SHEAR Meets STEM Bibliography, July 2014

The participants in this year’s plenary session have compiled a bibliography to promote teaching and research on the history of science and technology (broadly defined) in the early republic United States. The selection of texts is more eclectic than comprehensive, but many of these primary and secondary sources can be readily incorporated into courses that SHEARites already teach (e.g. the early American survey, the Early Republic, the Age of Jackson). Even as we recognize STEM as an anachronistic term, we believe it to be a productive one: undergraduates benefit from the opportunity to historicize seemingly self-evident categories like Science and to recognize the assertions of power inherent in the privileging of certain kinds of knowledge and expertise over others. Moreover, students will find remarkable contemporary resonance in the early republic’s technological utopianism, its valorization of “useful” knowledge, its emphasis on the commercial value of scientific discovery, and its fascination with neuro-everything. Whether or not the early republic provides an origins story for the STEM-obsessed culture of 2014, we can certainly use that era’s engagement with science and technology to teach a history of immediate relevance to the lives of our students today. –Seth Rockman, Brown University

Science Adam Nelson, University of Wisconsin, Madison
Technology Nina Lerman, Whitman College
Engineering Ann Johnson, University of South Carolina
Math Caitlin Rosenthal, University of California, Berkeley

Primary Sources

Imprints
Texts without a direct link can be found on Early American Imprints.


Beck, Theodoric Romeyn. Annual Address, Delivered by Appointment, Before the Society for the Promotion of Useful Arts ... in the City of Albany. New York: Websters and Skinners, 1813.
Bigelow, Jacob. *Inaugural Address, Delivered in the Chapel of the University at Cambridge, December 11, 1816.* Boston: Wells and Lilly, 1817.

Bigelow, Jacob. *The Useful Arts, Considered in Connexion With the Applications of Science.* Boston: Thomas H. Webb, 1840.


Cooper, Thomas. *The Introductory Lecture of Thomas Cooper, Esq., Professor of Chemistry at Carlisle College, Pennsylvania, Published at the Request of the Trustees, With Notes and References.* Carlisle, Penn.: Archibald Loudon, 1812.


Huntington, Eleazer. *An Introduction to the Art of Penmanship; Or, A New and Improved System of Round and Running Hands, For the Use of Schools in the United States*. Hartford: O.D. Cooke, 1821.


Jones, Thomas P. *An Address on the Progress of Manufactures and Internal Improvement, in the United States; and Particularly, on the Advantages to Be Derived from the Employment of Slaves in the Manufacturing of Cotton and Other Goods, Delivered in the Hall of the Franklin Institute, November 6, 1827*. Philadelphia, J. Dobson, 1827.


*Report of the Franklin Institute, of the State of Pennsylvania, for the Promotion of the Mechanic Arts on the Best Modes of Paving Highways...* Philadelphia: n.p., 1843.


**Patents**

Burke, Edmund. *List of Patents for Inventions and Designs, Issued by the United States from 1790 to 1847...* Washington: J. and G.S. Gideon, 1847. [Provides patent issue dates that can be used to locate records on US Patent and Trademark Office Image Database, especially post-1836. Google Patents allows you to limit searches to a range of years, but its full-text searching is illusory (missing the pre-1836 handwritten applications and losing many words in OCR translations). The Directory of American Tool and Machinery Patents is also a useful resource.]


**Periodicals**

These references are to a specific digitized volume, but longer runs can also be found on-line.


*The Farmer’s Register, A Monthly Register Devoted to the Improvement of the Practice…*, Vol II, Shellbanks, VA, 1834.


Secondary Sources
This list is admittedly short on some topics (e.g. medicine, astronomy), and readers are advised to consult other sources. The annual bibliography in the journal Isis is the most comprehensive listing, but inattentive to the early American republic as a discrete chronological era. For the history of technology, start with Nina Lerman’s bibliography in Judith A. McGaw, ed., Early American Technology: Making and Doing Things from the Colonial Era to 1850 (1994).


