

# Man vs Nature

## 1000 years of change

Every schoolchild knows the story of King Canute, and his failure to hold back the incoming tide. What is less well known is that it probably happened in Bosham, and could have been an early example of man's efforts to alter the topography of the harbour.

Canute, king of England from 1017-1035, reigned from Winchester but is believed to have owned a manor at Bosham.

Some historians believe that even in those days, a sea wall had been built there to reclaim land from the sea. One stormy night, it was in danger of being breached by the incoming tide, and Canute, from all accounts a benevolent ruler, used the opportunity to show his over optimistic followers that he was not all-powerful, and could not turn back the sea.

Whatever the truth of this, man has been attempting to alter the shape of the harbour to suit his needs for almost 1,000 years: land owners attempting to add to their acreage; millers constructing dams; and more recently developers building marinas.

In addition, of course, the harbour has evolved naturally over the centuries. The main creeks are the remnants of old river systems, created by water flowing south at the end of the ice age. Depths have changed as currents have altered direction and carried sand and shingle to and fro.

The Domesday Book describes Bosham as 'one of the wealthiest manors in England' this was partly because of its importance as a port. King William used Chichester

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Harbour as his main port for communication with Normandy. The Bayeux tapestry, of course, shows Harold setting off from Bosham on his mission to France. Clearly, they had a good depth of water there, and perhaps more than there is today.

Five centuries later, silting had affected the harbour waters. A Navy Board survey to assess the harbour's suitability as a ship building centre flatly stated: 'it is too dangerous to enter, and no fit place for a naval establishment'. Portsmouth was better, presumably.



Another harbour author, Jill Dickin claims in her book 'Chichester Harbour – the thirteen villages', that in the 1800s a man on horseback could cross from Hayling Island to the Witterings at low tide. And the East Winner bank, now a trap for unwary yachtsmen, was known as Cockbush Common and the rabbits were a valuable food source for local people.

Today, Chichester Harbour has every form of national and international protection. But in the mid 19th century, Britain was prospering. There were no environmental pressure groups. The Chichester flatlands were perfect grain growing country, and very soon Victorian land owners and speculators began to plan how to regain land from the sea – and make more money.

We know that in the early 19th century, an embankment was built across the upper part of the narrow estuary between Bosham and Chidham. The reclaimed land was planted with corn, but a winter combination of high tide and gales breached the wall, and the sea regained its old territory.

But this did not deter other entrepreneurs wanting to change the shape of the harbour for their own benefit. Thorney changed from an island to a peninsula in 1870 when an embankment was built along the western side to link it to what is now Emsworth Yacht Harbour. This appeared to work, and the more recent and higher embankment linking Thorney and Emsworth is built on the remnants of the old wall.

A much more ambitious scheme at the same time was to build a huge embankment from the bottom of Thorney Island across to Chidham. The current Thorney channel would have been drained and converted to arable land, and a substantial arm of the harbour would have been lost.

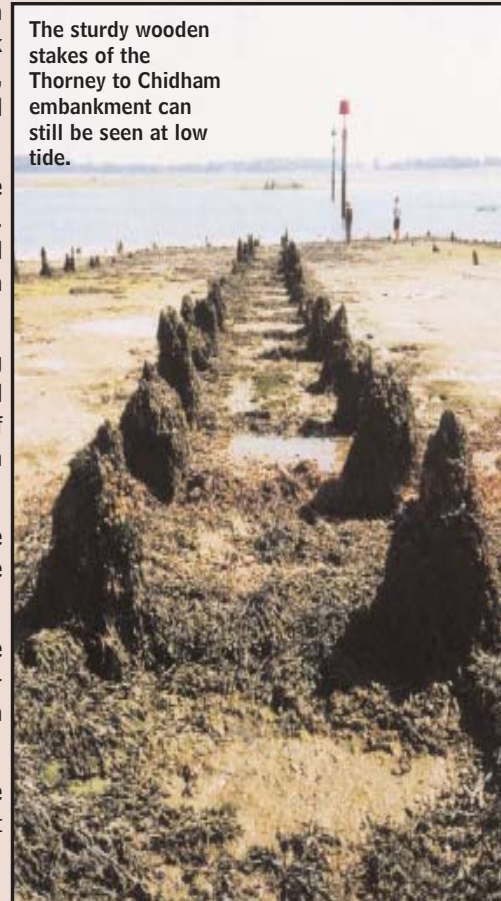
The way in which this scheme came to light provides an interesting comparison with the way in which development plans are handled today. Then, as now, the developers hoped to avoid the spotlight of public attention. But it was not to be, and the Admiralty ordered a public enquiry to be held.

The report of George Edwards, civil engineer, to the Admiralty on the public meeting at Havant is lodged in the West Sussex Record Office and makes fascinating reading.

'There was a large attendance of persons from the neighbourhood', he wrote, 'and many fishermen, especially from Emsworth. The magnitude of the (proposed) enclosures created evident astonishment in the minds of those present'.

There were strong objections to the plan from 'the winklers', large numbers of generally poor people who relied on being able to collect periwinkles and cockles from the mud.

The sturdy wooden stakes of the Thorney to Chidham embankment can still be seen at low tide.



George Edwards must have been a meticulous man, because having discovered that no-one had any idea what the effect of the enclosure would have on the rest of the harbour,

he decided to find out for himself. He sent a team of men to find out what happened at Spring tides, when the movement of water was most powerful. Sand and shingle driven in on the rising tide, was driven out again by the force of the ebb.

He arranged for a boat to be moored in the harbour entrance to measure tidal flows. From this he deduced not unreasonably that if the total amount of water in the harbour was reduced, silting would get worse.

*‘there must have been celebrations in taverns and cottages when the huge Thorney embankment wall, over a mile long, was breached by a storm and the waters flooded back in’*

His conclusion was that enclosing such a large area of tidal mudflats would seriously endanger the entrances of Langstone and Chichester Harbours. But he then put forward a radical alternative idea which, today, would have every local resident and environmentalist baying for blood. His idea was to close Langstone Harbour completely and drain it, keeping Chichester Harbour as it was.

Another and presumably more senior civil engineer said he disagreed with the Langstone enclosure plan, not on the grounds of loss of local amenities, but because of its possible impact on Portsmouth – then as now an important naval base.

Disagreeing with the diligent Mr Edwards, he said he did not feel the Chichester Harbour enclosure plan would ‘interfere with the tidal economy of the harbour’, or ‘injure the navigable channels to Chichester or Emsworth’.

What the winklers and fishermen thought of this is not recorded. But there must have been celebrations in taverns and cottages when the huge Thorney embankment wall, over a mile long, was breached by a storm and the waters flooded back in.

Precisely when this happened is unknown, but the sturdy wooden stakes which formed the basis of the embankment, and which were probably packed with chalk and earth, are still there and can be seen at low tide straddling the mudbanks between the Thorney channel and Chidham.

If most of the ambitious plans to reclaim land from the harbour have failed, many smaller enterprises have succeeded – and, arguably, improved the economy and recreational appeal of the harbour.



Mills were constructed round the harbour to process the grain, and millponds such as the ones at Emsworth built to provide power for them. The Chichester Canal was constructed, joining the harbour through the lock which is still there at Birdham. The canal was an important link in the inland waterway to connect London with Portsmouth, and flourished until the advent of powerful seagoing tugs and the railway made it redundant.

Five substantial marinas have been developed, most of them with harbour walls or locks to provide sufficient depth for the boats – well over 1500 of them – which they accommodate.

At the top of Thorney Island, at the head of the Thorney channel, a very different kind of development has taken place. The Conservancy, with the willing support of environment agencies and the Friends of Chichester Harbour, established a breach in the sea wall to allow the tide to flow in and out of the low lying pasture land and create a salt marsh.

Anne de Potier of the Conservancy says this move to create a new habitat has been very successful, and, as reported in last year's News, other sites are being sought.

A recurring problem for those managing the harbour is to decide which changes are likely to be beneficial. Securing agreement from all those involved in managing this special area – local authorities, national environmental organisations, pressure groups, and the people who live here – can be a lengthy process.

**Creation of new saltmarsh at Thornham Point has been very successful**



**The rock berm at the hinge, East Head, September 2002.**



Eventually, there was agreement that 'the hinge', the fragile neck of land that joins East Head to the Witterings, should be reinforced. Some of the conservation organisations involved had been in favour of allowing nature to take its course – i.e. letting the sea break through.

Had it done so, ran an opposing argument, a second harbour entrance could have been created, with the possible silting up of the main channel. So a line of rocks was sunk on the inner side of the sand dunes. Two years on, the hinge has not been breached.

The reality is that without some intervention by man, Chichester Harbour would not be the wonderful place it is today – the jewel in the crown of the south coast. Major development projects are unthinkable now, but if by any faint chance they should happen, it is nice to think that the sea would reclaim its territory, as it did that stormy night when the great Thorney embankment was washed away.