

# Complex Information and the Future of Digital Scholarship

Presented to the Computer Science  
and Engineering Department  
Colloquium

University of Nebraska, Lincoln

September 15, 200

William G. Thomas, III

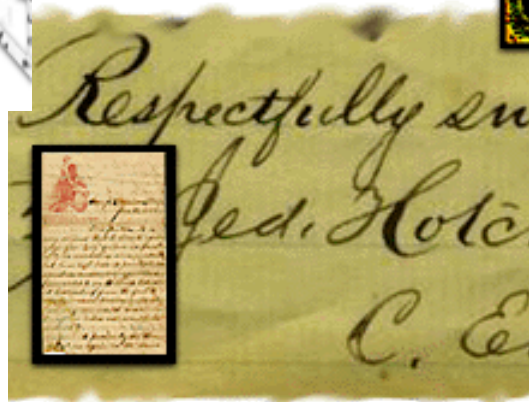
John and Catherine Angle Professor in the Humanities

University of Nebraska-Lincoln

# "Dynamic Open-ended Information System"



Military  
Records

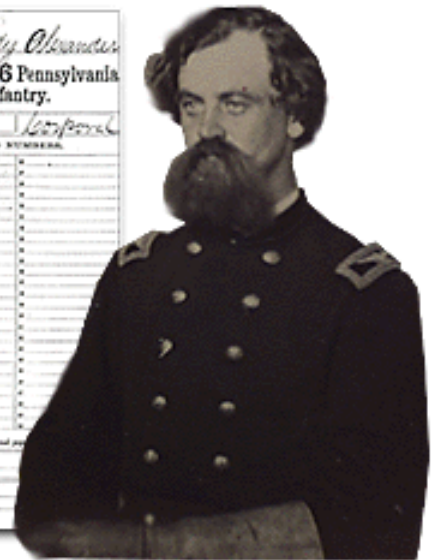


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# Current Practice

- Digital Archives
  - [American Memory, Library of Congress](#)
- Thematic Research Archives
  - [Valley of the Shadow \(UVA\)](#)
  - [Eastern Shore and the Railroad \(UVA\)](#)
- “New Model Scholarship”
  - [“Differences Slavery Made” \(AHR\)](#)
  - Roots of Modern America (UNL)

# Roots of Modern America, 1850-1920

- Focus on Processes, Networks, and Systems

*Emancipation*

*Railroad Growth*

*Migration and Settlement*

*Environmental Change*

*Law and Legal Systems*

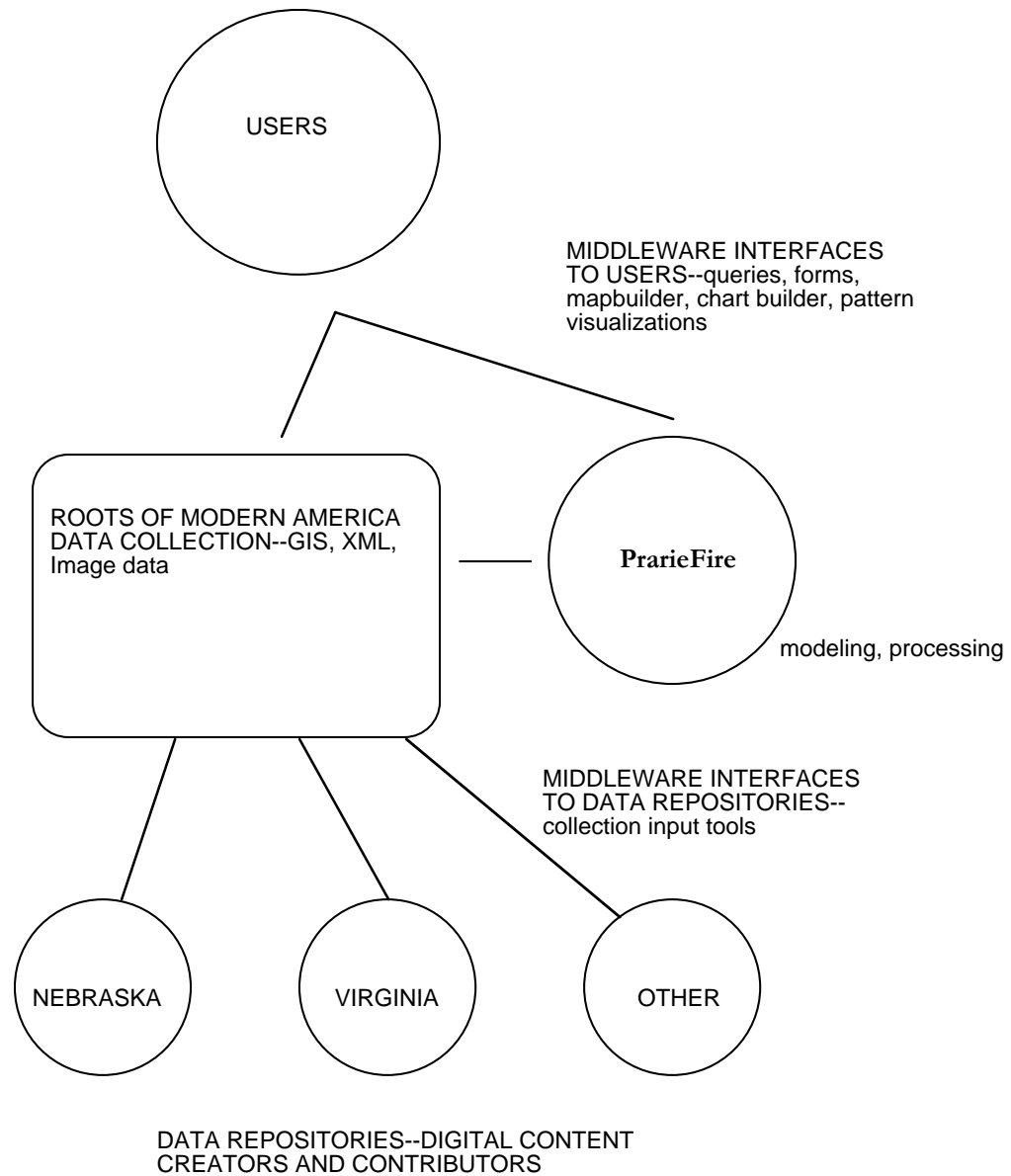
*Political Development*

# Goals:

- To **build a distributed infrastructure** to support evidence and analysis from diverse institutions-- newspapers, business records, and manuscripts, as well as environmental field data, atlases, maps, and government reports.
- To **produce software systems** for representing spatial and temporal relationships among these disparate data
- To **develop interpretations** for those data, allowing users to access, retrieve, and process the data with the most sophisticated tools

Partner Institutions:  
UVA--South region  
UNL--Great Plains

Dynamic--for scale  
and complexity



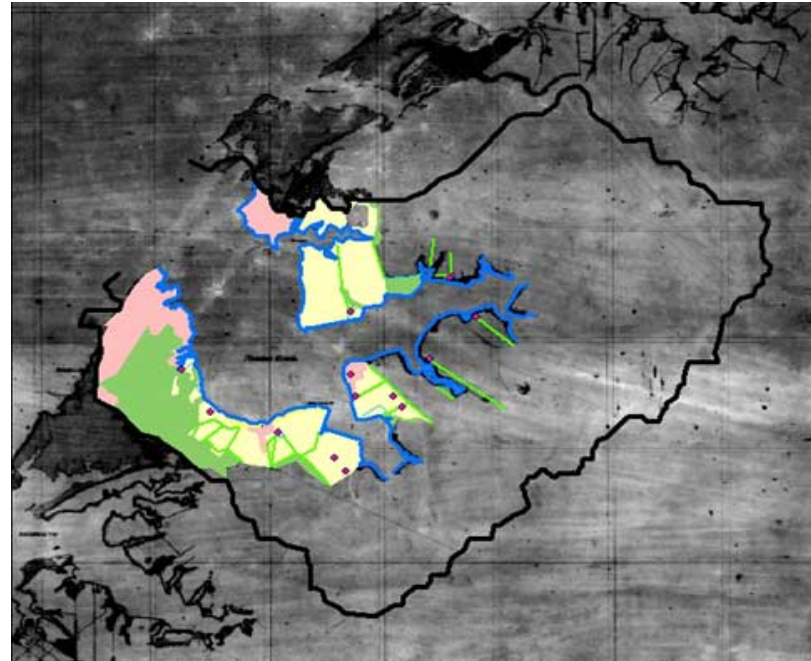
# Roots of Modern America: Chesapeake Regional View

- Nandua Creek
- Nassawadox Creek
- King's Creek



# Roots of Modern America: Chesapeake Regional View

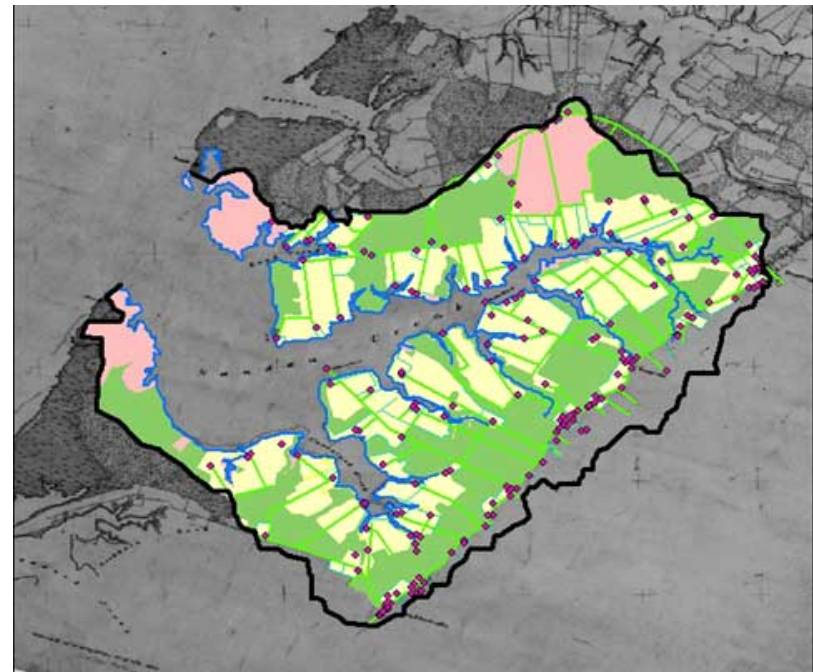
- Nandua Creek
  - 1853
  - 1904
  - 1917



*No.44 Nanuda Creek & Eastern Shore of  
the Chesapeake Bay (A.D. Bache Supt),  
1853.*

# Roots of Modern America: Chesapeake Regional View

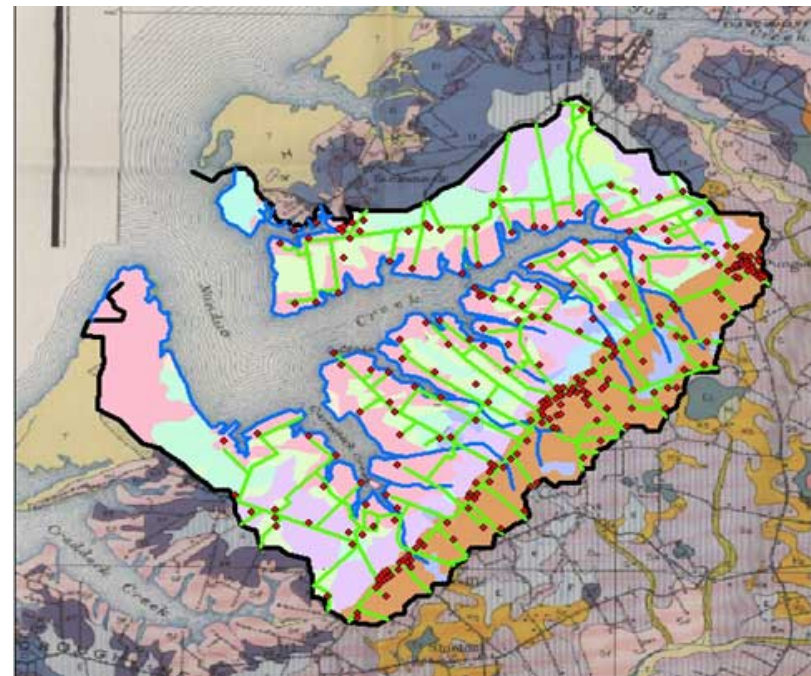
- Nandua Creek
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*Department of Commerce and Labor,  
Coast and Geodetic Survey, O.H.  
Tittmann, Superintendent, Chesapeake  
Bay, Eastern Shore, Craddock Creek to  
Chesconessex Creek, Virginia, 1903-  
1904 .*

# Roots of Modern America: Chesapeake Regional View

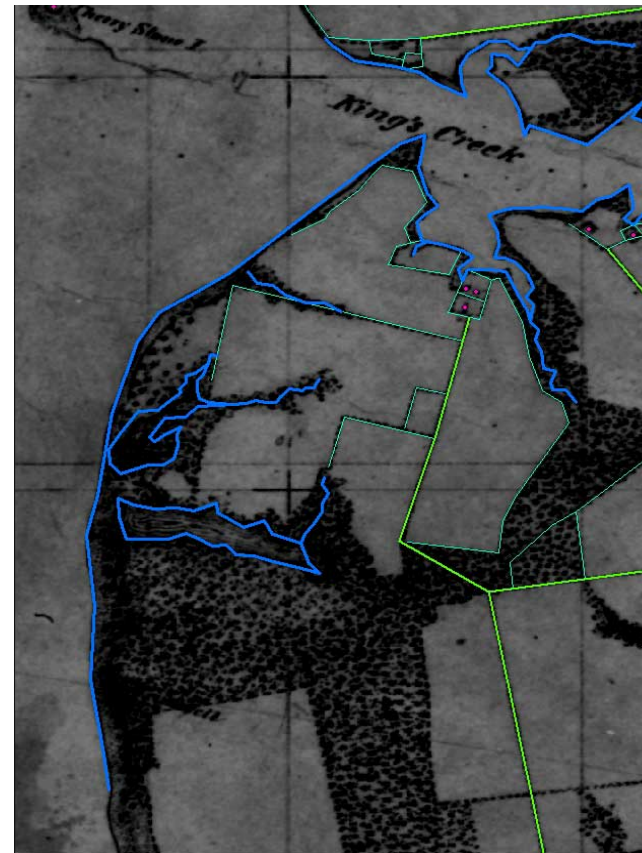
- Nandua Creek
  - 1853
  - 1904
  - 1917



*U.S. Department of Agriculture, Bureau of Soils, Soil survey of Accomac and Northampton Counties, Virginia, by E.H. Stevens ; W. Edward Hearn, Inspector, Southern Division, 1917.*

# Roots of Modern America: Railroad

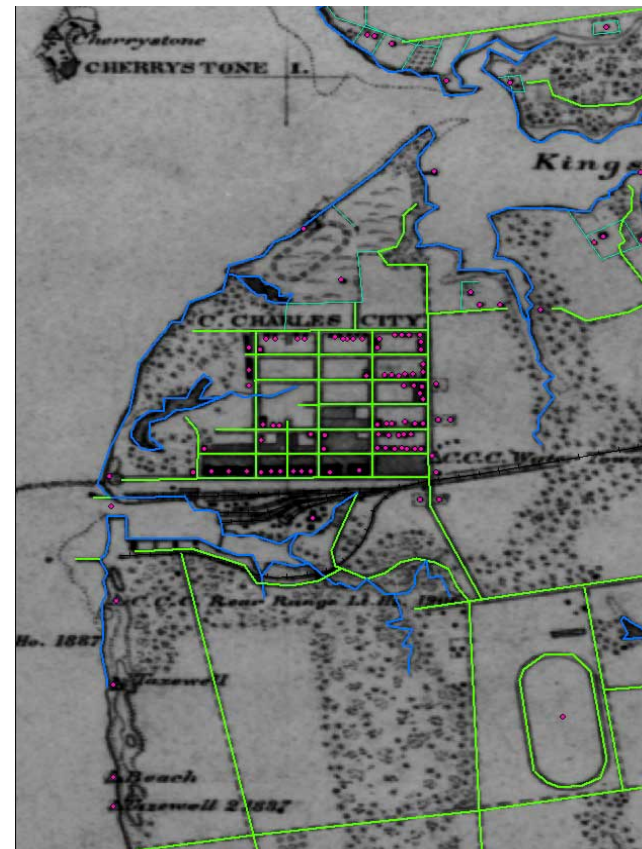
Cape Charles, VA  
1869



*U.S. Coast Survey (Benjamin Peirce  
Supdt.) Eastern Shore of Virginia (Broad  
Water Sheet No. 2). Surveyed during the  
winter and spring of 69-70.*

# Roots of Modern America: Railroad

Cape Charles, VA  
1904



*Department of Commerce and Labor,  
Coast and Geodetic Survey, O.H.  
Tittmann, Superintendent, Chesapeake  
Bay, Eastern Shore, Cape Charles and  
Vicinity, Virginia.*

# Digital Humanities Challenges

- Authoring Tools XSLT
- Data Mining, Interpolation for Humanities Data
- Visual Modeling and Representation

[Example—Valley News](#)