HMS *Havick* model project

After 18-months and 1,000 hours of work, Neil Mahrer has completed a detailed model of HMS *Havick*, the 18th century vessel that was shipwrecked in St Aubin's bay. It has been painstakingly recreated for a new permanent exhibition at the Maritime Museum.

Neil Mahrer pictured here with the model he built of the *Havick*. (Jersey Evening Post)

THE HMS *HAVICK* MODEL project really dates back to 1987 when Henry Connolly, a local metal detector enthusiast, discovered artefacts from an 18th century warship on the beach at First Tower. With commendable foresight and selflessness, Henry and his colleagues in the Jersey Detecting Club did not attempt a dig on the site but waited till the Jersey Heritage Trust was planning to open the Maritime Museum almost a decade later. The local detectorists then worked with us for three summers from 1997 to record the site and safely recover material from it.

By this time the wreck had been identified as HMS *Havick*, a three masted quarterdeck sloop dating from the late 18th century. She was listed as an 18 gunner of 365 tons, 101 feet in length with a crew of 121. Sloops such as the *Havick* lacked the speed and heavy armament of larger frigates and so were employed as convoy escorts and often fought independently against raiders.

HMS *Havick* was originally a Dutch warship, built in Amsterdam as the *Havik* (Hawk) in 1784. She was captured along with the rest of her squadron when they surrendered to a superior British force off South Africa in 1794. Sailed back to England as a prize, she was refitted in Plymouth and entered Royal Navy service in 1797 as the HMS *Havick*, there already being an HMS *Hawk*.

Her career was a brief but busy one. She patrolled the Channel and saw action against the French on several occasions. She was finally defeated not by foreign enemies but by the weather. On the evening of 8th November 1800 she was lying at anchor in St Aubin's Bay when a vicious southwesterly gale blew up. She began to drift towards the shore and despite her crew's best efforts finally foundered at around midnight. She was too severely damaged to be refloated but the entire crew survived despite winds so strong that they had to crawl to safety, unable to stand up on the beach.

In 2003 a decision was taken to update the Maritime Museum's Havick exhibition to include new items and, as this would be a permanent feature, a model of the vessel to illustrate the type of ship involved. Funding was not available to commission a scale replica from professional model makers so I decided to offer a somewhat less expensive solution: I had been toying with the idea of building a wooden ship model for some time and had noticed that one model firm produced a 1:64 scale kit of HMS *Snake*, a Royal Navy sloop of the same size and date as the *Havick*. The JHT bought the kit in the summer of 2003 and I started work.

View of the bow illustrating the intricate ornamentation and figure-head.

It was only on close examination of the plans of the model *Snake* and those of the *Havick* that the scale of the project became apparent. Far from being a modest conversion, as I had hoped, the hull designs of the two ships were so different that I would have to start from scratch, merely using the *Snake* kit to provide planks and fittings. In essence the *Snake* was (for the time) a very simple and functional design known as a flush deck sloop, with little ornament and all the great guns on the exposed top deck. The *Havick*, as a quarterdeck sloop, was by contrast almost a small frigate, with a full covered gun deck, an impressively decorated stern with a Captain's great cabin and elaborate figurehead and head rails.

The whole model project was made possible by the wonderfully detailed 1:48 scale plans of the ship drawn up by the admiralty during its 1797 refit at Plymouth. I used the plans to produce a series of cross sections of the hull, which when cut in thin wood and attached at the right points along the wooden keel gave a skeleton of the ship's full three dimensional shape. I then laid two layers of 1mm by 4mm planking over this framework and used a thin sheet of plywood for the gun deck, not planking this, as it would be invisible in the finished model.

The next stage was to build the top half of the hull, comprising the gun deck, top (weather) deck and ship's walls. Once again this was built as on the original ship with planking over wooden frame timbers. Following the 1797 plans at this point became something of an act of faith as the bows above the waterline appeared a bizarre shape with both convex and concave areas that were not only hard to reproduce but appeared to make no sense. My reliance on the 18th century draftsman was duly rewarded and when

all the complex fittings for the carrying of the bowsprit and anchors were later added, the reasons for the shape became perfectly clear.

Before the weather deck went down, the 18 six pounder cannon were fitted in place underneath, pointing out of the cannon ports cut in the ships walls. Fortunately I was able to buy kits of these guns in the correct scale. This done, it was possible to put down the top deck. Once again this was done with 4mm planking but to replicate the black caulking that separated each plank on the original ship I used thin strips of black paper.

Detailed view of masts and rigging.

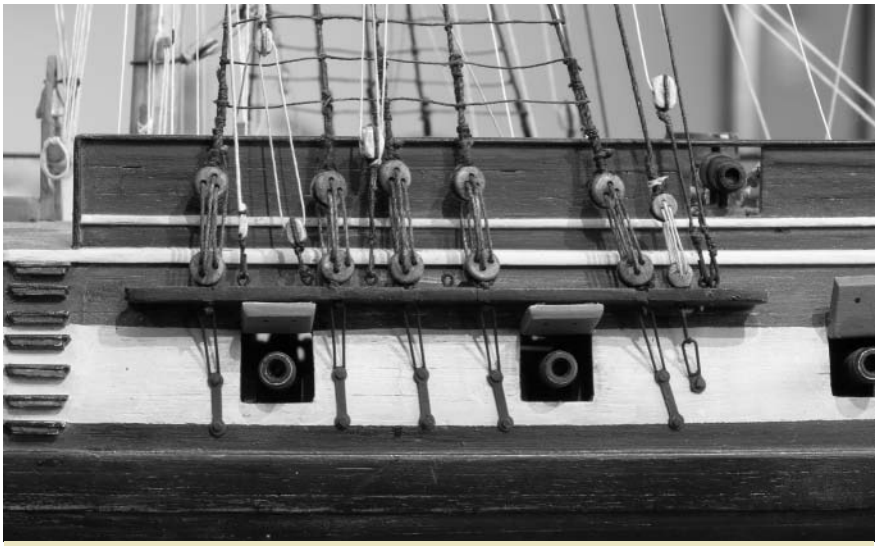
Now that the basic hull was roughed out it was time to attend to the more complex details of its design. At this point I began a steep learning curve in late 18th century naval architecture. Much could be learnt from the literature on the subject. Colleagues at the Trust and local authorities such as Mike Berry also helped with my research. David Woodall, a local student who had worked with me on the conservation of the original *Havick* artefacts, somehow found time to take breaks from his history degree and compile a very useful dossier on ship decoration of this period.

I was also aided in my researches by two pieces of good luck. One was the arrival in Jersey in the summer of 2004 of the replica *Endeavour*, Captain Cook's barque. Although a slightly earlier design than the *Havick*, its rigging was very similar and, when captured in hundreds of photos, became an invaluable resource. The other piece of good fortune is our proximity to HMS *Victory* in Portsmouth, which I was able to visit on completing some business at a nearby museum. The *Victory* is a true contemporary of *Havick* and almost every aspect of its design and decoration were applicable to the model.

This information garnered, I began to build the ornamental detailing on bow and stern out of a mixture of wood scraps, solder, pins, plastic card and modelling clay. The design was clear from the plans but they of course gave no clue to the colour and this became the next puzzle. No records survive of the *Havick's* appearance at the time of her destruction. But after more research, including through Simon Stephens, the curator specializing in ship models at the National Maritime Museum in Greenwich, I concluded that it would be incorrect to use the original Dutch colours of orange and green and opted for what was the most basic and common colour scheme used by the Royal Navy at the time, a black hull with a yellow line along the cannon ports and yellow detailing elsewhere. I did this in the knowledge that the *Havick's* commander was a young man at the start of a career and we could not presume he had a private fortune sufficient to decorate the ship further.

The final stage of the hull was the coppering of its bottom. Warships of this period were covered below the waterline with sheets of copper nailed to the hull to prevent attack from the wood boring worms of the warmer Southern seas. We had recovered large amounts of these sheets from the wreck site, each complete with stamped maker's name and date. The *Snake* kit had thoughtfully provided 900 tiny copper plates each about 4mm by 10mm to glue onto the hull. Having spent many hours knee-deep in freezing mud pulling the originals up from the wreck, I was perhaps unusually familiar with the originals and decided to improve upon those the kit provided. As is often the way with models, the makers had exaggerated what should be almost invisible details, in this case the thirty or so nail heads in each sheet. To hide these outsized dimples I struck each sheet flat between two smooth steel discs and, after carefully cutting each to size, then glued them upside down to the wooden hull before smoothing the whole surface down again with fine wet and dry sandpaper followed by wire wool.

The deck fittings were then added, each individually made to the 1797 plans. One puzzle remaining from the wreck excavation had been the size of cannon balls found, ranging in size up to 24 pounders. We knew that as with the paint scheme, a ship's armament depended upon the personal wealth of the captain, who was permitted to add his own weapons to those provided by the Navy. It was therefore possible that weapons as big as twenty-four pounders had been used on the ship in the form of quarterdeck carronades,



View of a section of the starboard side of the *Havick*.

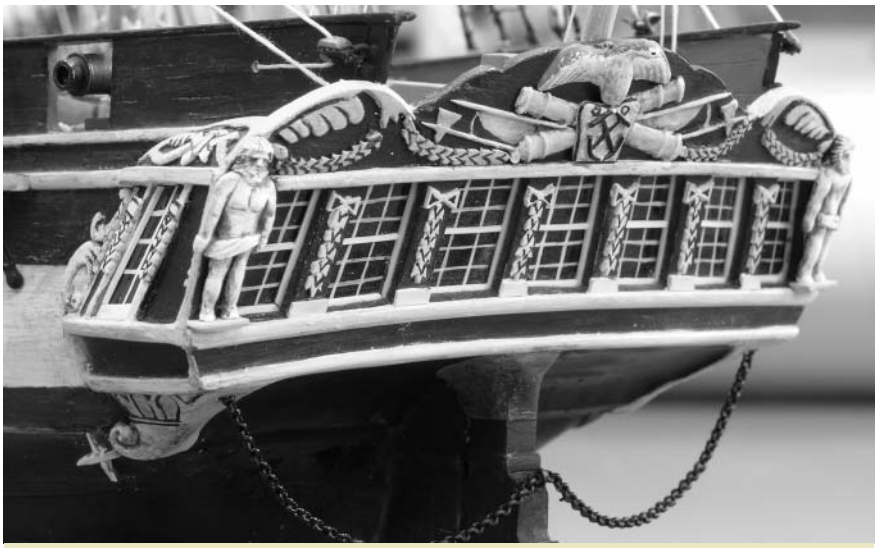
privately provided and not listed in the official Navy records.

In order to see whether this arrangement was practical, I experimented with various different cannon and carronades on the model's quarterdeck and found out that one particularly old-fashioned aspect of the *Havick's* design prevented anything bigger than a 12-pounder carronade being fitted. No wheel was fitted and the whole 360-ton ship was steered with a three-metre tiller and several strong men. This would have been in the way of any gun taking up more than about a metre of deck space and ruled out larger armaments. The model was therefore fitted as described in the official records, with six 12-pounder carronades.

Reaching this stage had taken about a year's evenings and I could finally move on to the masts and rigging. The reconstruction now became somewhat more speculative. The refit plans only showed the bases of the masts, enough to give us their positions and rake, (angle of lean) but not their height. I contacted the Dutch navy and Dutch Maritime Museum in Amsterdam in the hope that they might have contemporary plans of *Havick*-like ships but they were unable to help. The one original picture of the *Havick* we already had, of it still in the Dutch navy, was very small and not detailed but it was enough to confirm the rig and the overall dimensions at that time. Fortunately the design of each element varied little in square rigged ships of the period and the picture was enough to show that the parts provided for the *Snake* could be used with a little modification, namely to the bowsprit, (the mast coming diagonally out of the bow), which was steeper and the mizzen (back) mast.

Working largely from a kit rather than slowly building from scratch, the masts and rigging went up quite quickly. I should stress that this was not like a plastic Airfix model kit. The parts provided for a wooden model are merely a series of wooden dowels of different diameters and some good plans. The tapering of masts and spars, making them octagonal, joining, banding and all else is down to the model maker. Once these were complete all that remained was the rigging with various different sizes of thread and block. Once again I spent some time improving upon the blocks provided and in some cases replacing them with new ones of my own manufacture.

So after 18 months and about one thousand hours of work the new HMS *Havick* is finished. Having never made such a model before I must admit to being quite satisfied with the outcome. For the general public a model such as this remains a uniquely fascinating way to understand and appreciate the complexity and beauty of a wooden man of war.



Stern of the Havick showing the decorative carvings and paintwork.

HMS *Havick* exhibition is now on display at the Jersey Maritime Museum, New North Quay, St Helier Harbour.

Neil Mahrer is the JHT conservator.
Tel: 833337
Email:
neil.mahrer@jerseyheritagetrust.org