

TIMEKEEPERS IN HISTORICAL OBSERVATORIES

Challenges in conservation, restoration and maintenance

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Studying the heritage of observatories: an approach through archives, material culture and operating chains of astronomical pendulum clocks

The heritage of observatories is not limited to the classic archives used by historians but also includes material culture and scientific instruments. Among these, astronomical pendulum clocks hold a central place. Found in large numbers in observatories, they not only preserve exact time but also determine and transmit it.

The proliferation of clocks, their maintenance, and their improvement are ongoing concerns within these scientific institutions. Thus, the relationship between astronomers and clockmakers is key to understanding how observatories function. While astronomers need horological expertise to maintain their collection of clocks, clockmakers, in turn, rely on precise time to refine their products.

Studying these clocks therefore requires taking this interaction seriously. However, this study is complicated by the lack of explicit mentions of astronomical pendulum clocks in historical sources: they are often briefly referenced, sometimes described in detail when particularly significant, but generally treated as an undifferentiated group.

This presentation proposes an analytical method combining the study of manuscript sources with material culture through the development of operating chains. The aim is to trace the journey of time data, from its production to its dissemination, in order to better understand the different categories of timekeeping devices and their specific uses within an astronomical observatory. The Neuchâtel Observatory will serve as a case study to illustrate this approach.

Julien Gressot is a postdoctoral researcher in the history of science and technology at the University of Neuchâtel. His research focuses on the history of time measurement, scientific institutions, and horology. Regularly collaborating with museums, he is currently leading an exhibition project across four institutions, dedicated to the history and heritage of the Neuchâtel Observatory.