Survey Report of the 'part' foremast of the wreck of the Steam Trawler Sheraton, lying in the inter-tidal zone off Hunstanton, North Norfolk

Submitted as part of the NAS Part II intermediate certificate in Foreshore and Underwater Archaeology

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Introduction

The Steam Trawler Sheraton was built in 1907 by Cook, Welton & Gemmell of Beverley, as a steam powered trawler. Subsequently, she and was used for boom defence work during WWI and as a patrol vessel in WWII, for which she was fitted with a 6 pounder gun. At the end of her working life, The Sheraton was stripped of its valuable components and moored off Brest Sand in The Wash to be used for target practice. During a gale in 1947 she broke free of her mooring and drifted onto the beach at Hunstanton on the north coast of East Anglia. Much of the Sheraton *w*as salvaged but the bottom of the hull remains on the beach in the intertidal zone. The Sheraton represents a historic phase in deep water trawler construction as metal replaced timber.

The site of the Sheraton has been adopted under the NAS Adopt a Wreck Scheme and survey work carried out in 2007 and 2008 included a tape measure and laser survey, photomosaic and drawings and photographs. It is not intended to reproduce large sections of that work here, more to complement the information gathered thus far.

Survey work to date has proved to be very popular with passers by and it is hoped that information will continue to be disseminated through the local press and Tourist Information Office.

Figure 1: Hulk of The Sheraton, 9 September 2009

Discovery of the Foremast

The 5 and 6 September 2009 provided another rare opportunity to access the site over a weekend, as a result of favourable tides and to continue the photomosaic work and data gathering for the Adopt a Wreck Scheme.

On the second day, the identification of a large concretion of metal previously believed to have been rock, lead with careful excavation to the discovery of what was believed to be part of the foremast. Given the apparent small size of the find and favourable time, tide and availability of personnel, a brief on site discussion lead to agreement of an ad-hoc part II survey of the foremast.

Previous Work

ST Sheraton NAS Adopt a Wreck Scheme lead by Simon Draper (References 1 and 2). It is not intended to reproduce large amounts of the previous survey work here; this is very much a complimentary piece of work. However any new and relevant information relating to The Sheraton in general will be included.

Significance of the work

- To support the NAS Adopt a Wreck Scheme above.
- Foster local interest in this wreck site and NAS work in general.

Objectives

- Submit the survey as part of the NAS part II requirements.
- Provide complimentary information for the current ST Sheraton survey work.

Publication

- An article will be submitted to the NAS newsletter.
- The report will form part of the ST Sheraton Adopt a Wreck Scheme and publications.
- Submit the report (and main Sheraton report) to Hull University Maritime Department.
- Potentially a feature in The Yorkshire Post

Risk Assessment

See ST Sheraton part II assessment (Reference 1). This 'find' was by accident and adjacent to the main survey site so no additional assessment was required on the day. The assessment already completed for that day was:-

Risks: tides, abrasions/cuts from the wreck

Mitigation: personal knowledge of the East Anglian coastline and tidal navigation/conditions; consult tide tables and weather forecasts; protective gloves/clothing as necessary; first aid kit, mobile phone.

Historical background (Reference 4)

Name: Sheraton **Type:** Steam Trawler

Official Number: 125043 **Builder:** Cook, Welton & Gemmell of Beverley

Beverley Yard Build No: 115 **Port letters/numbers:** GY230

G Ton: 282 **N Ton:** 120

Length (feet): 130.0 **Breadth (feet):** 22.25

Engine Builder: Amos & Smith **Horse Power:** 92 NHP

Registered speed: 10.5 knots

Owner (built for): Standard Steam Fishing Company, Grimsby

Chronology

- Launched: 19.11.1906
- Registered: 15.01.1907
- June 1916 - requisitioned by the Royal Navy as a boom defence, No FY 1659
- 1919 - returned to fishing duties
- 5 June 1940 - requisitioned by the Royal Navy as an auxiliary patrol vessel/minesweeper, No FY 1788
- September 1944 - returned to owner
- 17 May 1946 – Sold to RAF to be used as a target vessel
- 23 April 1947 – wrecked near Hunstanton lighthouse

No plans have been located for The Sheraton, or any of her sister ships, Sicyon, Pretoria, British Empire or Staunton. However, the plans at Annex A (Reference 4) are of the Falstaff Class of Steam Trawler. Pre-dating The Sheraton by about a year, these vessels (Rosalind, Ariel, Bianca, Cassandra, Oberon, Belovar, Antonio, Viola, Jessica and possibly Miranda and Octavia) were 21.5 feet shorter. Information provided by Robb Robinson at Hull University confirmed that these vessels formed the Boxer fishing fleet, operating as a group which stayed out fishing for 6 weeks and were serviced daily by a fast cutter back to Grimsby or Billingsgate. The larger Sheraton however, fishing in isolation, sailed as far afield as Iceland.

The sketch provides an excellent example of the Cook, Welton & Gemmell ship design of the time. The main noticeable difference in design other than the length was the positioning of the mast. Aft of the mast on the Falstaff Class and forward of the mast on The Sheraton and sister ships.

Of these, the only vessel remaining, and the second oldest remaining vessel built by Cook, Welton & Gemmell is The Viola (renamed Dias) which lies abandoned in Grytviken, South Georgia, having been refloated in 2004.

Further drawings of The Sheraton or her sister ships are still being sought via The Maritime Museum in Hull.

Fate of the Sheraton

When the Sheraton's working life came to an end she was stripped of transferable major components of value. The hulk was painted bright yellow and moored off Brest Sand in the Wash to be used for target practice. During a gale on 23 April 1947 she broke free of her moorings and drifted onto the beach at Hunstanton, just below the historic lighthouse. As far as can be ascertained, she remains in exactly the same position today but part of her structure has been cut away by a salvage company. Figure 2 shows The Sheraton grounded on the rocks at Hunstanton.

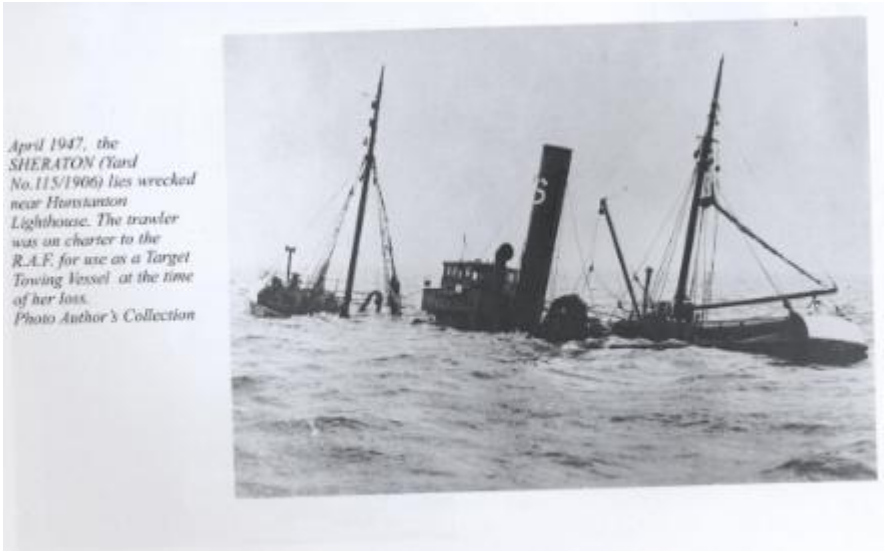


Figure 2: The Sheraton grounded at Hunstanton (from Cook, Welton & Gemmell. Hutton Press 1999)

Survey and excavation methodology

Equipment

Olympus digital camera

Camera (make unknown) on homemade overhead tripod

Planning frame with adjustable feet

Tape measure (flexible & rigid 'scale' measures)

Total Station equipment

Survey personnel

Jezz Davies

Katy Bell

Viv Hamilton (Total Station)

Ian Hamilton (Total Station)

Brian Legg (overhead camera)

Survey Advisors

Simon Draper

Mark Beattie-Edwards

Survey Strategy

The foremast was discovered by one of the team standing on a large metal concretion adjacent to the hull of The Sheraton. The strategy agreed at the time was:-

- To carefully excavate using trowels and by hand as much of the area around the foremast as possible in the remainder of the day.
- Stretch the visible remains of the foremast to identify the main features and its proximity to the Sheraton hulk.

- Use planning frames and tapes to establish accurate dimensions of the foremast.
- Make a photographic record of the site.
- Take a Total Station record of the site.
- Bury the artefact to return the site to its original state.

Survey results – planning frame sketches

The planning frame sketch results are shown at Figure 3. The foremast is almost lying in an N-S orientation, the fragmented end pointing towards 350°. For the purpose of this report, the fragmented end of the foremast will be referred to as the 'northern' end and the cut or straight end as the 'southern' end.

The section of mast lies towards the fore end of, and about 3m away from the hulk of the vessel. There is no other evidence of parts of the mast in the vicinity of the wreck, but given how long this section of mast has lain uncovered, this cannot be guaranteed.

The wooden section of mast uncovered measures approximately 1.85m long and is a maximum of 0.35m diameter. The metal collar currently measures approximately 0.70m diameter and a depth (or vertical height) of 0.27m. The original dimensions of the metal are hard to establish due to the concretions.

The southern end of the mast appears to have been sawn through from opposite sides but not quite at the same height; there is evidence that the mast may have snapped as the 2 cuts approached each other. There is also evidence of grooves (5 visible; there may be more still in the buried section), probably man made, though weathering is also a possible but less likely option. The grooves are not evenly spaced.

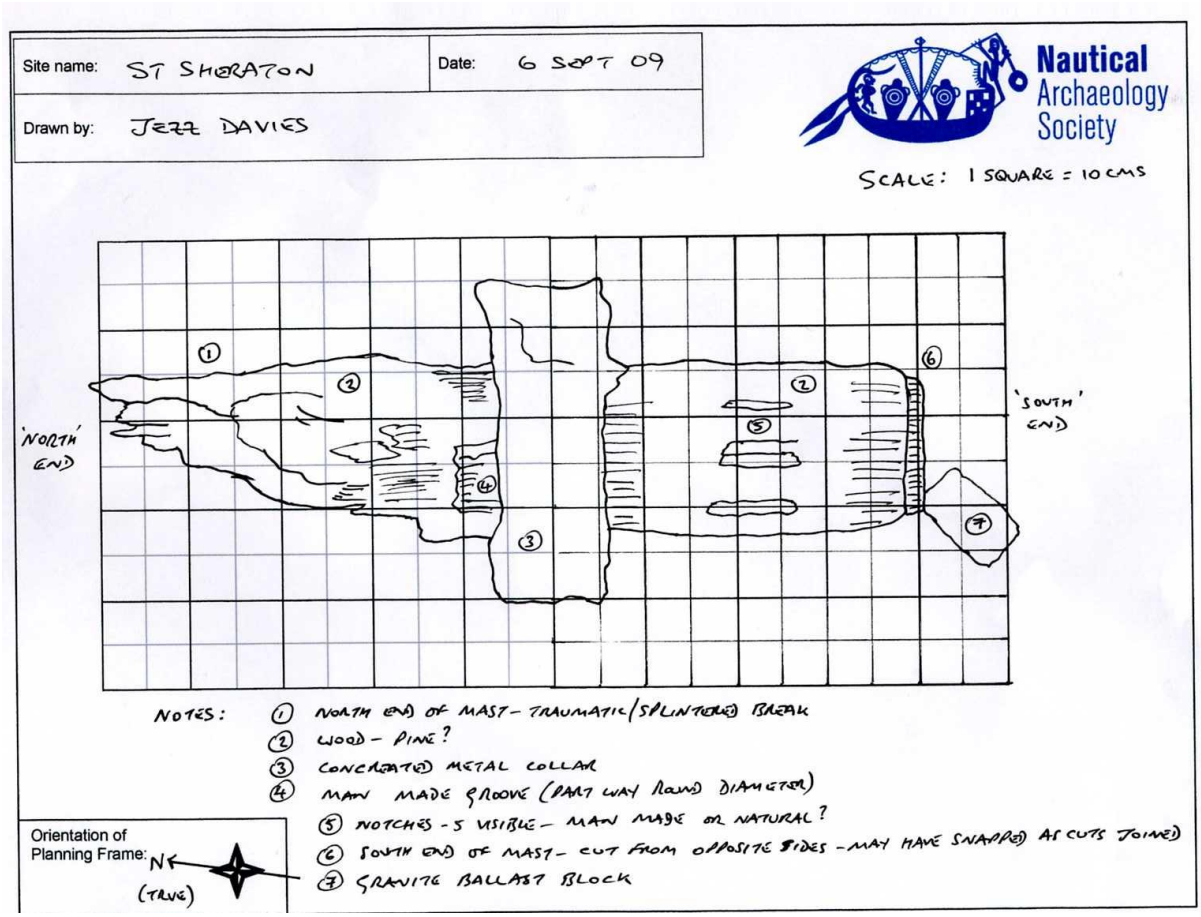


Figure 3: Planning frame sketch of The Sheraton foremast

The northern end of the mast appears to have met a catastrophic failure with evidence that the wood has fractured starting at a point some 0.2m from the collar. There is evidence of a man made groove directly adjacent to the collar, approximately 0.25m in length and 0.1m depth.

Another granite ballast block was identified at the southern end of the mast in addition to the numerous blocks already identified around the vessel.

Photographic record

A number of images were taken on the day of both The Sheraton hulk and the mast. Three of these images are at Figures 4, 5 and 6. The remainder can be found at Annex F.

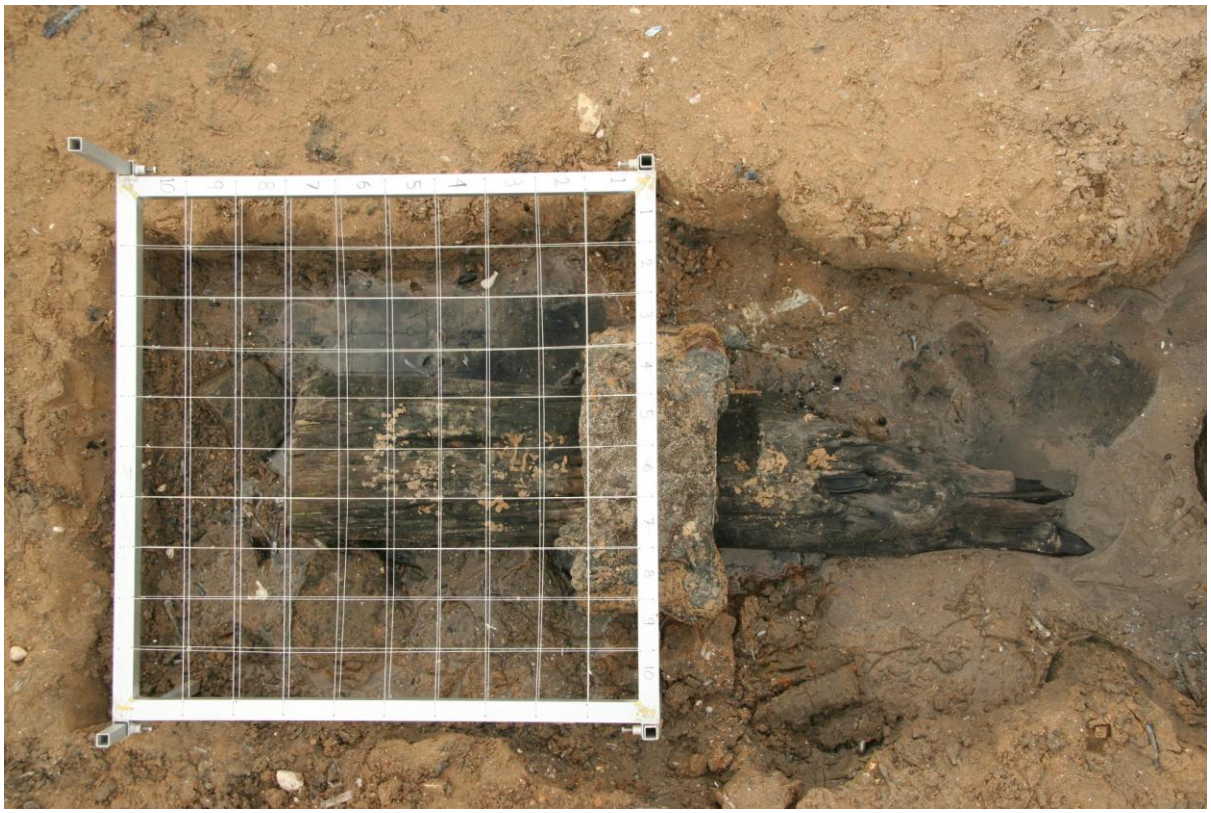


Figure 4: Planning grid above the mast section

Survey results – Total Station findings

A Total Station survey was commenced in 2008 and continued in 2009. A grid has been superimposed over an Ordnance Survey map of the local area to confirm where the hulk of The Sheraton rests. See Annex B.

The complete and combined Total Station results for The Sheraton hulk and the mast are attached at Annex G. The result sheets include some measurements not associated with this part II project; they have been retained for completeness so as not to distort any of the final results presentation.

The mast X-Y plot locations are confirmation that the manually recorded dimensions are accurate. The mast measurements are shaded in yellow on the 'common 2009' sheet of Annex G. The survey points used for the mast are at Annex C.

Figure 5: View of the excavated mast section

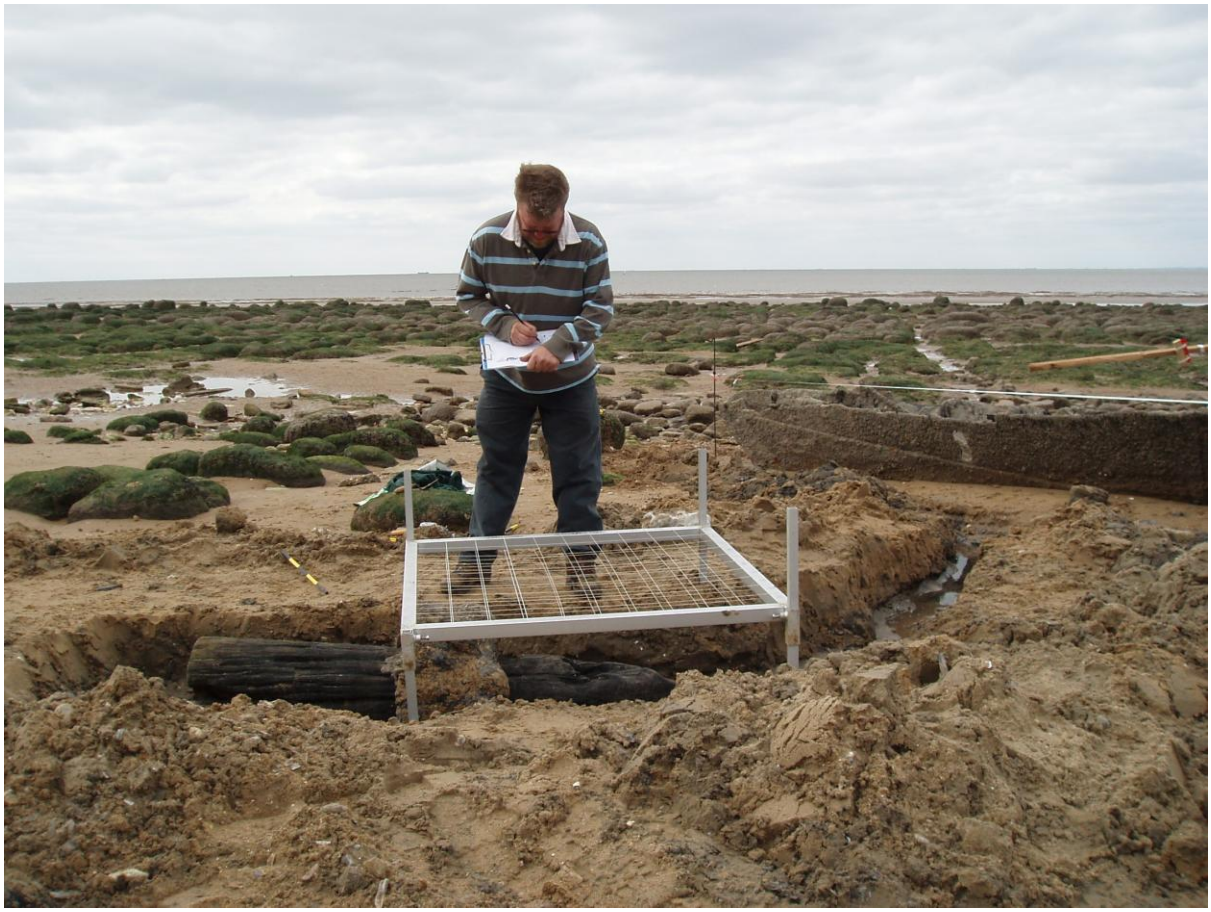


Figure 6: Author hard at work

Research – South Georgia

Reference was made during the excavation work to a sister ship of The Sheraton, The Viola (renamed Dias) lying in Grytviken Harbour in South Georgia. Through a Royal Navy colleague who has served in the South Atlantic, contact was made with Hugh Marsden, the Curator of the Maritime Museum on South Georgia. Measurements and dimensions of what was thought to be the same part of the mast were taken and relayed by to the UK (wonders of Skype).

Viola (Dias) mast dimensions

Mast circumference 43" (1.092m). This gives a diameter of 0.35m.

Metal shaft (perhaps steel) 57" (1.448m). Hugh Marsden described this as a steel shaft that the mast fitted into at deck level rather than as one of the collars.

Shaft held in place above a steel deck plate with 12 (wooden) wedges. Wedges are rounded (4.5" (11.4 cm) maximum diameter and 3.5" (8.9 cm) diameter at the base of the mast, where it enters the steel shaft.

Above the steel deck plate was a pair of metal brackets around the mast, 15" (38.1 cm) apart. Each collar is 3.5" (8.9 cm) wide. A further piece of metal lies flat to the mast and joins the 2 collars together. A boom (or derrick) is fitted above the second collar; the 2 collars and adjoining metal giving strength and balance to the boom.

Comparison of Sheraton and Viola dimensions and fittings

- The Viola mast dimension of 0.35m diameter, equate exactly to that of The Sheraton.
- The presence of securing wedges could well explain the grooves on The Sheraton mast on one side of the collar.
- The wide grove on one side of The Sheraton mast would seem to relate to the location of the metal that joins the 2 collars on The Viola.

This would seem to provide conclusive evidence that the structure found on Hunstanton beach is indeed part of The Sheraton mast. Two photographs, one of The Sheraton mast and one of The Viola mast are at Annex D and include some suggested common points.

Photographs from South Georgia

Hugh Marsden provided a number of photos of The Viola in South Georgia. See Annex H.

Research – Hull University

The Curator at South Georgia referred the project to Robb Robinson, a lecturer in Maritime History at Blaydes House, Hull University. Robb Robinson is an expert in the early ships of Cook, Welton & Gemmell Ltd, the Beverley based company that built The Sheraton and The Viola. He took a particular interest in the refloating of the Viola (Dias) in 2004. Robb was able to confirm that although The Sheraton and Viola were of similar construction, they were not sister ships. The Viola was part of the Boxing Fleet, 108-120' length operating in the North Sea as part of a fleet. The Sheraton was much larger at 130', most likely starting its life as a vessel operating much further afield and in isolation.

However, design similarities including the mast and fittings has finally lead to the firm identification of The Sheraton mast. A review of the Viola (Dias) photograph library held by Robb included a relatively close shot of the lower mast and boom (or derrick) of the Viola (Dias). This

picture clearly shows the wedges described by Hugh Marsden and the bracket and collar arrangement used to support the boom.

I believe it is conclusive evidence that the structure located adjacent to The Sheraton hulk last year is indeed part of the foremast and is almost certainly that part of the mast from the upper deck to just below the higher boom securing bracket. The concreted mass is almost certainly the lower boom securing bracket. Photographs provided by Robb Robinson are at Annex I. The end of the mast that seems to have been deliberately cut is the lower portion of the mast.

Remaining issue

The plan of The Falstaff Class (Annex A) clearly shows 2 masts. However, the aft mast is the only one with a boom fitted. The foremast shows no boom or derrick. There are markings on the diagram to suggest that there may have been standard 'fittings', possibly brackets on the lower part of the foremast. Similarly, photographs of The Sheraton and contemporaneous vessels (from Reference 4) show 2 masts, but no forward boom or derrick.

The Viola (Dias) photographs and dimensions come from the foremast which has a derrick fitted. The aft mast has a boom fitted. Given where the mast section lays in relation to the hulk of The Sheraton it has always been assumed this was part of the foremast.

There are several possibilities, though no particular conclusion is drawn:-

- This is part of the foremast which had brackets attached in anticipation of a boom or derrick, though no boom or derrick was fitted.
- This is part of the aft mast and the fittings would have held the boom.
- A derrick was retained on the vessel and only fitted when needed in harbour.
- A derrick was fitted at some stage of the vessels life. This could have been removed when the vessel was stripped prior to its intended use as target practice.
- Masts for this and similar class could have been of similar design, such that all mast fittings (both forward and aft) were identical whether booms or derricks were fitted or not.

Fate of the mast

Why is the remaining part of the mast in this location and this state? Much (often wild) speculation and debate around the fate of the mast was aired during last years survey work. The following are offered as possibilities, again with no particular conclusion drawn:-

- The mast was cut from the vessel and erected on the beach and used to offload deck and other fittings. This seems unlikely as most items of value were removed prior to the ships intended use as target practice. Further, as the mast and boom (or derrick) could be used as a crane anyway, this would seem unnecessary.
- The mast met some catastrophic end during target practice. Although this might explain the severely fractured nature of the top of the mast, there is no evidence that the vessel was 'actually' used for target practice. A picture of the Sheraton taken soon after her grounding in 1947 shows the foremast still in place. For interest I have included an article written by a local man, GR Needham at Annex E. It includes a photograph of The Sheraton shortly after grounding. The article came from the Tourist Information Office in Hunstanton but is uncorroborated.
- The mast was simply cut away as part of the salvage operation and this remains the only remaining part (subject to further findings on follow up survey work). The mast has clearly been cut at the lower end, possibly in a hurried manner as the mast was cut from opposite directions and the final part fractured. This is certainly a possibility but does not explain

the fractured end, unless the mast was cut away first and splintered on impact with the beach, prior to the start of the salvage operation. The mast may have been cut directly above the metal sleeve that housed its lower end.

- In light of the discovery of the possible additional presence and purpose of the derrick, the mast snapped whilst offloading equipment or fittings prior to final salvage. A possibility but the mast is of a very large diameter, though with the vessel aground, there were little of the normal supporting forces and mediums (i.e. the sea).
- The local article at Annex E suggests that the wreck was not finally cut up until the late 50's or early 60's. This may have been the final fate of the mast; it seems unlikely the salvage company (or individual) would have left the mast behind. It may simply have been cut down at this point in time and removed for a variety of purposes, possibly fuel, leaving this section as the only remnant.

Conclusions

The Sheraton project has been in existence for about 3 years now. In September 2009, the chance identification of what appeared to be a section of the mast generated further part II work and research that lead as far afield as South Georgia. Planning frame, photographic and Total Station records were taken to complement previous fieldwork on this project.

Research at and with Hull University and the benefit of contact with a small team who were able to board a similar vessel in Grytviken has confirmed, almost without question, that this is indeed part of Sheraton's foremast. It seems likely this is the lower part of the mast including a (now concreted) metal bracket that was part of a derrick (or boom) securing arrangement.

As on previous survey weekends, the good weather ensured numerous local and visiting people past by The Sheraton hulk, generating a continuous flow of debate, discussion and reminiscing throughout the day. It is hoped to provide further information for The Hunstanton Tourist Information Office in addition to continued updates of The Sheraton website and NAS generally. Recent contact has been made with The Yorkshire Post which may lead to further publicity for the project and NAS.

Final twist

Two of the photographs in this report show The Sheraton grounded at Hunstanton. However, the pictures at Figure 2 and Annex E do not appear to be the same vessel. The vessel at Figure 2 has 2 masts. The vessel at Annex E has only one mast and is fitted with large radar deflectors, intended for use in the target practice exercises.

This remains a mystery; further work is being carried out to establish if one of the photographs is another vessel or The Sheraton at an earlier date.

Further work

- Consider undertaking a metal detector survey for other artefacts.
- Consider dendrochronology to date the wood. Also confirm the type of wood.
- The wrecks of The Salacia and The Margaret supposedly lies off the Hunstanton coast not too far from The Sheraton. These may be opportunities for further survey project.

On a much grander scheme is what may become of The Viola in South Georgia. The vessel settled at its mooring under the accumulated weight of winter snow several years ago. It was refloated in January 2004 and currently lies alongside in Grytviken. She remains in a sorry state, with the mast close to collapse, but is probably the oldest surviving steam trawler with her steam engines still intact; a veteran of the Great War as well as a range of activities in the South Atlantic. She is truly a historic representative of Beverley and Grimsby's remarkable maritime heritage and pioneering spirit and virtually the last of the North Sea shipping fleet.

It would take a remarkable project and significant funding to do anything further, but there remains a great deal of interest in the vessel both in South Georgia and in Hull. Perhaps this is something NAS could investigate.

References

1. http://www.nasportsmouth.org.uk/projects/sheraton.php
2. http://naseastanglia.googlepages.com/home
3. http://www.viola-dias.org/
4. Cook, Welton & Gemmell by Michael Thompson, Dave Newton, Richard Robinson & Tony Lofthouse. Hutton Press Ltd. ISBN 1-902709-01-0.

Acknowledgments

1. Hunstanton Tourist Information Office
2. Lt Cdr David Gibson RN Rtd
3. Hugh Marsden, Curator South Georgia Maritime Museum
4. Robb Robinson, lecturer in Maritime History, Hull University

Annexes

A. Plan of Falstaff Class of Steam Trawler (9 vessels built 1905/6) including Viola

B. OS map with Total Station grid showing location of Sheraton hulk

C. Sketch of mast for Total Station survey

D. Sheraton and Viola mast comparisons

E. Local article regarding the grounding of The Sheraton

F. Photographic library of The Sheraton and mast (see attached CD)

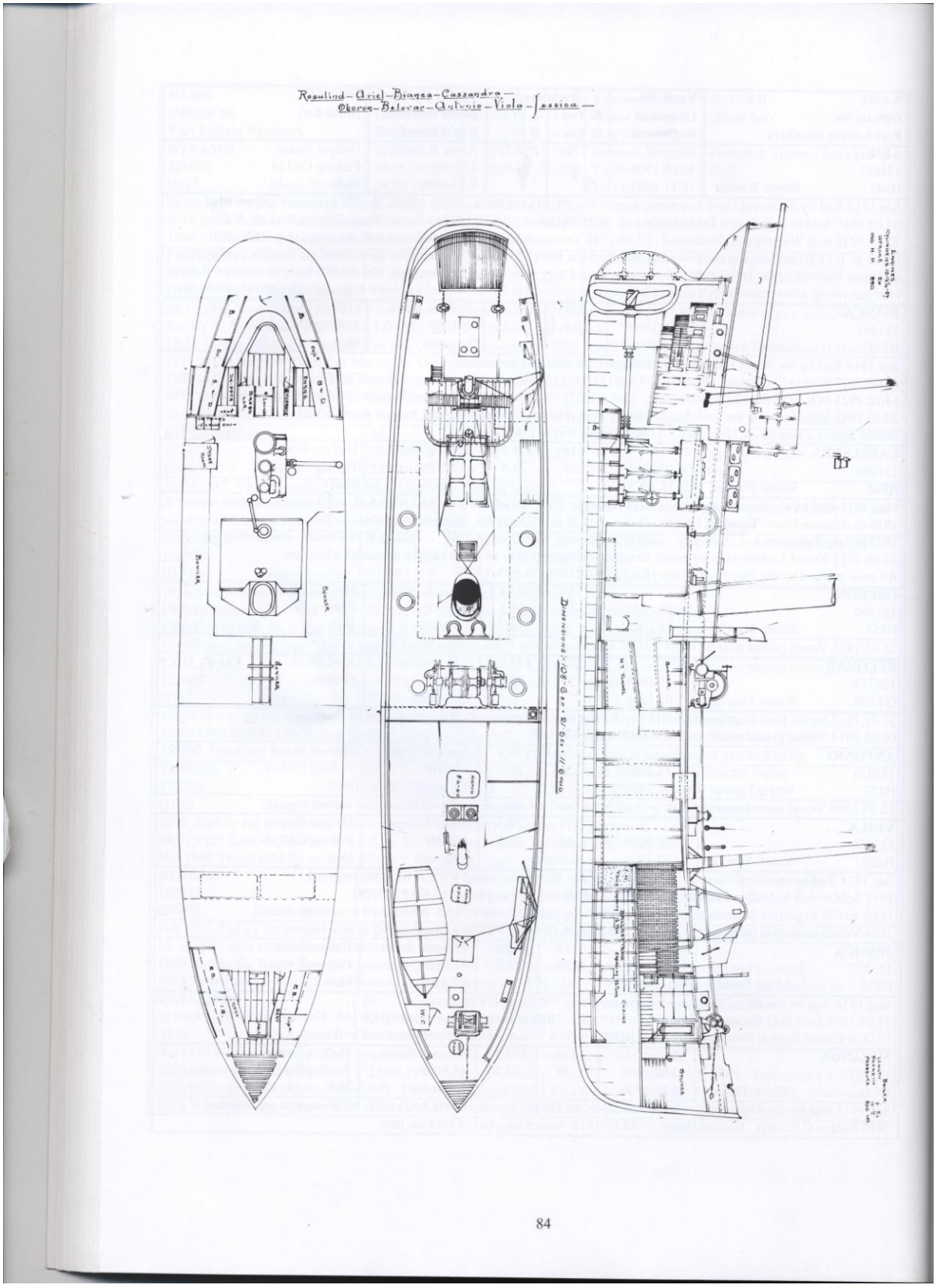
G. Total Station results from 2008 and 2009 combined including mast section (see attached CD)

H. Photographic library of The Viola (Dias) from South Georgia (see attached CD)

I. Photographic library of The Viola (Dias) from Hull University (see attached CD)

Annex A

Plan of Falstaff Class of Steam Trawler (9 vessels built 1905/6) including Viola



From Cook, Welton & Gemmell, Hutton Press 1999

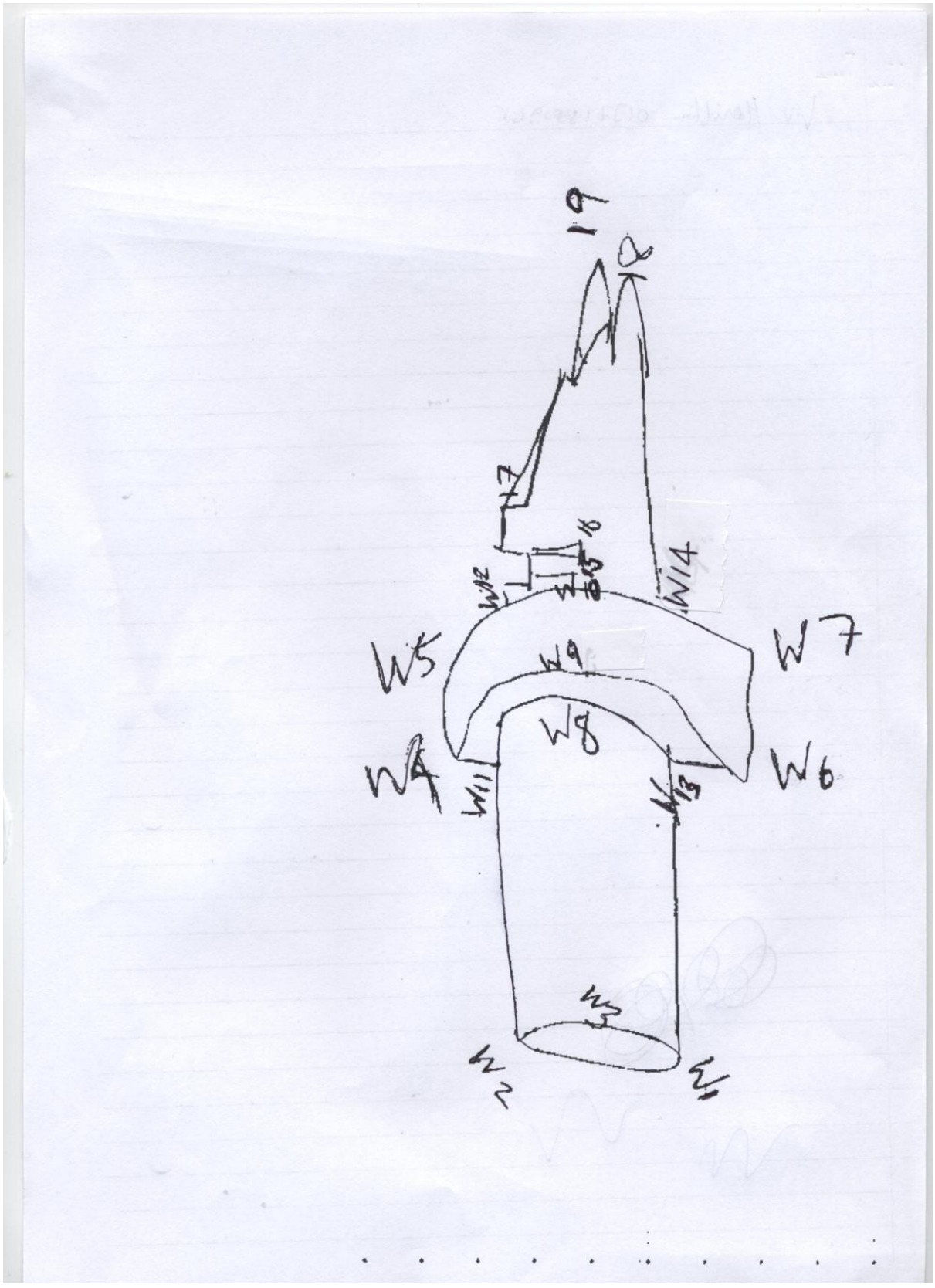
Annex B

OS map with Total Station grid showing location of Sheraton hulk

Key: 4 black dots within the red circle on the map denotes the location of The Sheraton

Annex C

Sketch of mast for Total Station survey



Annex D

Sheraton and Viola mast comparisons

Mast cut here?

Site of wedges?

Metal collar?

Part of bracket fitted here?

Annex E

Local article regarding the grounding of The Sheraton

The Wreck of the Sheraton

The Sheraton as I recall this vessel came ashore under the cliffs in the spring of 1946 and she was unmanned at the time. It was an old trawler which was going to be used as a target boat moored on the Wainfleet range on the Lincolnshire side of the Wash.

I lived at No3 Coastguard Cottages near the Lighthouse and remember looking at the vessel the morning it came ashore under the cliffs. A bit further out from her present position having broken her moorings in a gale during the night; it had not been used for target practice at the time it broke free.

Having only just been towed to the range, she was painted a bright yellow all over, and had large radar reflectors topside. As kids at the time it was a great attraction to us all, and we soon clambered up the rope boarding ladder that hung from the port side and explored the whole vessel. I recall staying on board along with other local lads when the tide cam in as it bounced over the beach and rocks to its present position. The Police and some parents standing on the cliff top were shouting at us to come off. At the time we saw no danger in what we were doing; diving off the deck the seaward side and swimming round and climbing up the boarding ladder. Needless to say we were all given a lecture on our follies.

The vessel had been stripped of its engine, and most of anything of use although the ships wheel was still in the wheelhouse and would spin round as the waves hit the rudder. The telegraph chains to the engine room were still there but the telegraph had been removed. In the crew space aft there was a table and seats and some bunks; in the fo'cstle it had been stripped out and some time after it came ashore, the ships wheel was removed. As I understand, it hung on the wall at the Central Garage Hunstanton for several years, but I don't know what became of it.

In the late 50's early 60's a scrap dealer cut the wreck up, leaving what remains to the present time.

This is a photograph taken by me soon after the grounding in 1946.
G R Needham, Holme-next-the-Sea

Source: Hunstanton Tourist Information Office