

# Saving time

## Time Restored: The Harrison Timekeepers and R. T. Gould, the Man Who Knew (Almost) Everything

by Jonathan Betts

Oxford University Press: 2006. 480 pp.  
£35, \$69.50

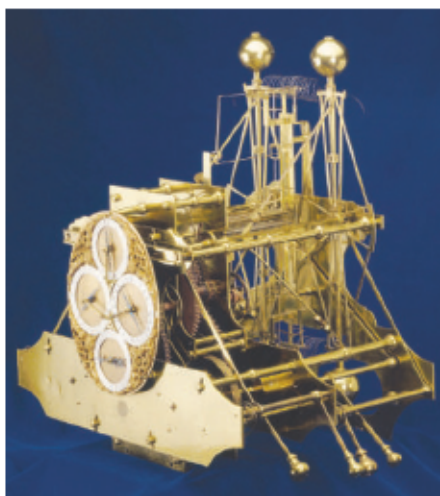
### Lisa Jardine

In her best-selling popular science book *Longitude*, Dava Sobel told the tale of horologist John Harrison's eighteenth-century quest to design and build a precision timekeeper accurate enough to determine longitude at sea. Towards the end of the book, she introduces us to another 'lone genius' with a lifelong fascination with clocks, Lieutenant Commander Rupert T. Gould. It was Gould who, in the early twentieth century, found Harrison's chronometers neglected and largely forgotten in a cupboard at Greenwich Royal Observatory, where they had lain, "dirty, defective and corroded", since the 1760s. Gould devoted much of the rest of his life to restoring them to their former glory.

Without Gould's efforts, we would not today have the pleasure of seeing Harrison's timekeepers, intact and in full working order, in their own gallery in the old observatory at Greenwich. Over a period of 13 years, Gould — who had no horological training — painstakingly dismantled the timepieces, cleaned every working part, arranged for the manufacture by specialist horologists of replacement and missing pieces, and rebuilt them, meticulously documenting every step in a series of illustrated notebooks.

Jonathan Betts' compelling, information-packed new book, *Time Restored*, at last gives us a richly detailed account of Gould's life. It is a life every bit as colourful as Harrison's, and equally dogged by heartache and setback. Academically bright, although suffering from a debilitating lack of self-confidence, Gould seemed destined for a successful career in the Royal Navy. But on the eve of the First World War he suffered the first of a series of nervous breakdowns that were to blight his life. His mental health collapsed again at the outbreak of the Second World War. His periods of clinical depression were brought on by fear of three things, he said: lightning, revolution and hell. In all, he experienced four major breakdowns, during which he suffered severe memory loss and was unable to speak for long periods. Recovery each time was slow. Working with his beloved clocks was what restored him and gave him a sense of purpose.

Perhaps as a result of his mood swings, Gould's private life was a disaster. As restoring the Harrison clocks became an obsession, he neglected his children, drank heavily at home, and saw his marriage to Muriel Estall disintegrate. She left the family home, taking their



John Harrison's eighteenth-century timekeepers have been beautifully restored by Rupert T. Gould.

daughter Jocelyn with her. In the lawsuit that followed, the details of the couple's private life (she accused him of violence, drunken fits and unreasonable sexual demands) caused a scandal. Gould was ostracized by polite society and his job prospects were permanently damaged.

Gould's exceptional talents were not limited to clock restoration. He was a talented artist, producing both exquisite line drawings and bizarre imaginative art in the manner of Aubrey Beardsley. He wrote with flair and eloquence, captivating readers with a series of eccentric books on a range of curious topics, and gained a considerable reputation as a broadcaster, first as a regular contributor to the BBC's children's hour, and then as a panellist on the intellectual radio roundtable, *The Brains Trust*.

Betts has produced a finely crafted biography, full of lovingly observed insight into Gould's character, including his many personal failings. But the book is much more than a biography. In the introduction, Betts tells us how he has loved clocks since childhood, and we learn that he is now in charge of preserving the Harrison timekeepers for posterity. *Time Restored*, then, is a loving restoration of a reputation, to set alongside the clocks to which both Gould and Betts have devoted so much care and attention.

Chapter 4 is a concise retelling of the whole longitude story, including a readily comprehensible account of precisely what the problem of longitude entails, and the technical details of the timekeepers that Harrison built to solve it. Here, in one book, readers can find an authoritative account of Harrison's quest, and details of the workings of the Harrison clocks, alongside the painstaking reconstruction of the complicated life of one of the key protagonists in the history of the timekeepers.

In *Longitude*, Sobel wrote that the restored Harrison timepieces at the Greenwich old observatory "constitute John Harrison's enduring memorial, just as St Paul's Cathedral serves as monument to Christopher Wren". Betts shows us with extraordinary elegance that in the case of the Harrison clocks, the memorial is a double one: to Harrison and to Gould, the complicated, depressive, brilliant, failed navigation officer without whose obsessive attentions and unstinting labours the clocks would almost certainly have been lost for ever. ■

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## 2006 wrapped up

### Mary Purton

It has been a strange year for science books. Some authors have presented new ideas about science — there has been a tussle over string theory, for example, and in *Moral Minds* Marc Hauser has suggested that morality is as innate as language (see *Nature* 443, 909–910; 2006). But perhaps the dominant theme running through many of the popular science books published this year has been, surprisingly, religion.

The continuing debate about the teaching of creationism in schools has no doubt fuelled this preoccupation. Many scientists, particularly those in the United States, have been moved to take a stand against proponents of creationism and intelligent design. *Intelligent Thought*, edited by John Brockman, is a collection of essays from the likes of Jerry Coyne and

Tim White who provide elegantly expressed scientific arguments to counter the claims of intelligent design. This book should appeal to "those who already see evolutionary biology as a science", according to John Tyler Bonner (see *Nature* 442, 355–356; 2006). Michael Shermer's *Why Darwin Matters* is perhaps more accessible for the public, but neither book is likely to sway creationists from their belief.

Many of the scientists who made it to the top of the bestseller lists focused specifically on religion. Daniel Dennett's book *Breaking the Spell* provides essentially a natural history of religion but skirts around the cultural reasons why religion has developed and become such a dominant force in politics today, in the view of reviewer Michael Ruse (see *Nature* 439, 535; 2006). In *Six Impossible Things Before Breakfast*, Lewis Wolpert treads similar ground but