Archaeological evaluation trenching and watching brief during geotechnical investigations at Tintagel Castle, Cornwall

Cornwall Archaeological Unit

Report No: 2016R060

Report No	Report Name	Report Author
2016R060	Archaeological evaluation and watching brief at Tintagel Castle, Cornwall	Ryan P Smith

Event Type

Evaluation	Watching Brief		

Client Organisation	Client Contact
English Heritage	Reuben Briggs

Monuments (MonUID)

1014793					

Fieldwork dates (From)	(To)	(Created By)	(Create Date)
13/09/16	23/09/16	Ryan Smith	26/09/16

Location (postal address; or general location and parish)

Tintagel Castle, Castle Rd, Tintagel, Cornwall

(Town – for urban sites)	(Postcode)
Tintagel	PL34 OHE

(Easting) X co-ord	(Northing) Y co-ord		
SX 04984	89124		

Cornwall Archaeological Unit, Cornwall Council is a Registered Organisation with the Chartered Institute for Archaeologists

List of Figures

Project background

Cornwall Archaeological Unit (CAU) was commissioned by Mr Reuben Briggs, English Heritage, to carry out an evaluation and watching brief at Tintagel Castle during the drilling of four geotechnical boreholes within the castle grounds as per planning application PA16/05533 agreed 9th August 2016.

A Written Scheme of Investigation, outlining the methodology for archaeological recording was produced (02/08/2016) by Adam Sharpe (Archaeology Projects Officer, Cornwall Archaeological Unit).

This report details the results of the watching brief and evaluation.

Location, setting and site history

Tintagel Castle is located on a rugged section of the north coast of Cornwall and is centred at SX 04940 89102 in the parish of Tintagel (Figure 1), the parish church being located on the clifftops to the south of the Island. The Island extends to approximately 116,000 square metres and ranges in elevation from sea level to 84m OD on the almost level plateau forming the upper part of the Island. The Scheduled Monument also includes the Upper and Lower Wards of the Castle on its landward side.

There is currently very little evidence for pre-Roman occupation on the headland of Tintagel though occurrences of prehistoric flints and Neolithic/Bronze Age cup-marked stones do provide evidence for some activity at this time.

There is some evidence that Tintagel was a relatively important place by the Roman period and it has been suggested that Tintagel was possibly the "Durocornovio" (fort of the Cornovii) of the Ravenna Cosmography (Thomas 1993, 84). During the post-Roman period (from the 5th to early 7th centuries AD) the headland of Tintagel developed into a major fortified citadel, the neck of the headland being separated from the Mainland by the excavation of the "Great Ditch". It is suggested that this may point to the origin of the Cornish place-name 'dyn tagell', as this means the fortress of the constriction or throat (Padel 1988).

The survey of the Island undertaken by the Royal Commission on the Historical Monuments of England RCHM(E) during the 1980s together with excavations undertaken since the 1930s have revealed numerous buildings and structures related to the post-Roman period, most particularly on the Island, though excavation, artefactual and survey evidence from the mainland parts of the site suggest that the early medieval occupation extended onto the landward part of the site.

All suggest that at Tintagel there was a degree of control, organisation and power to trade directly with the Byzantine Empire. The nature of the trade is not known though there is some evidence from other sites that the distribution of tin was an important element (Thomas 1993; Harry and Morris 1997; Barrowman et al 2007).

Subsequently the Island was abandoned (apart from a small chapel built on the peak of the Island c AD 1100) until the present castle was constructed by Richard, Earl of Cornwall during the mid-13th century. Though the more substantial buildings on the Island, along with the garden and the tunnel, date from this period, the ceramic evidence suggests that occupation appears to have been sporadic (it was sometimes used as a state prison in the 14th century), ceasing by the 15th century. In the 16th century, two small gun houses were built on the Island in response to a possible threat from the Spanish (it is uncertain if these were ever completed); the rest of the castle however was by then described as a picturesque ruin (Thomas 1993).

During the 19th and early 20th centuries Tintagel quickly became an increasingly popular and highly romanticised tourist destination, particularly following the coming of the main line railway to Cornwall and the construction of the Railway Hotel at Tintagel. The Reverend Kinsman, taking on the title of the Constable of the Castle, oversaw the

reconstruction of some elements of the monument, and a guide was employed to take visitors around the Castle.

Tintagel Castle is owned by the Duchy of Cornwall, but its management passed into the Guardianship of the State from 1929, being cared for by the Office of Works (and its successors) and it became a Scheduled Ancient Monument in 1981 (Monument No 1014793). Archaeological investigations overseen by C.A. Ralegh Radford during the 1930s were followed by some landscaping, reconstruction and repair works. English Heritage commissioned Glasgow University (GUARD) to undertake research excavations at Site C (an area previously excavated by Radford's pre-war campaigns) and elsewhere from 1990 to 1999 (Barrowman, Batey and Morris 2007). Cornwall Archaeological Unit have undertaken a number of watching briefs during safety, visitor management and other works within the Castle site since the mid-1980s to the present day (see for example Hartgroves and Walker 1986; Appleton, Fox and Waters 1998; Lawson-Jones 1994; Thorpe 2004; Reynolds 2006; Thorpe 2007; 2014). The most recent of these investigations took place in 2016 when research trenching was undertaken by CAU on the eastern and southern flanks of the Island as the first stage of the Tintagel Castle Archaeological Research Project (TCARP) (Nowakowski and Gossip forthcoming).

Aims and objectives

The principal aims of the 2016 evaluation and watching brief were to:

- Carry out evaluative excavation trenching within the Island Ward at the location of a core drilling point and test pit close to the Great Hall. The aim of this evaluation trench was to recover information concerning the archaeological stratigraphy of this part of the Castle site and to recover any artefacts which might be damaged or destroyed during those operations.
- If geotechnical test pits were to be excavated in areas of the site which had not been previously archaeologically investigated (as the result of any redesign of the scheme), to undertake a watching brief during the test pitting programme associated with the drilling schedule to minimise the effects of that activity on the archaeology of Tintagel Castle, to monitor the impacts of that activity, and to recover and record artefacts revealed during the works.
- To identify the potential impacts of subsequent works associated with the construction of the bridge within the areas examined.

The principal objective of the work was to produce a report to English Heritage setting out the findings of the evaluations and watching brief, together with any recommendations deriving from the findings. A secondary objective was to produce an entry to the Historic England OASIS/Ads-Online database of archaeological projects.

Working methods

All recording work was undertaken according to the Chartered Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff followed the CIfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology.* The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Fieldwork: evaluation trenching

The original plan for evaluation trenching was to excavate a 1m x 1m trench within each of the areas designated for the boreholes (Figure 2). These locations were identified by the English Heritage representative and each was to be cleared of paving stones by the stone mason provided by the drilling company.

The area excavated was to be dug by hand and recorded sequentially by context down to either bedrock or the practical limit of the excavation.

Site drawings (plans, sections, locations of finds) were to be made by pencil on drafting film; all plans to be linked to the Ordnance Survey Landline electronic map; all drawings were either 1:10 or 1:20 scale. All contexts were to be sequentially numbered (Appendix 2) and small finds recorded (Appendix 3).

Photographs were taken using a Pentax digital colour SLR and Canon Black and White SLR camera.

Fieldwork: watching brief during drilling and test pitting operations

The Archaeologist was on site for the movement and setup of drilling equipment, but not for all of the drilling activities due to time constraints.

Results

On Thursday 15th September 2016 the drilling equipment was transported onto site by helicopter from a location near Tintagel Church. The landing area within the Lower Ward was cordoned off and the public kept back while aircraft operations were carried out. The drilling equipment and ancillary kit were placed on existing areas of hardstanding adjacent to the outer or seaward edge of the Lower Ward. A security fence was erected and boards placed onto the ground to minimise impacts from heavy equipment or spills of oil or other fluids. (Figures 3 & 5)

The paving stones around the area where test pit 1 at the location of Borehole 1 (BH1) was to be drilled had already been removed by the drilling company's stone mason, prior to the arrival of the archaeologist. Although it was originally intended to excavate an area of 1m x 1m for the test pit, the drilling crew explained that they would prefer the hole to be smaller. It was therefore decided to reduce the test pits to the required size, but enough to allow the archaeologist to excavate them to the maximum possible depth to prevent the archaeology being compromised by subsequent activities. Test pits 1 and 2 were approximately 0.3m x 0.3m in plan as a result.

In the case of test pit 1 for Borehole 1 (BH1) and test pit 2 for Borehole 2 (BH2) it proved possible to hand excavate these to 0.7 - 0.8m depth, this proving to be a short distance above bedrock. It should be noted that prior to removing any paving stones the stone mason numbered and labelled them for ease of reference during their subsequent reinstatement.

Test pit 1 (Borehole 1) (Figures 2 & 9)

Measuring approximately 0.3m in diameter, and 0.7m deep, the surface layer of stones (**101**) comprised dark grey smooth pieces of slate averaging 0.3m long, 0.03m thick and 0.1m wide. The stones were orientated south east to north west along their full extent and were part of the footpath installed in 1988/9. Some of the stones had already been removed prior to the arrival of the archaeologist, and it was requested that several more be removed to allow access for hand excavation. The stones were set into a mixture of cement and a light brown gritty rab (**102**) type material, no more than 0.05m thick; the cement was solid but could be broken up using a bar. Underneath this layer was a black stony material (**103**), the stones being of various sizes and shapes, but mostly sharply angular and unsorted, obviously imported to the site and probably the remnants of an old footpath. This material was very loose and less than 0.1m deep. This in turn was on top of an orange gritty rab (**104**), possibly the base material for the original pathway. This layer was reasonably compact but could be trowelled and was less than 0.05m deep. This was on top of a shillet and soil mix (**105**), the shillet comprising broken and decomposed mudstones, mixed in with a dark brown silty clay. The shillet did not appear in all of the trench sides which suggested that the evaluation trench was partly within a previous excavation within this area, the soil being less mixed with shillet on the seaward (western) side. This context

was about 0.2m deep. This was on top of (**106**) a dark brown silty loam - a very earthy layer - possible the remnants of an original ground surface untouched by later activity. This was 0.1m deep, friable, damp and containing sparse stone inclusions. Beneath this layer was (**107**), consisting of large shillet/mudstones mixed with a dark brown silty loam. The stones were sharp and less than 0.1m in size. This material lay immediately above the bedrock.

Test pit 2 (Borehole 2) (Figures 2, 4 & 9)

This measured approximately 0.3 in diameter and was excavated to 0.8m depth. The upper layer of stones (**201**) comprised dark grey smooth pieces of slate averaging 0.3m long, 0.03m thick, and 0.1m wide. These were orientated south to north west along their full extent and represented the footpath surfacing installed in 1988/9. A section of this paving was removed by the stone mason over an area measuring 0.47m x 0.4m allowing access for the archaeologist to hand excavate the underlying layers. The stones were set into a mixture of cement and a light brown gritty rab (**202**) type material no more than 0.05m thick. Underneath this layer was a black stony layer (**203**) the stones being of various sizes and shapes, mostly sharply angular and unsorted, obviously imported to the site and probably the remnants of an old footpath; this layer was very loose and less than 0.1m deep. This in turn was on top of an orange gritty rab (**204**), possibly the base material for the original pathway. This layer was reasonably compact, but could be trowelled, and was less than 0.05m deep. This overlaid a shillet and soil mix (**205**) 0.15m deep. The shillet comprised broken and decomposed mudstones mixed into a dark brown silty clay. Beneath this deposit was a layer of larger shillet stones; most were in excess of 0.1m in size. The presence of these stones implied that this was the upper layer of natural bedrock. Unfortunately the archaeologist was not able to excavate any deeper, though the core samples confirmed that the bedrock was barely 0.1m below this layer.

Test pit 3 (Borehole 3) (Figures 2, 6, 7 & 9)

Test pit 3 was excavated on 22nd September.

Located on the Island to the west of the Great Hall, test pit 3 was situated 0.95m east-south-east of an information board. The evaluation trench was 0.3m wide and 0.45m long and it was excavated to a maximum depth of 0.32m. The area investigated was not part of the main pathway through this part of the site, but an area of paved hardstanding adjacent to the information panel. The stones making up the hardstanding were an assortment of slate and granite, the stones removed for the excavation of the test pit being of slate. The slate stones (**301**) removed from the area of the excavation were orientated north west to south east and of varying size and length; most averaged 0.1m in width, their thickness varying from 0.03m to 0.05m. The longest stone was 0.4m in length.

Removal of the upper layer of stones revealed them to be embedded in a thick layer of concrete (**302**). This was very grey in colour and sandy in texture, and was different to the equivalent material found in the mainland test pits. Its thickness varied but averaged 0.1m in depth; it was so hard that it required a bolster to break it up. This in turn sat on top of a thin layer of orange netting (**303**) used as reinforcement for the concrete. The netting was set on top of the original ground surface (**305**), a dark brown almost black silty loam, with slate inclusions. This was found across the whole of the area exposed but sloped downwards on its northern side. The soil and slate mix sat on bedrock to the south, the east and in the middle of the test pit. The bedrock (**304**) was dark greyish brown in colour, and was compact, but friable; the rock cleaved off in horizontal layers when excavated. The continuation of (**305**) to the north revealed loose slates. Two were recovered for further examination. (**SF1**) appeared to be notched but this could not be definitively identified; (**SF2**) was a piece of slate which had a smooth surface and incorporated a possible drill hole (see Appendix 2).

Borehole 4 (Figure 2)

No test pit was excavated at this location as solid bedrock was exposed at surface; archaeological investigation was therefore not required.

The helicopter was deployed to move the drilling rig and associated equipment from the mainland to the island on Friday 22nd September; this required several trips. The equipment was primarily laid out on the hardstanding formed by the pathway through the Inner Ward. The area was fenced off using 'Heras' fencing, boards were laid on the grassed area to the west of the path and the large plastic water tanks used during the drilling process were placed on these. Polythene was laid down on the pathway and a bund was formed around the rig to contain any liquid spillages when the rig began drilling (Figure 8). Drilling commenced on the following Monday.

Conclusions

The results from test pits 1 and 2 suggest that these pits clipped two prior areas of modern excavation, the mixture of dark soils and the jumble of shillet material mixed with soil found in test pit 2 strongly hints that this was the case. The depth of the bedrock was found to be around one metre below the modern surface.

The north-western corner of the Lower Ward on the mainland appears to be of relatively low archaeological sensitivity. Bedrock is not far from surface, a large diameter 19th century pipe has been excavated through this area, and the three small areas archaeologically investigated here suggest that the material over bedrock in this particular location consists of soil and stone used to create a levelled area during the mid-13th century and subsequently. No artefacts have been recovered from this material at this location.

On the available evidence the excavation for a bridge abutment in this area is unlikely to impact any significant archaeological deposits. Nevertheless, an archaeological excavation to bedrock is recommended within the area which will be required for the southern bridge abutment, as only keyhole investigations have taken place here.

Test pit 3, located on the Island, revealed the depth of the bedrock at this location to be shallow at 0.16m. However the findings at the northern end of the test pit imply that the bedrock drops down, possibly suggesting the presence of a rock cut feature, perhaps the platform proposed from the results of previous evaluations. The area is adjacent to a surviving building and the presence of a second structure in close proximity would not be unexpected.

Only very limited investigations of the southern end of the Inner Ward have been carried out to date, and whilst the test pit excavated here was very small-scale it seems to have revealed the edge of a previously undocumented cut feature.

The abutment at the northern end of the new bridge will require the excavation of an approximately 5m x 5m area into bedrock immediately adjacent to the former custodian's hut at the head of the current stairs. This area will include the small set of steps whose site was excavated by CEU in 1981. This was, at the time, interpreted as a medieval midden, but on the basis of its artefactual content has now been reinterpreted as the western edge of a post-Roman terrace underlying the site of the Medieval Great Hall. Bedrock is exposed at surface on the western side of the area likely to be affected by the excavations for the abutment.

It is considered probable that the western section of the excavation for the abutment will intersect post-Roman features, and thus this area should be archaeologically excavated down to bedrock in advance of construction activities.

References

Primary Sources

Ordnance Survey, 2007, Mastermap Digital Mapping

Publications

Appleton, N, Fox, T, and Waters, A, 1988. *Tintagel Castle: survey and excavation at the Inner War, the Chapel, Site 4 and the Garden*, Cornwall Archaeological Unit unpublished report

Barrowman, R, Batey, C, and Morris, C, 2007*. Excavations at Tintagel Castle, Cornwall, 1990-1999*, Society of Antiquaries monograph (in particular the work on Trench T01 extension into the Lower ward)

Harry R, and Morris, C. D., 1997. Excavations on the Lower Terrace, Site C, Tintagel Island 1990-94. *The Antiquaries Journal* Vol. **77**.

Hartgroves, S, and Walker, R, 1988. *'Excavations in the Lower Ward, Tintagel Castle, 1986', Cornish Studies* **16,** 1988. Institute of Cornish Studies Special Issue: Tintagel Papers.

Lawson-Jones, A, 1994. *Tintagel Castle: proposed shop extension*, CAU report to English Heritage

Padel, O, 1988. *A Popular Dictionary of Cornish Place-Names*. Alison Hodge

Reynolds, A, 2006. *Repairs to Tintagel Castle 1998/9: archaeological recording,* CAU report

Sharpe, A, 2016. *Tintagel Castle, Cornwall: Written Scheme of Investigation for archaeological evaluation trenching and watching brief during geotechnical investigations,* Cornwall Archaeological Unit*.*

Thomas, A.C, 1993. *Tintagel, Arthur and Archaeology*, London (English Heritage)

Thorpe, C, 2004. *Extreme Archaeology: An excavation at Tintagel Cornwall: archaeological finds report*, Cornwall Archaeological Unit report 2004R0012

Thorpe, C, 2007. *The Iron Gate, Tintagel Castle, Cornwall: fence replacement works, archaeological watching brief*, Historic Environment Service (Projects) report 2007R007

Thorpe, C, 2014. *Tintagel Island trial pits, Tintagel Castle, Cornwall, Scheduled Monument 1014793: archaeological watching brief*, HE Projects report 2014R030

Thorpe, C, 2015. *Tintagel Castle, Lower Ward Kiosk, Cornwall*. Archaeological Watching Brief, CAU report 2015R032 Sharpe, A. 2016. *Archaeological impact assessment of proposed geotechnical investigations at Tintagel Castle, Cornwall*. Cornwall Archaeological Unit

Websites

http://www.bgs.ac.uk/discoveringgeology/geologyofbritain/viewer.html?src=topNav British Geological Survey Geology of Britain Viewer

Project archive

The CAU project number is **146623**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY.

1. A project file containing site records and notes, project correspondence and administration.
2. Black and white photographs archived under the following index numbers: GBP 2389
3. Drawings are archived under the following index number: 863

Electronic data is stored in the following locations:

4. Project admin: \\Sites\Sites T\Tintagel geotechnical investigation
5. Digital photographs: \\Historic Environment (Images)\Sites Q-T\Tintagel Castle Geotechnical drilling 2016
6. Electronic drawings: \\Historic Environment (CAD)\CAD Archive\Sites T\Tintagel Castle geotechnical investigation 2016
7. Historic England/ADS OASIS online reference: cornwall2-264037

Figure 1: Location of site.

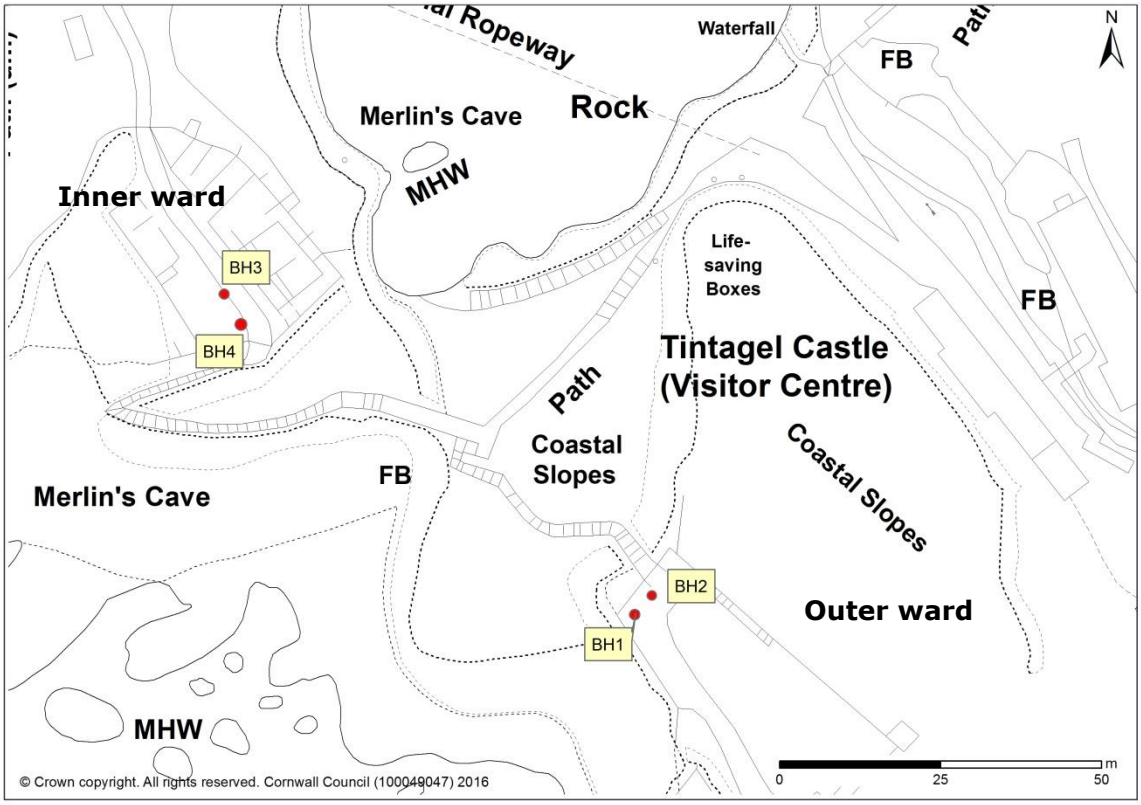


Figure 2: Location of geotechnical boreholes and test pits.

Figure 3: The start of the airlift onto the mainland.

Figure 4: Post excavation Test Pit 2.

Figure 5: Drilling rig in situ borehole 1.

Figure 6: Pre excavation view of Test Pit 3.

Figure 7: Post excavation view of Test Pit 3.

Figure 8: Delivery of equipment onto the island.

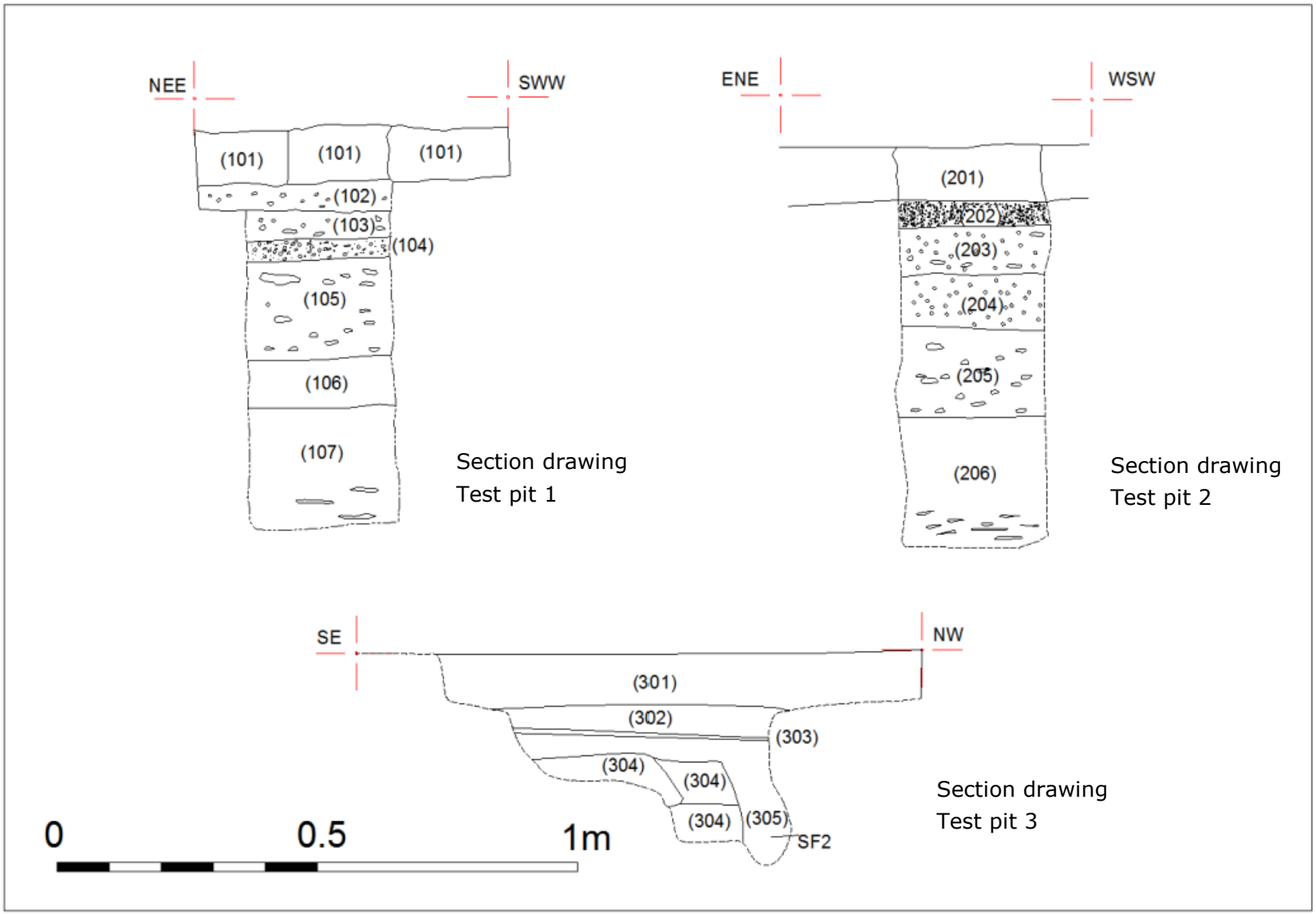


Figure 9: Section drawings of Test pits 1- 3.

Appendix 1: Written Scheme of Investigation for Archaeological Evaluation trenching and Watching Brief during geotechnical investigations.

Cornwall Archaeological Unit
Cornwall Council

[redacted]

Project background

Tintagel Castle, Cornwall is an internationally significant scheduled ancient monument owned by the Duchy of Cornwall and under the guardianship and management of English Heritage. It is one of the county (and nation's) premier visitor attractions with over 200,000 visitors a year.

In response to the progressive degradation of the bedrock forming the narrow isthmus which links the Mainland and Island sections of Tintagel Castle, the difficulties experienced by some visitors in navigating the steep, rock-cut steps which form the only access between these parts of the site, and the absolute barrier which the current access arrangements present to visitors who experience difficulties with mobility wishing to visit Tintagel Island, English Heritage has proposed the construction of a high level pedestrian bridge to link the mainland and island.

The plans for this feature are now firming up and in order to progress the design a programme of geotechnical investigation is required on the island and on the mainland to determine the structural characteristics of the bedrock at the proposed bridge anchoring points. The geotechnical investigations will comprise the drilling of two 15m depth, 150mm diameter boreholes within the Lower Ward and two within the Island Ward. These will be on the line of the bridge and set back 5m and 15m from its landing points in both wards; a mobile drilling rig will be used for the work. Hand dug geotechnical test pits will be excavated at three of the drilling points to physically inspect the nature of the bedrock (the fourth, on the island, will be drilled at a location where bedrock is exposed at surface). The two test pits in the mainland Lower Ward are at locations which have already been archaeologically investigated (MacAvoy 1983, at the site of the bench near the steps; Hartgroves and Walker 1988, Trench A).

Drilling activities within both wards of the castle may intersect and damage intact archaeological deposits and artefacts dating from the post-Roman to the Medieval periods. Cornwall Archaeological Unit, Cornwall Council, has been requested by English Heritage to provide a written scheme of investigation for evaluation trenching and for an archaeological watching brief during the geotechnical investigation works at the four locations near the landing points for the new bridge. The aim of the archaeological recording proposals covered by this WSI is to minimise any information loss, as well as assist in indicating the likely impacts on the archaeology of Tintagel Castle during the bridge construction works.

The archaeological programme will comprise the excavation of one archaeological evaluation trench of a minimum of 1m square plan in the Island Ward and a watching brief during the excavation of two test pits at the drilling locations in the Lower Ward

(on the mainland). All elements of the work will be appropriately recorded and reported on.

Site history

There is currently no evidence for pre-Roman occupation on the headland of Tintagel though occurrences of worked flints and Neolithic/Bronze Age cup-marked stones on coastal outcrops on the island provide evidence for some activity during prehistory.

There is evidence that Tintagel had become a relatively important place by the Roman period. Within the neighbourhood there are two inscribed Roman milestones that suggest a route passing near to Tintagel while Roman coins and pottery (Oxford Colour-Coated Wares and native flanged bowls) have been found on the island, suggesting a date *c* AD 300 – 400. Radiocarbon dates obtained from the re-excavation of structures on the Lower Terrace, Site C gave a range *c* AD 395-460 (Harry and Morris 1997; Barrowman *et al* 2007). It has been suggested that Tintagel might have been the *Durocornovio* (fort of the Cornovii) mentioned in the *Ravenna Cosmography* (Thomas 1993, 84).

During the post-Roman period (from the 5th to early 7th centuries) the headland at Tintagel developed into a major fortified citadel. The 'Great Ditch' excavated during this period may be the origin of the Cornish place-name '*dyn tagell*' - the fortress of the constriction (Padel 1988).

Excavations since the 1950s (including those currently underway during the Summer of 2016) have revealed numerous buildings and structures which are apparently related to this period, the settlement apparently covering almost every available level part of the headland, including on artificial terraces cut into the slopes above the precipitous sea cliffs that surround almost all of the site.

Very large quantities of imported pottery (both fine table wares and coarsewares) originating from North Africa and the eastern Mediterranean have been found during previous excavations on the island, together with exotic glass. These suggest that at Tintagel there was a degree of control, organisation and power to trade directly with the Byzantine Empire. The nature of the trade is not known though there is some evidence from other sites that tin may well have been an important element (Thomas 1993; Harry and Morris 1997; Barrowman *et al* 2007).

Subsequently the island was abandoned (apart from the building of a small chapel on the peak of the island *c* 1100) until a new castle (probably more of a showpiece than a defensive work) was constructed there by Richard, Earl of Cornwall in the mid-13th century.

Though the more substantial buildings on the island along with the garden and the tunnel date from this period, the ceramic evidence suggests that their occupation was sporadic (the site was occasionally used as a state prison during the 14th century) and had ceased by the 15th century. In the 16th century, two small gun houses were proposed on the island in response to a possible threat from the Spanish; the rest of the castle however was by then described as a picturesque ruin (Thomas 1993).

During the 19th and early 20th centuries Tintagel quickly became an increasingly popular and highly romanticised tourist destination, particularly following the coming of the main line railway to Cornwall and the construction of the Railway Hotel at Tintagel. The Reverend Kinsman, taking on the title of the Constable of the Castle, oversaw the reconstruction of some elements of the monument, and a guide was employed to take visitors around the Castle, which was increasingly identified as the birthplace of King Arthur.

There was also an attempt to mine lodes of lead and silver beneath the island, whilst the haven was developed as a harbour for servicing the surrounding slate quarrying industries.

Tintagel Castle was taken into Guardianship in the 1930s, and this was followed by archaeological investigations overseen by C.A. Ralegh Radford. He concluded that the post-Roman sites on the island were part of a 'Celtic' monastery, and the landscaping,

reconstruction and repair works undertaken at the time reflected this interpretation. Between 1990 and 1999, English Heritage commissioned Glasgow University (GUARD) to undertake research excavations at Site C (an area previously excavated during Radford's pre-war campaigns) and elsewhere in order to test this theory.

Radford's interpretation of the character of the post-Roman remains at Tintagel had been challenged by Burrow in the 1970s. In the 1980s Professor Charles Thomas undertook a re-evaluation of the extraordinary unpublished finds assemblages from the site and it quickly became apparent that Tintagel had been involved in trade networks extending to Europe's southern Atlantic seaboard as well as to North Africa and to the central and eastern Mediterranean. Most early medieval specialists now favour the site's current interpretation as a high status trading citadel (cf Thomas 1993, 74; Hodges 2006; Barrowman et al 2007).

Cornwall Archaeological Unit has undertaken a number of watching briefs during safety, visitor management and other works within the Castle site since the mid-1980s to the present day, and is currently undertaking the first season of an excavation–based research programme based on selected earthworks on the eastern and southern cliff-slopes to determine the period when the structures mapped by RCHM(E) in the mid-1980s were constructed and occupied, as well as their original forms and uses.

Previous archaeological work

That most relevant to the current proposals includes:

- The 1918 cliff fall. This occurred on the cliff edge below the Inner Ward of the castle on the Island (SX 05088 89042). Some 40+ artefacts were collected from the beach (all of post-Roman date and consisting of all classes of imported wares together with animal bone). This suggested the existence of post-Roman occupation on levels lying below the current castle site. This material was examined and described in 1988 (Thomas and Thorpe 1988).
- Radford's excavations 1933–1939. His excavations revealed numerous structures on both the mainland and island and he was the first to identify them as belonging to the post-Roman period, though interpreted them as elements of a Celtic monastery. The site most relevant to the current proposal is his Site Z (two small holes dug just outside the northern side of the curtain wall belonging to the Inner Ward on the island) that produced 100+ post-Roman artefacts (Ralegh Radford 1939). The material was catalogued and described in 1988 (Thomas and Thorpe 1988).
- Central Excavation Unit 1981-85. The Central Excavation Unit undertook minor excavations on the site, excavating a small trench near the south- west corner of the Great Hall in the Inner Ward in 1981, revealing the location of the upper edge of a major artificial terrace beneath the medieval Great Hall (Thomas 1988b).
- RCHME survey 1985. As a result of extensive cliff fires on Tintagel Island in 1983, a survey of the whole island was undertaken by the RCHME. This identified numerous buildings and artificial terraces with possible structures covering much of the upper level part area of the Island, with numerous others cut into its eastern and southern cliffslopes. It strongly hinted at a core high status area in the Island Ward beneath the medieval Great Hall comprising at least two large terraces; further terracing has been recorded in the vicinity of the Iron Gate (Thomas 1993).
- Inner Ward, Soakaway Pit excavation. 1988. This was undertaken for CAU by Nick Appleton-Fox. The pit within the area of the Great Hall was dug to provide drainage for the main pathway through the castle. The trench reached a depth of *c*3m, encountering an old land surface and walling at its base that was dated by artefacts (50+) to the post-Roman period (Thomas and Thorpe 1988). This was interpreted as an extension of Site Z dug by Ralegh Radford outside the

curtain wall, confirming that at least one major artificial terrace lay beneath the current castle (Thomas 1988).

- Extreme Archaeology 2003. Small scale excavations were carried out on Tintagel Island in September 2003 for Mentorn Productions. The work that has direct relevance to the current project was the excavation of Trench 1 (NGR SX 05080 89044) situated across the scar of a cliff fall that had occurred in 1918 (see above). A structure and artificial terrace (the lowest terrace of three) were revealed below the Great Hall. All the artefacts recovered from this location dated from the 5th or 6th centuries AD (Thorpe 2004).
- A watching brief during the excavation of trial trenches for abseil anchor points was undertaken in and around the Inner Ward during February 2014. This again appeared to show evidence for Period II occupation above an artificial rock-cut terrace, the artefacts found here including Post-Roman imported pottery and coarsewares.
- HE Projects watching brief along the path to the Iron Gate 2006 carried out on the east side of Tintagel Island when work was undertaken to replace a line of fencing between the Iron Gate and the Inner Ward of the castle. Seven artificial terraces cut into the hillside were identified along the line of the pathway, of which three were previously unknown. Evidence for structures of probable post-Roman date built on the terraces was noted on two of the terraces and 42 sherds of post-Roman imported Mediterranean pottery were recovered. An original route between the Iron Gate and the southern end of the Island discovered during this work appeared likely to be of pre-medieval date (Thorpe 2007).
- HE Projects watching brief in advance of works adjacent to the Inner Ward information hut 2007 carried out during ground lowering activities in front of the information hut on the east side of Tintagel Island. A further three artificial terraces cut into the hillside were identified, the information hut being sited on the largest, the others being on the hill slope above it. The form of the building evidence recorded on the lowest terrace was consistent with a post-Roman date and similar in form to that extant at Sites F, B and C. Sixty-seven sherds of post-Roman imported Mediterranean pottery were recovered from this site (Thorpe 2008).
- A small scale watching brief was undertaken by MacEvoy during works to install a bench at the head of the steps in the mainland Lower Ward. No archaeological features were observed; bedrock was found at a depth of approximately 0.35m from surface.
- Small-scale excavations in the landward Lower Ward undertaken by Cornwall Archaeological Unit in 1986 (Cornish Studies **16**). These indicated that this element of the Castle had been constructed by enclosing the promontory with a substantial wall set in a large foundation trench. This in part overlaid a terrace which demonstrated intensive post-Roman occupation activity. A clay oven of Roman type was revealed external to the wall, as well as further hearths, organic and artefactual material of 6th century date and evidence for stake-built, apparently contemporary structures.
- Chance artefact finds. More than 50 artefacts of imported pottery, bone and metalwork, all dating from the post-Roman period, have been recovered by visitors from along the length of the path from the Island Ward to the Iron Gate, while over 30 have come from the path in front of the information hut (Thomas and Thorpe 1988, updated 1990).

Aims and objectives

The principal aims of the evaluation and watching brief will be:

- To carry out evaluative excavation trenching within the Island Ward at the location of a drill location and test pit close to the Great Hall; the aim of this evaluation trench is to recover information concerning the archaeological stratigraphy of this part of the Castle site and to recover any artefacts which would be damaged or destroyed by those operations.
- If geotechnical test pits are to be excavated in areas of the site which have not been previously archaeologically investigated (as the result of any redesign of the scheme), to undertake a watching brief during the test pitting programme associated with the drilling schedule to minimise the effects of that activity on the archaeology of Tintagel Castle, to monitor the impacts of that activity, and to recover and record artefacts revealed during the works.
- To identify the potential impacts of subsequent works associated with the construction of the bridge within the areas examined.

The principal objective of the work will be to produce a report to English Heritage setting out the findings of the evaluations and watching brief, together with any recommendations deriving from the findings.

Working methods

All recording work will be undertaken according to the Chartered Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff will follow the CIfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology.* The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Desk-based assessment

The works on site will be informed by the results of a desk top assessment undertaken by Historic Environment Projects in 2014 (Sharpe 2014) and an impact assessment undertaken by CAU in 2016 (Sharpe 2016).

Fieldwork: evaluation trenching

One 1m x 1m plan trench will be excavated within the Island Ward centred on the location agreed with English Heritage, the site engineers and Historic England for the northernmost of their 15m depth boreholes. The material to be excavated will be hand-removed and recorded sequentially by context down to bedrock. Any artefacts so revealed will be recorded and recovered by context. Plans and sections at appropriate scales will be produced.

The area to be trenched will be surveyed in from fixed points and marked up on a metrically-accurate survey of this area of the castle. The trench will be secured from public access throughout the works, and will be backfilled on completion of the works.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements of the work shall be reviewed by the client and the SDOHE. In the event that remains cannot be preserved *in situ* and are likely to be damaged by the drilling operations then full-scale excavation may be required.

Fieldwork: watching brief during drilling and test pitting operations

A CAU Archaeologist will be present on site during work during the mobilisation of the drilling equipment to advise on the archaeological sensitivity of any areas of the site within which it is proposed to store or operate plant and equipment, to store or decant fuels or fluids or to dispose of arisings, waste materials, etc. or to establish site huts, welfare or other facilities. The archaeologist will also oversee the installation of any barriers intended to protect archaeological features within and adjacent to the work areas, whether above or below ground.

The archaeologist will monitor the test pitting associated with the drilling works for opportunities to record archaeological features and to recover any artefactual material

unless these pits are wholly within areas known to have been previously archaeologically investigated.

Recording: general

Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.

- All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- The archive photographic record will consist of prints in both black and white and colour together with the negatives or digital files in approved archive format. Digital photography will also be used for report illustration. For both general and specific photographs, a photographic scale shall be included unless H&S factors dictate otherwise. In the case of detailed photographs it may be appropriate to include a north arrow. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

The photo record will comprise:

- general views
- examples of significant detail

Methodology for the archive standard photography will be as follows:

- Photographs of details will be taken with lenses of appropriate focal length
- A tripod will be used to take advantage of natural light and slower exposures
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash
- A metric scale will be included in all views, except where health and safety considerations make this impractical
- Drawings and photographs will be recorded in a register giving details of feature number and location.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc.) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice will be sought from Vanessa Straker (Regional Advisor for Archaeological Science).

Treatment of finds

The archaeological fieldwork may produce artefactual material.

All finds in significant stratified contexts predating 1800 AD (e.g. settlement features) will be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.

All finds will be collected in sealable plastic bags which will be labelled immediately with the context number and other relevant identifiers.

Human remains

Any human remains which are encountered will initially be left *in situ* and reported to the Senior Development Officer (Archaeology) and the appropriate authorities (Public Health and the Coroner), where appropriate. If removal is necessary this will comply with the relevant Government regulations. If burials are encountered their legal status

must be ascertained and recording and/or removal will comply with legal guidelines. If human remains are not to be removed their physical security will be ensured by back filling as soon as possible after recording. If human remains are to be removed this will be done with due reverence and in accordance to current best practice and legal requirements. The site will be adequately screened from public view. If excavated, human remains will not be exposed to public view.

Archiving

Following review with the CAU Project Manager the results from the fieldwork will be collated as an archive in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006 upon completion of the project.

This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records.

All finds, etc. will be stored in a proper manner (being clearly labelled and marked and stored according to CAU guidelines). All finds work will be to accepted professional standards and will adhere to the Institute for Archaeologists Guidelines for Finds Work.

All records (context sheets, photographs, etc.) will be ordered, catalogued and stored in an appropriate manner (according to CAU guidelines).

The site archive and finds will initially be stored at CAU premises. The archive including a copy of the written report shall be deposited with the Royal Cornwall Museum within two months of the completion of the full report unless the artefacts and/or archive are to be returned to the client. The RCM will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.

The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the client and the archaeological contractor, Cornwall Council Historic Environment Service and the Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format. This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation. A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon, to the Courtney Library of the Royal Cornwall Museum and to the Cornish Studies Library.

In the event that there are no finds or they are retained by the owner, the documentary archive in due course will be deposited with the Cornwall Record Office, but in the medium term will be stored at ReStore. All digital records will be filed on the Cornwall Council network.

Archive report

The results of the various elements of the fieldwork will be presented in a concise report. Copies of the report will be distributed to the Client, the Cornwall and Scilly Historic Environment Record and the local and national archaeological record libraries (to a timetable to be determined by the client). A PDF copy of the report will be produced.

This will involve:

- Production of descriptive texts
- Production of maps
- Selecting photographs taken during the fieldwork phases
- Report editing
- Revisions to first draft after comment
- Dissemination of the finished report

The report will have the following contents:

- Summary — Concise non-technical summary;
- Introduction — Background, objectives, aims and methods;
- Results — Detailed accounts of the results of the evaluation trenching and watching briefs;
- Recommendations — Where appropriate.
- Sources — List of sources and references;
- Acknowledgements — All individuals, bodies and organisations consulted during the study;
- Archive — A brief summary and index to the project archive;
- Appendix — A copy of the WSI
- Illustrations — General location plan;
  Detailed plans to locate the trench sites on a metrically accurate site survey;
  Trench plans and sections (as relevant);
  Relevant photographs;

An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record will be made. Production of this may be held back until permission for this is given by the client given the sensitivity of the proposals.

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

The archiving will comprise the following:

1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
2. A2 drawn archive storage (plastic wallets for the annotated record drawings).
3. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
4. Digital data will be stored on the Cornwall Council network which is regularly and frequently backed up.

CAU uses the following file formats for stored digital data:

DOCX Word processed documents

XLSX Spreadsheets

PDF Exports of completed documents/reports/graphics

JPG Site graphics and scanned information

DNG or TIF Digital photographs

DWG AutoCAD drawings, measured surveys

MXD ArcView GIS (electronic mapping) data

AI Adobe Illustrator graphics

Timetable

The study is anticipated to be commenced during the late Summer of 2016. CAU will require adequate notice before commencement of work, in order to allocate field staff and arrange other logistics.

The archive report will be completed within 3 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the Senior Development Officer (Historic Environment). Where the SDOHE is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected.

1. The SDOHE will monitor the work and should be kept regularly informed of progress.
2. Notification of the start of work shall be given preferably in writing to the SDOHE at least one week in advance of its commencement.
3. Any variations to the WSI will be agreed with the SDOHE, in writing, prior to them being carried out.
4. If significant detail is discovered, all works must cease and a meeting convened with the client and the SDOHE to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

Cornwall Archaeological Unit

Cornwall Archaeological Unit is part of Cornwall Council. CAU employs 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

CAU is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards

CAU is a Registered Organisation with the Chartered Institute for Archaeologists and follows their Standards and Code of Conduct.

http://www.archaeologists.net/codes/ifa

Terms and conditions

Contract

CAU is part of Cornwall Council. If accepted, the contract for this work will be between English Heritage and Cornwall Council.

The views and recommendations expressed will be those of CAU and will be presented in good faith on the basis of professional judgement and on information currently available.

Project staff

The project will be managed by a nominated Archaeology Projects Officer who will:

- Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.
- Monitor progress and results for each stage.
- Edit the project report.
- Liaise with the client regarding the budget and related issues.

Work will be carried out by CAU field staff, with assistance from qualified specialists and sub-contractors where appropriate. The project team is expected to include:

Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client on CD or other suitable media.

Copyright

Copyright of all material gathered as a result of the project will be reserved to Cornwall Archaeological Unit, Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

CAU will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received CAU may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

CAU follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out on-site work CAU will carry out a Risk Assessment.

Insurance

CAU is covered by Cornwall Council's Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £10m.

References relating to previous interventions at Tintagel Castle

Primary material

Ordnance Survey, c1880. 25 Inch Map First Edition (licensed digital copy at CAU)

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at CAU)

Ordnance Survey, 2007. Mastermap Digital Mapping

Tithe Map and Apportionment, c1840. Parish of Tintagel (licensed digital copy at CRO)

Material from Professor Charles Thomas' archive

Material from Carl Thorpe's archive

Postcards, guidebooks and other printed ephemera relating to Tintagel Castle

The catalogue of all finds discovered on the Island since Ralegh Radford's 1930s excavations to 1991 produced by Professor Charles Thomas and Carl Thorpe

The Royal Commission survey of the Island undertaken during the 1980s

Material produced by Ralegh Radford and Wright during the 1930s excavations at Tintagel, in particular that relating to Site Z.

Sir Richard Grenville, 1583, Plan of Tintagel (from his survey), British Library, Cotton MS Augustus I.ii fol 43

Reports

Appleton, N., Fox, T., and Waters, A. 1988, *Tintagel Castle: survey and excavation at the Inner Ward, the Chapel, Site 4 and the Garden*, Cornwall Archaeological Unit unpublished report

Barrowman, R., Batey, C, and Morris, C. 2007, *Excavations at Tintagel Castle, Cornwall, 1990-1999*, Society of Antiquaries monograph (in particular the work on Trench T01 extension into the Lower Ward)

Batey, C., Sharpe, A. and Thorpe, C. 1993, 'Tintagel Castle: archaeological investigation of the Steps area 1989 and 1990', *Cornish Archaeology* **32**, 47-66.

Carew, R. 1602, *Survey of Cornwall*, Google Books facsimile edition

Hartgroves, S. and Walker, R., 1988, 'Excavations in the Lower Ward, Tintagel Castle, 1986', *Cornish Studies* **16**, 1988. Institute of Cornish Studies Special Issue: Tintagel Papers.

Leland, J. 1535-45, *The Itinerary of John Leland In or About the Years 1535-45,* 5 volumes, London 1906-10

McAvoy, F.M. 1984, 'Tintagel Castle', *Cornish Studies* **23** 184

Ramboll UK 2013, *Tintagel Castle Bridge options appraisal: Stage 1 report – March 2013*

Ramboll UK 2013, *Tintagel Castle bridge geotechnical evaluation: desk study and site visit report*

Reynolds A. 2006, *Repairs to Tintagel Castle 1998/9: archaeological recording*

Thomas, C. 1988, 'CAU Excavations at Tintagel Island, 1988: The Discoveries and their Implications', *Cornish Studies* **16**, 1988. Institute of Cornish Studies Special Issue: Tintagel Papers.

Thomas, A. C. 1993. *Tintagel, Arthur and Archaeology*, London (English Heritage)

Thorpe, C. 2004, *Extreme Archaeology: an excavation at Tintagel, Cornwall: archaeological* finds report, Cornwall Archaeological Unit report 2004R012

Thorpe, C., 2013, 'Tintagel Castle: recent work', draft of article for *Cornish Archaeology*

Thorpe C. 2007, *The Iron Gate, Tintagel Castle, Cornwall: fence replacement works, archaeological watching brief*, Historic Environment Service (Projects) report 2007R007

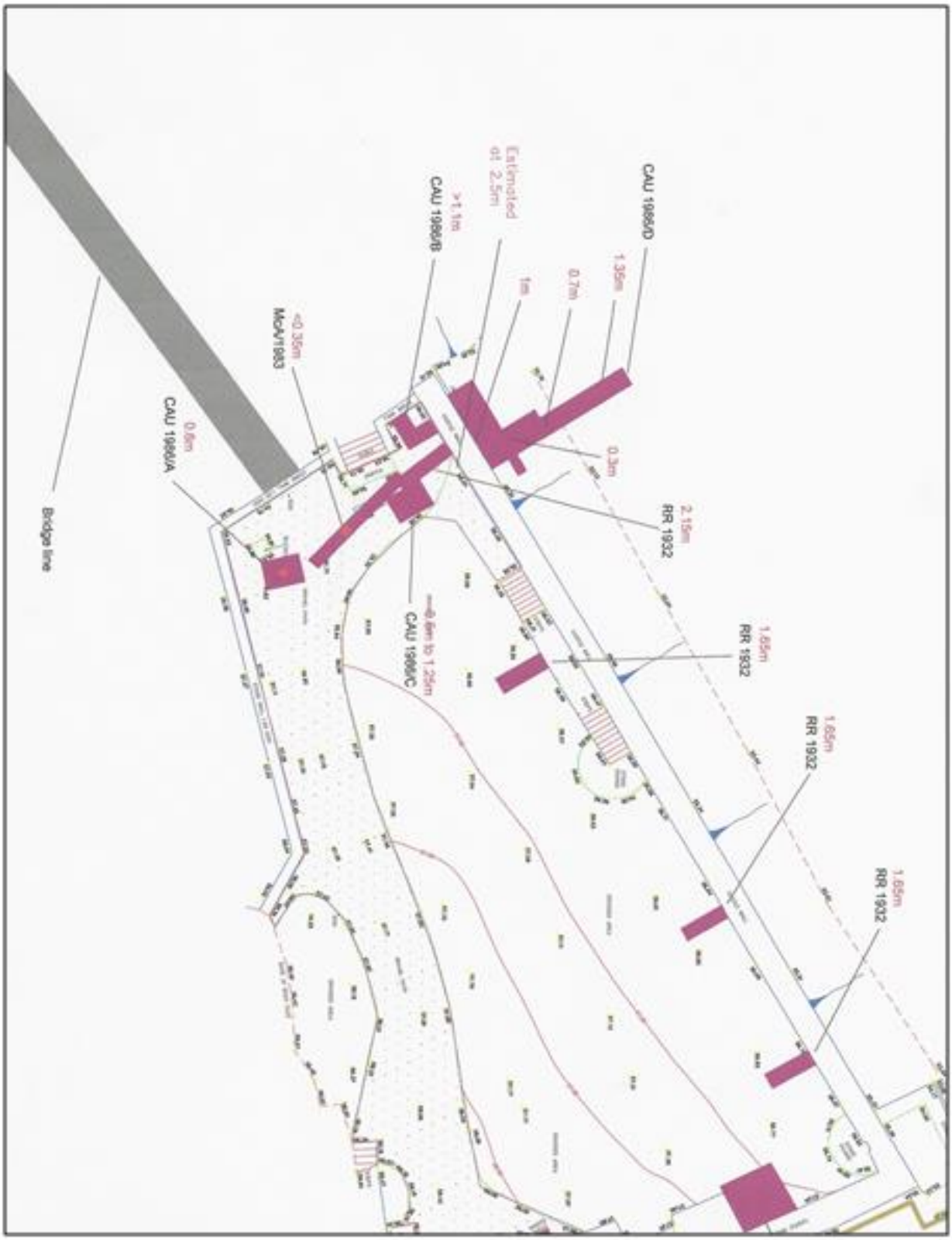
Thorpe, C. 2008, *The Information Hut, Tintagel Castle, Cornwall, paving works: archaeological watching brief*, Historic Environment Service (Projects) report 2008R012

Thorpe, C., 2014, *Tintagel Island trial pits, Tintagel Castle, Cornwall, Scheduled Monument 1014793: archaeological watching brief,* HE Projects report 2014R030

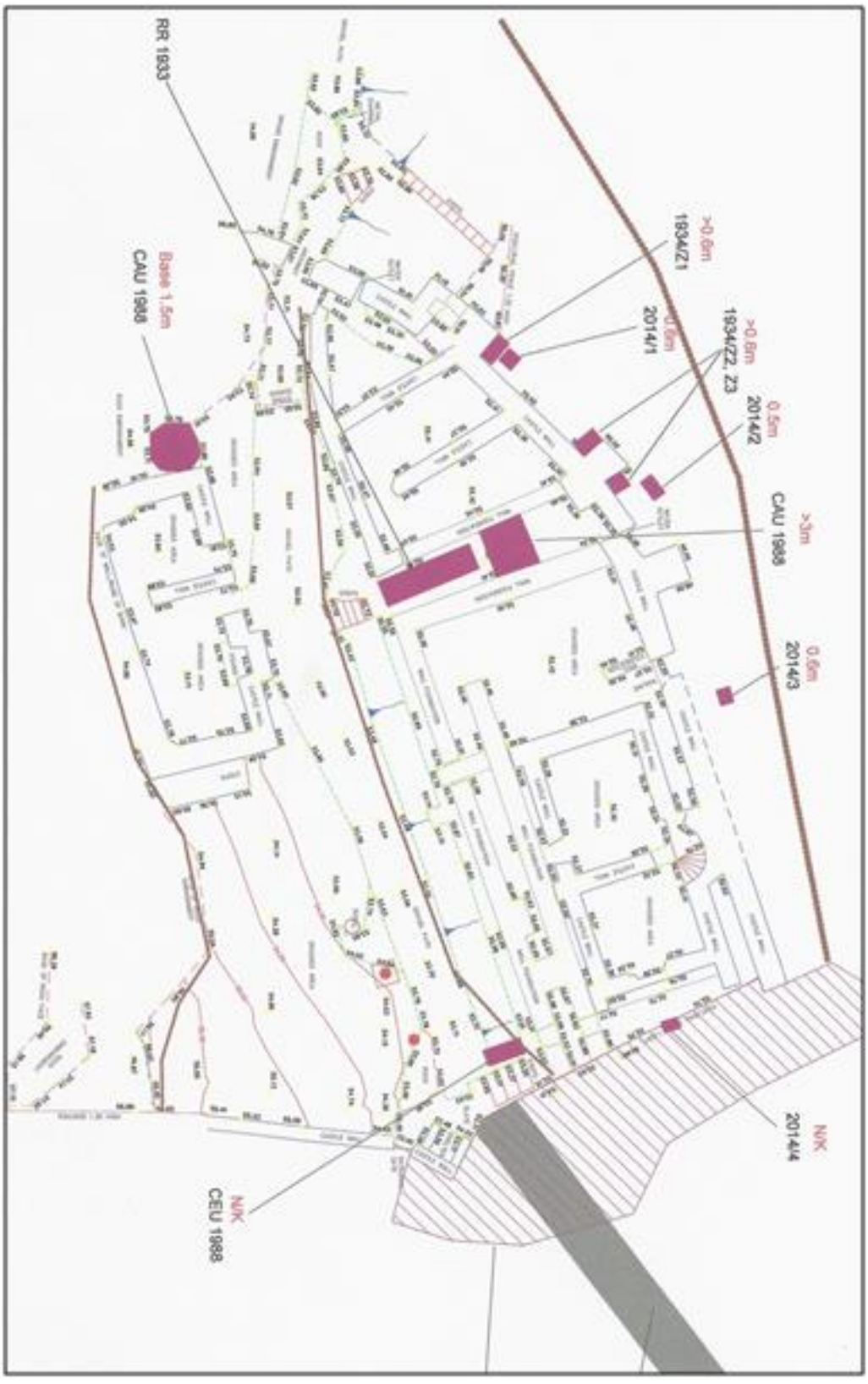
This WSI has been drawn up by:

[redacted]

Project Design for archaeological evaluation trenching, small-scale excavations and watching briefs during drilling works at Tintagel Castle 2016 AS 02/08/2016



The northern section of Tintagel Castle's mainland Lower Ward showing the locations of previous archaeological interventions (magenta) and proposed drilling locations (red dots).



The southern section of Tintagel Castle's island Inner Ward showing the locations of previous archaeological interventions (magenta) and the proposed drilling locations (red dots).

Appendix 2: Context numbers

Context Number	Test pit/ Borehole	Description
(101)	1	Layer of dark grey slate stones averaging 0.3m long, 0.1m wide and 0.03m thick. Stones orientated south east to north west, top layer of hardstanding pedestrian pathway. Embedded in (102).
(102)	1	A light orangey brown, compact cement with a mixture of rab type material, no more than 0.05m thick, very solid but could be broken up using a metal bar.
(103)	1	Black stony layer, loose gravels, varying sizes, unsorted, irregular in shape, very angular, <0.03m in size, deposit <0.1m deep.
(104)	1	Orangey gritty rab, <0.05m deep, possibly the base layer for (103). Reasonably compact but could be trowelled.
(105)	1	A dark brown silty loam with heavy shillet (mudstone inclusions), soft to excavate in places, 0.2m deep, the shillet was friable, possibly a redeposit from a previous excavation.
(106)	1	A dark brown silty loam, damp, soft to trowel, friable, possible remnants of old ground surface untouched by later works, 0.1m deep, sparse stone inclusions.
(107)	1	Large shillet stones, with some dark brown silty loam, appears to be the interface between the bedrock and the upper soils. The larger stones were at least 0.1m in size, semi irregular in shape, fragile.
(201)	2	Layer of dark grey slate stones averaging 0.3m long, 0.1m wide and 0.03m thick. Stones orientated south east to north west, top layer of hardstanding pedestrian pathway. Embedded in (202).
(202)	2	Mixture of cement and a light brown gritty rab, no more than 0.05m deep, compact but easily broken up by a metal bar.
(203)	2	Black stony layer, loose gravels, varying sizes, unsorted, irregular in shape, very angular, <0.03m in size, deposit <0.1m deep.
(204)	2	Orangey gritty rab, <0.05m deep, possibly the base layer for (103). Reasonably compact but could be trowelled.
(205)	2	Large shillet stones, with some dark brown silty loam, appears to be the interface between the bedrock and the upper soils. The larger stones were at least 0.1m in size, semi irregular in shape, fragile.
(301)	3	Layer of slate stones orientated north west to south east, varying in sizes and lengths, appeared to average 0.1m width, thickness varied 0.03m to 0.05m. The area was not part of the main pathway on the island and comprised a variety of stones from different geology.
(302)	3	Cement, grey and sandy in texture, reasonably solid breakable using a bolster. Varied in depth reaching 0.1m,

		but this was cement that had risen amongst (301). Sat on an orange netting (303).
(303)	3	Orange netting, appears to have been of wrapped nylon strands, leaving square holes for the cement to form in and around. Utilised as a reinforcing material. Appeared to be sitting on the original ground surface.
(304)	3	Bedrock. Slate bedrock dark and light grey in colour, fractured horizontally. Appeared to stop prior to reaching the north end of the excavated hole.
(305)	3	Dark brown almost black silty loam with slate inclusions, covering (304), but continued down in the north end of the excavation. SF2 was recovered from the lower part of the excavation from this material.

Appendix 3: Small Finds

Small find number	Context	Description
SF1	(305)	Dark grey piece of slate, different type of slate to SF2, 12.0cm long, 8.78cm wide, 1.16cm thick, exhibiting a possible notch.
SF2	(305)	Light grey piece of slate, smoothed faces, 10.7cm long, 4.23cm wide, 1.42cm thick, exhibiting a possible drill mark.

Cornwall Archaeological Unit

Fal Building, County Hall, Treyew Road, Truro, Cornwall,
TR1 3AY

(01872) 323603
enquiries@cau.org.uk
www.cau.org.uk