

Lecture I – History

The beginning of science

Ancient Greece VI century B.C.

The pre-Socratic philosopher Thales (640–546 BC), dubbed the "father of science", was the first to postulate non-supernatural explanations for natural phenomena.

The scientific method 1500-1700

Isaac Newton *Philosophiae Naturalis Principia Mathematica* (Mathematical Principles of Natural Philosophy), first published in 1687.

Universities

Research & education

University of Bologna (1088), the University of Paris (1150, later associated with the Sorbonne), and the University of Oxford (1167).

Books and letters

Nicolaus Copernicus *De revolutionibus orbium coelestium*, 1543

Scientific Societies

The first scientific society, the *Accademia Secretorum Naturae* founded in Naples in 1560 by Giambattista della Porta. Candidates for membership had to present a new fact in natural science as a condition of membership. Closed by inquisition in 1578.

The *Accademia dei Lincei*, literally the "Academy of the Lynx-Eyed" (named after the lynx, an animal whose sharp vision symbolizes the observational prowess that science requires), the first science academy, founded in 1603 in Rome, Italy by aristocrat Federico Cesi, Galileo Galilei was the intellectual centre of the academy which disappeared in 1651.

The Royal Society of London for Improving Natural Knowledge - the oldest national scientific institution in the world founded in 1660.

Scientific Journals

The first academic journal (in the humanities) *Journal des sçavans* – journal of scientists, published 1665–1792, 1797, 1816 – present.

The first academic in natural sciences *Philosophical Transactions of the Royal Society*, 1665. Edited and published by the Society's first secretary Henry Oldenburg. The functions of the journal: to give researchers a venue to impart their knowledge to one another, to improve and perfect natural knowledge. **Peer review** invented by Oldenburg become fully systematic by the 1830s.