

ATRIUM TOUR

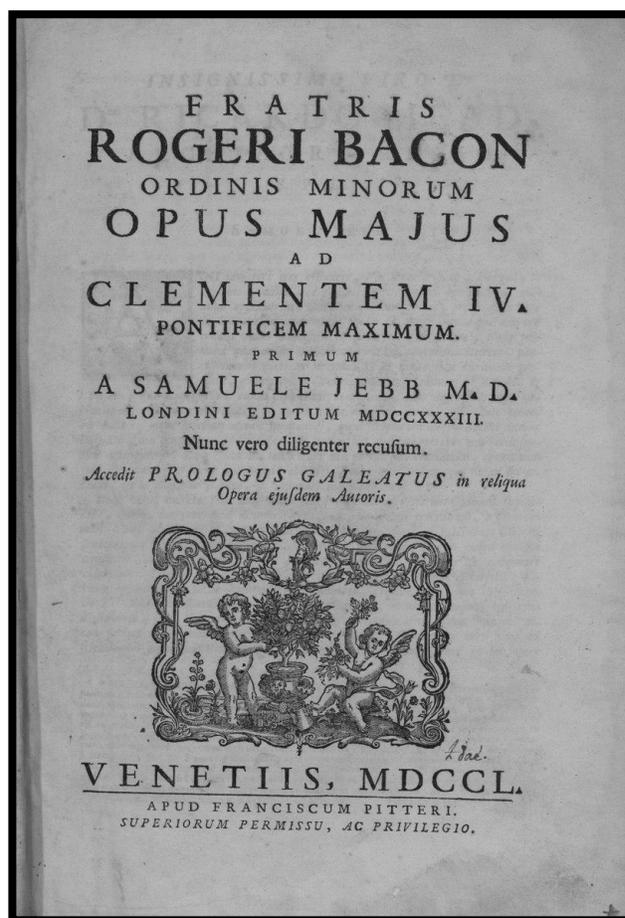
OPUS MAJUS

The Opus Majus is the most important work of Roger Bacon. Written in Medieval Latin, it was sent to Pope Clement IV in 1267 to explain the work that Bacon had undertaken. Opus Majus was an encyclopedia of the known science of his day (which even included a description of how to make a telescope). He worked feverishly on this project in secret, since his superiors at the friary did not approve of it. Bacon wanted to demonstrate to the pope that science was the friend of faith and should be a worthy part of the university curriculum.

The 878-page treatise ranges over all aspects of natural science, from grammar and logic to mathematics, physics, philosophy, optics, alchemy, and the scientific method. He strongly advocated the reform of education, arguing that the best means of understanding the world's creator was by close observation and precise measurement of the natural world. In addition, he held that more emphasis should be placed upon the learning of languages, and the study of mathematics, alchemy, astronomy and the physical sciences.

Key Sections of Opus Majus

1. **Causes of Error** – Identifies four sources of human error: reliance on weak authority, influence of custom, ignorance, and the concealment of one's own lack of knowledge.
2. **Philosophy & Theology** – Theology, particularly Holy Scripture, is the foundation of all sciences.
3. **Study of Languages** – Emphasizes the importance of Latin, Greek, Hebrew, and Arabic for understanding wisdom and religious texts.
4. **Mathematics** – Discusses the flaws in the Julian calendar and the shifting of equinoxes and solstices.
5. **Optics** – Discusses the physiology of eyesight, the anatomy of the eye and the brain, and considers light, distance, position, and size, direct vision, reflected vision, and refraction, mirrors and lenses.



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6. **Experimental Science** – Explores alchemy, gunpowder, celestial bodies, and anticipates inventions like microscopes, telescopes, flying machines, hydraulics and steam ships.

7. **Philosophy** - Considers moral philosophy and ethics.

Note: An incomplete version of Bacon's *Opus Majus* was published by William Bowyer in London in 1733. It was edited by Samuel Jebb from a manuscript at Trinity College, Cambridge which omitted the seventh part.

As a recent paper emphasizes, this major work cannot be usefully read exclusively in the context of the history of science and philosophy while forgetting to consider Bacon's religious commitment to the Franciscan Order. *"His Opus Majus was a plea for reform addressed to the supreme spiritual head of the Christian faith, written against a background of apocalyptic expectation and informed by the driving concerns of the friars. It was designed to improve training for missionaries and to provide new skills to be employed in the defense of the Christian world against the enmity of non-Christians and of the Antichrist."*