HWTMA Flower of Ugie:

Archive Summary Report

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Contents

1. Project Summary

Prior to identification of the wreck as *Flower of Ugie* the site was known as the 'Mystery Wreck'. It comprises the remains of a wooden vessel that was first located in 2003 when a fisherman snagged his nets on an obstruction. The Hampshire and Wight Trust for Maritime Archaeology (HWTMA) were invited to investigate the site and in doing so discovered the substantial remains of a wooden shipwreck lying exposed just off the south eastern edge of Horsetail Sands. This site was given a working name of the 'Unidentified Wreck' and hence the site code of UNID. However, it then became most commonly referred to as the 'Mystery Wreck' during fieldwork seasons. Archaeological and historical research has identified the site as the remains of the sailing barque *Flower of Ugie* (1838-1852).

The *Flower of Ugie* was a sailing barque, built in Sunderland in 1838. The vessel had a successful fourteen year career sailing to destinations in South Asia, the Far East, the Mediterranean, Black Sea, Baltic and North America. The vessel was wrecked on the Horse Tail Sand in the Eastern Solent on 27th December 1852 while en-route between Sunderland and Carthagena, Spain.

Over subsequent years following 2004, the HWTMA worked to establish a pre-disturbance survey of the site. This work was limited due to available funds and the sheer size of the site. Although the remains are relatively flat to the seabed they include two sections of wooden hull measuring up to 20m in length, 23m apart. Between the two pieces of structure lie a range of ships fittings. Diving investigation undertaken to date has involved a mixture of a professional dive team working alongside a student and volunteer dive team. This fulfilled educational and learning objectives in terms of enabling hands-on involvement with underwater sites and developing capacity, knowledge and appreciation of the marine environment and survey skills.

After initial investigation in 2004, contact with United Marine Dredging (UMD), a division of Tarmac Ltd, was established as the site lies within a licensed dredging area (122/2) that was licenced by the Crown Estate prior to any requirements for an EIA (therefore, the site did not have a full archaeological assessment). An exclusion zone was established around the site to prevent any damage. Through this preliminary work, HWTMA recognised the potential of this site to contribute significantly to the Aggregate Levy Sustainability Fund (ALSF) research priorities related to both cultural heritage and the marine environment within aggregate dredging licence areas.

Following application, funding for further work on the site was received from the ALSF in the second half of 2008. This project was split into four stages of work which are summarised as follows:

- **Stage One**: Desk based assessment and artefact analysis, the full results of which are included within 'The Mystery Wreck (Aggregate Area 122/2 UMD), Eastern Solent: Stage One report' (see HWTMA 2009).
- **Stage Two**: Recording – involved diving fieldwork to enhance understanding of the site based on the findings from stage one and installed monitoring points around the wreck to be used for long term management of the site. There was also public awareness raising events and opportunities for volunteer diver skill development within this stage. Results of this stage are included within 'The 'Mystery Wreck', (Aggregate Area 122/2 - UMD),

Eastern Solent. Stage Two: Fieldwork Report and Updated Research Design' (see HWTMA 2010).

- **Stage Three**: Analysis – involved a variety of specialist analysis of the data gathered as part of Stage Two. This includes ship structure, copper fastenings, iron components, timber and pottery, and further historical research based on the new findings, resulting in the submission of a draft publication on the site (see Whitewright & Satchell Forthcoming). Results were used to develop a significance assessment of the site and put forward recommendations for future management and monitoring (this report).
- **Stage Four**: Publication and archiving – Final preparation and submission to publishers of the draft publication. Preparation and submission of archive for deposition (with this report).

Work was also undertaken to identify suitable future management and monitoring strategies for the site. During the 2009 season of fieldwork, a series of monitoring points were installed around the site. These are intended to allow the specific monitoring of sediment loss/accumulation at specific areas of the site. Observation of the site since 2004 has indicated that the exposure of timber due to sediment loss is usually followed by subsequent degradation as a result of biological and physical processes. Similarly the site is at risk from damage resulting from further fishing net-snags and the removal of metal items by casual diving. This work resulted in the submission of a report (HWTMA 2011) on the future management and monitoring of the site to English Heritage. The recommendations of that report can be summarised as follows;

- Continued monitoring of the site at a micro-scale and also at a macro-scale to continue to observe the sediment regime across the site and to catalogue any changes to the visible seabed structure.
- Designation of the site as a Protected Historic Shipwreck under the Protection of Wrecks Act (1973). Designation would mitigate the potentially harmful effects of future aggregate extraction, fishing activity and interference from divers.

Consideration of the application of pro-active measures to stabilise the sediment regime on the site, if monitoring of the site indicates sediment loss, leading to a subsequent increase in the degradation of the site.

2. Site Recording System & Archive Summary

This section provides detail of the project methodology relating to on-site archaeological survey, artefact recovery, material sampling and historical research. Where work undertaken followed familiar maritime archaeological diving survey techniques a summary has been provided with reference to where further details can be found in available sources. If elements of work on the *Flower* site were very specific to the wreck or innovative in approach then further detail is provided. Methods relating to research and analysis are included within the relevant sections. At the end of each section a set of keywords is provided that relates to the type of archive material created by that activity.

The site code allocated was that of 'UNID', which originally stood for Unidentified Site, this allowed easy distinction from material from other sites under investigation by HWTMA. When labelling material that was specific to an individual season, the year was also included, eg. UNID-08 indicates the 2008 season of fieldwork on the site. Where additional, distinctive numbering sequences were also in use, as with artefacts or samples (below) then this could also be included, eg. UNID-2008-S012, referring to sample 12, recovered during the 2008 season.

2.1. Diving

All diving was undertaken using Self Contained Underwater Breathing Apparatus (SCUBA). The diving teams consisted of a core professional team working within the Health and Safety Executive (HSE) Scientific and Archaeological Approved Code of Practice. Operating alongside the HSE divers, but not forming part of the core team were volunteer divers.

Between 2004 and 2010, 220 hours of dive time were spent on site. Each of the diving seasons were based around a five day planned project, known as 'Eastern Solent Marine Archaeological Project' or SolMAP. The difference in time on site between each season often depended on the priorities for a particular SolMAP project and the weather encountered. 2004, 2008 and 2009 represented particularly intensive periods of work, with 2010 acting as a monitoring year as well as gathering additional data for research requirements. Archaeological survey took place across all three areas of the seabed remains of the *Flower of Ugie*. No excavation was undertaken during any of the seasons of fieldwork on the site. The related archive is therefore limited to archaeological record sheets and drawings of the survey process.

Diving activity on the site resulted in the production of two types of paper record. Firstly a summary of the diving activity for each day. Secondly a dive log that describes the archaeological activity that took place on each particular dive. Each dive log has an individual number within each season of work. Were applicable these numbers are cross-referenced to complimentary sheets such as artefact record sheets or timber sampling sheets. In many cases, dive log sheets contain survey sketches or measured survey drawings that were appended to the dive log, this survey material has been retained with the original dive log created at the time.
Archive Contribution: Paper dive records and logs, with associated survey records

2.2. Survey and Recording

The survey and recording of the site resulted in the production of a large number of permatrace drawing plans, accompanying their associated dive logs (above), digital photographs and photo logs and some video footage. All the plans were digitally scanned before being traced by hand using *CorelDRAW* in order to produce an overall site plan in a format that could be manipulated

for further analysis. The resulting *CorelDRAW* file contains all of the recorded information relating to timber structure and fastenings, in addition to a visual interpretation of the results of the dendrochronological analysis. These results are arranged in layers, similar to those encountered in programs such as *ArcGIS*, so that features of the site can be analysed and interpreted overall, or individually.

Archive Contribution: Paper records and logs, permatrace plans, digital plans (.cdr), digital photographs (.jpeg & .tiff), video (mini DV tape)

2.3. Material Sampling and artefact recovery

During the course of the project forty-one artefacts were raised from the site to aid identification and/or if they were loose and at imminent risk of loss. The position of artefacts was noted prior to recovery. Artefacts were predominantly copper and copper-alloy fixtures and fittings, with a number of other shipboard items and coal/coke/slag thought to be cargo. This latter material was discovered in both larger blocks (which were recovered as artefacts) and areas of smaller pieces (recovered as samples), much of which was lodged between timber elements of the vessel and had to be disturbed to enable timber sampling. An artefact record sheet has been completed for each artefact. Fifty-seven samples were recovered to aid in the characterisation and subsequent identification of the site, fifty-five of these were wooden remains and two were comprised of coal/coke/slag.

Each recovered artefact was recorded on an individually numbered Find Record Sheet. The numbers ran across all seasons and are prefixed with 'F' resulting in a series of individual numbers and associated record sheets, eg. F01, F02, F03... Similarly, all of the recovered samples were recorded on an individually numbered Sample Record Sheet. Numbers ran across all seasons and were prefixed with the letter 'S' resulting in a series of individual numbers and associated record sheets, eg. S01, S02, S03... All of the information recorded in the record sheets for all finds and samples was entered into an Excel Spreadsheet.

All of the recovered artefacts were declared to the Receiver of Wreck, in the absence of an owner being identified the artefacts were returned to the HWTMA. All artefacts were photographed and where applicable were illustrated to archaeological standard. The relatively small number of artefacts meant that each record photo was labelled with the number of the find, eg. A photo of F15 was labelled F15. Samples taken for metal analysis are retained by Peter Northover for the purposes of future research, the artefacts from which they originated have been returned to the HWTMA. All samples of wooden material have been retained by Nigel Nayling for the purposes of future research.

Specialist reports were produced on the basis of metal analysis, dendro-chronological analysis, ceramic artefacts and coke/slag remains. Paper copies of these reports form an important part of the archive.

Archive contribution: Find Record Sheets, Digital Photographs (.jpeg), Digital Illustrations (.jpeg), Digital Spreadsheet (.xls), Specialist Reports (paper).

2.4 Historical Research and Desk-based Assessment

A major element of the project was the historical research that resulted from the materials analysis of the vessel and the accompanying archaeological research. The primary objective of this work was to establish the identification of the vessel and then to reconstruct the vessel's biography. Identification of the remains was undertaken through comparison of the noted characteristics of the Mystery Wreck, when compared against vessel losses recorded in the

National Monuments Record (NMR) within a defined 10km radius study area around the wreck site.

Additionally, a large amount of work was conducted through existing material, primarily geophysical data and historical mapping, to assess the wider environmental context of the wreck site and its location on the Horse Tail sands. Both this work and the historical research were conducted via the application of ArcGIS, where all data relating to each aspect was stored.

Finally, some historical archive material relating to the biography of the vessel was consulted. This took the form of Lloyds Survey Registers, The Lloyds Register of Shipping, Local and National Newspaper reports and local archives in the north-east of England. All of this material remained *in-situ* in the archive were it was held, either physically or digitally, and so did not increase the project archive.

Archive Contribution: GIS Dataset

2.5 Statement on the completeness of the Records

Wherever possible the archive has been cross referenced. In the main archive the Dive logs have been cross referenced with the other records that relate to that day's activities. These records have also been cross referenced with the artefact record. With regards to the drawing record cross referencing has proved difficult, as the date referencing of the drawing are incomplete and inconsistent. Often a primary drawing is conducted underwater, and a reconstructed interpretive drawing is undertaken at a later date. Associated dates are the main method of reconstructing the archive, so where inconsistencies occur it is not possible to cross reference with any degree of accuracy. However, if a date is present it is possible to refer it to the main archive through the unique identity number, which is contains the date of the record.

3. Archive Audit

Summary of archive, by year.

2004 Site Archive (paper and drawn)		
Archive type	**Material**	**Number**
2004		
Daily Dive Activity Logs	Paper	8
Individual Dive Logs	Paper	30
Survey Plans & Sketches	Paper	33
Artefact lists & records	Paper	12
Artefact Drawings	Paper	0
Photographs	Digital	0
Video	Digital	1
Sample Record	Paper	0
2005		
Daily Dive Activity Logs	Paper	4
Individual Dive Logs	Paper	19
Survey Plans & Sketches	Paper	9
Artefact lists & records	Paper	6
Artefact Drawings	Paper	0
Photographs	Digital	202
Video	Digital	1
Sample Record	Paper	4
2006		
Daily Dive Activity Logs	Paper	6
Individual Dive Logs	Paper	21
Survey Plans & Sketches	Paper	14
Artefact lists & records	Paper	10
Artefact Drawings	Paper	0
Photographs	Digital	0
Sample Record	Paper	0
2008		
Daily Dive Activity Logs	Paper	6
Individual Dive Logs	Paper	23
Survey Plans & Sketches	Paper	15
Artefact lists & records	Paper	0
Artefact Drawings	Paper	0
Photographs	Digital	105
Sample Record	Paper	23
2009		
Daily Dive Activity Logs	Paper	0
Individual Dive Logs	Paper	37
Survey Plans & Sketches	Paper	23
Artefact lists & records	Paper	17
Artefact Drawings	Paper	1

Photographs	Digital	95
Video	Analogue	1
Sample Record	Paper	30
2010		
Daily Dive Activity Logs	Paper	0
Individual Dive Logs	Paper	11
Survey Plans & Sketches	Paper	7
Artefact lists & records	Paper	0
Artefact Drawings	Paper	0
Photographs	Digital	127
Sample Record	Paper	0
Post Excavation archive		
Finds photographs	Digital	39
Finds drawings	Digital	4
Artefact & Sample Spreadsheet	Digital	1
GIS Dataset	Digital	1
Site Plan Dataset	Digital	1
Specialist reports	Paper	4

4. References

HWTMA, 2011. *The Flower of Ugie: Site Management Report*. Report prepared on behalf of English Heritage by Hampshire and Wight Trust for Maritime Archaeology.
http://www.hwtma.org.uk/flowerreports