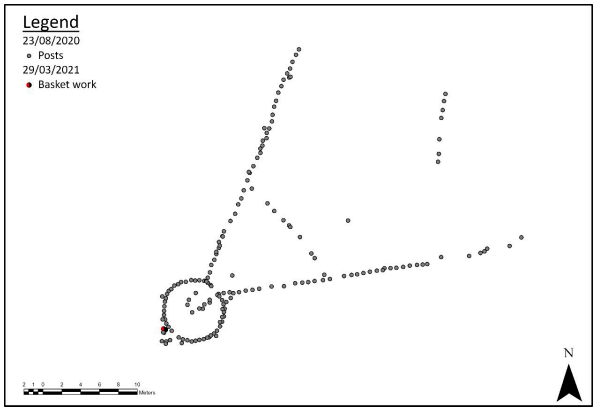
16th Century Fish Traps at East Head

by Peter Murphy

Archaeologists from Chichester District Archaeology Society (CDAS) assisted by colleagues from the former CITiZAN (Coastal and Intertidal Zone Archaeological Network) and the National Trust, have recorded wooden structures now exposed on intertidal sand flats, dissected by broad shallow channels, at East Head. The East Head structures were first reported to CDAS by local observers. They had been seen intermittently at extreme low tides for several years, but opportunities for detailed recording were rare. One unexpected outcome of the Covid lockdowns in 2020 and 2021 was that outdoor fieldwork by a small archaeological team was often possible when other archaeological work had to be suspended. This site was an ideal target for work during a difficult time.

The wooden structures are the remains of two fish traps, formed of roughly circular post-and-wattle pounds between 5 and 7m in diameter with linear lines of posts and wattle panels, known as leaders, which would have funnelled fish into the pounds as the tide dropped. More recent coastal change has resulted in accretion of sandbanks, so they are, for the time being, invisible, though that may change at any time after storms. Even when they are exposed, investigation is only possible when extreme low tides coincide with daylight. Furthermore, work can be curtailed due to onshore winds.



Plainly fish traps needed to be accessible regularly when in use so as to permit collection of catches and for maintenance, so from the beginning of the work it was evident that the modern coast must have differed from that when the traps were built and used. The positions of the traps were fixed but the coastline was not.

Coastal change in Chichester Harbour was reviewed by the Museum of London Archaeology Service in 2004. They used a technique called map regression, (examining all known historic maps), to show that the sand spit of East Head has moved eastwards since 1786 by over 500m. The location of the East Head spit has changed since the fish traps were constructed and map regression shows that it has over-ridden the archaeological structures at least once. Furthermore, the posts of the traps are driven into intertidal mud containing biological remains (seeds and mollusc shells) characteristic of salt marsh creeks. This combined evidence shows that the traps were originally emplaced in a north-south-flowing intertidal creek protected from high energy tidal influence by the spit and dunes. Near constant submergence since then, as the spit moved eastwards, has resulted in waterlogging of the wood and surrounding sediments. In these conditions the deposits are oxygen deficient (anaerobic) so bacterial decomposition was inhibited and consequently the wood is preserved.

Most fish traps known from the English coast are V-shaped structures of posts with attached panels of wattling, making fences which channelled fish to the point of the V as the tide fell, where they were concentrated and could be scooped into baskets. The ‘pound and leader’ forms have been reported in England only from the Solent region. In this form of fish trap, the catch was concentrated by the post and wattle fences of the leaders into the circular pound from

The fish traps lie directly offshore from the National Trust property of East Head in West Sussex

which it could be collected using nets or by hand. The only examples so far recorded were at Ashlett Creek in Southampton Water, Binstead on the Isle of Wight, (recorded earlier by Dr Cooper and colleagues from the University of Southampton), Langstone Harbour and now East Head.

Fish traps are very rarely associated with datable artefacts so dating wooden structures on the shore is dependent on scientific techniques, primarily radiocarbon dating. Radiocarbon dating of oak roundwood stakes taken from Ashlett Creek dated it to around 700 AD and the Langstone Harbour trap dated to around 980 AD. Consequently, comparable Saxon dates were expected for the East Head structures. However, the samples returned post-Medieval dates, from around the mid-16th century AD. This was a surprise as it gives a range for use of this type of trap of around 800 years. Indeed the date range is extended further by 18th and 20th century structures of very similar type known from historical records and illustrations and by direct observation in Northern France.

The geographical and age distribution of this type of trap is surprising. It shows that coastal communities, living similar lives, were closely connected, so ideas spread. But why do we not see traps of intermediate date between the Saxon period and the 16th century? Perhaps we simply have not yet found them, though Dr Cooper's suggestion that there was 'archaeological' transmission of knowledge is worth bearing in mind. Local workers tend to have good knowledge of what is present in their areas. Could 16th century fishers have seen the remains of earlier, Anglo-Saxon, fish traps and replicated them? Alternatively, it could be that there was independent invention of 'pound and leader' traps by coastal communities over several generations. Only further fieldwork will help to explain the transmission of the technique.

Plainly this is not spectacular archaeology but is much more related to everyday subsistence. The site provides a window into the economies of coastal communities besides evidencing changes in the coastline which have occurred over the last 600 years. However the coastline continues to change, and erosion is continuing, so the record of intertidal archaeology is fragile. Volunteers and local residents regularly walking our coastline are very helpful in reporting new exposures of archaeology. CDAS will be very grateful to them for their continuing observations and reports.

This article is a summary of a report on the site which will be published in the journal *Sussex Archaeological Collections*. We are extremely grateful to the Council for British Archaeology, South East (CBASE) for funding the radiocarbon dating at this site.