

# Prelim Reading List for American Science

(last updated: November 3, 2006)

Proposed preliminary examination reading list for Dana Freiburger.

List of categories:

1 – Overview, Historiography, ‘Classics’, and Survey Works

2 – Science and Technology in America

3 – Science and American Universities

4 – Scientific Instruments in America

5 – Science and Religion

6 – Institutions of Science

7 – Medicine in the United States

8 – Biography

9 – Museums, Fairs, and Popular Science

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## 1 – Overview, Historiography, ‘Classics’, and Survey Works

01	A	Bruce, The launching of modern American science, 1846-1876, 1988.
02	C	Cohen, Science and the founding fathers: science in the political thought of Jefferson, Franklin, Adams and Madison, 1995.
03	A	Daniels, American science in the age of Jackson, 1968.
04	C	Hindle, Early American Science, 1976.
05	A	Hindle, The pursuit of science in Revolutionary America, 1735-1789, 1956.
06	B	Kohlstedt and Rossiter, Historical writing on American science: perspectives and prospects, 1986.
07	C	Maier, Inventing America: a history of the United States, 2003.
08	C	May, The Enlightenment in America, 1976.
09	B	Numbers and Rosenberg, The scientific enterprise in America: readings from Isis, 1996.
10	B	Reingold, Science, American style, 1991.
11	B	Rosenberg, No other gods: on science and American social thought, 1997.

## 2 – Science and Technology in America

01	B	Aldrich, New York Natural History Survey, 1836-1845: a chapter in the history of American science, 2000.
02	B	Edney, Cartographic Culture and Nationalism in the early United States: Benjamin Vaughan and the Choice for a Prime Meridian, 1811, 1994.
03	C	Linklater, Measuring America: how an untamed wilderness shaped the United States and fulfilled the promise of democracy, 2002.
04	B	Lucier, Commercial Interests and Scientific Disinterestedness: Consulting Geologists in Antebellum America, 1995.
05	B	Stearns, Science in the British colonies of America, 1970.
06	C	Struik, Yankee science in the making, 1962.

## 3 – Science and American Universities

01	B	Geiger, To advance knowledge: the growth of American research universities, 1900-1940, 1986.
02	B	Guralnick, Science and the ante-bellum American college, 1975.
03	C	Levin, Defining women's scientific enterprise: Mount Holyoke faculty and the rise of American science, 2005.
04	C	Montgomery, Minds for the making: the role of science in American education, 1750-1990, 1994.
05	B	Roberts and Turner, The sacred and the secular university, 2000.
06	B	Rossiter, Women scientists in America: struggles and strategies to 1940, 1982.
07	C	Shryock, American Indifference to Basic Science during the Nineteenth Century, 1966.
08	B	Tolley, Science for Ladies, Classics for Gentleman: A Comparative Analysis of Scientific Subjects in the Curricula of Boys' and Girls' Schools in the United States, 1794-1850, 1996.
09	B	Veysey, The emergence of the American university, 1965.

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## 4 – Scientific Instruments in America

01	C	Bedini, Early American scientific instruments and their makers, 1986.
02	C	Bedini, Of 'Science and Liberty': The Scientific Instruments of King's College and Eighteenth-Century Columbia College in New York, 1993.
03	B	Bedini, Thinkers and tinkers: early American men of science, 1975.
04	C	Cohen, Some early tools of American science; an account of the early scientific instruments and mineralogical and biological collections in Harvard University, 1950.
05	B	Fleming, Meteorology in America, 1800-1870, 1990.
06	B	Hindle, David Rittenhouse, 1964.
07	C	Warner, 'Exploring the Inner Labyrinths of Creation': Popular Microscopy in Nineteenth-Century America, 1982.

## 5 – Science and Religion

01	B	Appleby, Exposing Darwin's 'Hidden Agenda': Roman Catholic Responses to Evolution, 1875-1925, 1999.
02	C	Conser, God and the natural world: religion and science in antebellum America, 1993.
03	B	Gilbert, Redeeming culture: American religion in an age of science, 1997.
04	A	Larson, Summer for the gods: the Scopes trial and America's continuing debate over science and religion, 1998.
05	B	Numbers, Creation by Natural Law: Laplace's Nebular Hypothesis in American Thought, 1977.
06	B	Numbers, Darwinism comes to America, 1998.
07	B	Numbers, The Creationists, 1992.
08	B	Roberts, Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859-1900, 1988.
09	B	Turner, Without God, without creed: the origins of unbelief in America, 1985.

## 6 – Institutions of Science

01	A	Dupree, Science in the federal government, a history of policies and activities to 1940, 1957.
02	B	Kohler, Partners in science: foundations and natural scientists, 1900-1945, 1991.
03	B	Kohlstedt, Sokal, Lewenstein and American Association for the Advancement of Science., The establishment of science in America: 150 years of the American Association for the Advancement of Science, 1999.
04	B	Lankford and Slavings, American astronomy: community, careers, and power, 1859-1940, 1997.
05	B	Sinclair, Philadelphia's philosopher mechanics; a history of the Franklin Institute, 1824-1865, 1974.
06	A	Slotten, Patronage, practice, and the culture of American science: Alexander Dallas Bache and the U.S. Coast Survey, 1994.
07	B	Westwick, The national labs: science in an American system, 1947-1974, 2003.

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## 7 – Medicine in the United States

01	C	Fye, The development of American physiology: scientific medicine in the nineteenth century, 1987.
02	C	Ludmerer, Learning to heal: the development of American medical education, 1985.
03	A	Numbers and Warner, The Maturation of American Medical Science, 1997.
04	C	Numbers, Medicine in the New World: New Spain, New France, and New England, 1987.
05	C	Numbers, The Education of American physicians: historical essays, 1980.
06	A	Rosenberg, The cholera years: the United States in 1832, 1849, and 1866, 1962.
07	A	Starr, The Social Transformation of American Medicine, 1982.
08	C	Warner and Tighe, Major problems in the history of American medicine and public health: documents and essays, 2001.
09	B	Warner, The therapeutic perspective: medical practice, knowledge, and identity in America, 1820-1885, 1986.

## 8 – Biography

01	C	Bedini, The Life of Benjamin Banneker, 1971.
02	C	Bedini, Thomas Jefferson: Statesman of Science, 1990.
03	C	Brown, Benjamin Silliman: A Life in the Young Republic, 1989.
04	A	Chaplin, The First Scientific American: Benjamin Franklin and the Pursuit of Genius, 2006.
05	A	Dupree, Asa Gray, 1810-1888, 1959.
06	B	Israel, Edison: A Life of Invention, 1998.
07	C	Kline, Steinmetz: Engineer and Socialist, 1992.
08	A	Lurie, Louis Agassiz: A Life in Science, 1960.
09	C	Mendenhall and Rubinger, An American scientist in Early Meiji Japan: The Autobiographical Notes of Thomas C. Mendenhall, 1989.
10	B	Moyer, Joseph Henry: the Rise of an American Scientist, 1997.
11	B	Stephens, Joseph LeConte, Gentle Prophet of Evolution, 1982.
12	B	Wayman, Edward Sylvester Morse: a biography, 1942.
13	C	Zachary, Endless frontier: Vannevar Bush, engineer of the American Century, 1999.

## 9 – Museums, Fairs, and Popular Science

01	C	Brigham, Public culture in the early republic: Peale's Museum and its audience, 1995.
02	B	Keeney, The botanizers: amateur scientists in nineteenth-century America, 1992.
03	B	Nadis, Wonder Shows: Performing Science, Magic, and Religion in America, 2005.
04	C	Orosz, Curators and culture: the museum movement in America, 1740-1870, 1990.
05	C	Rydell, All the world's a Fair: Visions of Empire at American International Expositions, 1876-1916, 1984.

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## Complete bibliography:

1. Aldrich, Michele L., *New York Natural History Survey, 1836-1845: a chapter in the history of American science* (Ithaca, N.Y.: Paleontological Research Institution, 2000).
2. Appleby, R. Scott, "Exposing Darwin's 'Hidden Agenda': Roman Catholic Responses to Evolution, 1875-1925," in Numbers, Ronald L. and Stenhouse, John (eds.), *Disseminating Darwinism: the Role of Place, Race, Religion, and Gender* (Cambridge: Cambridge University Press, 1999).
3. Bedini, Silvio A., *Early American scientific instruments and their makers* (Rancho Cordova, CA: Landmark Enterprises, 1986).
4. Bedini, Silvio A., *The Life of Benjamin Banneker* (New York: Scribner, 1971).
5. Bedini, Silvio A., "Of 'Science and Liberty': The Scientific Instruments of King's College and Eighteenth-Century Colombia College in New York," *Annals of Science* 50-3 (1993), 201-227.
6. Bedini, Silvio A., *Thinkers and tinkers: early American men of science* (New York: Scribner, 1975).
7. Bedini, Silvio A., *Thomas Jefferson: Statesman of Science* (New York, N.Y.: Macmillan, 1990).
8. Brigham, David R., *Public culture in the early republic: Peale's Museum and its audience* (Washington: Smithsonian Institution Press, 1995).
9. Brown, Chandos Michael, *Benjamin Silliman: A Life in the Young Republic* (Princeton, NJ: Princeton University Press, 1989).
10. Bruce, Robert V., *The launching of modern American science, 1846-1876* (Ithaca, N.Y.: Cornell University Press, 1988).
11. Chaplin, Joyce E., *The First Scientific American: Benjamin Franklin and the Pursuit of Genius* (New York: Basic Books, 2006).
12. Cohen, I. Bernard, *Science and the founding fathers: science in the political thought of Jefferson, Franklin, Adams and Madison*, 1st ed. (New York: W.W. Norton, 1995).
13. Cohen, I. Bernard, *Some early tools of American science; an account of the early scientific instruments and mineralogical and biological collections in Harvard University* (Cambridge: Harvard University Press, 1950).
14. Conser, Walter H., *God and the natural world: religion and science in antebellum America* (Columbia, S.C.: University of South Carolina Press, 1993).
15. Daniels, George H., *American science in the age of Jackson* (New York: Columbia University Press, 1968).
16. Dupree, A. Hunter, *Asa Gray, 1810-1888* (Cambridge: Belknap Press of Harvard University Press, 1959).
17. Dupree, A. Hunter, *Science in the federal government, a history of policies and activities to 1940* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1957).
18. Edney, Matthew H., "Cartographic Culture and Nationalism in the early United States: Benjamin Vaughan and the Choice for a Prime Meridian, 1811," *Journal of Historical Geography* 20, 4(1994), 384-395.
19. Fleming, James Rodger, *Meteorology in America, 1800-1870* (Baltimore: Johns Hopkins University Press, 1990).
20. Fye, Bruce, *The development of American physiology: scientific medicine in the nineteenth century* (Baltimore: Johns Hopkins University Press, 1987).

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22. Gilbert, James Burkhart, *Redeeming culture: American religion in an age of science* (Chicago, IL: University of Chicago Press, 1997).
23. Guralnick, Stanley M., *Science and the ante-bellum American college* (Philadelphia: American Philosophical Society, 1975).
24. Hindle, Brooke, *David Rittenhouse* (Princeton, N.J.: Princeton University Press, 1964).
25. Hindle, Brooke, *Early American Science* (New York: Science History Publications, 1976).
26. Hindle, Brooke, *The pursuit of science in Revolutionary America, 1735-1789* (Chapel Hill: Published for the Institute of Early American History and Culture, Williamsburg, 1956).
27. Israel, Paul, *Edison: A Life of Invention* (New York: John Wiley, 1998).
28. Keeney, Elizabeth, *The botanizers: amateur scientists in nineteenth-century America* (Chapel Hill: University of North Carolina Press, 1992).
29. Kline, Ronald R., *Steinmetz: Engineer and Socialist* (Baltimore: Johns Hopkins University Press, 1992).
30. Kohler, Robert E., *Partners in science: foundations and natural scientists, 1900-1945* (Chicago: University of Chicago Press, 1991).
31. Kohlstedt, Sally Gregory and Rossiter, Margaret W., *Historical writing on American science: perspectives and prospects* (Baltimore, Md.: Johns Hopkins University Press, 1986).
32. Kohlstedt, Sally Gregory, Sokal, Michael M., Lewenstein, Bruce V., and American Association for the Advancement of Science., *The establishment of science in America: 150 years of the American Association for the Advancement of Science* (New Brunswick, N.J.: Rutgers University Press, 1999).
33. Lankford, John and Slavings, Ricky L., *American astronomy: community, careers, and power, 1859-1940* (Chicago: University of Chicago Press, 1997).
34. Larson, Edward J., *Summer for the gods: the Scopes trial and America's continuing debate over science and religion* (Cambridge, MA: Harvard University Press, 1998).
35. Levin, Miriam R., *Defining women's scientific enterprise: Mount Holyoke faculty and the rise of American science* (Hanover: University Press of New England, 2005).
36. Linklater, Andro, *Measuring America: how an untamed wilderness shaped the United States and fulfilled the promise of democracy* (New York: Walker & Co., 2002).
37. Lucier, Paul, "Commercial Interests and Scientific Disinterestedness: Consulting Geologists in Antebellum America," *Isis* 86(1995), 245-267.
38. Ludmerer, Kenneth M., *Learning to heal: the development of American medical education* (New York: Basic Books, 1985).
39. Lurie, Edward, *Louis Agassiz: A Life in Science* ([Chicago]: University of Chicago Press, 1960).
40. Maier, Pauline, *Inventing America: a history of the United States* (New York: W.W. Norton, 2003).
41. May, Henry Farnham, *The Enlightenment in America* (New York: Oxford University Press, 1976).

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43. Montgomery, Scott L., *Minds for the making: the role of science in American education, 1750-1990* (New York: Guilford Press, 1994).
44. Moyer, Albert E., *Joseph Henry: the Rise of an American Scientist* (Washington: Smithsonian Institution Press, 1997).
45. Nadis, Fred, *Wonder Shows: Performing Science, Magic, and Religion in America* (New Brunswick, N.J.: Rutgers University Press, 2005).
46. Numbers, Ronald L., *Creation by Natural Law: Laplace's Nebular Hypothesis in American Thought* (Seattle: University of Washington Press, 1977).
47. Numbers, Ronald L., *The Creationists*, 1st ed. (New York: A. A. Knopf, 1992).
48. Numbers, Ronald L., *Darwinism comes to America* (Cambridge, Mass.: Harvard University Press, 1998).
49. Numbers, Ronald L., *The Education of American physicians: historical essays* (Berkeley: University of California Press, 1980).
50. Numbers, Ronald L., *Medicine in the New World: New Spain, New France, and New England* (Knoxville: University of Tennessee Press, 1987).
51. Numbers, Ronald L. and Rosenberg, Charles E., *The scientific enterprise in America: readings from Isis* (Chicago: University of Chicago Press, 1996).
52. Numbers, Ronald L. and Warner, John Harley, "The Maturation of American Medical Science," in Leavitt, Judith Walzer and Numbers, Ronald L. (eds.), *Sickness and health in America: readings in the history of medicine and public health*, 3rd (Madison: University of Wisconsin Press, 1997).
53. Orosz, Joel J., *Curators and culture: the museum movement in America, 1740-1870* (Tuscaloosa: University of Alabama Press, 1990).
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62. Sinclair, Bruce, *Philadelphia's philosopher mechanics; a history of the Franklin Institute, 1824-1865* (Baltimore: Johns Hopkins University Press, 1974).

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66. Stephens, Lester D., *Joseph LeConte, Gentle Prophet of Evolution* (Baton Rouge: Louisiana State University Press, 1982).
67. Struik, Dirk Jan, *Yankee science in the making*, New rev. ed. (New York: Collier Books, 1962).
68. Tolley, Kim, "Science for Ladies, Classics for Gentleman: A Comparative Analysis of Scientific Subjects in the Curricula of Boys' and Girls' Schools in the United States, 1794-1850," *History of Education Quarterly* 36(1996), 353-389.
69. Turner, James, *Without God, without creed: the origins of unbelief in America* (Baltimore: Johns Hopkins University Press, 1985).
70. Veysey, Laurence R., *The emergence of the American university* (Chicago: University of Chicago Press, 1965).
71. Warner, John Harley, "'Exploring the Inner Labyrinths of Creation': Popular Microscopy in Nineteenth-Century America," *Journal of the History of Medicine and Allied Sciences* 37-1 (1982), 7-33.
72. Warner, John Harley, *The therapeutic perspective: medical practice, knowledge, and identity in America, 1820-1885* (Cambridge, Mass.: Harvard University Press, 1986).
73. Warner, John Harley and Tighe, Janet A., *Major problems in the history of American medicine and public health: documents and essays* (Boston: Houghton Mifflin, 2001).
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75. Westwick, Peter J., *The national labs: science in an American system, 1947-1974* (Cambridge, Mass.: Harvard University Press, 2003).
76. Zachary, G. Pascal, *Endless frontier: Vannevar Bush, engineer of the American Century* (Cambridge, MA: The MIT Press, 1999).