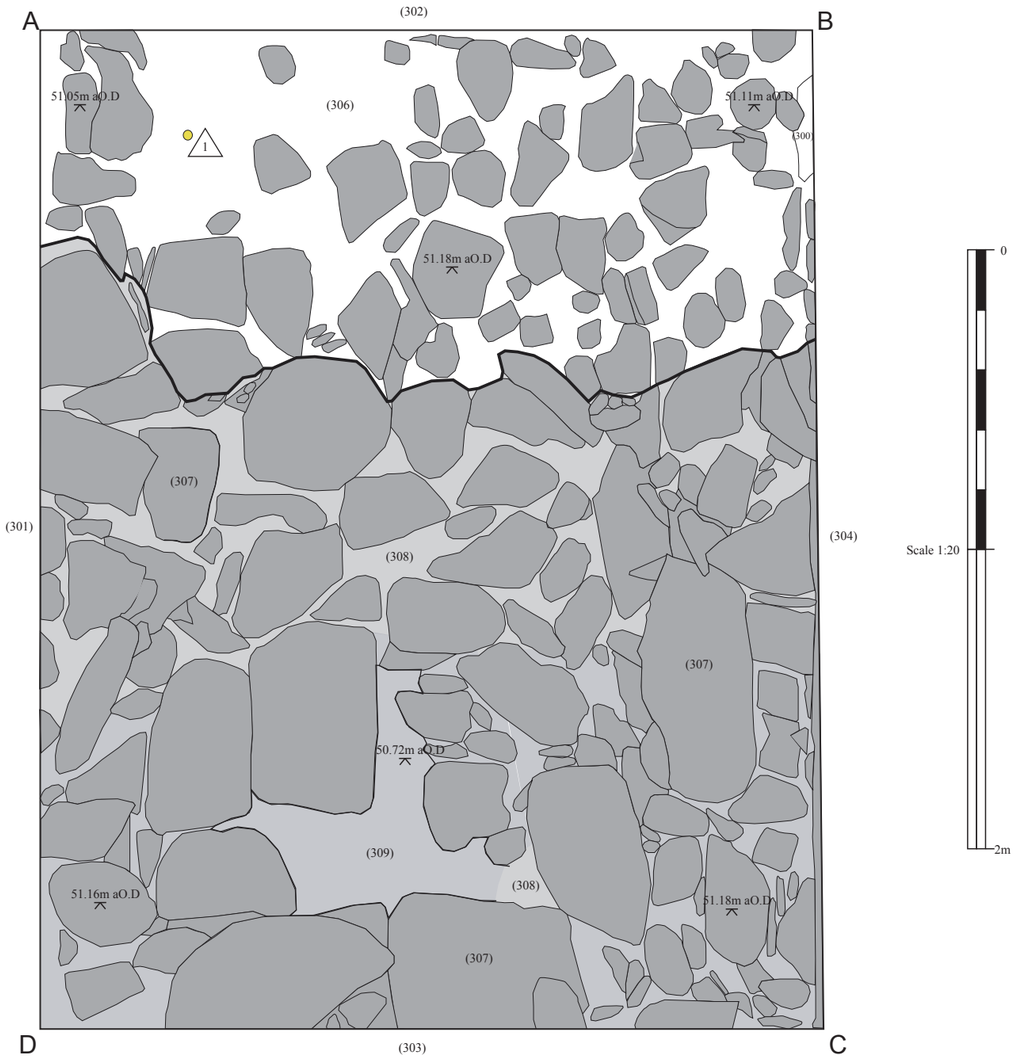
Fig. 3

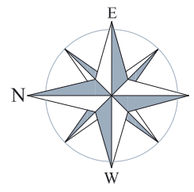
East Pier Base Interior Elevations/ Sections

scale
1:20

Plan of East Pier Base, Mid Excavation



Plan of East Pier Base, Post Excavation



Key

- Stone
- Bedrock
- Bedding Sand
- Mortar

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Fig. 4

Castle East Pier Base Plans

scale
1:20

South Facing Elevation of Drawbridge Pit

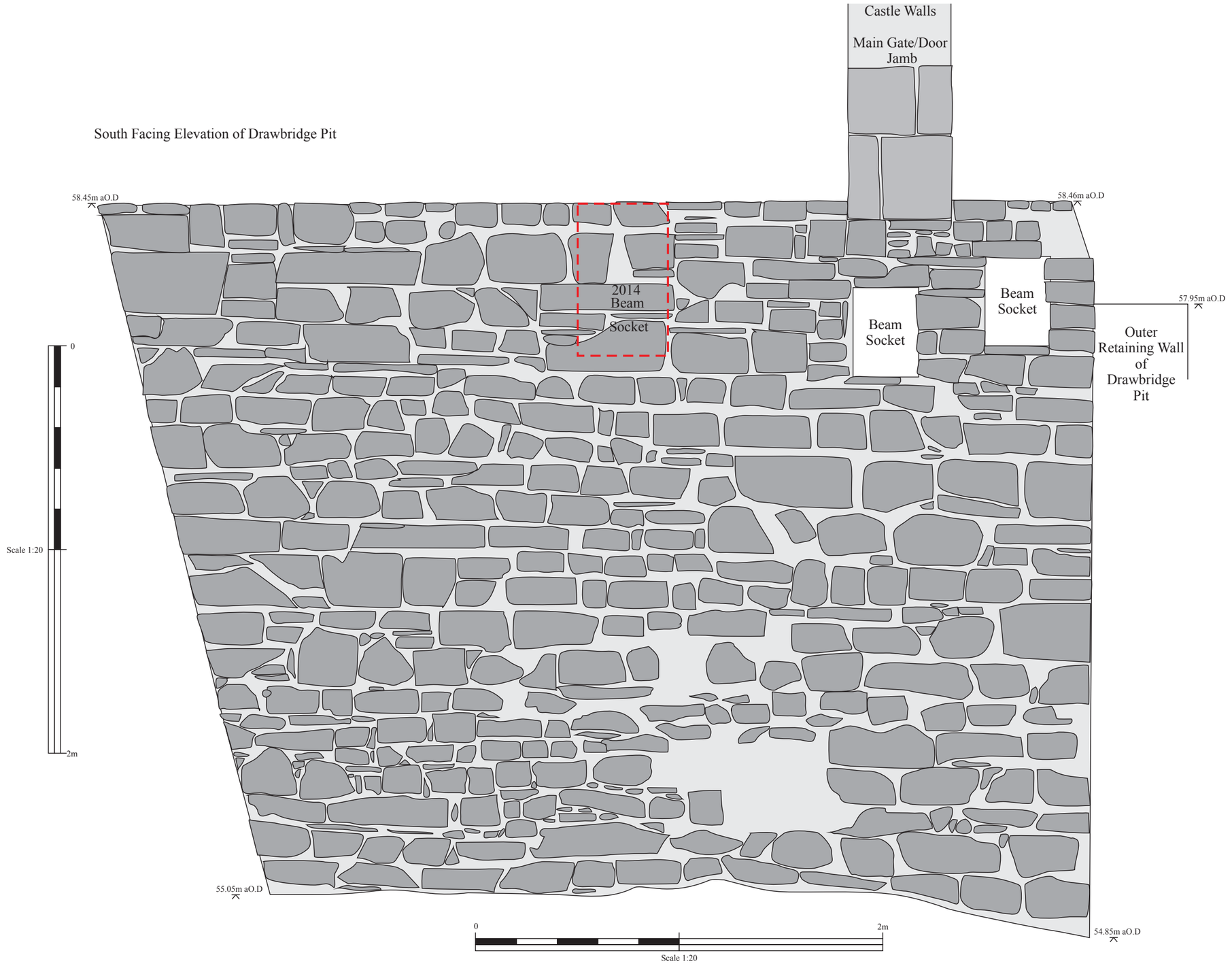

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Fig. 5

Castle Drawbridge Pit, South Facing Elevation

scale
1:20

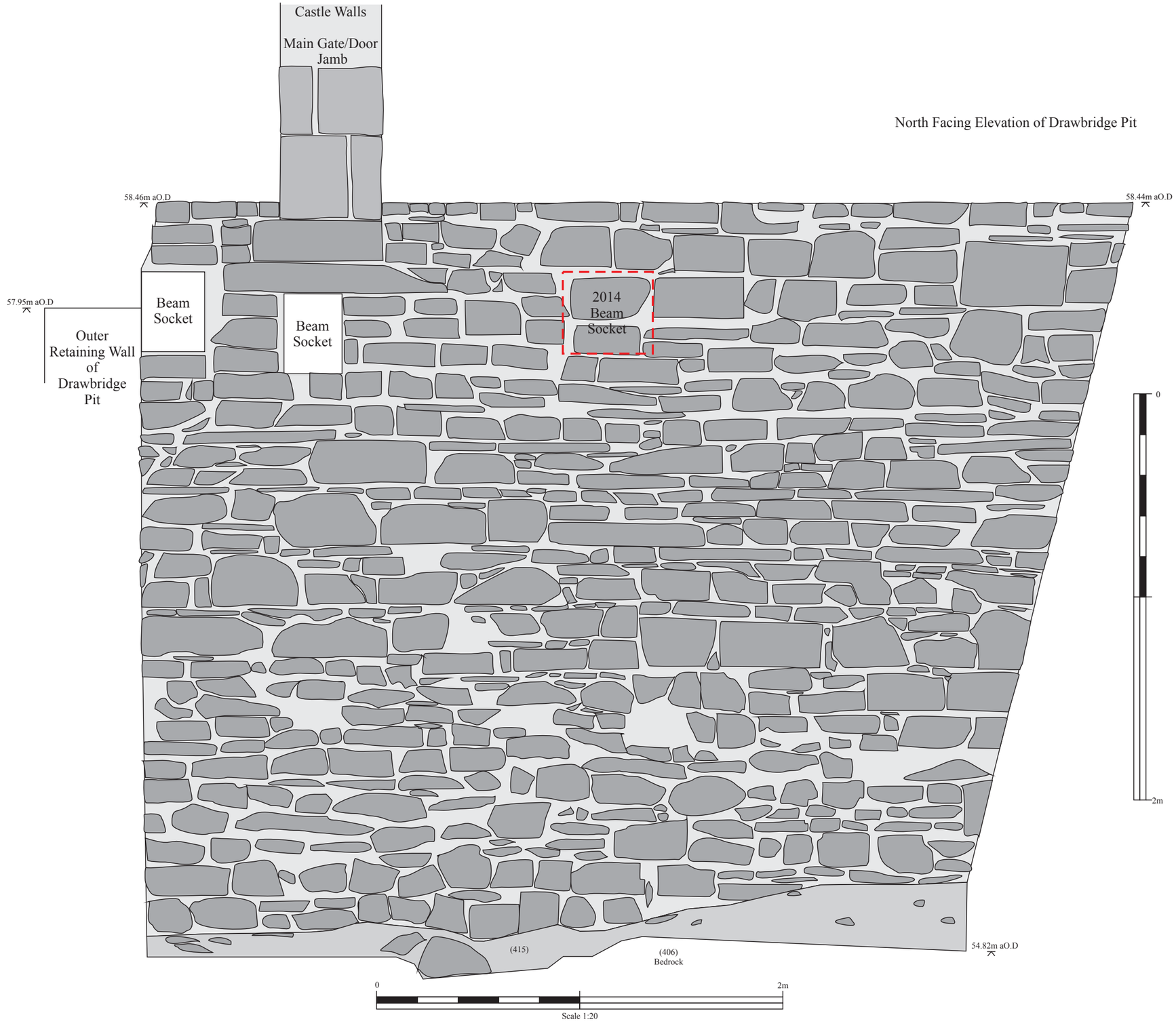

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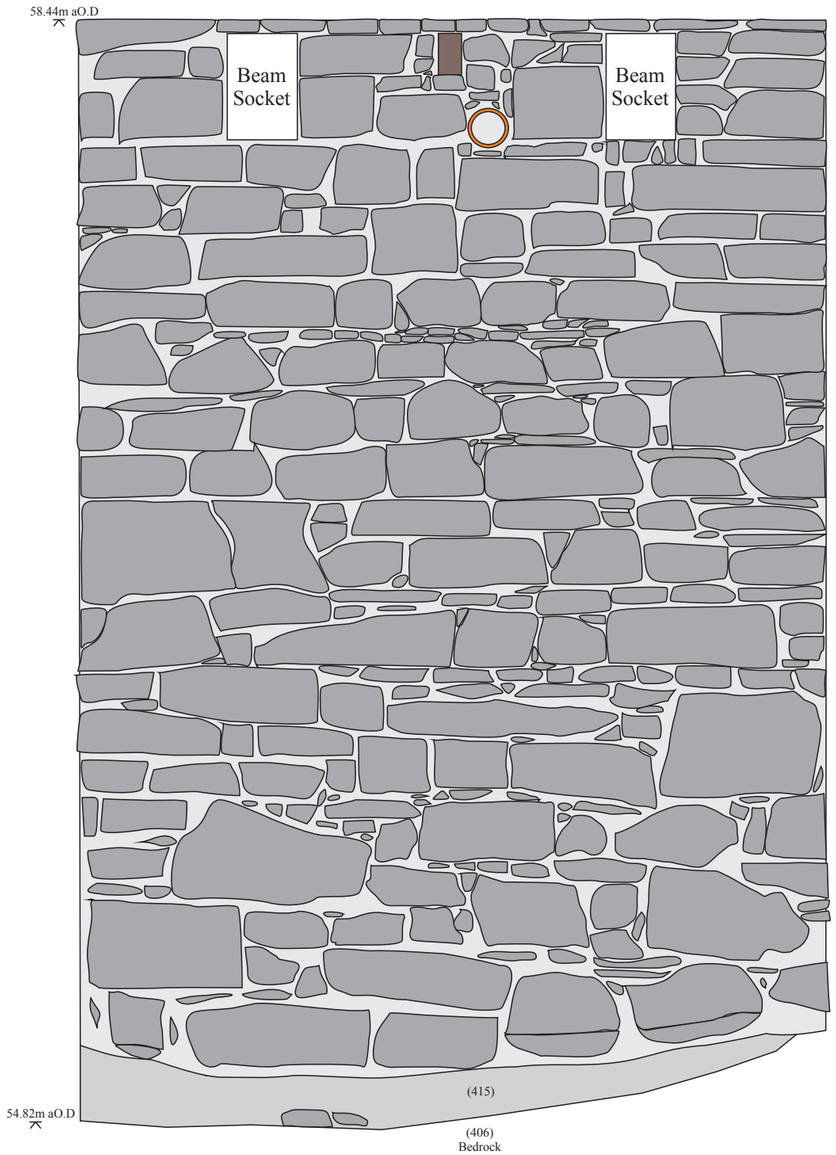
Fig. 6

Castle Drawbridge Pit, North Facing Elevation

scale
1:20

East Facing Elevation of Drawbridge Pit



West Facing Elevation of Drawbridge Pit

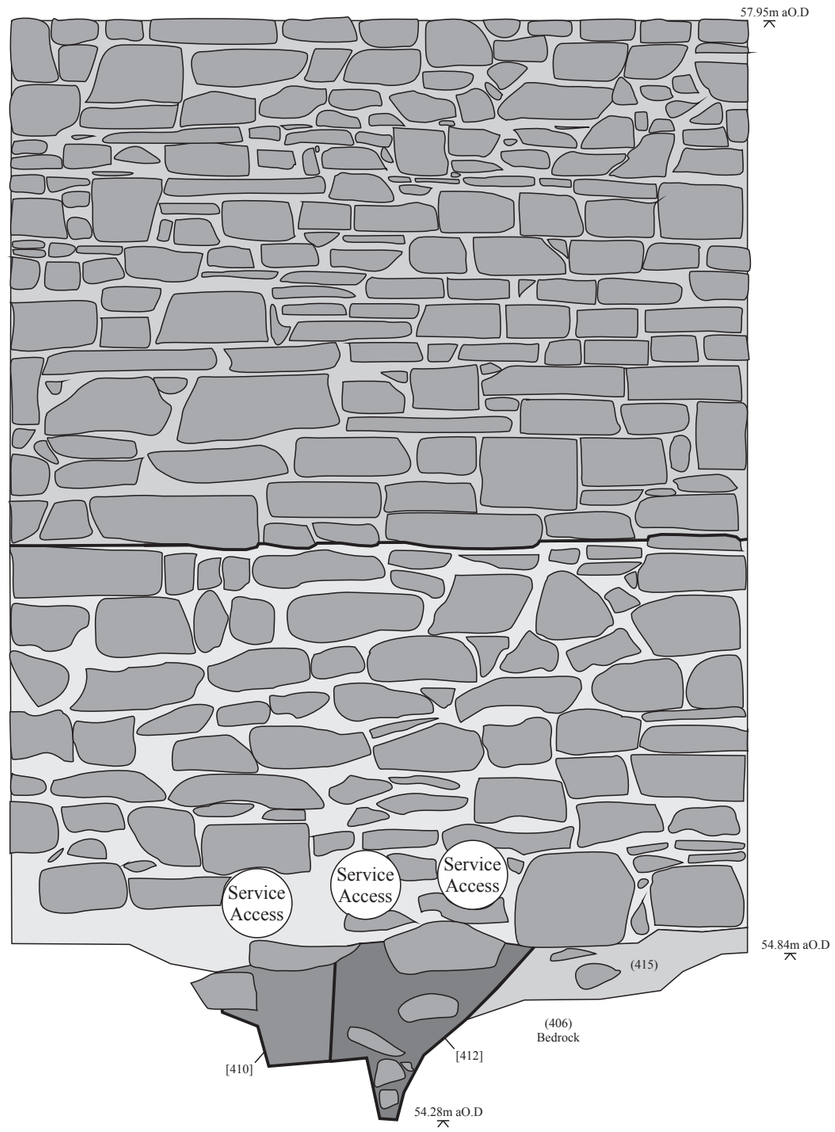
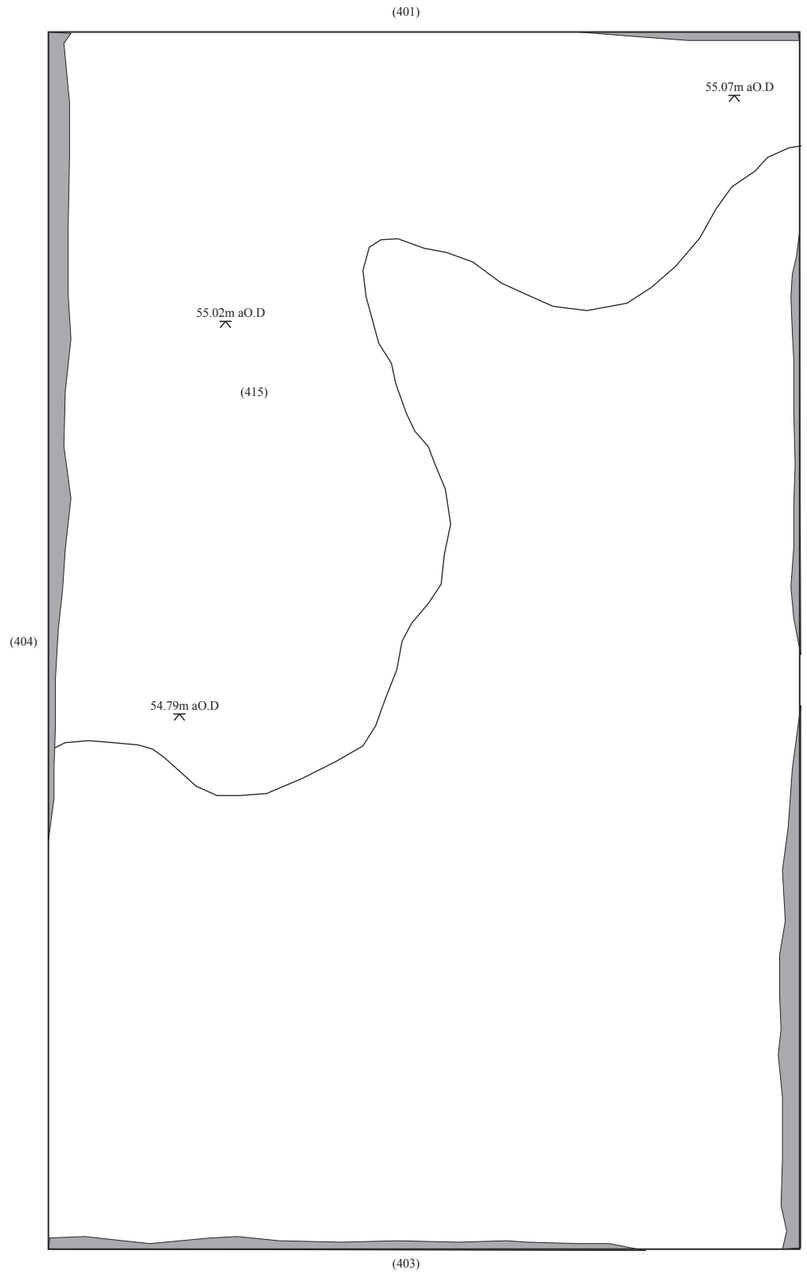


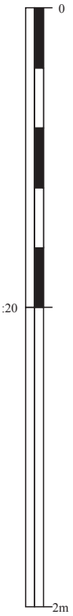
Fig. 7

Castle Drawbridge Pit, West and East Facing Elevations

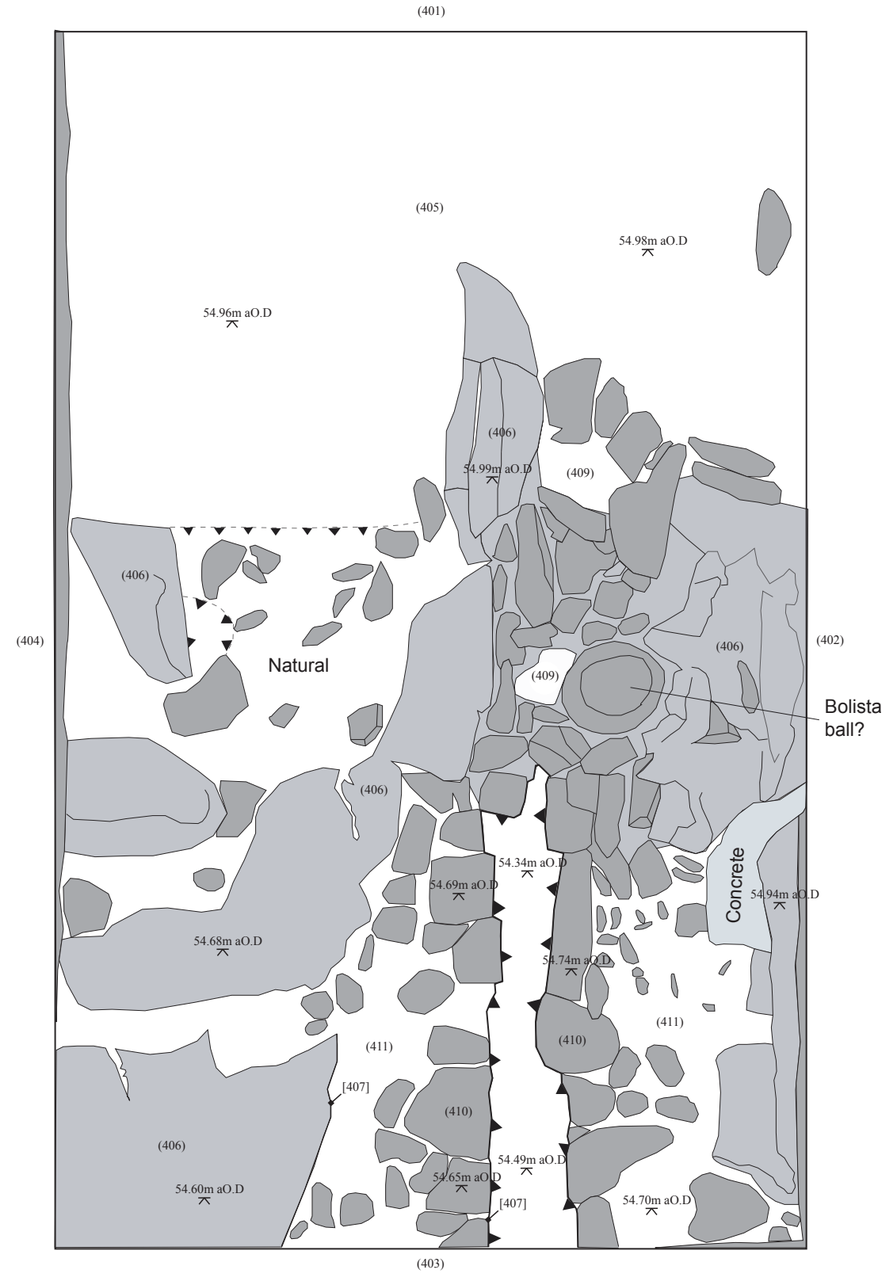
scale
1:20

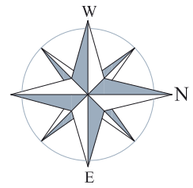
Plan of Drawbridge Pit, Mid Excavation





Plan of Drawbridge Pit, Mid Excavation





Key

- Mortar
- Stone
- Bedrock
- Concrete

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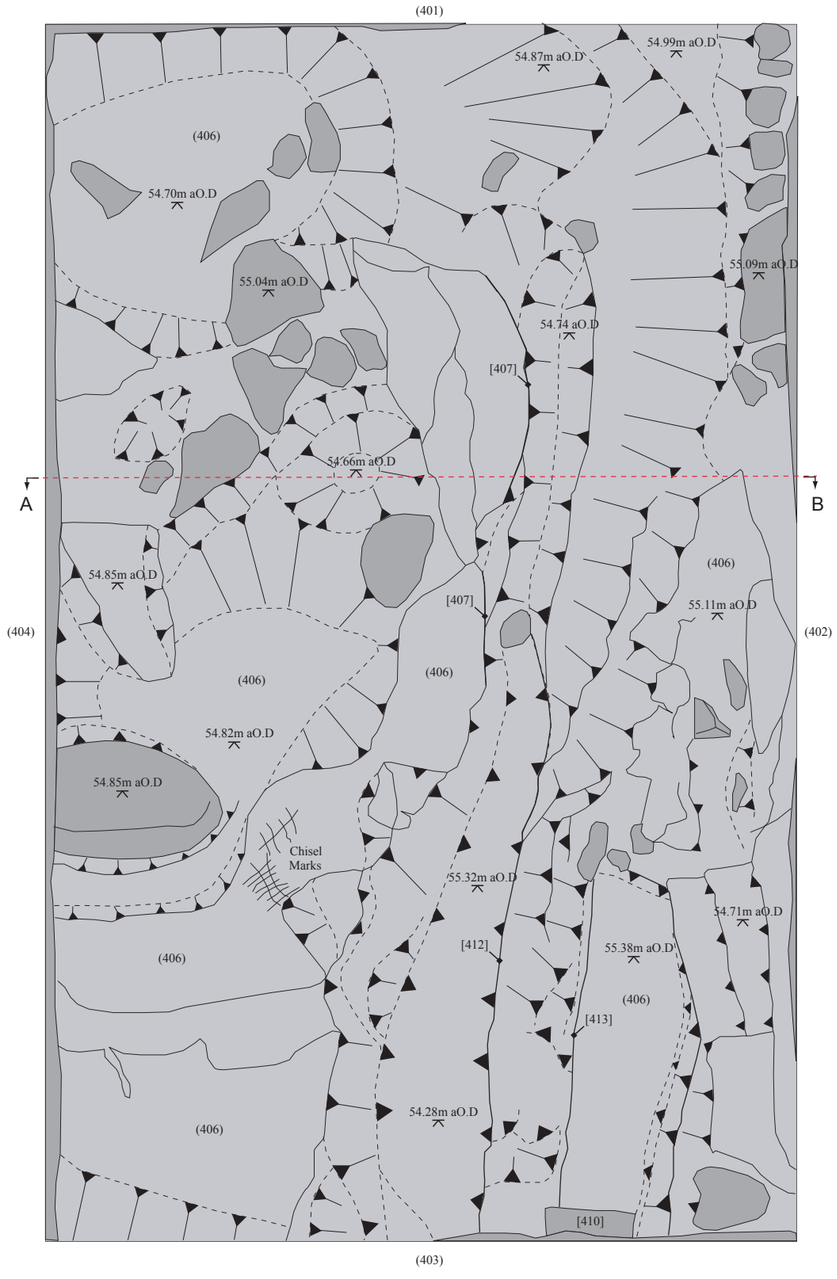
Fig. 8

Castle Drawbridge Pit, Foundation 4 Plans

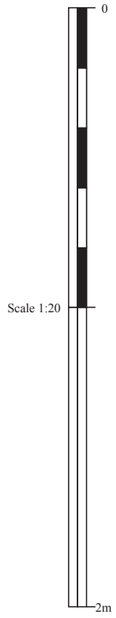
scale
1:20

Plan of Drawbridge Pit, Post Excavation

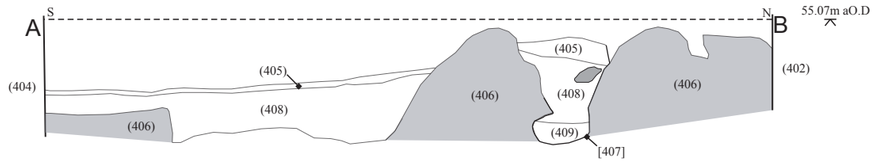


0 2m

Scale 1:20

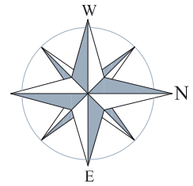


East Facing Section of Drawbridge Pit



0 2m

Scale 1:20



Key

- Mortar
- Stone
- Bedrock
- Concrete

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Fig. 9

Castle Drawbridge Pit, Foundation 4
Plans and Section

scale
1:20

Foundation 3: Full elevation of east facing wall of pier base

Fig. 10

Foundation 3
walls
(East facing)

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Foundation 3: Full elevation of south facing wall of pier base

Fig. 11

Foundation 3
walls
(South facing)

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Foundation 3: Full elevation of north facing wall of pier base

Fig. 12

Foundation 3
walls
(North facing)

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Foundation 3: Full elevation of west facing wall of pier base

Fig. 13

Foundation 3 walls (West facing)

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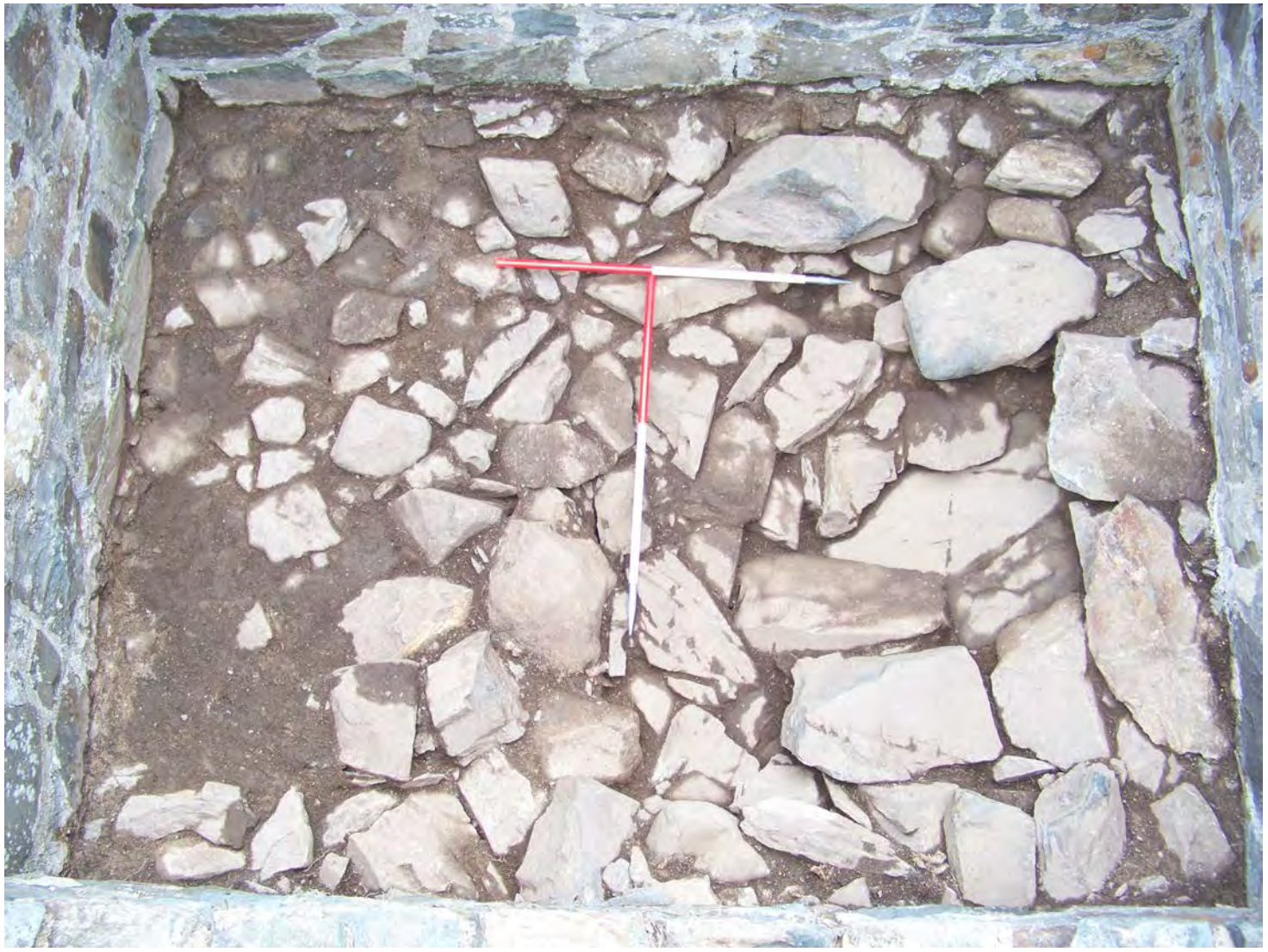

Foundation 3 base, mid-excavation (looking south)

Fig. 14

Mid-excavation image of Foundation base 3

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Foundation 3 base, post-excavation with deposit 311 in background (looking east)

Fig. 15

Post-excavation image of Foundation base 3

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Post-excavation image showing bedrock (009) on northern and western side of base with stones (007) above levelling deposit (008) (looking west)

Post-excavation image showing bedrock edge in south-western corner of base (looking west-southwest)

Fig. 16

Post-excavation image of Foundation base 3

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Post-excavation image showing two iron stone splitter fragments in bedrock

Post-excavation image showing iron stone splitter fragment in bedrock

Fig. 17

Post-excavation image of stone splitters in bed-rock

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East facing elevation image of drawbridge pit

West facing elevation image of drawbridge pit

Fig. 18

Drawbridge Pit elevations

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Looking northeast

Looking northwest

Oblique images of south facing elevation of drawbridge pit

Fig. 19

Drawbridge Pit elevations

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Looking southwest

Looking southeast

Obliqe images of north facing elevation of drawbridge pit

Fig. 20

Drawbridge pit elevations

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Post-excavation image of Drawbridge pit culvert and base of west facing wall (looking east)

Fig. 21

Drawbridge pit base culvert

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Post-excavation image of east facing Drawbridge pit base section (looking west)

Fig. 22

Drawbridge pit base

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Post-excavation image of Drawbridge pit base (looking east)

Fig. 23

Drawbridge pit base

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Foundation 2 showing tarmac surface and modern made up ground in castle car park (looking north-west)

Fig. 24

Foundation 2

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Removal of stone in upper Drawbridge pit south facing wall for new bridge socket - see fig. 5 for location (looking north)

Fig. 25

Construction work on Drawbridge pit south facing wall

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Removal of stone in upper Drawbridge pit north facing wall for new bridge socket - see fig. 6 for location (looking south)

Fig. 26

Construction work on Drawbridge pit north facing wall

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Obverse

Reverse

Edward I or II Long Cross Silver Penny (1301-1314) - context 308

Fig. 27

Silver penny from context 308 (Foundation 3)

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SF1: Copper alloy Pin-like object with a malformed head and very thick shank, Context 415

SF2: Copper alloy fitting? - flat profile Context 415

Fig. 28

Copper alloy artefacts from Foundation 4

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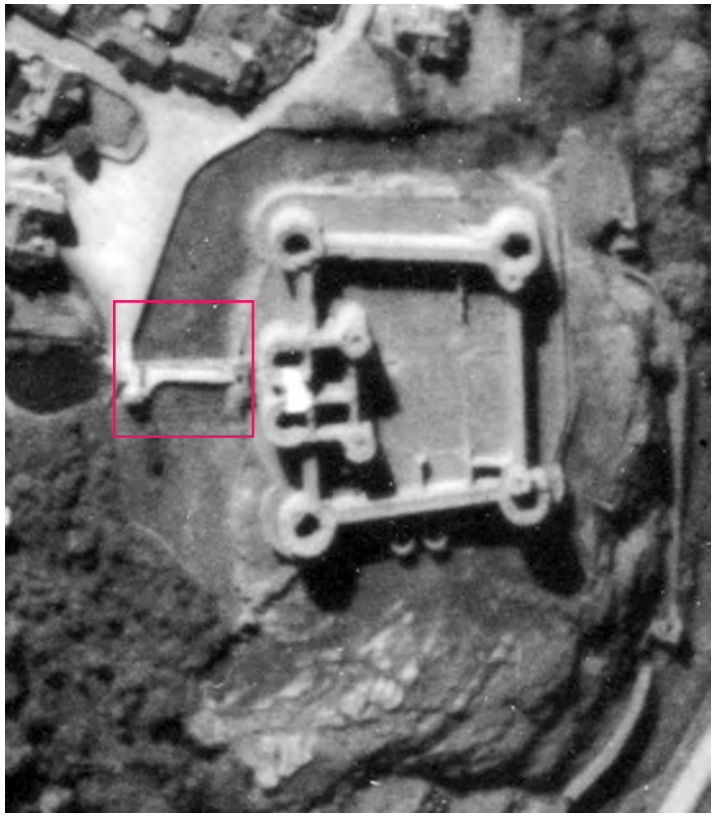
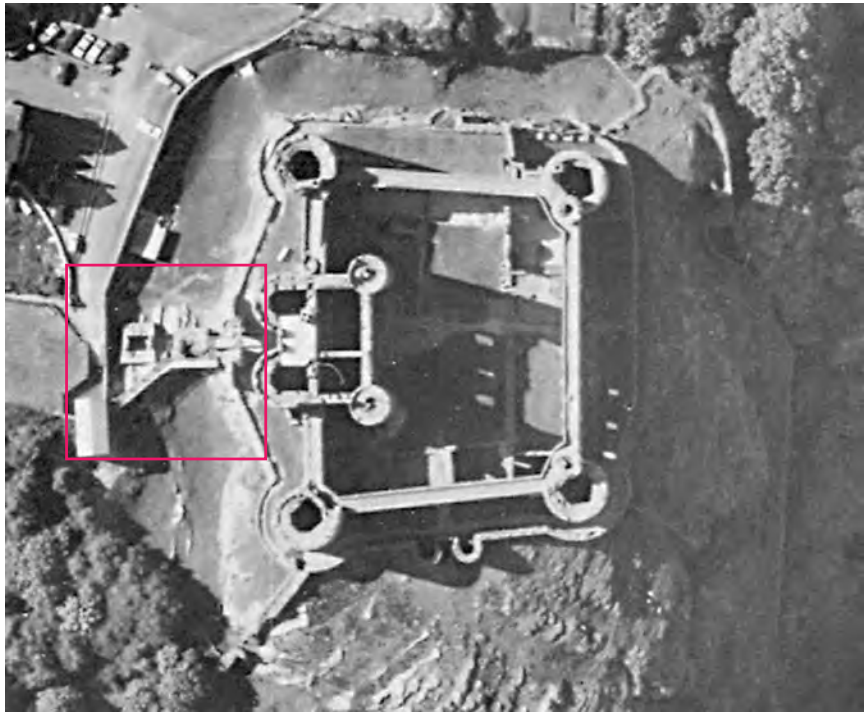


1946 Aerial Photograph of Harlech Castle



1971 Aerial Photograph of Harlech Castle

Images showing change in eastern entrance area between 1940s and 1970s

Fig. 29

1946 and 1971 Aerial Photographs of Harlech Castle

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Archaeology Wales

APPENDIX I:

Project Design
(Archaeology Wales & Cadw)

ARCHAEOLOGY WALES
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Project Design for a Programme of Archaeological Works at Harlech Castle, Harlech, Gwynedd

Prepared for:
Cadw

Project No: 2173

Date: 25th September 2014

Archaeology Wales Limited
Rhos Helyg, Cwm Belan, Llanidloes, Powys, SY18 6QF
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NON TECHNICAL SUMMARY

This Project Design details the proposal for an archaeological Watching Brief and limited archaeological excavation and recording ahead of groundworks associated with the construction of a new footbridge access to Harlech Castle, Harlech, Gwynedd. This specification has been prepared by Dr Iestyn Jones (AIfA), Project Officer, Archaeology Wales.

1. Introduction and archaeological background

The work associated with this project is located within the World Heritage Site and Scheduled Ancient Monument of Harlech Castle (ME044) Harlech, Gwynedd (SH 58082 31244 – Fig. 1).

In 2012 Cadw commissioned Archaeology Wales (AW) to undertake archaeological investigative work during earlier phases of this project. The AW evaluation inside of one of the 15th century fortified bridge towers showed that no floor levels survived but did show a rubble deposit piled on top of the natural bedrock, upon which the tower appears to have been built. Further work within the base of the drawbridge pit, appeared a lime mortar and rough cobble floor was laid down here. Whilst extremely likely, the lime mortar and rough cobbling cannot be definitively ascribed to the medieval period but it would appear to predate most modern, restorative, works to the castle (Smith 2012, 6)

The results of this earlier work has informed the next phase of work in which it is proposed that four supporting bridge pier bases will be anchored to concrete foundation pads. The areas in which three of the four supporting bridge piers are to be constructed will be the subject of this archaeological investigation.

Foundation 1 at the site of the new visitor centre has already been constructed.

This phase of work will comprise archaeological excavation and recording in advance of construction of Foundations 3 and 4, located in the east tower foundation within the moat and within the drawbridge pit respectively. A full photographic and drawn record of the exposed elevations in Foundations 3 and 4 will be undertaken.

In addition, a Watching Brief will oversee the controlled strip to a depth of approximately 0.8m in advance of construction of Foundation 2 in the car park.

This Project Design provides information on the methodology which will be employed by AW during the archaeological watching brief, recording and evaluation at the site. The Project will be managed by Mark Houliston (MIfA) and assisted by Dr Iestyn Jones (AIfA). The Site Supervisor will be Ian Davies.

All work will be undertaken in accordance with the standards and guidelines of the Institute for Archaeologists and as set out in *Planning Policy Wales 2014* and Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*). It has been designed in accordance with current best archaeological practice and the appropriate national standards and guidance including:

- English Heritage, 1991. *Management of Archaeological Projects (MAP2)*
- English Heritage, 2006. *Management Of Research Projects in the Historic Environment (MORPHE)*
- Association of County Archaeological Officers, 1994. *Model Briefs and Specifications for Archaeological Assessments and Field Evaluations*
- Brown D. H., 2007. *Archaeological Archives: A guide to best practice in creation, compilation, Transfer and curation.* Archaeological Archives Forum
- Richards, J. & Robinson, D., 2000. *Digital Archives from Excavation and Fieldwork: Guide to Good Practice* (Second Edition). The Archaeology Data Service Guide to Good Practice: Oxbow Books http://ads.ahds.ac.uk/project/goodguides/excavation/
- The Institute for Archaeologists, 1985 (revised 2010). *Code of Conduct*
- The Institute for Archaeologists, 1990 (revised 2008). *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*
- The Institute for Archaeologists, 1994 (revised 2008). *Standard and Guidance for Archaeological Field Evaluation*

2 Site specific objectives

The aims of this excavation, watching brief and recording are:

i) To identify, and to make an appropriate record of archaeological remains revealed by excavation;

ii) To ensure the long-term survival of the information contained in such remains through archaeological recording prior to their physical destruction; and

iii) To prepare a report and deposition of a project archive.

2.1 Should any significant archaeological remains be identified, an additional set of aims will:

i) Assess the nature, date, density, extent, function and state of preservation of the archaeological remains;

ii) Assess their potential for answering questions about the development of the land use in the region; and

iii) Where remains are of sufficient importance, in liaison with Cadw and the Snowdonia National Park Archaeologist, to formulate a strategy designed to determine the best method for mitigation.

2.2 The research objectives of this work are to:

i) contribute to our understanding of the development of the castle and in particular the castle defences.

3 Excavation Aims and Methodology (Foundation Trenches 3 and 4)

It is intended that two areas will be excavated (Foundations 3 and 4 – see Figure 2). The trenches will be excavated by hand under continuous archaeological supervision.

3.1 Each of the areas will be excavated to natural bedrock. The spoil generated during the excavation will be mounded at a safe distance from the edges of each trench. AW will liaise with the main works contractor (RLD Construction) with regard to spoil management. RLD Construction has agreed to remove waste from site.

3.2 The following intrusive and non-intrusive field techniques will be employed as part of this phase of work:

- Foundation 3 – Full archaeological (hand) excavation (to the natural / bedrock) of the interior of the East Stone Tower (6m x 4m). To include the full photographic and drawn record of internal elevations up to 51.935m AOD. Half of the interior has already been exposed by Archaeology Wales during the initial evaluation (see Archaeology Wales report 1080).

- Foundation 4 – Full archaeological (hand) excavation and recording of the base of the drawbridge pit (5m x 3.5m). Remove overburden cover (average depth 0.1m) to top of archaeological surface, clean back record. Full excavation to natural/bedrock of the area to be covered by the foundation pad (2.3 x 2.4m). Full photographic and drawn record of interior elevations.

3.3 The base and sides of each trench will be cleaned sufficiently to show the soil profile and to define any archaeological features present. A strategy will then be resolved to deal appropriately with any features exposed. This will, in general, involve half-sectioning discrete features, such as pits and postholes and excavating sufficient of linear features to characterise their profiles and where possible to resolve their date and function. Variations from this scheme will be agreed in advance.

3.4 The exposed areas will be recorded at an appropriate scale by measured drawing and photography, and the deposits encountered described fully on pro-forma individual context recording sheets. The excavations will normally be planned at 1:20 unless they contain significant or complex archaeology, where a larger scale might be more appropriate (1:10). The sections of excavated archaeological features will also be recorded by measured drawing at an appropriate scale (normally 1:10). The recording system used will be confirmed following the appointment of the winning bidder. All site drawings will be referenced to Ordnance Datum and the National Grid.

3.5 A photographic record, primarily in colour digital (minimum 12 megapixel

size), but supplemented by colour and black and white prints where appropriate, will be maintained during the course of the excavations and will include:

i. the site prior to commencement of fieldwork;
ii. the site during work, showing specific stages of fieldwork;
iii. working photos illustrating the excavations underway;
iv. the layout of archaeological features within each trench;
v. individual features and, where appropriate, their sections; and
vi. groups of features where their relationship is important.

3.6 A strategy to assess the palaeo-environmental character and development of the site will be developed on site. Until the areas have been excavated, the potential of the site is unknown and an appropriate response is difficult to gauge. It is not known whether the lower levels preserve organic matter. This strategy will be developed in consultation with Cadw. Samples would usually be taken from:

i. any securely dated deposits containing the following will be sampled where possible to a level agreed in advance with Cadw's Regional Inspector of Ancient Monuments:
• charred plant remains;
• large quantities of molluscs;
• large quantities of bone;
• hearths and other burnt features; and
• other domestic features, e.g. house gullies, potentially containing the above.
ii. charred plant samples will be wet sieved with flotation using a 0.5mm mesh. All residues will be checked; and
iii. should waterlogged deposits be encountered, further consultation with an appropriate specialist will determine methods for recovery.

4 Watching Brief Aims and Methodology (Foundation Trench 2)

A continuous watching brief at the location of Foundation 2 (see Fig.1). The following intrusive and non-intrusive field techniques must be employed as part of this phase of work:

- Foundation 2 - A watching brief of the machine excavation of a trench (2.5m x 2.5m x 0.8m depth) within the car park in the location of piles / concrete bases for a bridge to a maximum depth of 53.370m AOD. Recording as appropriate.

4.1 An archaeological watching brief has been defined as *'a programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area or site... where there is the possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.'* (IFA, 2008).

4.2 The overall objective of the watching brief will be to establish whether any

archaeological deposits survive within the site, and to ensure their further understanding through excavation, recording and sampling of material of any exposed sensitive areas. This may require limited excavation in order to define the date, extent and importance of any such remains.

The watching brief will take the form of supervision by the AW archaeologist to monitor groundworks as they commence and proceed on a continuous basis for the duration of the activity. It includes the provision for the pausing of groundworks in order to allow for full investigation of any significant archaeological remains. In practice, this will involve:

i. inspection of subsoil for archaeological features;
ii. recording of archaeological features in section and if possible in plan;
iii. full excavation of features;
iv. inspection of natural soils for archaeological features;
v. cleaning/recording/excavation of features; and
vi. sampling of deposits which warrant further investigation.

4.3 Contingency Arrangements

In the event of significant archaeological features being discovered all activities in this area of the site can be temporarily suspended. A strategy designed to fully establish the character, distribution, extent, condition, dating and further treatment will been formulated, in consultation with Cadw's Regional Inspector of Ancient Monuments and the Snowdonia National Park Archaeologist. If such remains are discovered, Cadw, if deemed necessary, will make reasonable contingency arrangements.

4.4 Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries and related to the developer's site plan.

Photographs will be taken in digital format, using a 12MP camera with photographs stored in Tiff format. Should significant remains be identified that require excavation, photographs will also be taken in black and white and colour slide (35mm film). The photographic rarchive will include a record of :-

i. the site during work, showing specific stages of fieldwork;
ii. individual features and, where appropriate, their sections; and
iii. groups of features, where their relationship is important.

4.5 Artefacts

Archaeological artefacts recovered during the course of the watching brief and limited archaeological excavation will be cleaned and labelled using an accession number, which will be obtained from the local museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with a suitable local museum.

All finds of gold and silver will be removed to a safe place and the Environment Agency, Cadw and the local coroner informed, within the guidelines of the Treasure Act 1996.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (Phil Parkes at Cardiff University).

4.6 Human remains

In the event of burials or cremations being found all work will be halted in the area of the burials and their extent and nature established. Cadw and the Ministry of Justice will be informed and a methodology of excavation agreed which will adhere to Ministry of Justice Guidelines and undertaken following the receipt of a M.O.J. exhumation licence. Any human remains encountered will be cleaned and recorded with minimal disturbance and left *in-situ* and covered over. Such remains will only be removed if necessary and only once Cadw's Regional Inspector of Ancient Monuments and the Snowdonia National Park Archaeologist have been informed. AW will comply with all statutory consents and licences under the Disused Burial Grounds (Amendment) Act, 1981 or other Burial Acts regarding the exhumation and interment of human remains, as appropriate. AW will comply with all reasonable requests of interested parties as to the method of removal, re-interment or disposal of the remains or associated items. Every effort will be made, at all times, not to cause offence to any interested parties.

4.7 Environmental and technological samples

Environmental samples will be taken where necessary when significant deposits are located. Technological samples will be taken where necessary when significant deposits are located (see 3.6 above).

4.8 Specialists

In the event of certain finds/features etc. being discovered, the site archaeologist may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source. A list of external specialists is given in the table below.

Type	Name	Tel No.
Flint	Dr Amelia Pannett	02920 899509
Animal bone	Jen Kitch	07739 093712
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751
Clay pipe	Hilary Major	01376 329316

Glass	Andy Richmond	01234 888800
Cremated and non-cremated human bone	Malin Holst	01759 368483
Metalwork	Kevin Leahy	01652 658261
Neo/BA pottery	Dr Alex Gibson	Bradford University
IA/Roman pottery	Jane Timby	01453 882851
Post Roman pottery	Mr Stephen Clarke	
Charcoal (wood ID)	John Carrot	01388 772167
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)
Molluscs and pollen	Dr James Rackham	01992 552256
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466

5 Post-Fieldwork Programme

Initial post excavation work will comprise the following:

i. checking of drawn and written records during and on completion of fieldwork;
ii. production of a stratigraphic matrix of the archaeological deposits and features present on the site, if appropriate;
iii. cataloguing of photographic material and labelling of images;
iv. cleaning, marking, bagging and labelling of finds according to the individual deposits from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to an appropriate Conservation Laboratory. Finds will be identified and dated by appropriate specialists; and
v. Production of an Updated Project Design.

Results

5.1 *Reporting*

Following completion of all field work the AW will submit an Updated Project Design to Cadw's Regional Inspector of Ancient Monument's and the Snowdonia National Park Archaeologist within one month of completion of the project. This design will detail whether a full Assessment of Potential for Post-excavation Analysis is appropriate and what, if any material will be submitted for specialist analysis. If the latter is required Cadw's Archaeological Recording Framework manager's authorisation for additional funding and a Cadw Purchase Order(s) will be obtained prior to this work being commissioned. If no suitable material is identified for post-excavation analysis then the AW will proceed with final reporting.

The report's final format and level of specialist work will depend upon the nature and significance of any archaeology recorded within the site. As a minimum, however, it will contain:

i. a title page, detailing site address, site code and accession number, NGR, author/originating body, client's name and address;
ii. full contents listing;
iii. a non-technical summary of the findings of the excavation;
iv. a description of the archaeological background;
v. a description of the topography and geology of the excavation area;
vi. a description of the methodologies used during the excavation;
vii. a description of the findings of the excavation;
viii. plans of each of the trenches/areas showing the archaeological features exposed;
ix. sections of the excavated archaeological features;
x. interpretation of the archaeological features exposed and their context within the surrounding landscape;
xi. specialist reports on the artefactual/ecofactual remains from the site;
xii. appropriate photographs of specific archaeological features; and
xiii. a consideration of the importance of the archaeological remains present on the site in local, regional and national terms.

5.2 The report shall also contain a suitable list of contents and a cover page detailing:

i. Site Address;
ii. Site Code and Accession No.;
iii. National Grid Reference;
iv. Scheduled Monument number;
v. Planning reference number;
vi. Author/Originating Body; and
vii. Report Date.

5.3 The deposit model should be presented graphically in plan and, where appropriate, in profile and at a scale that is commensurate with subsequent use as a working document.

5.4 The draft report will be submitted in both paper copy and digital (PDF) form one month after the report in 3.1.1 unless agreed differently at the time.

5.5 The results should be detailed and laid out in such a way that the data and the supporting text are readily cross-referenced.

6.0 Publication and Dissemination

6.1 Publication

Following comment on and approval of the final draft report by Cadw's Regional Inspector of Ancient Monuments and the Snowdonia National Park Archaeologist both authorities will be sent a copy of the final digital (PDF) report along with any relevant digital data (format to be agreed with Cadw and SNPA). Further digital copies must also be deposited with the Gwynedd Archaeological Trust's Historic Environment Record and the Royal Commission on the Ancient and Historical Monuments of Wales's National Monuments Record in accordance with their accession policies.
Deposition of the report with the organisations listed in 4.1.1 above will be taken as placing the information within the public domain.
The HER Officer should be contacted to ensure that any sites or monuments not previously recorded in the HER are given a Primary Record Number

(PRN) and that data structure is compatible with the HER.

6.2 Dissemination

Notes or articles describing the results of the excavation will be submitted for publication in an appropriate local or national journal. A copy of any such works will be sent to Cadw, Snowdonia National Park, the Gwynedd Archaeological Trust Historic Environment Record and the Royal Commission on the Ancient and Historical Monuments of Wales's National Monument Record.

In the event of archaeological findings, a note shall be submitted to *Archaeology in Wales*.

7. Additional Work

Any variation of cost or additional work not detailed within this specification will only be undertaken with explicit prior written instruction from Cadw's Archaeological Recording Framework manager (Jonathan Berry). If AW undertakes works without prior written instruction then they risk not being paid. Unauthorised works within the scheduled area may also constitute a criminal offence under the Ancient Monuments and Archaeological Areas Act 1979. The agreement of the Snowdonia National Park Archaeologist (John Roberts) will also be required for variations.

6 Resources and timetable

Standards

The watching brief will be undertaken by AW staff using current best practice. All work will be undertaken to the standards and guidelines of the IFA.

Monitoring and site meetings

Cadw's Regional Inspector of Ancient Monuments (Ian Halfpenney) and the Snowdonia National Park Archaeologist (John Roberts) will normally review the progress of reports and archive preparation. AW will inform Cadw and the Snowdonia National Park in writing of the proposed start date for the project and any subsequent phases of work.

The project will be monitored on behalf of Cadw by Cadw's Regional Inspector of Ancient Monuments (Ian Halfpenney) and the Snowdonia National Park Archaeologist (John Roberts) with respect to fulfilment of planning conditions.

Cadw will be kept informed of all work on site and will be given reasonable notice of any site meetings. Alternative arrangements must be agreed in writing in the event that a Cadw representative is unable to attend a site meeting.

Staff

The project will be undertaken by suitably qualified AW staff.

Equipment

The project will use existing AW equipment.

Timetable of archaeological works

The watching brief and limited archaeological excavation will commence on Monday 29th of September 2014 and will last approximately 1 week.

Insurance

AW is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act*, 1974, and the Health and Safety Policy Statement of AW. Attention will be paid to the requirements of more recent legislation, including the provision and use of *Work Equipment Regulations* 1992, the *Management of Health and Safety at Work Regulations* 1992 and the *Construction (Design and Management) Regulations* 1994.

A risk assessment will be undertaken by AW, with copies shared with Cadw and other on site contractors. Work on foundations 3 and 4 will take place outside of the building compound; work on foundation 2 will take place within the building compound. AW will liaise with the main contractor regarding health and safety within the building site. The drawbridge pit should be considered as a confined space.

Bibliography

Smith, 2012. Harlech Castle, Harlech , Gwynedd: Archaeological Field Evaluation. AW Report 1080 (September 2012)

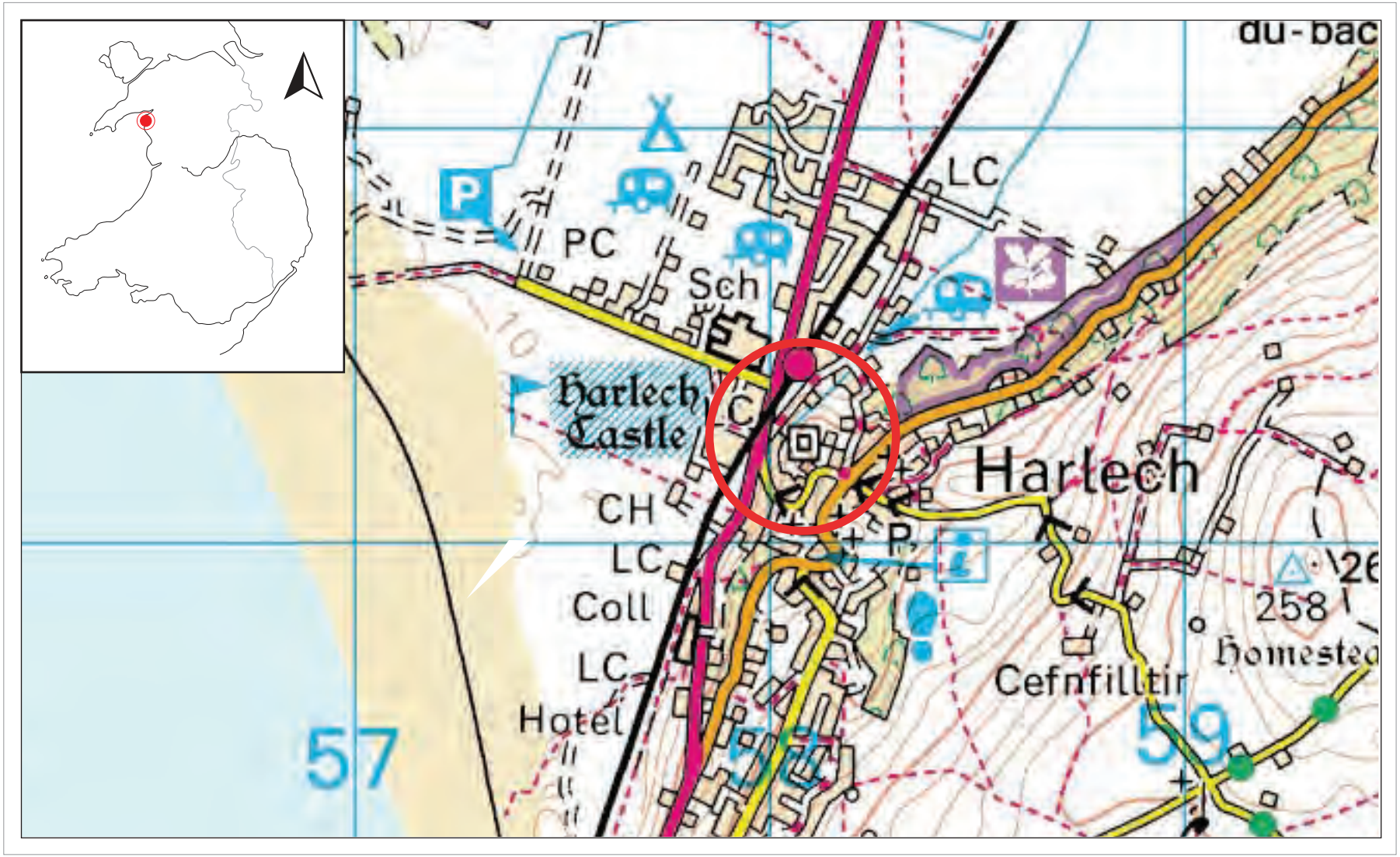

Fig 01: Map showing location of assessment area

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