

# Portsmouth Harbour

## Summary Description

Portsmouth Harbour is renowned as the home of the Royal Navy. Subsequently the development of the Harbour has been influenced by the needs of defence and supporting the fleet. The strategic position of the harbour has long been recognised which is reflected in the presence of the Roman Fort on the northern shores at Portchester.

## Sea Surface

Activity on the water is dominated by military craft, commercial shipping and ferry traffic. The harbour is a large commercial ferry port, with regular services to Le Havre, Cherbourg, St Malo, the Channel Islands and the Isle of Wight. There is also a regular passenger ferry to Gosport. It is a popular area for leisure sailing with abundant marina facilities. There is a strong military presence on the water due to the Naval Dockyard, Naval bases, and firing practice areas.

The Harbour comprises a network of navigable channels, tidal creeks, and lagoons. Buoys and beacons are frequently seen and mark navigation routes and caution areas.

## Seabed Surface

Portsmouth Harbour is a drowned river basin occupying a narrow coastal plain set at the foot of a chalk scarp in south-east Hampshire. The harbour includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain.

The northern half of the harbour is an SSSI, an SPA and a Ramsar site. These designations recognise a range of inter-tidal, brackish, lagoonal and terrestrial habitats. The extensive mudflat and saltmarsh areas support a plethora of wildlife (Tubbs, 1999). The intertidal morphology of the harbour consequently means it contains extensive shellfish resources, primarily oyster beds.

The Harbour margins are heavily committed to industrial and urban use and the seabed is subject to many navigation requirements. Submarine cables bisect the marine environment. Extensive dredging operations of the harbour entrance and channels frequently occur to maintain navigable depth. Modern industrial encroachment has resulted in the loss of 26% of the intertidal area (Tubbs, 1999).

The presence of the strong sea wall structure and other coastal engineering installations, provide defence against erosion and further inundation of this slowly drowning ria. However, these measures are also contributing to the process of coastal squeeze.

More than twenty six recorded wrecks and obstructions litter the channel edges. One of which, the E56, is a popular recreational dive site (ref Dive Hants and Wight).

The remains of a pier structure is classed as an obstruction in the north-eastern portion of the harbour. Further maritime archaeological evidence has recently been recovered during investigations of the sites where HMS Victory has been moored within the Harbour. This is revealing information on the high archaeological potential of historic anchorage sites.

## Seabed Subsurface

Extensive dredging of the channels and harbour entrance frequent occurs to maintain the depth, this impacts the subsurface deposits. Oyster fishing operations also occur.

Comprising part of the ancient Solent river valley, evidence of submerged landscape features have been recorded within the harbour. Despite the industrial development of the area it is clear that such deposits still survived within the subsurface of the harbour.



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## Coastal

The appearance of the shoreline is dominated by Portsmouth's status as home of the Royal Navy. The Naval Dockyards and HMNB are located along the shore. Much of the shoreline is taken over by promenades, historic fortifications, piers, harbour and marina facilities. Large areas of land adjacent to the harbour accommodate urban and industrial buildings.

The Harbour is also a major archaeological resource pertinent to the history of maritime Britain. The northern bank of the Harbour accommodates the Roman coastal fort of Portchester. Around the opening of the 2nd millennium AD, human settlement shifted from Portchester to the east bank of the Harbour. It was here that the medieval town and naval port of Portsmouth began to grow. Portsmouth was destined to become a principal post-medieval military port and dockyard.

Portsmouth has always played an important role national defence. It has accommodated the Royal Navy since the days of King John. Many of its buildings accommodate military storage, housing or barracks. In the 1820's a lighthouse was built and is still in use today. During the Second World War further defensive structures were erected. Portsmouth Harbour has since taken on a different aspect. While still focused on the needs of the Navy, the town has now given emphasis to urban regeneration, new development and tourism.

Recently, a large area of the former naval dockyard has been redeveloped into the [Gunwharf Quays](#) development, including the [Spinnaker Tower](#), and has added further dimension to the harbour.

## Archaeological Potential

Evidence of human occupation of the area which is now Portsmouth Harbour from the Palaeolithic period through to modern day has been recorded. Deep submerged peats are indicators of the potential for submerged prehistoric landscapes and the dramatic extent to which the morphology and nature of the Harbour has changed since the end of the last Ice Age.

Despite the extensive dredging and heavy industrial use of the area archaeological sites, find and deposits can and do survive within the seabed sediments. This stratigraphic archive is essential for understanding sea level and climate change and the effects on early human populations and the development of Britain as an island, the Solent as a tidal waterway and Portsmouth as a Harbour.

In terms of maritime archaeology there is the potential to reveal evidence of the use of the area as a principle port in a wide variety of shore side locations. The frequency with which ship timbers were re-used in buildings and waterside structures should be highlighted.

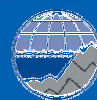
In the intertidal zone there are traces of early human occupation from times of lower sealevel and a variety of historic industries. While in the marine zone the potential shipwreck resource is significant. The potential to encounter the remains of crashed aircraft must also be considered, with many recorded losses which date to the Second World War.

## References

- Corney, Arthur. *Southsea Castle*. Portsmouth: Portsmouth City Museums, 1968.
- Cumyns, R.H. *The ancient and modern history of Portesmouth, Portsea, Gosport, and their environs*. Gosport: J. Watts, [1799].
- Cunliffe, Barry, 1939. *Excavations at Portchester Castle*. Vol.5 Post Medieval, 1609-1819 /by Barry Cunliffe and Beverley Garratt with contributions by W. Cocroft and M.T. Thornhill. London : Society of Antiquaries of London, 1994.
- Davies, R. K. *The lost port of Titchfield and its canal*. Lee-on-the-Solent : Lee Press Publications, c1995.
- Hack, Brian. *Stone tools from Rainbow Bar, Hillhead*. from Proceedings of the Hampshire Field Club and Archaeological Society, vol.53, 1998, pp.219-221.
- Hartshorne, C.H. *The history and architecture of Porchester Castle*. London: Longman, Brown, Green, 1846.
- McKee, Alexander, 1918-. *How we found the Mary Rose*. London: Souvenir, 1982.
- Quail, Sarah. *Southsea past*. Chichester: Phillimore, 2000.



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Rudkin, David J. *Early man in Portsmouth and South-East Hampshire*. Portsmouth: City Council, 1980.  
Rule, Margaret, F.S.A. *The Mary Rose: the excavation and raising of Henry VIII's flagship*. Rev. 2nd ed. London: Conway Maritime, 1983.  
Riley, R.C. *The industrial archaeology of the Portsmouth region*. Portsmouth: Portsmouth City Council, 1987.  
Stirland, Ann. *The men of the Mary Rose: raising the dead*. New rev. ed. Stroud: Sutton, 2005.  
White, Leonard, 1903-1973. *The story of Gosport*. New rev. ed. / edited by Lesley Burton and Brian Muselwhite / [with a chapter on] The geology of Gosport by G. R. J. Browning. Southampton: Ensign, 1989.  
Wilson, Valerie. *Portchester Castle*.  
*.Portsmouth Dockyard in the Age of Nelson*. *International Journal of Nautical Archaeology*, Vol 34; No 2

## Links

Portsmouth City Council - <http://www.portsmouth.gov.uk/>  
University of Portsmouth - <http://www.port.ac.uk/>  
The Mary Rose Museum - <http://www.maryrose.org/>  
Royal Navy Portsmouth Historic Dockyard - <http://www.flagship.org.uk/welcome.html>  
Portsmouth Natural History Museum - <http://www.portsmouthnaturalhistory.co.uk/>  
Charles Dickens' Birthplace Museum - <http://www.charlesdickensbirthplace.co.uk/>  
D-Day Museum and Overlord Embroidery - <http://www.ddaymuseum.co.uk/>  
Portsmouth City Museum - <http://www.portsmouthcitymuseums.co.uk/>  
The Portsmouth Harbour Project - <http://www.envf.port.ac.uk/geo/research/portsmouth/>  
The History of Portsmouth Website - <http://www.portsmouth.history.cwc.net/>  
Visit Portsmouth - <http://www.visitportsmouth.co.uk/>  
Southsea Town Council - <http://www.southseatowncouncil.co.uk/home.asp>  
Thomas Ellis Owen - <http://www.thomas-ellis-owen.org/home.htm>  
Southsea Castle - <http://www.southseacastle.co.uk/>  
Hill Head Sailing Club - <http://www.hillheadsc.org.uk/>  
Titchfield Haven National Nature Reserve - [http://www.english-nature.org.uk/special/nnr/nnr\\_details.asp?nnr\\_name=&C=0&Habitat=0&natural\\_area=&local\\_team=0&spotlight\\_reserve=0&X=&NNR\\_ID=189](http://www.english-nature.org.uk/special/nnr/nnr_details.asp?nnr_name=&C=0&Habitat=0&natural_area=&local_team=0&spotlight_reserve=0&X=&NNR_ID=189)  
Lee-on-the-Solent Sailing Club - <http://www.lossc.co.uk/>  
Lee-on-Solent Local Community - <http://www.leeonsolent.co.uk/>  
Gosport Borough Council - <http://www.gosport.gov.uk/welcome>  
Gosport Info - <http://www.gosport.info/>  
Royal Navy Submarine Museum - <http://www.rnsubmus.co.uk/>  
English Heritage Portchester Castle - <http://www.english-heritage.org.uk/server/show/conProperty.207>



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## Images



HWTMA Photo Number	PHV – A11
Character Area	Portsmouth
Description	Portsmouth Harbour - Warrior
Photographer:	Brian Sparks
Date Photographed:	
Date listed:	



HWTMA Photo Number	PHD – A08
Character Area	Portsmouth
Description	Portsmouth Harbour Dockyard - Entrance
Photographer:	
Date Photographed:	
Date listed:	



HWTMA Photo Number	Archive
Character Area	Portsmouth
Description	Portsmouth Harbour
Photographer:	Julie Satchell
Date Photographed:	
Date listed:	