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Mr D Hopkins, Senior Archaeologist, Planning Department, Hampshire County Council

(from April 1996)

Dr K Brown, Director of Cultural and Leisure Services, Isle of Wight Council
Dr DJ Tomalin, County Archaeologist, Isle of Wight Council

\* Denotes full time staff

#### **FOREWORD**

As it enters its sixth year, I am pleased to report that the Trust has made good progress during the last twelve months.

The Trust has co-ordinated and participated in research projects ranging from the Mixon Rocks in the east to the Needles Protected Wreck site in the west. This year, in particular, has seen the start of a comprehensive area survey of the Solent. Working both with the University of Southampton and volunteer divers trained by the Nautical Archaeology Society, this is a major undertaking which should help validate current Maritime Sites records and add to our knowledge of the history and development of the Solent.

A key objective of the Trust is to promote greater awareness of the maritime archaeological heritage of the Solent and Wight areas and it is pleasing to note that the Trust has not only received both national and local media coverage but its programme of lectures, talks and conferences has been well supported.

In March 1996 a comprehensive report on 'Marine Archaeology and Geophysical Survey' was published. Researched and written by our Field Officer, Sarah Draper-Ali, this is the first major publication by the Trust. Following the launch of the Joint Nautical Archaeology Policy Committee's 'Code of Practice for Seabed Developers' last year, it is hoped that this publication will be of use to both amateur and professional archaeologists.

Little could be achieved by the Trust without assistance from both the public and private sectors. We thank Hampshire County Council, the Isle of Wight Council and the Department of National Heritage for continuing support. We are also grateful for the support this year for specific projects from West Sussex County Council and the New Forest District Council, along with the much appreciated sponsorship or assistance in kind of those organisations, companies, grant making Trusts and individuals listed in this report.

Whilst continuing our links with Hampshire County Council and the Isle of Wight Council, we look forward next year to working with the new Unitary Authorities of Portsmouth and Southampton.

In January 1996 we welcomed Mr Christopher Bland, Lord Lieutenant of the Isle of Wight, as a Vice-President of the Trust. Mr Bland has been a strong supporter of the Trust for a number of years.

ERIC HIBBERD, MBE

CHAIRMAN

September 1996

#### THE TRUST'S POLICY STATEMENT

The Hampshire and Wight Trust for Maritime Archaeology will:

- Promote maritime archaeological study of the sea areas Solent and Wight and immediate hinterlands in accordance with professional archaeological and museum codes of conduct and practice.
- Seek the protection of important underwater archaeological sites. Support national initiatives for improvements to the legislation regarding the preservation and management of the maritime archaeological heritage.
- Promote a greater public awareness of the maritime archaeological heritage of the Solent and Wight areas.
- ♦ Ensure that maritime archaeology plays an important role in the integration of coastal planning, management and policies in the Solent and Wight areas.
- Provide for on-shore and underwater training facilities in order to promote archaeological awareness and competence amongst divers.
- ♦ Support and, where possible, assist in the publication of the results of maritime archaeological investigations, surveys and research undertaken in the Solent and Wight areas, in accordance with the principles of publication as laid down in Management of Archaeological Projects (English Heritage 1991).
- Liaise with other local, regional and national organisations involved in maritime archaeology and related disciplines.

# THE LANGSTONE HARBOUR ARCHAEOLOGICAL PROJECT

The Project is a multi-disciplinary, collaborative enterprise. It involves the Trust, the Geography Department, Portsmouth University and Wessex Archaeology. The Project Leader is Michael Hughes. Major supporters of the project are Hampshire County Council and the Department of National Heritage.

lies between Harbour Langstone Portsmouth and Hayling Island on the South Coast of Hampshire. It contains four islands and large expanses of mud flats, shingles banks and sand banks which are exposed at low water. It is an area of great archaeological interest. Artefacts of all periods have been found in the intertidal zones around the north of the harbour where the shores and islands have long been recognised for their archaeological content. Some of these items date back at least 7,000 years to the late Mesolithic period.

The project aims to assess the extent of the archaeological resource by providing a database of known archaeological sites within the harbour. The work carried out in 1994 and 1995 represented the second and third seasons of fieldwork. The land work has included rapid walk over surveys, with limited artefact collection, and auger surveys. The visual surveys were extended into the marine zone as part of a unique seamless approach. The Trust has concentrated its activities on the submarine aspects of the project. Work has included swimover searches and circular searches in selected areas. The wooden structure in Sinah Lake has been surveyed and photographed in great detail.

# 1996 FIELDWORK

During 1996 fieldwork has focused on a number of different locations within the harbour. Archaeological work on the Sinah Lake structure has been completed after an intense four day session. During this time one wooden stake was carefully excavated and removed for radiocarbon dating. The site was also photographed. A number of underwater surveys were conducted to make a rapid assessment of other known wrecks in the harbour. The wreck sites were located using A. Mack's detailed local knowledge. The surveys proved very successful and at least four other shipwrecks were identified and surveyed. Department, The Oceanography Southampton University, spent two days deploying the shallow seismic CHIRP system in the harbour with very exciting results. A very large, wreck shaped, feature was identified in the north of the harbour. In order to obtain more information about this site a team of divers undertook a core and probe survey to delineate the feature. The feature lies beneath approximately 1.5m of fine mud and the core survey has proved that the feature is made of wood. At present the core is being modified so that a wood sample can be retrieved for dating. It is anticipated that work will continue on the site as soon as the appropriate equipment becomes available.

Most of the fieldwork has been conducted with assistance from the Masters Programme students from Southampton University, Archaeology Department. This has proved a very fruitful arrangement: the students gain valuable work experience and the Trust has a team of high calibre divers.

### LANGSTONE HARBOUR ARCHAEOLOGICAL PROJECT 1995 CONFERENCE

Following the success of the Conference 'The Solent: Archaeology, Environment and Change', held in 1993, a conference entitled 'New Approaches to Intertidal Archaeology - The Langstone Harbour Project' was held in September 1995. The Conference was organised and co-sponsored by Hampshire County Council, the University of Portsmouth and the Trust, in association with Wessex Archaeology.

The Conference opened with an outline by Jonathan Adams of the underwater work carried out at Langstone. This work, coordinated by the Trust, aimed to project the use of land techniques into the sub-littoral This could be described as a zone. seamless approach to archaeology where walkover surveys became swimover conducted surveys, auguring was underwater as on land and comparable sampling techniques were used to quantify the archaeological resource.

Mike Allen and Julie Gardiner of Wessex Archaeology described the occupation of Langstone Harbour from 9000BC to AD400. The collaboration between all parties that had made the project possible was emphasised, as was the need to integrate the many facets of the Project. They explained how the environmental work would increase understanding of the landscape which, in turn, would aid the creation of predictive models to identify archaeological potential. The development of a Geographical Information System is central to this plan.

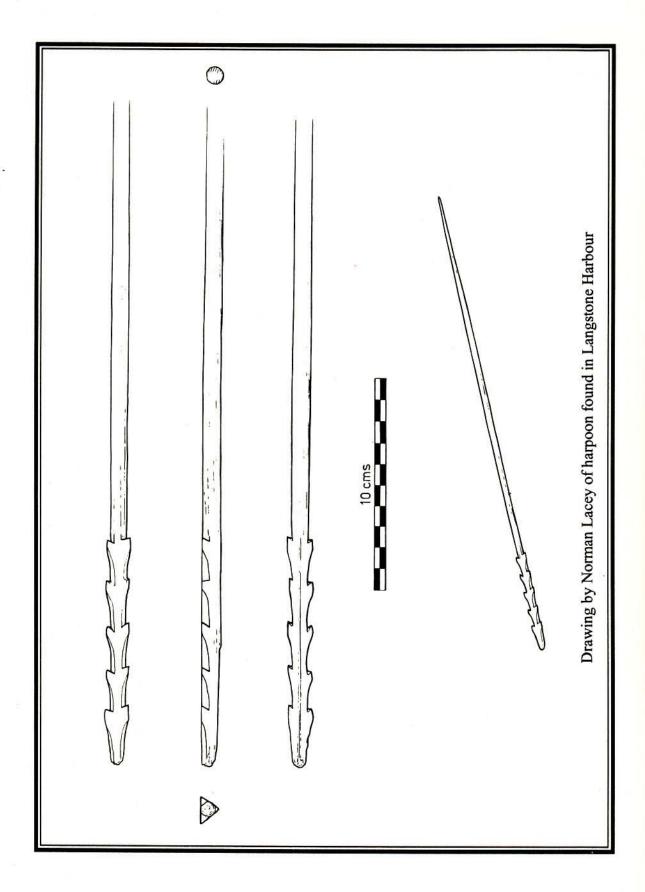
Based on interpretation of the information analysed to date, Mike Allen put forward the hypothesis that the landscape in the harbour had been defined by erosion rather than inundation. There was a need to know how and when the area became a harbour; had it become a riverine marsh which eroded or through a process of sea ingress flooding pre-established channels?

Val Fontana added a historical perspective to the Conference, describing how influences on the harbour had included fishing, milling, transport, the military, housing for convicts, smuggling and other, unfeasible, projects. Land reclamation had taken place, mainly on the Portsmouth side. Salt had been extracted from pre-historic times and overfishing had led to oyster farming in the Nineteenth Century.

David Tomalin spoke of relevant work being carried out on the Isle of Wight, particularly the Wootton/Quarr Coastal Archaeology Project. He emphasised that waterlogged sites are important as key chronological points in the study of the nature, scale and pace of sea level change.

Dominic Fontana explained how the GIS was the perfect system to bring information together for an integrated ecological and archaeological study of Langstone Harbour. Using a whole series of positional data from old maps to modern photographs, a large amount of information had become accessible. The base map of Langstone Harbour has been created using 1:15,000 aerial photographs.

In discussion, David Tomalin agreed with Mike Allen that the geomorphology of Langstone Harbour was unlike the sunken river valleys along the north shore of the Isle of Wight. Arthur Mack was thanked for giving so much of his time and information to the Project Team.



#### BEAULIEU RIVER PROJECT

The Beaulieu River Project entered its fourth year of fieldwork in June 1996. The Project was based at Bucklers Hard on the Beaulieu Estate and incorporated additional work at Baileys Hard and Lower Exbury. Each season has lasted for three weeks, and the work of the previous year is developed and expanded. The Project was co-ordinated by the Department of Archaeology, University of Southampton, in conjunction with the Beaulieu Estate and the Hampshire and Wight Trust for Maritime Archaeology.

Bucklers Hard was an active ship building centre from the middle of the eighteenth century. It produced over fifty ships for the Royal Navy and a comparable number of merchant vessels before its demise at the beginning of the nineteenth century. The vessels constructed included the 64 gun Agamemnon, said to be a favourite of Lord Nelson's, and a number of 74 gun ships-ofthe-line, including the *Illustrious*. The last vessel built at Bucklers Hard was the Repulse in 1822. Following this spell of productivity it remained relatively quiet until the Second World War, when it was developed extensively as a base for naval patrol vessels.

Today, testimony to the full extent of human activity has largely been covered by the ingress of soil and silt. One of the main aims of the field school was to identify developed areas and employ the most appropriate methods to aid interpretation.

The fieldwork during 1993 and 1994 seasons focused on survey, research and public relations with limited excavation. By 1995, the resistivity, magnetometry and topographic surveys had been completed in all the accessible sections.

The survey data led to a greater understanding of the site above and below the ground enabling attention to be focused on the areas with the greatest archaeological potential. At this stage more ambitious excavation was undertaken. In the 1995 season, excavation centred on the most westerly jetty (jetty 1) and adjacent slipway (slipway 1). Large sections of the jetty structure were exposed in addition to a number of very large oak timbers in the slipway.

In 1996 work continued in the same sector. A large trench was excavated across slipway 1 to reveal very large timbers lying in perpendicular layers up to 6 deep. The timbers would have acted as supports upon which the ship could have rested, and as foundations for the shores and standards used in the construction process. When the tide was out, conventional land archaeological excavation were used while underwater excavation techniques were employed at high tide. Underwater work was centred around the seaward end of the jetty where an air dredge was used to remove silt once it was shifted with a trowel. Any artefacts collected were recorded following the dive. 31 dives were achieved during the field school over six diving days. 12 different divers took part in the work whose combined time underwater totalled 25 hours and 52 minutes in low visibility ranging from zero to one metre.

The results of the excavation revealed a large amount of timber, ceramics and glass. Much of the material dates back to the shipbuilding era although World War II and modern debris was also found. The artefacts are currently being collated and studied by experts at Southampton University.

Survey work at other sites within the Beaulieu River Basin continued as part of the Project. A topographical survey was conducted at Baileys Hard where it is believed the earliest shipbuilding activity on the Beaulieu River was carried out. It is probably the place where the *Salisbury* was built by the Herring Brothers in the 1690's. The vessel was a 48 gun warship weighing 632 tons and launched in 1698.

At Lower Exbury, resistivity and magnetometry surveys were continued at a suspected Iron Age Promontory Fort. Lower Exbury was the site of a settlement until the early 19th century when the whole village moved to its current position by Exbury House, 1km to the north. Large undulations in the fields around the site are suggestive of past habitation with one single curved feature being indicative of an Iron Age fortification.

Thirty four students participated in total, nine of whom were post graduates studying Marine Archaeology. The students were gaining experience in all aspects of archaeology while participating in the project. The Project was directed by Jonathan Adams, lecturer in Marine Archaeology the University at Southampton and assisted by Garry Momber on behalf of the Hampshire and Wight Trust for Maritime Archaeology. The work force consisted of students from the University of Southampton with staff, Tim Sly, Kate Clark and Kathryn Knowles acting as instructors, supervisors and consultants. The help of Tony Hanks and Jan Coles is acknowledged for their supervising roles over the last four years.

# BEAULIEU RIVER PROJECT LECTURE 1996

Jonathan Adams, Archaeological Director of the Hampshire and Isle of Wight Trust for Maritime and Lecturer in Maritime Archaeology at the University of Southampton, gave the second lecture in March 1996 on the work carried out on the Beaulieu River Project in 1995. The lecture was held at the National Motor Museum in Beaulieu.

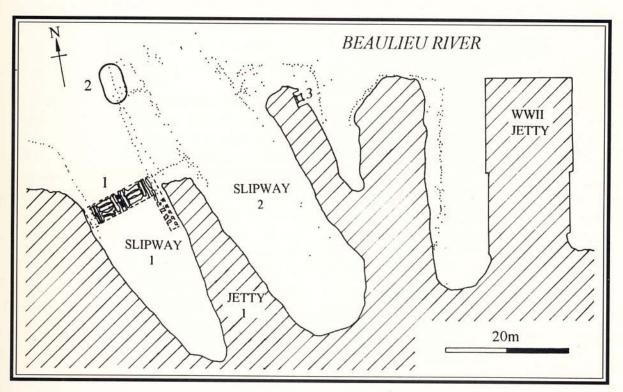
During this lecture, he outlined the aims of this collaborative project and the progress made during the third season of fieldwork. The lecture was illustrated with both slides and a computer aided 'birds eye view' of what the shipyard would have looked like. The computer simulation gave a particularly vivid impression of the area during the 18th century.

Jon Adams emphasised the importance of this first comprehensive archaeological study of Bucklers Hard and the surrounding areas such as Baileys Hard and Lower Exbury. It is pleasing to note that this project is able to combine research aims with the training of undergraduate students in both land and underwater archaeological techniques.

Thanks were given to Lord Montagu, Graham Carter, Eric Walters, staff of the University, the Trust, in particular Garry Momber, and the Nautical Archaeology Society.



Photograph showing the excavated timbers from Slipway 1, exposed during 1996 fieldwork.



Plan of the foreshore at Bucklers Hard. The dots represent vertical timber posts and the numbered areas represent the locations where excavation was concentrated during 1996.

- 1. Large timbers excavated in a pit in Slipway 1.
- 2. Area where underwater excavation with a water dredge was concentrated.
- 3. Section excavated into edge of Slipway 3 revealing a square wooden structure.

#### EAST SOLENT SURVEY

The first stage of an archaeological seismic reflection survey of the East Solent was carried out by the High Resolution Marine Seismology Group from Southampton University in April. The survey was an adjunct to the Ryde Middle Bank survey carried out last year and hopefully the precursor to an ongoing archaeological seismic reflection survey of the whole Solent.

Whereas the Ryde Middle Bank survey concentrated on an assessment of the effectiveness of side scan seismic reflection in archaeological evaluation, this survey also involved the assessment of sub-bottom profiling using a digital Chirp system. The combination of side scan and sub bottom profiling should provide a more capable means of detecting sites of archaeological interest which lie on and below the seabed.

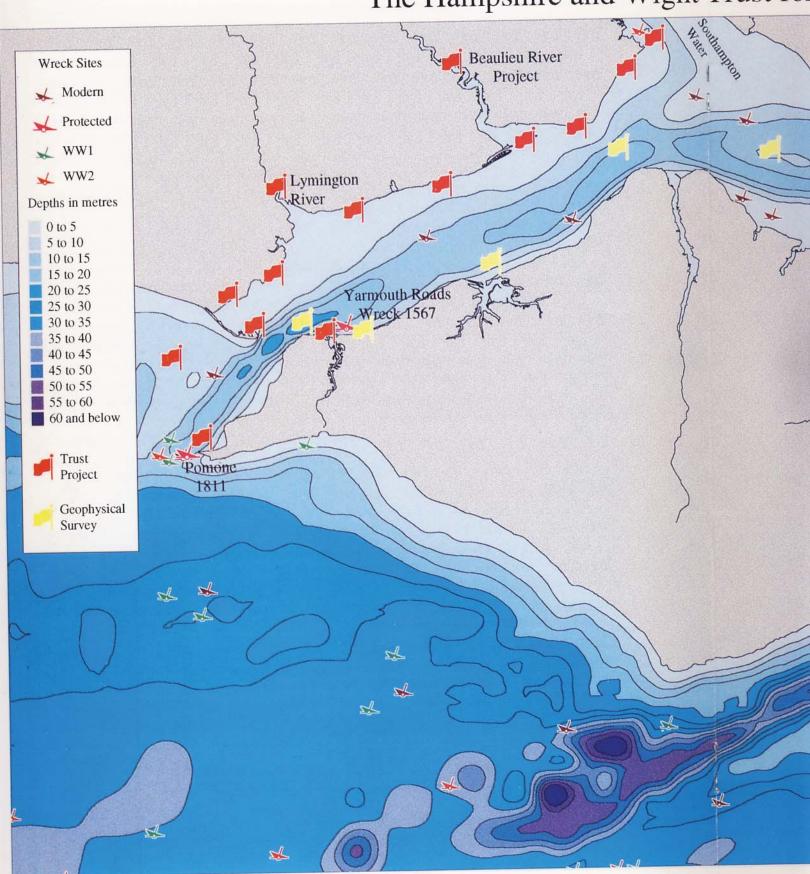
The area surveyed was a 1 kilometre wide swathe across the East Solent from the entrance of Wootton Creek to Browndown, passing close to the eastern end of the Ryde Middle Bank. This area was chosen for a number of reasons; it covered the western edge of the area frequently used today as an anchorage for large ships and which would probably have been similarly used in historic times; it included part of the area covered by last years controlled trawl; it included five known wreck sites which could be used as controls in the assessment; it continued the offshore aspect of the English Heritage funded Quarr/Wootton Project; it provided a continuum to the area covered by the Ryde Middle Bank Survey; and forms a vanguard to a future survey of Spithead.

During the survey it was found that the side scan and Chirp equipment could not be operated together due to mutual interference. Therefore, for logistical reasons, although the full sub-bottom survey was completed, only about half the survey area was covered by side scan.

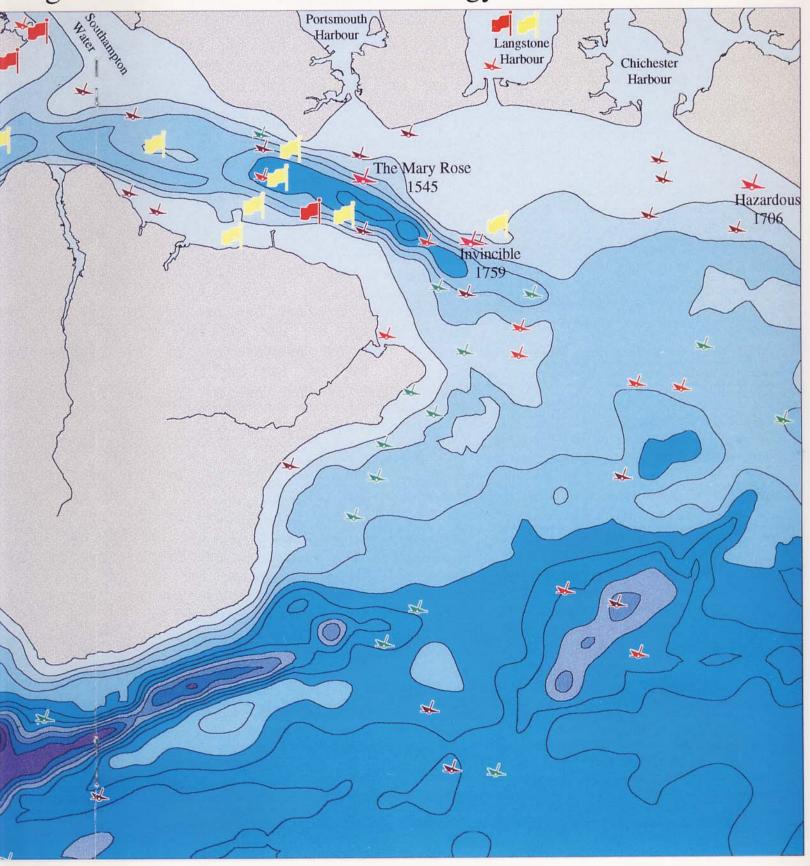
The results of the survey have yet to be fully analysed, but to date twelve features of possible archaeological interest have been identified. Eleven from the side scan trace, predominantly in Stokes Bay and one from the sub-bottom profiling on the Mother Bank. Of the known wrecks within the survey area, those of RTC 9 and Tank Landing Craft 1068 near the Browndown and Stokes Bay wreck were clearly identified. The sub-bottom profile results also provided clear images of the palaeo-landscape of the survey area, with the channels of the ancient Solent River clearly defined.

These interim results, together with those of the Ryde Middle Bank survey, show that seismic reflection survey provides a fast and effective method of locating features of potential archaeological interest and also the means for the more efficient use of divers by enabling them to be directed exactly to the points of interest and eliminating the requirement for long and slow swim searches. It is planned the Poole Bay Archaeological Research group divers will inspect the located features and hopefully repeat their success of positive identification on the Ryde Middle Bank.

# Chart of The Solent Wreck Sites and The Hampshire and Wight Trust for



# reck Sites and Trust Fieldwork Locations. Wight Trust for Maritime Archaeology



# THE NEEDLES PROTECTED WRECK SITE

In 1811 HMS *Pomone* was returning from the Mediterranean when she struck Goose Rock, north of the Needles stacks on the Isle of Wight. There was no loss of life but the ship was abandoned once salvage became too dangerous. The wreck was discovered in 1969 by a local diver. Today, some cannon, musket shot, copper nails and other items remain scattered in gullies on the seabed.

The remains of the *Pomone* lie on a shallow wave cut platform, exposed to the prevailing winds and swell. The tidal regime allows only a 45 minute diving window on Spring tides, with up to 90 minutes on neap tides. Before and after these times a current of several knots runs through the site. These conditions make it environmental challenging dive site but also an ideal location in which to study artefact distribution in an exposed location. Present work on the site aims to study artefact distribution in relation to seabed topography. The production of a detailed topographical survey will provide a model within which the environmental mechanisms and their interaction with the wreck can be analysed. A great deal is already known about the site and interpretation of the wreck site dynamics will facilitate interpretation of wrecks where less data is available. Earlier work on the wreck site some years ago included a survey and recovery of about 3,000 artefacts.

The Trust has been working with the archaeological directors, Dr David Tomalin and Mr Jon Adams to complete the topographical survey. This is the final task to be finished before a full publication can be prepared.

Since 1992 the Trust has organised diving teams to survey the site. A team of the Nautical Archaeology Society's (NAS) trained volunteers from the Isle of Wight form the core of the diving team. The majority of the divers have completed at least Part 1 of the NAS training courses, and while participating in the project have extended their training in maritime archaeology. The particularly good weather conditions in 1995 enabled rapid progress with the data collection: a total of 34 divers spent 83 working hours underwater. All the data collected has been analysed using Nick Rule's Word for Windows' software. The good weather conditions have also enabled video footage and photographs to be taken. The results have been very rewarding and it is hoped that the survey will be completed by the end of 1996.

#### SCHOFIELD'S QUEST

The Trust was given national television coverage last autumn when 'Schofield's Quest' featured the story of the *Pomone*. Coverage included some underwater shots and Field Officer Sarah Draper-Ali being interviewed by Philip Schofield.

The 'quest' was to try and discover descendants of the survivors of this dramatic shipwreck. This was quite successful and the Trust subsequently received phone calls from various descendants of those onboard at the time, which has added a further dimension to the story of the *Pomone*. More generally, opportunity was taken to publicise the work of the Trust and the importance of archaeology in the context of the country's maritime heritage. Michael Hurll Television made a generous donation to the Trust for the help given during the making of the programme.

# 'MARINE ARCHAEOLOGY AND GEOPHYSICAL SURVEY'

Published in March 1996 and written by Sarah Draper-Ali, this Trust publication reviews commercial survey practice and its contribution to archaeological prospection.

Examining the feasibility of locating, identifying and evaluating archaeological sites from offshore commercial data, the report includes a review of current geophysical survey equipment and techniques, a review of commercial survey practice and a discussion of the application of geophysical survey techniques for dedicated archaeological prospection. Relevant research projects and examples of successful deployment for archaeological prospection were also reviewed.

The report concluded that developers required varying levels of information about the seabed and, although it was possible to retrieve archaeological information from commercial survey data, opportunities would vary considerably according to the specific aims of each commercial survey exercise. Further research was needed to develop archaeological application of geophysical techniques and, with the very rapid progress in technology and survey equipment, archaeologists should make every effort to keep abreast of all advancements and to assess their archaeological application. The Nautical Archaeology Joint Policy Committee's Code of Practice for Seabed Developers should facilitate discussion between archaeologists and surveyors with regard to retrieval of archaeological data during commercial survey.

### THE MIXON HOLE

The Mixon Hole is an unusual seabed feature situated off the Sussex coast, near Selsey Bill. The area has been the subject of much archaeological speculation. It has been suggested as the location for a Roman quarry and also the site of Roman catapult or *ballista* balls. Much of this work has been conducted by Trust Member, Mr Hume Wallace, who has unrivalled local knowledge built up through many years detailed study of the Solent area.

In spring of 1996, the Trust was contacted by an archaeology undergraduate, L. Storey, requesting advice and financial support for a project focusing on the area. The Trust agreed to offer assistance towards boat costs and loan of survey equipment. A highly motivated team, under the direction of L. Storey, have already completed a preliminary archaeological survey of the area. A number of area searches have been conducted. The team have established that the Mixon Hole is in the region of 1000m long and 300m wide. A concentration of round stone balls has also been identified.

The team are planning to continue this work and the Trust will remain closely involved with the project.

A recent grant from West Sussex County Council will enable a more extensive project to be established at this important location. The Trust is very pleased that Mark Taylor, the County Archaeologist for West Sussex, has shown his support for this project.

#### RIVER ITCHEN PROJECT

B. Sparks and S. Draper-Ali attended a preliminary meeting with Southampton City Council to discuss the possibility of running a survey project on the River Itchen. This was followed by a field visit accompanied by A. Russell, D. Fontana and G. Milne. A. Russell presented the wide range of potential areas for study. In particular, the Roman remains near Bitterne Manor and the great number of abandoned hulks around Northam Bridge could provide good locations for further work. It was proposed that a community based project should be organised to look at the foreshore sites with a separate hulk recording project for Institute of Archaeology students. It was agreed that this year's work would consist of preliminary survey with a more extensive project put in place for following years.

# INVESTIGATION OF GEOPHYSICAL SURVEY CONTACTS

During the past few seasons of fieldwork a great deal of geophysical survey data has been collected. This has produced evidence for several new archaeological sites. However, exact interpretation is only possible once divers have investigated the anomalies appearing in the records. This work is part of the Trust's strategic survey of the Solent. It also serves to validate the Royal Commission on the Historical Monument's of England's National Archaeological Record. During 1996 the Poole Bay Archaeological Research Group have assisted with this work. The Trust is indebted to M. Markey and his team for their valuable contribution to this important project.

SUMMARY OF FIELDWORK SEPTEMBER 1995 - AUGUST 1996	
TOTAL NUMBER OF FIELDWORK DAYS COMPLETED	40
NON-DIVING FIELDWORK	17
DIVING FIELDWORK	23
NUMBER OF DIVES	276
NUMBER OF PEOPLE INVOLVED WITH FIELDWORK	46
TOTAL MINUTES UNDERWATER	8519
TOTAL NUMBER OF MAN DAYS	214