



Hornsea Project One: Horse Shoe Point, North Coates North East Lincolnshire

Timber Assessment



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Summary

Wessex Archaeology was commissioned by Ørsted (formerly DONG Energy) to undertake an archaeological recording of finds uncovered from the intertidal zone at the Hornsea Project One, Horse Shoe Point, North Coates, North East Lincolnshire. Some of the finds were retrieved to the North Coates compound and subsequently recorded. These consisted of four large timbers, four small timbers, a capstan and a metal railing.

The archive is currently held at the offices of Wessex Archaeology in Sheffield under the project code 110499. In due course, the archive will be deposited with North Lincolnshire Museum under the accession code NKBH.

Acknowledgements

Wessex Archaeology would like to thank Ørsted (formerly DONG Energy) for commissioning the archaeological work and to Mark Edmond (Hornsea 01 HDD Supply / Inst. PM) for an on-site support.

The fieldwork was directed by Alvaro Mora-Ottomano and the report was written by Robert MacKintosh. The project was managed by Richard O'Neill and Toby Gane on behalf of Wessex Archaeology.



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Timber Assessment

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology was commissioned by Ørsted (formerly DONG Energy; hereafter 'the Client') to undertake an archaeological watching brief in advance of, and during, the construction phase of an onshore cable route associated with an offshore windfarm (Wessex Archaeology 2018a). The onshore cable route runs from Horse Shoe Point in the parish of North Coates (National Grid Reference; NGR 53800, 40210), east of Tetney, in a broadly north-west direction towards the existing Killingholme power station (NGR 51520, 41890), where a new High Voltage Alternating Current substation will be built.

1.1.2 An assemblage of timbers, an object interpreted as a capstan and a metal railing and post were discovered during excavations for cable installations in the intertidal zone at Horseshoe Point (E 307488 N 5933487 (WHS84 UTM 31N)), (Figure 1). These were discovered unexpectedly by the cable installation contractors and reported immediately to the offshore Retained Archaeologist under the terms of the WSI (DONG Energy 2016). The assemblage was initially reburied and then re-excavated under the supervision of the Retained Archaeologist (Cooper 2018). As a result of a short time window on site due to the tide, and the distance of the site to the sea wall, a decision was made by the Retained Archaeologist to retain a sample selection of the finds for archaeological recording and rebury the remaining finds to ensure their preservation. The remaining finds were reburied at E 307487 N 5933492 (WGS84 UTM 31N).

1.1.3 Following the Retained Archaeologist's attendance on site, Historic England and Lincolnshire County Council were consulted to confirm the next steps. It was agreed that the sampled finds should be recorded as part of the archaeological watching brief whose aims and methodologies were set out in a method statement document (Wessex Archaeology 2018b).

2 AIMS

2.1 General

2.1.1 The aims of the archaeological recording, as stated in the Method Statement (Wessex Archaeology 2018b) were:

- *to establish a date and origin for the material encountered;*
- *to examine further the archaeological significance of the material and its value for further research; and*
- *if appropriate, to provide comment on the approach taken to investigating the anomaly during the consenting and pre-construction process and to identify any lessons learned which may inform the processes applied to magnetic only anomalies.*



3 METHODS

3.1 Introduction

3.1.1 All works were undertaken in accordance with the detailed methods set out within the Method Statement (Wessex Archaeology 2018b) and in general compliance with the standards outlined by the Chartered Institute for Archaeologists (2014a). The methods employed are summarised below.

3.2 Fieldwork methods

3.2.1 The archaeologist attending the site compound was inducted by the Principal Contractor.

3.2.2 The finds retrieved to the compound were recorded using Wessex Archaeology's pro forma recording system. A complete drawn record of finds was made at an appropriate scale of 1:10.

3.2.3 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4 ASSESSMENT OF TIMBERS

4.1 Position

4.1.1 The original location and layout of the assemblage was communicated to the Retained Archaeologist by the cable installation contractors. The assemblage included timbers that formed a putative structure composed of two rows of timbers at regular intervals projecting towards the sea. The rows were approximately 6-8m across by 15m long and the timbers were set every 5m. There were supposedly 4 timbers standing upright *in situ* when first excavated, two on either side of the cable trench, although when re-excavated the Retained Archaeologist only witnessed one (Cooper 2018).

4.1.2 The sample kept for recording consisted of four large timbers, four smaller timbers, a capstan and a metal railing. It is unknown where in the 'structure' these were originally located.

4.2 Archaeological Assessment

Timber 1

4.2.1 This timber measured approximately 860 x 300 x 150 mm (Figure 2). It was curved along its length on one side where the timber was knotted. The timber is roughly triangular in section, with the thickness of one side approximately 150 mm, but then tapering to the other. One end terminates in a straight edge where it has been cut or split almost perpendicular to its length. The other end tapers to a circular sector shaped section with a chord length of approximately 120 mm. The curve of the growth rings in this section would suggest that the timber is heart wood.

4.2.2 The timber is in a poor condition. It has been split off from its parent timber and is heavily eroded, with fraying at the ends and shakes along the length of the timber, and radially out from the heart. There are concretions of marine sediment and evidence of iron corrosion. The timber is also knotted.

- 4.2.3 Two large iron fastenings protrude approximately 50 mm from one face and are heavily concreted with marine sediment. One iron fastening protrudes from the opposite face. The timber appears too eroded to have evidence of tool marks.

Timber 2

- 4.2.4 This timber measured approximately 900 x 200 x 120 mm (Figure 3). It is rectangular in section halfway along its length. It runs straight for 730 mm but then has a slight dog leg at an obtuse angle, following the grain of the wood. At this end it has been split off from another part of the timber. It is not clear whether the dogleg was present when the timber was in use or whether it has been created by the loss of some of its original mass. The other end curves in to meet the timber's straight face.
- 4.2.5 The timber is in a very poor condition, is heavily frayed and has been split off from another section of the timber. Marine concretions cover some of its outer faces and it is discoloured from iron corrosion. It also seems that the curved face, the inner side of the dogleg, has a black discolouration, possibly evidence of burning, but more likely merely indicative of its presence in an anoxic environment. The other sides of this timber do not share this discolouration. The timber is heavily knotted.
- 4.2.6 The timber has a number of iron fastenings on two opposing faces. There are also empty fastening holes which may have held treenails.

Timber 3

- 4.2.7 This timber measured approximately 1250 x 260 x 250 mm (Figure 4). It was roughly square in section, and straight and flat along all faces. One end has been cut on two faces to form a point. This seems to be the shape of a notched joint, used to join the timber at an oblique angle to another timber. Alternatively, it could have been to drive the timber into the ground if it was used as a post. The timber has been cut at the other end, likely by the excavator, diagonally across its section, leaving a triangular wedge that tapers off to the timber's end.
- 4.2.8 The timber is in good condition relative to the others in the assemblage, with only some fraying and some shakes along its length. It has no marine concretions but does show some black discolouration and discolouration from iron corrosion.
- 4.2.9 There is an iron fastening present on this timber that is visible on two of its faces, appearing to pass entirely through the timber. There is also possibly an iron fastening on a cut face of the notched joint, which would suggest that the feature's purpose was as a joint rather than merely sharpening for the timber's use as a post.

Timber 4

- 4.2.10 This timber measured approximately 1650 x 270 x 220 mm (Figure 5). Its section is roughly rectangular. In a similar manner to timber 3, one end terminates in an intentional cut at an angle, and the other has been cut, again likely by the excavator, leaving a notched wedge that roughly resembles a scarf joint.
- 4.2.11 The timber is in very poor condition and is heavily eroded and frayed. There is no evidence of marine concretions.
- 4.2.12 There are numerous treenails on this timber, 15 in total on two of the timber's faces, and one further empty treenail hole. In addition, there is a treenail hole at the end of the timber with the intentional cut. The point of the cut has eroded away and left the treenail hole as a notch. The treenails were all approximately 30 mm in diameter.
-

Capstan

- 4.2.13 A capstan was discovered that measured 990 mm in height, with a head 280 mm in diameter at its thickest and an axle is 60 mm in diameter (Figure 6). There were sockets for eight capstan bars, which suggests it is a capstan rather than a windlass and was used in an upright position.
- 4.2.14 There is still rope coiled around the barrel (sometimes also called the rundle), which is heavily concreted with marine sediment. The same concretion is present on the top and one side of the narrow drumhead (sometimes also called the trundle-head) of the capstan. The barrel itself is not evident, but the spindle is still in place.
- 4.2.15 The capstan is a composite of metal and timber, with the drumhead being made of timber, but with iron banding. The axle also seems to be made of iron. The iron is much corroded and there is discoloration from this over much of the drumhead.

Metal Railing

- 4.2.16 A length of metal rod or cable was also discovered that was described by the Retained Archaeologist as 'railing' (Cooper 2018) (Plate 1). It was approximately 3 m in length. There is a small amount of chain attached to one end, and some concreted marine sediment.
- 4.2.17 When discovered the railing was black, indicating its location in an anoxic environment. When investigated by a WA archaeologist it had become rust coloured.

Small Timbers

- 4.2.18 Four smaller timbers were also retained. These include part of a bar of the capstan that became disconnected from the capstan that is approximately 260 mm in length (Plate 2). The other three timbers are heavily eroded but provide further evidence of the use of treenails (Plates 3, 4 and 5). It is possible that these further timbers are not connected with previously described timbers because of their differing fastenings, size, wear and colouration.

Other finds

- 4.2.19 Some other notable finds were reburied without further investigation in order to ensure their preservation. These include a timber that was 2.23 m long and 300 x 300 mm in section, with a half lap joint cut out from one end.
- 4.2.20 A ferrous metal post was also discovered. It may have been painted and has also been reburied.

4.3 Discussion

- 4.3.1 All timbers were in a poor condition, being eroded and frayed, and having been accidentally damaged by the mechanical excavator during their unexpected discovery. Recent damage was indicated by light coloured breaks and fractures that were witnessed at their discovery. Older, darker coloured splits and breaks were also recorded however.
- 4.3.2 None of the examined timbers were whole pieces. Attempts to match them to the other timbers were unsuccessful meaning none of them were originally adjoined. The species of the wood is unknown. Iron features were heavily corroded.
- 4.3.3 Most of the timbers display similar characteristics such as fasteners, with a preponderance of iron in the assemblage, although timber 4 has only treenails. In addition, the dimensions

of the timbers are similar, with timbers 3 and 4, and the reburied timber that was measured, having a width and thickness of between 300 and 220 mm.

- 4.3.4 There are no previously recorded heritage assets at the location at which the archaeological material was found. Several theories relating to the provenance of the material were discussed by the Retained Archaeologist upon discovery of the timbers (Cooper 2018). They could be part of a wooden shipwreck or structure that has previously been identified in a Rapid Coastal Zone Assessment for Yorkshire and Lincolnshire (Brigham *et al.* 2008), although none are listed as being situated at the same location as the material was discovered. They may also be a previously unknown shipwreck or structure. They may be related to the North Coates airfield, which has been in use from 1918 to present, and the adjacent former bombing range that encompassed the intertidal area where the archaeological material was found (Stafford *nd*). In particular, it is possible that they were part of a series of pontoons to which target vessels would be attached. Finally, it is possible that the material is merely debris that was purposefully dumped in this location or accumulated there naturally over time.
- 4.3.5 Although the presence of the capstan would at first suggest a shipwreck, the positioning of timbers when *in situ*, set out in rows with originally four standing upright, would act to counter this theory. In addition, the presence of notch and lap joints on the timbers, rather than anything more structurally sound such as scarf joints, would also suggest that they were not ship's timbers. It is possible however, that timber 4 with its many treenails, and timber 2, which resembles a portion of a knee, may have at one stage been ships timbers. It is unlikely that these were part of a coherent shipwreck when discovered, but it is not inconceivable that they were originally ship timbers that were re purposed after their use in a ship.
- 4.3.6 Perhaps the most likely scenario is that the timbers formed part of a pontoon or jetty, used for siting or administering targets, or perhaps part of a slipway. This is suggested by the parallel lines of timbers running towards the sea. The capstan could be unrelated to this structure but may have been used for hauling boats up a slipway or hauling in targets following practice runs.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1.1 A sample of four large timbers, four smaller timbers, a capstan and a metal railing were retained for study. Other finds including a metal post and other timbers were reburied. The assemblage is heavily damaged and has been removed from its original context, which, due to the nature of the discovery and its location close to the low water mark, could not be safely archaeologically recorded.
- 5.1.2 It is likely that these formed a jetty or slipway, probably dating from the 20th century and consistent with the area's use as a bombing range, although this is by no means certain. Some of the timbers may have originally been ship's timbers that were reused to create the structure. The capstan could have also originally come from a ship.
- 5.1.3 Further work could be done to more closely date the timbers. Apart from this there is little more archaeological information that the retained assemblage, having lost its context, can provide.
- 5.1.4 Based upon the current assessment, the retained assemblage is of limited archaeological significance, and preservation by record of the assemblage is considered sufficient.

6 ARCHIVE STORAGE AND CURATION

6.1 Museum

- 6.1.1 The archive is currently held at the offices of Wessex Archaeology in Sheffield under the project code 110499. In due course, the archive will be deposited with North Lincolnshire Museum under the accession code NKBH.

6.2 Preparation of the archive

- 6.2.1 The archive, which includes paper records and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by North Lincolnshire Museum, and in general following nationally recommended guidelines (SMA 1995; Chartered Institute for Archaeologists 2014b; Brown 2011; ADS 2013).

6.3 Security copy

- 6.3.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

6.4 OASIS

- 6.4.1 An OASIS online record (<http://oasis.ac.uk/pages/wiki/Main>) has been initiated, with key fields and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.

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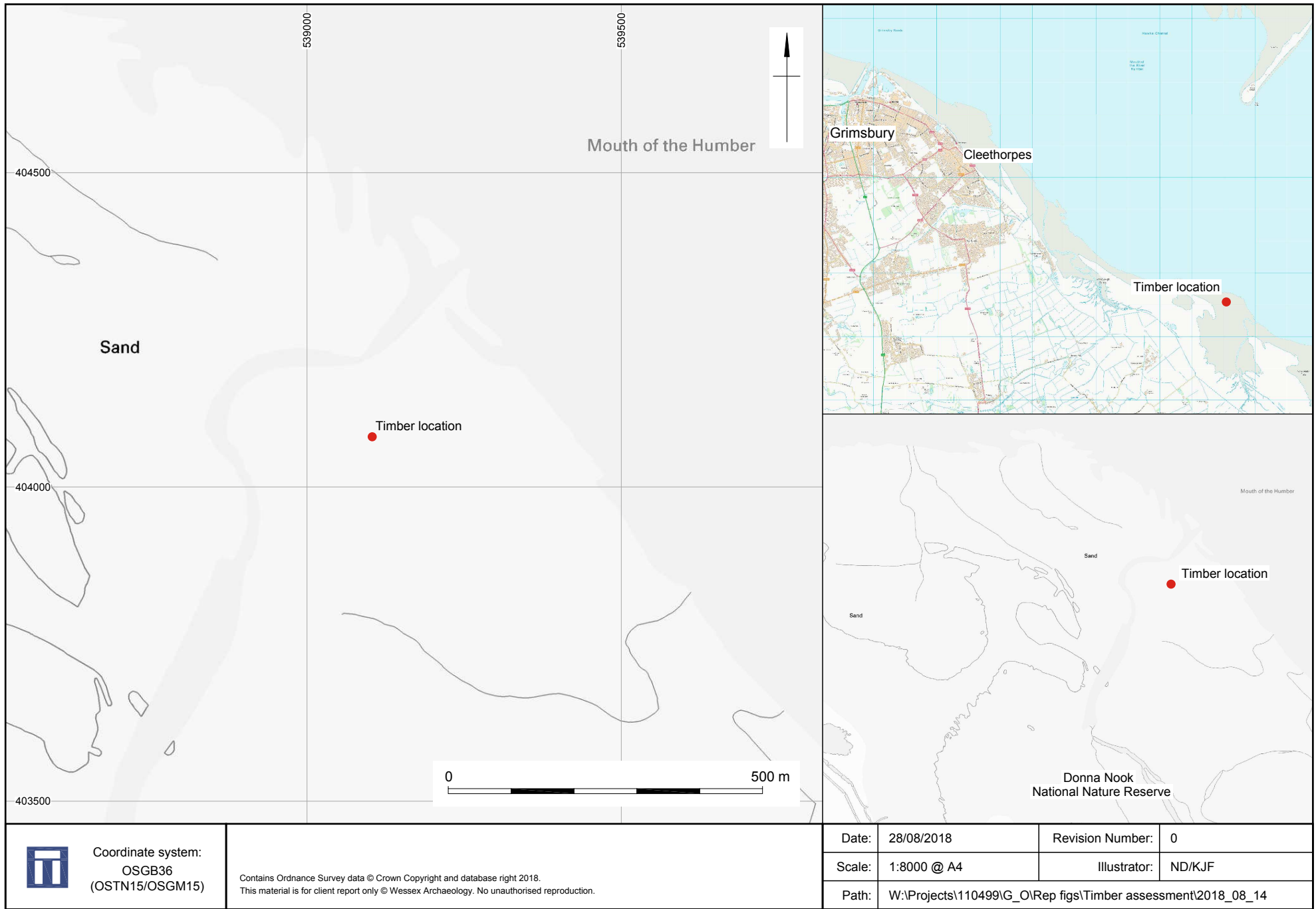


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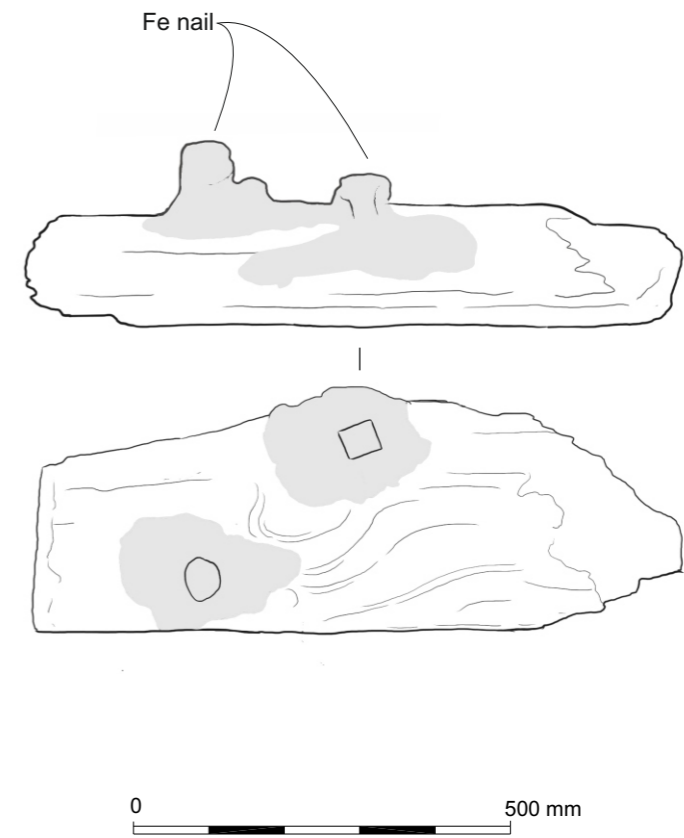
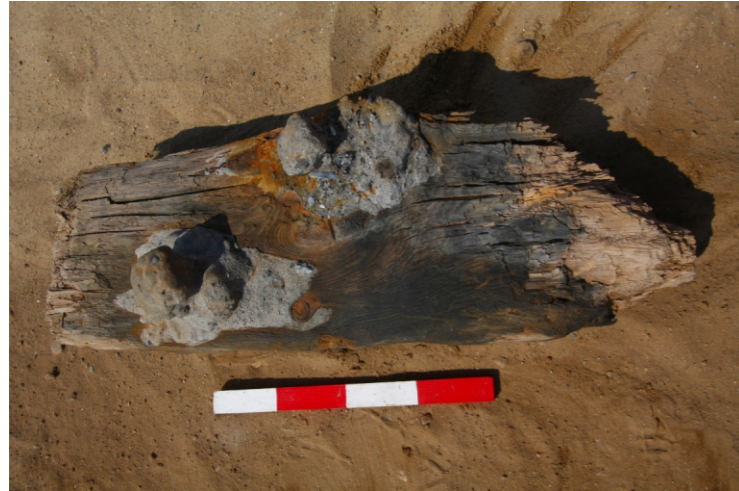
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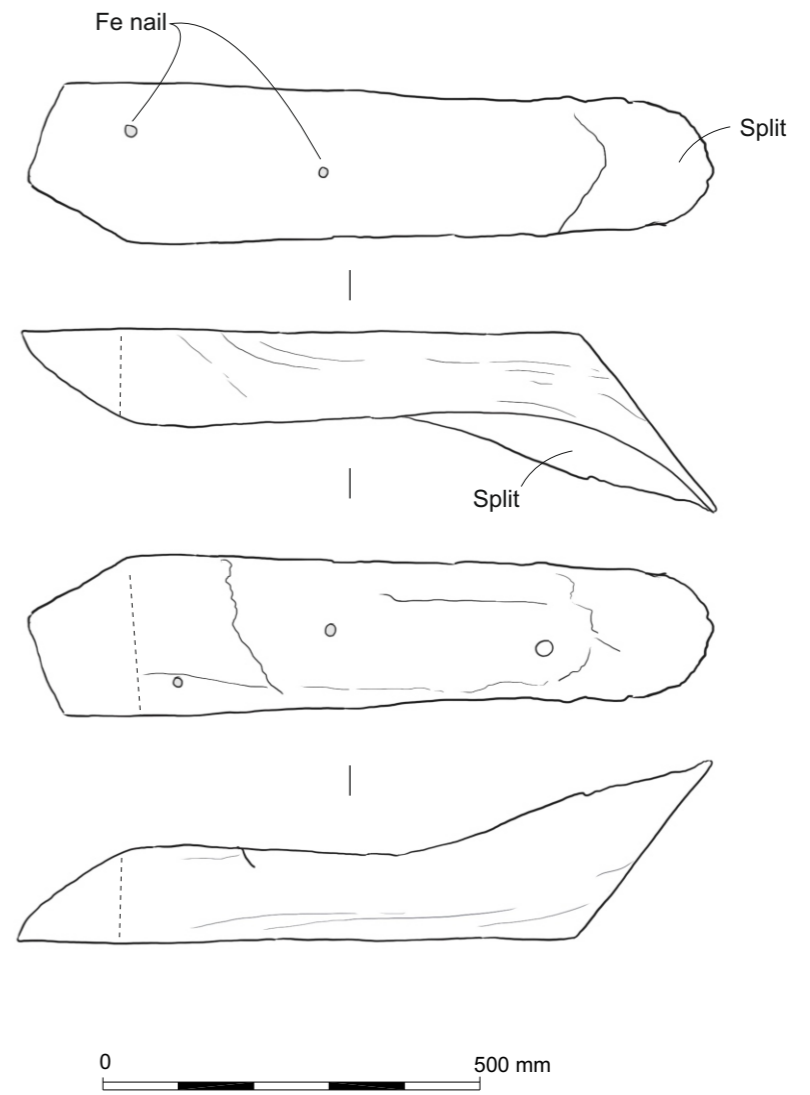
Timber location

Figure 1



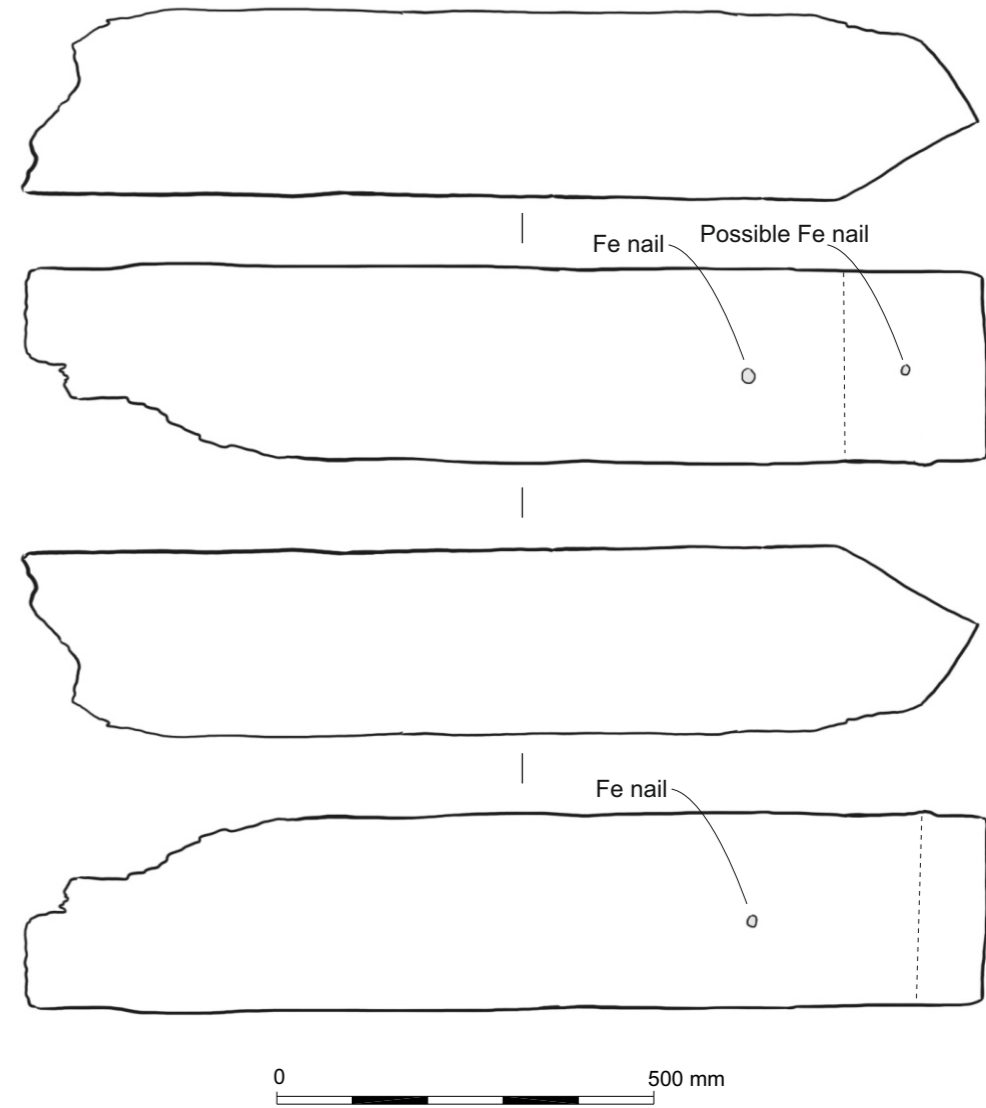
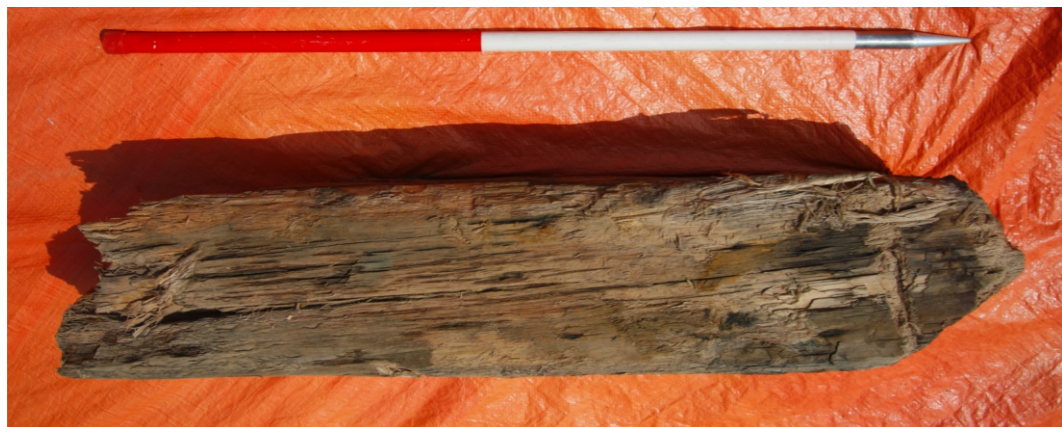
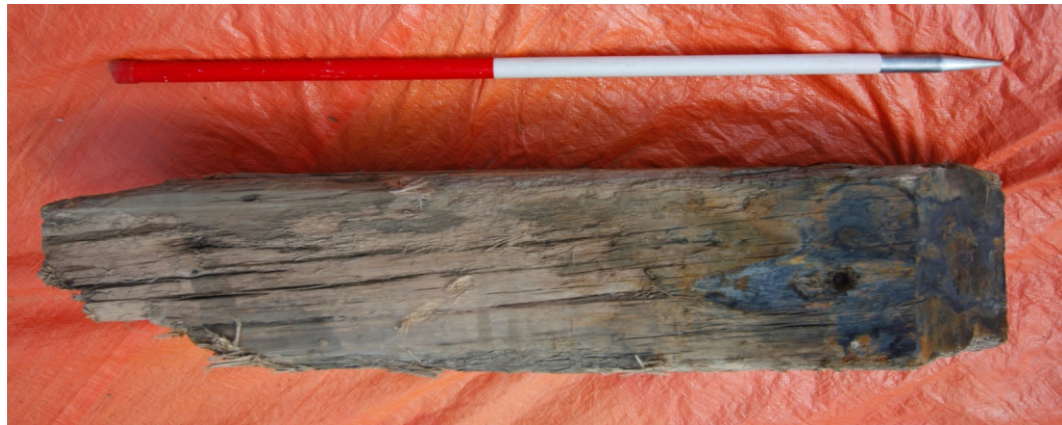
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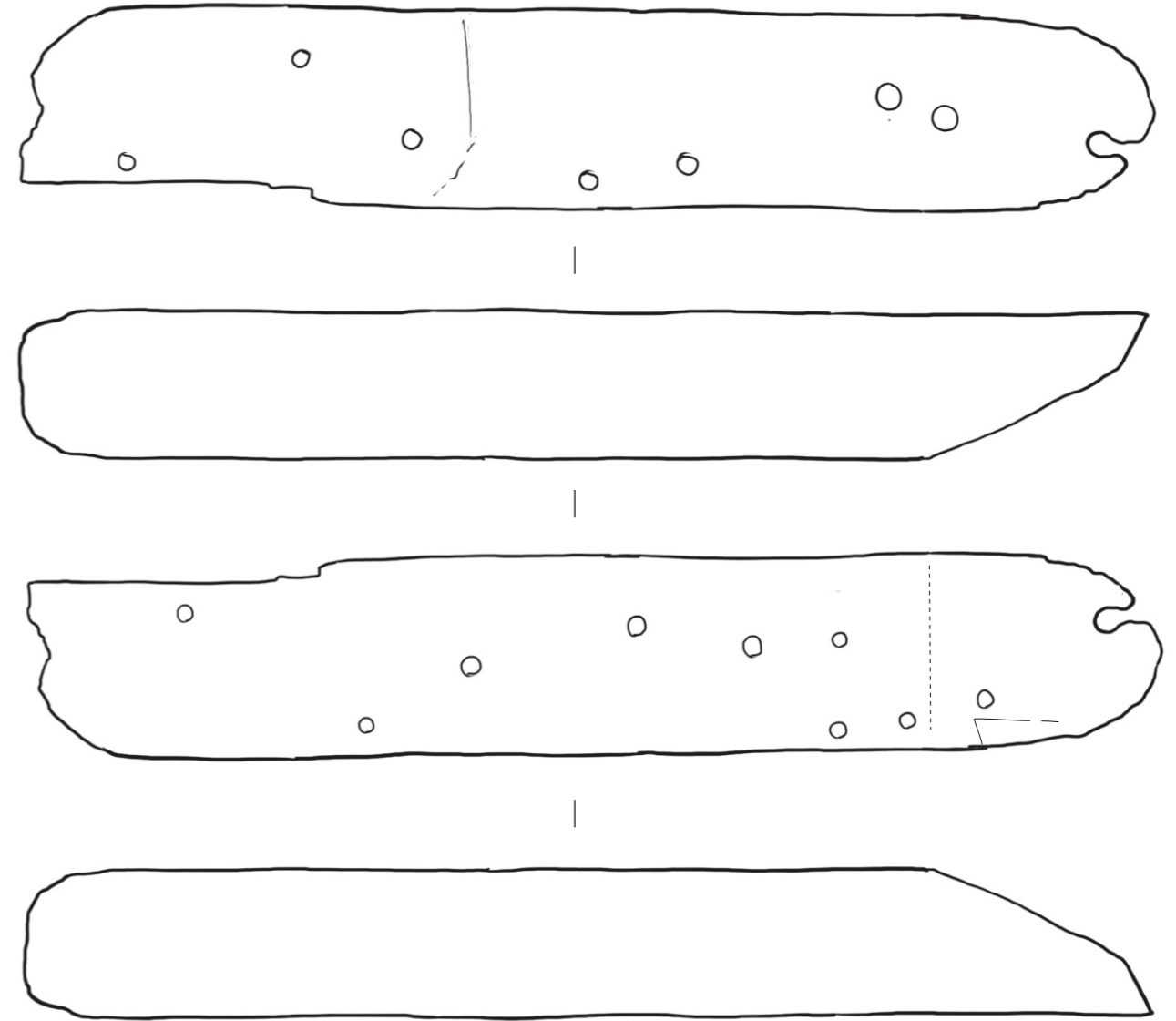
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Plate 1: Metal railing



Plate 2: Small timber 2


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Plate 3: Small timber 1

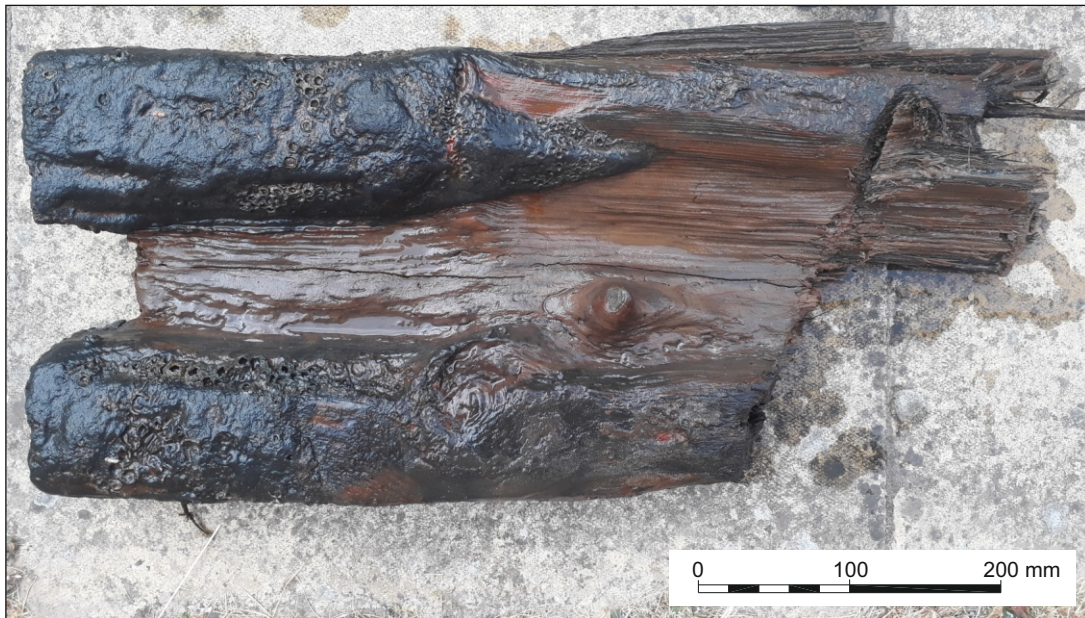



Plate 4: Small timber 3



Plate 5: Small timber 4

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