

CPAT Report No. 1679

Vessel wreck at Pensarn Beach, Abergele

Preliminary Survey



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Summary

A member of the public reported the remains of a possible wooden vessel on the shore of Pensarn Beach, Abergele to Clwyd-Powys Archaeological Trust (CPAT). A preliminary survey of the site was conducted by CPAT during evening low tide on 1 August 2019. Initial observations suggested that the lower portions of wooden vessel were present. Remaining partially submerged, the lower elements of the stern, port and starboard side of the vessel were visible. The bow appeared to be lost or submerged, although elements of a possible bowsprit were visible. The vessel has been tentatively identified as the *Endeavour*, a wooden sloop lost in 1854. Further survey and dendrochronological/wood identification sampling are recommended.

Crynodeb

Adroddodd aelod o'r cyhoedd weddillion llong bren bosibl ar lan Traeth Pensarn, Abergele i Ymddiriedolaeth Archeolegol Clwyd-Powys (CPAT). Cynhaliwyd arolwg rhagarweiniol o'r safle gan CPAT yn ystod llanw isel gyda'r nos ar 1 Awst 2019. Roedd arsylwadau cychwynnol yn awgrymu bod y dognau isaf o long bren yn bresennol. Yn weddill o dan y dŵr, roedd elfennau isaf ochr goch, porthladd a serenfwydd y llong i'w gweld. Roedd yn ymddangos bod y bwa ar goll neu o dan y dŵr, er bod elfennau o bowsprit posib i'w gweld. Mae'r llong wedi'i nodi'n betrus fel yr Endeavour, sloop pren a gollwyd ym 1854. Argymhellir cynnal arolwg pellach a samplu adnabod dendrocronolegol / pren.

1 Introduction



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Fig. 1 Location of site, Pensarn Beach, Abergele.

- 1.1. Mike Hughes, a member of the public, reported the remains of a wooden vessel to Clwyd-Powys Archaeological Trust (CPAT) on the shore of Pensarn Beach, Abergele. A preliminary survey of the feature was conducted by CPAT on 1 August 2019 to assess the nature of the remains and determine if further investigation was warranted.

Methodology

- 1.2. A rapid preliminary survey was conducted making use of evening low tide. The approximate height of the tide during the visit was 0.6 m above chart datum (CD). Key dimensions and visible features were documented and photographed.
- 1.3. The position of the site was recorded using a hand-held Garmin eTrex 20 with an accuracy of +/-3 metres. Position was recorded for the centre of the visible port (inshore) side of vessel.

2 Site Environment

Site Location			
OSGB 1936/ British National Grid		WGS84	
Easting	Northing	Latitude	Longitude
294041	378833	53.295823	-3.5912359

- 2.1. The site was located on Pensarn Beach in the area known as 'Abergele Roads', a large area of shoals extending out from the mouth of the River Clwyd and forming the southern boundary of the Inner Passage. The site lay within its own scour near a tidal pond, which means that the site was partially submerged at all times. The site was reported to have only been visible since storms in 2018 and at low tide. This suggests erosion and net sediment loss in the area. The site was located at Ordnance Survey NGR SH 94041 78833.

3 Assessment of the Wreck

- 3.1. The assessment was conducted according to the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for Archaeological Field Evaluation* (2014).
- 3.2. The vessel appeared to be port inshore, lying upon its keel with roughly equal heights of futtocks visible on both the port and starboard sides.
- 3.3. The length of the visible hull was 12.5 metres (41 feet) and the width was 4.65 m (15.2 feet). The measurement of the width presented considerable difficulty due to the water depth and quicksand conditions in the immediate surrounds of the vessel. Consequently, measurements are approximate only.

Exposed Structure

Futtocks

- 3.4. Elements of both the futtocks of the port and starboard side were visible. The starboard forward futtocks were not visible (Fig. 2).



Fig. 2 Port and starboard futtocks viewed from the south-west Photo CPAT 4674-0007

Sternpost

- 3.5. Approximately 1.0 m of the sternpost were extant (below/above the waterline) with 0.20 m visible above the waterline (Fig. 3).



Fig. 3 Sternpost viewed from the south Photo CPAT 4674-0004

Outer and ceiling planking

- 3.6. Portions of the outer planking were visible just above and beneath the waterline. Due to the depth of the water and poor conditions underfoot, it was not possible to approach close enough to measure these elements. Based on visual observation from a distance of several metres, the outer planks appeared to be placed flush suggesting a carvel method of construction (outer planks flush) rather than clinker (outer planks overlapping).
- 3.7. Clinker-built vessels tended to be predominant in Northern Europe prior to the introduction of carvel methods from the 17th century onwards (Eriksson, 2010, 78), which may suggest a later period of construction for this vessel. However, it is difficult to assign a high degree of confidence to build methods without being able to approach these elements closely. Near the sternpost the outer and ceiling planking curved upwards towards the sternpost (Fig. 4). On the starboard side, the outer planking was visible just below the waterline and appeared horizontal (Fig. 5).

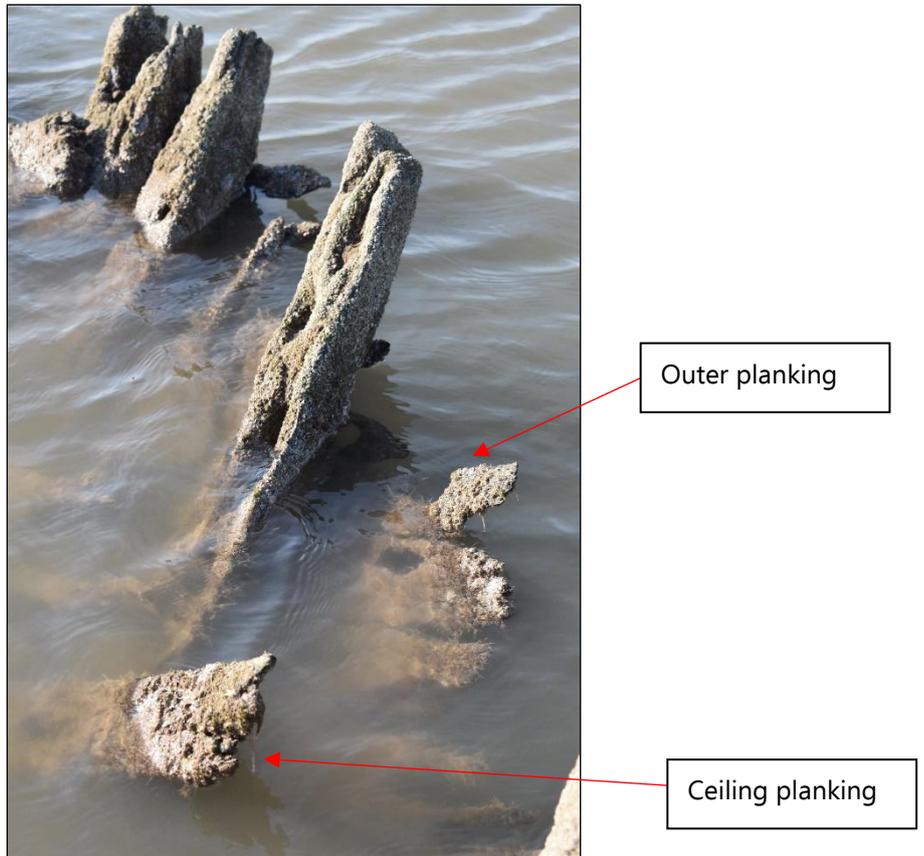


Fig. 4 Planking near sternpost viewed from the south. Photo CPAT 4674-0020



Fig. 5 Starboard side viewed from the north-west. Photo CPAT 4674-0012

Other

- 3.8. A length of timber, aligned off-centre to the port side was visible. This extended beyond the bow and given its size and position may represent the bowsprit, a spar running out from a ship's bow, to which the forestays are fastened. The timber appeared to have split and a portion of it was aligned inshore. It is also possible this element is a disconnected jib-boom, is a spar used to extend the length of a bowsprit (Fig. 6).



Fig. 6 Timber, extending beyond the bow, viewed from the west. Photo CPAT 4674-0009

- 3.9. All the visible timbers had undergone significant accretion of material (Fig. 7). The tips of some of the futtocks showed evidence degradation with exposed fresh timber visible (Fig. 8).



Fig. 7 Accretion materials of timber. Photo CPAT 4674-0023

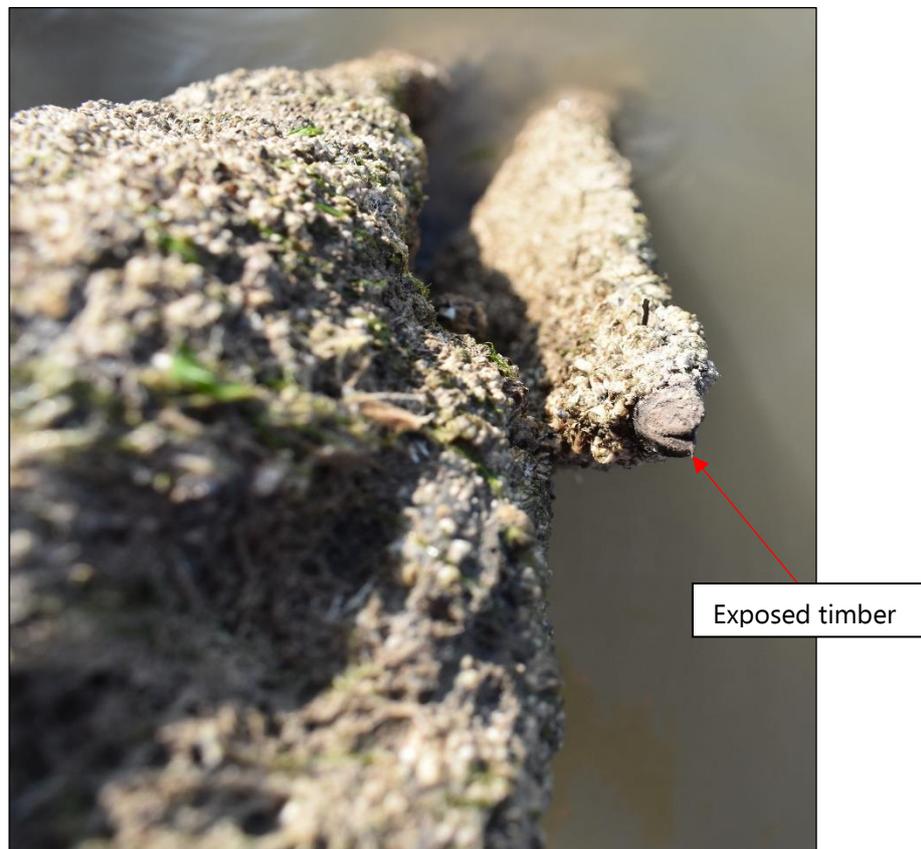


Fig. 8 Exposed timber at tip of futtock. Photo CPAT 4674-0022

- 3.10. It is likely that elements of the keel and floor timbers survive beneath the sediment, given the preservation of the lower futtocks and planking. Where it was possible to physically evaluate the extent of the vessel below the waterline, near the bow, the surviving structure appeared to extend below the loose sediment.
- 3.11. No artefacts or small finds could be seen exposed at the site.
- 3.12. Considering the short duration of exposure of the vessel, the freshly exposed timber shows active and rapid degradation of the wreck. This most likely due to the mechanical effect of water currents and waves (WreckProtect, 2011, 14).

4 Conclusions

- 4.1. There are number of documented wrecks at Abergele and at nearby Llanddulas, however, the most likely documented candidate for the identity of this wreck is a vessel called the *Endeavour*. The vessel was caught in gale force winds and blown inshore, at Abergele, on 4 October 1854 (RCAHMW, 2019). The Endeavour was a wooden sloop built at Chester in 1817. Technical and configuration specifications are given as 35 tons burthen; 45ft length x 13.5ft breadth x 8ft depth in hold; 1 deck, 1 mast; sloop rigged with a running bowsprit, is square sterned, carvel built, framework and planking of wood (RCAHMW, 2019). The approximate dimensions of the vessel measured during the survey, construction methods, materials and location suggest the wreck could be the remains of this vessel or an unknown vessel of similar construction.
- 4.2. It is recommended that the site is fully surveyed using survey grade differential GPS to gain accurate measurements and dendrochronological and timber identification sampling is conducted to gain accurate dating information. This should be carried out as soon as is feasible given the active degradation of the site. These methodologies have been used successfully at other beach wreck sites in the UK, for instance the Bamburgh Castle beach wreck, dated to AD 1768 (Bale, 2014, 3). Following the application of these methods, the site is now a scheduled ancient monument. It is also possible that further degradation of the wreck can be mitigated by the various conservation methods such as the additional deposition of sand and stone layers which are known to have positive impact on site preservation in partially submerged contexts (WreckProtect, 2011, 37).

5 Sources

Published sources

Bale, R. 2014. *Tree ring dating and species identification of timbers from the Bamburgh castle wreck, Northumbria*. University of Wales, Trinity of Saint David

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Eriksson, N. (2010). "Between Clinker and Carvel: Aspects of hulls built with mixed planking in Scandinavia between 1550 and 1990" *Archaeologia Baltica*, 14(2): 77-84.

RCAHMW. 2019. National Monuments Record of Wales (NMRW). NPRN: 271368.

WreckProtect. 2011. Guidelines for Protection of Submerged Wooden Cultural Heritage, including cost-benefit analysis.

6 Archive deposition Statement

- 6.1. The project archive has been prepared according to the CPAT Archive Policy and in line with the CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance (2014). The archive is entirely digital and will be deposited jointly with the Historic Environment Record, Clwyd-Powys Archaeological Trust and the National Monuments Record (RCAHMW).

Archive summary

CPAT Event PRN: 164091

23 digital photographs, CPAT film no: 4674

Photo Catalogue

Digital Report