

## **"National inventory of historical scientific instruments"**

In the history of the development of science, in particular, in experimental sciences, it is necessary to analyze not only the papers of scholars, their scientific heritage, scientific theories, but also the study of the scientist's workshop, that is their laboratory equipment and apparatus.

Both research directions: the history of the development of scientific theories and the development of scientific instruments are mutually complementary, and together they form a complete source of material for the historian of experimental and natural sciences.

The main objective of this project is to examine the resources of historical scientific instruments preserved in Polish museums and selected astronomical observatories, and to assess their historical and scientific value. The data collected will allow investigating whether there is a correlation between the availability and quality of research instruments of Polish scientists, and their achievements and contribution to the science. The collected data will enable the inclusion a new source for research into the history of science in Poland.

The project will cover two main tasks:

1. Development of a method of valorization of examined scientific instruments, which constitutes a tool of objective evaluation of the instrument as a museum object.
2. Development of an electronic database of historical scientific instruments; the database will be made available to the public.

For these aims the research queries will be used. Research will be carried out in all Polish museums registered in the museums of the National Institute of Museums and the Protection of Collections and in 12 selected astronomical observatories. The chronological study area will cover the period from the 11th century to year 1945. In Polish museums unique instruments have been preserved: medieval astronomical instruments, and also 19th century gas liquefying instruments of exceptional historical value.

The knowledge of the entire collection is random and at the current state prevents interdisciplinary studies in the history of particular natural sciences, history of technology, cultural and social aspects of science.

The project carries at least two of the following, significant innovations:

1. The heritage of scientific instruments is rarely undertaken in Polish research, and the source material (instrumental and manufacturing resources) is practically unexplored. Introducing of this area of history of science will be the inspiration and the starting material for further detailed historical research, such as making of scientific instruments in Poland, the contacts of Polish scientists with European scientists and instrument makers, the correlation between their achievements and their apparatus equipment.
2. The developed method of valuing historical scientific instruments will become an inaccessible tool of work for museum curators, conservators, historians of science and art.

Polish inventory of historical scientific instruments in the form of a database will be our major contribution to the world's scientific heritage. The results of the project will be presented in papers and in a monograph on the heritage of scientific instruments in Poland.

The project will be implemented for 36 months.