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Porthloo Boat Park Improvement Scheme St Mary's, Isles of Scilly

Archaeological recording

Cornwall Archaeological Unit

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Report author(s)	**Charles Johns, Sean R Taylor, Ralph Fyfe and Mara Perez**
Checked by	**Andy Jones**
Approved by	**Dan Ratcliffe**

Cornwall Archaeological Unit
Cornwall Council
Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY
Tel: (01872) 323603
Email: cau@cornwall.gov.uk Web: www.cornwall.gov.uk/archaeology

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Ned Rogers excavated the test pits in 2012. Steve Inman (Keynvor Morlift Ltd) and the local contractors, are thanked for their help with opening the section for sampling, assistance with sampling, and delivering samples back to the mainland.

Vanessa Straker, the English Heritage Science Adviser, provided advice on the sampling strategy.

The Project Manager was Charles Johns, who also carried out the initial site evaluation with Sean Taylor. Palaeoecological sampling was carried out by Ralph Fyfe and palaeoecological sampling and analyses were carried out by Ralph Fyfe and Marta Perez, School of Geography, Earth and Environmental Sciences, Plymouth University

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

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Cover illustration

Sampling peat deposits at Porthloo, March 2014

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Abbreviations

CAU Cornwall Archaeological Unit
EH English Heritage
HER Cornwall and the Isles of Scilly Historic Environment Record
KML Keynvor Morlift Ltd
MCO Monument number in Cornwall HER
NGR National Grid Reference
OD Ordnance Datum – height above mean sea level at Newlyn
OS Ordnance Survey

1 Summary

In October 2012 Cornwall Archaeological Unit were commissioned by the Duchy of Cornwall to a carry out an archaeological investigation of the area of the Boat Park Improvement Scheme at Porthloo, St Mary's, Isles of Scilly (NGR SV 9086 1122) in order to satisfy a planning condition.

Two test pits were excavated in October 2013 to evaluate the archaeological potential of the site. Test pit 1 was located on the beach adjacent to the existing slipway and test pit 2 was excavated behind the dune on the site of the boat park. Test pit 2 revealed layers of blown sand more than 2m deep. Any buried archaeological remains would be protected by sand of this depth and not affected by the development. Therefore no further archaeological work was carried out in this area.

Test pit 1 contained a 2.1m deep sequence of peat deposits — layers of minerogenic sediments containing organic material which can provide valuable evidence about the early environment of the islands and ancient sea level rise. In March 2003 samples of the peat were recovered in contiguous monolith tins. Twenty-one pollen samples were counted; the pollen diagram records a transition from high levels of woodland at the base of the sequence to an open, grass-dominated landscape which appears to have been mainly pastoral. The presence of a former shallow lake or lagoon in this part of St Mary's, as suggested by other sources, is further confirmed by the aquatic types recovered in much of the sequence.

Nine radiocarbon dates were obtained from plant macrofossils extracted from the peat samples. The age-depth model, calculated from these determinations, indicates that the peat began to develop at the Porthloo at around 1490 cal BC, a date which marks the transition between the Early Bronze Age (c 2500–1500BC) and the Middle/Late Bronze Age (*c* 1500–800 BC). A major drop in tree pollen (particularly hazel), indicates near complete clearance of woodland or scrub by *c* 1060 cal BC.

The radiocarbon determinations also give an indication of dates in the past when there has been significant blown sand deposition. The lower of the two sand layers near the top of the sequence was deposited at around AD cal 690, during the early medieval period, and the upper sand unit was probably deposited some 600 years later during the medieval period. They may represent the remnants of dunes that have encroached onto the wetland, possibly as a result of stormy conditions such as those seen during the storms of winter 2013/14. The presence of a shallow lake or lagoon in the pollen from Porthloo provides supportive evidence for a dune system acting as a barrier to drainage of the site.

It is proposed to correlate the Porthloo results with the pollen data from the English Heritage-funded Lyonesse Project and Marta Perez's analyses at Lower Moors and Higher Moors, St Mary's and publish them in a paper in an international peer-review academic journal such as '*Vegetation History and Archaeobotany*' or the '*Journal of Archaeological Science*'.

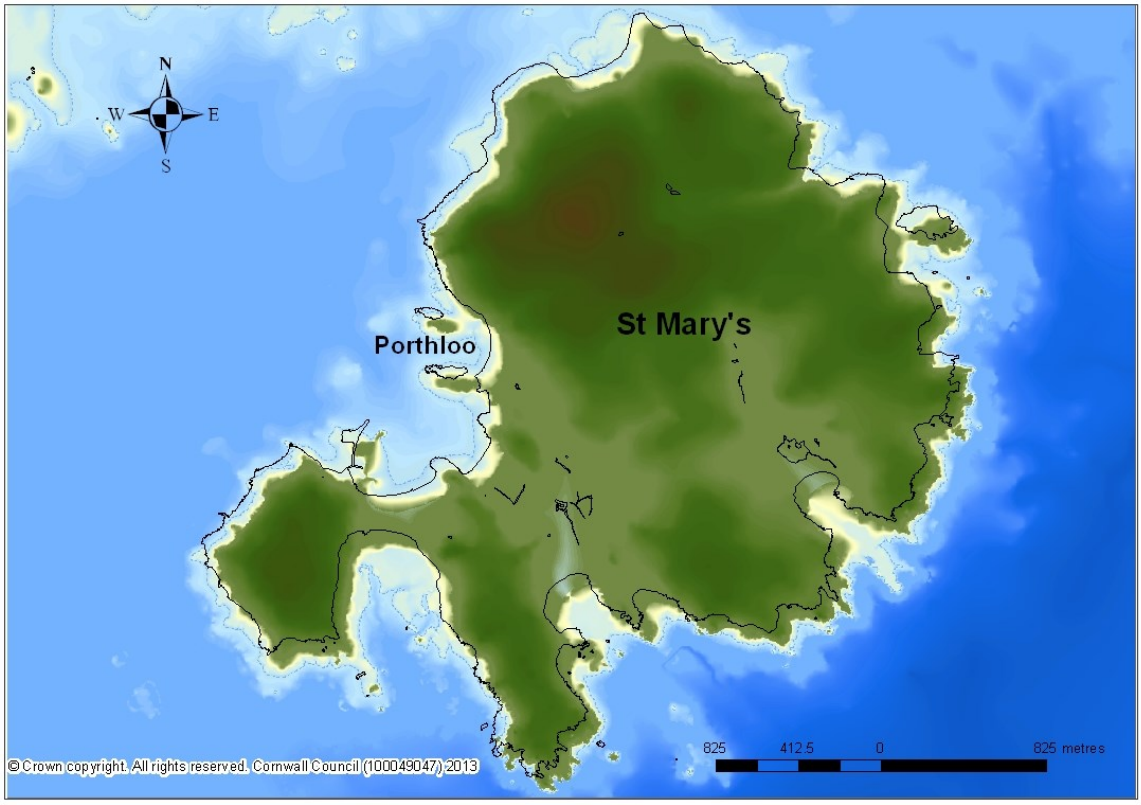

Fig 1 Location map.

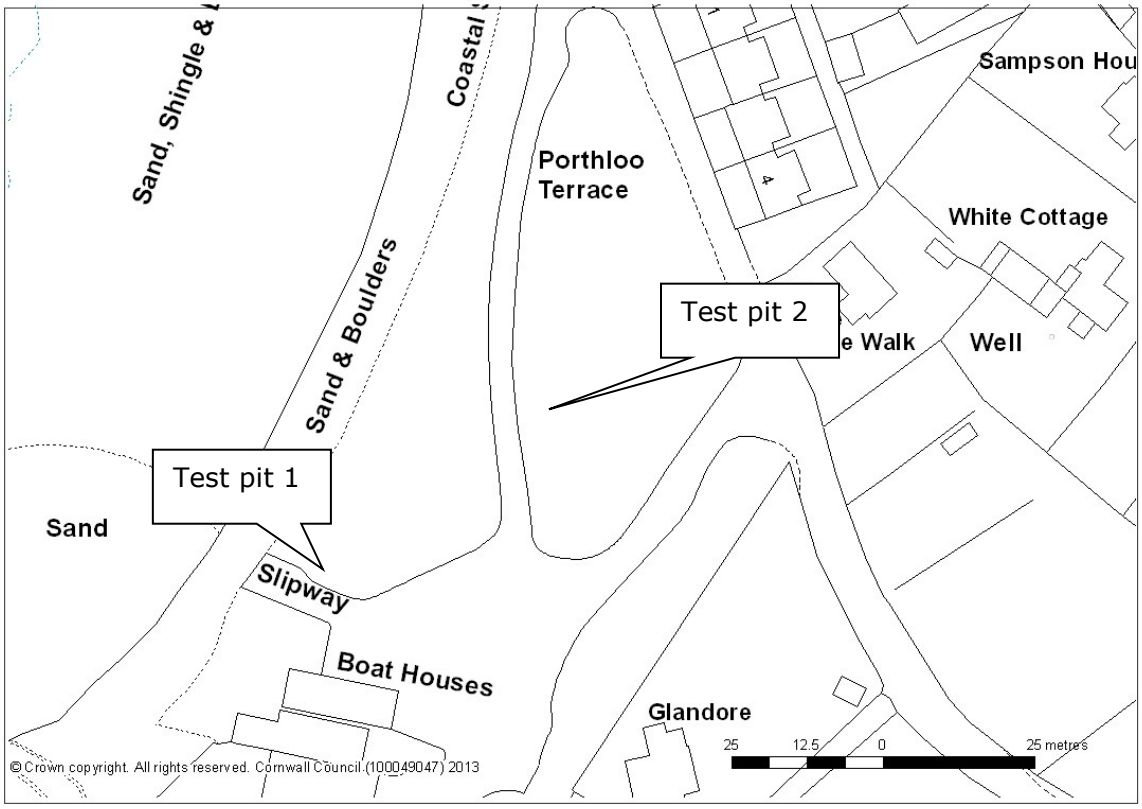

Fig 2 Location of test pits excavated in October 2013.

2 Introduction

2.1 Project background

In October 2012 HE Projects were commissioned by Adrian Smith, Assistant Land Steward for the Duchy of Cornwall to a carry out an archaeological investigation of the Boat Park Improvement Scheme on at Porthloo, St Mary's, Isles of Scilly in order to satisfy a planning condition. The scheme innvolved an extended replacement slipway, an enlarged opening through beach dunes, sea defence works at the top of slipway, improved vehicular access through the boat park, new power and water bollards in the boat park, re-levelling of boat parking surface and formalisation of use of the small boat parking area.

2.2 Aims

The site specific aims were to:

- Establish the presence/absence of archaeological remains.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- To establish the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site.
- To provide further information on the archaeology of the Porthloo area from any archaeological remains encountered.

2.3 Methods

The watching brief was carried out according to the methodology set out in the Written Scheme of Investigation (WSI) for the work (Appendix 2), based on the brief for archaeological recording by the Historic Environment Planning Advice Officer Adviser, Cornwall Council (Appendix 1).

2.4 Location and setting

The site is located at NGR SV 9086 1122, on the west coast of St Mary's (Fig 1).

2.5 Site history

The Cornwall and Scilly Historic Environment Record (HER) records that the application site has numerous archaeological sites in the vicinity including the Scheduled Civil War breastwork and battery on Newford Island, a scheduled World War 2 Pillbox and a number of prehistoric find spots.

3 Archaeological results

Two test pits measuring approximately 2m long by 1m wide were mechanically excavated under archaeological supervision on 1 October 2013. Test pit 1 was located on the beach adjacent to the existing slipway and Test pit 2 was excavated behind the dune on the site of the boat park (Fig 2).

The 'peat' deposits in Test pit 1 are minerogenic sediments containing organic material which can provide valuable evidence about the early environment of the islands and ancient sea level rise (Fig 3). Therefore further sampling, assessment and palaeoecological analysis of these deposits was required and the strategy for this was discussed with the English Heritage Science Adviser. The results of the palaeoecological analyses are presented below in Sections 4, 5 and 6 of this report. Samples were to be taken in a series of overlapping monolith tins which enabled specialists to take samples from undisturbed positions throughout the length of the sequence. For health and safety reasons the sampling took place concurrently with the groundworks by the contractors Keynvor Morlift Ltd.

Test pit 2 in the boat park area demonstrated that any buried archaeological remains are covered by over 2m of sand (Fig 4) and would not be affected by the development. Therefore it was not be necessary to carry out a further watching brief during groundworks or the excavation of the service trench for electricity and water.

Table 1: Test pit 1 (on the beach) at approx SV 90855 11240 (Figs 2 & 3)

Context	Description	Depth
(1)	Beach sand and rubble	**0–0.6m**
(2)	Organic—rich beach sand	**0.6–0.8m**
(3)	Thin deposit of clean beach sand	**0.8–0.83m**
(4)	'Peat'	**0.83–1.2m**
(5)	Beach sand (with long granite boulder sat on top)	**1.2–1.45m**
(6)	**'Peat'**	**1.45–2.8m (not bottomed)**

Table 2 Test pit 2 (behind the dunes) at approx SV 90895 11262 (Fig 2 & 4)

Context	Description	Depth
(1)	Organic-rich sand	**0–0.35m**
(2)	Dune sand	**0.35–1.1m**
(3)	Thin organic-rich sand (dune stabilisation)	**1.1–1.12m**
(4)	Dune sand	**1.123–1.2m**
(5)	Darker sand (beach sand?)	**1.8–2.3m**
(6)	**'Peat'**	**2.3m– (not bottomed)**

Fig 3 Test pit 1 (October 2013) showing the peat layers in section.

Fig 4 Test pit 2 (October 2013) showing the depth of sand deposits in section.

Fig 5 Sampling on Porthloo beach, March 2014

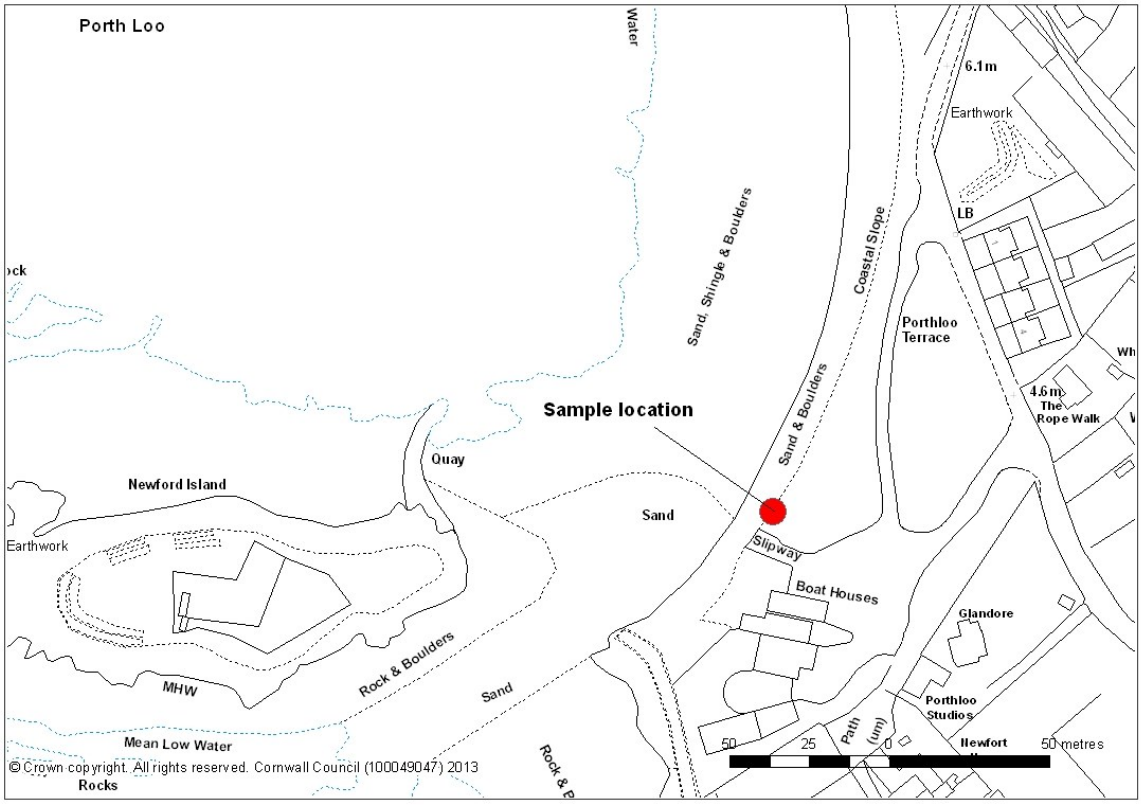

Fig 6 Sample location, March 2014

4 Palaeoecological analyses of samples from Porthloo beach

This is an updated summary of the assessment report by Ralph Fyfe and Marta Perez (Fyfe and Perez 2014). A copy of full original report is included with the project archive.

4.1 Background

In March 2014 Keynvor Morlift Ltd (KML) opened a section through a deep organic deposit in the beach at Porthloo using a JCB to facilitate detailed recording and complete sampling of the section for palaeoecological analyses (Fig 6).

A 2.1 m long peat sequence, with some sand sheets towards the top, was recovered in contiguous monolith tins. Twenty-one pollen samples were counted, and the pollen diagram records a transition from high levels of woodland at the base of the sequence to an open, grass-dominated landscape which appears to have been mainly pastoral. The presence of a former shallow lake or lagoon on St Mary's, as suggested by other sources, is further confirmed by the aquatic types recovered in much of the sequence. Two sand sheets are intercalated with the peat towards the top of the section. The environment of their deposition is not at this point clear, but they may represent either storm events, resulting in the mobilisation of large volumes of sand from the coast, deposited in the back-coast environment (similar to sand movements seen in the winter of 2013/14) or catastrophic events such as the 1755 Lisbon tsunami recorded elsewhere on Scilly (Foster *et al* 1996; Banerjee *et al* 2001).

The sequence offered a rare opportunity to (a) describe the development of the Scilly landscape, in relation to its rich and detailed archaeological heritage; (b) act as a detailed and well-dated continuous palaeoenvironmental record into which the fragmentary off-shore and intertidal records produced by the English Heritage-funded Lyonesse Project can be tied and (c) understand the changing geography of the islands (such as presence and character of lakes or lagoons)

Long, continuous deposits of peat are unusual on Scilly, and are limited to samples that span only the last 3000 years from Higher and Lower Moors (Perez 2013). Recent works on offshore and intertidal peats have been shown to offer detailed palaeoecological sequences, but these tend to be short 'snapshots' of time, and a long sequence that spans these short episodes will greatly add to the understanding of the past environment of Scilly. Any deep sequence thus has great potential, and potential significance, for the historic environment of the islands.

4.2 Methodologies

The section opened by the JCB was cleaned back by hand to produce a clean face, the general stratigraphy described, and overlapping 50 x 10 x 5cm monolith tins used to sample the full depth of organic deposits. The location of the section was recorded using a hand-held Trimble GeoXH differential GPS, accurate to within 1m. The top of the section was measured in m OD by levelling to the KML benchmark for the development works.

Pollen analysis was undertaken from the recovered monolith section using standard methods (Moore *et al* 1991). Samples were passed through a 180 micron sieve, subject to acetolysis and hydrofluoric acid digestion, and mounted in silicon oil for identification. An exotic marker tablet was added to facilitate the calculation of concentrations (Stockmarr1971). A minimum of 500 land pollen grains were identified for each sample, using the keys in Moore *et al* (1991) and a modern reference collection. Cereal types are distinguished using the scheme in Anderson (1978). Charcoal was counted in two size fraction, 10-50 microns and 50-180 microns, and is expressed as concentration data.

The pollen results are presented as percentage of the total land pollen sum for land pollen taxa, and percentage of total land pollen plus aquatics and spores for the aquatic and spore taxa. Thus local aquatic taxa do not directly influence the proportions of land taxa. Cyperaceae is treated here as a land pollen type, although there is the possibility

that this broad taxa is likely to include littoral taxa. Poaceae is treated in the same way, despite the likelihood of some grains coming from Phragmites.

4.3 Results

The 10-digit grid reference of the sampled section is SV90856 11232 (Fig 5). The stratigraphy of the sampled section is included on Figure 5, and comprises a stiff grey clay, overlain by 1.37m of highly humified and compressed peat. Above the compressed peat is a continuous 0.06m sand sheet, overlain by 0.19m more humified peat. Above this is a second continuous sand sheet, some 0.16m thick. The upper most organic unit is a sandy peat, capped by boulders and clean beach sand. The basal contact with the grey clay sits at 0.58m OD.

Twenty-one pollen samples were counted from the section, spread evenly through the stratigraphy to understand the broad vegetation patterns recorded within the section. The pollen diagram has been divided into three main pollen zones, with the upper zone split into sub-zones on the basis of the aquatic taxa (Fig 7).

Zone PL-1 (depth 212cm): Corylus –Quercus – Betula. This zone consists of one sample taken from the grey clay stratigraphic unit. This zone is dominated by the presence of tree taxa, Corylus reaches 65% of the total land pollen, followed by Quercus (16%) and Betula (4%). Other tree taxa present are: Fraxinus (3%), Alnus (1%) and Salix (1%). The herb taxa are represented by Cyperaceae (2%), Plantago lanceolata (2.5%) and Poaceae (1.5%). There was a small amount of microscopic charcoal from this zone but not enough suitable material for radiocarbon dating. A small piece of residual flint resembling a microlith was recovered from the spoil heap, from the lower peat section.

Zone PL-2 (depth: 186-202cm): Corylus – Poaceae – Quercus. In this zone the trees remain the dominant taxa but, begin to reduce. Corylus declines from 45 to 27% of the total land pollen, Quercus (down to 6%), Betula (down to 1%) and the other tree taxa reduce their presence to less than 1%. The herb taxa start to increase in this zone with Poaceae reaching 21% at the top of the sequence. Other herbs that start to appear are: Caryophyllaceae (3%), Cyperaceae (6%) and Plantago lanceolata (9%). The microscopic charcoal levels are low but increase slightly at the top.

Zone PL-3 (depth: 8-178cm): Poaceae – Cyperaceae – Plantago. This zone is dominated by herb taxa and is marked by the presence of aquatic taxa (with Myriophyllum and Typha alternating). Poaceae are the most abundant taxa oscillating between 20 and 54% of the total land pollen assemblage, with some localised changes. Cyperaceae is the other most common taxa however it fluctuates, ranging from 5% to 56%. At 170 and 114cm Cyperaceae becomes the dominant herb taxa. The other important herb taxa are: Plantago sp. (including P. lanceolata, P. media, P. major and P. maritima), Rumex (up to 18% at 50cm), Sanguisorba type (up to 24% at 74cm), Lactuceae (3%) and Chenopodiaceae (4%). Trees and shrubs are present only at trace levels: Corylus reduces its presence from 17% at the bottom of the sequence to less than 1% at the top, Quercus, Alnus and Betula (>1% all of them). Dwarf shrubs are recorded at constant, but low levels, including Ericaceae and Calluna vulgaris. The microscopic charcoal levels are still low, with some peaks and they also increase at the top of the pollen diagram.

Zone PL-3 is divided in four sub-zones on the basis of the aquatic taxa:

PL-3a (depth 138–178cm) has high levels of Myriophyllum pollen (reaching 30% of the total land and aquatic pollen).

PL-3b (depth 114–130cm) is marked by the dominance of Typha is the aquatic taxa (reaching 26%) and Cyperaceae became the dominant taxa with 56%.

In PL-3c (depth 82-92cm) Myriophyllum becomes the dominant aquatic taxa again (29%), Poaceae (40%) and Plantago lanceolata (13%) dominate the land pollen taxa and Cyperaceae is reduced considerably (down to 5%).

In Zone LP-3d (depth 8–74cm) the representation of aquatic taxa is considerably reduced. No artefactual material was recovered *in situ* within the section.

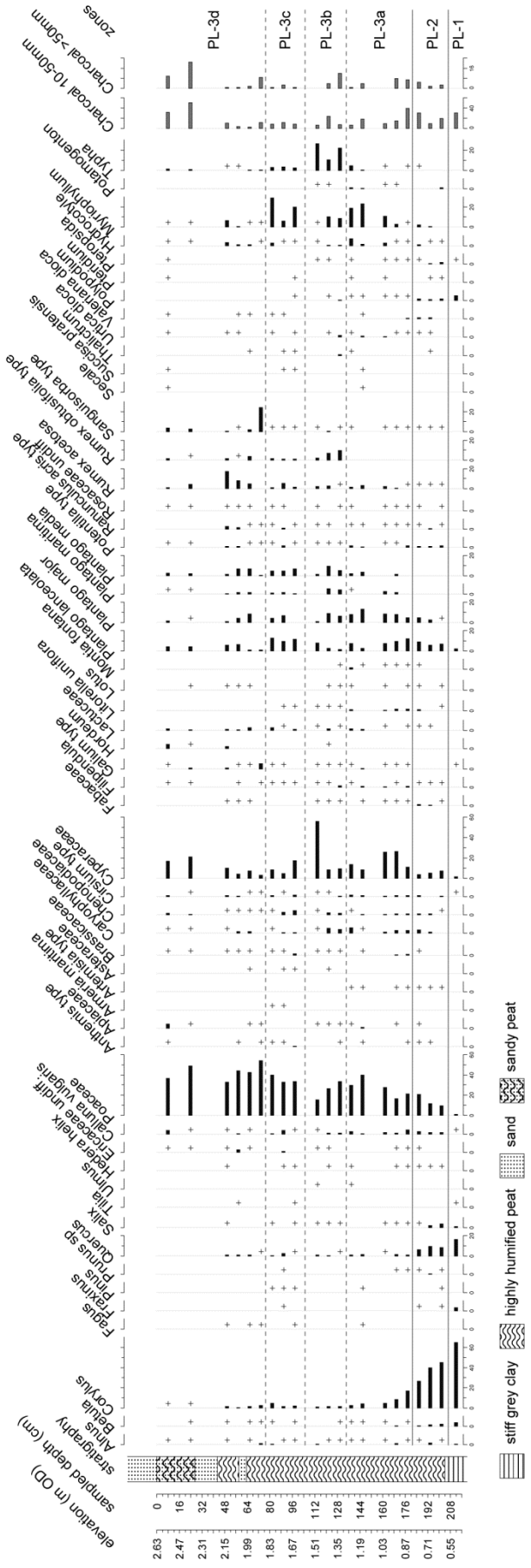

Fig 7 Percentage pollen, spores and charcoal, and stratigraphy, Porthloo 2014.

*Table 3 Results of radiocarbon dating, Porthloo, St Mary's, Isles of Scilly. **indicates samples from the same depth*

Sample code	Depth (cm)	Material (seed ID)	Lab code	14C age	Calibrated age range BP	Calibrated age range AD/BC
PLOO-1	25-26	*Carex* sp.	UBA-26168	748±49	570-770	cal AD 1180-1380
PLOO-2**	43-44	*R.* subgen *Batrachium*	UBA-26169	1278±31	1140-1290	cal AD 660-810
PLOO-3**	43-44	*Carex* sp.	UBA-26170	1220±31	1060-1260	cal AD 690-890
PLOO-4	58-59	*R.* subgen *Batrachium*	UBA-26171	1398±39	1270-1370	cal AD 580-680
PLOO-5	67-68	*R.* subgen *Batrachium*	UBA-26172	1359±34	1180-1340	cal AD 610-770
PLOO-6	104-105	*Carex* sp.	UBA-26173	1963±30	1830-1990	40 cal BC – cal AD 120
PLOO-7	141-142	*Carex* sp.	UBA-26174	2370±34	2340-2670	720-390 cal BC
PLOO-8	182-183	*Carex* sp.	UBA-26175	2929±29	2970-3210	1260-1030 cal BC
PLOO-9	200-201	*Carex* sp.	UBA-26176	2921±31	2960-3210	1260-1020 cal BC

5 Radiocarbon dating

Ralph Fyfe

Radiocarbon samples were made on plant macrofossil remains (seeds). The aim of the dating strategy was to produce an age-depth model for the sequence, not directly date particular events in the biostratigraphy. Dates were thus positioned throughout the sequence. In particular, stratigraphic changes were dated, to (a) identify possible unconformities (hiatuses) within the sequence; and (b) determine the age of sand movements into the peat bed. All dating was undertaken at the 14Chrono Centre, Queen's University Belfast. Dates are calibrated to two sigma, using CLAM (Blaauw 2010) and IntCal13 (Reimer *et al* 2013).

Two samples are replicates of the same depth, using different macrofossils. Replication was undertaken to compare results from the sample comprising *Ranunculus* subgenus *Batrachium* (crowfoot) seeds, to the sample comprising Carex sp. seeds. This was undertaken as *R.* subgenus *Batrachium* comprised the only datable macrofossils in two other radiocarbon samples. There was the possibility that *R.* subgenus *Batrachium* sourced all or part of its carbon from the water body within which it grew, rather than respiring from the atmosphere, which may have led to a reservoir effect from the water body. The calibrated date ranges overlap significantly between these samples (Table 3); dates on *R.* subgen *Batrachium* at Porthloo thus do not appear to contain a reservoir effect from the water body.

6 Conclusions/discussion

The pollen diagram from Porthloo shows the transition from a wooded landscape at the base of the sequence to a landscape almost devoid of any woodland cover at the top. The woodland at the start of the sequence is dominated by Corylus and Quercus, with some other trees and very low percentages of grasses (PL-1: Figure 2). The presence of the spore Polypodium is a strong indicative of the former presence of local woodland, as it is poorly dispersed (Bradshaw 1981).

The radiocarbon dates constrain the age of the peat at Porthloo and can also give an indication of the time at which there had been significant blown sand deposited on the peatland in the past. This blown sand is represented in the two distinct sand lenses towards the top of the peat profile. The timing of events described here represent the best age estimate for depths in the sequence, based on the development of an age-depth model incorporating both the calibrated radiocarbon dates, and the known stratigraphic changes. Dates are given as calibrated ages on the calibrated AD/BC calendar time scale, and in brackets in calibrated years before present (cal BP).

The dates themselves were undertaken on plant macrofossils. With the exception of the lowest sample (UBA-26176) the results are conformable, i.e. they lie in their correct stratigraphic sequence. The lowest radiocarbon sample is not used in the construction of the age-depth model as it appears to include error. Consequently, the age-depth model indicates that peat began to develop at the sampling location at around 1490 cal BC (3440 cal BP), a date which conventionally marks the transition between the Early Bronze Age (c2500–1500 BC) and Middle/Late Bronze Age (*c* 1500–800 BC). The palaeoecological sequence describes a landscape with some trees in the lowest levels, but set within an open grass-dominated landscape: these samples represent the end of the Middle Bronze Age or beginning of the Late Bronze Age. A major drop in tree pollen (particularly hazel), indicating near complete clearance of woodland or scrub, occurs around 1060 BC (3010 cal BP), i.e. during the Late Bronze Age.

Pollen analysis and assessment covering the later part of the Bronze Age and the Iron Age has been carried out at various locations in Scilly ranging from the sequences at Higher and Lower Moors on St Mary's (Scaife 1984; with some reinterpretation by Ratcliffe and Straker 1996), the intertidal organic soils on Crab's Ledge, Tresco (Iron Age — Ratcliffe and Straker 1996) and buried soils at Bar Point, St Mary's (Iron Age —

Evans 1984), Innisidgen, St Mary's (Dimbleby 1977), Halangy Porth, St Mary's (probably Iron Age — Dimbleby *et al* 1981; Dimbleby in Ashbee 1996, 171–3) and below the rampart of the cliff castle on Shipman Head, Bryher (Ratcliffe and Straker 1996). At Higher and Lower Moors, some regeneration of the birch, oak and hazel woodland is evident in the Middle to Late Bronze Age, with herbaceous and cereal pollen also pointing to some open areas (Straker *et al* 2008, 111).

The Porthloo results have added to our understanding of the transition from wooded islands to the open landscapes of later prehistory. The start of the main phase of woodland clearance at Higher Moors is dated to the Late Bronze Age – Iron Age (815-412 cal BC, HAR-3724, 2540±80; 753-234 cal BC, HAR-3723, 2360±60). The soil pollen analyses noted above all testify to open environments, with a little alder, oak, birch and hazel recorded at Bar Point but not at Halangy Porth. The open ground is mainly grazed grassland but at Innisidgen arable was also suggested. Pollen of heathland plants is rare, but the charcoal of heather and gorse/broom at Bonfire Carn and Porth Killier show that it was used as fuel from as early as the Middle Bronze Age (Ratcliffe and Straker 1996). The Crab's Ledge pollen and plant macrofossils are of grasses and members of the Cheopodiaceae family including annual sea blite, suggesting coastal grassland and saltmarsh (Ratcliffe and Straker 1996; Straker *et al* 2008, 111-2).

The Porthloo pollen diagram (Fig 7) shows little change in the wider landscape after the woodland clearance: there is a continuous indication of open grassland with ruderal communities and cultivated plants, indicating an intensively managed landscape. The pollen points to pastoralism in this area, with some cultivation in the environs of the site. Cultivated taxa tend to be underrepresented in pollen diagrams and there are some issues with the distinction between wild grasses and cereals. In this diagram Hordeum type could be interpreted as indicative of cultivation because it is presented along other cultivated taxa such as Secale cereal; however, it remains possible that it represents wild grasses, particularly wetland grasses such as Glyceria fluitans whose morphology is similar to cultivated Hordeum types (Fyfe *et al* 2004). This site also lies very close to the present coast, which has seen considerable changes over the assumed span of peat development: local vegetation contributing to the pollen sum is likely to have been impacted by changes in sea level and increasing marine influence. It is thus difficult at this stage, without more detailed analysis, to decouple the extent to which taxa are responding to changes in the height of the water table (relative sea level rising) and anthropogenic activities (Waller and Hamilton 2000).

The general landscape from the start of zone PL-3 appears to be stable at the resolution of the diagram. It remains possible that the sampling resolution misses significant changes or shifts in landscape character or management at the end of the Late Bronze age or the beginning of the Early Iron Age (*c* 800 BC). The aquatic taxa, however, indicate significant local changes at the site. The high presence of Myriophyllum is indicative of a body of fresh water with floating-leaved and submerged macrophyes (Gaillard and Göranson 1991). This implies the site was at this time a shallow lake or lagoon. This is similar to the pattern observed at LM28 (Perez 2013), and is broadly supportive of Lousley (1971), who sustains that there was a lagoon at Lower Moors at times in the past.

The reason for the deposition of the two sand sheets towards the top of the section is unclear. The age of the sand lenses is best determined using the radiocarbon dates from immediately above the deposits, as there is the possibility that peat below these has been eroded. The lower of the two sand units was deposited at around AD 690 (~1260 cal BP) during the early medieval period. The upper sand unit was most likely deposited around AD 1280 (670 cal BP) during the medieval period. They may represent the remnants of dunes that have encroached onto the wetland, possibly as a result of stormy conditions such as those seen during the storms of winter 2013/14. The presence of a shallow lake or lagoon in the pollen from Porthloo would support a dune system acting as a barrier to drainage of the site.

7 Recommendations

It is proposed to correlate the Porthloo results with the pollen data from the English Heritage-funded Lyonesse Project (Charman *et al* in press) and Marta Perez's analyses and publish them in a paper in an international peer-review academic journal ('*Vegetation History and Archaeobotany*' or the '*Journal of Archaeological Science*').

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9 Project archive

The CAU project number is **146203**

The project's digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The documentary archive is deposited at the Isles of Scilly Museum, Church Street, Hugh Town, St Mary's, TR21 0JT. The peat samples are archived in the cold store at the School of Geography, Earth and Environmental Sciences, Plymouth University, PLA 8AA.

English Heritage/ADS OASIS online reference: cornwall2-197793

Appendix 1: Planning brief

BRIEF FOR ARCHAEOLOGICAL RECORDING

Date: 11th October 2012
Address: Porthloo Boat Park, St Mary's, Isles of Scilly
Application: P-12-043
HBSMR: CCO4965
Applicant: Sir W R A Ross, Duchy of Cornwall, 10 Buckingham Gate, London
Agent: Mr Chris Gregory, Duchy of Cornwall Hugh House St Mary's Isles of Scilly
Historic Environment Planning Advice Officer: Phil Markham, Cornwall Council, Historic Environment Service, Dolcoath Avenue, Camborne TR14 8SX
t. 07973 813572 e. pmarkham@cornwall.gov.uk
Local Planning Authority Officer: Craig Dryden, Planning & Development Department, Council of the Isles of Scilly, Old Wesleyan Chapel, Garrison Lane, St Mary's, Isles of Scilly TR21 0JD

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. Any written scheme of investigation (WSI) resulting from this brief shall only be considered for the same period. The contractor is strongly advised to visit the site before completing their WSI as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor's WSI.

1 Introduction

1.1 This brief has been written by the HEPAO and sets out the minimum requirements for archaeological recording at the above address to discharge condition 8 of planning application P-12-043.

2 Site Location

2.2 This coastal site is located at Ordnance Survey grid reference SV 9086 1122 and is on the west coast of St Mary's, Isles of Scilly.

3 Planning Background

3.1 Planning application P-12-043 was submitted on the 23rd March 2012 and was for the Improvement scheme to include replacement and extended slipway, enlarged opening through beach dunes, sea defence works at top of slipway, improved vehicular access through boat park, new power and water bollards in boat park, re-levelling of boat parking surface and formalising use of small boat parking area. This application has been approved subject to 18 conditions. Condition 8 states:

3.2 A) No demolition/development shall take place/commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:

1

1. The programme and methodology of site investigation and recording
2. The programme for post investigation assessment
3. Provision to be made for analysis of the site investigation and recording
4. Provision to be made for publication and dissemination of the analysis and records of the site investigation
5. Provision to be made for archive deposition of the analysis and records of the site investigation
6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

3.3 B) No demolition/development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

3.4 C) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

3.5 The applicant, their agents and any subcontractors should note that where there are other conditions requiring satisfaction in advance of the commencement of works on site; it is the responsibility of the applicant to liaise with the planning officer concerned to ensure that the timetabling of these works is managed.

4 Archaeological Background

4.1 The Cornwall and Scilly Historic Environment Record (HER) records that the application site has numerous archaeological sites in the vicinity including the scheduled Civil War breastwork and battery on Newford Island, a scheduled World War 2 Pillbox and a number of prehistoric find spots.

5 Requirement for Work

5.1 Ground works associated with the development may disturb buried archaeological remains. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

5.2 The site specific aims are to:

- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of the site from any archaeological remains encountered

6 General Methodology

6.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).

6.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).

6.3 Details including the name, qualifications and experience of the site director and all other personnel (including specialist staff) shall be included within the WSI.

6.4 All of the latest Health and Safety guidelines shall be followed on site.

6.5 The IfA's Standards and Guidance should be used for additional guidance in the production of the WSI, the content of the report and the general execution of the project.

6.6 Terminology will be consistent with the English Heritage Thesaurus.

7 Archaeological Recording Methodology

7.1 Prior to the commencement of on site works the archaeological contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro and the Cornwall Centre at Redruth, where appropriate.

7.2 An archaeologist shall be present during all ground works associated with the development, unless circumstances dictate a different approach. A toothless ditching bucket can be used for the removal of any overburden until the first archaeological horizon is exposed. This will then be hand cleaned as appropriate.

7.3 Any surviving remains which will be disturbed or destroyed by the development shall be archaeologically excavated and recorded.

7.4 Details of how all archaeological contexts and artefacts will be excavated, surveyed, recovered and recorded shall be provided. The site will be tied into the national grid.

7.5 Details of the site planning policy shall be given in the WSI. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections 1:10, unless circumstances indicate that other scales would be more appropriate.

7.6 The photographic record shall consist of prints in both black and white and colour together with the negatives. Digital photography may be used for report illustration. For both general and specific photographs, a photographic scale shall be included. 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.

7.7 If significant archaeological deposits are exposed, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

8 Finds

8.1 All finds, where appropriate, will be retained from each archaeological context excavated.

8.2 All finds, where appropriate, shall be washed.

8.3 All pottery, and other finds, where appropriate, shall be marked with the site code and context number.

8.4 The WSI shall include an agreed list of specialist consultants, who may be required to conserve and/or report on finds, and advise or report on other aspects of the work including environmental sampling.

8.5 The requirements for conservation and storage shall be agreed with the Isles of Scilly Museum.

8.6 Finds work should be to accepted professional standards and adhere to the Institute for Archaeologists *Guidelines for Finds Work*.

8.7 Environmental sampling should be guided by *Environmental Archaeology* (English Heritage Centre for Archaeological Guidelines. 2001/02).

8.8 Further English Heritage guidance that may be helpful includes *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).

8.9 The English Heritage Advisor for Archaeological Science will be able to provide archaeological science advice if required (Vanessa Straker 0117 975 0689).

9 Human Remains

9.1 Any human remains which are encountered must initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this must comply with the relevant Government regulations. If burials are encountered their legal status must be ascertained and recording and/or removal must comply with the legal guidelines.

9.2 If human remains are not to be removed their physical security must be ensured, preferably by back filling as soon as possible after recording.

9.3 If human remains are to be removed this must be done with due reverence and in accordance to current best practice and legal requirements. The site must be adequately screened from public view. Once excavated human remains must not be exposed to public view.

10 Results

10.1 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 applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Isles of Scilly Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.

10.2 The archaeological contractor will undertake the English Heritage/ADS online access to the index of archaeological investigations (OASIS).

10.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

10.4 The report must contain:

- A concise non-technical summary of the project results.
- The aims and methods adopted in the course of the investigation.
- A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
- A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of any archaeological plans and sections. All plans shall be tied to the national grid.
- All specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A context register with brief descriptions shall be included as an appendix.
- A copy of the brief and the approved WSI will be included as an appendix.

10.5 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

11 Archive Deposition

11.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project. The requirements for archive storage shall be agreed with the Isles of Scilly Museum.

11.2 If the finds are to remain with the landowner a full copy of the documentary archive shall be housed with the Isles of Scilly Museum.

11.3 The archive including a copy of the written report shall be deposited with the Isles of Scilly Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.

11.4 Where there is only a documentary archive this will be deposited with the Isles of Scilly Museum.

11.5 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.

11.6 A summary of the contents of the archive shall be supplied to the HEPAO.

11.7 Only on completion of 11.1 to 11.5 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

12 Monitoring

12.1 The HEPAO will monitor the work and should be kept regularly informed of progress.

12.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.

12.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

Appendix 2: Written Scheme of Investigation

Porthloo Boat Park Improvement Scheme, St Mary's, WSI, Rev00, CJ, 12/10/2012

Historic Environment Projects,
Cornwall Council

CORNWALL COUNCIL

Porthloo Boat Park Improvement Scheme, St Mary's, Isles of Scilly: Written Scheme of Investigation for archaeological recording

Client:	Duchy of Cornwall
Client contact:	Adrian Smith
Client tel:	01720 422508
Client email:	asmith@duchyofcornwall.org

Project background

Planning application P-12-043 was submitted on the 23rd March 2012 and was for the Porthloo Boat Park Improvement Scheme to include replacement and extended slipway, enlarged opening through beach dunes, sea defence works at top of slipway, improved vehicular access through boat park, new power and water bollards in boat park, re-levelling of boat parking surface and formalising use of small boat parking area. This application has been approved subject to 18 conditions. Condition 8 states:

A) No development shall commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:

1.The programme and methodology of site investigation and recording, including a strip and record excavation and which must be undertaken prior to any works commencing on site, and archive photographic recording of all of the buildings to be either renovated or demolished

2. The programme for post investigation assessment

3. Provision to be made for analysis of the site investigation and recording

4. Provision to be made for publication and dissemination of the analysis and records of the site investigation

5. Provision to be made for archive deposition of the analysis and records of the site investigation

6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

B) No demolition or development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The development shall not be occupied until the site investigation and post-investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

Reason: The site comprises an area of known archaeological interest where it is the Local Planning Authorities policy to provide for the examination of archaeological remains.

This Written Scheme of Investigation (WSI) for archaeological investigation during the development has been prepared by Historic Environment Projects, Cornwall Council (HE Projects) for the Duchy of Cornwall. It is based upon a Brief written by the Historic Environment Planning Advice Officer, Cornwall Council (HEPAO) which sets out the minimum requirements for archaeological recording to discharge Condition 8 of the planning consent (Markham 2012).

Site location and description

This coastal site is located at Ordnance Survey grid reference SV 9086 1122 and is on the west coast of St Mary's, Isles of Scilly.

Archaeological background

The Cornwall and Scilly Historic Environment Record (HER) records that the application site has numerous archaeological sites in the vicinity including the scheduled Civil War breastwork and battery on Newford Island, a scheduled World War 2 Pillbox and a number of prehistoric find spots.

Aims and objectives

Ground works associated with the development may disturb buried archaeological remains. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

The site specific aims are to:

- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of the Porthcressa area from any archaeological remains encountered

Working methods

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

Desk-based assessment

Prior to the commencement of on site works the project archaeologist will familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER) and in published sources.

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Archaeological recording

A strip and record excavation of the development area will be undertaken prior to any works being undertaken under the direction of the project archaeologist. A toothless ditching bucket will be used for the removal of any overburden (ostensibly topsoil and disturbed modern deposits). The first revealed substratum will then be hand cleaned to test for the presence of archaeological features, deposits and finds with resulting evidence being recorded as appropriate.

Any surviving remains which will be disturbed or destroyed by the development will be archaeologically excavated and recorded.

If significant archaeological deposits are exposed, all works will cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

Recording

- A location plan will be made, plotting the areas of ground works onto the Ordnance Survey Mastermap at 1:200.
- The heights of all features identified will be tied into the Ordnance Datum if appropriate.
- The location of features recorded during the watching brief will be plotted onto a drafting film overlay to the prepared location plan.
- All finds from significant stratified contexts will be accurately located on the location plan at an appropriate scale.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence. All contexts recorded will be recorded via the medium of HES pro forma context recording sheets.
- Registers of drawings, photographs, finds and contexts, samples will be maintained during the fieldwork.
- The excavated spoil will be carefully inspected for finds.

Site planning policy

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the prepared location map and to the national grid; all drawings will include standard information: site details, personnel, date, scale and north-point.
- Site plans will be drawn at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be more appropriate.
- Site drawings (plans and sections) will be digitised and converted into AutoCAD drawings.

Photographic record

- The photographic record will consist of prints in both black and white and colour together with the negatives. Digital photography will be used for report illustration.
- For both general and specific photographs, a photographic scale will be included.
- In the case of detailed photographs a north arrow will be included if appropriate.
- The photographic record will be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

Finds

- All finds will be retained from each archaeological context excavated.
- All retained finds, where appropriate, will be washed.
- All pottery and other finds where appropriate, will be marked with the site code and context number.
- This WSI includes an agreed list of specialist consultants, who might be required to conserve and/or report on finds, and advise or report on other aspects of the project including environmental sampling.
- The requirements for conservation and storage will be agreed with the appropriate museum prior to the start of work, and confirmed in writing to the HEPAO.
- Finds work will be to accepted professional standards and adhere to the Institute for Archaeologists' *Guidelines* (IfA 2001b).

Sampling

- The English Heritage Advisor for Archaeological Science will be consulted for advice if required (Vanessa Straker 0117 975 0689).
- Environmental sampling will be guided by *Environmental Archaeology* (English Heritage 2004).
- Other English Heritage guidance will be consulted as appropriate including *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- The archaeologist undertaking the watching brief will assess the potential for environmental sampling.
- If suitable deposits are identified the following types of sample will be taken as appropriate:
  - Bulk sampling
  - Monolith sampling
  - Macro & Micro Flora Analysis (including pollen analysis)
  - Macro & Micro Fauna Analysis
  - Radiocarbon dating for artefact analysis

Human remains

Any human remains which are encountered will initially be left *in situ* and reported to the HEPAO and the appropriate authorities. If removal is necessary this will comply with the relevant Government regulations. If burials are encountered their legal status will be ascertained and recording and/or removal will comply with the legal guidelines.

If human remains are not to be removed their physical security will be ensured, if possible 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. Once excavated human remains will not be exposed to public view.

Archiving

During this phase the results of the fieldwork will be collated for archiving. This will involve the following tasks.

- Indexing of site drawings and photographs

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- Vernacular building records
- Processing and analysis of artefacts and environmental samples, if appropriate.

Note: The requirements for Archiving and Reporting will be reviewed in the light of the fieldwork results

Report production

A report will be produced which will describe the results of the desk-based study and the nature of the fieldwork undertaken, the circumstance and conditions under which it occurred and the results that were obtained. Production of the report will involve:

- Producing a descriptive text.
- Producing maps, scaled plans and section drawings.
- Selecting photographs.
- Report design.
- Report editing.
- Dissemination of the finished report.

The report will have the following contents:

- Summary
- Introduction - Background, aims, methods
- Results of building recording - A concise non-technical summary of the results including building recording descriptions
- Results of archaeological - A concise non-technical summary of the results
- Discussion - A discussion of archaeological findings in terms of both the site specific aims and the desk based research
- Specialists' reports Specialists' reports or assessments as appropriate
- Archive - A summary of archive contents and date of deposition
- Appendices Copies of the Brief and WSI, context register
- Illustrations
  - Location map
  - Site location plan
  - A drawing showing those areas examined as part of the archaeological watching
  - Copies of relevant historical cartography & plans
  - Plan and section drawings resulting from the archaeological recording.
  - Finds drawings (if appropriate)
  - Illustrative photographs
  - Note: All plans will be tied to the national grid.

Contingency for analysis and publication

A contingency is made within the accompanying estimate for assessment for specialist analysis and full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

Report dissemination

The full report including all specialist assessments of artefact assemblages will be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and HE, with copies supplied to the client (two), Cornwall and Scilly Historic Environment Record, the Isles of Scilly Museum and the Courtenay Library of the Royal Institution of Cornwall, River Street, Truro and national archive centres. A further digital copy shall be supplied on CD-ROM in 'Adobe Acrobat' PDF format. A draft will initially be submitted to the HEPAO for comment.

The report will be held by the Cornwall and Scilly Historic Environment Record and made available for public consultation. Additional copies will be submitted to the National Monuments Record *via* OASIS and to the Planning Department of the Council of the Isles of Scilly.

Archive deposition

- An ordered and integrated site archive will be prepared in accordance with *the Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006b) upon completion of the project. The requirements for final deposition of the project archive will be agreed by HEPAO and HE Projects.
- The archive including a copy of the written report will be deposited at the Isles of Scilly Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.
- Completion of the English Heritage/ADS OASIS online archive index.
- A summary of the contents of the archive shall be supplied to the HEPAO.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the HEPAO. Where the HEPAO is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected from the Council of the Isles of Scilly.

Notification of the start of work will be given in writing to the HEPAO as far in advance of its commencement as possible. HEPAO will monitor the work and will be kept regularly informed of the progress.

Any variations to the WSI in shall be agreed with the HEPAO in writing prior to them being carried out.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork. When this has been approved by the HEPAO, then it should be possible for the client to commence building works
- Completion of archive report
- Deposition of the archive

Timetable

The study is anticipated to be commenced during November 2012.

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.

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Project team

HE Projects

The project will be managed by Senior Archaeologist **Charlie Johns (BA, MIFA)**. As a Senior Archaeologist with HE Projects (1991- present) Charlie has special responsibility for projects in the Isles of Scilly where he has worked on numerous projects: notably directing the excavation of the Bryher Iron Age sword and mirror burial in 1999 (Johns 2002-3); updating the popular archaeological field guide 'Scilly's Archaeological Heritage' (Ratcliffe and Johns 2003); managing the Tresco Playing Field watching brief for the Tresco Estate (Taylor and Johns forthcoming); compiling the Isles of Scilly Rapid Coastal Zone Assessment Survey for English Heritage (Johns *et al* 2004) and managing archaeological recording during construction of the off-island quays for the Duchy of Cornwall (Johns and Sawyer 2008) and the St Agnes Affordable Housing site for the Cornwall Rural Housing Association (Taylor and Johns forthcoming).

Current projects include the management of Lyonesse Project, a two-year study of the evolution of the coastal and marine environment of Scilly and the preparation of a Research Framework for the Historic Environment of Scilly (both for English Heritage). Since 2005 he has co-directed the 'Islands in a Common Sea' research project in Scilly with Dr Jacqui Mulville of Cardiff University (Johns and Mulville forthcoming; Johns *et al* 2006), and is currently an Honorary Research Fellow in Cardiff University's School of History and Archaeology and representative for Scilly on the CBA SW Committee.

The fieldwork will be carried out by Charlie Johns or **Carl Thorpe BSc** who is experienced in carrying out archaeological projects in Scilly and who will also undertake initial finds processing, identification and cataloguing, he has carried out similar work for Scillonian projects in the last two decades including the Isles of Scilly Electrification Project (Ratcliffe 1991), the Bryher cist burial, Tresco Playing Field and the off-island quays refurbishment. He is currently reassessing the pottery assemblage from the 1971 excavations at East Porth, Samson with a view to final publication in Cornish Archaeology (in Neal forthcoming) and has contributed the early medieval ceramic assessment to the Scilly Historic Environment Research Framework.

Specialists

John Allan MPhil – Medieval/post-medieval pottery specialist: John is the leading authority on medieval and post-medieval pottery in south- west England and author of many publications. He will carry out the pottery assessment and analysis in the event of medieval or post-medieval pottery being recovered

Henrietta Quinnell BA, MIFA, FSA – Prehistoric, Roman, post-Roman pottery: Henrietta is a freelance pottery specialist and the leading authority on prehistoric pottery in the south-west. She will carry out the pottery assessment and analysis in the event of prehistoric pottery being recovered.

Julie Jones BA – Archaeobotanist: An experienced freelance archaeobotanical specialist based in Bristol, Julie has carried out palaeoenvironmental assessments and analyses for numerous HES projects.

Dana Challinor MA, MSc – Freelance Charcoal Specialist: Dana's main area of expertise is charcoal analysis and wood species identification, but she also has experience with charred plant remains. For her Masters degree she specialised in Archaeobotany and received a distinction for her dissertation on charcoal in Bronze Age cremation burials. She has produced numerous assessment and evaluation reports, as well as reports for publication in journal and monograph formats and was formerly Head of the Environmental Department at Oxford Archaeology. She will undertake assessment and analysis of any suitable charcoal samples, including identification of samples suitable for radiocarbon dating.

Ralph Fyfe, PhD, Palynologist: Ralph is lecturer in environmental change in the School of Geography at the University of Plymouth. He has carried out numerous archaeological evaluations for a variety of organisations, including English Heritage, County Councils, National Parks and Archaeological Consultancies and will undertake assessment and analysis of pollen samples if required.

Laura Ratcliffe-Conservationist, BSc, The Royal Cornwall Museum, Truro: Laura graduated In Archeological Conservation from Cardiff University in 2001. Since then she has gained a wide variety of experience both on excavations and in a lab working on a wide variety of archaeological and historical material. She is currently based at the Royal Cornwall Museum where she is the museum's Collections Manager. Laura will carry out the assessment and conservation of pottery and metalwork on a free lance basis if required.

Radiocarbon Dating Laboratory, University of Waikato, New Zealand: Samples for radiocarbon dating will be sent the University of Waikato.

Historic Environment Projects

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 100 projects each year.

HE 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

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

As part of Cornwall Council, the HES has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

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Terms and conditions

Contract

HE Projects is part of Historic Environment, Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of the HE projects team 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 Charlie Johns 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.

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 the Historic Environment, 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.

HE 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 HE may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

HE follows the Council's *Statement of Safety Policy*. For more specific policy and guidelines HE uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for British Archaeology's Handbook No. 6 *Safety in Archaeological Field Work* (1989).

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

Insurance

As part of Cornwall Council, HE is covered by Public and Employers Liability Insurance and Professional Negligence Insurance

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Charles Johns

Senior Archaeologist

12 October 2012

Historic Environment Projects

Cornwall Council

Kennall Building, Old County Hall,

Station Road, Truro, Cornwall. TR1 3AY

Tel: 01872 322056 Fax: 01872 323811

Email: chjohns@cornwall.gov.uk