



THE CHATHAM SUNDIAL

Christopher St J H Daniel: *The Nelson Decade*

The Shadow of Respect

A Unique 'Nelson' Sundial

The 'Nelson Decade' starts on 21 October. Christopher St J H Daniel outlines Nelson's life and describes a commemorative sundial at Chatham

The 21 October 1994 marked the 189th anniversary of the Battle of Trafalgar, one of the most famous sea battles of all time in which Nelson, one of Britain's greatest and most popular heroes, was killed in action.

On the occasion of this particular anniversary, the National Maritime Museum at Greenwich, and the Royal Naval Museum, Portsmouth established the Official Nelson Celebration Committee (ONCC) and announced a programme of commemorative events to celebrate 'The Nelson Decade'. For the next ten years Britain will celebrate the 200th anniversaries of some of

the most famous events in British naval history – the great battles fought by Nelson during the French Revolutionary and Napoleonic Wars, culminating in the bicentenary of the Battle of Trafalgar on 21 October 2005.

Admiral of the Fleet, The Lord Lewin, Chairman of the Board of Trustees of the National Maritime Museum, heads the newly formed ONCC which comprises maritime and Nelson specialists from



Bust of Nelson by John Flaxman, 1801.
(Photograph courtesy National Maritime Museum)

the National Maritime Museum, the Royal Naval Museum at Portsmouth, the Royal Navy (HMS *Victory*), the Nelson Museum at Monmouth, Flagship Portsmouth, Lloyds of London, the Society for Nautical Research, the Nelson Society, and the 1805 Club – a society of high ranking Nelson enthusiasts.

The ONCC has three main aims: to promote events and exhibitions relating to Nelson and particularly the Battle of Trafalgar; to ensure that commemorative items meet high standards to protect the interests of all participating organisations; to act as an information forum, to minimise overlapping effort and encourage mutual support between institutions.

One of the first major events of The Nelson Decade will be the grand opening on 21 October of a new Nelson gallery at the National Maritime Museum. Using the Admiral's own words to tell his story, the gallery explores his role in the decisive events that shaped British history during this period and his emergence as a national hero.

Viscount Horatio Nelson (1758-1805) was born on 29 September 1758 at Burnham Thorpe in

Norfolk. He entered the Navy in 1770 as a midshipman, when he was 12 years old. By the time he was 18 he had served in both the West Indies and the East Indies, as well as in the Arctic. He passed his examinations for the rank of Lieutenant at 19 in 1777 and soon afterwards was back in the West Indies in command of a small vessel, the *Badger*. Later, he received command of a larger vessel, the *Hinchingbrook*.

From 1775 to 1783 Britain was at war with her American colonists who were fighting for their independence. Nelson saw much active service in this theatre of war. In 1778, only a year after becoming a lieutenant, he was made a commander and just a year afterwards, at the age of 21, he was promoted to the rank of captain.

In 1793, just before the outbreak of the war against France, he was given his first big command when he was appointed to HMS *Agamemnon*, a 64-gun second-rate ship-of-the-line which he took out to join the British fleet in the Mediterranean. Here he helped to seize the island of Corsica, but at the siege of Calvi in 1794 he received a wound in his right eye, which later became useless and over which he wore a black patch. In 1797, at the great battle of Cape St Vincent off the south-west coast of Portugal, it was largely Nelson's bravery and skill that ensured victory. Later that year, in an attempt to

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take Santa Cruz de Tenerife in the Canary Islands, he received a bullet wound in his right elbow, when his arm had to be amputated. This same year he was made a Rear-Admiral 'of the Blue'.

In 1798, having become one of the most distinguished officers in the Navy, Nelson was chosen to command the squadron that was sent to the Mediterranean to discover and stop Napoleon Bonaparte's intentions. However, the French fleet managed to slip out of Toulon, elude the British force and transport Napoleon's army to Egypt where, eventually, Nelson found them at anchor in Aboukir Bay near Alexandria. There followed the famous Battle of the Nile, which was an overwhelming victory for the British, when Nelson was wounded in the forehead. This episode made Nelson a national hero, which was endorsed when, as second-in-command of the expedition that was

sent to attack the Danish fleet at Copenhagen in 1801 to prevent it joining forces with the French, Nelson turned the tide of battle into victory. It was during this occasion that Nelson put his telescope to his blind eye and declared that he could not see the signal from the commander-in-chief to break off the engagement. On his return home to England he was again showered with honours and made a Viscount.

On 25 March 1802 the Treaty of Amiens brought a fragile peace that lasted little more than a year, during which time Napoleon rebuilt his fleet and planned to invade England. In May 1803 Britain and France were back at war. In July of the same year, Admiral Lord Nelson joined HMS *Victory* in the Mediterranean, where he had been sent to keep watch over Toulon, whilst other British forces patrolled the English Channel. Early in 1805 French ships escaped the blockade of Toulon and Rochefort on the west coast of France and sailed for the West Indies. Nelson chased them across the Atlantic and back again and on 21 October 1805 off Cape Trafalgar in southern Spain, he fought his last and most famous battle.

Before the action he summoned all his captains aboard the flagship *Victory* to tell them exactly what he wanted them to do, and then he hoisted his famous signal 'England expects that every man will do his duty'. In a five hour battle 18 French and Spanish ships were taken, whilst the rest fled, only 11 of them reaching the safety of Cadiz to the north. It was a great victory that Nelson and Admiral Collingwood won on that day, but at 1.25 pm, at the height of the battle, Nelson was mortally wounded by a French sniper's bullet. He was carried below and died about 4.30pm, after being told the news that he had won a glorious victory.

Nelson's flagship HMS *Victory* was severely damaged and had to be towed to Gibraltar to make temporary repairs. After an extensive refit in England she saw service until 1812 when she returned to Portsmouth for another refit, but the end of the Napoleonic Wars in 1815 and the advent of steam propulsion brought her long fighting career to an end. She remained in reserve until 1824 when she became the flagship of the Portsmouth naval command.

The *Victory* had been built in Chatham in the years 1759-1765, and before Trafalgar was twice rebuilt. She was a 104-gun first-rate ship-of-the-line and saw action for the first time in 1778, against the French, who had just entered the War of American Independence on the side of the colonists.

Chatham, like Portsmouth, has always been closely associated with the Royal Navy, as also with the Royal Marines which is reflected in the town's coat-of-arms. Likewise, Chatham can lay claim to a strong historical association with Nelson, who walked the streets in the 18th century town long before he became famous. It is to the town's credit, therefore, that Chatham has been the first, perhaps, to launch The Nelson Decade, with the unveiling of a unique commemorative vertical sundial in front of the wall of the old post office building on the afternoon of Friday, 21 October 1994. The ceremony was carried out by The Right Worshipful The Mayor of the City of Rochester, Councillor Mrs Ann Marsh at 4.57pm, the time that would have been indicated by a sundial at Chatham at the moment when Nelson died aboard *Victory* off Cape Trafalgar.

The sundial is the 'jewel in the crown' of a 5.5 million pound project to improve the environment of Chatham, to make this old naval town more attractive to its inhabitants and to its visitors. A pedestrianisation scheme and other improvements to the quality of urban life are expected to provide a complementary appeal to that of the historic dockyard. Implemented by the city of Rochester and under the direction of the London Architects B.D.P. (Building Design Partnership), the main contract has been undertaken by Tarmac Construction, (Civil Engineering Division). The huge steel H-frame, which supports the sundial, and the dial itself were constructed by Ollerton Engineering Services of Preston.

Historically, a sundial is a scientific instrument, the purpose of which is to determine the time from the apparent motion of the sun. In order not to put any strain on the wall of the building, the Chatham sundial is suspended in the vertical plane parallel to the wall. The dial is classed as a *vertical declining* sundial (latitude 51° 23' N longitude 00° 32' E) since the wall declines from the South cardinal point of the compass 33° 45' West.

The design is intended to create a modern sundial in an 18th century naval style, having nautical symbolism to reflect Chatham's historic connection with the Royal Navy and the Royal Marines. This is principally provided through the use of those heraldic achievements in the town's coat-of-arms, namely the two gilded medieval ships, representing the Royal Navy, and the gilded wreathed trident, associated with the Royal Marines. Likewise, the predominant blue ground of the dial-plate, whilst being a traditional sundial colour is also a colour associated with the sea. The naval symbolism is completed in the circular



The sundial supported on its frame.

shape of the sundial, bordered by a gilded rope surround which, excluding the use of the naval crown, takes the form of the circular heraldic shield of a capital ship.

In addition to the hour-lines on the dial-face, the sundial is furnished with *declination* lines – the lateral curves crossing the dial-plate – for the *equinoxes*, the *winter solstice*, the *summer solstice*, and for the 21 October (1805). On this latter arc, the date of the anniversary of the Battle of Trafalgar, there is a small gilded encircled cross, denoting the time of Nelson's death at 4.30pm at Trafalgar at which moment, on that fateful day a sundial in Chatham would have indicated the time to be 4.57pm, as also would have all well-regulated public clocks in the town. This feature on the sundial is intended to be a tribute to Britain's greatest hero and to recall Lord Nelson's close connection with Chatham.

Unlike normal sundials, where the hour of the day may be determined from the shadow of an inclined rod or *gnomon*, in this case the time may be read off by observing the tip of the shadow of an horizontal spike, projecting from the upper centre-line of the dial-plate, in relation to the

straight radiating gilded hour-lines. The time so found is called *Local Apparent Solar Time* or, more usually, *Local Apparent Time* (LAT) which is the natural time that our ancestors kept in the days when life moved at a slower pace. Although the Chatham sundial allows for summer time (*Roman numerals: winter time, Arabic numerals: summer time*), to obtain 'clock' time, ie *Greenwich Mean Time* (GMT) or *British Summer Time* (BST) it is necessary to apply a small correction to allow for the difference in longitude between Greenwich and Chatham (-2 minutes), and for the *equation of time*. This is a known quantity, resulting from the variation in the earth's orbital speed and the tilt of the earth's axis to the plane of its orbit. The daily correction to be applied may be found in such works as *Whitaker's Almanac*.

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The *gnomon's* shadow tip may also be seen to track along the respective lateral lines on the dates of the equinoxes and the solstices. Likewise, on the 21 October each year the shadow tip will track along the gilded arc that represents this historic date. Fourteen minutes before sunset, if the weather is fine and clear, the point of the fading shadow may just be seen to touch the centre of the gilded encircled cross, denoting 4.57 (LAT), the time of Nelson's death. There could hardly be a more fitting tribute to the memory of Britain's greatest naval hero than this silent moment, as the sword-like shadow, as if it were a natural mark of respect, fades with the going down of the sun. Chatham has surely 'set the pace' for The Nelson Decade by the design and construction of this unique commemorative example.

□ *The Chatham sundial was designed by the author, whose works also include the famous 'dolphin' equinoctial mean-time sundial at the National Maritime Museum at Greenwich, to mark the Queen's Silver Jubilee: the Marine Society and Nautical Institute vertical sundial unveiled by Her Majesty the Queen (1979); the four vertical sundials on St Margaret's Church at Westminster (1982); a vertical dial at HM Tower of London (1988); a modern equinoctial armillary sundial at the Savoy Hotel (1989); and a monumental 3-ton York stone slate-faced double-polar mean-time sundial at Otley, in West Yorkshire (1993). He is Chairman of the British Sundial Society.*