The seventeenth century was a period of political revolutions, religious persecutions and intellectual innovations. Consequently, it was a period of uncertainty. Philosophers reexamined the foundations of knowledge. The role of the new science in this development is ambiguous. The "new philosophy" of the seventeenth century both contributed to the uncertainty and tried to solve it.

Around 1700, British and other philosophers framed a new view of the world and society, whereby modern science, traditional religious views and political stability supposedly went harmoniously together. Their ideas became a dominant element of eighteenth-century thought. In their view, science provided the foundations of natural theology. The "new philosophy" thus was socially and religiously legitimized. The many discoveries of the seventeenth century became part and parcel of the general culture of the eighteenth century.

Apart from giving momentum to the discoveries of the "scientific revolution", the episode is important as well for an understanding of the interaction of science and society. In modern eyes, the ways these people tried to harmonize science and religion are often far from convincing. So, what made their ideas appealing for contemporaries? Were their motives opportunistic or religiously inspired? And how far did both religion and natural theology undergo adaptations in the process?

In this course, this development will be studied with special attention to the work of the famous naturalist John Ray. Ray was one of the persons who initialized and advocated the new synthesis of science and religion, both in his *The wisdom of God* and in *Three physico-theological discourses*. We shall concentrate on the latter, trying to put it in its religious, scientific, and social context.

In the first weeks, we shall discuss various background materials. The reading assignments therefore will to a large degree serve to make you familiar with the various important aspects of the period. In addition, they will introduce some historiographical issues and identify the questions that are worth asking about this period. In later meetings, more specific questions will be addressed, concerning John Ray’s life and work and the science and religion of the period.

A schedule of discussion is appended. The schedule is tentative. It may be adapted as a consequence of class discussion or in view of specific interests (or linguistic abilities) of the students. Students are welcomed to bring in their own suggestions on relevant topics or literature. As for reading, the schedule on purpose offers only a few titles. Students are asked to prepare for a meeting by finding literature for the theme of next week. The selection of literature will then be discussed.

Students are supposed to keep up with the reading and discuss reading materials in class. Preparing for the meetings will normally include a short writing assignment, either a
summary of part of the reading or the answer to certain questions which have been posed during the earlier meeting. Beyond the weekly assignments, each student will write a formal research paper (ten to fifteen pages). The exact topic will be decided upon during the first half of the course. The paper will be an opportunity for students to apply materials and ideas developed in the course, and should include contextualizing the topic within the historiography and analyzing specific primary materials. A first version will be discussed in one of the last class sessions. The final version will be submitted on the last teaching day of the semester (May 2) unless another day is agreed upon. The final paper will count for half the grade. The other half will depend on participation in class work and class discussions.

Schedule

Jan. 17: General introduction

Jan. 24: General historical background literature, introducing you to the main historical questions. Some classic titles which have determined our view of the period:
- Paul Hazard, La crise de la conscience européenne, 1680-1715 (Paris 1961) (translated into English: The European mind 1680-1715)

Jan. 31: Political and religious background
- Joachim Whaley, Religious toleration and social change at Hamburg 1529-1819 (Cambridge etc. 1985).

Febr. 7: Science and religion ca. 1700

Febr. 14: The rise of natural theology / physico-theology

Febr. 21: John Ray

Febr. 28: Ray's physico-theological discourses

March 6: continued

March 13: Millenarianism. The Burnet controversy
March 21: Earthquakes and meteorology

March 27: Spring vacation, no class.

April 3: Ray's work in national and international context.

April 10: Presentation of student's papers

April 17: Presentation of student's papers

April 24: t.b.a.

May 1: t.b.a.

Dillenberger


Trevor-Roper


G.R. Cragg,

John Gascoigne, 'From Bentley to the Victorians. The rise and fall of British Newtonian natural theology', in Science and context 2 (1988) 219-256

Barbara Shapiro


Scott Mandelbrot,

M.J.S. Rudwick, The meaning of fossils (Chicago 1985)

Raven, A life of John Ray

Notes and records of the Royal Society 54 (2000) (on Ray)


Margaret Jacob?

Vermij, 'At the origins of the Newtonian philosophy: the case of the Amsterdam mathematical amateurs', in: British Journal for the history of science