

ost areas of maritime museum practice, such as documentation, conservation, interpretation and display, are covered by the general principles of curatorship, but there are some special issues which these articles attempt to deal with.

Underwater archaeology is a very special case as it usually involves a great deal of diving skill, patience, and a large amount of money if substantial items are to be recovered. On a smaller scale objects recovered from the sea, of any size, pose special problems in conservation. The law of the sea imposes certain condition on finds. However not all maritime archaeology involves underwater work. Ships' timbers can sometimes be found in buildings. Ancient vessels have been found buried in land sites, most recently at Dover and Newport, and smaller maritime items are often brought into museums.

The other article in this section looks at maritime collections from two different angles. Many regional and local museums have substantial maritime collections and fewer and fewer of them have specialist curators to deal with them. On the other hand, a coastal county might well have maritime items of many different kinds spread across various collections and it is often valuable to find links between them.

Through all this, it is worth remembering that it is interaction with the sea that has shaped the history and culture of every port or maritime county, perhaps more than any other factor. That is easy to forget in an age of 'sea-blindness', when few work in the docks and even fewer in shipbuilding, when people travel short journeys by car and long ones by air, merchant ships have largely third-world crews and the Royal Navy is much reduced from the force it once was. But the sea is as important as ever for goods transport and for leisure. Even more important for the curator, its role in forming a community should never be neglected.

# MARITIME ARCHAEOLOGY AND FINDS FROM THE SEA

## BY MATTHEW TANNER, CHIEF EXECUTIVE AND FORMER CURATOR, SS GREAT BRITAIN TRUST

'Amateur diving groups and professional salvage organisations are often surprised and disappointed when museums they have not previously consulted refuse to acquire the objects they have recovered' (John Buglass)

Maritime archaeology is the systematic study of human activity in the marine environment in the past. The marine zone extends from the high water mark out to at least the 12 nautical mile boundary of territorial waters, while the maritime zone can be extended to include all structures and buildings on land that directly relate to maritime activity, such as harbours, docks, and slipways. In many ports and sea-edge villages much of the local architecture and infrastructure may be deliberately maritime. For example, in many fishing villages the houses are built with features such as net lofts, or undercrofts and forestairs specifically designed to contribute to their owners' maritime pursuits.

A general change of emphasis in archaeology has moved activity away from excavation towards the surveying, recording, and monitoring of sites. The fruits of which are usually deposited at the National Monuments Record run by English Heritage at Swindon, or in regional Sites and Monuments Records. However, the majority of wreck material is accidentally 'stumbled upon' by sport divers, or net finds by fishermen, and flotsam found by beachcombers. These finds cause great problems for museums. There are legal, conservation, and practical issues surrounding their curation that cannot be avoided.

#### **LEGAL ISSUES**

There are two acts of Parliament that relate to wreck material. The 1894 Merchant Shipping Act, and the 1973 Protection of Wrecks Act. The 1894 act specifically protects the owner of property lost at sea, and gives certain rights to the salvor too. There are four types of material for which the Receiver is responsible:

- **Derelict** property, whether vessel, wreck, or cargo which has been abandoned and deserted at sea by those in charge of it without hope of recovery;
- Flotsam goods lost from a ship that has sunk which are recoverable because they have remained afloat:
- Jetsam goods cast overboard in order to lighten a vessel which is in danger of being sunk, not withstanding whether the vessel perishes or not;
- Lagan goods cast overboard from a ship which afterwards perishes, buoyed so as to render them recoverable.

There is no such thing as 'finders keepers', and it is mandatory that all wreck material of any kind must be declared to the Receiver of Wreck (part of the Maritime and Coastguard Agency at Southampton, SO15 1EG). The material is then stored for a year while attempts to trace the owner are made. If the

owner cannot be found, it becomes the property of the Crown, and the Receiver may be required to sell the item in order to recover costs, and pay any salvage award to the finder. It is the policy of the Receiver to offer any items of historical interest to museums for purchase. It is important that the finder is made aware of their obligations under the act to declare absolutely everything to the Receiver. Otherwise the material may be seized, and the finder arrested. The term 'salvor in possession' is not created by the Act, and is derived from case law by the courts only.

The Protection of Wrecks Act 1973 only applies to historic wrecks that have been discovered and designated as such. The act serves to prevent all diving upon the sites, except under licence. The Archaeological Diving Unit designates and monitors these sites on behalf of the Advisory Committee on Historic Wrecks Sites at the Department of Culture, Media and Sport (London SW1Y 5DH or the Unit at the University of St. Andrews). The Unit is always happy to help and advise on any issues concerning wreck sites and wreck material.

Coastal and inter-tidal sites are covered by the Ancient Monuments and Archaeological Areas Act 1984, and the law of Treasure Trove. There are also planning guidelines PPG16 (Archaeology) and PPG20 (Coastal Planning).

#### COLLECTING POLICY

A museum Collecting Policy is a useful guide to framing the future shape and emphasis of a collection, but can rarely anticipate what may come out of the sea. It is usually a good idea to refer maritime objects to a specialist who can help with identification and assessment of significance. A broad rule of thumb is likely to be that any material that dates from before 1850 is potentially of real importance. Displaying and collecting material that has been recovered by salvors unscientifically and purely for financial gain should be avoided. It only encourages further depredation of archaeological sites, and puts the objects recovered at far greater risk than if they were left on the seabed. The International Congress of Maritime Museums has established a clear policy that applies to all its members whereby no material unscientifically recovered from the seabed since 1990 can be accepted into a museum collection. This stipulation is written into many maritime museum Collecting Policies.

#### **CONSERVATION**

Conservation of material that has lain in the marine environment for a long period can be very difficult, time-consuming and expensive, and should not be entered upon lightly. High salt concentrations, particularly in wrought iron, are virtually impossible to remove entirely, and salts can drive a pernicious continuing corrosion process at any level of Relative Humidity down to about 20% RH. Effectively, items that have been conserved will always require tightly controlled environments for their storage and display.

First aid for finds from underwater is essential.

- Organic materials must be stored in the conditions they were found. If they are allowed to dry out they can suffer irreversible shrinkage, warping and cracking.
- Iron is a particular problem, and the corrosion products on its surface should never be mechanically removed without professional advice. Cast iron objects such as cannonballs and some anchors will disintegrate rapidly if they are not kept wet or stored in a stable environment. Rapid corrosion in air can occur forcing off the outer layers, and even leading to a cannonball 'exploding' through the energy of the reaction. Wrought iron can be very soft, and should be

handled with delicacy. Storage of chloride-infested wrought iron must eventually be at 20% RH or lower.

- Copper or bronze can also be badly affected by chlorides leading to bronze disease. Specialist advice should be sought to deal with the green mould-like efflorescence.
- · Lead and tin are susceptible to attack from organic acids emitted by wood and paint, plastics and cardboard.
- Glazed ceramics can be badly damaged by concentrations of salts under the surface of the glaze. Rapid drying will lead to crystallisation and the lifting of the glaze.
- · Glass can also be penetrated by water and salts, and can break down into thin layers. In air it reacts with carbon dioxide and starts to 'sweat' and 'weep'. Glass should not be allowed to dry out.
- · Stone can also suffer from penetration by salt, and should be kept wet until desalination can be arranged.

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## BRINGING MARITIME COLLECTIONS TOGETHER, A CASE STUDY IN HAMPSHIRE AND THE ISLE OF WIGHT

### BY BRIAN LAVERY, CURATOR EMERITUS, NATIONAL MARITIME MUSEUM, GREENWICH

In the summer and autumn of 2011 the author was commissioned to examine the maritime collections in various museums in Hampshire, to find links and synergies in different subject areas. The objectives were:

- · to view the 'Alliance collections' holistically and understand how by being viewed together they can tell a more comprehensive and compelling narrative of Hampshire and the Solent's connection with the sea;
- to develop an understanding of the significance of this narrative within a regional, national and international context.

It is important to see the area in context, and there is no doubt that the Hampshire and Isle of Wight area is one of the most important in maritime history and activity. To quote from the report,

"The Portsmouth area (including harbour towns such as Gosport and Fareham) has been the leading naval port for several centuries and today it has the finest collection of historic ships in the world including the Mary Rose, Nelson's Victory and Warrior. Southampton was a major port in medieval times and revived late in the 19th century as the main transatlantic passenger port. Today it is used by ferries, cruise ships, container ships and oil tankers, a wider range than any other port in the country. The Solent is the finest yachting area in the country, perhaps the world. Shipbuilding was once strong in the area, and has recently revived in Portsmouth Dockyard. It has seaside resorts at Southsea and Isle of Wight. More than anywhere else in the United Kingdom, a visitor to Hampshire has an impression of almost every kind of maritime activity, both past and present."



© National Maritime Museum, Greenwich

As in many other areas, the sea has a profound effect on large numbers of people.

Maritime affairs touch people's lives in many different ways, not just seafarers, passengers or shipbuilders. The economies of Portsmouth and Southampton, as well as smaller ports such as Cowes, Lymington, Beaulieu and Gosport, have been shaped by the need to entertain sailors and service their families. The area has strong maritime literary connections. Jane Austen had two brothers in the Royal Navy and wrote about Portsmouth in Mansfield Park. Charles Dickens's father was a clerk in the dockyard.

The survey did not include the maritime giants of HMS Warrior, HMS Victory, the Submarine Museum at Gosport, the Royal Marines Museum and the Royal Naval Museum (all of which except Warrior are now incorporated into the National Museum of the Royal Navy) but it was impossible to ignore their presence in the area, and their effect on the other museums.

#### **METHODS**

#### The main tasks were:

To set the exact terms of the enquiry, including the boundaries of the term 'maritime', the subject fields to be covered and the level of detail; to identify the museums and archives which were likely to have maritime collections; to study the relevant collections using electronic sources such as websites and catalogues, and printed sources as published or supplied by the relevant curators; to visit all museums and archives with significant maritime collections, discussing with curators and looking at some of the objects and documents; and finally to produce an interim and then a final document.



Southampton Maritime Museum Service Both images © Brian Lavery



The store of the Isle of Wight Museum

Synergies were identified in the following nine areas:

### 1. SHIPBUILDING AND REPAIR

There are medieval ship engravings in the Westgate, Winchester. The oldest major shipbuilding relic is the hull of Henry V's Grace Dieu built in Southampton in 1418, the remains of which can still be seen at very low tide in the River Hamble; a few of her timbers are also preserved in Winchester. The Mary Rose, built at Portsmouth in 1510 and sunk in the Solent in 1545, was much closer to the mainstream of shipbuilding technique and an early example of carvel construction. Ship repair is the main function of Portsmouth Dockyard. The most famous preserved ship, the Victory, was not built in the area but

gives a good example of the techniques used. Captain Durrant painted several pictures of ships in and around the dockyard around 1813, plus the 64-gun Vindictive ready for launch, and a view of the anchor shop in the yard.

The site at Bucklers Hard is preserved as the only remaining small private shipyard of that period in the country. It was famous for building Nelson's Agamemnon and the frigate Euryalus, both of which were present at Trafalgar. It has a collection of models which illustrate the shipbuilding practices of the time, including a high-quality model of the site. It has the figurehead of the 44-gun Gladiator of 1844 and plans showing the decorations of some of the ships built there, as well as shipbuilders' tools. The site shows something of the life of a master builder, a shipwright and a labourer of the period. The site itself provides the best surviving example of a rural shipbuilding site, a dramatic contrast to Portsmouth Dockyard.

J S White moved to Cowes in 1802 and eventually built over 2000 vessels, including destroyers, yachts and cargo vessels. There are 10,000 plans of the company's ships, and models include the paddle steamer Ryde, the passenger ship Caesarea, the cargo ship Kadoura and the sternwheel steamer Valiant built for the government of Nigeria in 1960. There are contracts for Polish destroyers in the 1930s. There are two models of the yard in the Isle of Wight Collection. The main Southampton shipbuilder for most of the 19th century was Day, Summers. Some of its ships' plans are in Southampton Maritime and Local Collection. The introduction of iron and steam is also reflected by the yard at Woolston near Southampton, set up in 1876 to build large iron sailing ships. The firm of Thornycroft transferred to Woolston in the 1900s and became the leading builder of destroyers for the Royal and foreign navies, and also built many yachts, small vessels and cargo ships. Southampton has many plans from Thornycroft, while others are held by the National Maritime Museum. According to the then curator, "The Thornycroft Collection is undoubtedly the most complex of the shipbuilders' plans collections held at Greenwich [now at the Woolwich Arsenal museum store]..." Thornycroft merged with the Portchester firm of Vosper in 1966 and still operates as Vosper Thornycroft or VT, part of BAE Systems.

Most of the museums in the area have some artefacts from local craft and dinghies, and often have sets of shipwrights' tools on display. Shipbuilding has recently revived in the area with the building of sections of the Type 45 Daring Class frigates by Vosper Thornycroft in Portsmouth Dockyard. This was effectively displayed during the Trafalgar 200 event in 2005.



A new Type 45 destroyer in Portsmouth © Brian Lavery

#### 2. LIFE AT SEA

The Mary Rose collection provides the earliest existing reference for sailors' lives on board ship. It includes clothing, tools, games, mess utensils and cooking gear. It gives us our best idea of seamen's health and diet in an age when there were few written records, and none originating from the seamen themselves. There are artefacts illustrating life on board the *Invincible* (lost in 1758) in the Hampshire collection, and the *Pomone* on the Isle of Wight. Hampshire Record Office has detailed personal accounts of Balch Hoar, and his recollections of his time as a midshipman in Nelson's navy, followed by his expenses as a 'half-pay' officer on the beach after 1815. From a later age, it has the extensive diaries of Edmund P E Jervoise of Alton, who began his naval career as a cadet in 1874 and retired as a captain in 1905. At the other end of the scale, it has some papers from stoker Charles Bell, including the Admiralty letter announcing his death in 1917. Alfred John West of Southsea made pioneering films of naval life for recruiting purposes around 1900, which are in the Wessex Film and Sound Archive.

Southampton Archives have crew agreements for all Southampton-registered vessels from 1863 to 1913, and the 4th register of merchant seamen 1918–1941 for all UK registered vessels. The latter includes seamen who served on the *Titanic* who then went on to serve on other vessels. The Maritime and Local Collection has a few crew certificates and discharge books which record the men's services and competence. It has an extensive collection on the crew of the *Titanic*, most of whom were based in the area and this is reflected in the memorial to the ship's engineers, all of whom perished in the disaster. The oral history collection includes records of the lives of seafarers and others, with photographs. Specific projects include women at sea, dockworkers, *Titanic*, D-Day and World War II. The Furness Withy Collection includes service records of some Royal Mail Steamship Co employees (mainly deck officers and engineering officers) from the 1840s onwards. Early records of Prince Line employees are also included in the collection.

#### 3. YACHTING

This theme unites the whole district, as all the ports in the Solent have strong yachting connections of one kind or another. Cowes claims to be the birthplace and capital of world yachting, but all the other ports have considerable numbers of resident and visiting yachts.

At the top end of the scale are the luxury vessels, loosely modelled on royal yachts such as the Victoria and Albert and the Britannia. Many of these were built by Thornycroft and Camper and Nicholson. High-end racing yachts are said to originate with the Americas Cup round the Isle of Wight in 1851.

Cruising yachts might be powered or use a combination of sail and power. They might be used for racing, often at local club level, or for cruising. One of the great attractions of the Solent is that there are many harbours to visit without leaving sheltered waters, with the possibility of a slightly more adventurous trip to France or the Channel Islands.

Dinghies are open, unstable craft which can sail fast in good conditions but will capsize easily and are for the athletic and adventurous who do not mind getting wet. One of the key pioneers in this was Uffa Fox who lived all his life on the Isle of Wight, part of the time on a disused chain ferry. He often sailed with the Duke of Edinburgh and designed several types of craft, including the Flying Fifteen which was one of the first boats to be moulded in glass fibre. His Avenger is on display at Cowes. There are many local types of 'one design' dinghy, used for racing and suited to local conditions. The St Barbe Museum has an example of a Lymington scow.

Camper and Nicholson claims to be 'the oldest leisure marine company in the world.' Its ancestor set up in Gosport in 1782 and it took on its name in 1863. By that time it had already forged strong links with the wealthy owners of the Royal Yacht Squadron across the Solent and it built many high-class boats, including four of the J-Class of the 1930s, three of which raced for the Americas Cup; and Sir Thomas Sopwith' motor yacht *Philante*, which was the largest yacht of the day and served as a training ship in the Second World War. Many of the company's papers are in the Hampshire Record Office, including conveyance records, letterbooks from 1891-1920 and various plans. The collection also includes Ian Dear's oral history interviews for his book on the company.

#### 4. FERRIES

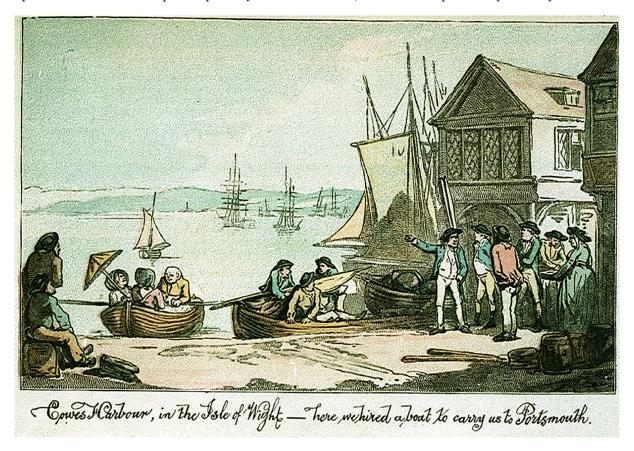
Ferries come in many different sizes, from tiny local rowing boats to the giant ships which carry cars and passengers to Europe. At the smaller end of the scale, ferries are almost literally what held the region together, and still do. There are several pictures of ferries in collections in the area, for example Frederick W Watts's painting, 'On the River Itchen', shows a wooden ferry of the mid 19th century.

The Floating Bridge or chain ferry over the River Itchen was the third one built by the pioneer James Rendell and survived until the opening of the road bridge in 1977. It is depicted by LS Lowry in 'The Floating Bridge'. Another chain ferry operated in Portsmouth Harbour, and one is still used to link East and West Cowes. The main communication with Cowes in the age of sail was by sailing vessel from Southampton. Regular steam navigation began in the region with the Prince of Cobourg of 1820. By the 1840s, with the opening of the rail line from Southampton to London, more vessels had joined the route assisting the development of Cowes as a resort and yachting base.

The caricaturist Thomas Rowlandson's voyages to the Isle of Wight provide a detailed, intimate and humorous picture of travel to the island in 1784. The first steamship in the Solent was the Britannia which operated between Portsmouth and Ryde in 1817. The Lymington to Yarmouth steamboat service began with the Glasgow in 1828. A poster in the Bucklers Hard Maritime Museum advertises her services. Ferries from the mainland to the Isle of Wight and to Hythe and Gosport are still essential to the economy. Pictures of the Gosport ferry include Martin Snape, 'The Hard, Gosport, 1919', showing a steam ferry.

The area is a good base for services to France and the Channel Islands, with a short passage of about 60 miles to Cherbourg. It is easily accessible from London or the Midlands. The first steamship in the area to provide services across the English Channel was the Medina, the first steamer to enter Guernsey in 1823. The Camilla of 1824 is shown in a print in Southampton Maritime Museum carrying a carriage lashed to the deck – a distant ancestor of the car ferry service. But Andrews' Garage of Southampton was perhaps the first to recognise the link between motoring and the sea. From 1933 it offered a 'Gangway to garage' service by which cars would be looked after while the owner was away on a cruise.

From the 1950s, with the invention of 'roll-on roll-off' or ro-ro, the term ferry has been taken to include all vessels carrying road vehicles with their drivers and passengers. The Isle of Wight ferries from Portsmouth to Fishbourne, Lymington to Yarmouth and Southampton to Cowes carry cars as well as passengers. These make it possible to commute from the Isle of Wight to the mainland, with a profound effect on the local economy. Longer routes to France and northern Spain have also been established from Southampton and Portsmouth. In terms of the length of route they are perhaps more like liners than true ferries. Thoresen Car Ferries (later Townsend Thoresen) operated from Southampton to Cherbourg and Le Havre from 1964 until the mid 1980s. The Southampton collection includes a Townsend Thorensen Ferries information leaflet of 1982, ship layouts of the Viking class ships, a cargo consignment sheet from before 1980 and a promotional leaflet for the Viking Fleet, post-1965. Ferry traffic is one of the main features of Portsmouth's commercial trade. Services were operated to French and Spanish ports by P & O until 2010, but are now operated by Brittany Ferries.



Cowes Harbour, in the Isle of Wight - here we hired a boat to carry us to Portsmouth (caricature), by Thomas Rowlandson, 1891 reproduction, PAF4956

© National Maritime Museum, Greenwich



The Wightlink ferry coming  $out\ of\ Lymington.$ © Brian Lavery

#### 5. SHIPWRECK

The area is associated with perhaps the two most famous shipwrecks in the world. The Mary Rose sank off Portsmouth in 1545 and was recovered in 1982 to be put on display. The *Titanic* sailed from Southampton on her fatal voyage, and many of the casualties were engineers from the area, as commemorated in a memorial in the city. More than 500 people, about a third of those lost, lived in or near to Southampton. This is well represented in the current Southampton Maritime Museum and is displayed in its Sea City exhibition, which opened in 2012. The Wessex Film and Sound Archive has a print of a Gaumont newsreel of 1912 showing survivors being interviewed by journalists in New York. Another wreck of that period was the P & O ship Persia which was sunk by a U-boat off Crete in December 1915. Some of the artefacts recovered in 2003, including the bullion room door and many personal items, are on display at Bucklers Hard.

Though the Solent is not a particularly difficult area to navigate, shipwreck has always been possible in crowded waters with variable weather. HMS Invincible, a captured French 74-gun ship which had much influence on Royal Naval shipbuilding, sank on Dean Sand in 1758 and artefacts were recovered from 1979 onwards. The sinking of the Royal George at Spithead was a national tragedy in 1782 as around a thousand people were lost. It was the subject of pioneering diving operations by the Deane brothers in the 1830s and some artefacts survive from that period. More than 3000 artefacts have been recovered from the 38-gun frigate Pomone, wrecked on the Needles in 1811. These are held by the Isle of Wight Archaeology Service.

Many ships based in the Solent area were wrecked a long way from home, with effect on the local communities. The loss of the Captain in the Bay of Biscay in 1870 is commemorated by a plaque to two of the men lost taken from the Methodist Central Hall in the city of Portsmouth. Southampton also has a number of memorials including that to the Stella and relief fund books including the minutes of the Southampton Committee of the *Titanic* Relief Fund (which later incorporated the *Lusitania* fund) from 1912 to the 1950s. Other relief funds include the SS Normandy (1870), the SS Humber (1885), the Douro (1883), and the West Indian Hurricane of 1867. The battleship Victoria was sunk in a notorious collision with the Camperdown in the Mediterranean in 1893 with the loss of 358 lives. It is commemorated by a wooden plaque in the form of a rope in Portsmouth City Museum.

#### 6. THE SEASIDE

It was only around 1750 that the British discovered the value of the seaside, initially as a means of improving health – though Southampton was already beginning to develop as a spa, based on its mineral water. There are two paintings by Samuel Austin in the Southampton City Art Gallery showing the baths area. Thomas Milne's map of 1791 shows two bathing houses in the West Quay area and there were several more, all having communal baths which were filled with seawater with each rising tide. They were similar in purpose to the one at Quebec House on Portsmouth Point, where the original building survives. Southampton has many relics of the spa period, including prints and pictures, a fountain, bathing costumes and books on etiquette for the resort. Phillip Brannon's map of Southampton *c* 1853 also shows baths around West Quay.

The seaside developed as a truly popular holiday, either for day trips, bank holiday weekends or for longer, after the railway and the steamship reached the resorts. Nineteenth-century resorts grew up at Southsea, Lee-on-the-Solent, Ryde, Ventnor, Shanklin and Sandown. However the area did not benefit from royal patronage as much as Southampton, Weymouth, Brighton and Bognor Regis had done -Queen Victoria's tenure at Osborne was too private for that.

Many prints, for example by James Calcott in 1837 and J Harwood in 1841, show Southsea as a spa and resort. A Pernet's advertisment of c 1863 shows multiple activities on the beach, including steamboats, yachts, and bathing machines. Hampshire County Council has several women's bathing costumes, including one dating from the 1850s. Portsmouth City Museum has an extensive collection of Southsea postcards as well as a beach tent, a bathing hut wheel, bathing costumes, resort guides and life guard material.

#### 7. MARITIME ART AND LITERATURE

Marine painting was introduced to England by the Dutch in the late 17th century. Specialised artists, who generally understood the arts of shipbuilding and sailing, produced ship portraits, seascapes and pictures of events such as shipwrecks and sea battles. Artists with particular connections with the area include the Atkins family, including William Edward (c 1842-1910). He painted many ship portraits, of which a large number are to be found in Portsmouth City Museum, and was naval correspondent for the Graphic magazine. W L Wylie lived in the prominent Tower House at the entrance to Portsmouth Harbour from 1906 till his death in 1931. He painted many views of naval activity around Portsmouth, and a famous panorama of the Battle of Trafalgar for the Royal Naval Museum. Richard Eurich was not a marine artist in the usual sense, but his service as a war artist in World War II produced several notable naval scenes including the famous 'Withdrawal from Dunkirk'. He settled in the Solent ten years before his death in 1992, and painted many coastal and seaside views.

In addition to these artists, the collections in the area include many other works of maritime history. The Durrant collection consists of watercolours painted by an army captain in the early 19th century. They have many views of ships around Portsmouth Dockyard as well as prisoners at Portchester Castle and elsewhere. Westbury Manor has several maritime views, including one by Dominic Serres from Portsdown Hill in 1778, and a view for the Cams Shore by Hayter Kinch showing local craft. Museums and galleries in the area have organised many loan exhibitions on marine art. St Barbe had 'The Golden Age of Sail' in 2001, 'The Art of Sailing' in 2003 and 'Sea Change (on Richard Eurich)' in 2004. In 2011, Southampton had 'Sea Fever, from Turner to Today'.

Jane Austen lived most of her life in Hampshire, and had two brothers in the navy. She went to school in Southampton, which was not a happy experience, and is thinly disguised in Sanditon. She also visited the Southampton spa several times. In her later life she lived at Chawton, where there are relics of her brothers' naval service. Portsmouth features in Mansfield Park, though the picture is not entirely flattering. Items in the collections include a dress which she is known to have worn in the Hampshire county collection.

Charles Dickens was born in Portsmouth and the house might give some idea of the lifestyle of a dockyard clerk of the period - though his father could not afford to keep it up for long, and soon moved to Chatham. The present-day furnishings are not original to the house, but include some naval prints on the walls.

Many of the more recent novels of Patrick O'Brian include scenes in Portsmouth. His hero Jack Aubrey lived for a time in a cottage in Portsdown Hill. The original Geoff Hunt paintings for the covers of the books are held in the National Museum of the Royal Navy, and include one view of the entrance to Portsmouth Dockyard.

#### 8. THE SECOND WORLD WAR

The Solent was one of the major areas for naval training during the war, despite the disruption caused by bombing. HMS Collingwood was set up in 1940 to train recruits, and thousands of men passed through it during the war. Other Second World War naval training bases in Hampshire and the Isle of Wight include: HM Ships Tormentor at Hamble for combined operation, Pauline at Lymington (Combined Operations) and *Medina* near Ryde for Fleet Air Arm entrants. Portsmouth City Museum has prints and photographs of naval training establishments. Cowes Maritime Museum has relics relating to Uffa Fox's airborne lifeboat, which saved the lives of many aircrew shot down in the sea, and the collection includes an aluminium canoe used for commando raids.

Practically all the ports in the area were used during the invasion of Normandy in 1944. Thornycroft played a key part in the development of the Landing Craft Assault, which was used in every amphibious operation from Norway in 1940 to Suez in 1956. Landing craft were built by many of the yacht builders in the region, notably Camper and Nicholson. Many landing craft crews did their initial training on Hayling Island. The headquarters for the whole operation was in Southwick House (HMS Dryad). The fleet was reviewed by King George VI in the Solent before the operation and Force J, which landed Canadians on Juno Beach, was formed and trained in the Solent. The Juno Beach Centre at Courseulles-sur-Mer in Normandy is supported by Canadian government and business and tells one side of the story; it might be useful to forge links with them to tell the story of the preparation and training in the Solent area. The D-Day Museum in Portsmouth is obviously the main site in the area, though many of the other museums have some Combined Operations and D-Day material.

#### 9. OTHER SUBJECTS

There are many other areas which deserve consideration. There are strong royal maritime connections. Henry V sailed from there to his war in France. Kings often visited Portsmouth Dockyard for naval reviews, and Queen Victoria kept a steam yacht there to take her to Osborne on the Isle of Wight. The Royal Yacht Britannia was based in Portsmouth for more than forty years. Sea training was conducted in the region, and there are still several naval training bases as well as the sea school at Warsash. Many emigrants left from Southampton and other ports, including the First Fleet to Australia. The area had been a major base for liners and cruise ships and this is reflected in the Southampton Maritime Museum. It is also featured in world trade, though mostly from the Southampton area. It played a large part in the defence of the realm, with several generations of fortifications from the Roman and Medieval Portchester Castle to Second World War defences. It sent out warships to the British Empire, and Portsmouth-based warships had a key role in protecting it, so relics of that past are to be found in many museums.

Every maritime county and region is unique, and it is likely that similar studies in different areas would reveal much for little-known collections, and help to bring the area together.