Secrets of the Solent

It all began with the archaeological lobster

Thanks to a diligent lobster, the submerged Mesolithic world of Bouldnor Cliff has begun to give up its secrets, as Stephen Fisher explains

allowing the Solent to form and seawater to run freely around the island.

The drowned landscape of the Solent remained encapsulated by sea and sediments for thousands of years and it is only in the modern day that this time capsule is starting to open up. In the 1960s, fishermen started pulling up flint tools and worked timbers from the Solent in their nets. As more evidence came to light, it was realised that the western Solent had great potential to be a flooded prehistoric landscape. In the 1980s, an Isle of Wight Maritime Heritage project was founded and in 1990 this was recast as the Isle of Wight Trust for Maritime Archaeology. In light of its important work, the county council of Hampshire and the Wight collaborated to form the Hampshire and Wight Trust for Maritime Archaeology in 1991.

Formation of the HWTMA enabled surveys and diver-led investigations to continue around the Solent, identifying ancient forest floors along the Hampshire coast and a submerged cliff face running parallel to the shore at Bouldnor. In 1999, while exploring the bottom of the cliff, divers noticed a lobster digging a burrow and revealing worked flint tools as it excavated deeper into the seabed. The lobster had in fact tunnelled through the...
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overlying sediment and into what was the original ground level 8,000 years ago. More finds followed – a number of well-preserved timbers and more worked and burnt flints. Bouldnor was rapidly revealing itself to be a highly significant site, as no other submerged, stratified Mesolithic sites had yet been identified around the UK.

Since then, all manner of finds have emerged from the site. Alongside worked wood and flint tools, archaeologists have also recovered some quite amazing remains. These have included plant fibres that had been twisted as if used as string – making it possibly the oldest-known string in Britain. Burnt hazelnuts suggest that food preparation – cooking – was also taking place, and the hearths of fires have also been identified under the mud. Each year, the sediments are eroded away a little more, revealing fresh artefacts, deposits and features.

One of the most significant results from analysis of raised artefacts has revealed woodworking techniques that had previously only been associated with Neolithic woodworking technology – over 2,000 years later than the settlement at Bouldnor. The largest piece of timber recovered so far measures 94cm long by 41cm wide and had been carefully split from a large, slow-grown oak tree like a plank. Further analysis suggested that the timber had originated from the edge of a large tree in the order of 1.5m to 2m wide, so the length of such a plank could have been over 10m long, presenting the possibility of construction of a large building or even a deep log boat or dugout canoe with the rest of the tree. Further finds in 2011, such as charcoal, wood chippings and a reused pit of burnt flint, are providing further indications of woodworking at the site.

The fast flowing tidal conditions of the Solent pose numerous problems for archaeologists working at Bouldnor, and several new techniques have been developed to make the work easier. These have included ‘box sampling’, which allowed sections of seabed to be lifted in a case and excavated on dry land. In addition, early in 2011, divers managed to lay a line between two parts of the site that lie 450 metres apart. This finally links numerous excavation areas along the underwater cliff face using an exceptionally long archaeological base line.

HWTMA archaeologist Christin Heamagi finds the site a breathtaking experience: ‘We usually only spend an hour on site at Bouldnor, as the current makes it difficult to be there when the tide is flowing, but that hour is amazing. To see such ancient artefacts being exposed from the sediment in front of your very eyes is thrilling, especially when you know that they have been there for 8,000 years.’

In September 2011, several dives were made to further investigate the site’s extent and recover artefacts that risk being swept away. Archaeological trenches that were first dug five years ago were re-opened and further examined for any evidence of organic materials or lithics (worked flint). After collecting samples from the trench, it was backfilled in order to better preserve its contents over the winter. Also in 2011, HWTMA divers were joined by partners from the Association for the Development of Maritime Archaeological Research (ADRAMAR), a French organisation which, along with the Flemish Heritage Institute in Belgium, works with the HWTMA on several archaeological sites of shared interest in the English Channel and North Sea as part of the Atlas of the 2 Seas project.

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In the eyes of HWTMA director Garry Mombert, Bouldnor is one of the most important Mesolithic sites in the world: 'We have been privileged to investigate the site over the past 13 years and each visit reveals more unique evidence which is demonstrating the high potential of submerged prehistoric sites to add new dimensions to our understanding of past people and cultures. This year’s [2011] visit has already revealed that the site extends further back into the cliff than we first thought, so as the face erodes, more will come to light.'

The erosion of the surface sediments is, however, a double-edged sword. Although the Solent’s tides have exposed the site and constantly reveal new material along the one-kilometre cliff face, previous research has shown that between 10 to 50cm of perfectly preserved landscape and covering sediments disappear along its length each year. This equates to between 100 and 500 square metres and with it goes the priceless archaeological record.

The HWTMA has only been able to investigate a few square metres in detail but this alone is revealing a wealth of 8,000-year-old immaculately preserved material that is second to none in the UK.

Stephen Fisher is a researcher with the Hampshire and Wight Trust for Maritime Archaeology.

The Hampshire and Wight Trust for Maritime Archaeology (HWTMA) is a charitable trust that seeks to promote and preserve maritime archaeology around the country and particularly along the south coast. In September 2011 the trust launched the first publication about the work at Bouldnor Cliff, Mesolithic Occupation at Bouldnor Cliff and the Submerged Prehistoric Landscapes of the Solent, published by the Council for British Archaeology and funded by English Heritage (£25).

To purchase a copy, or to find out more about the work of the HWTMA and its A2S project partners, visit their website at www.hwtma.org.uk