

Time-Eater for Cambridge



The citizens of Cambridge, its thousands of transient students and millions of visitors now have a dynamic piece of horological art to ponder. Unveiled by Professor Stephen Hawking on September 19th, it is much more than a simple public clock; it is designed to frighten, fascinate, and intrigue.

Timothy Treffry



The 4-foot golden dial is at first sight rather inscrutable and not immediately recognisable as a clock face. There are no hands or obvious hour markers, just 3 rings of radial slits. The dial is topped by a scary animated beast in the form of a grotesque grasshopper; below a golden pendulum swings back and forth in a wide arc.

The clock is situated in a former doorway on a street corner in mediaeval Cambridge and thus confronts the passer-by at eye level. The £1M clock was designed and built as a gift to Corpus Christi College by a former student, Dr John Taylor, assisted by a team of artists and engineers. The building behind the clock is The Taylor Library, an earlier gift to the College.

Taylor is an electrical engineer with 150 patents, one of which operates a switch used in 75% of the world's electric kettles. Its operating principle is a bimetal strip; a device originally attributed to the great British Horologist, John Harrison, and a fact which helped to inspire Taylor's interest in early clock making. The new clock is a fascinating blend of a tribute to Harrison and the genius of a gifted engineer with a keen sense of fun and philosophy.

Harrison was the inventor of a system of hinged levers for the frictionless control of an escapewheel that became known as the 'grasshopper' escapement. In the

The Chronophage clock designed and created by Dr John Taylor for Corpus Christi College, Cambridge.

Corpus Christi Clock, instead of being hidden inside the mechanism, the escapement has been moved to the top of the clock and the system of levers transformed into a voracious insect, the Chronophage; devouring each second of the day and swallowing every minute. Now in his 70s, Taylor admits to having become very conscious of the passage of time and that a minute lost can never be retrieved.

The time is displayed by blue lights in the appropriate second, minute and hour slits. This is achieved by an array of blue LEDs placed behind the dial and revealed by the behaviour of rotating slotted discs between the dial and the lights.

The mechanism, which is said to be 'entirely mechanical', will be described in a forthcoming book. A number of mysteries remained to be revealed. The Chronophage blinks his sinister eye, but only at irregular intervals; the pendulum seems to pause occasionally, does the speed of time change? On the hour the blue lights oscillate around the dial and a sound, said to be that of a heavy length of chain dropping into a coffin, is heard. There is plenty in this fascinating clock to tantalise passers-by and pilgrims for many years to come.

For a video of the clock see: www.admin.cam.ac.uk/offices/communications/1522.html 🕒

