

All they survey

THEY GOT STARTED RATHER LATE, BUT ONCE BRITISH CHARTMAKERS HIT THEIR STRIDE, THEY PRODUCED SOME OF THE MOST ATTRACTIVE AND PRACTICAL NAVIGATIONAL AIDS EVER SEEN Words • Alan Harper

In June 1667, a Dutch fleet under Admiral de Ruyter sailed west up the Thames Estuary and turned into the Medway. He bombarded the forts into submission, broke through the protective chain strung across the river, and attacked the moored English fleet, burning several warships and carrying off the 80-gun flagship, the *Royal Charles*.

It was a humiliation. As Samuel Pepys, secretary of the Navy Board at the time, mournfully noted in his diary, "in wisdom, courage, force, knowledge of our own streams, and success, the Dutch have the best of us."

'Knowledge of our own streams' – indeed, how had a foreign fleet managed to negotiate the difficult waters of the estuary, with its strong tides, numerous mudbanks and narrow, largely unmarked channels? It is true that De Ruyter had taken the precaution of employing two English pilots, but the real answer, as far as Pepys was concerned, lay in the quality and accuracy of Dutch charts.

This had long been acknowledged. In the previous century, Lucas Waghenaeer's new sea atlas of western

Europe had so impressed Queen Elizabeth's Lord High Admiral, Lord Howard, that he ordered an English translation to be produced for the use of English seamen, which was published in London as *The Mariner's Mirrour* in 1588.

These 'waggoner' charts remained in use well into the 17th century. As Pepys delved more deeply into the problem of English chartmaking, or lack of it – having discovered that only five surveys had been undertaken in British waters in the previous eighty years – he was less than impressed to find that even current charts produced by the King's official hydrographer, John Seller, were "at best but copies of the Dutch, with such improvements as he could make therein by private advice upon the observations of single men..."

This is perhaps unfair on the reputation of the publisher whose *English Pilot* (1671) has been described as 'the first successful English sea-atlas'. His work today is prized by collectors. Jonathan Potter, an eminent London map dealer and an expert on antique maritime charts, holds Seller in high esteem. "I do like his charts, although they tend to be derivative," he says from his New Bond Street gallery. "Because they're early, they have a tremendous appeal, visually and in the style of engraving, which sets them apart from the Dutch."

Aesthetic considerations cut little ice with Pepys. In 1682 he appointed Captain Greenville Collins to undertake the first complete survey of British waters, a task which took ten years and resulted in the *Great Britain's Coasting Pilot*, a landmark in British hydrography that remained in print for 100 years.

Complete examples of the atlas occasionally come on the market – Robert Frew in London's Thurlow Place recently had one in modern bindings for sale at £6,000 – but individual charts are fairly easy to come by, priced from as little as £150 and upwards, depending on condition and clarity. Because the plates were in use for so long, later editions can be rather indistinct.

Collins was an experienced and able naval officer, and the *Pilot* is a seamanlike book containing not ➤

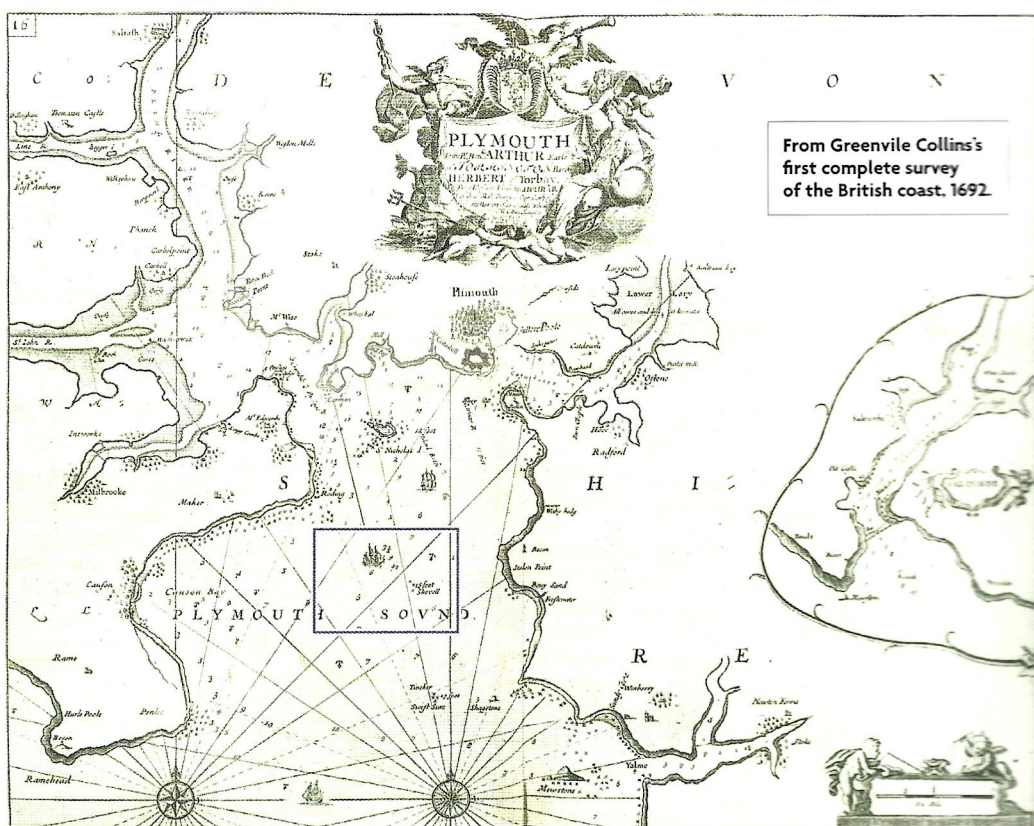
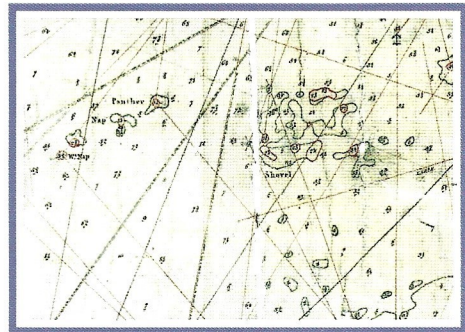
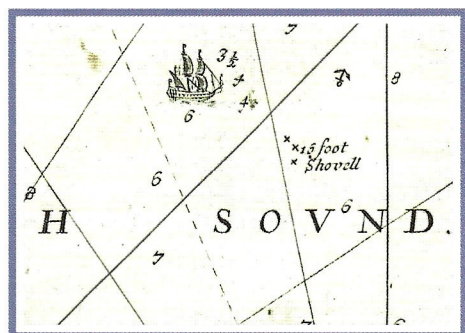
Insult to injury: capture of the *Royal Charles*, by Peter van de Velde.





Two hundred years of progress: a modern Admiralty chart overlaid on Murdoch Mackenzie's survey of 1779.

Missing cat: Panther Rock was hinted at by Greenville Collins (right), but not thoroughly investigated until Mackenzie, more than 80 years later (below).



From Greenville Collins's first complete survey of the British coast, 1692.



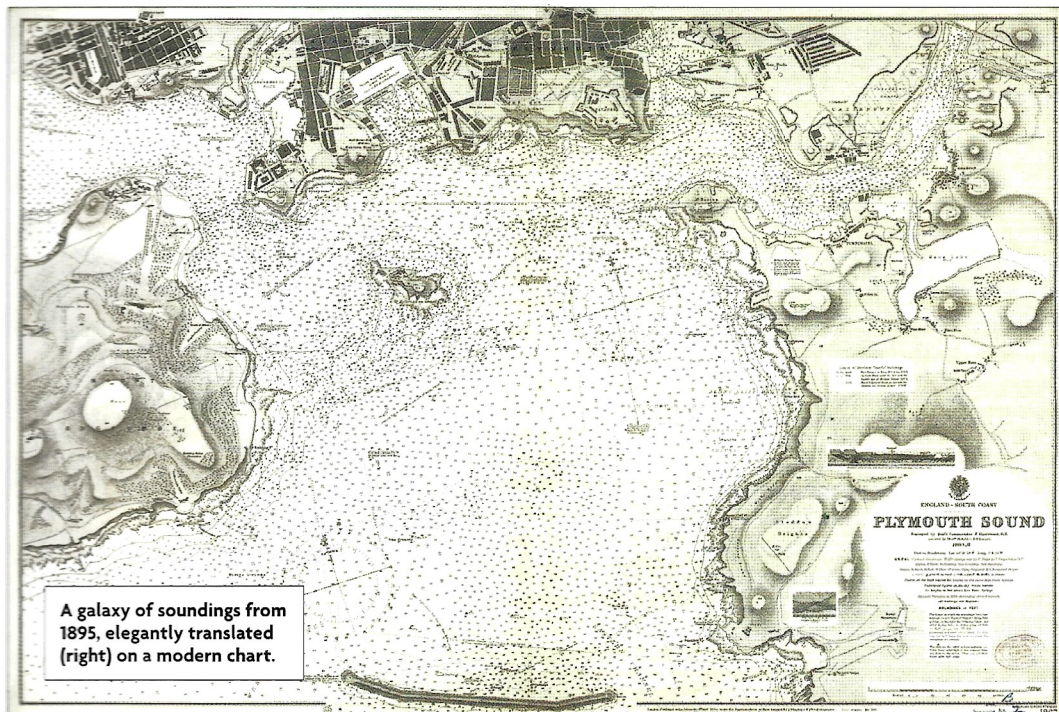
Hydrography in the Age of Enlightenment: Mackenzie's 1779 survey of Plymouth Sound.

only 49 coastal charts and harbour plans from the Isles of Scilly to Shetland – some with leading lines and tidal arrows – but also detailed sailing directions and coastal views, plus additional large-scale charts of the English Channel and North Sea.

One of these, added in some editions by Collins's publisher, Mount & Page, was a Channel chart from 1702 featuring magnetic variation and tidal stream data collected by Edmond Halley. The mathematician and astronomer also produced a magnetic chart of the Atlantic, and these expeditions (in the 52ft *Paramore*, loaned to him by the Admiralty) were among the first pure research voyages ever undertaken. As the Enlightenment dawned and the Navy began to apply science to the maritime arts, great strides were made in navigation and hydrography. A clean example of this chart, with original colouring, could set you back between £800-£1,200.

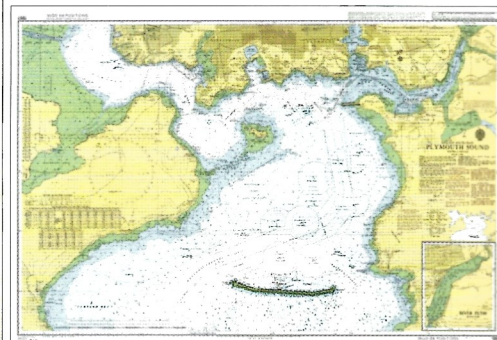
One chart held in the Hydrographic Office archive shows observations carried out during an expedition to the Arctic, on which a very young Horatio Nelson served as coxswain. The watchkeepers were tasked with comparing positions derived from two types of chronometer, dead reckoning from the log and compass, and lunar distances. By the time they arrived at Spitzbergen there was a disparity in longitude between the different methods of some 40 miles.

At around the same time, one of Greenville Collins's successors was hard at work in Plymouth Sound. Lieutenant Murdoch Mackenzie was appointed Head Maritime Surveyor of the Admiralty in 1771 – a post previously held by his uncle – and made several noteworthy surveys of England's south coast. The detail he showed just on the land was often superior to military maps of 30 years later, and he would typically take ten times as many soundings as his predecessors – which



A galaxy of soundings from 1895, elegantly translated (right) on a modern chart.

The flagship's royal crest is on display in the Rijksmuseum – a reminder to the British not to neglect their hydrography



no doubt accounted for the fact that he found a significant shoal in the middle of the Sound, which Collins had missed.

This is the kind of detail that appeals to many collectors, according to Jonathan Potter. "Most people collect predominantly by area, and then want something that is visually appealing," he explains. "When they've got enough to go on the wall, they'll often start to buy maps for their intrinsic information – maps will draw them in. When you've got a 17th-century map of an area it's very interesting to get an 18th-century one and make comparisons, and then a 19th-century one... I'm afraid we've got a lot of addicts on our mailing list. But I'm glad we have."

Some collectors are attracted by particular surveyors or hydrographers. Charts made from surveys of the Canadian coast during the Seven Years War by young Lieutenant – later Captain – Cook are much sought after, as are those that came out of his voyages to the Pacific – some of which were still in print, without substantial changes, well

into the 20th century. By the mid-18th century, according to Potter, the British were starting to eclipse their European chartmaking rivals – and by the end of the century the process was complete.

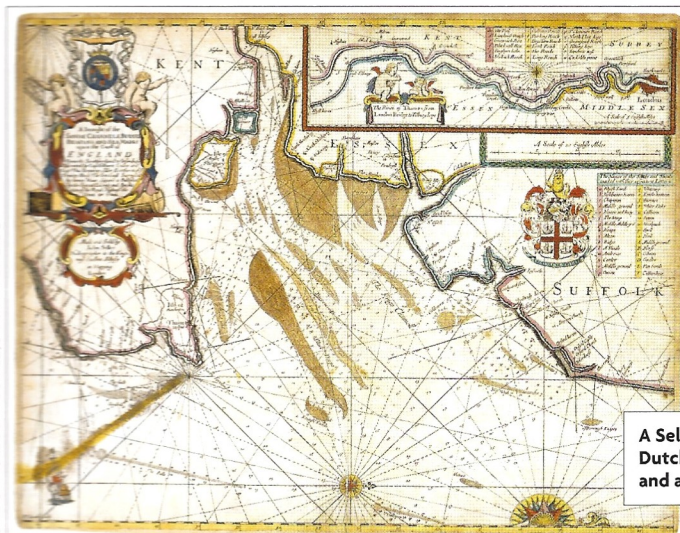
In 1795 the post of Hydrographer to the Admiralty was created, to manage surveys, print charts for the Navy and release the service from dependence on private publishers. The first holder of the office was Alexander Dalrymple, who had held the same post at the East India Company. His successor, Thomas Hurd – whose survey of Bermuda has been described as 'a pattern of what a large-scale survey should be' – was the first to realise that there could be a commercial market for Admiralty charts.

Under Hurd's supervision, men like William Smyth and Martin White began to produce some of the most accurate, detailed and comprehensive charts yet seen. The first charts published by the Admiralty were of the approaches to Brest, surveyed in 1804 by Hurd himself, under the guns of the French.

"The British became the dominant chartmaking nation," according to Jonathan Potter. "Once people like Heather and Dalrymple had surveyed a coast, there was really nothing better – it would have been the best plotting up to that time." With the Dutch eclipsed, and the French defeated, the British were masters of all they surveyed. The first Admiralty chart catalogue appeared in 1825 – more than 150 years after the Dutch fleet, with their Wagheenaer charts, sailed up the River Medway.

As a prize, the 1,250-ton *Royal Charles* was no use to the Dutch because of her deep draught. The ship was put on display at the Hellevoetsluis naval base – until King Charles himself protested at the indignity – and eventually scrapped a few years later.

But that was not the last of her. The carved royal crest from the flagship's ornate stern is still on display in the Rijksmuseum in Amsterdam – a memento for the Dutch of their victory, and also, perhaps, a reminder to the British not to neglect their hydrography.



A Seller chart (left), from a Dutch original (£1,500-£2,500), and a Wagheenaer (£2-3,000).

