

# John and James Harrison, joiners of Barrow-upon-Humber, North Lincolnshire

The August 2009 issue of the Furniture History Society newsletter gave details of a John 'Longitude' Harrison (1693-1776) precision pendulum clock of 1727 at Leeds Museums and Galleries. The article also placed the clock in the context of Harrison's quest for precision timekeeping as the practical solution to determining longitude at sea.

There are some significant points about the clock at Leeds. Of the three precision pendulum clocks it is the one in the most original condition. It is also one of the clocks on which Harrison continued his experiments with temperature compensation via the gridiron pendulum. His own notes state that he removed the gridiron from No. 2 (the Leeds clock) when he sold it, and that he continued the experimental work on No. 3, the precision pendulum clock he kept for the rest of his life and the one that he used to test all his later clocks against.

The predominant, not to say accurate, but incomplete perception of Harrison is of a self-taught clockmaker and scientist, and Dava Sobel's bestseller, *Longitude*, achieved remarkable success in raising awareness of his extraordinary achievements in this respect: a man of humble birth who taught himself clockmaking, who used his scientific and engineering intellect and determination to solve the most intractable problem of the 18th century. Harrison's harnessing of the fourth dimension, time, to link points on the three dimensional globe, demonstrates an early foray into the waters of space-time. Ships' chronometers revolutionised navigation and map-making, and were still being used for determining longitude until the advent of the Global Positioning System, which nevertheless retains precision timekeepers at its heart to calculate distances to triangulate a position.

*New Yorker* columnist Malcolm Gladwell's recent fascinating book, *Outliers*, aims to shed light on why some people can achieve extraordinary success. Gladwell's premise is that, in trying to understand these 'outliers', too much emphasis has been placed on the

individual: 'we've been looking at the tall trees, and I think we should have been looking at the forest.' Applied to John Harrison his brilliance and extraordinary success cannot be denied, but was he really the lone genius he was made out to be in *Longitude*?

In order to properly understand his achievements much more needs to be known about his formative years. What has received less attention is the fact that he and his younger brother James Harrison (1704-1766), with whom he worked in partnership for a time, were very fine joiners, and that several examples of their non-clock works are still in existence. Their father, Henry Harrison, was after all a carpenter who had very likely been the estate carpenter at Nostell Priory, the country house of the Winn family in West Yorkshire. It is therefore probable that Henry trained his lads to be the fine craftsmen they became.

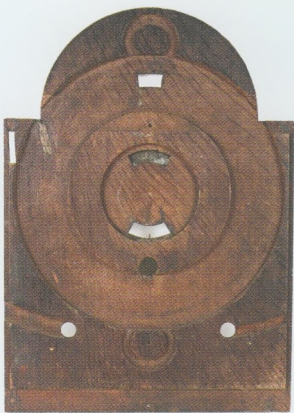
The use of wood for the movements of John's early clocks is, in some senses, incidental. Put simply, wood was their starting point and the material that John and James knew well. However, John Harrison had an inventive and lateral-thinking mind and if, say, carbon fibre and high-density nylon had been available it is quite possible that he would also have been experimenting with these to see if they could bring him closer to his goal!

The early careers of John and James Harrison will be the subject of more comprehensive articles and publications from Andrew King, who has been researching their early work, clocks and joinery. A *Regional Furniture* article is planned, as is a book, both of which should greatly help in understanding their influences. Further, there will be a BBC documentary on Harrison and the clock at Leeds, to be broadcast sometime in 2010, and a BBC website project, *A History of the World*, also has a feature on this unique clock.

Ian Fraser



Striking train, second wheel, made from oak, lignum vitae and brass



The back of an oak dial plate



Joiner's marking out lines



Precision pendulum-clock  
No. 2, 1727