Lecture Outline
STS.001

THE TRANSPORTATION REVOLUTION
c. 1815-1860

A. Ralph Waldo Emerson on “The Superstitions of Our Age”

The fear of Catholicism
The fear of pauperism
The fear of immigration
The fear of manufacturing interests
The fear of radical democracy
And faith in the steam engine

Emerson, Journals (Aug. 1847)

B. The politics of “internal improvement,” 1815-1845
   a. Albert Gallatin’s Report (1808) calls for a federally-supported
      national system of roads and canals
   b. The Madison Platform/Henry Clay’s “American System” (1816+)
   c. John C. Calhoun and the Bonus Bill (1817): “Let us conquer
      space....”
   d. The General Survey Act (1824-1840) assigns U.S. Army engineers to
      survey and initiate construction on numerous canals and nearly 50
      railroads
   e. Example: Major George Washington Whistler’s work on the
      Baltimore & Ohio Railroad (c. 1827-29)

C. Elements of the Transportation Revolution [see Cowan, chap. 5]
   a. Roads
      i. The Lancaster Pike (1792)
      ii. The National/Cumberland Road (1808+)
   b. Steamboats
      i. Fulton’s Clermont (1807)
      ii. Steamboats on western rivers: Fulton, Shreve, et al. (1811+)
      iii. Steamboats and steam engine building
         1. Oliver Evans’ Mars Works, Phila. (1806)
         2. George Evans’ Pittsburgh Steam Engine Co. (1812)
         3. James P. Allaire’s works in New York, a Fulton protégé
            (1806)
         4. “Schools” for mechanics/engineers: Joseph Harrison
            [see Cowan, pp. 74-76]
c. Canals
   i. The Powtownmack Co. (1785) and corporate capital
   ii. The Erie Canal (1825) and state financing

d. Railroads
   i. Early “connective” railroads:
      1. The Boston & Lowell (1830)
      2. The Boston & Worster (1830-31)
      3. The Charleston & Hamburg (1830)
      4. The Philadelphia, Wilmington & Baltimore (1838)
   ii. “Anthracite roads”:
      1. The Delaware & Hudson (1828)
      2. The Reading (1830s)
   iii. Trunk line railroads:
      1. The Baltimore & Ohio (1828+)
      2. The Camden & Amboy/Pennsylvania (1832+)
      3. The New York & Erie
      4. The New York Central
      5. The Boston & Albany

D. The Hardware:
   a. Fulton’s Hudson River fleet
   b. The western river steamboat, 1811+ [see Cowan, pp. 108-10]
   c. British transfers: “Planet class” locomotives
      i. Whistler and the Lowell Machine Shop, c. 1834-37
   d. Joseph Harrison’s Hercules (1837) and the classic “American style” 4:4:0 locomotive
   e. Harrison in Russia (1842-1852): The St. Petersburg & Moscow Railroad (an early transfer of American technology to Europe)

E. Railroads and the rise of modern management
   b. The role of army engineers in the rise of modern management
      i. Accidents/managerial responses (e.g. Whistler on Western RR, c. 1840)
      ii. Bookkeeping and accounting practices
      iii. The West Point connection

F. Railroads and literary imagination [see Smith & Clancy, pp. 191ff.]
   a. Emily Dickinson’s “The Railway Train”
   b. Daniel Webster’s speech at opening of Northern Railroad at Lebanon, New Hampshire, 1847