**Lecture 3 – The Transport Revolution – Overcoming Geography and the Energy Limits of Millennia**

Factual story – Between 1815 and 1860, American entrepreneurs and innovators developed a succession of innovations in transportation, all based in energy: the highway, steamboat, canal, and railroad. Those innovations reflected American society, governance, and culture – even as the innovations caused radical change in society and culture

Theme – Given the stark limits on the powers of the Federal government in the 19th century, it was new transportation links and commercial interactions that did most of the work in crafting a unified nation. Americans embraced new transport technologies, but they were insufficient to entirely unify the nation politically – as the Civil War would show

* How to make a nation?
  + Remaining dependence on Britain for trade, etc…
  + Sectionalism toward the war of 1812 vs. Great Britain
  + Secretary proposed improved transportation but was rejected by Jefferson – inland travel and shipping costs were a burden
  + Roads built by private firms – not controlled by the government
  + States refused to fund canals due to the external benefits to others when they became a necessity for inland trade
* Erie and the canal era
  + Canals increased freight capacity
  + Locks required technology, time, money, etc…
  + Economic success often depends on nature and energy – fungibility theme
  + New York transformed legal power to build the canal
  + Had economic success into the 1880s
* The western rivers steamboat
  + Technology adopted from England and got monopoly from the state of New York
    - Transformation of power into energy
  + Monopoly is struck down in court
    - Argument of restricting national trade
  + The Mississippi was a large spot for steamboats – access to much of the country via other waterways
  + Steamboat incidents prompted government regulation
    - New precedent for government regulation of new technologies
* The railroad to 1860
  + England has a good foundation for railroad transportation, but the U.S. does not
  + B&O Railroad granted charter in MD and VA
    - Able to live longer than a normal company
    - Issues stocks and bonds
    - Transfer of power from government to private firms
  + Railroads come to depend on investment banks on the stock market
  + Promoted development of large organizations
    - Need a system to govern the railroad and control lines and fees
  + Railroads may have connected the north and the west, but not the north and the south
    - Heightened the split between the north and the south leading up to the Civil War