

The Wadeway: Investigation of the Early Medieval Crossing Point from Langstone Village to Hayling Island

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What is the Wadeway?

The Wadeway is a raised trackway which was used at low tide to cross from Langstone Village to Hayling Island. It was once the most important route for people to get to the island before the bridge was built. Much of the Wadeway is still visible today at low tide. Until the recent investigations it was not known how old the Wadeway is. It had been guessed that it dated to the Iron Age or Roman period due to other archaeological remains on Hayling Island. It is now known that it is Medieval in date, probably being built in the mid 14th century. This is a time when there was a rise in sea level and a number of storms which damaged areas in the south of Hayling Island.

The Wadeway runs in a roughly north to south direction. It is now divided into three different segments after being severed by a canal which cuts through it and a water channel. The Wadeway is made up of different materials with a number of different timber features near the edge and the centre made up of gravels and other sediments. It is most complete in the north, near Langstone Village.

What is known about the Wadeway?

The area around the Wadeway has been used by humans for many thousands of years. There is plenty of evidence of occupation from the Bronze Age, Iron Age and Roman periods nearby. Activity doesn't stop after the Romans leave Britain and the harbour area was used for a range of industries including fishing, oyster farming, saltworking and boat building.

The first written evidence that suggests the Wadeway might exist is a reference in the Domesday Book written in 1086 which mentions the settlement of Wade. It is then almost two hundred years until Wade is next mentioned in the 1260s. There is an even bigger gap until the first direct mention of the Wadeway in 1552. By this time there was a lot more activity around the harbour, this has left evidence through watermills, windmills, brickworks, salt working and field systems. The early references to the Wadeway include mentioning the cost of passage across it and also maintenance and cleaning. The first map so far discovered which shows the Wadeway dates to 1759. The Wadeway was in use until the 1920s when the Portsmouth to Arundel canal was cut through the feature and a bridge to the Island constructed.

Archaeological Investigation of the Wadeway

In order to find out more about how and when the Wadeway was built a range of archaeological investigations were undertaken in 2005 and 2006. The work had to be done around the times of the tide so as much of the feature was exposed as possible. Work included:

Walkover survey: this involved studying the Wadeway at low tide to identify the features and deposits within it and gain a photographic and written record of each of them. Further observations on the state of preservation were also made, one activity recorded as causing damage to the southern end of the Wadeway was bait digging.

Auger survey: using the auger, which is able to take long, thin core samples of sediments, the layers in and around the Wadeway were investigated. By taking samples at a range of recorded points it was possible to compare samples to reveal detail of the type of sediments and how deep they are. This information was used to help decide where to undertake excavation.

Excavation: two trenches were dug in the northern segment of the Wadeway, they were labelled 'A' and 'B', with 'A' being the biggest trench that stretched half way across and into the surrounding sediments. Using shovels and trowels the archaeologists gradually removed sediments from each trench recording them as they worked and taking samples. In trench 'A' the results showed that a cut had been made through the surrounding clay deposits until a harder layer underneath was reached, this layer is thought to be much older in date than the clay. After the cut had been made a number of different layers of gravel had been put into the cut, the gravel was kept in place with upright timber posts that were added at the edge, these held horizontal timbers in place that retained the gravel within the Wadeway. The results from trench B showed that the construction of the Wadeway is the same in this area.

Work after excavation

After the excavation was completed there was still a lot more work to be done with the information and samples recovered.

Palaeoenvironmental Analysis: An important type of analysis is the study of the pollen that can be found in the different sediments. These microscopic remains can reveal evidence of the environment around the Wadeway, particularly the types of plants and trees growing. As some plants arrived in Britain at different dates this can sometimes help provide information on the date of sediments as well.

The analysis was carried out by a specialist, Dr Rob Scaife. He looked at pollen from a column sample taken through a number of different deposits and smaller samples from other deposits. This revealed that the deposits were likely to be historic in date having been laid down in the post-Roman period at the earliest based on the type of tree pollen present. The sediments around the Wadeway are mostly clay which is part of salt marsh build up, this was shown in the pollen by plants that like marshy condition. The most common environment in the vicinity on dry land would have been grassland, but there were also a diverse range of woodland and cultivated plant pollens in the sample, showing there was

also managed woodland and crops nearby. Towards the top of the deposits there is evidence of pine which may indicate an 18th century date.

Molluscan analysis: Snail shells can also tell us more about the environment in and around the Wadeway as different species like different conditions. Another specialist, Simon Bray, undertook this analysis. Most of the molluscs found were from an estuary environment and liked lower salinity. Many of the species are those found in very fine mud deposits suggesting that the habitat was very low energy, so not exposed to lots of rough water and weather. These results tied into those from the pollen analysis showing that the Wadeway was constructed in a salt marsh environment.

Radiocarbon dating: as there were no artefacts discovered during the excavation that might help date the construction of the Wadeway radiocarbon dating was used. This method of dating can be used for organic remains, of which some traces were found in the Wadeway deposits. Three different deposits were dated, this included the layer into which the Wadeway was cut which dated to AD 1030 – 1220, the lowest of the gravel deposits making up the Wadeway for which two dates were provided AD 1260 – 1320 and Cal1350 – 1390 and the upper Wadeway deposit AD 1390 – 1420. This shows that the deposits surrounding the Wadeway built up in the 11th and 12th centuries around 200 years before it was constructed in the early to mid 14th century.

Understanding more about the Wadeway

The width of the central area of the Wadeway, which is thought to have borne most of the passing traffic is around 1.80m. Towards the surface it widens with the full width between the wooden revetment posts being around 4.8m. It is possible that it was planned for there to be a compact central area wide enough for carts with a wider spread upper surface that could be used to allow traffic to pass safely when travelling in opposite directions.

Environment of construction

It has been suggested that the Wadeway was constructed on an area of higher ground which had once allowed a route through the tidal marshes, but with a build up of sediment and a shift to tidal conditions around the 11-12th centuries, this was no longer passable. This eventually resulted in the construction of the Wadeway some time between 1260 and 1390. Evidence from around the harbour suggests that salt marsh was at its greatest extent from the Roman (43 – 410AD) to early medieval (AD 410 – 1066) periods. With marshy conditions and higher water levels building up on either side of the natural watershed, storm surges could have contributed to finally 'breaking through' and allowing tidal conditions, which severed access to Hayling Island.

The Wadeway was built in a period of environmental change when there was a general trend towards cooler temperatures from around the mid 13th century, known as the 'little ice age'. A recent study in the Thames Estuary has provided

interesting comparative evidence for the Wadeway, it showed that the south and east coasts were battered by storms, with the most damaging ones occurring in 1236, 1286–88, 1334, 1375, 1404 and 1421. An increase in the frequency and severity of marine flooding is highly likely to have been one of the reasons for the construction of the Wadeway.

There is evidence of the sea encroaching on Hayling Island, especially in the 14th century when there was extensive flooding. In 1324–5 Hayling Priory lost a lot of land to the sea as the hamlet of East Stoke had been submerged. If things were this bad in the south of the Island it is likely that the impact would have been felt in the north around the Wadeway.

Historical Context of Construction

With the results of the radiocarbon dating for the construction of the Wadeway it was possible to find out more about the history of the period. From the 12th century onwards there was a significant religious presence on Hayling Island. A priory was established in the early 12th century, to which was attached St Mary's church, built in the late 13th century with further additions in the 15th century. In the north of the Island St Peter's church was built in the late 12th or early 13th century, again with some 15th century additions. This shows there was significant construction work during the period the Wadeway was built, and continuing after. This is likely to have required direct access from the mainland to the Island for the passage of materials and workers.

It is possible that the church was responsible for the construction of the Wadeway, although as the landholdings in the 13th, 14th and 15th centuries were quite complex it is also possible that others who owned or rented land may have contributed. In the Thames Estuary which was hit by extreme flooding it was the landholders and communities who were responsible for constructing sea defences in response. Although the Wadeway is not a 'flood defence' it is part of the transport infrastructure for the local community, so it would be in their interest to construct and maintain it.

How important is the Wadeway?

The Wadeway is an important feature in relation to the historic development of Hayling Island, and is a comparatively rare type of archaeological feature within the Solent. It was thought the Wadeway was unique in the region, but a map from 1787 has been found that shows another 'wadeway' that once ran from Thorney Island to Emsworth village. Although there has now been extensive land reclamation in this area the 'wadeway' may be preserved beneath sediments. The existence of this feature is given further weight by a reference in the Victoria County History which states 'Until the 19th century this [Thorney Island] was crossed by a causeway leading to Emsworth, which was only completely uncovered at low water of the spring tides, but was otherwise 'nearly half-leg deep at low water'.

There was also a church constructed on Thorney Island in the 12th and 13th centuries and the Island is also likely to have been affected by the 13th and 14th century environmental changes. This raises questions over whether both of these tidal causeways could have been constructed at a similar time and whether there is a coordinated scheme of development in the face of changes.

The period in which the Wadeway was constructed is one of considerable pressure for Hayling Island. Not only did the 14th century bring serious flooding and loss of land, there was also a need to defend against attacks by the French, and coping with the arrival of the Black Death and subsequent loss of almost half the population. These forces are likely to have added to the need to maintain access to the Island; the Wadeway provided this route for the following 500 years.

Who was involved with the Wadeway Investigations?

The project was developed and managed by Chichester Harbour Conservancy. Funds for the investigation were provided by the Heritage Lottery Fund. Help with the radiocarbon dating costs were provided by Hampshire County Council. Survey and excavation was undertaken by Maritime Archaeology Ltd, with earlier survey and publication by the Hampshire and Wight Trust for Maritime Archaeology (HWTMA).