

3.7.3. Site Description

Through the centre of the site there is a keel from a carvel built hull (Figure HAM043-3). It has a composite keel of wood with an iron casing. Iron pins and bolts protrude down the centre of the keel. Towards midships the pins are in pairs. Not attached to the keel are two sections of collapsed steel structure. One section is the remains of the superstructure, which has been constructed using metal riveting (Figure HAM043-3). The other disarticulated structure is the remains of a tabernacle and deck coaming (Figure HAM043-3). The tabernacle lies forward of the coaming.



Figure HAM043- 3 The vessel comprises of the keel (red arrow), the tabernacle (blue arrow) and a section of superstructure (green arrow)

Part way along the keel a small section of the lower hull remains (Figure HAM043-2). This comprises of laminated diagonally opposed timber fastened with copper clenched nails. From the visual survey it can be seen that there is some charring, which suggests that this vessel had been burnt at some stage.

It is possible to define the stern and the stem of this vessel. On the sternpost there are the remains of a gudgeon, which would have held the rudder (Figure HAM043-4). Towards the stern there two round holes through the keel, these are 20cm in diameter. A similar, although slightly smaller hole can be found near the bow.



Figure HAM043- 4 At the stern of the hulk a gudgeon and two circular holes are located

3.7.4. Research

As has been mentioned there are three circular holes through the keel, two at the stern and one up forward. These holes are often found on RNLI Lifeboats. They enable the vessels to be hauled quickly in and out of the water on a cradle. Chatham Historic Dockyard has a collection of historic lifeboats, which was visited and analysed to see if any features similar to those found on HAM043 were present

The majority of lifeboats in this collection appear to have four holes in the keel, two astern and two forward. However, one class of lifeboat does indeed have three holes, two astern and one forward. This is a Barnett Class Lifeboat (Figure HAM043-5). The Barnett Class Lifeboats came into service during the 1950s and some were still in service in the 1980s (National Register of Historic Vessels). They were 52ft (15.85m) long and 14ft (4.27m) in the beam (National Maritime Museum).



Figure HAM043- 5 A Barnett Class Lifeboat in the Chatham Historic Dockyard collection

A Barnett Lifeboat is a vessel that has a wooden hull and a metal superstructure, and comes from a period when riveting was a commonplace method of fastening plate together. A tabernacle can also be seen on this vessel in the collection, furthermore the tabernacle is forward of a metal coaming.

3.7.5. Interpretation

The size and diagnostic features (holes through the keel and tabernacle) of these remains indicate this vessel may have been a Barnett Class Lifeboat. It is not known how or when this vessel came to the Hamble River.

3.7.6. Archaeological Potential

Criteria	Assessment
Period	Built mid-twentieth century
Rarity	Numerous were built and many survive
Documentation	No documents relating to this exact vessel have been found
Group Value	As a group these vessel are important because of the service to mariners they provided
Survival/Condition	Poor condition and most of the structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion

Local Significance	If this vessel was in service in the local area it would be significant
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Table HAM043- 1 Summary of HAM043's archaeological significance assessment

HAM043 should be considered to have medium archaeological significance. It appears that HAM043 may be the remains of a lifeboat from the mid-twentieth century. These are interesting vessels as the service they provide plays an important role within the maritime landscape, and they are often looked upon fondly by seafarers. There are known examples of this type of lifeboat preserved in collections, which means the archaeological potential of this vessel diminishes. However, at present the identity of this lifeboat is not known. It may have been that this vessel has had a significant and important career.

3.7.7. Recommendations

It is important that the identity of this lifeboat be investigated as this will give an indication of its historical significance. To determine this further research in regional and national libraries is required. It is also recommended that the RNLI be approached and a request made to access to their archives. Finally, now that there are more exact questions about these remains, it is suggested that interviews with people who have links to the river be continued in the hope that local knowledge may bring to light the identity of this lifeboat.

3.7.8. References

Websites

National Maritime Museum -

<http://www.nmm.ac.uk/collections/explore/object.cfm?ID=SLR1692> Accessed 03.02.08

National Register of Historic Vessels -

<http://nationalhistoricships.org.uk/index.cfm/event/getVessel/vref/1736>
Accessed 03.02.08

3.8. HAM044 Carvel Hulk, near Crableck Quay

NGR 448880 108241

Date of survey: February 2007

3.8.1. Introduction

Near Crableck Quay on the eastern bank of the Hamble River lies the hulked remains of a large timber boat (Figure HAM044-1). The bows are pointing in a south-southwest direction and the stern is north-northeast. Most of the vessel's hull is present and no superstructure or masts remain. The vessel hull has been breeched and it is stranded in the inter-tidal zone of the river. The hulk is located about 30m from the shore, in an area of deep tidal sediments, making access very hazardous.



Figure HAM044-1 The hulk of a timber carvel constructed vessel in the inter-tidal zone near to Crableck Quay, looking towards the west

3.8.2. Survey Description

It was not possible to undertake a drawn survey, or an in-depth close up photographic survey of HAM044, because of the access issues. However, photographs of the vessel in its environment were collected. Hence, the vessel's dimensions given in this report are visual estimations

3.8.3. Site Description

The vessel appears to be approximately 30m long and about 2.5m high at the stem post. The wooden hull is carvel built, and is fastened with metal nails. Above the high-water mark the majority of the hull strakes remain. Beneath this level though little hull planking is present, revealing the frame timbers. The frame timbers look slightly eroded probably due to the dynamic inter-tidal environment, and therefore being regularly drowned and exposed.



Figure HAM044-32The bulwark rail remains in sections (red arrow), and is missing in others (blue arrow), and HAM044 has a cruiser stern (green arrow) (looking north-northwest)

Around the deck there is a bulwark, although the majority of the bulwark planking has disappeared. Most of the bulwark stanchions are present, but there are gaps in the associated rails (Figure HAM044-2). In the deck there appears to be a number of voids, some of which are structural openings, but others are where deck planking has disappeared. On the centreline, two large voids can be seen. It is suggested that these are either access to holds or related to former superstructure.

Near the bow there is a large metal hawsehole, which is located above the deck in the bulwark. The bow has a shallow rake and is probably only 15-20° from the vertical. There is a stem post, which appears to be a continuous, flat faced, rebated timber. It is possible that this may be a false stem. On the top of the stem there is a metal fitting, which may have been related to a bowsprit. This appears to be a metal hinge plate with a support stanchion. Judging by the fixture the bowsprit may have been a running bowsprit, but this is only an assumption. The remains of a vessel registration number were observed about 3m from the stem, aft of the hawsehole in the bulwark. This number has faded, but 'BM137' can be identified in white painted characters (Figure HAM044-3).



Figure HAM044-3 A close up of the port bow show the registration 'BM137'

The stern is a rounded cruiser stern (Figure HAM044-2), and sections of the sternpost can be seen, although the rudder was not visible. In the bulwark at the stern there is a hawsehole on the port and starboard quarters. There are also metal bollards in the vicinity of these.

3.8.4. Research

A number of local people were approached for information about this vessel. HAM044 was commonly thought to be the remains of the Brixham Trawler '*Terminist*', although it is unclear why this assumption has been made. Enquiries were made with Mike Miller of the Brixham Heritage Museum for information on the *Terminist*. This vessel was interestingly registered as BM321, which does not coincide with the characters remaining near the bow of HAM044 (Mike Miller pers.com. July 2007). A photograph of the *Terminist* was found in the Brixham Heritage Museum collections (Figure HAM044-3). Analysis of this image has shown that the vessel depicted is different to HAM044. Despite the early information collected from local people, it appears that this is not the remains of the *Terminist*. However, the *Terminist* is believed to have ended its days on the Hamble River and hence the confusion.



Figure HAM044-4 Photograph of the Terminist taken in 1911 (courtesy of Mike Miller Brixham Heritage Trust)

One river user interviewed was Peter Smith, a local tug owner. He had heard about the commonly held belief that HAM044 was the *Terminist*, and he also confirmed that this was incorrect. On the contrary, Peter Smith suggested that this vessel was the remains of an Admiralty Motor Fishing Vessel (MFV) (Peter Smith pers. com. Oct 2007).

The Brixham Heritage Museum archives recorded BM137 as being a 90ft Admiralty MFV, which after the Second World War was registered as the '*Ala*' (Mike Miller pers. com. Dec 2007). The Lloyds List and the Mercantile Navy List were researched for further information about this vessel. The *Ala* was built in Wivenhoe, Essex in 1944. Its dimensions were 88.8' (27m) long, 22.5' (6.9m) breadth, 9.9' (3m) depth of hold and registered tonnage of 59 net and 123 gross. A list of ownership can be found below (Lloyds List and Mercantile Navy list):

- 1948-1954 – *Ala*, owned by G. Claridge of Wheathampsted, Hearts. Registered Lowestoft.
- 1955-1957 – *Ala*, owned by Hunley Fishing Company, Lowestoft, Suffolk. Registered Lowestoft
- 1957-1962 – renamed *William Allen*, owned by Torbay Trawlers Ltd. Registered Brixham
- 1963-1964 – *William Allen*, owned by Fresher Fish Ltd, Brixham Devon. Registered Brixham.
- 1965 – *William Allen*, owned by Spincraft Ltd, London. Registered Brixham.

- 1966-1993 – *William Allen*, owned by Philip M. Tree, Gosport. Registered Brixham.

During the Second World War the Royal Navy Patrol Service comprised of 6000 small vessels, which included many requisitioned vessels such as trawlers, drifters, whalers and (RNPSA website). These could be converted relatively cheaply to carry out a whole host of activities (Naval Trawlers webpage). These included anti-submarine operations, minesweeping, boom defence and harbour patrol activities. According to Lenton and Colledge (1973: 587-589) MFVs of the Second World War can be split into six main groups. The descriptions given of each indicates that it is possible that BM137 could have come from one of three groups:

- Numbers 1001-1258 – These had a displacement of 114tons, a length around 23m, beam 6m and height up to 2.9m
- Numbers 1501-1610 – These were larger vessels with a displacement of 200tons, a length around 29m, beam 6.8m and a height up to 3.3m.
- Numbers 2001-2052 – These were vessels that were requisitioned from 1940 onwards, none were larger than 120 tons. Many of these vessels were of French origin.

The vessels that were constructed as Admiralty MFVs were built all over the British Isles, and some were even built in places such as Bermuda and South Africa. It is known that seven such vessels were built in Brixham; numbers 1007-1010 and 1203-1205. However, it is known that the vessel at Crableck was built in Wivenhoe, and was only registered at Brixham after the Second World War.

3.8.5. Interpretation

HAM044 is the remains of an Admiralty MFV built at Wivenhoe in Essex in 1944. From 1948 it was registered as a trawler in Lowestoft, under the name *Ala*. In 1957 it was registered in Brixham under the name *William Allen*. It was at this time it would have been given the registration number BM137. The *William Allen* continued trawling for fishing companies until 1966, when it became privately owned. It continued to be registered in Brixham up to 1993, although it is believed to have come to the Hamble River and was abandoned at its current location before the 1990's (Katherine Bewes pers. com. Jan 2008).

3.8.6. Archaeological Significance

Criteria	Assessment
Period	Dates from the Second World War and was involved with the war effort
Rarity	Not uncommon
Documentation	This vessel is mentioned in the Lloyd's and Mercantile Navy List registered. However, specific career details

	are currently unknown
Group Value	As a group Admiralty MFVs have a significant history
Survival/Condition	Large amounts of hull structure can be seen, although due to its position the state of these timbers is unknown
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	Not known to have any specific local significance

Table HAM044- 1 Summary of HAM044's archaeological significance assessment

The role of the MFV in the Second World War was a very important one, although it is somewhat over looked (Lenton and Colledge 1973: 587-589) Hundreds of these vessels were built and requisitioned to undertake tasks, similar to those mentioned above, that were vital for the war. These tasks required minor war vessels that were appropriately sized and sufficient in number to fulfil them. These vessels were so numerous they were stationed in the coastal waters all around the British Isles. Because of their war time role, the Admiralty MFVs can be considered to have a high historical significance. This can be seen by the fact that five vessels have been designated on the National Register of Historic Vessel as Admiralty MFVs. If HAM044 were in a better condition it would be suggested that this vessel would be suitable for designation. HAM044's condition precludes its suitability for designation on the NRHV, however, the site should be recorded on the Historic Environment Record to ensure its presence and archaeological significance are registered.

3.8.7. Recommendations

As previously mentioned this vessel is located in the intertidal zone about 30m from the shore and therefore, due to health and safety, a drawn record of these remains was not possible. It is recommended to record this vessel, if a safe method of accessing HAM044 can be found. It is advised that only the outside of the vessel be recorded, as the integrity of the vessel's structure is unknown, but it is likely to be unstable and potentially liable to collapse.

HAM044 lies within a very dynamic intertidal environment and is subject to natural erosion which can affect its preservation. It is recommended that HAM044 be monitored periodically with a photographic survey. This can be conducted from the shore, and will give an indication of how quickly these types of vessels degrade.

3.8.8. References

Lenton, H.T. and Colledge, J.J., 1973. *Warships of World War II.* (2nd Edition). Ian Allan, Shepperton

Mercantile Navy List and Maritime Directory. 1885. Spottiswoode & Co Ltd.: London.

Websites

Naval Trawlers webpage on Battleships and Cruisers website – http://www.battleships-cruisers.co.uk/naval_trawlers.htm Accessed 11.12.07

Brixham Heritage Museum Database –
<http://www.brixhamheritage.org.uk/services/data19.htm> Accessed 05.12.07

Brixham Heritage Sailing Trawler Archive –
<http://www.freedomcomputers.co.uk/zone3/Database.htm> Accessed 06.12.07

National Register of Historic Vessels –
<http://nationalhistoricships.org.uk/index.cfm> Accessed 11.12.07

Royal Naval Patrol Service Association –
<http://www.rnps.lowestoft.org.uk/history.htm> Accessed 11.12.07

Personal Communication

Katherine Bewes, local resident, business owner at Mercury Yacht Harbour and former Hamble River Houseboat owner

Mike Miller, Brixham Heritage Museum

Peter Smith, Hamble River tug boat operator

3.9. HAM045 Swanwick End Hulk

NGR: 448935 108332

Date of survey: March 2007

3.9.1. Introduction

The structure is located on the eastern bank of the river near Bunny Meadows. It lies in an area of tidal sediments and has a covering of weed. The structure of the hulk is heavily eroded, and very little of the original vessel remains (Figure HAM045-1).



Figure HAM045-1 Heavily eroded hulk situated in an area of tidal sediment

3.9.2. Survey Description

These structural remains lie in an area of deep tidal sediments, which meant that access to the site was hazardous. As it was not possible get close to the structure a drawn survey could not be undertaken, instead a photographic survey from the shore was collected.

3.9.3. Site Description

This site was visited in 2001 and was described as comprising of only a few timber elements, approximately 12m in length protruding from the tidal sediments. From the most recent visit it was possible to see that the structure has continued to degraded, and even less remains are visible. Only a few components protrude from the sediments and the vessel appears to have been constructed with timber fastened by metal. It was not possible to get closer to the hulk; therefore it was not possible to see if any additional diagnostic elements remain. This vessel lies in a dynamic area of erosion, which means that there is a strong possibility that it has decomposed quickly. Indeed, since the last visit there was a marked level of increased erosion.

3.9.4. Research

Local residents and river users were approached for information about this vessel. This proved unsuccessful and its identity is unknown. If an identity was to present itself this could initiate further investigations.

3.9.5. Interpretation

This feature is the hulked remains of a small timber vessel. As in depth survey was not possible little additional information is available, and therefore more accurate interpretation is not possible. Evidence indicates that the local environment causes the structural remains to erode fairly rapidly. This may suggest that this vessel was abandoned here quite recently, probably in the later half of the twentieth century.

3.9.6. Archaeological Significance

Criteria	Assessment
Period	Not known
Rarity	Impossible to assess at present
Documentation	No documentation has been found
Group Value	Impossible to assess at present
Survival/Condition	Poor condition and much structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	Not known

Table HAM045 - 1 Summary of HAM045's archaeological significance assessment

It is difficult to assign this vessel an accurate archaeological significance. The remains are in very poor condition, with little structure intact. As it has not been possible to identify this vessel, value judgements of its importance, type or its significance to the local area can not be made. What can be seen of the

structure indicates that this vessel is modern. From the evidence presented it is believed that this vessel has a low archaeological significance.

3.10.7. Recommendations

Diagnostic information should be collected from these remains, if a way of accessing the hulk safely can be found. Survey, recording and photography would be appropriate to help aid identification. It is also recommended that local people and river users be continued to be approached for information, hopefully this route of enquiry may bear fruit in the future.

3.10. HAM 046 Hulk remains of a fishing vessel, Bunny Meadows

NGR: 448861 107369

Date of Survey: 26/02/07

3.10.1. Introduction

In the intertidal area near Bunny Meadows, the remains of a hulked vessel adjacent to the shore footpath have been found. The hulk is located on the eastern bank of the river, and has an east-west orientation. In the vicinity are the remains of other vessels studied during this project (see reports HAM047 and HAM050).



Figure HAM046- 1 Near to a sluice at Bunny Meadows is the remains of vessel buried in the sediments (looking northwest)

3.10.2. Survey Description

This hulk lies in an area of deep tidal sediments, which becomes increasingly hazardous towards the stern of the vessel. Due to its environment a drawn

survey was not possible. However, a photographic record of the vessel was collected.

3.10.3. Site Description

This vessel was visited by Peter Holt and photographed in 1980 (Figure HAM046-2). At the time the vessel was in disrepair, but almost complete with the bulwark and mast still standing. The hull is of carvel construction and is made from timber. The hull had been breached, thus the vessel did not float and was listing to starboard. The stays for the mast are still in place. At the top of the mast fittings can be seen. These appear to be radio aerials or an anemometer, the former being the most likely. A metal ladder can be seen located on the fore side of the mast. On the main deck there are six main features, which run fore to aft along the centre line. These are described as follows:

- A raised box like structure near the bows, which is presumably the access to the cable-locker
- Next there is a superstructure that is curved to the fore and appears to be flat, but open at the aft. This is probably the main personnel access and stairwell to inside of the vessel
- Just aft of the mast there is a square hatch, which probably would have given access to a sail store
- Behind the sail store hatch there are two large features, which take up almost half the vessel. The first is probably the remains of the wheelhouse superstructure, or possible an access to the hold
- Near the stern of the vessel there is an access to a hold or an engine
- To the port of the aft hatch, there is a metal arch frame, the function of which is not known.



Figure HAM046- 2 A photograph of the vessel taken in 1980 (Peter Holt)

Since 1980 the vessel has eroded considerably. The bulwark has almost completely disappeared and the mast has collapsed. Partial remains of the mast can be seen, the upper section is no longer *in-situ*, but the lower two-thirds and associated ladder are present (Figure HAM046-1)). A section of the hull port quarter can be seen, while the rest of the hull has either become submerged beneath sediments or eroded. Along the centreline of the deck sections of the superstructure do remain, such as the stairwell hatch and the possible wheelhouse/hold hatch coaming. The probable cable-locker hatch also remains, but is hidden by seaweed. Apart from these components what remains of the vessel is buried beneath sediments.

3.10.4. Research

Many river users and local people were approached and interviewed about their knowledge of some of the interesting historical features of the Hamble River. It was during such interviews that some potential information about HAM046 presented itself. For example, Peter Smith a local tug company operator suggested that this vessel is the remains of a Belgium built Trawler called the *Viking* (Peter Smith pers.com. Oct 2007). He was unaware when the vessel first arrived on the river and where it had come from, but it was probably grounded at its current location for salvage purposes. Vessels were often brought over to Bunny Meadows from the Mercury Yard for salvage (Bryan Wooford, pers. com. Oct 2007). During salvaging vessels are often burnt to assist the removal of metal objects. Due to the proximity of other boats in the Mercury Yard burning could not be done here. The 1980

photograph does not show evidence of salvaging. The reason why it escaped salvage is not known.

The Lloyds Lists and Mercantile Navy List were consulted as part of the research process. No vessel named *Viking* built in Belgium and of an appropriate size was registered.

3.10.5. Interpretation

A great deal of information can be gleaned from the photograph taken in 1980 (Figure HAM046-2). The vessel is a single masted fishing vessel, which may have also had an engine. Local information has indicated that this vessel was not of British construction and may have been called *Viking*. Judging by the hull and fittings this vessel was probably constructed in the early to mid-twentieth century.

Comparing the photograph taken for this project (Figure HAM046-1) with the 1980 photograph (Figure HAM046-2) shows this vessel has suffered extensively from erosion, and has degraded considerably. This is indicative of a dynamic environment such as tidal area. This site is an excellent example of how quickly vessels can collapse within these environments. Further degradation will occur as erosion continues to affect this hulk. At its current rate of decay it is possible that nothing diagnostic will remain within the next decade or two.

3.10.6. Archaeological Significance

Criteria	Assessment
Period	Probably early 20 th century
Rarity	A common type of vessel
Documentation	No documentary evidence has so far been encountered
Group Value	N/A
Survival/Condition	Poor condition, although large amounts of hull may be buried
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion. Comparison of photographs shows erosion vessel has been rapid
Local Significance	Vessel is believed to have been brought to this location for salvage and disposal

Table HAM046- 1 Summary of HAM046's archaeological significance assessment

This hulk is the remains of a fishing trawler built in Belgium, date of construction is unknown. However, from its appearance it is probable that it was built in the early twentieth century. Anecdotal evidence suggests it came to the river late on in its career (Peter Smith, pers. com. Oct 2007). Therefore it has little significance in relation to local maritime heritage. It is a common trawler and is not of any typological significance. The vessel remains are currently in an advanced state of decay. Despite these criteria indicating that this vessel should have a low archaeological significance, it is suggested that it should be seen as having medium archaeological potential due to its possible contribution to the study of the rate at which vessels decay, which is

enhanced through the photograph from the 1980's. If monitoring of the remains continue it will be possible to gain an understanding of how quickly an abandoned vessel will disappear if left in this environment.

3.10.7. Recommendations

There have been anecdotal suggestions as to this vessel identity and provenance, although these need to be confirmed through further investigation. Therefore, aspects such as its identity, place of build, career and when it came to the region should be further researched. Investigation and interviews with local residents and river users should continue. This may present new information that may initiate new routes of enquiry and research.

Due to the environmental conditions an archaeological drawn survey may not be possible, however, it is recommended that a regular photographic survey be collected every six months to a year. This will allow monitoring of the condition of the vessel and gauge its rate of decay.

3.10.8. References

Lloyds Register of Shipping, London

Mercantile Navy List and Maritime Directory. Spottiswoode & Co Ltd.: London.

Personal Communications

Peter Smith, Hamble River tug boat operator

Bryan Woodford, local historian and author

3.11 HAM 047 Hulk, Bunny Meadows

NGR: 448856 107357

Date of Survey: 26/02/07

3.11.1. Introduction

North of Warsash, along the shore walk at Bunny Meadows, the remains of three vessels (HAM046, HAM050 and HAM047) have been recorded. The latter, HAM047, will be described in this report (Figure HAM047-2). These remains lie on the eastern bank of the Hamble River, in an east-west orientation. HAM047 is located in the inter-tidal zone, by a sluice that is situated through the footpath.

3.11.2. Survey Description

Access to the vessel was deemed dangerous as it lies in an area of potentially deep intertidal sediments, especially at the offshore end of the hulk. The remains are highly corroded, leaving the vessel with many sharp edges and liable to collapse (Figure HAM047-1). HAM047 was recorded through a digital and photographic survey instead of a drawn survey.



Figure HAM047- 1 Viewed from the northeast it can be seen that this is the remains of a highly degraded modern motor vessel

3.11.3. Site Description

The site is represented by a substantially complete metal wreck of approximately 15m in length, consisting of a large amount of hull structure from the bow to just aft of a raised cabin. The cabin is rectangular in form, approximately 6m long, 3m wide and 1m high. Within the cabin a number of openings can be seen that once would have been windows. Around the forecastle at the sheer there is a 0.50m wide waist, inside of which is located a bay. On the outside of this bay there is a raised metal coaming. It is not certain whether this was an engine bay, a hold or an open deck area. The stern of the vessel is not visible, due to the positioning of the Warsash to Swanwick shore footpath over the vessel (Figure HAM047-2).



Figure HAM047- 2 The stern of the vessel is no longer visible due to its proximity to the shore path

3.11.4. Research

Local residents and river users were approached for information about HAM047. Peter Smith, a Hamble River tugboat operator, was interviewed and offered some information about the vessel's identity. It may be that it was a former Southampton Harbour Board launch, possibly called the *Seahorse*. After working for the Harbour Board, it came to the Hamble River at Luke Yard, and was used as a workshop for More & Tucker Ltd. In the 1980's Peter Smith was commissioned to move the vessel from Lukes Yard to its current location. Once the boat was in position, it was grounded in the gap in the seawall (Peter Smith pers. Com. Oct 2007). The hulk would have been used as part of the construction of the new Warshash to Swanwick shore footpath.

The Mercantile Navy List was consulted to gain more knowledge about this hulk. There was one motor vessel registered in Southampton that was of an appropriate size. This vessel was a 3ton watercraft called the *Seahorse of Emsworth*, built in 1966 in Southampton. However this boat was of fibreglass construction and therefore could not be HAM047.

3.11.5. Interpretation

Evidence suggests that this is the remains of a modern small powered vessel from the twentieth century. Its original identity is unknown, although it may be that this it was a Southampton Harbour Board launch. In the 1980's the boat was used as a barrier to aid the construction of a new seawall and its associated footpath.

3.11.6. Archaeological Significance

Criteria	Assessment
Period	Modern mid-late 20 th century
Rarity	A common type of vessel
Documentation	No documentary evidence has so far been encountered
Group Value	N/A
Survival/Condition	Poor condition, although large amounts of hull structure can be seen
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Diversity	N/A
Local Significance	May have been a Southampton Harbour Board launch.

Table HAM047- 1 Summary of HAM047's archaeological significance assessment

HAM047 is a modern motor vessel that was abandoned in the early 1980's. Local information suggests that the vessel had spent its working career in the local area; and it may be considered that it has some local significance. However, this vessel as a type is not of specific interest or rarity. Therefore this vessel has low archaeological significance.

3.11.7. Recommendations

As this vessel is modern and of low archaeological significance there are no recommendations for further archaeological work.

3.11.8. References

Lloyds Register of Shipping, London

Mercantile Navy List and Maritime Directory. Spottiswoode & Co Ltd.: London.

Personal Communications

Peter Smith, Hamble River tug boat operator

3.12. HAM050 Motor Minesweeper, Bunny Meadows

NGR: 448770 107390

Date of survey: April-June 2007

3.12.1. Introduction

On the eastern bank of the Hamble River, approximately half a mile north of Warsash in an area known as Bunny Meadows, lies a section of a hulked vessel. The remains are located in an area of tidal salt marsh and reed beds that are separated from the main river channel by a raised pathway. Underneath the path there is a sluice. The path and sluice protects the hulk

from the strong tidal currents of the river. Due to this tidal environment, the lower sections of the hull are submerged during periods of high water.

From initial observations it is apparent that this hulk is the remains of an incomplete wooden vessel (Figure HAM050-1). It is lying upright, with a list towards the starboard quarter. The bow and stern sections have been cleanly cut and removed, leaving a central section of about 13m in length (Figure HAM050-30). Remains of this vessel are severely degraded and comprise of part of the starboard and port hull, and three sections of bulkhead; further details are given below. Orientation of the vessel is 90° to the Hamble River, with the forward bulkhead towards the east. The tidal sediments that surround the vessel restrict access in some areas, especially along the port side.

Students from Southampton University, Elizabeth Dewing, Laura Knight, Tim Rangelcroft, and Giles Richardson surveyed this hulk during the spring of 2007. This report is based upon their work.



Figure HAM050- 1 The partial structural remains of a vessel, located in the tidal area of Bunny Meadows

3.12.2. Survey Description

A preliminary visit to the site was conducted to assess the environment and the vessel structural remains so that a risk assessment could be created and a fieldwork plan formulated. The hulk itself was surveyed over eight site visits.

It was difficult to obtain a longitudinal profile as the port side is not fully exposed, therefore, the starboard side was recorded instead. Sediment within the hull also prevented the cross-section drawings depicting the entire curve of the hull down to the keel. The cross-sections of the two bulkheads were recorded in profile, as was the midpoint of the hull between bulkheads. A further cross-section was recorded midway along the surviving starboard side

to the aft of the rear bulkhead. Only the port half of this cross-section was drawn due to the depth of sediment and collapse of the port side at this location (Figure HAM050-2).

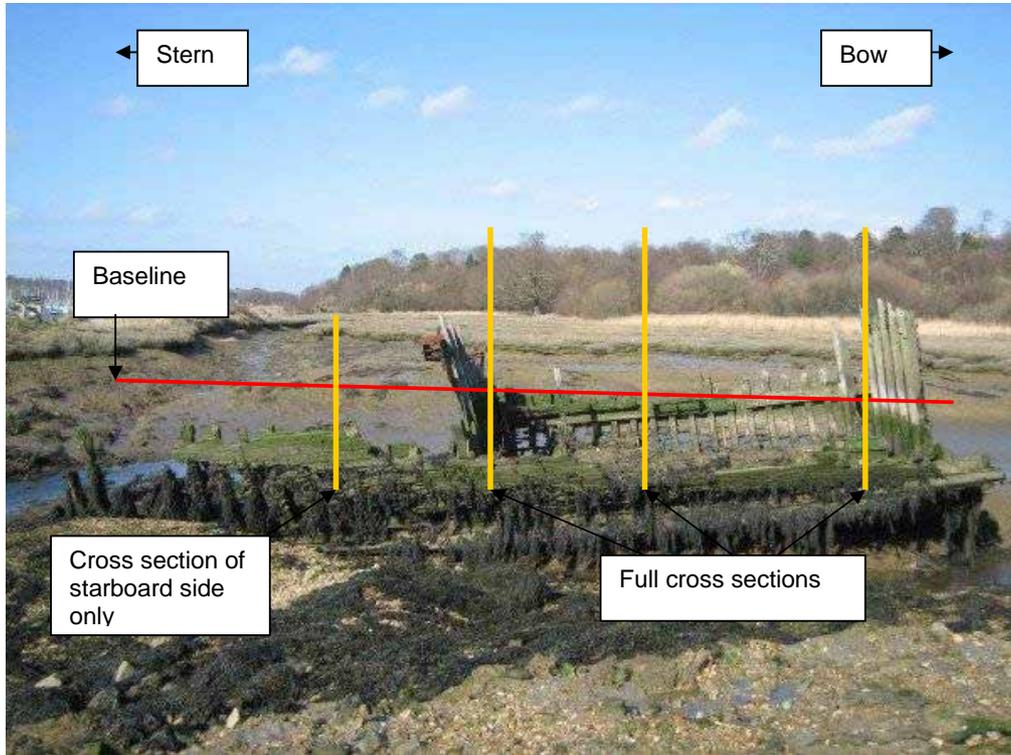


Figure HAM050- 2 The location of the four cross-section profiles recorded



Figure HAM050- 3 Students surveying HAM050 using the datum-offset method

Due to the bulkheads it was not possible to establish a central baseline. Therefore the baseline was positioned along the starboard side, which meant that some features were a considerable distance from this datum line. For those points furthest from the baseline a triangulation method of survey was used to reduce inaccuracies. For closer structural components and internal features the datum-offset method was employed (Figure HAM050-3). Measurements were taken at baseline level, rather than at the ship's original height. This resulted in a plan that is a true reflection of the vessels current orientation.

The plan, profile and cross-section drawings include only diagnostic *in-situ* features that might aid identification. Additional features believed to be associated with HAM050, but not *in-situ* were recorded through photographs. These included the possible bow section, metal tanks and anchor located at a distance from the main hull site

3.12.3. Site Description

The ship remains have heeled over to the port side and sits lower at the stern, showing a varied level of preservation within the remaining structure. The lower sections of timber below the mean high water mark are the most degraded.



Figure HAM050- 4 In this photograph looking aft the more complete port side can be seen

The total length of the surviving section of hull is approximately 13m, the breadth measured 6.9m at the forward bulkhead. The best preserved section of hull planking is located on the port side abutting the forward bulkhead. At this point the hull is buried to the level of the bilge keel (Figure HAM050-4). The height of the surviving planking was recorded at 1.5m from the bilge keel. The starboard side measured 1m from the bilge keel to the true keel, giving a total height of 2.5m. However, it is believed that a height of 2.5m would represent only approximately half of the original depth of hull as deckhead mounts can be seen (see below). The portside aft has collapsed under the weight of a steel tank that was originally bolted to the frames (Figure HAM050-17),

Three bulkheads were identified within the hull remains. Two survive that are relatively complete; both reaching an approximate height of 2.9m at amidships. This is interpreted as approximately the level of the original deck (Figures HAM050- 5 and 6). The distance between these two bulkheads is 6.8m. The third and rearmost bulkhead survives only as a single timber running the breadth of the vessel, with a small amount of *in-situ* diagonally planked timbers to confirm its identity. The distance from this to the middle bulkhead is 5.4m.



Figure HAM050- 5 A view of the forward-most bulkhead, from the east



Figure HAM050- 6 The metal deck support can be clearly seen on this photo of the central bulkhead, with the foremost bulkhead in the background

Along the port side there is a section of complete frames that measure 0.14m by 0.12m and are spaced 0.39m apart (HAM050 Figure 7). Planking still exists here, although the level of mud in the interior of the hulk restricted access to this area and survey was difficult. Towards the aft, the port planking and frames had collapsed outwards into the water, these are difficult to access.



Figure HAM050- 7 The internal structure of the port side

The hull is carvel construction with a layer of ceiling planking on the inside. Timber component materials include pine and plywood, while the frames are probably oak. Following Melvin (1992), this is consistent with the usual construction of this type of vessel being 'Canadian pine on oak timbers with mahogany and teak fittings' (Melvin 1992: 24). The vessel's structural components have been fastened predominately with metal bolts, although some wooden treenails were also noted. The iron bolts used to fasten the planks to the frames are about 1cm in diameter. Corrosion to the bolts found means this figure may not be accurate to the original dimensions. On the external face of this planking the bolts are countersunk to a depth of approximately 1 cm, and protected by wooden plugs that are set flush with the hull (Figure HAM050-8). There is no evidence of caulking. Internal stringers survive in the starboard and port side, showing better preservation on the latter.



Figure HAM050- 8 Photograph showing the countersunk bolts with covering wooden plugs, and two saw marks probably from the salvage

The bulkheads are constructed of diagonally opposed double laminate plywood planking that is key-scarfed together (Figure HAM050-9). A series of ten uprights provides vertical support. A layer of painted canvas was attached to these bulkheads, which may have acted as soundproofing from the engines. It is also possible that the paint may have been fire retardant, offering some protection to the timbers. At the central section bulkhead there are two diagonal beams. On the top of these there are substantial metal fastenings (Figure HAM050-10). These would have been attached to deck beams and were part of the structure that supported the deck. Some of the corresponding beams lie detached in the hull below their original positions.



Figure HAM050- 9 The bulkheads are constructed from composite laminate plywood



Figure HAM050- 10 Metal deck support located on the central bulkhead

In the central bulkhead there is a circular hole, with rivet holes around it (Figure HAM050-11). A porthole may have been positioned here that would have enabled visual inspection of what may have been an engine bay. A rectangular section has been cut into the portside of the forward bulkhead. Rough cut marks and saw damage can be seen around this, which indicates that it is contemporaneous with salvage activity. On the uppermost part there is a metal plate with a number of circular holes of varying diameters. This is a conduit which would have enabled wires and pipes to pass through the bulkhead (Figure HAM050-12).



Figure HAM050- 11 Photograph of the circular feature in the central bulkhead



Figure HAM050- 12 Metal cable conduit

Around the vessel copper alloy strips have been inserted between the frames and the planking (Figure HAM050-13). These appear in a diagonal mesh pattern along the entire length of both sides of the hull. A number of insulated

cables lie alongside the copper alloy plates. These run longitudinally around the length of the hull as two loops in parallel in the vicinity of the bilge keel (Figure HAM050-14). Pairs of identical cabling also run parallel to the frames across the hull at intervals of 5 frames (Figure HAM050-15). These cables create a web that was designed to balance out the effects of the vessel's power supply on its own magnetic field. The copper strips and insulated wire would have originally been part of the ship's degaussing system. Degaussing is a method of decreasing the magnetic signature of a vessel, thus reducing its vulnerability to magnetically initiated mines. Around the vessel's hull there are numerous saw marks where salvaging of the copper has taken place.



Figure HAM050- 13 Two diagonal copper strips and a wider copper alloy plate all of which would have formed part of the vessel's degaussing system



Figure HAM050- 14 Photograph showing the insulated wires in the vicinity of the bilge keel



Figure HAM050- 15 Insulated wires was encountered every fifth frame

Further *in-situ* features include structural girders, metal components and a number of cylinders located along the interior of the starboard hull planking. These features may be evidence that this area was an engine room (Figure HAM050-16). Towards the stern on the port side there is a large wedge shaped metal tank (Figure HAM050-17). The tank would have been bolted to the hull, which has since collapsed due to the weight of the tank. A similar tank is located towards the south on the mudflats of bunny meadows (Figure HAM050-18). It is likely these originally formed a pair on either side of the hull at this point.



Figure HAM050- 16 A metal frame is located in the base of the vessel that indicates that this would have been the engine room

Numerous other unidentifiable components lay within the mud-filled hulk. Aft of the stern-most bulkhead is a possible part from a davit. Next to this there is a circular coil of wire. Two circular plates, which would have been bolted to the hull, one on the port and one to the starboard are also present. The function of these plates is unknown.



Figure HAM050- 17 A wedge shaped tank from the port side



Figure HAM050- 18 The probable remains of the starboard tank that now lies a short distance from the vessel

To the front of the aft bulkhead there is a small box with a wooden lid and rope handles, which appears to be *in-situ*. The majority of interior structures and components were found against the starboard side running between both bulkheads. Here lay an array of metal and wooden structures, including a hatch panel and various components associated with the engines. A bakelite component was found with the inscription G.E.C PATT 4463 '1944' (Figure HAM050-19). G.E.C. refers to the General Electric Company Ltd, which supplied electrical components to the Royal Navy during the war. The number 1944 may refer to the production date of this item. Despite finding a number of additional small components within the interior, some with serial numbers no further information about the identity of this vessel was found.



Figure HAM050- 19 A switch box with the date 1944

A small wooden plank was found loose within the hulk with the letters 'iddelfart' carved on its surface (Figure HAN050-20). This appears to be the remains of a nameplate. During research, the name of a coastal town in Denmark, 'Middelfart' was the only word found which could match that of the sign. Although there is evidence for some Motor Mine Sweepers (MMS) being retained by Denmark after the war (Melvin 1992:160) no further light could be shed on this matter. One suggestion is that this name could date to a period after the war when the vessel may have been in civilian ownership. There is also the possibility that the sign may not be associated with the hulk.

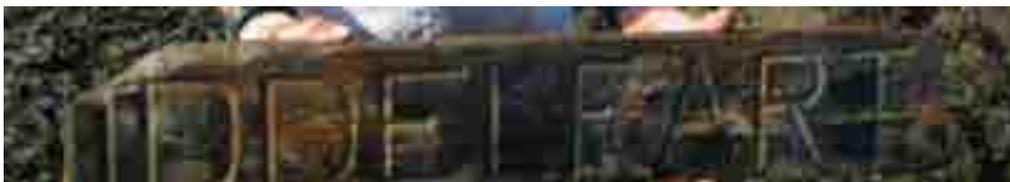


Figure HAM050- 20 Photograph of ship name board with the inscription 'iddelfart'

As mentioned above the hulk surveyed comprises of the central section of a vessel, the bows and stern of which have been sawn and removed. Further up the creek to the east there is a series of timbers, just visible above the current sediment level. The size of frames, frame spacing and method of construction, including at least one pair of insulated cables between frames, are identical to the main minesweeper hull surveyed. The location of this structure towards the forward end of the main hull and the pronounced curvature of the visible remains could represent the missing bow section of the vessel (Figures HAM050-21 and 22).



Figure HAM050- 21 A view taken from the west of the a series of timber frames that may be the remains of the bow section



Figure HAM050- 22 The possible bow timbers viewed from the north

Several features were discovered in the salt-marsh area surrounding HAM050. The largest of these features is located above the creek immediately to the north of the main hull section. It extends over an area of approximately 25m² and includes two small boilers, substantial sections of possible funnel piping, three deck-mounted hatch covers, and various lengths of piping, girders, small fittings and steel cabling. The majority of these elements are metal and appear consistent with a Second World War naval vessel. Hence, these elements are interpreted as deck furniture and internal hull fittings that were removed and abandoned during the break up of the vessel (Figure HAM050-23). Immediately to the south east of these features and located within the tidal creek, there is a group of larger diagnostic artefacts, including a large hatch structure with a kidney escape hatch (Figures HAM050-24). Upstream to the east of the main creek, there is another group of metal components identified as derricks or davits from the deck. However, their close association with a nearby revetment and the remains of two harbour pontoons beached in the channel may preclude this possibility. A pontoon was located above the mean high water mark to the far south east of this channel. There is also a length of cable with associated pulleys extending for some distance in a line from the main hull (Figure HAM050-25). These features could be linked with the dismantling of the vessel. More certain is the final item identified in this area, a medium sized anchor of naval type (Figure HAM050-26).



Figure HAM050- 23 Various unidentified structural components lie in a debris field around the vessel



Figure HAM050- 24 There is a number unattached of structural components such as hatches in the area



Figure HAM050- 25 The remains of HAM050 circled in red with a wire cable extending some distance into the mud



Figure HAM050- 26 An Admiralty style anchor

3.12.4. Research

Interviews with local people had indicated that this vessel was the remains of a Second World War Minesweeper. A number of organisations were also approached for information such as the Warsash Local History Society, British Military Powerboat Trust, Lloyds Register, The National Maritime Museum, The Naval Ordnance Museum and The Royal Navy Museum. Further supporting research was conducted on the internet.

Mr Philip Simons, Senior Analyst at Lloyd's Register, and an acknowledged expert on Royal Navy vessels of the Second World War (Richard Hellyer pers.

com. May 2007) was approached as part of the research process. Mr Simons commented that he was aware of the existence of this hulk. After viewing photographs of the site, he concluded that the heavily built wooden form of the vessel combined with the rounded profile of the bilge was strongly indicative of a Second World War era 'Admiralty Motor Minesweeper' or 'MMS'; potentially one of two types known as the "Mickey Mouse" class minesweeper (Philip Simmons pers. com. May 2007).

Bryan Woodford of the Warsash Local History Society and local history author provided anecdotal evidence about the vessel. He recounted information he had received from George Fuller, a local resident of Warsash who had been involved in the events that led to the abandoning of this vessel on Bunny Meadows. He confirmed that the vessel in question was a former Second World War minesweeper, but suggested it was not a 'Mickey Mouse' class vessel but an American built type he described as a 'Brooklyn Yard Minesweeper'. Mr Fuller stated that Dyer Brothers, a local marine company, purchased the vessel as a source of scrap metal in Southampton in 1946. Alwyn Foulkes towed the vessel to their yard. A large quantity of copper plate measuring 6 inches by 1/4 inch was woven into the vessel, and at this time, copper could fetch a fair price. The Dyer Brothers intended to salvage the vessel and extract this copper.

George Fuller was employed to help remove the main part of the vessels wooden structure; an operation that was achieved successfully using saws. To access the copper elements located lower down in the hull it was necessary to burn the vessel at low tide. Permission to do this on the Hamble side was refused, so the vessel was taken across the river to Bunny Meadows. At this time there was a breach in the riverbank, and the minesweeper was positioned through this gap. However, the Dyer Brothers were again refused permission to burn the ship. Around this time, one of the brothers drowned in an unrelated accident. These incidents led to the cancellation of the salvage project and the vessel was abandoned at its present location. The footpath through Bunny Meadows was completed in the early 1980s, creating a flood defence that cut off the marsh and the hulk from the main channel (Bryan Woodford pers. com. Oct 2007).

There is some confusion over the term 'Brooklyn Yard Minesweeper'. To resolve this, the four principal classes of wooden minesweeper in use by the Allied forces were researched. The term 'Brooklyn Yard Minesweeper' is common, although it is somewhat confusing. This comes from the acronym BYMS. These were 'Yard Class Minesweepers' operated by the Royal Navy under 'Lend-Lease', and the first letter stands for British. No BYMS vessels were constructed at the US Navy Shipyard at Brooklyn, New York and no minesweepers were designated as 'Brooklyn Yard Minesweepers' (Melvin 1992: 135).

To identify which class of minesweeper HAM050 is, a comparison between the dimensions of the types of MMS and the hulked remains is required. There were three main classes of MMS used by the Royal Navy in the Second World War: the MMS 1 Series, the MMS 1001 Series and the BYMS

Series (Jane's 1989: 76-77). It was challenging obtaining original plans or any drawings depicting the internal construction of the various wooden minesweeper types (Melvin 1992: 124)). The only drawing discovered was the plan of a MMS 1 of unknown origin (with Italian language annotations) that was published by Michael Melvin in 1992. Where vessel plans were unavailable Melvin's book on Minesweepers was referred to for vessel dimensions (1992).

Comparisons were further hindered by the poor condition of HAM050 remains. As much of the original structure has disappeared defining the vessels complete dimensions was extremely difficult. The only vessel dimensions that could be surmised were in the vicinity of the bulkheads, where it is possible to gauge the beam and the deckhead measurements. It is these measurements that were used to compare HAM050 with the different types of MMS.

The MMS 1 series has a beam of 6.6m and is the closest match to the 6.8m beam measured on HAM050. The beam of HAM050 may have widened 0.2m as the hull collapsed. The beam measurements of the BYMS (7.6m) and 1001 class MMS 1001 (8.6m) are much wider than HAM050. This is further corroborated by the additional diagnostic measurements acquired from HAM050; the distance from keel to deck, height of surviving bulkheads, and distance between surviving bulkheads (Figures HAM050-27). As mentioned above, structural features located between the bulkheads of the hulk indicate that this area was probably an engine space (Melvin 1992). On the drawing of the 105 MMS the distance between the forward and aft engine room bulkheads matches the surveyed distance of HAM050. Directly above these bulkheads on the 105 MMS the superstructure was located (*Ibid*). Extra structural strength would be required at this location, and this would explain the large diagonal beams that have the substantial metal fastenings (Figure HAM050-10) at the top that are currently present on HAM050.

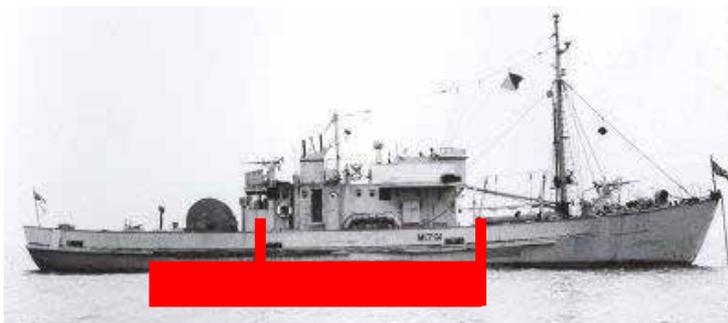


Figure HAM050- 27 Image of a MMS 1 Series with the location of the remains of HAM050 indicated in red (Courtesy MPL Photograph)

A comparison was also made between two published surveys of MMS 1 Series hulks (V29 & V30) and a further MMS 1 hulk (pennant number MMS 293) that has not yet been fully surveyed. The published hulks, located on the River Medway in Kent are published in Milne, McKewan & Goodburn (1998). Since the survey, the vessels themselves have subsequently been destroyed. The unpublished MMS 293 (Figure HAM050-28) is located at Forton Lake in

Portsmouth Harbour, and was subjected to an extensive photographic survey by HWTMA volunteers in 2006 (HWTMA/NAS 2006).

Beam measurements of these three MMS 1 Series are similar to that of HAM050's beam of 6.9m approximately at amidships. The distance between the bulkheads of the two Medway hulks and HAM050 did not correspond, but this may be due to structural collapse or perhaps a variation within the class. On MMS293 the bulkheads have disappeared and therefore cannot be used in comparison.



Figure HAM050- 28 The remains of MMS293 located at Forton Lake is in a poor condition, but substantially more remains compared to HAM050

When it comes to a more general level the overall appearance of these MMS 1 Series hulks are very similar to the vessel at Bunny Meadows. Relevant features include the position and quantity of metal girders on the port side of the engine room of Medway vessel V30, which matches those found on the starboard side of HAM050. MMS293 revealed a pair of wedge shaped tanks in its stern section that closely matched those HAM050 (Figure HAM050-29). However there is a discrepancy between the frames of HAM050 and the additional three vessels being used for comparison. All three have doubled up frames in a side-by-side formation, which is different to HAM050 where they are doubled up one on top of the other.



Figure HAM050- 29 Two metal tanks can be seen within the hull of MMS 293 that are similar in appearance to the one found *in-situ* on the port side of HAM050

3.12.5. Interpretation

This vessel is the remains of a Second World War Motor Minesweeper that was laid up in Bunny Meadows for salvage in 1946. Structural evidence and research shows that it is the remains of MMS 1 Series, sometimes known as a 'Small Mickey'. Other MMS types, such as the MMS 1001 Series and the BYMS were discounted as they were too large. The scarcity of accurate small-scale plans and the poor condition of the remains have meant precise comparisons were impossible.

The exact identity of this vessel is unclear, but from the circumstantial evidence it is possible to put forward a plausible identity. George Fuller mentioned that the ship in question was bought in Southampton and broken up in 1946. However, it is known that 126 MMS 1s were decommissioned at this time, the majority in the Portsmouth area (Melvin 1992: 162). Further evidence may come from the electrical box found on site that had the year 1944 inscribed on it, which may relate to the date of construction (which again is by no means certain). No 1944 British built MMS 1s were decommissioned in the UK in 1946. However, there was one 1944 foreign built vessel that was disposed of at this time. This is MMS 249, which was built in Canada, by the Shelbourne Company of Nova Scotia. The North American identity of this vessel is significant as it may rationalise George Fuller's assertion that this was an American built vessel. Such an explanation may also account for the differences in frame and bulkhead construction noted between this vessel and the three known hulks used in comparison. These were all built in Britain, suggesting that different traditions of boatbuilding may have been followed (Melvin 1992: 163, 202). The GEC electrical box cannot be used to discount this evidence because these components were supplied to Commonwealth shipyards. This identity is in no way certain, and is an assumption generated from the gathered information. To shed new light on this issue, it is recommended further research into both MMS & BYMS designs and

comparing to traditional hull construction techniques in private American, British and Canadian shipyards be conducted.

3.12.6. Archaeological Significance

Criteria	Assessment
Period	This vessel is a warship from the Second World war, which increases its significance
Rarity	No floating examples are known to exist, however at least three similar hulks can be found in the UK
Documentation	MMS 1 Series documentation does exist, although references to this individual vessel are unknown
Group Value	As a group the MMS 1s are highly significant
Survival/Condition	This hulk is in a very poor condition and much is missing, which does reduce its archaeological significance
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion

Table HAM050- 1 Summary of HAM050's archaeological significance assessment

Mine-countermeasure vessels such as the MMS can be considered to be significant and have substantial heritage value. They played a vital role during the Second World War negating the threat from mines. Britain as an island nation was extremely vulnerable to mine blockade during this period. The job that the minesweepers did in keeping the continental shelf shipping lanes open should not be underestimated. Despite this, minesweepers and the men who crewed are an under-researched and under-valued aspect of military and naval scholarship of the period (Melvin 1992:1). Recently the efforts of the Royal Navy's Anti-Submarine vessels and the Merchant Navy convoys in keeping Britain supplied during the Battle of the Atlantic have been increasingly recognised. However, the role of minesweepers has largely faded into obscurity. "Very little if anything, has ever been said about the role of the MMS without which and others like them the war could not have been effectively fought...The crews and ships, apart from the odd congratulatory signal were given little or no credit at all" (Melvin 1992: 63).

Keeping the convoy routes into Britain open was the day-to-day work of these vessels and was conducted throughout the war. However, if looking at an individual operation, the contribution of the minesweepers to the invasion of Normandy was perhaps their single most important action. Without the work of the minesweepers in clearing the twenty swept channels across the heavily mined English Channel in 1944 the invasion could not have happened. Admiral Kirk, American Flag Officer described the role of the minesweepers stating "it can be said without fear of contradiction that minesweeping was the keystone of the arch of this operation. All of the waters were suitable for mining, and minesweeping plans of unprecedented complexity were required. The performance of the minesweepers can only be described as magnificent" (Barnett 1991: 785).

In terms of preserved examples of the MMS 1s, none are known to remain afloat in their original appearance. Approximately ten examples remained in

use in various forms in 1992. It is believed that only three may have survived the last decade. The MMS 279, which had been converted to a vehicle ferry in Norway. It was registered as operating until 2000, but after this it was simply listed as “struck off” (www.fjordfaehren.de/no/fjord_f2.htm). MMS 54 was converted into a three-masted barquentine registered in the Netherlands as *Elizabeth Smit*. Recent reports suggest it was run aground in a storm in 2002. The current fate remains unknown (www.muideninfo.nl/archief/minfo-averij-esmit.html). MMS 191 was afloat and under restoration by Michael Melvin and the MMS Trust in 1992. It is believed that the vessel was destroyed during this restoration work (Richard Hellyer pers.coms May 2007). If a floating example of a MMS 1 was found it would be significant.

A search of the National Historic Vessel's Register has shown that no Minesweepers from the Second World War have been registered. This is disappointing when one considers their important role and the large number that were produced, but not entirely surprising bearing in mind the quote from Melvin mentioned earlier. The lack of a preserved contemporary MMS does increase this vessels significance. The only near complete MMS hulk is the MMS 251, which was recorded in the Falkland Islands in 1985. However, the site has not been visited since and its current status is unknown (Melvin 1992: 78). It is believed that there is only one other similar vessel in the local area: the MMS 293 at Forton Lake. This vessel is in an advanced state of decay, although in better condition than HAM050. If HAM050 was in good condition it would be considered to have high significance, however it is not and therefore should be considered to be of medium significance.

3.12.7. Recommendations

A comprehensive survey of HAM050 has been conducted, and drawn plans of the site have been created. A full and in-depth photographic record of the vessel has been collected. It is recommended that no further survey work be conducted on this hulk in the near future. At a later date it may be beneficial to conduct a brief survey to give an indication of the rate of decay of these remains. It is advisable to monitor these remains in case they become more hazardous due to the possibility of structural collapse.

Research has shown that this type of vessel is significant. If MMS 1 Series vessel in good condition does present itself it would be recommended that this vessel should be preserved for posterity. The remains of the MMS located at Bunny Meadows are in too far an advanced state of decay and restoration could not be considered an option.

3.12.8. References

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Personal Communications

Richard Hellyer, British Military Powerboat Trust

Philip Simons, Lloyds Register

Brian Woodford, Author and Local Historian

3.12.9. Plans and Drawings

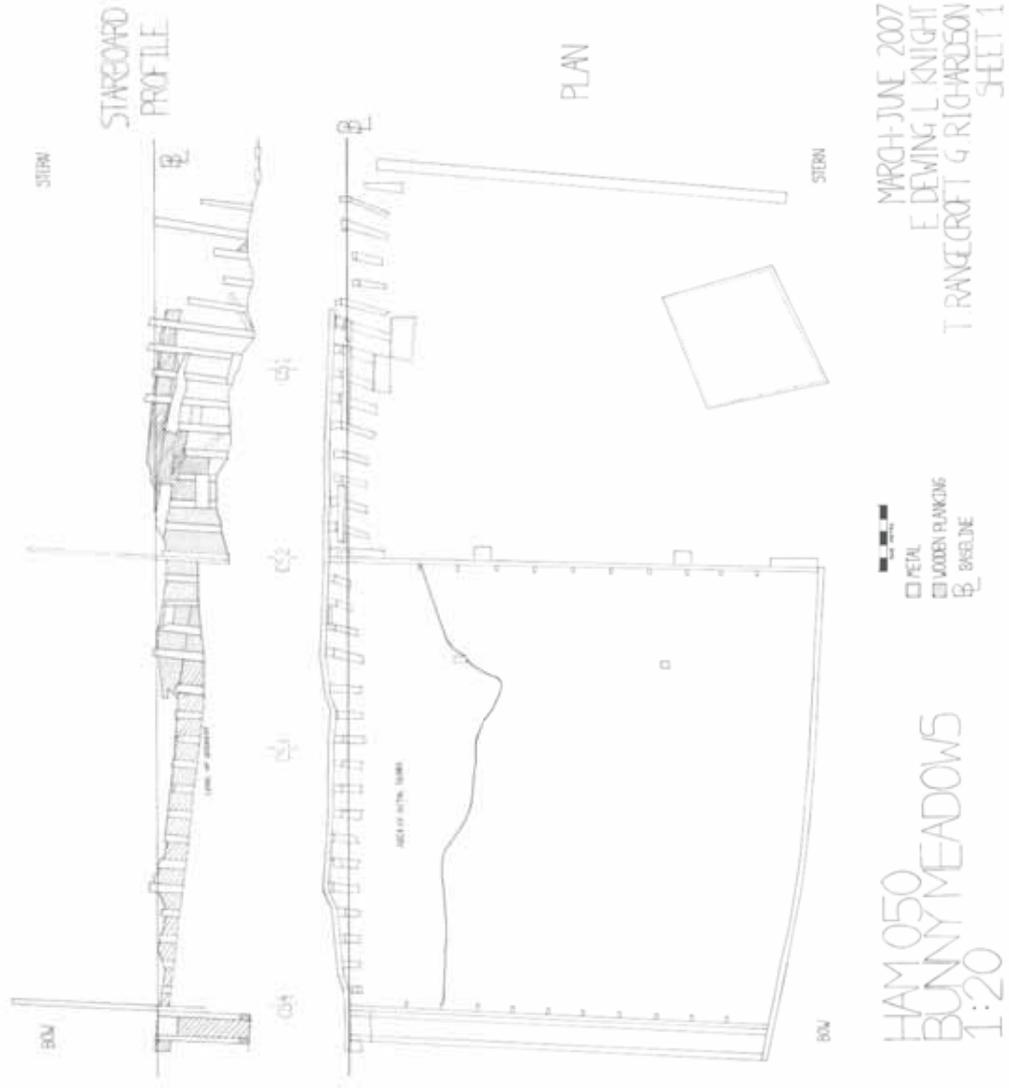


Figure HAM050-30 Survey plan and starboard profile

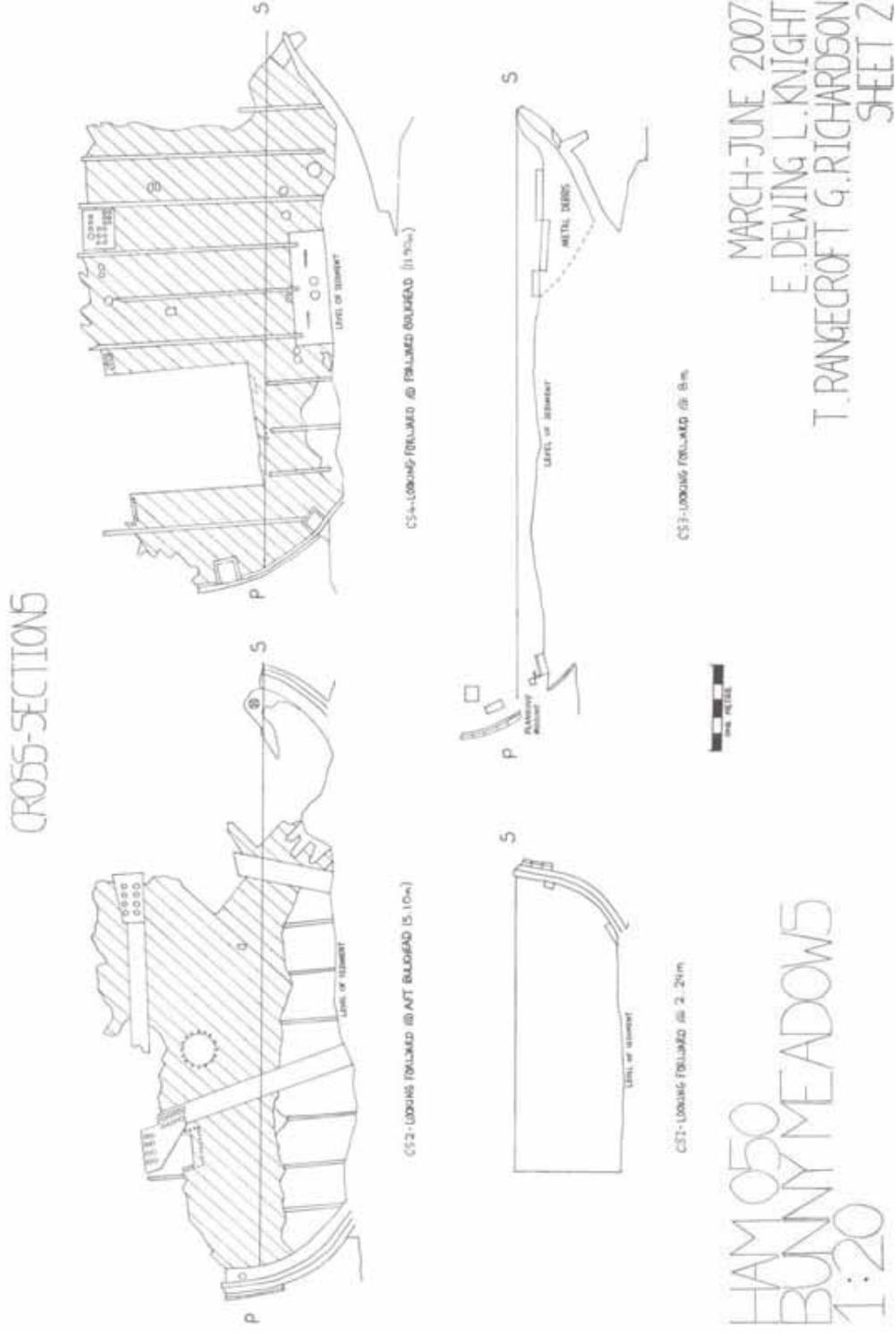


Figure HAM050- 31 Cross-section profiles

3.13. HAM052 Clinker Hulk, Grace Dieu Corner

NGR: 450150 110489

Date of survey: June 2007

3.13.1. Introduction

On the eastern bank of the Hamble River, near to the Protected Historic Wreck Site of the *Grace Dieu* lie the remains of a small boat. This is between the shore and a small 40m long island. The tidal island contains building debris, glass and pottery, so may be of human construction. HAM052 is partially buried beneath the tidal sediments. The vessel has its bow pointing towards the west (Figure HAM052-1).



Figure HAM052- 1 The remains of a small clinker boat near Grace Dieu Corner (looking east)

3.13.2. Survey Description

Surface sediments were removed from the starboard side of the vessel facilitating the survey. On the port side sediment was removed in strips from five locations to enable profile drawings. A datum was established at the bow and at the stern, and the vessel was recorded using the datum offset method (Figure HAM052-2).



Figure HAM052- 2 Volunteers recording HAM052 (looking north)

A complete plan of the starboard side was drawn (Figure HAM052-2). On the port side, the area where the sediment was removed was planned and the extent of the port side was located and also planned. Five profiles were recorded; at the bow and stern and at three locations between. A longitudinal profile from stem to stern was also drawn.

A full photographic survey of the hulk, component parts and environment was also collected.

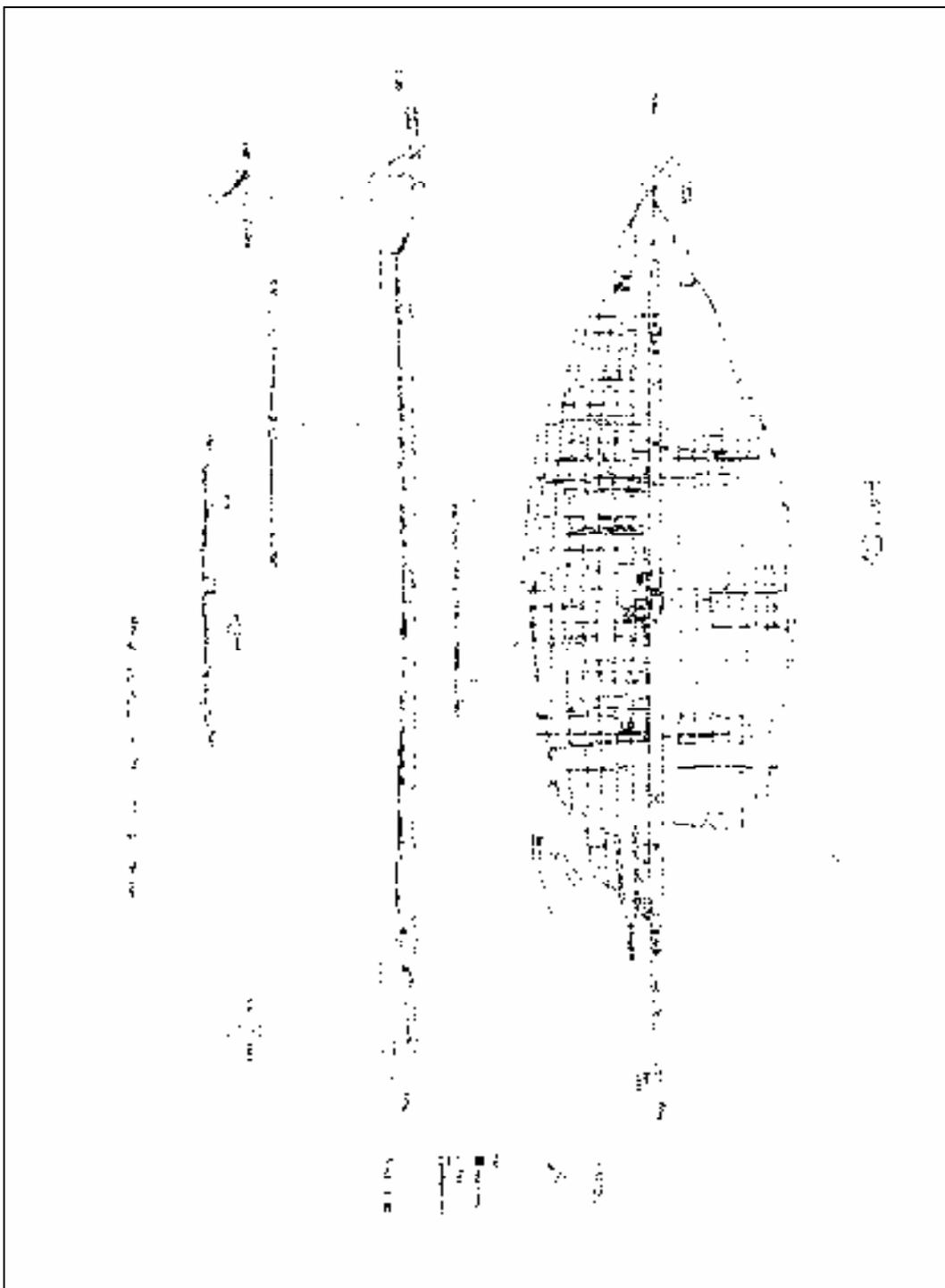


Figure HAM052- 3 The drawn survey plans of HAM052

3.14.3. Site Description

Remains of a small boat of clinker construction; the planks are fastened with copper rove nails. Other fastenings were encountered, such as brass screws but it is not certain whether these are associated with the original vessel. The vessel's remains measure 10.24m long by 2.95m wide. The bows of the vessel are exposed from sediments (Figure HAM052-4). A keel and associated composite keelson is present. Above the keelson there is a rider

keelson. These three timber elements are fastened together by metal threaded bolts (Figure HAM052-5). The keelson rider has a scarf joint towards the bows (Figure HAM052-5).



Figure HAM052- 4 The bows of HAM052, with the keel (red arrow), the keelson (blue arrow), the keelson rider (green arrow) and the stempost step (yellow arrow) indicated (looking south)



Figure HAM052- 5 The scarf joint of the keelson rider aft of the bows (red arrow) and two bolts (blue arrow) that fasten the rider, the keelson and the keel together (looking south)

Amidships there is a scarf joint in the keelson, which has been strengthened with additional butt-straps (Figure HAM052-6). Most of the ribs remain and towards the bows there are stringers. The ribs are positioned in groups of three; each rib is 0.04m wide (Figure HAM052-7). The spacing between the first rib and the second is 0.05cm, and is 0.08cm between the second and the third. The spacing between each group is about 0.20m. There are larger transverse timbers in the bottom of the hull located in the final third of the vessel (Figure HAM052-8). These are the remains of floor timbers and would have given additional strength to the hull, these are 0.08m wide.



Figure HAM052- 6 The scarf joint in the keelson amidships, with butt-straps supports (looking south)



Figure HAM052- 7 An image showing the rib spacing. Arrow colours indicate groups of three (looking east)



Figure HAM052- 8 A floor timber located on the starboard side towards the aft of the vessel (looking east)

The stern section and rudder step remains, with a section of collapsed but articulated rudder present (Figure HAM052-9). At the stern, the run of planks are rebated into the sternpost. The stern is buried deep within the mud. In the vicinity of the stern a hard thick layer of pitch was encountered. This may be the caulking (waterproofing), but it is not certain if this is original or a later addition. In the bilges of the stern there are two large timbers, one on the port and one on the starboard (Figure HAM052-3). These are 0.58m long by 0.18m wide; it is probable that these are the mountings for a small engine.



Figure HAM052- 9 Starboard view of the stern, with the sternpost (red arrow), rudder (blue arrow), rudder step (green arrow) and planks (yellow arrow) indicated (looking south)

3.13.4. Research

Currently the identity of this vessel is unknown. Without an identity it is very difficult to carry out documentary research. To address this local residents and river users were approached for information but this proved unsuccessful.

3.13.5. Interpretation

This vessel is the remains of a small clinker boat. When recorded the lower sections of the hull were seen to be flat. The large floor timbers and the ribs are also flat and this indicates that the vessel was originally flat-bottomed. It is likely that this vessel dates from the twentieth century. The vessel's fastenings in some areas were found to be bolts with threads. Bolts with threads are usually found on more modern vessels (Stone 1993: 33). The boat probably had an engine to propel it; towards the stern there two large timbers, which may have been the footings for the vessel. It is unclear if this was an original fitting or a later addition.

3.13.6. Archaeological Potential

Criteria	Assessment
Period	Twentieth century
Rarity	Further research required for accurate assessment
Documentation	No documentation has been found
Group Value	No

Survival/Condition	Poor condition, most of the upper structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	Not known

Table HAM052- 1 Summary of HAM052's archaeological significance assessment

HAM052 has low archaeological significance. The evidence suggests that this hulk is the remains of a small twentieth century boat.

3.13.7. Recommendations

This boat has been comprehensively surveyed and at present does not warrant any further survey. As this vessel is considered to be of low archaeological significance archaeological survey to monitor its condition is not recommended. However, it is suggested that periodic visits and the taking of photographs may be useful for analysing the rate of decay of the vessel and the erosion of the riverbank in this area.

3.13.8. References

Stone, D.L., 1993. *The Wreck Diver Guide to Sailing Ship Artefacts of the 19th Century*. The Underwater Archaeological Society of British Columbia

3.14. HAM054 Slipways, Hamble Point

NGR: 448700 105850

Date of survey: December 2007

3.14.1. Introduction

At the mouth of the Hamble River, there is a peninsular of reclaimed land known as Hamble Point where Hamble Point Marina is located. The latter is a hard standing area of boat sheds and marine services, with adjacent jetties offering 230 berths. On the eastern side of the marina there is one slipway and the remains of another. The southern most is derelict while the northern most is still in use by the marina facilities. Information gathered from local people suggested that these slipways were used by seaplanes.

3.14.2. Survey Description

These slipways can be seen on aerial images. It was therefore decided that a survey was not required at this stage. The site was visited and photographs of the two slipways were collected. For background research, the Hamble Parish Council Archive and Southampton's Hall of Aviation were visited. Historic cartographic evidence was collected by analysing Ordnance Survey maps from 1897 onwards.

3.14.3. Site Description

The slipways lie on the eastern side of the Hamble Point peninsular. The northern most of the slipways is approximately 50m long by 15m wide and gently slopes down to the river (Figure HAM050-1). It is orientated west-southwest to east-northeast. At the shore end there is a gap in the seawall, where the slip rises to an apex before the slope descends towards the main

area of the hard standing. This slipway is in very good condition, and is still being used by the marina to launch boats.



Figure HAM054- 1 The concrete northern slipway cuts through the seawall, looking north

About 75m to the south the second slipway can be found (Figure HAM054-2). This feature comprises of two parallel metal rails, laid upon concrete foundations. It is approximately 45m long by 2m wide, and has a west – northwest by east-southeast orientation. The rails run from the low water mark to the shore, and at this point they are buried beneath the large rocks of the seawall. The metal rails are highly corroded, and have broken from their foundations in sections. To the north there is a series of parallel posts that appear to be the remains of a wooden jetty. To the south there is a concrete mole, which may be a drain.



Figure HAM054- 2 The southern slip comprises of two metal rails, post remains from a jetty can be seen at the top of the image, while the concrete drain can be seen in the foreground

3.14.4. Research

Based on County Series Map, Hamble Point was considerably different in 1897 to its present form (Figure HAM054-3). There is no direct evidence of the boatyard, and the area is depicted as being salterns and a lobster pond. Neither of the slipways are annotated. However, near to the sluice of the lobster pond there is a shingle strip, which is close to the position of the northern slipway. Also between the locations of the two future slipways there are two small buildings. The function of these cannot be determined.



Figure HAM054- 3 County Series Map 1:2500, 1897 (Ordnance Survey)

On the County Series Map of 1909 there is very little change, in relation to the 1897 map (Figure HAM054-4). The gravel strip shown near the sluice is now annotated as being a hard, probably being a fore-runner of the northern slip. The small buildings mentioned above have now been replaced by a single building, and is annotated as being a boat house. This is the first cartographic evidence of boat facilities in the area.



Figure HAM054- 4 County Series Map 1:2500, 1909 (Ordnance Survey)

By 1932 the whole area has been developed significantly (Figure HAM054-5). The area of salterns has disappeared and in its place two main complexes of buildings and a number of additional individual structures can be seen. The lobster pond is no longer annotated; although the outline of this facility can be seen. The shingle hard is still present, and adjacent to it the northern slipway is now depicted. In the area of the southern slip there are two slipways shown. Based on their depiction, both seem to be of the rail type. At the shore end of these slips there at least two separated buildings or possibly a central building with two atriums.



Figure HAM054- 5 County Series Map 1:2500, 1932 (Ordnance Survey)

Hamble Point saw the first flights in 1912 and this is widely seen as being the beginning of Hamble's association with aviation. At this time the Daily Mail newspaper became keen on popularising flying, and wanted to start a tour round Britain. To facilitate this the newspaper arranged for a flying shed and an associated slipway (the southern slip) to be built at Hamble Point to house the Farman seaplane that was to make the tour (Ian Underdown pers comm. Dec 2007). On 3rd July, 1912, a Miss Trestrail of Southampton was taken up for a flight, and in doing so became the first lady passenger in a seaplane on the British coast (Underdown & Underdown: 1987).

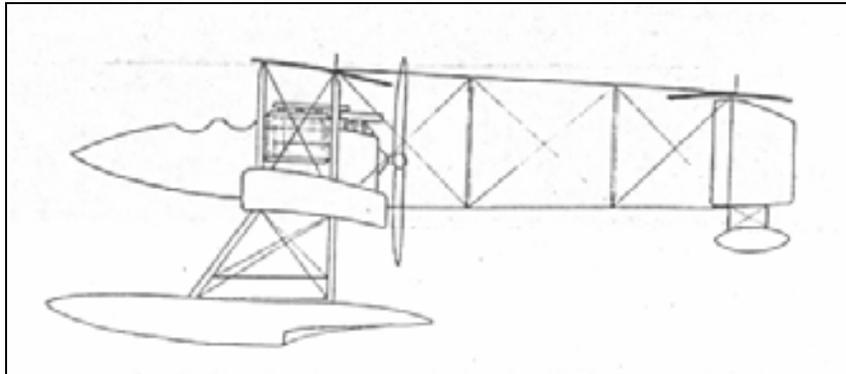


Figure HAM054- 6 A line drawing of the HL1, the first aircraft to be designed and built at Hamble Point (Courtesy Ian Underdown)

In 1912, Luke and Co yacht-builders in association with the Hamble River Engineering Company started to design and build the first seaplane at Hamble Point, known as the HL1 (HAM054 Figure 6). The aircraft was never finished, although it was displayed at the 1914 Olympia aero show. With the advent of war in 1914, the land and facilities at Hamble Point were requisitioned by the Admiralty (Underdown & Underdown: 1987).

Aircraft construction and testing at Hamble Point for the most is synonymous with the Fairey Aviation Company Ltd. In 1915 the newly formed Fairey Aviation was looking for a suitable location for the assembly and testing under contract of the Shorts Type 827 floatplane (Taylor,1974). To answer this requirement the Admiralty offered a site at mouth of the Hamble River. 'Here a wooden slipway was built or extended, and shops were erected on 4ft high concrete stilts because of flooding of a marshy field' (*Ibid*: 2). In Taylor's book on Fairey Aviation there is a photograph dating from 1916 showing the slipway extension (Taylor,1997:11). It ran from the top of the slip to the work shops, and comprised of a wooden gantry of three sets longitudinal parallel planks on top of cross beams. The areas between the planks and beams were left open as voids, and the whole platform was raised and supported by concrete posts. In the background of the photograph there is a building with a sign saying the 'Hamble River Luke & Company', this is the aforementioned company's workshop. Also in Taylor's book there is a photograph showing four Short's Type 827s being assembled in a workshop at Hamble Point (*Ibid*: 12). Two photographs of unknown dates were also collected from the Southampton Hall of Aviation, one of a Fairey Campania and one of a prototype Seafox, which is the process of being launched from a wooden slipway. These images show the northern slipway, and they show that it was

originally a wooden structure, and must have been reconstructed with concrete at a later date.

Between 1915 and 1916 Fairey Aviation began to design and build their first significant type, the Campania Seaplane. These were built at Hayes, but were reassembled at Hamble Point for testing. According to Underdown (1987), the aircraft was intended to be flown from an seaplane carrier of the same name. 'The Campania marked a significant step forward in aviation and maritime history as it was designed to meet an Admiralty specification for operation from an aircraft carrier – HM Seaplane Carrier: Campania' (Underdown & Underdown 1987: 2). Another aircraft built by the Fairey Company was the interestingly named Hamble Baby, which was a floatplane version of the Sopwith Baby; the former being built and tested at Hamble. There is a photograph of this aircraft being launched from the northern wooden slipway in Taylor's book of Fairey Aviation (Taylor 1997:21). Other Fairey aircraft associated with Hamble Point include the seaplane version of the Fairey III and the Seafox, which were tested and built during the inter-war period (Underdown & Underdown 1987). There is a surviving photograph that shows four Fairey IIIDs floating on the Hamble River while awaiting collection (Taylor, 1997: 31).

In 1929 the Fairey Aviation Company appears to have been in a sound state, with their assets estimated as being £615,486, with £20,438 of this being attributable to the Hamble plant (Taylor, 1974:13). However, 1932 was a difficult year for the facilities at Hamble Point. The buildings here had to be rebuilt after they were completely destroyed by fire (Underdown & Underdown 1987).

Aviation work declined at Fairey's Hamble facilities after the Second World War, and the area was becoming increasingly used for small boat production. Seaplane training in the Hamble area also ceased after the Second World War. Although Aquila Airways did commence operations using flyboats from a slipway on Southampton Water near to Hamble Common, only short distance from Hamble Point, on Southampton Water near Hamble Common. In 1957 an Aquila aircraft crashed on the Isle of Wight, which signalled the end of organised seaplane activity in the Hamble area (*Ibid*).

3.14.5. Interpretation

As mentioned previously, the southern slipway was constructed in 1912 for the Daily Mail round Britain Seaplane Tour. This announced the Hamble area's association with aviation. At this time the land was being used by the boat builders Luke's and Company, who went on to attempt the first aircraft construction at the site. The next major development occurred in 1915 when the facilities were enhanced prior to Fairey Aviation's arrival at Hamble Point. The northern slipway was constructed as part of this development. At first this was a wooden decked structure and this was later converted to concrete.

The 1932 County Series Map is annotated with the word "Slips" in the vicinity of the southern slipway, and there are two sets of parallel lines with the same orientation. Today, the remains of one slip and a jetty can be seen which can be interpreted as follows: a) there was only one slip and the additional parallel

lines were the jetty to the north; or b) the additional slip has been removed, possibly when the concrete drain was constructed.

3.14.6. Archaeological Significance

Criteria	Assessment
Period	The northern slipway is modern, and the southern remains date to 1912. The later dates to the early stages of aviation, and is linked to the First world War
Rarity	There are other examples in the UK, but they are later
Documentation	Cartographic evidence does exist and strong possibility further documentary evidence may be found through research
Group Value	Their importance is enhanced from being related to the development of aviation at Hamble Point
Survival/Condition	Nothing appears to remain from the original slipway to the north, while only a small amount remains to the south
Fragility/Vulnerability	The little that does remain is highly corroded, and subject to continued erosion
Local Significance	These sites are archeologically significant for the local area. Important to the areas economic development, aviation heritage and wartime history

Table HAM054- 1 Summary of HAM054's archaeological significance assessment

Any structural remains of the original seaplanes slipways can be considered to have high significance. The seaplane slipways that were constructed at Hamble Point may be considered a key part of Britain's aviation heritage. Research shows that the slipways were active in the early stages of British aviation and as such are significant. Additionally, their part within the development of aircraft for the defence of this country during the First World War would have been valuable. Hamble's association with the aircraft industry became substantial over the next quarter of a century. As these slips were some of the first aviation related structures in the Hamble area they are locally significant.

These structures are associated with a period that makes them important, and could have been considered for protection under the Scheduling of Monuments (English Heritage website). However, little of the southern slipway remains, and even less of the northern. This means that Scheduled status could not be given to this site. Despite this Hamble Point does have high heritage value. There are three other seaplane slipways that are registered within the Archaeological Data Service; Lisnarrick, Northern Ireland (WWII), Lee-on-Solent, Hants (1917-1918) and Seaton Carew (1914) (ADS Website). These have been registered, yet they do postdate the initial facilities at Hamble Point.

3.14.7. Recommendations

The Hamble Point slipways are considered to have high archaeological regional significance, as well as being nationally important. It is then recommended that further research be conducted. These investigations may

add greatly to our knowledge of this area. The photographic evidence shows the slipways are different today from when they were first built. It is highly likely that the original and later alteration plans may still exist. These plans could provide information to assess how much of the early structure remains. This would enable an informed assessment to evaluate if protection would be applicable to this site.

The story of aviation at Hamble Point is very significant for the Hamble area, and yet there is little evidence remaining. It is therefore suggested that a heritage board be erected at Hamble point to inform visitors of this area's links to the history of aviation.

3.14.8. References

Taylor, H.A., 1974. *Fairey Aircraft Since 1915*. Putnam, London.

Taylor, J.W.R., 1997. *The Archive Photographs Series: Fairey Aviation*. The Chalford Publishing Company, Stroud, Gloucestershire.

Underdown, I. and Underdown, R., 1987. *A History of Aviation at Hamble*.

Websites

Archaeological Data Service - <http://ahds.ac.uk/> Accessed 30.01.08

English Heritage - <http://www.english-heritage.org.uk/server/show/nav.1369>
Accessed 30.01.08

3.15. HAM064 Norseman

NGR: 449545 109100

Date of survey: May 2007

3.15.1. Introduction

On the eastern bank of the Hamble River, between Lower Swanick and Brooklands where the river bends, there are the remains of a predominately wooden vessel. This vessel is well known by local residents, and was a former yacht converted to a houseboat called the *Norseman* (Figure HAM064-1). The hulk lies about 70m from the shore, in an area of thick sediments that deepen towards the stern.



Figure HAM064- 1 The remains of the Norseman looking northwest, with Moody's Marine in the background (photo K. Clark)

Keith Clark, a student from the University of Sussex, researched and surveyed the *Norseman* during the spring of 2007. During the survey a local volunteer, David Bellfield, assisted Keith. This report is based upon their work.

3.15.2. Survey Description

Before survey began, a visual assessment of the site was made from the shore. This included an assessment of the suitability of the hulk for survey, as well as determining if the site was safe enough to access. The vessel's structure was stable and the site was deemed safe to access.

The site lies low in the inter-tidal zone. Therefore, the tidal window is short restricting survey time on site. Survey can only be carried out for an hour before the tide returns and work has to finish. Prior to full survey a brief sketch survey was conducted. During this hull dimensions were collected and the location of the vessel was taken. An examination of the visible remains was made and the silts within the hull were probed to assess if they could be walked upon. The result of this survey was used to inform the methodology of the full survey.

Based on the information collected during initial site visits the method of survey chosen was the datum offset method. This is a method of survey that can be used relatively quickly by a small team. A baseline was placed along the centre line of the hulk between stem and the stern. Offset measurements of the hull were taken to the baseline, and the position recorded. The measurements collected were entered into Site Surveyor and plans of the hulk were drawn in this program.

A comprehensive photographic survey of the site was undertaken, which enabled the recording of diagnostic features. This would assist the

investigations, and in the future, these photographs could be used during the monitoring process.

3.15.3. Site Description

Little of the vessel remains exposed from the sediments, except for the stempost (Figure HAM064-2). The stempost protrudes from the mud to a height of 1.86m, while the rest of the remaining hull rises to a maximum height of 0.30m. The outline of the hull is visible, which is of carvel construction. Visual inspection of the timbers shows evidence of burning.



Figure HAM064- 2 Looking southwest it can be seen that very little of the vessel structure is visible, except for the stempost seen on the left of the photograph (photo K.Clark)

During the intermediate survey the dimensions of the hull were taken. The vessel measures 34m long and 6.4m at the widest point. The height of the hull has mostly disappeared but what remains is estimated to be around 3m.

Surrounding the hulk, there is a debris field of bricks, building material, glass and ceramics. These artefacts are unlikely to be associated with the *Norseman*. Inside the structure there was an abundance of metal artefacts including copper alloy and iron nails, copper bolts and iron tie bars.

During the main period of survey the outline of the hull was surveyed. Due to tidal time constraints, it was not possible to survey all of the individual posts, tanks or the assorted metal fittings (Figure HAM064-3).

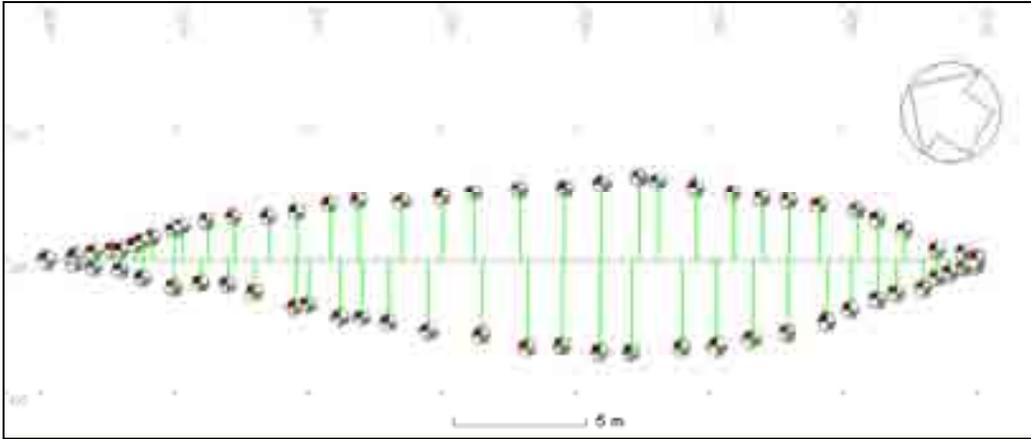


Figure HAM064- 3 The surveyed positions of the exposed hull (Courtesy K. Clark)

To obtain a profile of the base of the hull, the sediments within the vessel were probed with a cane and subsequent measurements were taken from a spirit levelled line. It was then possible to create a relative longitudinal profile. There were many obstructions beneath the sediment that prevented an accurate hull curve. However, an indication of structural shape was acquired. Currently, the majority of the hull is beneath the sediments, and a maximum depth of 1.45m was encountered. Research has shown that the *Norseman's* original hold had a depth 3.5m, estimating that around 40% of the original hull lies beneath the sediments (Record of American and Foreign Shipping, 1883).

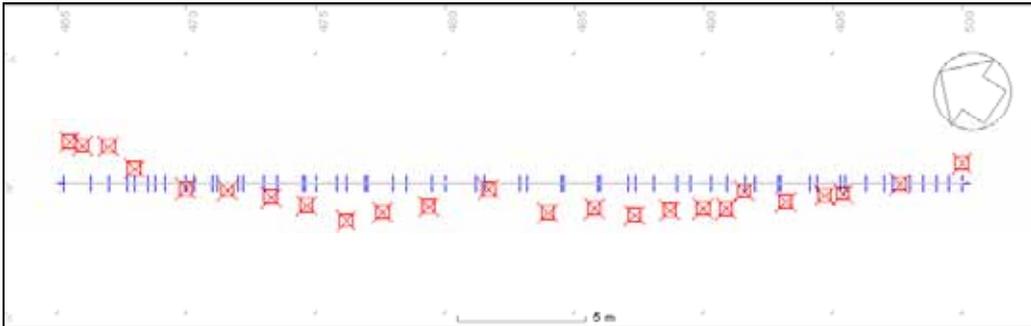


Figure HAM064- 4 An indication of the elevations of the structural remains from the relative base line in blue (Courtesy of K. Clark)

There were a number of exposed frames remaining, with both outer and ceiling planking attached. To obtain diagnostic measurements of the frame timbers a small area of sediment had to be removed (Figure Ham064-5). This allowed the dimensions of the frame size and planking thickness to be collected. The frames were approximately 0.15m x 0.22m, while the outer planks had a thickness of 0.06m and the ceiling planking was 0.08m (Figure HAM064-6).



Figure HAM064- 5 Sediment was removed from two frames so that measurements could be collected (photo K.Clark)

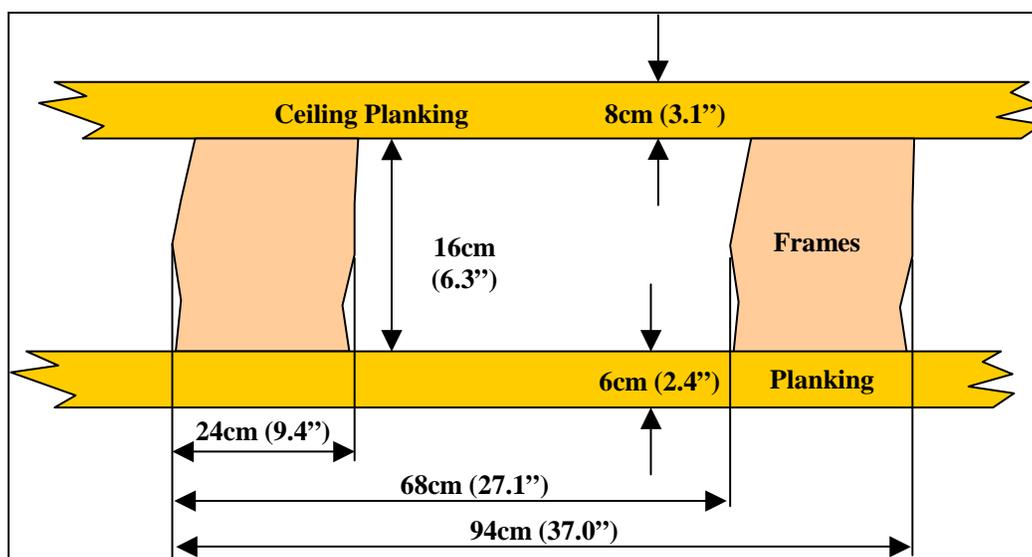


Figure HAM064- 6 A visual representation of the measurements of frames and planking, as seen in plan (Courtesy of K. Clark)

Even though a significant number of metal artefacts were found within the hulk of the *Norseman*, the engine was not present. A large tank was encountered, but it is not certain if this was for water, fuel or waste. At the stempost, there are two metal strip bars, with bolt fastenings. These were interpreted as being where the bobstay would have been attached (Figure HAM064-7). A large number of metal construction elements were found throughout the hulk, including bolts, metal spikes, eyes and ringbolts. Many of these objects are still *in-situ* and can be seen attached to the original timber elements, including a collapsed hanging knee that still had iron bolts attached (Figure HAM064-8). For diagnostic and recording purposes, a selection of copper alloy artefacts

were collected (Figure HAM064-9). Further metallic remains were also found on site, although their identity and function are unknown.



Figure HAM064- 7 Starboard view of the stempost with the bobstay supports clearly visible (photo K. Clark)



Figure HAM064- 8 Photograph of a hanging knee with metal fastenings clearly visible (photo K. Clark)

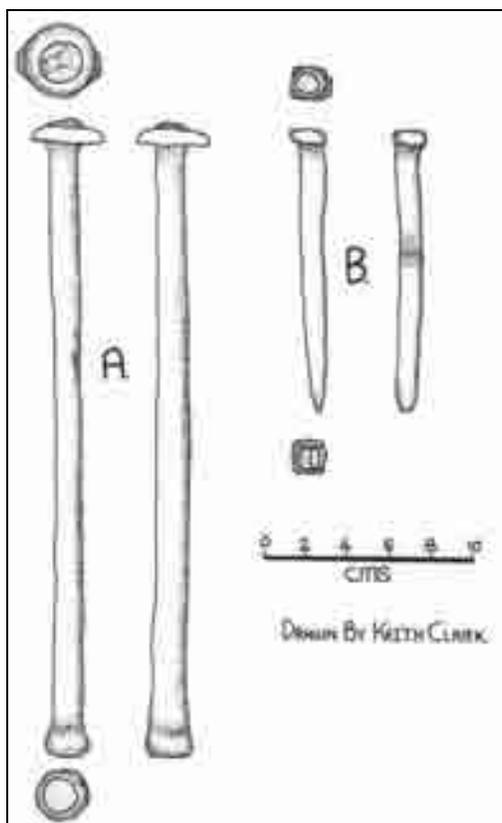


Figure HAM064- 9 Copper alloy artefacts collected for recording; bolt with washer (A) and a spike (B) (Courtesy of K. Clark)

3.15.4. Research

Knowing the identity of the vessel assisted the research process greatly. Research was undertaken at the National Monuments Record (NMR) and the United Kingdom Hydrographic Office (UKHO). The NMR did not hold a record on this site. The UKHO only refers to the hulk's position. Research was also conducted through local history books, old maps and aerial photographs. Many local people were contacted for their memories of the *Norseman*. An article was also placed within the *Southern Dailey Echo* asking for anyone with information about this vessel, but there was no response.

Local knowledge is an invaluable resource when researching the heritage of the Hamble River. The local historian and author Bryan Woodford, who had recently completed a book entitled "Warsash and the Hamble River: A History and Guide", was approached for information regarding the hulk near Lower Swanick. Mr Woodford was able to supply a great deal of information. He found a greetings card with a drawing of the *Norseman* in a substantially better condition than it is today. On the reverse of the card there was the following text:

At Lower Swanwick, the end of the "Norseman". By local reports, this hulk was once a proud topsail schooner. Built at Poole about 1847, her original cargo would have been potatoes, but she was later converted at high cost for private use. During the last war she was completely gutted by fire (not enemy action) and beached here.

The Lloyds Register of Shipping was researched for any vessels that might match the *Norseman*. There were no records from 1847 to 1900 relating to this vessel. In the 1951 register there were five entries for vessel with the name *Norseman*. However none of these were built in 1847 or were of a similar size. The Lloyds Register of Yachts from 1847-1900 and 1951 was also consulted, but no entries were found. Further research was carried out with the Mercantile Navy List for the same periods; however no appropriate entries for the *Norseman* were present. These were curious results as the information from the back of the greetings card had said the vessel was built at Poole in 1847, and therefore should be recorded in one of the registers.

Local ferryman Ray Sedgewick supplied information that was to lead to a new route of enquiry, as a *Norseman* built in 1847 did not appear in the registers. He suggested that the *Norseman* originated in America and was brought to the UK in the 1900s (Ray Sedgewick pers. com. May 2007). The Mercantile Navy List and the Lloyds Register of Yachts was inspected again and it showed that the *Norseman* was registered in London in 1917. This vessel was built by C & R Poillon of Brooklyn in 1881 as a Yacht. Contact was made with Ms. Nannette Poillon (a great-great-granddaughter of Cornelius Poillon founder of the shipyard) by Keith Clark. Information from Ms. Poillon included that the *Norseman* was a keel schooner built for Ogden Goelet in 1881, and was the last yacht to be overseen by Cornelius Poillon. Ogden Goelet was a socially prominent building developer who, with Robert Goelet, controlled the family fortune of tens of millions of dollars. Goelet joined the New Yacht Club in 1880 and provided a number of cups for local sailing competitions. Sometime after 1881 the *Norseman* was renamed *Alsacienne*. Ms Poillon also supplied a photograph of the *Norseman* and hull plans from a book written by F. Chevalier and J. Taglang (1987) (Figures HAM064-10 and 12). At the time of construction, the vessel had the following dimensions (Record of American and Foreign Shipping, 1883):

- Length 131ft (39.9m)
- Length along the waterline 112ft (34.1m)
- Breadth 25ft (7.6m)
- Depth 11.6ft (3.5m)
- Draught 11ft (3.4m)
- Tonnage 154.32 tons

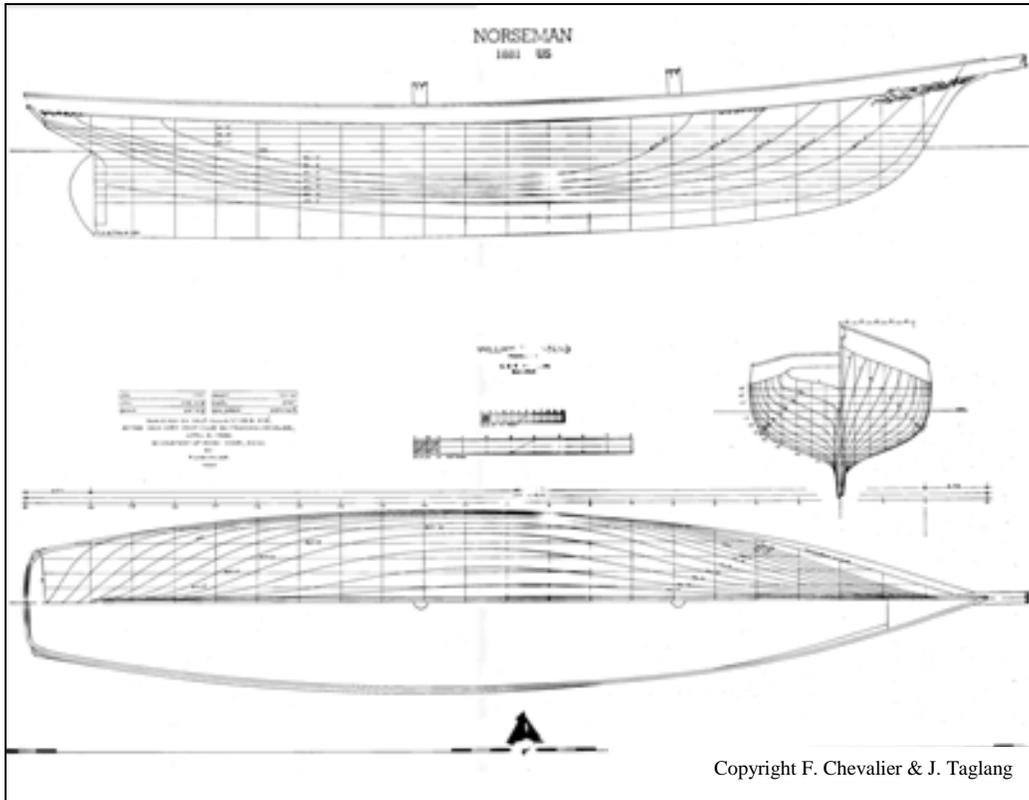


Figure HAM064- 10 Hull plans of the Norseman in 1881 (Courtesy J. Taglang ©)

The launch of the *Norseman* was covered in the local press. An extract from The New York Herald was found which provided details of this occasion (Figure HAM064-12). The New York Herald mentioned that the *Norseman* was built from oak, hachmatack (a larch native to North America) and yellow pine. These details are confirmed in the 1883 Record of American and Foreign Shipping. The fittings and fastenings were copper and galvanized metal. At the time of construction it did not have an engine fitted.

gentlemen present. The keel of the new craft was laid on December 9, 1880, and is of oak, 107 feet long, 30 inches in depth amidships, below the rabbet, with stem and stern posts of the same material. The yacht is 132 feet over all, 25 feet beam and 11 feet 6 inches depth of hold. The frames are of Maryland oak, 6 by 9 inches in the floors, and double 5 inches square above the bilges, with locust stanchions on every frame. The planking is of oak 2½ inches on the bottom out to the turn of the bilge and 3 inches from there to the plank-shear. The ceiling is of yellow pine. The plank-shear is

Figure HAM064- 11 An extract from The New York Herald referring to the launching of the *Norseman* in 1881

With this updated information, it was possible to construct a chronology of ownership and a list of ports of registry outlined below. There is a period of

about seven years, between 1898 and 1904, that the *Norseman* disappears from the record, and by the time it reappears it is registered as having a 35bhp engine. The vessel also does not appear between 1917 and 1924. The reason for these omissions is not known.

- 1881-1897: Owner Ogden Goelet, registered Brooklyn, New York
- 1898-1904: Vessel not recorded in registers
- 1905-1909: Renamed *Alsacienne*, owners Arch. McNeil and W.T. Van Brunt of New York
- 1910-1916: Renamed *Norseman*, owner Charles Mayer
- 1917-1924: Vessel not recorded in register
- 1926-1936: Owner W. Greenhill, registered Southampton
- 1938-1949: Owner Ronald Brewis

Eddie Gillett was interviewed for his memories of the *Norseman*. He is in his nineties and has spent most of his life on the river, and in that time has gained a wealth of knowledge. Shortly before the Second World War the yacht was converted into a houseboat, and for a while was moored at Lands End, Bursledon near the Jolly Sailor Public House. A short time after this it moved the short distance to the Lower Swanwick side. It was here around 1949 that the yacht caught fire. As the *Norseman* burned Mr Gillett rushed up the gangplank and helped save a mother and her baby. Many years later the baby, now fully grown, returned to thank Mr Gillett (Mr E. Gillett, pers. com May 2007).

Whilst interviewing many local people about the *Norseman* there was a common story about how the yacht spent its final years at Lower Swanwick. It has been said that during the war years the *Norseman* was being used as a brothel by serviceman stationed in the area. This is unconfirmed, however this story did arise many times and there may be some substance to it.

3.15.5. Interpretation

Initial research suggests that the hulk of the vessel between Lower Swanwick and Brooklands Farm was the remains of a British built vessel constructed in 1847 that was used to transport potatoes. However, further research and interviews have shown that this vessel had a much more grandiose career. The *Norseman* was originally a very fine yacht built in 1881 in America as a millionaire's plaything. Its early history was spent around New York. In 1917, it arrived in London and by 1925 it had found its way to the Solent. It was moored on the Hamble and was converted to a houseboat during the 1930s and 1940s. And for a period of time may have been a 'house of ill repute'. After the Second World War the *Norseman* caught fire and this sealed its fate. Since this time, the vessel has been abandoned and has decayed through erosion, which has caused its structure to gradually disappear.



Figure HAM064- 12 Photograph of the Norseman in August 1888 (Courtesy of Ms N. Poillon)

3.15.6. Archaeological Significance

Criteria	Assessment
Period	1881
Rarity	This type of vessel is not uncommon, however it was built to order and would be individual
Documentation	Research has shown plans and records of this vessel do exist. Further research may add to its history
Group Value	N/A
Survival/Condition	Poor condition and a large amount hull structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	There are many memories of this vessel, indicating a place within the Hamble's maritime landscape

Table HAM064- 1 Summary of HAM064's archaeological significance assessment

The original *Norseman* must have been a magnificent vessel, and its association to an important New York figure gives it a very interesting history. It was a bespoke construction and as such it was individual. These aspects will add to its significance.

The *Norseman* can be considered to have some local significance. Whilst interviewing local people it became apparent that there are many memories of the *Norseman* on the Hamble. There are many stories concerning this vessel, and because of this it does have a position within the psyche of those who remember it prior to its fire. One of the reasons behind this may lie in its colourful past, which many may consider immoral and part of a sub-culture.

Nevertheless, it was part of the fabric of the Hamble area during the war years and because of this it has remained within the memories of many local people. Much of the original structure has disappeared and its condition is very poor.

3.15.7. Recommendations

Research into the *Norseman* was successful and knowledge of its provenance and career is relatively extensive. However, further research would be recommended to clarify aspects of what happened to the vessel during the years it did not appear on the registers (1898-1904).

Keith Clark surveyed the visible remains of vessel during the spring of 2007 using the direct survey method and the results were plotted using site surveyor. It is suggested that this site be surveyed further in the future and a drawn archaeological record created.

As the *Norseman* does have a place within the maritime landscape of the Hamble River, it is recommended that an information board be placed near its location. This would inform visitors and future generations about the interesting story behind this vessel.

3.15.8. References

Lloyds Register of Shipping 1847-1951

Lloyds Register of Yachts 1847-1951

Mercantile Navy List 1847-1951

Record of American and Foreign Shipping, 1883-1900

Woodford, B. 2006. *Warsash and the River Hamble: A history and Guide*. Warsash Publishing, Warsash, Southampton.

Personal Communication

Eddie Gillett, local resident and river user.

Nannette Poillon, great-great-granddaughter of Cornelius Poillon founder of the shipyard where the *Norseman* was built

Ray Sedgewick, local resident and ferry boat skipper

Bryan Woodford, local historian and author

3.16. HAM066 Dock, slipways and creek near Brooklands Farm

NGR: 449400 108790

Date of survey: March 2007

3.16.1. Introduction

On the eastern bank of the Hamble River, south of Lower Swanwick, there is the Brooklands Estate, which overlooks Bursledon Pool. To the southwest of this fine house, built around 1800, lies Brooklands Farm. The farm comprises of a number of buildings that are located adjacent to a dock and possibly three slipways. To the northeast of the northern slip, there is a small promontory, where a small yacht has been hauled up onto the foreshore. There is evidence of a slipway buried in the sediments, extending from the dock. To the southwest of the dock area, there is a second slip and beside this there is a creek, which has the partial remains of timber revetment. The Swanwick to Warsash footpath runs between the farm buildings and these maritime structures.

3.16.2. Survey Description

The site was visited for an assessment of its archaeological potential and its suitability for survey. The site is relatively large and the dock structure looks to be relatively modern. The outline of the creek is indistinct with some timber elements remaining; because of this it was deemed that a drawn survey was inappropriate at this stage. The land is privately owned and permission to survey was difficult to obtain. Therefore, a photographic survey was collected from the tidal zone and public footpaths. Cartographic research was conducted utilising the Hampshire County Council Record Office and Ordnance Survey resources. The results were used to support the photographs collected and in the preparation of this report.

3.16.3. Site Description

To the northwest of Brooklands Farm there are a series of structures that are associated with small boats (Figure HAM066-1). These structures extend up to 50m from a footpath that runs parallel to the river. For the purpose of this report the structures will be described in series from northeast to southwest.

At the northeast corner of the site there was a small pleasure yacht that had been hauled up onto stocks and has been positioned at the high water mark, probably for maintenance purposes. The vessel position appears to be in the natural inter-tidal zone, although there is a large amount of building debris in this area. The yacht has been positioned parallel to an outcrop of land. This outcrop has been constructed from building debris (Figure HAM066-2). It is approximately 20m long, is rectilinear in shape and has some evidence of revetment.

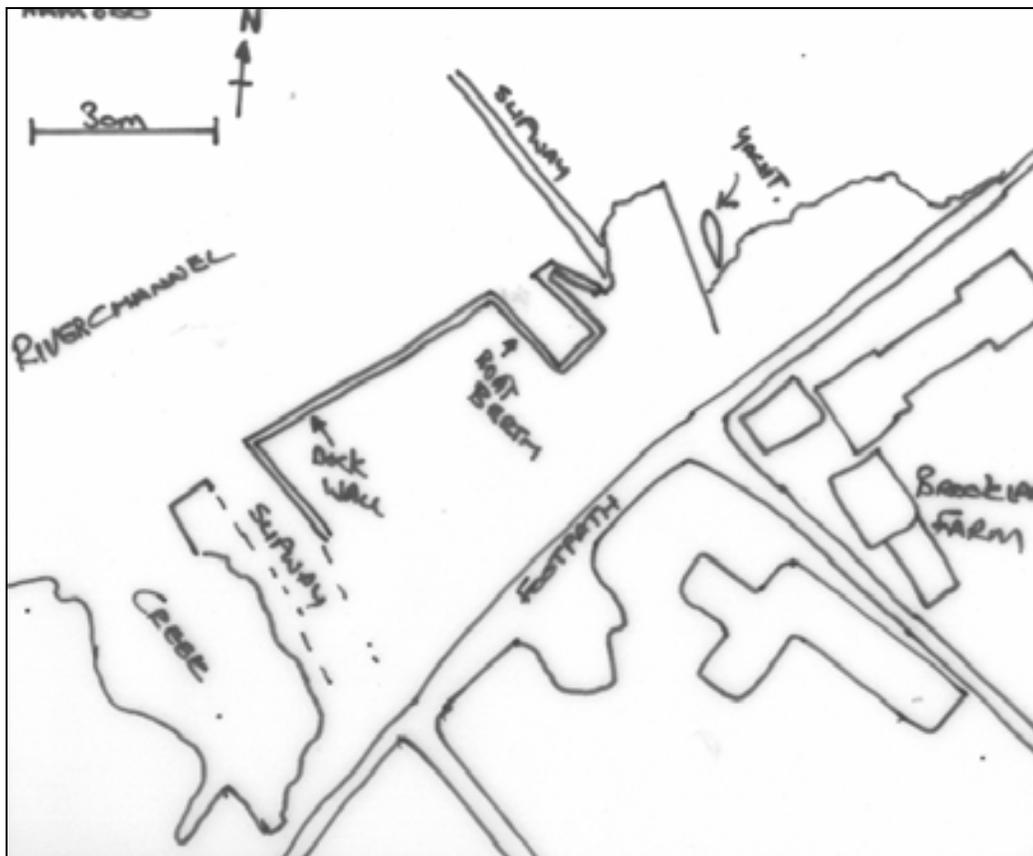


Figure HAM066- 1 Sketch plan of the maritime facilities at Brooklands Farm



Figure HAM066- 2 From this image it is possible to see that the northeastern promontory has been constructed from building debris

At the northwest tip of the promontory, there is the remains of a structure that may have been a slipway or jetty (Figure HAM066-3). This extends

approximately 60m into the river channel. This structure has been built from timber and concrete, and comprises of two parallel rows with a hard central surface area. The feature is in a poor condition and does not appear to have been used for a long time.



Figure HAM066- 3 Photograph taken from the north-eastern promontory of the possible slip or jetty

The slipway is positioned at a point where the promontory dips towards the shore, before returning and extending again towards the river. From this point the land is enclosed behind a tall dock wall made up of concrete blocks (Figure HAM066-4). This dock wall is straight and rectilinear, with acute angled corners and surrounding a grassed area that is well mown. Parallel to the river the wall stretches for about 60m, and extends 20m from the shore. Analysis of the materials indicates two phases of construction. Most of the lower half of the wall is made up of a type of brick (first phase), while the upper sections consist of larger concrete blocks (second phase). The area encompassed within the wall looks as if it is not natural and has been built up. About 5m from the northeast corner of this wall there is a recess that forms a single boat berth, measuring about 15m long by 6m wide. At the mouth of this berth the area is covered with tidal-silts, however in sections this is missing exposing a hard compact surface. This is probably the remains of an associated slipway.



Figure HAM066- 4 The entrance to the boat berth in the dock wall, the changes between the construction materials are demarcated by the algae growth

Parallel to the dock wall, on its southwest side, there is a slipway that runs in a northwest – southeast orientation (Figure HAM066-5). The slipway is made of concrete and about 7m wide. Towards the southwest side of Brooklands Farm there is a road with a gate. During the visit there were a number of small boats parked in a hard standing area, which suggests that this slip is still in use. At the southwest end of the slip, there is another small promontory. Two sides of this promontory are boxed behind timber revetment (Figure HAM066-5). This feature lies at the mouth of the creek.



Figure HAM066- 5 The entrance to the creek, with the southwest slip behind the boxed promontory

At the far southwest side of Brooklands Farm, there is a creek which is approximately 60m long by 20m wide at its mouth. This is fed from a small tributary that emerges at the southeast end of the creek, which may have a source somewhere in Brooklands Farm itself. Inside the grounds of the farm, there is a large fishpond, and the tributary could have been dammed to create this feature. The banks of the creek are relatively amorphous, and are the result of natural erosion. Although at some locations, the remains of timber revetment can be observed. These elements probably relate to an attempt to control erosion, rather than components of a basin structure as they do not appear substantial enough to be the latter. The areas on top of the creek's banks are occupied by scrubland and may not have been developed. The base of the creek consists of deep tidal sediments, and there is no visible evidence of dredging or maintenance.

3.16.4. Research

Whilst researching this site a progression of maps were analysed for evidence of these structures, to clarify any changes to the structures and obtain an indication of construction date. An internet search was also conducted but no significant information was gathered. Local Hamble River residents and river users were also interviewed. Very little information was gathered. However, one gentleman who has spent most of his life on the river had recollections of using a boat to pick up milk from the farm just after the Second World War (Donald Smye pers.com. Oct 2007).

The earliest detailed map encountered during the research was the 1837 Tithe Map. This map does not show the intertidal area in great detail. However, it shows a hard or slipway located about 75m to the north of Brooklands Farm. There are no similar features indicated as being located at Brooklands Farm itself. At this time the farm is registered as 'Tenement stables and farm buildings' that are owned by John Thomas Williamson. Immediately to the southwest of the farm buildings, there are gardens and a paddock pasture. This paddock is adjacent to the creek, but nothing is shown of the latter. In the register, there is a fishpond, probably fed by the creek, recorded to the southeast of the paddock.

On the County Series Map of 1887 the foreshore can be seen (Figure HAM066-6). The foreshore is shown as scrubland, which extends on average to a distance of about 50m from the footpath. The creek is evident, running from the footpath through the foreshore land, and is about 8m wide at its widest. The creek and the edge of the foreshore in front of the farm buildings have a natural shape, and there is no evidence of human alteration. The gardens are shown as well planned, fairly regimented and with crossed avenues.

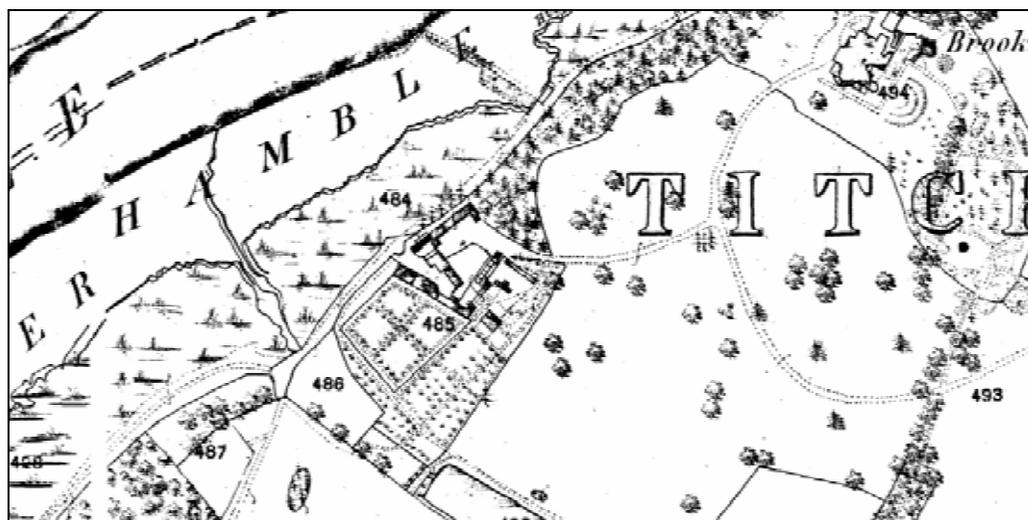


Figure HAM066- 6 County Series Map of 1887 (Ordnance Survey)

There is a change in the cartographer's style on the County Series Map of 1897 (Figure HAM066-7). A comparison with the earlier example shows the foreshore has no clear edge, and as such is less defined. However, there is no indication of any significant alterations to the foreshore. Towards the northeast of the map the high water mark is indicated as lying between the scrub and the footpath. This denotes that this area is tidal. The hard to the northeast is more visible, and has been annotated. The outline of the gardens is shown, although the depicted vegetation has been removed.



Figure HAM066- 7 County Series Map of 1897 (Ordnance Survey)

On the County Series Map of 1909 the defined foreshore edge has returned, and interestingly the area at the front of Brooklands Farm has changed (Figure HAM066-8). There are now two indentations suggesting that they may be the dock or the slip, or at least the beginnings of them. However, it must be highlighted that they are not annotated as such, despite the hard to the northeast being so. In the area of the creek there appears to be little change from the 1887 map.

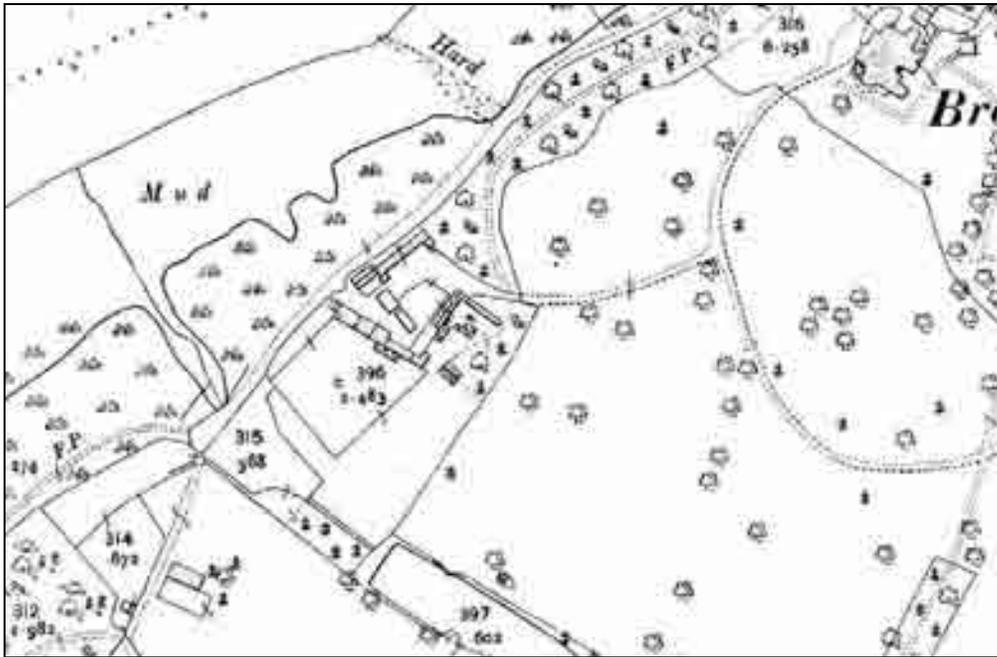


Figure HAM066- 8 County Series Map 1909 (Ordnance Survey)

By 1932 there had been significant alterations to the foreshore (Figure HAM066-9). This is clearly evident on the County Series Map of that year. The area directly in front of the farm buildings, in the vicinity of the slip, has been reduced from about 40m to approximately 20m. The indentation on the right now appears to be smaller. The indentation to the left, in the dock area, is still present as is the small promontory between the two. The main area of land located between what now would be the dock and the creek has a more rounded appearance, which suggests some alteration. In the creek there is also some evidence of alteration, with land being cut at its southern corner. The hard to the northeast is still annotated; yet there are no other remarks regarding similar structures in the area.



Figure HAM066- 9 County Series Map 1932 (Ordnance Survey)

Further maps from the Ordnance Survey were researched, including published examples from 1962, 1964 and 1972. Due to copyright reasons it is not possible to show these maps in this report. On these there is very little change, apart from on the 1962 map the peninsular that the slip extends from appears to be much more angular. The hard to the northeast is visible on the 1962 and 1964 maps, but is depicted as eroding, and by 1972 has disappeared. In the creek the south-western bank has eroded near the mouth, and this can be seen on the 1964 map. The final map researched was the 1:10000 1989 edition. The only noticeable difference on this is that the main area between the boat berth and the creek has a more rectilinear outline.

3.16.5. Interpretation

All the researched maps have omitted the maritime infrastructure located adjacent to Brooklands Farm. This is compounded by the fact that a mere 75m or so to the northeast there is a hard depicted from the earliest map evidence analysed. The reasons for the absence of the Brooklands Farm structures and the depiction of the hard, which in comparison is a much smaller development, is unknown.

Despite there being no inference to the dock and slips it is possible to see some development of the area within the progression; especially in the changes in the outline of the foreshore. There appears to have been some alteration to the area between 1897 and 1909, with the emergence of two incisions in the foreshore that equate to the positions of the boat berth and the possible slip to the northeast. There was probably no development in area in 1897, but by 1909 the beginnings of these structures were in place. On viewing the dock wall and the materials used in its construction there was two construction phases. The area behind the dock wall is shown as scrubland until 1972. This may suggest that the lower sections of the wall were created as revetment for the scrubland. Sometime between 1964 and 1972 the wall was raised, and the area was grassed over.

Originally, Brooklands Farm was a working farm. Today it is a fine private residence, and this may explain the two phases of construction that can be seen in the dock wall. The dock may have been originally constructed and used by the farm. Some river users mentioned collecting milk from here just after the Second World War. As the farm developed into a private residence, the dock area must have been altered to mask its utilitarian origins.

As for the creek, the evidence indicates that this area has not been developed significantly, and remains as a natural feature. It may have been used on occasion for small boats to moor. However this seems unlikely at present as the depths of sediments make this impractical.

3.16.6. Archaeological Significance

Criteria	Assessment
Period	20 th century
Rarity	A common dock structure
Documentation	Does not appear on earlier maps

Group Value	N/A
Survival/Condition	Good condition
Fragility/Vulnerability	In a dynamic environment, and may eventually be vulnerable to erosion
Local Significance	Is not of any specific local significance

Table HAM066- 1 Summary of HAM066's archaeological significance assessment

Research and analysis of the maritime structures located at Brooklands Farm indicates that they are recent additions to the landscape of the Hamble River. Initially they were probably associated with the economy of the farm, but in recent times they have been used in conjunction with small leisure craft. The main dock structure is relatively complete and in good condition, although some minor repairs are probably required. These structures are important to Brooklands Farm, and offer considerably to its monetary value today. However, when considering its heritage value to the wider area of the Hamble River their importance is minor as they are a recent addition to the river. For these reasons the docks and slipways at Brooklands Farm should be considered to have low archaeological significance.

3.16.7. Recommendations

On the cartographic evidence studied there is no direct evidence relating to the maritime structure located at Brooklands Farm. For this reason it is suggested that additional research could be conducted. One route of enquiry may be the Hampshire County Council Planning Office, which may have details of phases of development. It is also recommended that further investigations into the history of the economy of the farm and estate be conducted, as this would give an insight into what commodities were transported to and from these facilities.

3.16.8. References

Personal Communication

Donald Smye, local resident and river user

3.17. HAM076 Eyersdown Quay

NGR: 451720 111210

Date of survey: June 2007

3.17.1. Introduction

The remains of Eyersdown Quay lies on the southern bank of the Hamble River, 300m north of Eyersdown farm. It is located in the intertidal area, besides a small promontory. Much of the original quay structure has disappeared, but several timber elements remain.

3.17.2. Survey Description

Prior to survey a 25m by 15m survey grid was established with datum pegs positioned at 5m intervals (Figure HAM076-1). Baselines were set between the datum pegs and the extant timbers were recorded using the datum offset

method. The site was recorded in plan to a scale of 1:20 (Figure HAM076-2). Photographs of the site were collected to support the drawn record.



Figure HAM076- 1 For surveying a grid was established with 30m measuring tapes. Volunteers used these to created the archaeological plans



Figure HAM076- 2 The archaeological plan of HAM076. North is to the image right

3.17.3. Site Description

The site comprises of several timber elements protruding from the ground. It was possible to walk on this area of the site. Here the tidal zone has a large amount of gravel inclusions, producing a semi-compact surface.

The quay structure covers an area of 20.6m (east-west) by 15.4m (north south). Within this area there are three types of timber element; posts, revetment and diagonal bracing struts. Revetment is visible in two areas of the structure. On the offshore-side the revetment runs east-west for the total length the quay (Figure HAM076-3). The second run of revetment is located at

the western edge of the site, and runs in a north-south orientation. Here the revetment is 10.46m long (Figure HAM076-4). Originally this would have been longer (up to 15.4m), but some of the revetment planks are missing. The true length is marked by revetment posts. The revetment structure of both areas is similar. It comprises of sections of planks lying horizontal on their side. On average they have a width of 0.06m, but are of varying lengths. These planks are held in position by posts (Figure HAM076-3). The posts have varying sizes, up to 0.12m in width. The variation in sizes appears to be a feature of the original posts.



Figure HAM076- 3 The east-west revetment (red arrows), with some of the revetment posts (blue arrows) indicated (looking southeast)

At the north-west corner of the site, to the west of the north-south revetment there is a single plank visible (Figure HAM076-2). No associated revetment posts are located in its vicinity, so it is probable that this is a disarticulated timber.

To the east of the north-south revetment are nine diagonal bracing struts. These are the most substantial timbers to remain. These would have supported the quays decking. Their appearance shows that little work has been done to them and they are crudely fashioned. They have been sawn at the uppermost end to receive the deck planking, and reduced to a point at the other so they could be driven into the ground. Along their length they have not been faced, and in sections show the natural shape. The struts are of varying sizes the largest being 2.3m long by 0.2m wide, and the smallest being 0.75m by 0.16m. The largest of the struts are positioned towards the northwest side of the structure.



Figure HAM076- 4 On the west side of the site lies the second run of revetment (blue arrow), besides this is an area of bracing struts (red arrows) (looking northwest)

Other than those posts associated with the revetment, there are a large number of posts located within the structure (Figures HAM076- 2 and 5). From their positioning it is possible to define four linear rows; one to the west running north-south and two towards the east running north-south. Parallel to the east-west revetment, 3.7m to the south, is the fourth row of posts. These posts are of varying sizes up to 0.22m. There are signs of erosion, but they were probably originally circular. These posts would have been additional support for the quay decking.



Figure HAM076- 5 A volunteer surveying the rows of posts that would have supported the quay decking (looking southeast)

3.17.4. Research

The earliest documentary evidence encountered about a quay being located at Eysersdown comes from the eighteenth century. In 1767 there is reference to a delivery of birch bavins, broom handles and other underwood products to a hard at 'Easedown'. These items had been transported the short distance from Bushy Coppice on the Duke of Portlands Estate (Chun 1997: 22).

The earliest cartographic evidence of quay at this location comes from the Titchfield Tithe Map of 1837/8 (Chun 1997: 22). The County Series Maps were also investigated for evidence of the Eysersdown Quay. Those maps that were researched dated from 1868-1962.

On the County Series Map of 1868 there is a rectangular feature shown in the area of HAM076 (Figure HAM076-7). The feature is about 20m long on the side closest to the river, which is identical to that of HAM076. This is not annotated, but judging by its position it can be interpreted as being the quay. Towards the southeast of the quay there is a track depicted running in the direction of the Botley Road. This would have provided access to the quay. To the east of the quay the Eysersdown Coppice is shown. About 200m to the southwest of the quay there is an annotation that reads 'Old Gravel Quarry'.

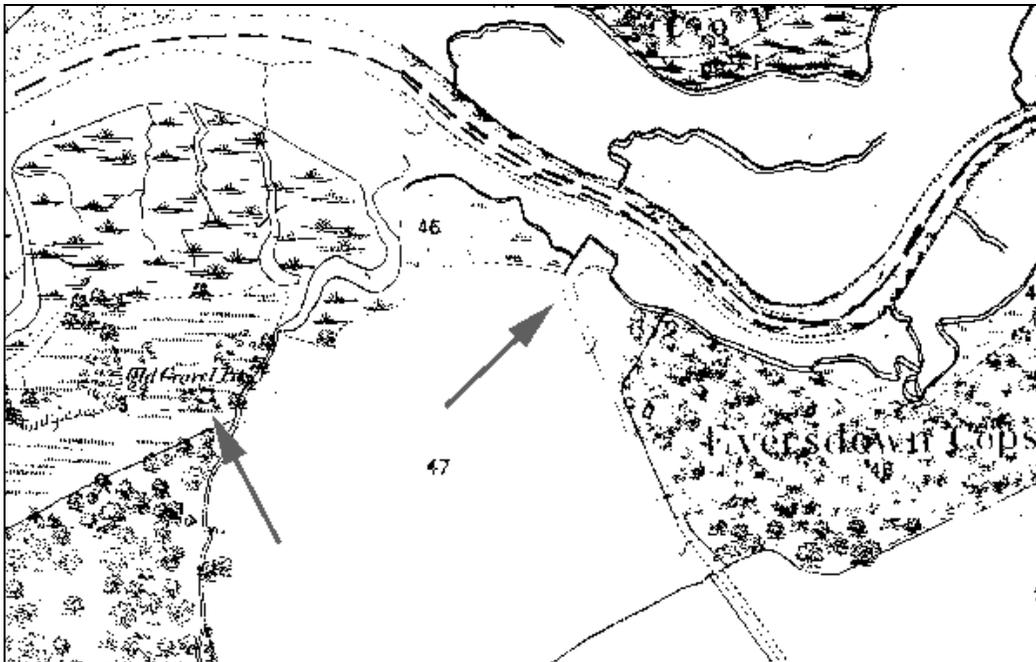


Figure HAM076- 6 Rectangular feature in vicinity of HAM076 and Old Gravel Quarry indicated by arrows (County Series Map 1868, Ordnance Survey)

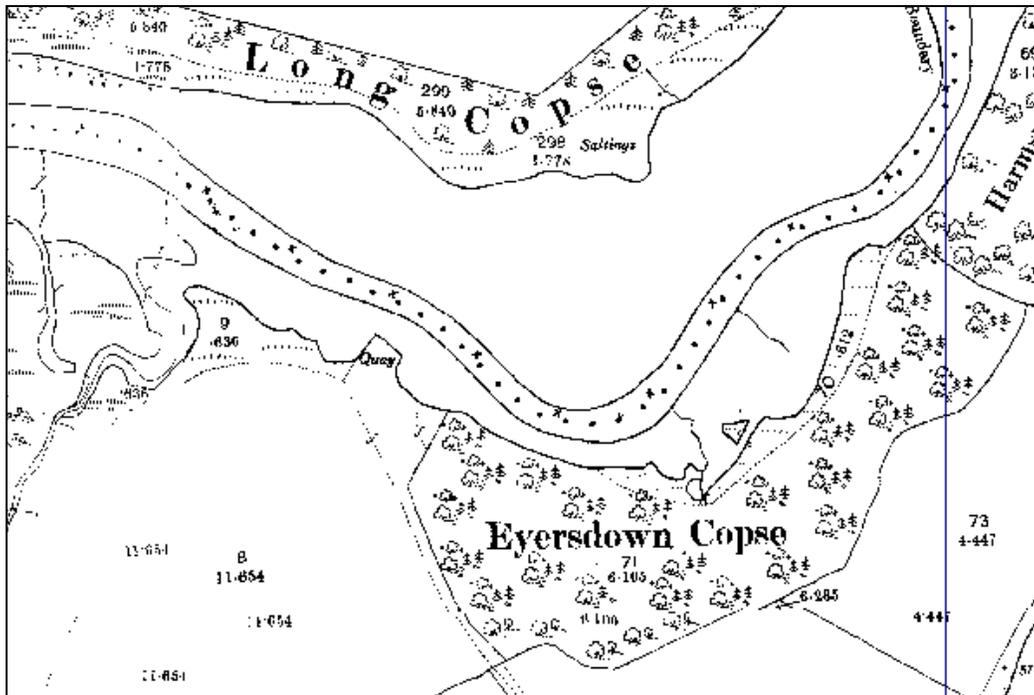


Figure HAM076- 7 The 1896 County Series Map with the quay annotated (Ordnance Survey)

On the 1896 County Series Map the rectangular feature is annotated with the word 'Quay' (Figure HAM076-7). This confirms the assumption that this feature is HAM076. The access road is still shown. Subsequent County Series and Ordnance Survey Maps (1909, 1910, and 1938) show little change until 1940. The quay, old quarry and access road are all indicated. On the 1940 map the word quay has been omitted (Figure HAM076-8). After this date the word quay does not appear on any of the ordnance survey maps researched (1962, 1965, 1968 and 1989). From 1962 onwards there is a perceivable change in the outline of HAM076. Erosion appears to be affecting the quay's remains as the area becomes more rounded as time passes. By 1989 one cannot see any cartographic evidence of this structure.

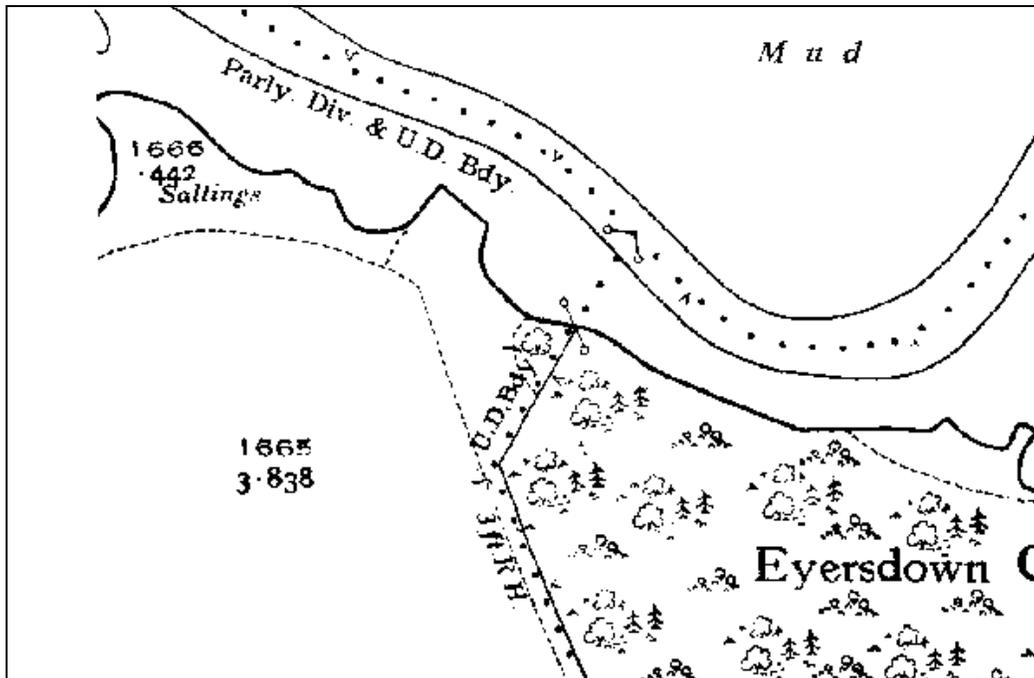


Figure HAM076- 8 The 1940 County Series Map (Ordnance Survey)

3.17.5. Interpretation

Evidence suggests that the timber construction near to Eyersdown Coppice is the remains of a Post-Medieval Quay. A maritime structure had been established here by 1767 when there is reference to a delivery of wooden items to a hard at this location. Cartographic evidence gives indication to its existence through the eighteenth century, until its disappearance from the published maps in 1940.

How this quay was being utilised is not certain. On the earlier maps there is an old gravel quarry depicted to the west of the quay. It is possible that the quay may have been related to this site prior to the quarry's abandonment. In the vicinity of the quay there is the Eyersdown Copse. The term copse is an old English word that refers to managed woodland. It is possible that the quay was associated with the timber trade. It is also probable that the quay was associated with the farm at Eyersdown. Produce from this farm may have been transported from here via the river. This may have continued to be the case until the early twentieth century when more efficient modes of transport were used for this purpose.

3.17.6. Archaeological Significance

Criteria	Assessment
Period	Post-Medieval
Rarity	There are a number of maritime structures on the Hamble River: e.g. Harmsworth and BurrIDGE Quays
Documentation	
Group Value	These structures were part of the Post-Medieval maritime and economic infrastructure and were

	important for the regional economy
Survival/Condition	Poor condition and much structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	These structures were important for the development of the local economy during the Post-Medieval period

Table HAM076- 1 Summary of HAM076's archaeological significance assessment

HAM076 should be considered to have high local archaeological significance. Around the river there are a number of maritime structures that are similar to HAM076 (Harmsworth and Dock Copse). These sites represent a time when the most efficient form of transport was waterborne. Vessels would travel inland, along the navigable rivers and transport goods to and from these entrepôts. Without the use of the rivers and the construction of these quays producers could only send their goods short distances to the local market. However, with their utilisation and the increase in the market area the local economy was able to develop.

Evidence suggests that much of the original structure has disappeared, although it is possible to see the area that it covered. The surviving revetment outlines its original shape. The structure that has disappeared has succumbed to erosion. This feature is in a tidal area and erosion will persist, and structural components will continue to disappear.

3.17.7. Recommendations

The exposed timber of the site has been recorded to the surface level. There is no recommendation for additional survey at present. Although it is suggested that further survey be conducted in the future to monitor the rate of decay.

Additional research may also provide more information as to how this quay was being used. Local archives may hold information in accounts and manifests on the types of goods and the amounts that were being transported. This would give an indication of the importance of these sites to the local economy.

It is recommended that an information board be erected close to this site and it is located beside a footpath. An information board could give details of this site and would enlighten visitors to the significance of such sites to the local area.

3.17.8. References

Chun, D., 1997. 'Hards, Quays and Landing Spaces on the 'Upper' Hamble', In *The Proceedings of the Hampshire Field Club and Archaeological Society*, Newsletter 28, Autumn 1997.

3.18. HAM098 Barge *Wessex*, Fairthorne Manor

NGR: 451950 111900

Date of survey: April 2007

3.18.1. Introduction

As the river meanders northwards towards Botley there is a creek that branches off from the main channel at Fairthorne Manor. At the mouth of this creek there are the remains of a hulk (Figure HAM098-1). The vessel was probably a Sailing Barge called the *Wessex*. The hulk lies in the inter-tidal zone, in an area of tidal sediments and reeds. During periods of low tide the site is accessible and the structure that protrudes through the sediments is visible. At high tide only a small section of the port side hull is exposed from the water. The hulk is orientated almost east west.

Alex Moss, Arturo Ray da Silva, Kyung-Kyu Kim and Tom Burt, students from Southampton University, surveyed this hulk and this report is upon their work.



Figure HAM098- 1 A photograph taken from the mouth of the creek of remains of the barge *Wessex* looking east, with what is believed to be the stern nearest to the camera

3.18.2. Survey Description

During a preliminary site visit an isometric sketch of the hulk was drawn. This enabled the formulation of a survey methodology. The main survey would comprise of a cross-section view, a longitudinal profile and a plan drawing

(Figures HAM098-2 and 3). A photographic record was also compiled with a high-resolution digital camera, to compliment the survey's drawn record. In the photographs a 1m scale was positioned. A datum point was also created to act as a temporary bench mark so the levelled heights could be taken around the site.

The main survey used was the datum-offset method as it was the most efficient for this site. For the section drawing a levelled line was used as a base line for measurement. To increase accuracy, a levelled line was measured in using a dumpy level. The curve of the hull was measured from the levelled line using a plumb-bob, and further measurements were taken using the dumpy level, to increased accuracy. The profile was created following this method. The levelled lines were located inside and outside of the hull. For the plan-drawing a baseline running along the centre of the hull was used.

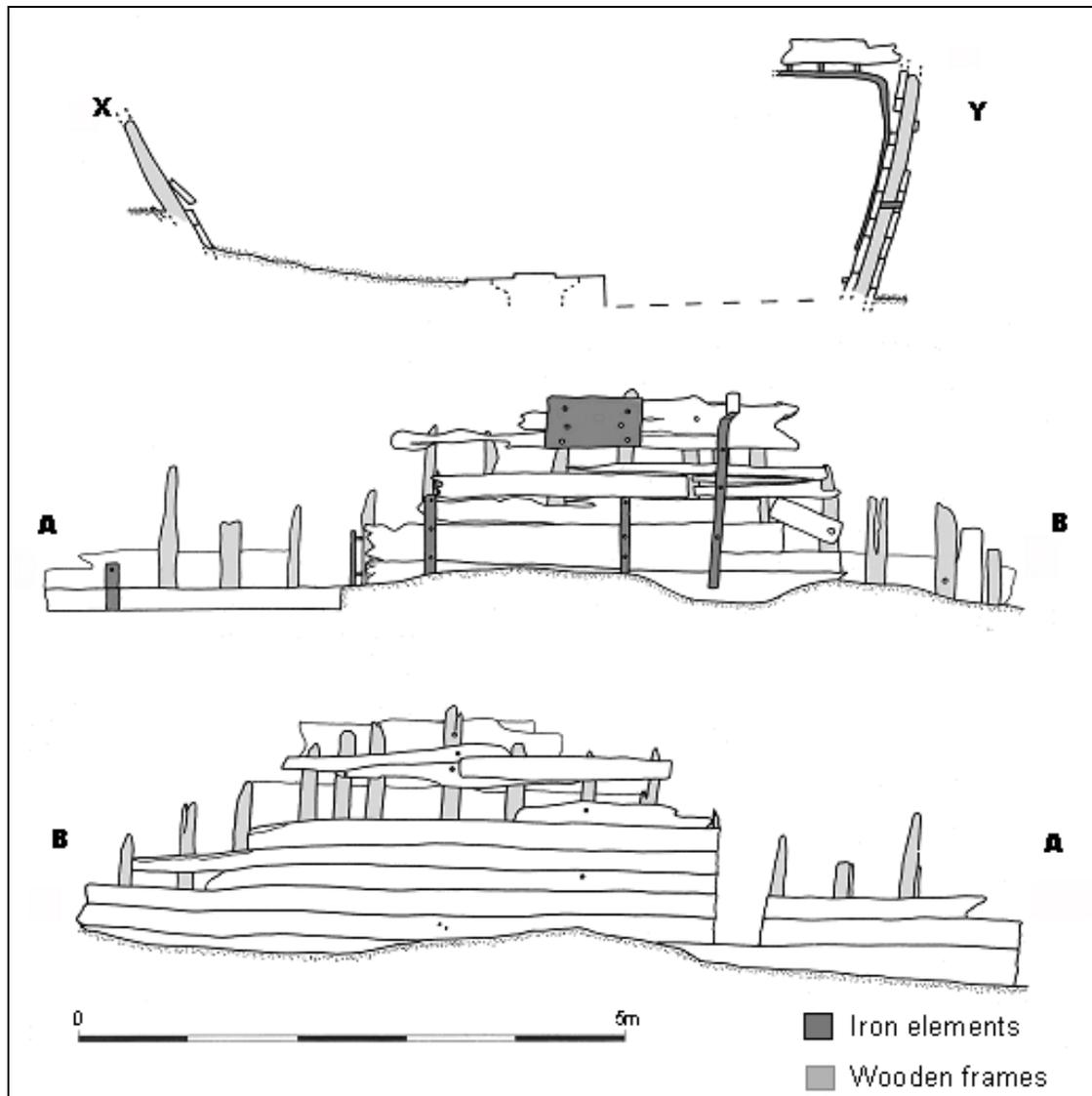


Figure HAM098- 2 Surveyed drawings of hull; cross-section mid-ships, profile inside starboard and profile outside starboard (Courtesy Moss et al)

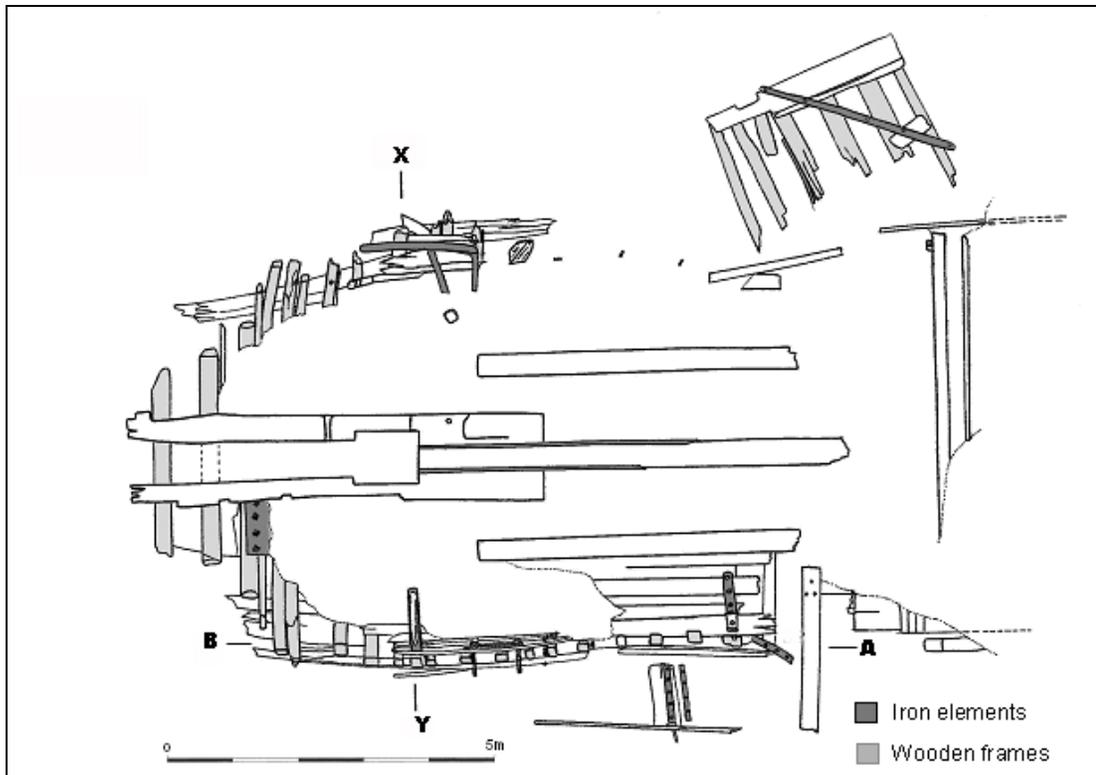


Figure HAM098- 3 Surveyed plan of the hulked remains near Fairthorne Manor (west - east) (Courtesy Moss et al)

3.18.3. Site Description

The hulk is the remains of a carvel built flat-bottomed barge, which is in an advance state of decay. Component materials are timber for the hull, decking, frames and keelsons, while the fastenings and knees are metal. The majority of the hull has disappeared and little remains above the chine. However, a small section of the starboard side up to deck level remains. Most of the bilge is buried beneath sediments.

The major components at the base of the hull that are visible are the keelsons (Figure HAM098-4). There is a 7m long central keelson that finishes towards what seems to be the mast-step of the vessel. Either side of this central timber there are butt-strap planks, fitted to add strength. From about 1m before the end of the central keelson there are two side keelson 6.4m in length, one either side. These continue to the extremities of what remains of the stern. At this position the timbers have scarf joints cut, and probably mark the point at which stern frames would have risen. At a distance of 1m to the port and starboard of the central keelson there are two bilge keelsons, which are 5.1m in length. All the keelsons are substantial timbers with a width of 0.30m.

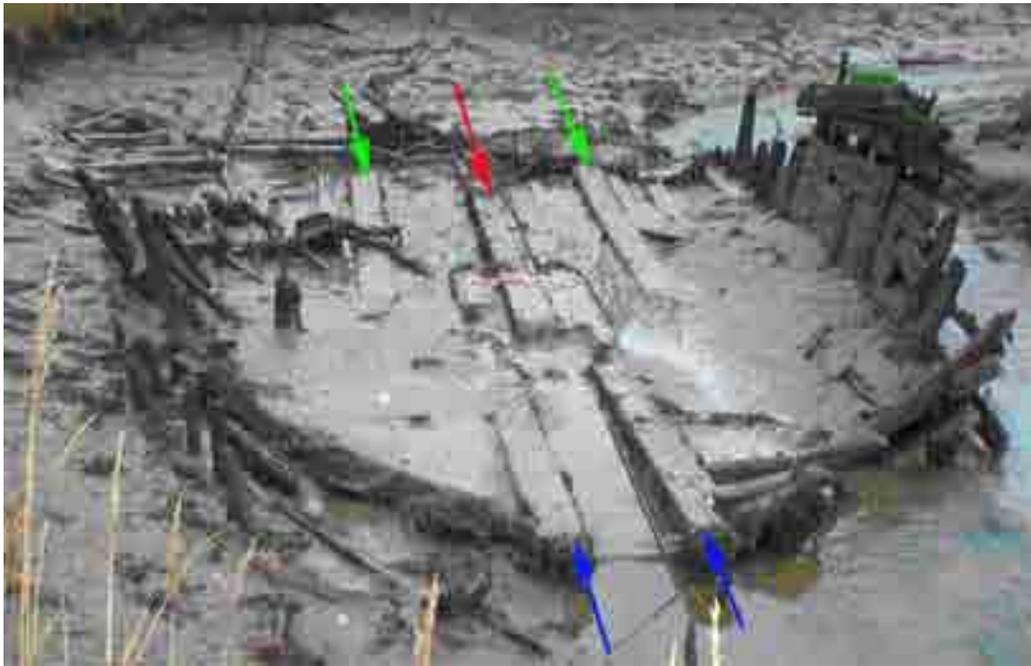


Figure HAM098- 4 Image showing the central keelsons (red arrow), side keelsons (blue arrows) and bilge keelsons (green arrows)

There is evidence to suggest that there is a mast-step present. This is located at the aft end of the central keelson, and between the two side keelsons. The side keelsons have been rebated at this point to form a square. Within this square the foot of the mast would have been seated, and the substantial keelsons would have given added strength to keep the mast in position. As the feature is located towards the aft of the vessel, this could be the mast-step for a mizzenmast (Figure HAM098-5).



Figure HAM098- 5 The mast-step looking west, the two timbers at the top are the side keelsons, while the timber at the bottom is the central keelson

Underneath the keelsons the bottom hull planks remain. The majority of these are buried beneath the sediments. The bottom planks that could be seen were measured, and have different widths depending on where they were in the structure. These planks measured between 20cm and 40cm, with the widest ones being located between the bilge keelsons and the central keelson. At various locations metal pins can be seen where the planks are fastened to the keelsons or the frames.

The vessel frame timbers remain, comprising of floor timbers and futtocks scarfed together. These are of varying sizes depending on where they are in the vessel. The stoutest of the frames are towards the stern where they are 0.20m wide. Towards the stern there is a noticeable change in the frames, as they become more curved to accommodate the narrowing of the hull (Figure HAM098-6).



Figure HAM098- 6 The shape of the frames change towards the stern (red arrows)



Figure HAM098- 7 The outside of the starboard section of hull, looking northeast



Figure HAM098- 8 The inside of the starboard section of hull, showing the large metal plate at the top of the structure (red arrow) and the metal knee to the right (blue arrow)

On the starboard side there is the most complete section of the remaining hull and this shows how the hull was constructed (Figures HAM098-7 and 8). Upper sections of the frames have broken leaving the tips of the frames at varying heights. The frames would have been about 0.16 wide with a spacing

of 0.14m. Attached to these frames there was an outer layer of planks and on the inner side there were ceiling planks. On the inner side there are the remains of four vertical metal strips, which originally were knees. One of these is attached to the hull. It rises to the deckhead level, and then curves to the horizontal. At the top of this knee there is a small piece of deckbeam present (Figure HAM098-9). At the top of this section of hull there is a 0.8m long metal plate attached to the inside, the purpose of which is not known.



Figure HAM098- 9 The remaining complete in-situ knee with a portion of deckbeam remaining, looking west

There are sections of hull remaining on the port side, although these elements are considerably less than the starboard side. The outline of the port side is indicated by a line of frames, which are of varying heights due to erosion. Some of these have a height of 1.2m. Around these frames there is some hull planking remaining, the majority of which is only just exposed from the sediments. Adjacent to the mast-step there is the most complete section of the port hull (Figure HAM098-10). This comprises of four exposed ceiling planks, and a collapsed metal knee resting against a vertical batten that it would have been attached to. There is also a 1m long bent metal pipe located here, the function of which is not known (Figure HAM098-10).



Figure HAM098- 10 An image of the hull on the port side, with the planking (red arrow), the pipe (blue arrow) and a collapsed knee (green arrow) clearly visible

Around the hulk remains, there is a debris field of timber and metal that has broken off the main structure. Some of these disarticulated components are quite substantial; the largest is a 3m long section of hull lying close by to the north of the hulk (Figure HAM098-11). This comprises of seven frames and some outer hull planking. There a metal support strap and what is probably the remains of the sheer strake. Three of the frames have been rebated at the base, and would have formed a joint with the bilge frames. Height wise this could represent a complete section of the port side of the hull. It is not possible to determine which part of the vessel this section comes from.



Figure HAM098- 11 The collapsed section of hull to the north, the joint can be seen on the foot of the frame closest to the camera, at the top of the image is the sheer strake

3.18.4. Research

The Mercantile Navy List and Lloyds Register of Shipping were consulted to find if a barge called *Wessex* was registered. In the 1919 Mercantile Navy List there is such a vessel, which was built at Clymping, near Littlehampton Sussex in 1918 (Figure HAM098-12). *Wessex* was built as by J. and W.B. Harvey, and the first owners were the Vectis Shipping Company of Newport, Isle of Wight. The vessel was constructed as a Pole-Mated Auxiliary Ketch (Benham and Finch 1983: 159). A 96bhp engine was fitted during construction; however the sails would have been the primary source of propulsion. The *Wessex* was one of the earliest of this type to be constructed with both modes of propulsion, although it was not the first. Two Auxiliary Ketch Barges, *Traly* and *Moonketch*, were launched on the Thames in 1912, at Millwall with both sails and an engine (*Ibid* 98). The registered details of the *Wessex* are as follows:

- Length 100.7' (30.7m)
- Breadth 24.2' (7.4m)
- Hull depth 8.4' (2.6m)
- Tonnage 84 tonnes net, and 148 tonnes gross
- Engine 96bhp

Information collected from the registers has presented a career chronology of the *Wessex*. According to the registers the *Wessex* was owned by the Vectis Shipping Company until just after the Second World War. From 1948 to 1958 *Wessex* was owned by the Williams Steamship Company, of Southampton.

According to Benham and Finch (1983: 159) this company was the last owners of the barge, and in 1958 it was broken up at Woolston. However, this does not appear to be the case, as the *Wessex* is registered as belonging to the Belsize Boatyard Ltd of St Denys, Southampton from 1959 until its last entry in the 1970 Mercantile Navy List.

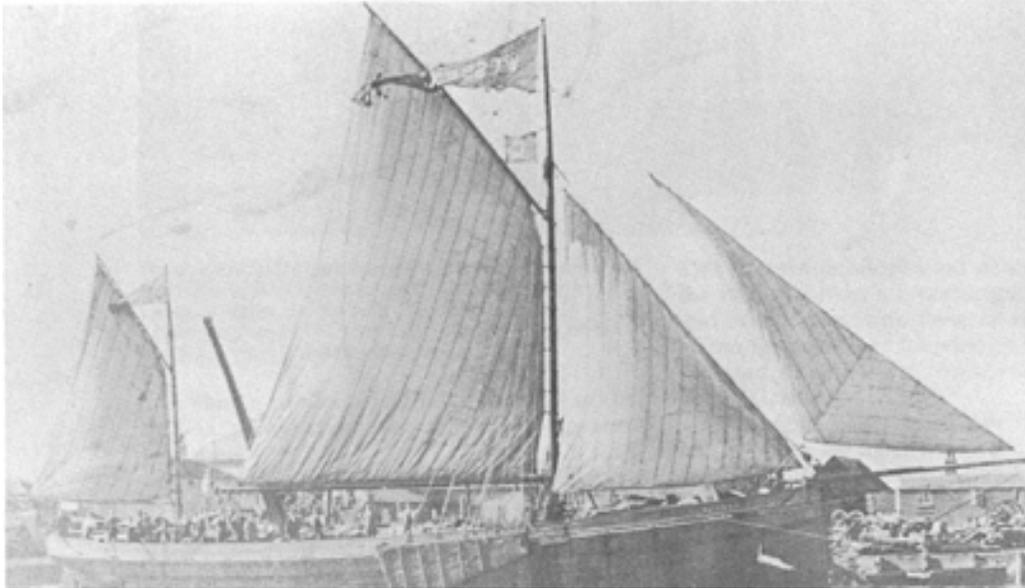


Figure HAM098- 12 A historic photograph of the *Wessex* built at Littlehampton in 1918, the name can be seen on the pennant of the mainmast (photograph Richard Hugh Perks)

3.18.5. Interpretation

The vessel is the remains of a sailing barge named the *Wessex*, built in 1918. What remains of this vessel is in an advanced state of decay, and much of the vessel has now disappeared.

In a book by Leather (1984) there is a line drawing of an Auxiliary Ketch Barge with dimensions that are very similar to those of the *Wessex*. The survey drawings were then overlaid on top of an outline of a barge of a similar size (Figure HAM098-13). This allowed the following interpretations:

- The bow section crosses the present day shore. This may indicate that the tributary morphology has changed since the vessel was abandoned here or possibly that sections of the bow was removed before deposition.
- The *Wessex* was registered up to 1970, after this it must have found its way to the Hamble River, and its current position.
- The lack of structural components, collapsed or otherwise, in the vicinity suggests that the *Wessex* must have been broken up and salvaged here

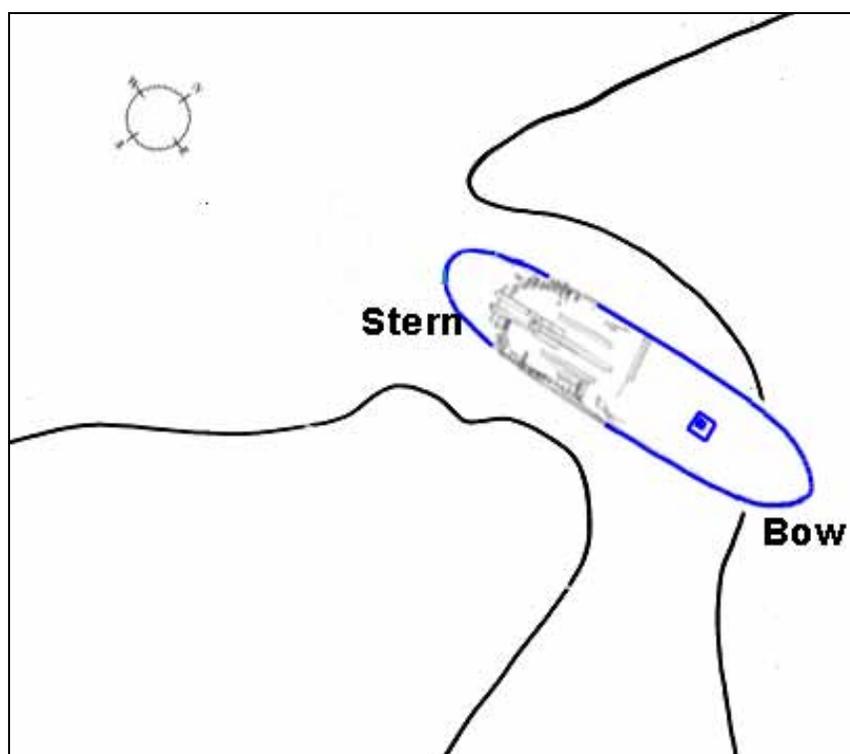


Figure HAM098- 13 The hulked remains of the *Wessex (Grey)* with the original hull shape (blue), the outline of the creek is also shown (Moss et al)

3.18.6. Archaeological Significance

Criteria	Assessment
Period	Built 1918
Rarity	Once a common type of vessel, at least 22 similar vessels afloat. None from the local area
Documentation	Some documentation has been found.
Group Value	These vessel were important for national economy
Survival/Condition	Poor condition and much structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	Was built in the region and spent most of its career in the Solent

Table HAM098- 1 Summary of HAM098's archaeological significance assessment

The *Wessex* can be considered to be of medium archaeological significance. On the National Register of Historic Vessels (NRHV) twenty two vessels were found that are of a similar class and size to the *Wessex*. These are either part of the core collection or are designated vessels. These are coastal sailing barges of varying types from Sprintsail Barges, Rye Sailing Barges and Tamar Barges. These vessels date from 1887 to 1929. This suggests that barges from this period are considered to be important by the NRHV. Within this classification of vessel there are four vessels that were ketch rigged. Therefore if the *Wessex* was in a reasonable condition as a type it could have been considered for designation or registering with the NRHV.

The *Wessex* spent most of its career in the Solent area. From the mid-nineteenth to the mid-twentieth centuries coastal sailing barges would have been a common sight around these shores and important to the local economy. Of the ketch barges designated on the NRHV none were built in the area, none are registered in this area and none appear to have worked on this area. Vessels of this type with local links are currently under-represented on the register, and so is their position within development of the maritime landscape of the Solent region. If a vessel of this type was found in a reasonable condition it could be considered to have high significance. The *Wessex* is in a very poor condition and restoration is not an option.

3.18.7. Recommendations

A comprehensive survey has been conducted on this site, and the information gives a good indication of what remains. It is suggested that no further survey is required at present, although an additional survey could be conducted at a later date to assess further erosion.

Further research is recommended as this may add to knowledge of the vessel's career. If accounts and manifests could be found it would give a great deal of information on what the *Wessex* carried. It is recommended that the companies who owned this vessel be researched, as this may give an indication as how the *Wessex* was employed. There is some confusion over when the *Wessex* arrived at its current location, further enquiries with local river users may provide evidence of when it arrived at Fairthorne Manor, and if it was broken up at this location.

3.18.8. References

Benham, H., Finch, R., 1983, *The Big Barges*, Harrap, London

Leather, J., 1984, *Barges*, Adlard Coles Ltd, Granada Publishing, London

Lloyd's Register of Shipping, 1919-1970

Mercantile Navy List, 1919-1970

3.19. HAM099 Burr ridge Hard

NGR: 450619 110984

Date of survey: June/July 2007

3.19.1. Introduction

As the Hamble River flows past Dock Copse and Burr ridge Farm there is the remains of a maritime structure on the southern bank. This comprises of three rows of posts that protrude through the tidal sediments (Figure HAM099-1).



Figure HAM099- 1 Two rows of posts either side of a hard, and a third row to the west (photo taken from the southwest)

3.19.2. Survey Description

The area was fully photographed using digital and film cameras. Photographs of the complete site in its environment, and individual aspects of the timbers such as the cross timbers were taken. A 25m by 10m grid was established, which facilitated a 1:20 archaeological plan survey (Figure HAM099-2).

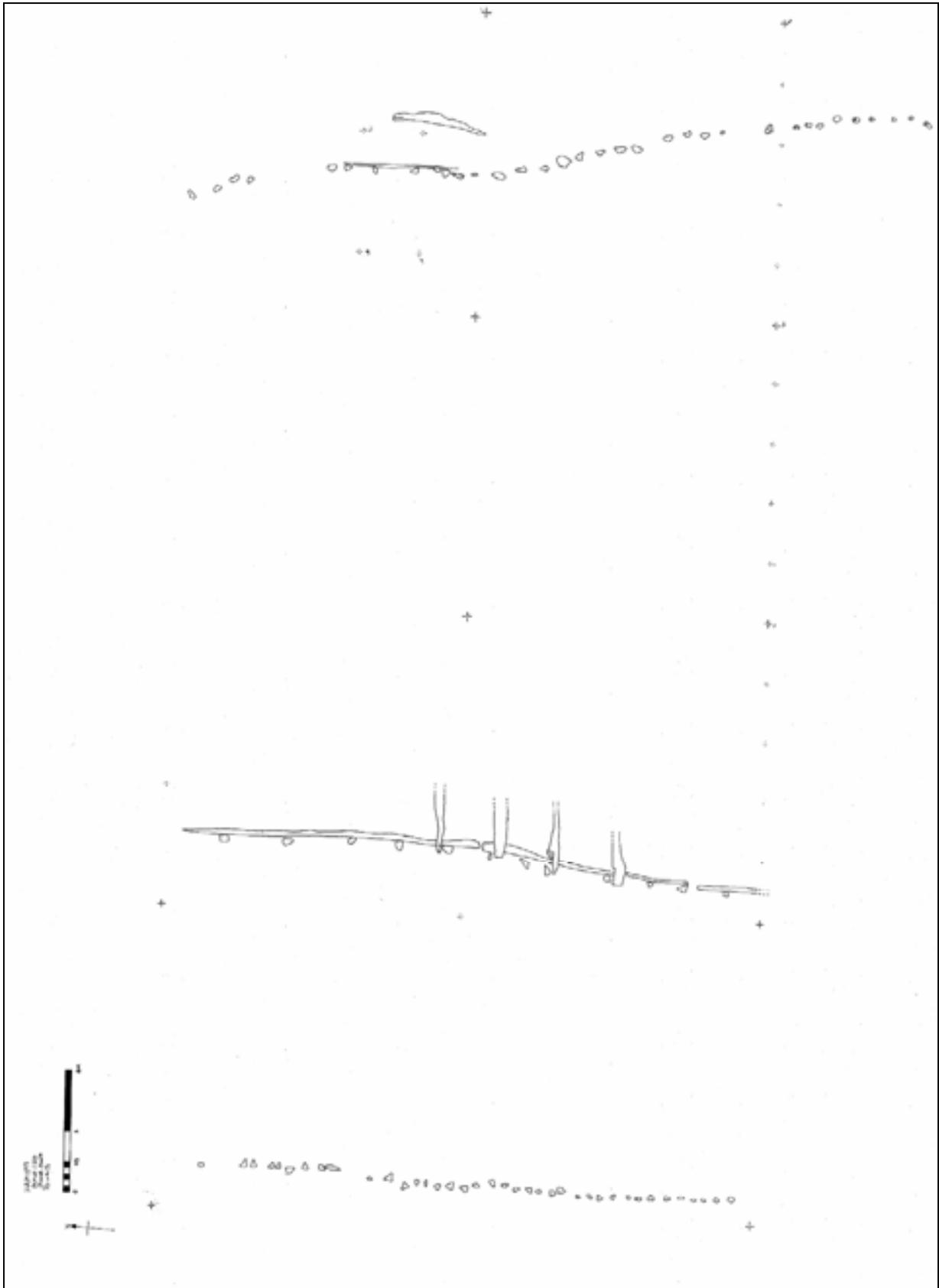


Figure HAM099- 2 Drawn survey plan of HAM099

3.19.3. Site Description

The site includes three rows of timbers posts, with some revetment and cross bracing, which runs from the shore in the south towards the Hamble River main channel (Figure HAM099-1). The rows of timbers are in the region of 10m in length and the site is about 18m wide. The western row of timbers comprises of upright posts, about 8cm in diameter. Where the timbers are still buried they are sub-circular, while the uppermost sections of these timbers have been eroded into triangular forms (Figure HAM099-2). 5m to the east lie the middle row of timbers; here there are a series of post, revetment planks and four bracing cross timbers. The eastern most row is located a further 18m towards the east. This row comprises of upright posts and a small section of revetment planking (Figure HAM099-3).



Figure HAM099- 3 The central area of compacted gravels is held in situ by two series of post alignments with horizontal revetment

The surface between the eastern most timbers and the middle row is an area of fairly compact gravels, which gives it a degree of integrity that makes it easy to walk upon. The area between the western timbers and the middle row is made up of tidal sediments (Figure HAM099-4); this area has little surface integrity and was very difficult to walk on.



Figure HAM099- 4 The western section of the structure is made up of unconsolidated tidal sediments, and is probably the remains of a boat berth

3.19.4. Research

A number of maps have been viewed for evidence of this structure (OS 1810's, County Series 1871, 1881, 1897, 1909) and this feature does not appear on any of them. The only feature of interest in the vicinity is an old quarry depicted on the 1881 county series onwards; located 150m to the east on the west bank of the creek that runs through Bloomfield Copse (Figures HAM099-5 and 6). There is an 1814 reference relating to barrel hoops being delivered to Burrige Hard, and an even earlier reference which suggests that manure was delivered here in 1777 (Chun 1997). However, the location of Burrige Hard is uncertain. Chun (1997) has postulated that the hard may have been located to the east of Bloomfield Copse. The evidence for this being that this area was known as 'Hard Field' or 'Sea Close' on the Titchfield tithe map. It is also pointed out that the 1814 estate map suggests that Burrige Hard was situated on the edge of Hard Field, and that there was a trackway that ran to this location from Burrige Farm. This evidence is compelling, however, the area was inspected for visible evidence and none could be seen (Figure HAM099-7).

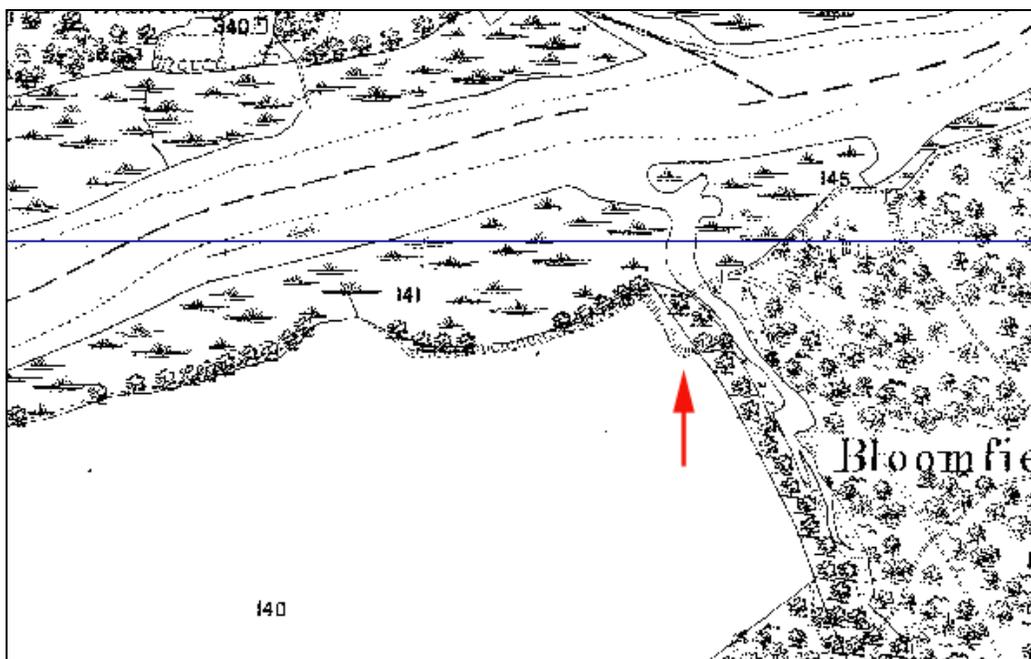


Figure HAM099- 5 The 1881 County Series Map with disused quarry indicated by the red arrow (Ordnance Survey)

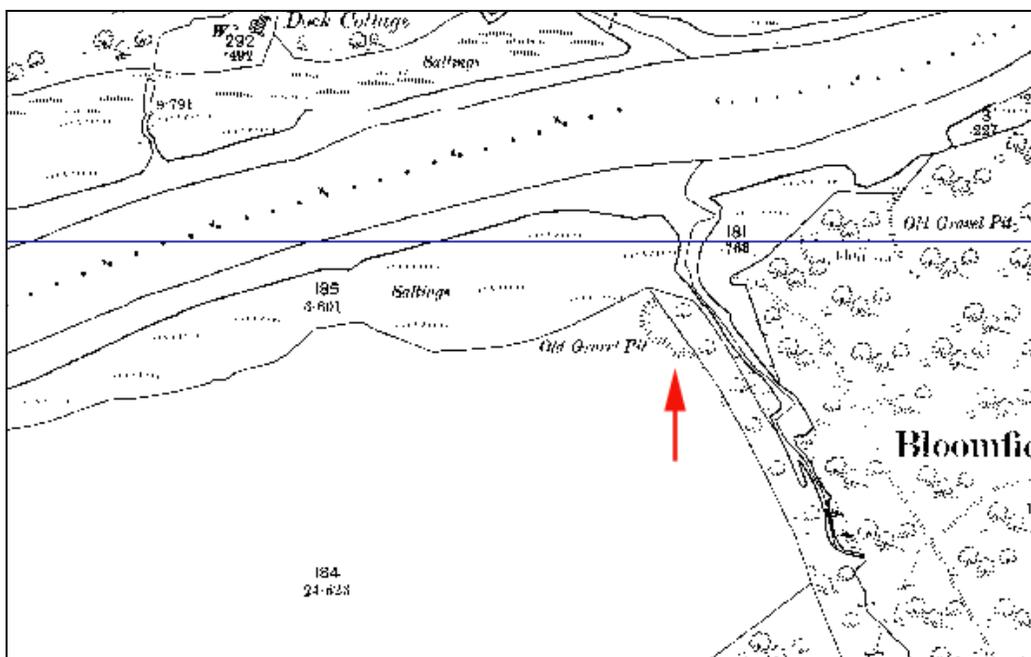


Figure HAM099- 6 The 1897 County Series Map with the old quarry pit annotated and indicated by the red arrow (Ordnance Survey)



Figure HAM099- 7 The shore east of the creek that runs through Bloomfield Copse was inspected for structural remains; none was encountered

3.19.5. Interpretation

From viewing this area it is believed that the area between the eastern timbers and the middle row would have been a landing stage, such as a small quay, while the area between the western timbers and the middle row would have been a berth for a boat.

Background research into this structure is somewhat confusing. The structure recorded in this report does not appear in any of the researched records, while there is documentary evidence suggesting the existence of a hard about 300m to the east, of which there is no present-day remains. It must be pointed out that the lack of present-day remains does not mean for definite that a structure did not exist at this location, but it does bring it into question. The evidence leaves us with the following questions. Is this structure the remains of the Burridge Hard or were there in fact two hard's either side of Bloomfield Copse? If there were two hard's, are they associated or unrelated, and what has happened to eastern hard?

3.19.6. Archaeological Significance

Criteria	Assessment
Period	Post-Medieval
Rarity	There are a number of maritime structures on the Hamble River: e.g. Dock Copse and Eversdown
Documentation	There are some reference to a dock here in the late 18 th century

Group Value	These structures were part of the Post-Medieval maritime and economic infrastructure and were important the regional economy
Survival/Condition	Poor condition and much structure has disappeared
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	These structures were important for the development of the local economy during the Post-Medieval period

Table HAM099- 1 Summary of HAM010's archaeological significance assessment

HAM099 should be considered to have high local archaeological significance. As this structure was part of the river's maritime infrastructure it is possible to suggest that it would have been significant to the development of the local economy. Due to the confusion between documentary and visible evidence the identity of this structure is uncertain. Fundamental questions such as who used this structure and its date of construction need to be answered. If these questions could be answered the importance of this structure to the development of the local economy may be further understood.

3.19.7. Recommendations

The exposed timber of the site has been fully recorded to the surface level. At present it is unclear how much of the site still remains below these sediments. It is recommended that small exploratory excavation be conducted on the site to expose the timber structure further. This will give an indication of the amount of the structure that remains and construction techniques used.

A number of questions about the identity of this structure have arisen from the initial research conducted. If these are to be answered a more formal visual survey of 'Hard Field' will need to be conducted to see if any evidence does remain. Also documentary evidence of the structure surveyed may give an indication to its use and date of establishment; with this in mind it is recommended that further research be undertaken.

3.19.8. References

Chun, D., 1997. 'Hards, Quays and Landing Spaces on the 'Upper' Hamble', In *The Proceedings of the Hampshire Field Club and Archaeological Society*, Newsletter 28, Autumn 1997.

3.20. HAM102 Harmsworth Quay

NGR: 452379 111699

Date of survey: August 2007

3.20.1. Introduction

Towards the upper stretches of the Hamble the river divides into two, with the main channel flowing north-eastwards in the direction of Botley. The smaller tributary flows eastwards and is known as Curbridge Creek. On the southern bank of the creek, about 150m from the convergence of the two channels there is the remains of a timber quay. About 75m to the southeast is

Harmsworth Farm. The remains of the timber structure are located within the intertidal zone, and are visible during low water periods.

3.20.2. Survey Description

To survey the site a 30m baseline was established running parallel to the creek. This enabled measurements to be taken of the timber structure using the datum offset method (Figure HAM102-1). An archaeological survey plan was created to a scale of 1:20 (Figure HAM102-2). The plan was supplemented by the collection of a photographic record.



Figure HAM102- 1 Volunteers surveying HAM102 using the datum offset method

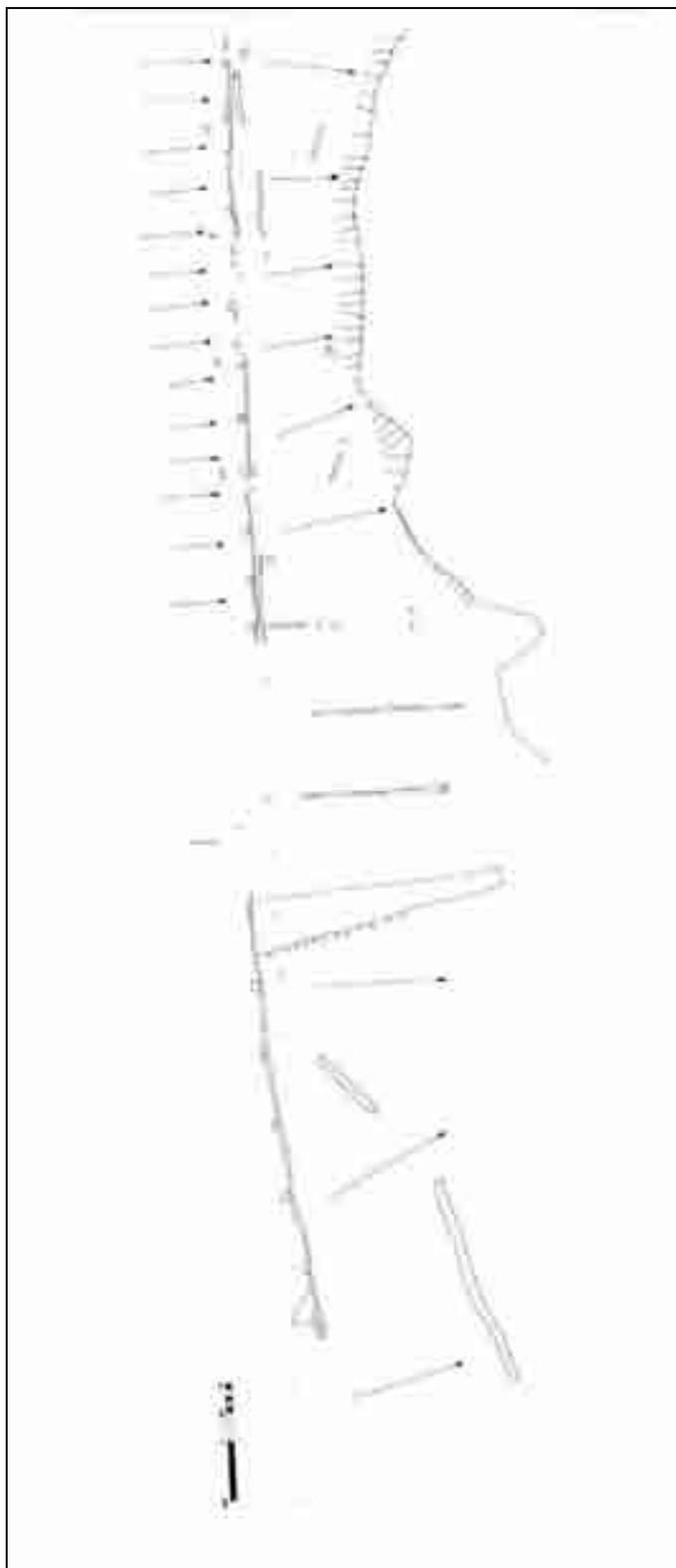


Figure HAM102- 2 The archaeological survey plan of Harmsworth Quay, north is to the left of the drawing

3.20.3. Site Description

The quay in the intertidal zone to the northwest of Harmsworth Farm covers an area of 23.30m long (east-west parallel to the shore) by 3.50m. The observable site consists of two areas of revetment separated by a small slipway. The timber components that can be seen protrude from the tidal sediments. The components are worn and show the signs of erosion, as does the undercut riverbank to the south.

On the east-side of the site there is an area of revetment that is 10.28m long and runs parallel to the shore (Figure HAM102-3). The revetment is made up of planks of wood lying horizontal on their side (Figure HAM102-4). The planks are of varying sizes in length, but are 0.06m-0.09m in thickness. These planks are held in position by upright posts, which are of varying sizes up to 0.18m in diameter (Figure HAM102-4). In the run of planks that makes up the revetment there is a gap. This is located 3.40m from the east and is 1.90m wide. Towards the west of this the timber plank is partially buried. It is possible that the plank from the gap has either disappeared or is buried. On the western side of the revetment there is a series of posts that run 90° from the final plank in a north-south direction (Figure HAM102-4). The posts demarcate the eastern side of the quay from the slip. There are eight posts of varying dimensions, up to 0.12m, which run for a distance of 1.68m.



Figure HAM102- 3 The eastern area of revetment, with one of the slipway timbers in the foreground (looking east)

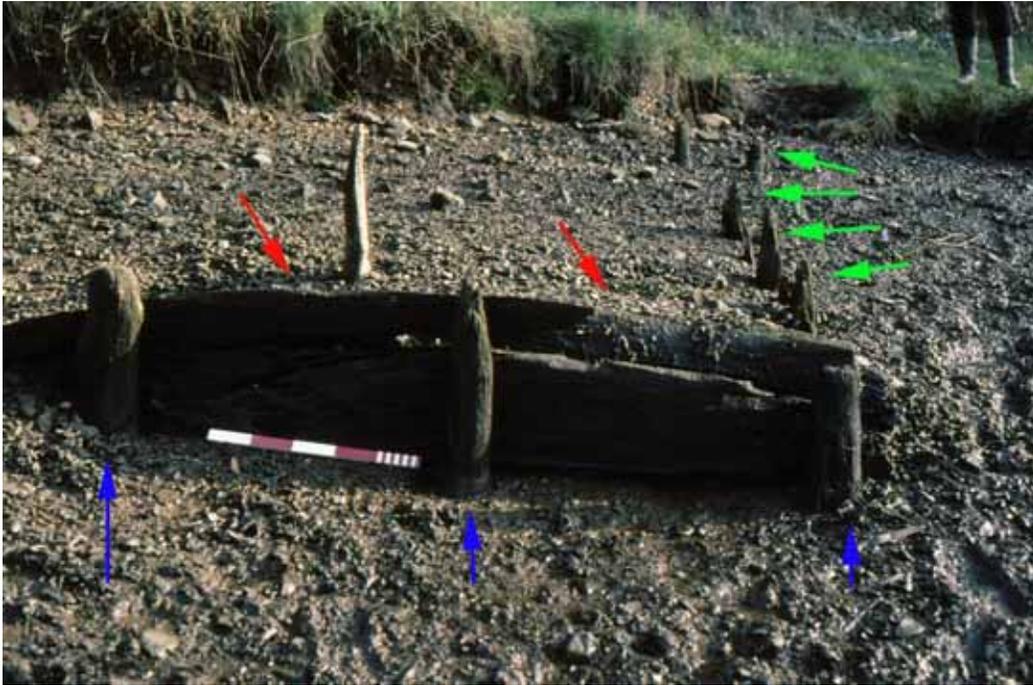


Figure HAM102- 4 An image showing the revetment planks (red arrows), the revetment posts (blue arrows) and the north-south series of post (green arrow) (looking south)

Towards the western side of the site there is the second area of revetment (Figure HAM102-5). This runs for a distance of 7.72m in an east-west direction. The method of construction and sizes are similar to the eastern area. There are no posts visible that demarcate the revetment area from the slipway. It is possible that these have either disappeared or have become buried. Between the revetment and the shore there are two planks (Figure HAM102-2). One measures 3.70m long by 0.18m wide, the other 1.42m long by 0.16m wide. These are probably disarticulated timber from the quay structure.



Figure HAM102- 5 The western area of revetment (looking southeast)

Between the two areas of revetment is a slipway area (Figure HAM102-2). The slipway is 4.28m wide. In the centre of the slipway there are two substantial parallel timbers in a north-south direction. These timbers are 2.50m in length, 0.16m in width and protrude 0.10m from the sediments. The distance between the two timbers is 1.38m.



Figure HAM102- 6 The two large timbers located in the centre of the slipway (looking south)

3.20.4. Research

Cartographic evidence indicates that a quay was established in Curbridge Creek by the early nineteenth century. An 1805 map of the Titchfield area in the Fareham Museum shows a quay near to Harmsworth Farm (Chun 1997:22). This is the earliest evidence of this quay found to date.

The County Series Map of 1868 does not have the quay depicted (Figure HAM102-7). However, there is a track linking the Botley Road and Harmsworth Farm to the riverside at Curbridge Creek. The track does finish at the location of HAM102 and is probably associated with the quay. As mentioned above the quay was established by 1805, therefore its omission on this map will be due to the cartographer. A County Series Map was published in 1871. There was no alteration to this in the vicinity of HAM102 and the quay is not depicted. By 1897 this has changed and the area where the track from Harmsworth Farm meets the river is annotated with the word 'Quay' (Figure HAM102-8). The quay is still annotated and has changed little on the subsequent maps published in 1909, 1910 and 1938. However in 1940 the word quay has been removed and the track no longer runs from Harmsworth farm to the river (Figure HAM102-9). This probably indicates that the quay had been abandoned by this time.

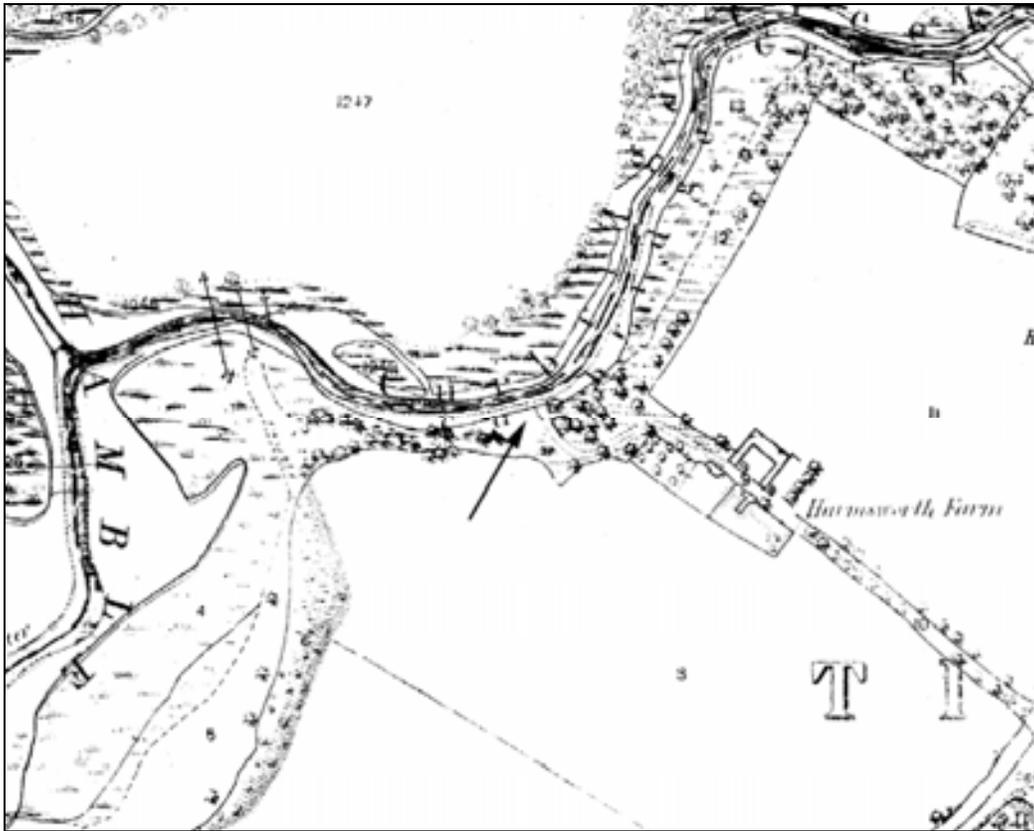


Figure HAM102- 7 The 1868 County Series Map with the location of the quay indicated (Ordnance Survey)

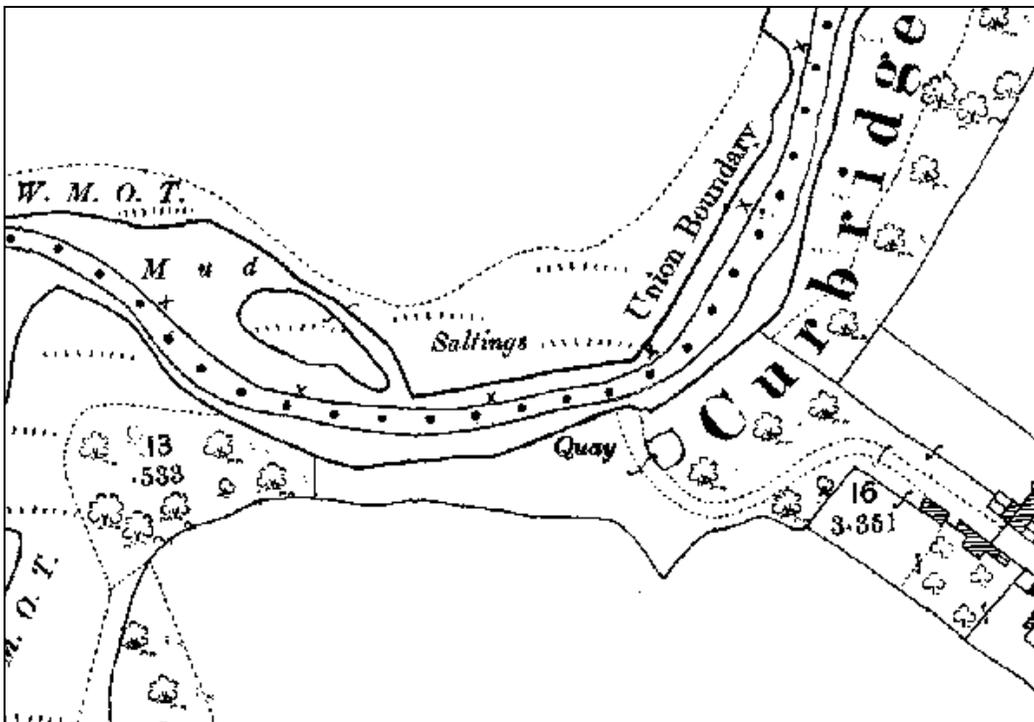


Figure HAM102- 8 The County Series Map of 1897 with the quay clearly annotated (Ordnance Survey)

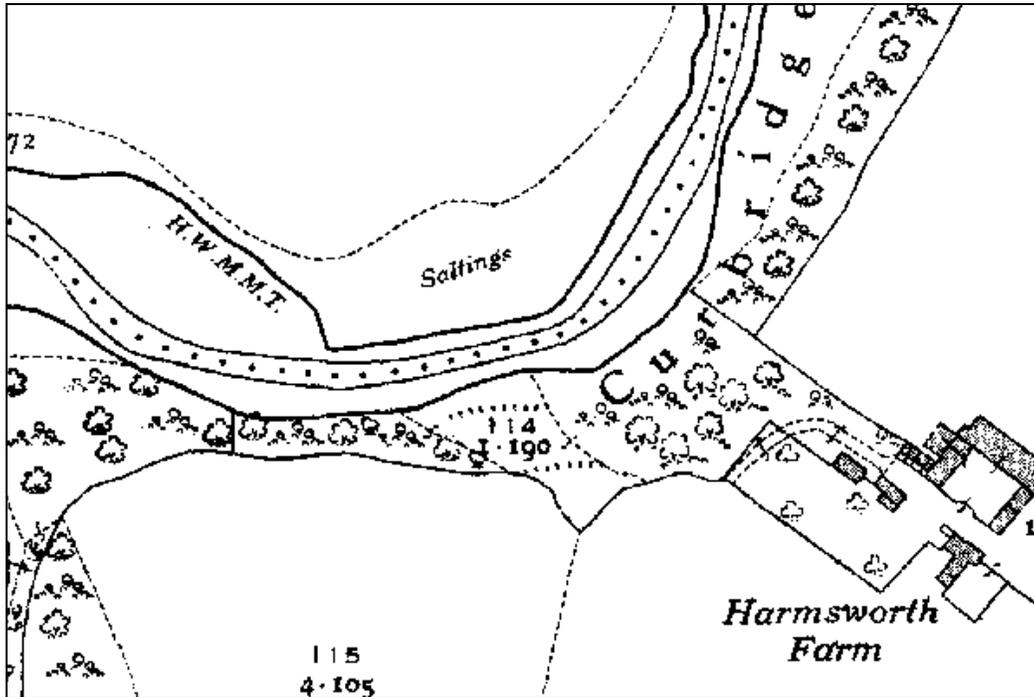


Figure HAM102- 9 The County Series Map of 1940 (Ordnance Survey)

3.20.5. Interpretation

The visible timber structure at HAM102 is the remains of a quay, which is probably associated with Harmsworth Farm. Its proximity to the farm makes this a natural conclusion, but this is supported by the fact that there is evidence of a track linking the farm with the quay. The visible evidence suggests that there were two raised wharf areas either side of a slipway. The slip would have facilitated the landing of small vessels. It is likely that the farm would have used the river to transport its produce during the nineteenth and early twentieth centuries, and possibly earlier. Cartographic evidence shows that a quay was in use at this location by 1805. It probably continued to be utilised up to the early part of the twentieth century. A quay was depicted on local maps until 1940, but it was probably abandoned before this. Although a quay may not be in use, commonly it will remain on maps until it is at a stage that it is no longer a coherent structure. Towards the mid-twentieth century other forms of transport may have superseded the riverine communications, and making the quay at Harmsworth obsolete.

3.20.6. Archaeological Significance

Criteria	Assessment
Period	Post-Medieval
Rarity	There are a number of maritime structures on the Hamble River: e.g. Eversdown and Burr Ridge Quays
Documentation	Appears on local maps from 1805
Group Value	These structures were part of the Post-Medieval maritime and economic infrastructure and were important for the regional economy
Survival/Condition	Poor condition and much structure has disappeared

Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	These structures were important for the development of the local economy during the Post-Medieval period

Table HAM102- 1 Summary of HAM102's archaeological significance assessment

HAM102 should be considered to have high local archaeological significance. Around the river there are a number of maritime structures that are similar to HAM102 (Eyersdown, Burr ridge Hard and Dock Copse). These sites represent a time when the most efficient form of transport was waterborne. Vessels would travel inland, along the navigable rivers and transport goods to and from these entrepôts. Without the use of the rivers and the construction of these quays producers could only send their goods short distances. The utilisation of this maritime infrastructure promoted the increase in the market area and enabled the local economy to develop.

Evidence suggests that much of the original structure has disappeared, although additional elements may lie beneath the sediments. The track that used to link the quay with Harmsworth Farm is no longer visible, and has become overgrown by the encroaching coppice. The quay structure that has disappeared has succumbed to erosion. This timber is in a tidal area and erosion will persist, and structural components will continue to disappear. Over time all structural evidence of this feature may eventually disappear.

3.20.7. Recommendations

The exposed timber of the site has been recorded to the surface level. There is no recommendation for additional survey at present. Although it is suggested that further survey is conducted in the future to monitor the rate of decay.

Additional research may also provide more information as to how this quay was being used. Local archives may hold information in accounts and manifests on the types of goods and the amounts that were being transported. This would give an indication of the importance of these sites to the local economy. Research into Harmsworth Farm may also present further information about this site. Specifically how the farm may have utilised the quay, and what led to its abandonment.

It is recommended that an information board be erected close to this site. HAM102 is located beside a footpath in a nature reserve. Many people visit the reserve and walk along the banks of Curbridge Creek, and probably pass the quay unaware of its existence. An information board could give details of this site and would enlighten visitors to the significance of such sites to the local area.

3.20.8. References

Chun, D., 1997. 'Hards, Quays and Landing Spaces on the 'Upper' Hamble', In *The Proceedings of the Hampshire Field Club and Archaeological Society*, Newsletter 28, Autumn 1997.

3.21. HAM103 Botley Quay

NGR: 451482 112700

Date of survey: Sept 2007

3.21.1. Introduction

To the south of Botley the remains of a quay and slip can be found. This is located off Church Lane, at a point where the river divides into Pudbrook Lake running off to the northwest, and the Hamble River continuing north. To the north there is a cul-de-sac called 'Quayside', a modern housing development. Today the area of the quay is grassed over and is used as a park, but despite this the original quay is clearly evident.

3.21.2. Survey Description

A photographic survey of the site was compiled. A sketch of the area was drawn and dimensions of the quay were annotated (Figure HAM103-1).

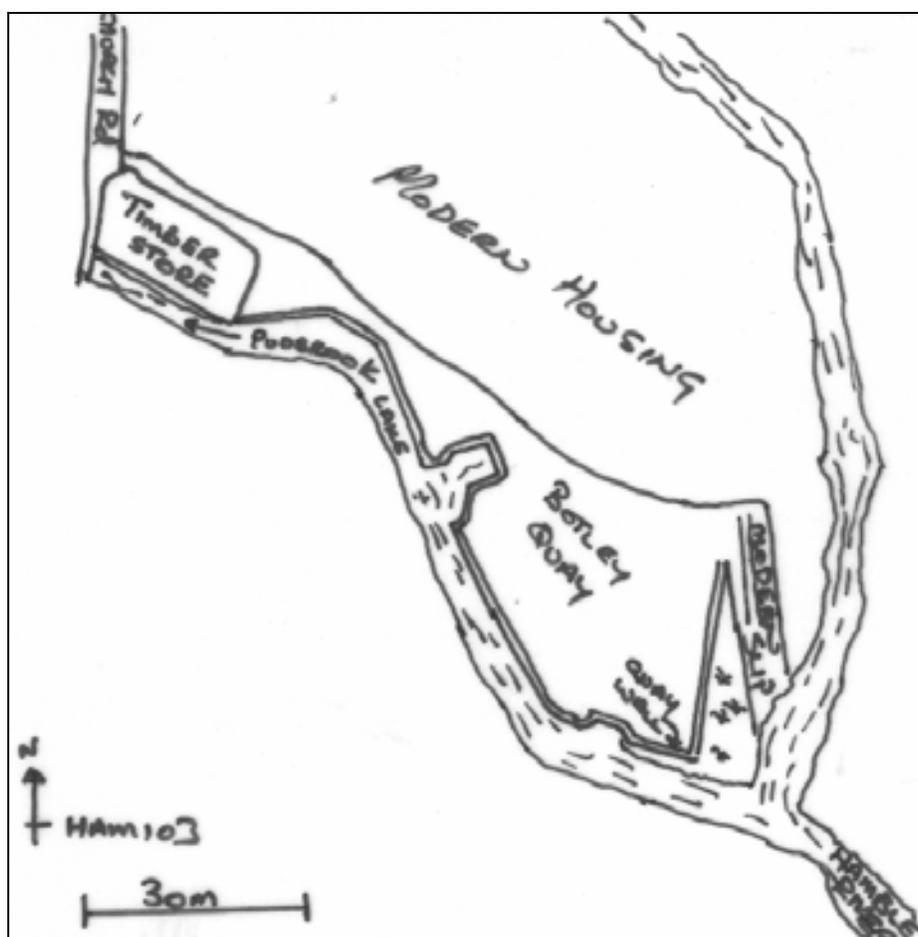


Figure HAM103- 1 Sketch drawing of Botley Quay

3.21.3. Site Description

Botley Quay comprises of a slip in the east, a large flat main quay with three possible recessed moorings, and a warehouse in the west. From east to west the quay covers a distance of approximately 100m. To the north, running from Church Lane to the slip the remnants of the access track can be seen.

The slip lies to east of the quay and runs north-south, and enters the water at the apex of the two branches of the river. There are two adjacent stonewalls, the eastern wall forms a promontory for half of the length of the slip, while the quayside wall to the west runs for the complete length. The quayside wall here is held together with mortar and appears to be a more recent addition. The surface of the slip is concrete and two parallel metal rails run its entire length (Figure HAM103-2)



Figure HAM103- 2 The slip has two metal rails embedded in its concrete surface, with the more recent wall on the left of the photograph

The main part of the quay area is a large flat area with what appears to be three boat berths cut into it. The quay is raised from the riverbed by about 1.2m, with the embankment surrounded by a stonewall. In parts this wall is drystone and in others mortar is present. Adjacent to the slip the quay measures 30m before turning 90° to the west and running for a further 10m. At this point there is a triangular cut in the quay. This measures approximately 3m x 7m, and is the first of the probable boat berths. From this point the stonewall turns towards the northwest and continues for about 30m. It is at this point the most obvious boat berth can be found. It is rectangular in shape measuring about 11m x 5.5m, and has a northeast-southwest orientation (Figure HAM103-3). After this the quay continues in a northwest direction for a further 15m, until it joins the third boat berth, which appears as a long indentation (around 23m long by 4m wide). This berth is very close to the warehouse (Figure HAM103-4).



Figure HAM103- 3 The remains of at least three boat berths are present at Botley Hard, including this rectangular berth



Figure HAM103- 4 View from the east of the warehouse, with a boat berth in the foreground

The warehouse is a brick rectangular building, around 20m in length. At the quayside end there are large double doors. These doors are a later addition, as evidence of an earlier, larger arch can be seen (Figure HAM103-4). By the access road there are also sets of large double doors located in the long sidewall of the warehouse. The far side of the warehouse is located on

Church Lane. In this side there is a single entrance at ground level, and there is a door on the first floor. Above this door there is a pulley block that would have enabled the hoisting of items to and from the upper store (Figure HAM103-5).



Figure HAM103- 5 One end of the warehouse lies on Church Lane. It has two entrances, including one on the first floor that has a pulley above

3.21.4. Research

On the County Series Maps (1:2500 of 1868 and 1:10560 1871) a number of features can be seen, including the warehouse, and the boat berths (Figures HAM103-6 and 7). A structure is depicted on this map where the slip is located today. Interestingly, there was a structure at the end of the rectangular berth, and two other structures located within the main quay area. Despite this there is no visible evidence remaining as to what these may have been. There is an access track depicted, but this runs where the modern housing development of Quayside is now located. To the north of the warehouse the map is annotated with 'Timber Yard', and 'Highest point to Timber Yard which the Ordinary Tides Flow'. This appears to refer to the area to the west of the quay, but without doubt the two facilities would have had a working relationship. Viewing the map progression there is little change up to and including the OS map of 1962.

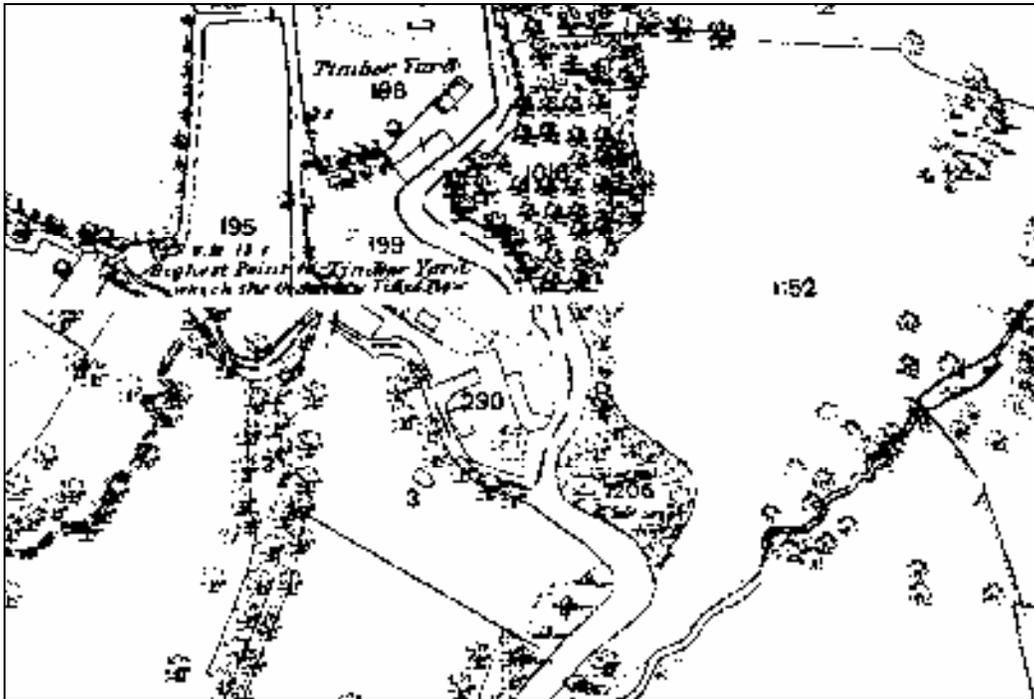


Figure HAM103- 6 The County Series Map of 1868 (Ordnance Survey)

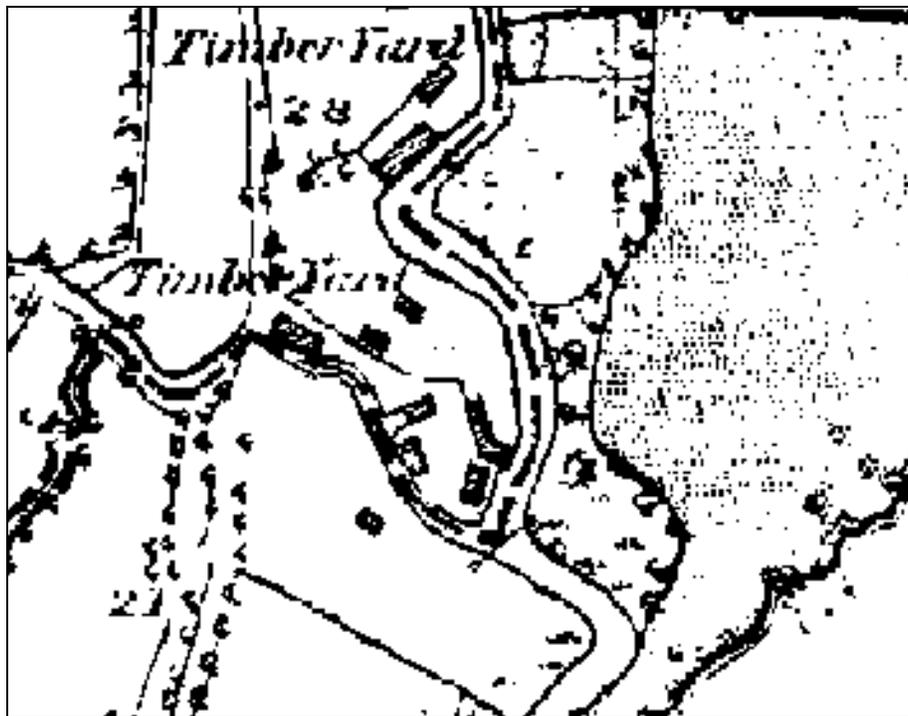


Figure HAM103- 7 The County Series Map of 1871 (Ordnance Survey)

The 1965 OS map 1:2500 has the area annotated with 'Boatbuilding Yard'. On this map the slip is clearly visible and annotated. The building to the north of the slip has increased in size, and a large building to the north of the warehouse has appeared. An additional slip has appeared in the vicinity of the triangular boat berth. This building appears much the same on the OS map of 1989.

Documentary evidence shows that there was waterborne trade occurring at this point by at least the early 18th century. Some form of wharf was located here in 1735, with timber products leaving the area and coal coming in the opposite direction (Chun 2007). Trading vessels were visiting this site through the 19th century, however, as the century turned riverine traffic was decreasing, probably due to the railways. A display board has been erected at Botley Quay that informs visitors of this traffic, and how goods were being poled up and down the river from this point until it ceased in 1914.

3.21.5. Interpretation

The quay would have played a prominent role within the infrastructure of Botley, until the early twentieth century. The Hamble River was an important economic highway for the local area, and this quay would have been an ideal entrepôt for Botley. Due to its position at the convergence of two branches of the river it benefited from increased waterside frontage. The western arm of the river doesn't appear to be navigable beyond this point, which means vessels could be tied up here without fear of blocking the channel to other river users. However, the eastern arm of the river is navigable, and therefore the number of vessels here would probably need to have been restricted. At this point in the river the depth of water is extremely shallow during low tide; therefore the vessels using this quay would have needed to be flat bottomed (Figure HAM103-8). This appears to be the case, with punt like lighters transporting goods up and down the river between the quay at Botley and larger vessels moored at Bursledon.



Figure HAM103- 8 A coal lighterman with his punt like vessel at Botley Quay; believed to have been taken at the turn of the century (Courtesy Botley and Curdridge Local History Society)

Evidence from the visual survey suggests that the quay may have had more than one phase of construction. In parts the embankment wall is dry stone and in others there is mortar present. It is feasible that multiple phases of construction would have occurred in response to a growing economy.

From cartographic evidence it is possible to see that a number of structures were present here from at least 1868, yet only the warehouse remains. The warehouse by the quay is substantial, and is an indicator how busy this quay would have been during its heyday. Local exports, such as flour and timber, would have arrived by cart along Church Lane and been deposited in the warehouse, possibly using the pulley above the first floor entrance. Goods would have also passed through this facility in the opposite direction, including items such as coal, grain and stone.

A section of the wall that surrounds the promontory to the east of the slip is very similar in nature to the main quay wall (Figure HAM103-9). This suggests that the slip is a later addition, and that a section of the quay was removed to build it. Cartographic evidence suggests that the slip was built after 1962. Therefore, originally the quay would have moorings on both branches of the river at this point.

Waterborne traffic ceased to use the quay in 1914. However, the quay seems to have had a new lease of life by 1965, when the area became a boat building yard.



Figure HAM103- 9 Much of the quay comprises of a dry stone wall

3.21.6. Archaeological Significance

Criteria	Assessment
Period	Post-Medieval
Rarity	There are a number of maritime structures on the Hamble River: e.g. Dock Copse and Eysersdown. However none are in as good condition
Documentation	Documentary and cartographic evidence does exist
Group Value	These structures were part of the Post-Medieval

	maritime and economic infrastructure. and were important the regional economy
Survival/Condition	Dock wall in excellent condition, timber store has been renovated, but the quayside has been grassed over
Fragility/Vulnerability	In a dynamic environment, and is vulnerable to erosion
Local Significance	These structures were important for the development of the local economy during the Post-Medieval period. The quay would have been significant for the development of Botley

Table 103- 1 Summary of HAM103's archaeological significance assessment

This quay and warehouse can be considered to have high local archaeological significance. It was an important entrepôt for trade in to the area around Botley. This site would have been significant for the development of Botley and its past economy. Other docks and wharf do exist around the river (HAM010 and HAM099), however these are wooden and are smaller. These other sites are in a worse condition than Botley Quay. The condition of Botley Quay is good, although when the quayside was grassed evidence may have been buried or lost.

3.21.7. Recommendations

The true level of the significance of this site to the development of the local economy has yet to be quantified. To understand this further research will be required. Local archives may hold books, accounts and inventories relating to the quay. This would give an insight into nature and size of the business being conducted here.

It is also recommended that further in depth survey be carried out here. This may uncover additional features that may give an insight in to the career of this facility and its construction phases.

3.21.8. References

Chun, D. 2007. *The Hamble: 'A handsome proper Flood'*. Draft book

3.22. HAM116 Semi-circle of timber posts, near Hamble Common

NGR 447931 105962

Date of survey: October 2007

3.22.1. Introduction

In the inter-tidal zone near Hamble Common there is a semi-circle of small timber posts. These timbers are highly degraded and are difficult to distinguish from the shingle that makes up the shore (Figure HAM115-1). The feature is located low down in the tidal zone and is only visible during very low tides. HAM116 was first visited by HWTMA in March 2002.



Figure HAM116- 1 Viewed from the northwest the structure in its environment, marked by red and white scales

3.22.2. Survey Description

During the initial visit in 2002 the timber posts were photographed with film cameras. As the posts are quite small and degraded and they appear as black stumps they were poorly defined in the images (Figure HAM116-2). This site was noted during a shore walkover, and only site dimensions were collected.



Figure HAM116- 2 Volunteers positioned to indicate post locations, photograph taken in 2002

Even though the site was visited in 2002 a site plan was not created. As a plan was required the site was revisited for this project. Measurements were taken using the datum-offset method. For the purpose of recording, the posts were numbered 1 to 6, starting at the southern-most post and then going clockwise (Figure HAM116-3). To complete the record, the structure was photographed using a digital and film cameras.

3.22.3. Site Description

During the initial visit to the site in 2002 a semi-circle consisted of eight posts was encountered. Two of the posts have subsequently disappeared, probably due to erosion. There are six posts remaining and the semi-circle has a diameter of 3.6m meters at it widest point (Figure HAM116-3). The open side to the semi-circle is on the northwest side. The assumption is that this equates to the structures original diameter.



Figure HAM116- 3 Six posts are visible in the structure; these have been numbered to aid the recording process

The visible sections of the six timber posts are in a poor condition and the posts have an irregular shape (Figure HAM116-4). The timbers are approximately the same size, with the diameter being up to 0.15m and a height up to 0.10m.



Figure HAM116- 4 Looking southeast, posts 5 and 6 showing their irregular nature

3.22.4. Research

The site resembles the remains of an oyster pen. A similar structure, consisting of a circle of timber posts located in the inter-tidal zone has been encountered at Lake Fusaro, near Naples, Italy (Gale 2000:122). These structures originally comprised of piles of stones, above which 'pyramids' of oyster larvae and spats were placed for 'fattening'. A ring of stakes would then encircle a 'pyramid', and these stakes often had wattling attached. The timber structures were design to protect the oysters (*Ibid* 122).

Another circle of timber posts was encountered in the river channel, near Itchenor in Chichester Harbour. Maritime Archaeology Ltd photographed this feature in 2006 (Figure HAM116-5). These timbers are only visible during the very lowest of tides. This feature has also been interpreted as a probably oyster pen (MA ltd 2007:68-69). Additional evidence of the oyster industry has been encountered in the local area. At Warsash there is the remains of an oyster bed (448927 106041). This feature is different in construction to HAM116, however it does underline the presence oyster industry in the vicinity of the Hamble River.



Figure HAM116- 5 The remains of a oyster pen in Chichester harbour, which only just visible during the lowest tides (Courtesy MA Ltd)

Cartographic evidence of the area was analysed to see if this feature was depicted. Resources researched included Murdoch Mackenzie's chart from 1783, Ordnance Survey maps from the 1870s through to 1960s and local Tithe Maps. No structure was depicted at this location. This does not necessarily mean that the structure did not exist during these periods, as the scale of the maps and charts may not be large enough.

3.22.5. Interpretation

From the comparing this structure with other similar features found elsewhere, HAM116 can be interpreted as an oyster pen. During Maritime Archaeology Ltd's study of the foreshore structures of Chichester Harbour five features were interpreted as being related to oyster farming. Three of these sites, at Bosham, Emsworth and Prinsted, are extensive and represent a much larger industrial undertaking. The production capacity of these complexes would have also been much greater than those found in the river channel at Chichester Harbour and HAM116. It may be that the latter relates to pre-industrial oyster production carried out as a 'cottage industry'. However it might be a smaller operation following older methods. An accurate interpretation is difficult without precise dating.

3.22.6. Archaeological Significance

Criteria	Assessment
Period	The date of this feature is unknown, if it is Post-Medieval or earlier then it will be significant

Rarity	A similar structure was encountered in Chichester Harbour
Documentation	None
Group Value	N/A
Survival/Condition	This structure is in a poor condition
Fragility/Vulnerability	Since 2002 two posts have disappeared indicating that it is at threat
Local Significance	Oyster pens do exist in the region. There is evidence of a local oyster industry, although no similar structures

Table 116- 1 Summary of HAM116's archaeological significance assessment

As a preliminary archaeological significance assessment this site should be considered to have medium archaeological significance. This is based upon evidence that suggests that HAM116 is the remains of a Post-Medieval oyster pen. To understand this structure's archaeological significance more precisely a date of construction would be required. If this structure is Medieval or older then it will have high archaeological significance as structures of this type are rare. A search of the Archaeological Data Service for oyster beds and pens gave no sites earlier than Post-Medieval. However, evidence does suggest that oyster pens were used prior to this period. It is believed that an Early Medieval structure known the 'Sinah Circle' in Langstone Harbour may have been an oyster pen (Gale 2000:122). If HAM116 is Post-Medieval then it can be considered to have medium archaeological significance, as there are many examples of structures relating to oyster production from this period. Nine such records can be found in the Archaeological Data Service.

An accurate assessment of HAM116 archaeological significance is extremely difficult without further diagnostic information. Until more knowledge of this structure can be ascertained it is recommended that it is considered to have high archaeological potential.

3.22.7. Recommendations

Currently little of this structure is visible, and it is believed that the survey of the site collected for this report is sufficient for these remains; because of this no further survey is required. A construction date is unknown, and it is recommended that an attempt be made to acquire a date. With a date it will be possible to obtain a better understanding of this feature's archaeological significance. If HAM116 has a date of Medieval or earlier it will have a high archaeological significance, and then further research will be strongly recommended. There are a number of methods that are usually employed for dating, including dendrochronology and radiocarbon dating. Dendrochronology requires significant amount of timber, and from the survey it is believed that the remains are not sufficient. Probably the only method that could be employed is radiocarbon dating.

3.22.8. References

Gale, R. 2000. 'Sinah circle structure: Timber identification from the structure', from *Our Changing Coast: a Survey of the Intertidal Archaeology of Langstone Harbour, Hampshire*, Eds Allen, M.J. & Gardiner, J. CBA Research Report 124. Council for British Archaeology, York.

MA Ltd 2007, *Chichester Harbour Survey of Foreshore Structures*. MA Ltd Report 1752.

Websites

Archaeological Data Service - <http://ads.ahds.ac.uk/> Accessed 17.12.07

3.23. HAM153 Seaplane Lighter

NGR: 449511 109942

Date of Survey: March 2006

3.23.1. Introduction

Approximately 400 metres south of the M27 motorway bridge on the Hamble River lies the hulked remains of an early 20th century Seaplane Towing Lighter (Figure HAM153-1). The vessel is located on the eastern foreshore opposite Foulkes and Son Boatyard. Students from Southampton University, Richard Burkmar, Dan Pascoe and Rob Wardill, surveyed this vessel; this report incorporates the results of their work.

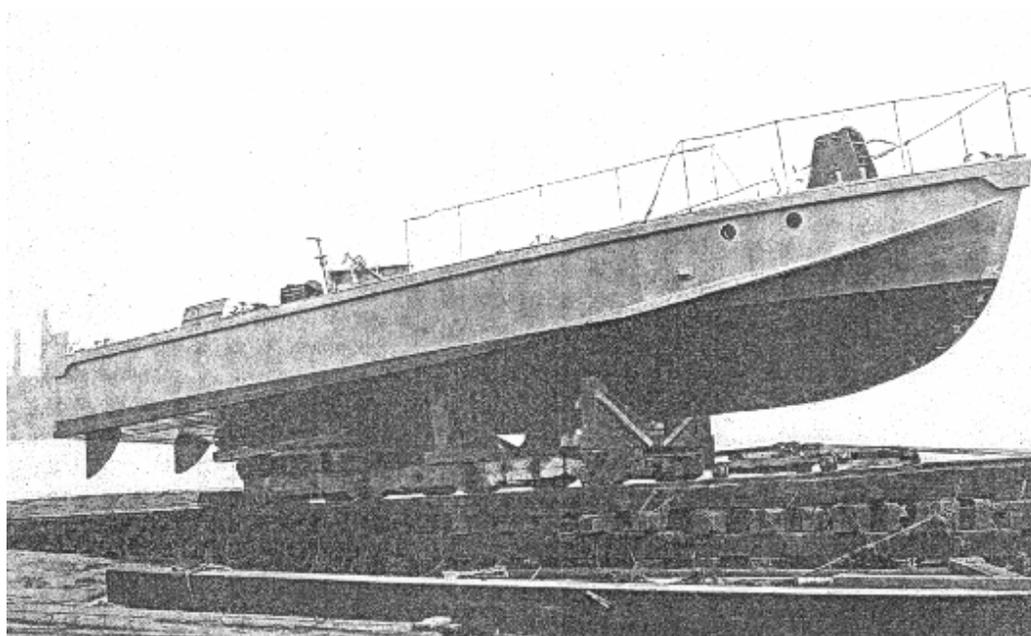


Figure HAM153- 1 58ft Seaplane Towing Lighter, taken July 1917 (DNC 1921)

3.23.2. Survey Description

In November 2005 HWTMA conducted an initial observation of the lighter and surrounding area was made by boat at high tide. From this assessment safety precautions and appropriate plans were put in place to access and survey the site.

Surveying of the site was planned and completed between the 20th and 22nd of March 2006. On the 9th of March 2006 research visits to the Fleet Air Arm Museum and to the Admiralty in Portsmouth were undertaken. The vessel was surveyed using the datum-offset method and a drawn plan was completed

(Figure HAM153-2). The drawn plans are supported with sketches and a photographic survey.

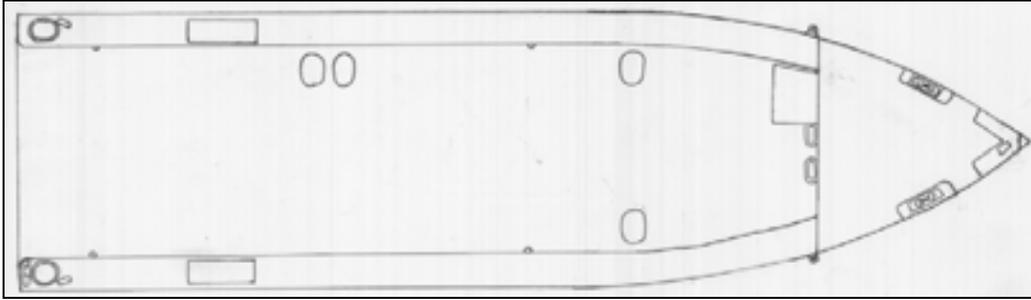


Figure HAM153- 2 Plan drawing of the hulked Seaplane Lighter located on the Hamble River

Access to the site is available from either the water on a boat or from a football pitch that backs on to the eastern side of the river. Being in the inter-tidal zone, access to the site was only suitable at low tide for surveying and recording. Access to the vessel was further inhibited by alluvium, rubbish, vegetation and all kinds of boat debris. These conditions made the survey difficult.

Areas of the site were hazardous, because of this survey was not possible in some sections. However, this was mitigated with numerous digital photographs being taken to show details that the drawn survey could not show.

3.23.3. Site Description

This vessel is the remains of a 58ft Seaplane Towing Lighter. Knowing the identity of this vessel means it has been possible to compare the survey with the original plans (Figure HAM153-3). Currently the remains of the towing lighter are aligned adjacent to the shore in a North to South orientation with the bow of the lighter facing southwards (down stream). Much of the area is used as a boat scrap yard, with an estimate of 15-18 vessels present. The area surrounding the hulk is littered with the remains of other vessels, and there is some boat debris located on top of the seaplane lighter.

The vessel is in a poor condition, although it is possible to see the main layout of the hull. Inspection shows it is an unusual design. The leading edge of the bow section, and the angle of the chine is acute, giving a v-shaped profile. The forward profile is concave; this would have the resultant effect of lifting the bows as the vessel cut through the water allowing it to make way efficiently in the chop created by the towing vessel. As the hull continues aft the chine levels out considerably so that from about 4m to the stern the vessel is flat bottomed. This creates sufficient beam to house the aircraft, as well as providing enough working space for the crew (DNC 1921).

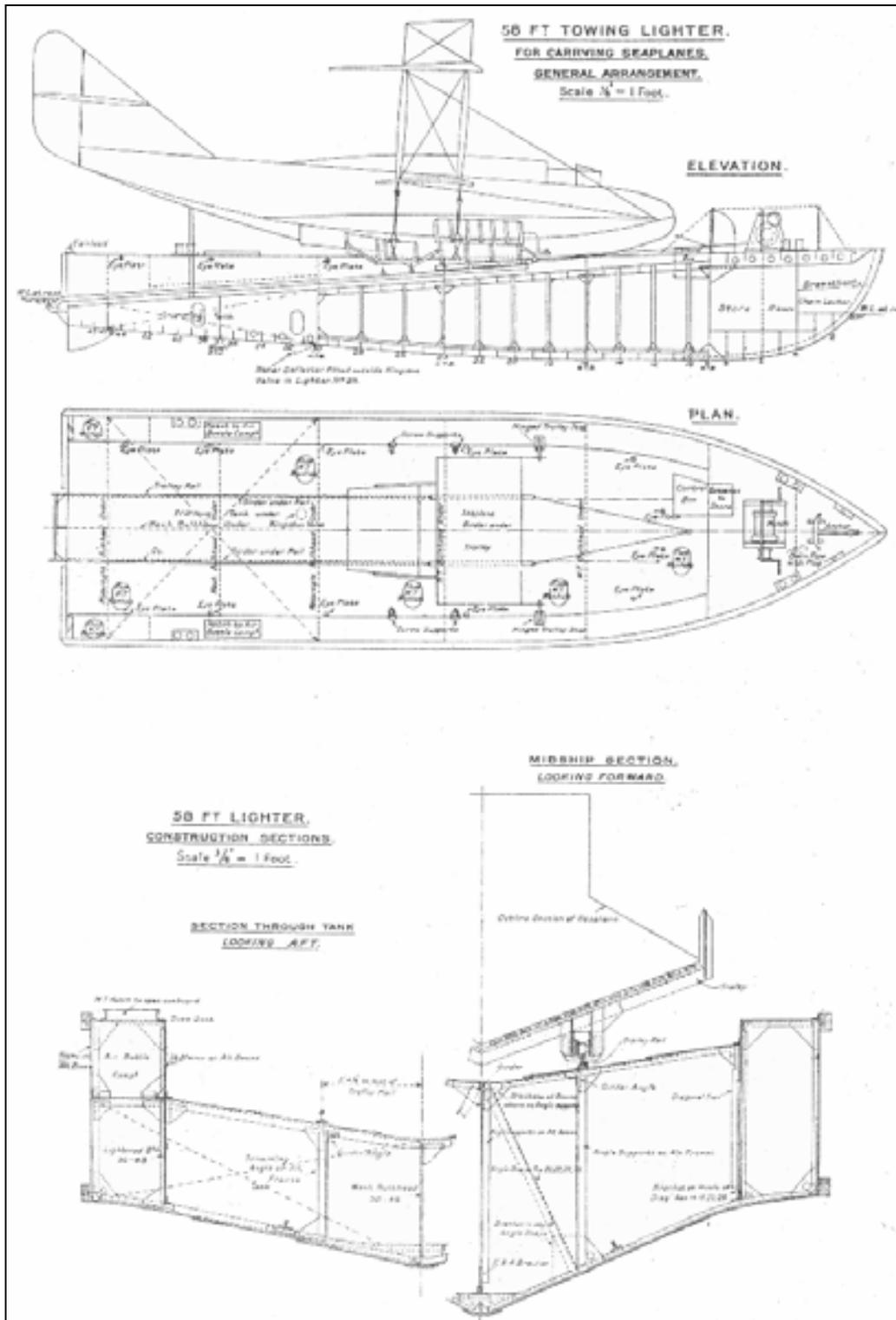


Figure HAM153- 3 Original plans of the 58ft Seaplane Lighter (DNC 1921)

Dimensions collected from the survey give the length as being 17.8m (58ft 5 inches) and the width as being 4.8m (15 feet 8 inches). These measurements differ only slightly from those shown on the original plans. Here the dimensions are indicated as being 58ft long by 16ft wide. The variation is relatively small and can be explained by the vessel structure buckling inwards

and outwards as it collapses. The main construction of the towing lighter is of galvanized steel. Statistics were gathered from both the plans for the vessel and the trip to the Fleet Air Arm Museum. The displacement tonnage given for the lighter is 25 tons unladen and around 30 tons when a seaplane was embarked.

Majority of the foredeck has collapsed (Figure HAM153-4). So it was not possible to assess the deck fittings that may have been present. This deck would have been flush with the sheer. In the hull of the foredeck there are two portholes on both sides. When the Seaplane Lighter was originally designed it would have had a winch on the foredeck to haul the plane onboard. Later modification to some of the vessels removed these, however, it is impossible to determine if this example has been modified.



Figure HAM153- 4 The collapsed foredeck of the lighter with non-associated boat debris

The majority of the vessel's hull is made up of two rectilinear steel tanks that run either side of the vessel (Figure HAM153-5). These are the trimming tanks of the vessel. To assist the embarkation of the seaplanes the vessel could be partially submerged by flooding these tanks.

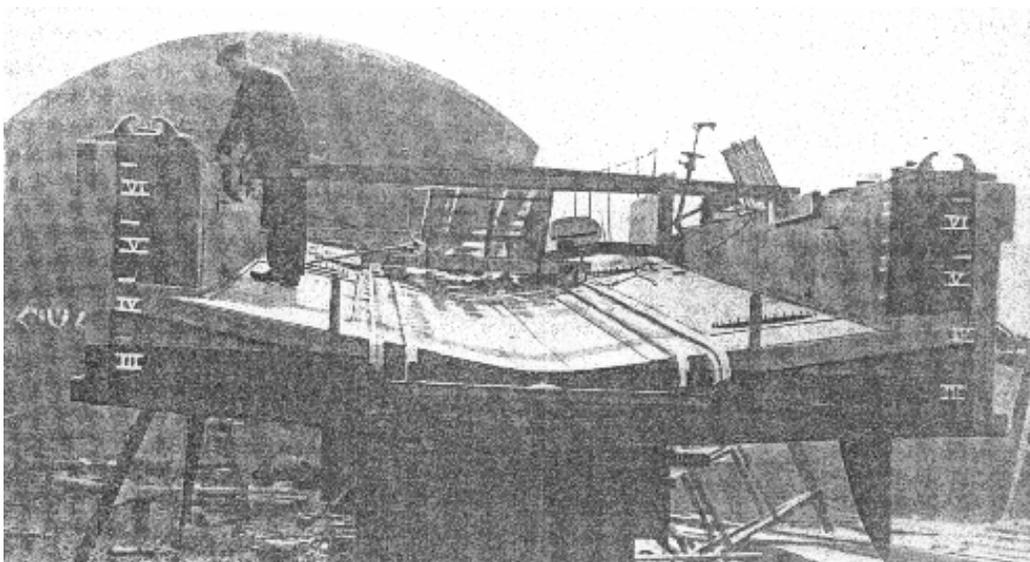


Figure HAM153- 5 Stern view of Seaplane Tender showing the port and starboard trimming tanks, skeg plates and cradle rails (DNC 1921)

Between the ballast tanks a seaplane embarkation deck is located. The inside longitudinal profile shows the incline of the deck and how the depth of the deck reduces towards the bow (Figure HAM153-6). Two parallel guide rails for the cradle would have run from the stern to the forward section of the deck. The rails were only just visible and in poor condition on the hulked Hamble lighter.



Figure HAM153- 6 Longitudinal profile of the inside of the port trimming tank showing how the seaplane deck rises

Either side of the hull 4m abaft the stem, above the chine there is a ring bolt. These would have been the towing bridles from which a rope and slip shackle would have been attached. This would have enabled the vessel to be towed behind a destroyer (Admiralty pers. com. Feb 2006). The lighter had no method of steering independent from the towing destroyer. However, three fins, or skeg plates, were positioned at the stern of the vessel (Figures HAM153-5 & 7). These enabled the lighter to travel true behind the towing vessel. One intact and one partial plate skeg are noted at the stern of the vessel on the Hamble. Between the skeg plates are parallel stringers running from the stern towards the bow that would have added longitudinal strength, and prevented hogging.



Figure HAM153- 7 Stern view of Seaplane Lighter Fleet Arm Museum Collection showing trimming tanks and skeg plates

Other diagnostic features that could be seen on the hulked lighter included a number of hatches and deck fittings located on the port caisson. On the port quarter an open sub-circular hatch could be seen (Figure HAM153-9), which corresponds with the 'Flush W.T. Manhole' on the original plan. Forward of this is another open hatch, this time rectangular measuring 1.2m by 0.5m wide. This is marked on the original plan as the 'Hatch to Air Bottle Comp' (Figure HAM153-3). On the bulkhead of the port caisson there is an eye plate located between the two hatches, this is depicted on the plan. There were many large mooring cleats located aft, port, starboard and forward. Two such cleats are present at 2 metres from the tip of the bow on both the port and starboard. A forward control box is present and is located 3.75 metres aft of the bow to port. At the control box there is a deteriorated ladder, which leads down to the large 'Kingston Valve'. A crewmember would have trimmed the lighter by opening and closing the 'Kingston Valve'. The remains of a thin strip of wood approximately 5 centimetres thick can be seen running the whole length of the vessel and is located just below the upper edge of the hull.



Figure HAM153- 8 View of port trimming tank looking forward with the open hatches

3.23.4. Research

The research visit to the Fleet Air Arm Museum proved to be particularly valuable as the museum has a similar towing lighter in their collection. There is also a very informative model showing a lighter in use with an aeroplane.

The seaplane lighter was designed during the First World War. There is some discrepancy in the number of vessels constructed. According to one source, fifty of the seaplane tenders were ordered, but due to the end of hostilities in 1918, the order was cancelled and only 36 vessels were manufactured (DNC 1921:3). This is different to the number of 46 given on the 'National Historic Ship Register' web site. Whatever the true number, these vessels were relatively rare.

A seaplane being deployed on a lighter was the idea Commander Porte of the Royal Air Station, Felixstowe (DNC 1921:2). This would create an effective method of increasing the range of Royal Navy Service flying boats, and thus enable them to reach the German territories.

To embark a seaplane two trimming tanks on the lighter would be flooded, this would cause the stern of the vessel to sink. The seaplane would then be floated onto a cradle. Then both the cradle and the seaplane were winched on board. Air would then be expelled into the trimming tanks blowing out the water, raising the stern of the vessel. Once the aircraft was secured in position the Lighter would be taken under tow by a destroyer. Under tow the lighter could be dragged up to speeds of 20-25kts. When called into action the destroyer would slow down and the procedure would be reversed, and the seaplane could be launched. After its flight it would return to base, and the lighter would be towed back to harbour (DNC 1921:2-3).

On the 18th of June 1917 the testing of the first four lighters was conducted at Calshot with the successful launching and reloading of the seaplane.

Following this an order was placed for fifty more Seaplane Towing Lighters, and production began at the new Richboro shipyard by the Royal Engineers. According to a Director of Naval Construction paper, thirty-six were completed here before the order for the remaining craft was cancelled following the signing of the armistice bringing the First World War to an end. In the summer of 1918 wooden platforms were attached to the deck of the lighter so it could carry a variant of the small Sopwith Camel. This enabled the Camel to take off while the lighter was under tow. About a dozen lighters were modified in this fashion. This design was not without its problems. On completion of a mission the aircraft could not land on the platform and in most cases the aircraft would have to be ditched and the pilot retrieved from the sea. A derrick was mounted on the lighter so attempts could be made to salvage the aeroplane (DNC 1921).

Seaplanes launched from lighters did claim some success against the menace of the German Zeppelins, Lieutenant Culley successfully shot down Zeppelin L53 in August 1918 (Chesneau 1984:13 & King 1980:174). King describes the exact moment Culley shot down the Zeppelin, “After getting off only seven rounds one of his two fixed Lewis guns jammed; but not the second gun – and L53 burst into flame and broke in two. The Camel fell out of the action, and Culley felt the heat from the last German airship to be shot down in the war then soon to finish” (King 1980:176).

3.23.5. Interpretation

Until the assessment and survey of the towing lighter in late 2005, early 2006 it was believed that only one towing lighter out of those originally built survived. This was the Seaplane Towing Lighter preserved at the Fleet Air Arm Museum, at Yeovilton. Therefore it is a significant discovery to find the remains of another example on the Hamble River.

3.23.6. Archaeological Significance

Criteria	Assessment
Period	First World War
Rarity	Only one other seaplane lighter exists
Documentation	Documentation on these vessels exists in the Fleet Air Arm Museum
Group Value	As a group these vessels are very significant as they represent the early trials of naval aviation
Survival/Condition	This vessel structure is in a poor condition
Fragility/Vulnerability	Lies in a dynamic environment and is vulnerable to erosion
Local Significance	These vessels were used in tests at Calshot and therefore important to the local area's naval aviation heritage and the local area's wartime history

Table HAM153- 1 Summary of HAM153's archaeological significance assessment

The hulked remains of the lighter on the Hamble River should be considered to have high archaeological significance. Seaplane Lighters played an interesting part at the end of the First World War as they also paved the way

for the development of the deployment of aircraft carriers. As a type they are very important as they are an example of technological advancement. These proto-aircraft carriers were tested at Calshot and this gives a strong local connection. Activities such as these add to the story of the Solent during the First World War, and they show that the area had a significant involvement in the first steps of naval aviation. As such the Seaplane Lighters should be considered to be important for the maritime heritage of this region. Indeed, Seaplane lighters are considered to be significant; this is demonstrated by the fact that the only other vessel in existence has been placed upon the National Historic Vessel Register.

3.23.7. Recommendations

The career of the Seaplane Towing Lighter on the Hamble River is currently unknown. It is recommended that additional research be conducted. From this it may be possible to identify the operations this craft was involved with during the war. Nothing is known about how this vessel was employed after the war and how it came to be located on the river. This vessel does have high archaeological significance, however, due to its poor condition it is suggested that preservation may not be a viable option.

As mentioned above the only other Seaplane Lighter known to exist has been placed upon the National Historic Vessels register. It has been placed upon it because of its rarity, but also most importantly due to its technological and heritage value. The remains are in such an advanced state of decay they are fragile and increasingly vulnerable. If a local museum can be found to receive sections for their collection, it would be recommended that part of this vessel be salvaged for posterity.

3.23.8. References

Chesneau, R. 1984. *Aircraft Carriers of the World, 1914 to the Present An Illustrated Encyclopaedia*. Arms and Armour Press. Cape Town.

King, H. F. 1980. *Sopwith Aircraft, 1912-1920*. Putman. London.

Director of Naval Construction, Department. 1921. *Aircraft Carriers*. Part III. Towing and Docking Lighters, For Carrying Aircraft. Archive Portsmouth.

National Historic Ship Register:

<http://nationalhistoricships.org.uk/index.cfm/event/getVessel/vref/712>

Accessed 11.10.07

4. Project Archives

During the course of the investigations into the sites around the Hamble River an archaeological project archive was formulated. This comprises of archaeological site record sheets, drawn survey plans (originals and digital scans), supplementary photographic images (both film and digital) and the final site reports. These have been fully indexed and cross referenced. The final project archive will be submitted to Hampshire Museums Service, where it can be accessed by the general public. A secondary copy of the project archive will be held by the Hampshire and Wight Trust for Maritime Archaeology.

5. Education, Outreach and Dissemination

HWTMA are committed to disseminating information about this project to as wide an audience as possible. To this end a number of initiatives have been used and will continue to be used to inform the general public including; talks, school workshops, display panels, leaflets and press releases. Details of these can be found below.

5.1 Talks

During the project period talks were presented to several organisations and societies. The talks gave details of the project, its background, funding, aims and objectives; highlighting the community involvement and project results. The talks were well received and on occasions additional historic information was supplied by audience members. Organisations that received a presentation on the 'Recording Archaeological Remains on the Hamble River Project' included:

- Bournemouth University Centre for Maritime and Coastal Archaeology
- Crofton Probus Club
- Grayladyes Arts Foundation, Bursledon
- Royal Southern Yacht Club
- Southampton Maritime Museum
- Southampton University Centre for Maritime Archaeology
- Southampton Young Archaeologists Club
- Warsash Local History Society
- Warsash Sailing Club

5.2 School Workshop

As part of the Hamble HLF project, a school workshop was created and delivered to Bursledon Junior School. This was presented to three Key Stage groups, 4, 5 and 6, with approximately 90 students attending. It aimed to give the younger generation who lived near the Hamble River an insight into the importance of the archaeology that lay on their doorsteps. The HWTMA uses school workshops like this to enthuse young pupils and encourage them to appreciate and understand their local archaeology as they grow up, and perhaps even contribute to future archaeological work.

The workshops consisted of several short power point displays that were interlaced with activities and interactive demonstrations. Pupils were encouraged to handle and interpret artefacts and join in discussion, which led to several interesting stories and questions. This method is designed to introduce the topic to the children in a fun and exciting manner.

The teacher was keen that the workshop should cover both history and how it related to the geography of the River.

5.3 Display Panels

Three A1 size display panels outlining the project, its research, fieldwork, community involvement and results have been produced. These will be placed

on temporary display at a number of venues in the local area, for periods of up to a month. Venues that have agreed to hosting the displays are:

- Botley Market Hall
- Bursledon Village Hall
- Greyladyes Art Foundation
- Hamble Memorial Hall
- Hampshire Record Office
- Royal Yacht Squadron
- Southampton University Centre for Maritime Archaeology
- Warsash Victory Hall

The venues mentioned above are those that have been selected for the foreseeable future. HWTMA will continue to display these panels at suitable venues beyond those mentioned above.

5.4 Leaflet

A leaflet outlining the project and its outcomes has been produced. These will be available on display days with the panels at the various venues mentioned in Section 4.3. The leaflets have also been deposited at a number of locations open to the public, such as:

- Aladdin's Cave Chandlery
- Bursledon Brick Works
- The Hamble River Harbour Authority
- Manor Farm Country Park
- Underwater Archaeology Centre, Fort Victoria
- Various Public Houses

5.5 Articles and Press Releases

Various media organisations were contacted about publishing press releases relating to this project. The press releases gave details of the project background, funding, research and intentions. Requests for local information and knowledge about the river, and invites for volunteer participation were included in these releases. Press releases were published by the following organisations:

- Nautical Archaeological Society
- Portsmouth Evening News
- Solent Forum
- Southern Daily Echo

6. Management Outcomes

Although the HWTMA are experienced in a range of inter-tidal survey projects that have been undertaken around the Solent region the Recording Maritime Archaeological Remains on the Hamble River Project has provided a range of experiences that can be learned from and will be drawn on in future projects. This section reviews some of the principal management outcomes.

6.1 Review of Volunteer Liaison and Involvement

Recruitment of volunteers, as outlined in Section 2.2, proved to be successful, with 107 individuals participating in the project. These individuals contributed a total of 259.5 volunteer days, during a period covering December 2006 to February 2008. The fieldwork days occurred at both weekdays and weekends. The project attracted volunteers from a range of backgrounds, ages and interests. A demographic breakdown of the volunteers can be summarised as:

- 57 local residents participated, of which 33 were retirees
- 32 University students
- 18 participants of school age

The vocational backgrounds of the fieldwork volunteers were extremely varied and included a teacher, train driver, insurance clerk, engineer, university lecturer, artist and a professional archaeologist all of which kindly contributed there free time.

As the project progressed a small group of six local volunteers became regular participants. These individuals took part in a number of fieldwork days, because of this their archaeological skills developed noticeably. These volunteers now have the skills and experience to survey and research a small intertidal site independently.

A particularly successful aspect of this project were the links fostered with the University Students. Many students became regular participants as they wished to develop their archaeological skills in the field. They proved to be a motivated group, who after attending HWTMA fieldwork days were able to conduct intertidal surveys without supervision.

The volunteer participation can be seen as one of the successes of this project. They came from a diverse range of backgrounds and represented a variety of stakeholders connected to the river and to maritime archaeology.

6.2 Review of Archaeological Results

The archaeological survey methods utilised during the fieldwork are proven techniques and were successfully used in this project. It is possible to use other techniques such as the Direct Survey Method (DSM). However DSM requires the use of software packages such as Site Surveyor and Web for Windows, they also require the setting up of a range of datum points spanning a site which require measurements to be taken that aren't related to the recording of the actual structure. Due to the limited time available in the intertidal zone, and the increased speed at which scale drawings can be produced the Datum Offset method was considered a more suitable technique. This technique is also more likely to be used by volunteers in the future for surveying sites on their own.

On the larger more intricate sites multiple days of survey were required. This was especially the case in the areas where the sites were lower down in the tidal cycle. This occasionally proved to be a hindrance to the survey, as equipment needed to be dismantled and removed over night. However this

was overcome by the establishment and fixing of datums. Creating datums by positioning copper nails into timber elements is advisable as it facilitates the resetting of a survey on consecutive days.

The weather did have an effect on the survey results, especially when it was significantly cold or wet. It was possible to see a small decline in accuracy during periods of adverse weather. Therefore it would be advisable to undertake work on the larger sites during the summer. Unfortunately there was a need to train the volunteers on less complicated sites before moving onto the more challenging ones. It was for this reason that the smaller sites were surveyed in spring and summer and the more difficult sites were surveyed in winter. Ideally this would be reversed in the future.

As intended a core of volunteers assisted with the project fieldwork. The skills developed by these participants greatly aided the project. As the project progressed the supervision required by these individuals decreased significantly. Throughout the project there was a steady involvement of inexperienced volunteers. This meant that on the majority of fieldwork days the HWTMA staff member needed to balance teaching archaeological survey techniques with site supervision which was sometimes challenging.

The archive research investigations for this project were successful, and the organisations that were visited were extremely helpful. The number of volunteers who helped in the field who then became involved in the research aspects was slightly disappointing. Although fieldwork aspects are often favoured by volunteers, so this was not a surprising result. In the future earlier contact with more research focused groups would be developed to increase those undertaking more desk based routes of enquiry.

A particular success was the Hamble Memories Day. During this day a large number of people with memories relating to the river were interviewed. This event was an efficient device to meet local residents and form new routes of enquiry. An additional benefit was the exposure that the project, local maritime archaeology and the Heritage Lottery Fund gained with local residents. A comparable event should be considered in the future for similar projects, although it would be advisable to hold it towards the start of the project.

7. Glossary

Abaft – Towards the rear of a vessel in relation to another point

Aft – Directional; towards the stern or after part of a boat or ship

Alluvium – Sediment deposited by water action; such as tides

Ballast – Extra weight added to a vessel to add stability or to improve fore and aft trim

Beam – The widest measurement of a boat or ship

Bilge – The base of the internal hull either side of the keel

Bottom Planking – The run of planks located at the base of a vessel's hull

Bow – The front section of a boat or a ship

Bowsprit – A mast that projects from the bow of a vessel. If the bowsprit can be removed and slid inboard it is known as a running bowsprit

Bulkhead – A vertical partition wall within a vessel hull

Bulwark – A wooden or metal fence above the upper deck to hinder water ingress or prevent people falling over the side

Cable-locker – A hold, usually near the bow of a vessel where the anchor hawse or chain is kept.

Caisson – An enclosed space with the ability to be flooded and pumped out

Carvel construction - A construction technique where vessels planks are laid side by side leaving the hull strakes flush with on another

Ceiling planking – Longitudinal planking on the inside of frames of a hull

Chine – An angled hull of a vessel where the bottom turns into the sides

Cleats – Two raised bent pegs of either metal or wood located at various positions around a vessel used for securing ropes

Coaming – A raised edge that surrounds a hatch or an opening in a deck

Deadwood – A solid longitudinal knee above the keel that gives extra support in the bow or the stern of a vessel, where it is not possible to place floor timbers due to narrowing of the hull

Deckhead – The underside of a deck which forms the ceiling of a room

Degaussing – A system by which a vessels magnetic field can be neutralised thus reducing the threat of initiating a magnetic mine

Derrick – A spar pivoted at its base, with rigging blocks attached used for lifting heavy items

Floor Timbers – The lower part of a vessel's frames that run transversely across bottom planking

Fluvial – Relating to rivers

Forward – Towards the bows of a boat or ship

Frame – The rib of a vessel, which is often made up of timber sections called futtocks

Futtocks – The individual component timbers that form a transverse frame

Garboard Strake – The first run of planks that are usually rebated into the keel

Gudgeons – Metal eyes attached to the sternpost, which take rudder pintle

Gunwale – Timber strips or planks that run around the upper sheer strake of a vessel

Hawser – A large diameter rope or cable attached to an anchor or used to moor a vessel

Hawsehole – A hole in the bulwark near the bow through which the Hawser passes

Hogging – When a vessel droops at the bow and stern, adding additional stress to the spine that could severely weaken the hull's structural integrity

Inner-post – An additional stern structural component forward of the sternpost

Keel – The main longitudinal structural element at the base of a vessel from the stem to stern. Effectively the spine of a boat or ship

Keelson – A internal timber attached to the top of the keel and/or the floor timber to give extra longitudinal strength

Keelson Rider – An additional longitudinal timber placed above a keelson for additional strength

Knee – A right angled timber or piece of metal used to give support at intersections of timbers

Leeboards – A board attached to the sides of a vessel that acts as a keel for a flat bottom boat

MCMV – Mine Counter Measures Vessel

Mizzen mast – The aft mast of a multiple masted vessel

Pintle – A metal pin at the front of the rudder that with the gudgeons creates a hinge with the hull

Port Side – The left- hand side of a boat or ship

Rudder – A flat hinged surface at the stern of a vessel used to change the direction

Rudder Stock – A component of the rudder. A vertical post from which the rest of the rudder is hung; at the top of this the tiller is usually attached.

Rudder Stay – The horizontal metal frame of a composite rudder

Running Bowsprit – A bowsprit that can be removed and run inboard

Scantlings – The dimensions of the construction elements of a vessel.

Scarf Joint – Where two timbers have been joined together by reducing each timber's ends into a wedge, enabling the same thickness to be maintained along the timber's run.

Scuppers – Holes that allow surface water to drain from a deck

Sheer – The curve of the upper deck between the stem and stern

Starboard side - The right-hand side of a boat or ship

Stempost – The foremost vertical timber of the bow

Stern – The rearmost part of a boat or ship

Strake – A line of planks or plates that form the hull of a vessel

Stringer – An additional longitudinal frame running fore and aft giving extra structural strength

Superstructure – Structures of a vessel above the upper deck levels

Tiller – A bar that moves the rudder in a desired direction

Transom – Lateral timber planking or metal plating at the stern of a vessel that fills the gap between the port and starboard hull structure producing a flat stern

Wale – An extra longitudinal strip of wood or metal fastened to the side of a vessel to protect the hull