

English Empiricism After Bacon

The Heirs of Solomon's House

The Baconians:

- After Bacon, the desire to understand the world empirically, to “read the Book of Nature,” became an obsession in England, particularly among those with a Puritan perspective.
- There is an irony in this, because Bacon himself had turned his back upon puritanism. However, puritanism had evolved under Laud into a much more diverse movement than it had been in Elizabeth's reign.
- In particular, the connection of scientific advances with a millennial age and the second coming of Christ was a point which many, in the turbulent years of the Civil War, found attractive. (The scholar Charles Webster wrote an influential examination of the Baconians at this time and came to this conclusion.)
- Across England during the Civil War and Protectorate empiricism caught on and the methods were refined to be more of what we would regard as “scientific.”
- The Royal Society, in spite of its carefully crafted image of objectivity and concern with “science” rather than “belief,” had its roots in those who were setting up laboratories to usher in a divinely sanctioned age of material prosperity and peace which would herald the Second Coming of Christ. (Webster again.)

The Tradescants



John (1570-1638), and John (1608-1662)

Father and son both traveled extensively collecting as much material as possible on all forms of life, but especially plants.

The elder was a gardiner to Robert Cecil in 1609, and the travels began as a way to enhance the garden with exotic species. Later he worked for Buckingham.

With Buckingham's assassination the elder became keeper of the King's Gardens.

The younger took over this post in 1634, and he began collecting in earnest, especially from America. The purpose of collecting was shifting toward the “Advancement of Learning.”

This opened the door for unprecedented opportunities for comparison (much like the recovery of texts among the humanists.)

The result was a research garden in Lambeth and a museum of specimens of all varieties in Oxford.

The Tradescants represent a growing trend in the 16th and 17th centuries toward research collections.

1659 the Tradescants' collection of “curiosities” was transferred to Elias Ashmole, who set it up as a research museum in Oxford.



The Invisible College:

- Beginning around 1645 a group of scholars began meeting and corresponding with the express purpose of discussing natural philosophy and advancing technology.
- They were known as the Invisible (or, more commonly among them, the “Philosophical”) College. (They did not have a regular building.)
- Among those involved were Robert Boyle, Robert Moray, John Evelyn, and Christopher Wren.
- The Invisible College was centered on Bacon's principles that knowledge was power, and that all knowledge had been given for use and “the relief of man's estate” (and not for its own sake.)
- Eventually, as the official story goes, the Invisible College would be given royal sanction as the Royal Society.
- We now know that the “Invisible College” was the tip of a much larger iceberg, and that the official history of the Royal Society, first written by Thomas Sprat, began a pattern of reinventing the image of “science” which continues to this day.
- The work of Charles Webster was key, here, but even more important was the cache of documents on which he based his work: The Hartlib Papers.

The Hartlib Papers

- 1933 – 68 tied-up bundles in a wooden chest in a solicitor's office in London, were brought to the attention of a scholar from the University of Liverpool who had written a brief tract on the life of a long-forgotten “reformer of education,” Samuel Hartlib.
- These papers contained much of the personal correspondence of Samuel Hartlib, along with copious notes and rough drafts that he had been reading or editing.
- They were, essentially, everything that he had on his desk and in his “files,” when he died.
- The papers covered a very wide variety of subjects, far beyond what was expected of an “educational reformer.”

Samuel Hartlib (1600-1662)

- Calvinist, born in Prussia. Became an exile during the 30-Years War.
- Moved to England permanently in the mid-1630's.
- Believed that a thorough reform of education and philosophy (in addition to religion) would unite Europe and usher in an age of peace.
- Influenced heavily by the ideas of Francis Bacon and later, Jan Comenius.
- Developed an extensive network of scholars with whom he corresponded, and whom he believed would form the vanguard of this new age. (They tended to believe it too.)
- This semi-formal network of scholars has come to be known as the “Hartlib Circle.”

The Hartlib Circle:

- Consisted of scholars both in England and throughout (mostly Protestant) Europe.
- Interested in absolutely all forms of knowledge which would contribute to their “Universal Reformation.”
- Gathered scraps of knowledge, or at least theories, from everywhere and tested them for practical application and improvement of society.
- The purpose of all forms of knowledge was to relieve human suffering and cure the ills of society. Knowledge was the power to remove suffering from the world.
- Flourished in the “Commonwealth Era” (1650-1660) when the largely Puritan parliament had established a republic (of sorts) after the execution of King Charles.
- After the dissolution of the Commonwealth and the return of the monarchy, many of the most prominent names in the Circle became founding members of the Royal Society, England's main scientific organization.
- Therefore the image of the Royal Society must be modified.

Some interesting projects of the Circle:

- Hartlib: edited books on the best methods of farming and beekeeping (with some interesting observations on how bees lived in a successful, orderly, and peaceful society.)
- Comenius: sought to harmonize the senses, reason, and the Scriptures in a system (*pansophia*) and develop a “universal language” which would finally undo the confusion of the Tower of Babel.
- John Beale: worked on a guidebook for the proper interpretation of dreams.
- Also Beale: A treatise on the preparation of composts.
- (anonymous): a complete description of Virginia.

The Royal Society:

- Founded 1660-62 as a special project of Charles II.
- It was dedicated to the same principles as the Invisible College and Bacon's "Solomon's House" (which it was often affectionately called.)
- As a result of the Civil War, and the role which religion had played in it, as well as the need for healing such divisions, the Royal Society *officially* had a policy that it would not concern itself with matters of faith.
- In his history of the Royal Society, Thomas Sprat credited Bacon with drawing the proper distinction between faith and natural philosophy.
- From this point on, there has been a tendency to read that division into Bacon's writings.
- Ironically, in referring to Bacon's genius, Sprat described him as the "Moses" who led the English nation out of the "Wilderness" of ignorance (and has countless other uses of the Bible and Biblical imagery in his history.)