

## AHS London Lecture Thursday 22 September 2016 Sebastian Whitestone

### Galileo, Huygens and the invention of the pendulum clock

Renaissance horology was not short of confidence; it mirrored planetary orbits, gave statues life and even claimed perpetual motion. Yet for the first half of the 17th century it neglected the urgently needed and relatively simple task of nudging and numbering pendulum oscillations after Galileo discovered their periodicity. Astronomers had no choice but to push and count pendulum swings, on occasions for hours at a time. Galileo brought wheelwork to the pendulum before he died but if he intended to make a clock why, fifteen years later, was the pendulum clock unknown to Italian clockmakers?

The earliest datable pendulum clocks were made in Holland 15 years after Galileo died. But why did Coster and his fellow Dutchmen ignore the basic grammar of their new harmonic oscillator, rejecting its choice of frequencies consistent with the unit of measurement? What was the secret that passed between Coster and Fromanteel? The story of the invention of the pendulum clock is full of paradox and mystery, with myths and misinterpretations persisting to this day. Major developments require redefining from Galileo's initial inspiration to Huygens' first publication and his central ambition.



Sebastian Whitestone has published numerous articles in *Antiquarian Horology*. His work on identifying Huygens' lost design of his pendulum invention was published in *Annals of Science* 69:1, January 2012.

#### TICKETS:

Owing to the security requirements at 78 Cannon Place, all members and guests attending the London Lecture Series need to register for free tickets in advance of each lecture. Simply visit our website at [www.ahsoc.org/events/london-lectures](http://www.ahsoc.org/events/london-lectures) and follow the links for the lectures you require. If you have any difficulties please email [ahs.londonlectures@gmail.com](mailto:ahs.londonlectures@gmail.com). Alternatively, book your place by calling 01580 200 155 (24-hour answering machine).



A rare copy of Giuseppi Campani's *Discorso*, Rome 1660. Campani, a member of Italy's premier instrument making family, was first shown pendulum clocks along with a print of one by Huygens.

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