



Porth Navas Quay, Constantine, Cornwall Archaeological Watching Brief



Cornwall Archaeological Unit

Report No

2015R042

Report Name

Porth Navas Quay, Constantine, Cornwall
Archaeological Watching Brief

Report Author

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Event Type

Watching Brief

Client Organisation

Duchy of Cornwall

Client Contact

James Scott (D o C)
Derek Bright
(Contractor)

Monuments (MonUID)

Port Navas
Quay, LB
Grade II ref.
1159524

Fieldwork dates (From) (To)

01 June
2015

(Created By)

(Create Date)

Location (postal address; or general location and parish)

Oyster Boathouse, Porth Navas, Constantine, Cornwall

(Easting) X co-ord

75499

(Centre of
excavation)

(Northing) Y co-ord

27649

(Easting) X co-ord

75497

(Centre, Listed
part of quay)

(Northing) Y co-ord

27636



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Abbreviations

CAU	Cornwall Archaeological Unit
DoC	Duchy of Cornwall
HER	Historic Environment Record, Cornwall's database of sites and monuments
LB	Listed Building
MCO	Denotes a site's reference number in Cornwall's HER
WSI	Written Scheme of Investigation

1 Project background

Cornwall Archaeological Unit (CAU) carried out an archaeological watching brief in June 2015 for an excavation to install a replacement sealed cesspool unit at Oyster Boathouse, Porth Navas, Constantine, Cornwall. The archaeological work was commissioned by James Scott on behalf of the landowner, the Duchy of Cornwall. Within CAU, the project manager was Colin Buck.

The Boathouse (a dwelling converted from a boat house, of 20th century origin) is located by Porth Navas Creek, in the rural parish of Constantine. The creek is a branch of the Helford estuary, near the port of Falmouth, on the south coast of west Cornwall (Fig 1). The site of the works is a grassy verge, sloping gently north east, by a private concrete road serving the Boathouse and leading to the nearby Duchy of Cornwall Oyster Farm with associated landing places and slipways (cover photo, and Figs 2 - 4). The site is on the landward side of Port Navas Quay (Figs 2 and 3), immediately adjoining the main part of the quay, which is a Listed Building at Grade II (ref. 1159524).

The watching brief was required as a condition for planning permission, to provide for recording of finds of archaeological interest in accordance with national planning policy (Planning Application PA14/02937). As noted in the Written Scheme of Investigation (WSI) by CAU for the works (Parkes 2015), Cornwall's Historic Environment Record (HER) indicated the potential for the works to encounter significant archaeological remains. The location of the site meant that it had potential for buried traces of past trading, fishing or other related activity - as indicated for example by its proximity to an enclosed settlement of the later prehistoric to Roman period at Higher Calamansack on higher ground across the navigable waterway to the south west (MCO 49822), and proximity also to hulks of vessels of varying periods (MCO 34484, 35603, 49894) - as well as for structural or other remains associated with the quay itself.

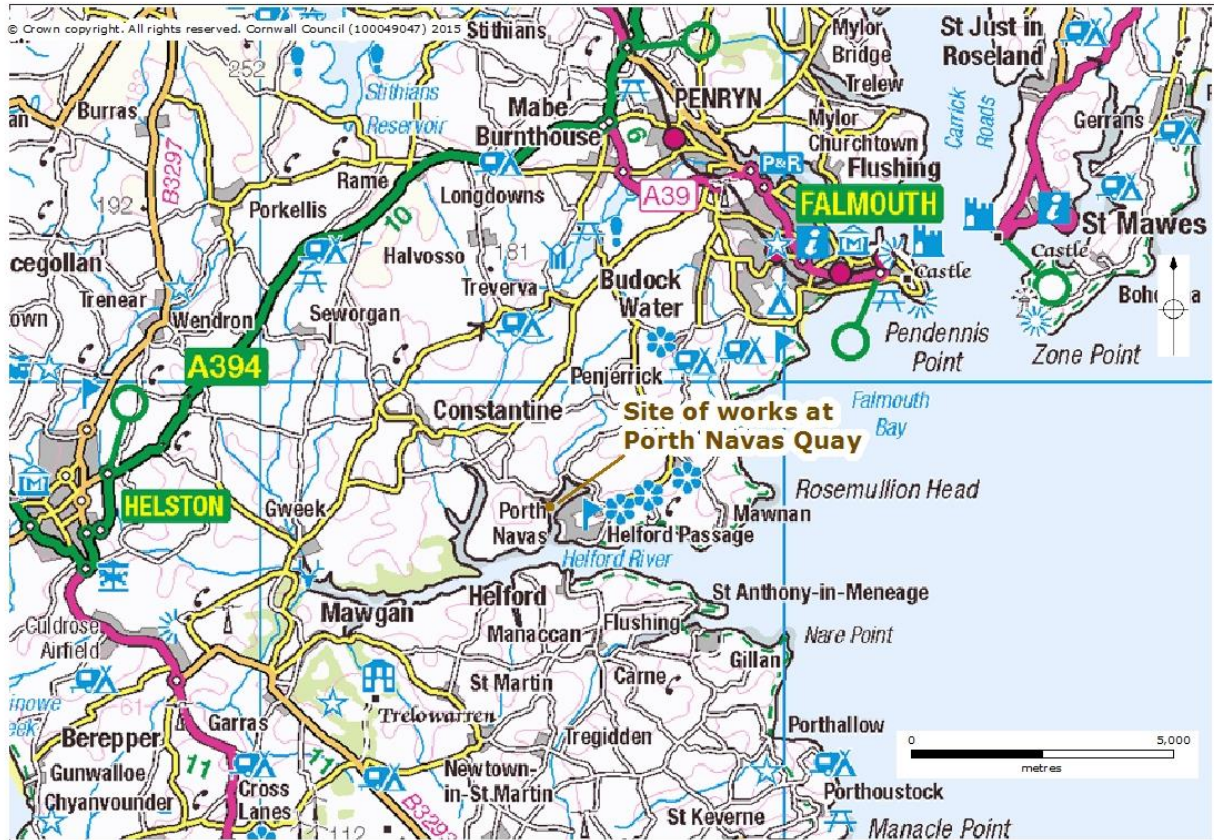


Fig 1 Map showing location of the site at Porth Navas on the Helford estuary

2 Aims and objectives

The principal aim of the watching brief, as stated in the WSI, was to provide for identification, recovery or recording, and interpretation of any significant archaeological remains encountered by the works. The project was also designed to help ensure protection or appropriate treatment for the fabric of the Grade II Listed quay, and any associated remains previously unrecorded.

3 Working methods

Prior to any ground disturbance, an initial inspection involving rapid assessment and photography was made; to record the character, features and condition of the works site, and to inform guidance given during the watching brief for the treatment of remains closely related to the adjacent Grade II Listed Building, Port Navas Quay (as it is spelt in the Listing documentation) or Porth Navas Quay, LB ref. 1159524.

The trench for the works was then excavated mechanically by the client's contractor, using a toothless bucket for levels from c0.5m below surface (ie, below upper deposits including poured concrete). The excavation area was rectangular in plan, measuring approximately 6m by 3.9m; its longer axis being orientated south west-north east along the line of the enclosure wall which runs across the historic area of the quay and defines the extent of the Listing (Figs 2 and 3).

As the excavation proceeded, the watching brief methods included close inspection and recording by notes and photographs. The archaeological officer also guided the works to minimise disturbance to remains associated with the Listed quay, in particular in two ways;

- The stone revetment on the north east side of the historic quay was found to extend, maintaining its line, to landward of the later enclosure wall (taken to define the back of the quay for the purpose of Listing - see further under Results and Discussion, below). The excavation, as defined through the planning process, reached to c1.5m from the *front* of the inland, unlisted end of the quay facing. It was therefore guided to avoid potential disturbance to the *rear* of this revetment walling, some of which remained undisturbed whilst other parts showed signs of previous modification (Figs 5 and 8).
- At the south west end of the works site, the width of the roadside area intended for the cesspool proved inadequate to accommodate the excavation area needed by the client. In the direction of the main, enclosed area of the quay, the south eastern long side of the excavation, as agreed through planning, immediately adjoined the (secondary) upstanding enclosure wall, used to define the extent of the Listing. As a result the excavation could not be broadened in that direction without direct adverse impact on the LB. However, an alternative was to accommodate the additional area of excavation on its opposite, north west side, requiring temporary displacement of 2 or 3 large stones (outside the Listing). These stones formed approximately half of the length (2.5m of 5m) of a simple, low revetment to the north east part of the 20th century road to the oyster farm where this was cut across the rear of the quay (Fig 13).

The watching brief continued to the stage at which the contractors were to proceed to insert a frame and excavate within that to the full depth required (3m or more from surface). At this stage the excavation was at a depth of 1.5-1.6m from surface and had reached natural bedrock over most of its area; part of a layer of grey clay remained, at the base of the made ground behind the quay face in the eastern corner (Fig 9).

The archaeological officer agreed with the contractors that following the extension of the western corner of the excavation into the edge of the private road, and making good of the ground after insertion of the cesspool unit, the road revetment stones that had been moved would be replaced carefully to their previous setting and orientation by the contractors, as part of the works.

4 Results

The excavation was cut through ground originally made up to form part of the extent of Port Navas Quay, though lying behind the Listed part of the quay (see maps, Figs 2, 3 and 5). Individual features revealed within the excavation area were limited to a recent electric cable trench on the east, which extended through the unexcavated inland part of the east face of the quay (Figs 5 and 8); and a few lenses of burnt material within the main clay body of the quay; clearly redeposited as part of that fill and therefore not individually recorded.

Another feature of minor interest could be seen on top of the rear part of the inland end of the quay's eastern face. This was a round socket in the concrete layer (2), c17cm in diameter, filled with shells and other debris but possibly a post-hole; this part of the ground was not excavated, and the feature, as shown by its content and its position on the modified inland corner of the quay face, is relatively recent.

The typical section revealed is recorded below, the layers being described in sequence from top to bottom of the excavation (see Figs 6-11).

- (1) 0m-0.1m Turf and medium to darker brown soil with grit (topsoil).
- (2) 0.1m-c0.2m Poured concrete (north side and centre of excavation) and rubble concrete and stone in varied, clayey or silty earth.
- (3) 0.1m (south side of excavation)/0.2m-0.5m Dark brown-grey earth with patches of clay, gravel, rubble concrete, rubble granite and local stone, cinders.
- (4) 0.5m-1.4m/1.5m Dense soft yellowy-brown clay; some broken brick, rubble stone, ash, pebbles, oyster shell (made ground).
- (5) 1.4m/1.5m-1.6m Soft blue-grey clay; some slaty stone, at least one pocket (an estimated 0.2m across) of shell fragments (made ground).
- (6) 1.6m (continues down) yellowy-grey local slaty stone or shillet (natural).

5 Discussion of findings and significance

The quay on Porthnavas Creek where the archaeological watching brief took place is thought to date from the mid to late 19th century. It is recorded on the OS map of c1880, but not on the Constantine tithe apportionment survey of c1840 (and not on the schematic but accurate and detailed two-inch scaled drawing made as a preliminary to the first, one-inch OS mapping in the early 19th century). The inner part of the north east side of the quay – that affected by the cesspool works – has a slightly sloping face built of upright rough slabs of shillet or local slate stone with granite quoins and copings. The outer part of the same quay walling is vertical and made entirely of granite blocks (cover photo).

The Listing documentation, noting these differences, attributes them to separate phases, describing the quay as 'probably an early to mid C19 enlargement of an earlier C19 or late C18 quay'; but as already mentioned, the OS drawing of 1811 and tithe survey of c1840 show no quay here. An alternative interpretation is that the quay is of one main phase, mid-late 19th century, the local rubble slate (and the associated pitching of the stones and battering of the face) being used at the back of the east side of the quay where it was less exposed to damage from tides, did not require to be vertical for loading purposes, and was not visible from the historic approach to the quay by land, from the other, west side. The joint between the two styles of construction and fabric appears staggered rather than straight, though it could have been re-worked.

A later phase of modification can be seen on the north of the works site towards the rear of the historic quay, where walling of 20th century character with irregular granites

and cement mortar is used to turn the quay wall round a corner to the west to line the concrete access road there, slanting over the inland part of the made-up quay ground (cover photo, and Fig 12). This probably dates from the mid-20th century, when the oyster farm base was established a little further up Porthnavas Creek (Fig 4). The concrete in the upper layers of the excavation, with poured concrete towards the north side of it (Figs 6, 7 and 11), may have been deposited when the access road was made up.

The south west end of the revetment to the road across the rear of the quay, where displacement of several stones was required to accommodate the west corner of the excavation, was formed from single pieces of rubble or re-used shaped granite, mostly around 0.4m across, some up to 0.8m long, with cement mortar (Fig 12). The north east part of this revetment (undisturbed by the excavation) was a little higher as it faced the part of the road rising up onto the historic quay ground, and so incorporated, as well as larger grounders, a course of thin, irregular, split granites. The walling at the corner between the quay wall and the road revetment, on the north of the works site, was made solely of thin granites with frequent narrow drill marks, possibly because it was later trimmed to facilitate turning around it to access a concrete slipway beside it.

Initial examination of the site confirmed that as indicated by map regression, the wall enclosing the waterfront ground on top of the quay (defining the Listed area), is a secondary, 20th century feature. It is only 0.4m wide and 0.6m high including a timber top possibly intended for seating, and made of randomly coursed irregular small granite rubble with narrow drill marks in cement mortar. The watching brief results were consistent with this dating, revealing clay quay fill covering all of the excavated area and continuing under the enclosure wall (Fig 10). The clay also ran under the stones forming the revetment against the access road on north, showing how that road was cut over, rather than behind, the inland part of the quay (Fig 11).

The extent and depth of the clay is the most interesting observation of the watching brief, indicating that the whole of the quay ground was made up, behind its stone faces, of this material, its low permeability giving long-term stability to the structure built out into the creek (Fig 9). The core of the quay was built up of two distinct clay deposits, a basal layer spread over stripped natural bedrock, and an upper layer a metre or more thick, incorporating some broken brick consistent with the mid-late 19th century dating of the construction. Also of interest is the presence of shell fragments in both of the layers of clay making up the body of the quay, which may be attributed to oyster fishing and/or processing being carried out at or near the site when the quay was built in the 19th century.

The works had no appreciable impact on the Listed Building or its significance; no early, complex or otherwise highly sensitive features or deposits were uncovered and no artefacts found. The contractors agreed to replace the relatively recent stones revetting the secondary road across the back of the quay following the conclusion of the works.

Project archive

The CAU project number is **146450**

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.

The digital images are stored in the directory \\SITES.M-P\Sites P\Porth Navas Quay 146450

An electronic version of this report, along with project documentation and correspondence, is stored in the directory \\Projects\Sites\Sites P\Porth Navas Quay 146450

English Heritage/ADS OASIS online reference: cornwall2-215069

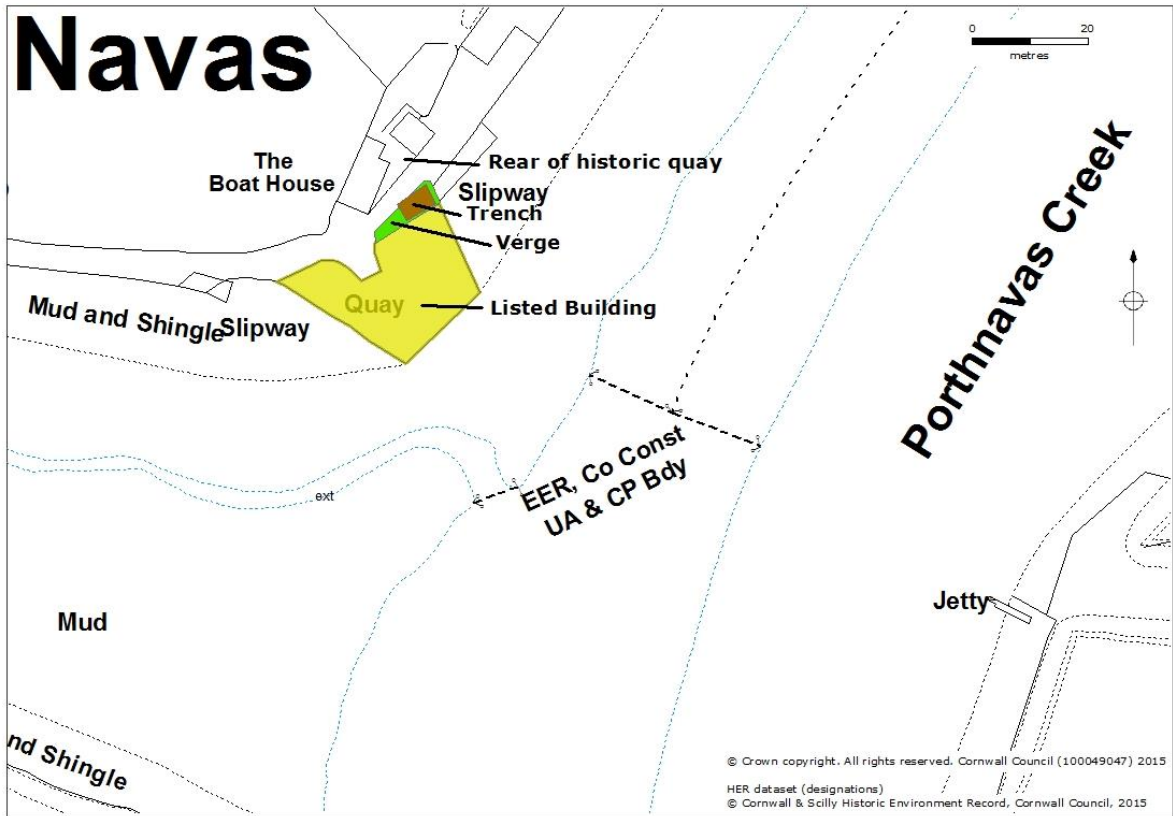


Fig 2 Map showing the site relative to the historic quay and the extent of the LB (on the modern map base)

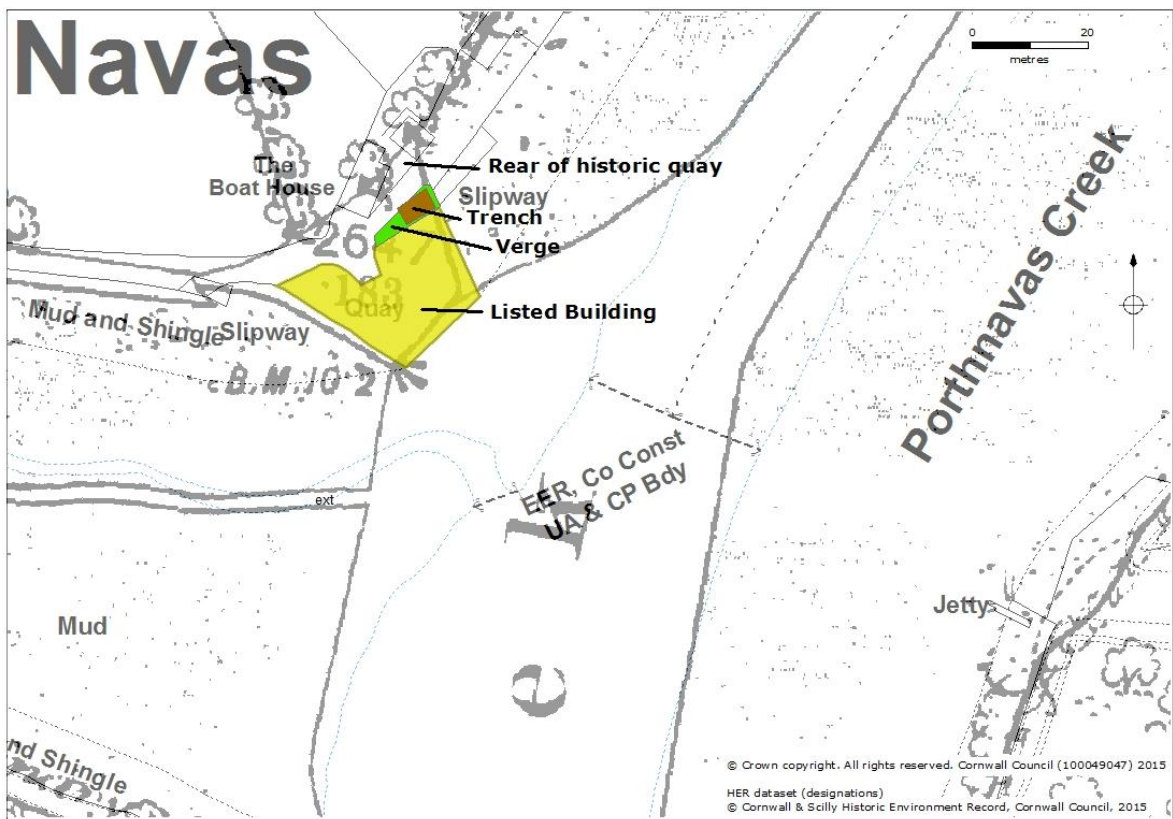


Fig 3 Map showing the site relative to the historic quay and the extent of the LB (on a base combining two layers; the 1:2,500 OS survey of c1880, and modern mapping)



Fig 4 The site, on a roadside verge, seen from the south west, prior to excavation

In the rear ground is the Duchy Oyster Farm, served by the concrete road to the left of the works site. Both the road and its verge lie within the extent of the historic quay, but outside the Listing which protects it, this being defined by the wall to the right.



Fig 5 Detail of the site before excavation, showing the north end of the quay's west face

This view shows how the historic quay face extends to the landward side of the wall defining the Listing (above the scale pole), and also shows the location of a recent cable trench running between the quay face (left of a displaced block) and the wall.



*Fig 6 Works site stripped of turf with the concrete layer 2 exposed, from the north east
The spread of concrete is probably associated with the laying of the roadway alongside.*



*Fig 7 Layer 4, the yellowy clay with occasional brick laid to form the body of the historic quay behind its stone facing, in the centre of the works, seen from the north east
The concrete to the right is from layer 2, broken and shifted to the edge of the trench.*



*Fig 8 Basal layer of bluish clay, layer 5, in the eastern corner of the site, from the west
Part of the inner side of the north end (which is outside the Listing) of the stone facing
on the east of the quay can also be seen, some 0.5m to the right of the scale pole; this
part had been previously disturbed to lay the cable, pulled up to the top of the trench.*



*Fig 9 North west section with natural ochre coloured shillet showing under the basal
grey clay layer 5 and the mass of yellowy brown clay with brick fragments, layer 4*



Fig 10 North east end of the landward face of the wall on the historic quay, used to define the Listing, (sited on the clay body of the quay, cut by the works)



Fig 11 North corner of the works, with large granites bedded on the clay of the quay

The granites line the secondary, concrete road cut over the rear of the quay (between them and the Oyster Boathouse in the rear ground). Some may perhaps have been sourced from the old quay and re-used, while others show modern shaping or drilling. (The front of this revetment appears in Fig 12, and in Fig 13 taken further up the road.)



Fig 12 Revetment on the south east of the secondary road cut over the historic quay

The stones' character and drill-marks, cement mortar, and random coursing show that, as indicated by map regression, this road and its walling are relatively recent features.



Fig 13 Stones facing the road at the south west end of the north east side of the works

These stones, being associated with the road, a recent modification of the quay, were displaced temporarily to admit the west corner of the cesspool unit, and replaced.

