

**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 Powtormack 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**

- a. Alfred Chandler’s “Visible Hand” thesis (1977)**
- 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 & Clancey, pp. 191ff.]**

- a. Emily Dickinson’s “*The Railway Train*”**
- b. Daniel Webster’s speech at opening of Northern Railroad at Lebanon, New Hampshire, 1847**