Visualizing Time, Space, and Genealogy Sets with Maps

Robert Ball
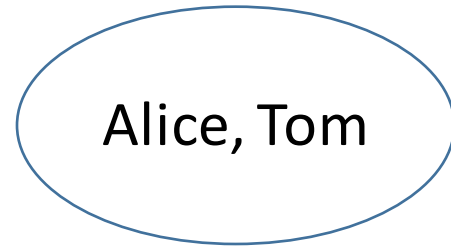
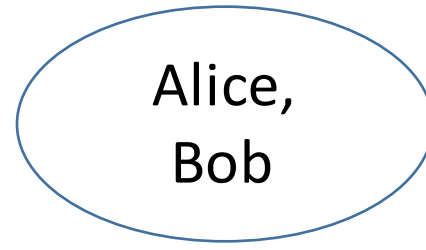**Department of Computer Science**

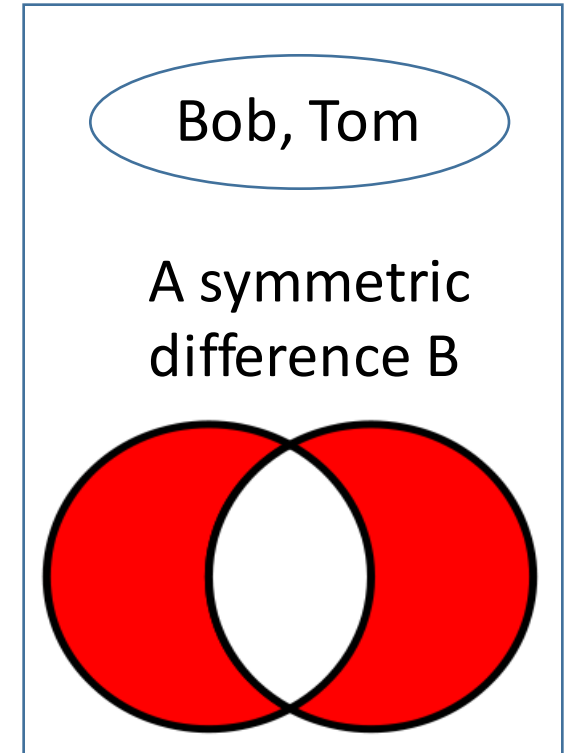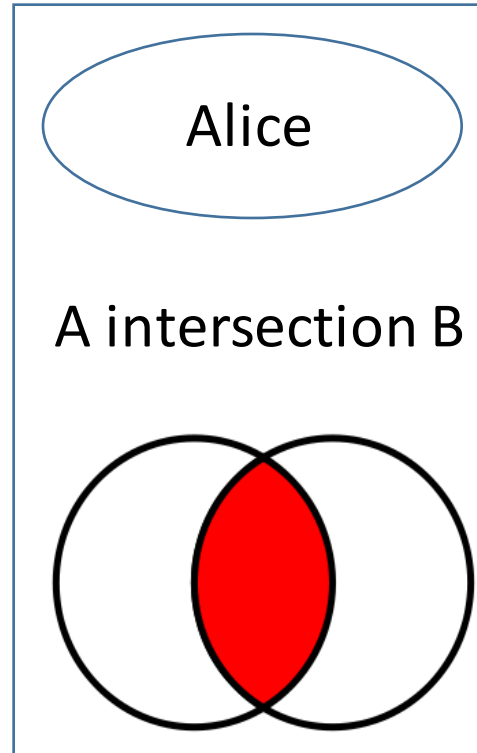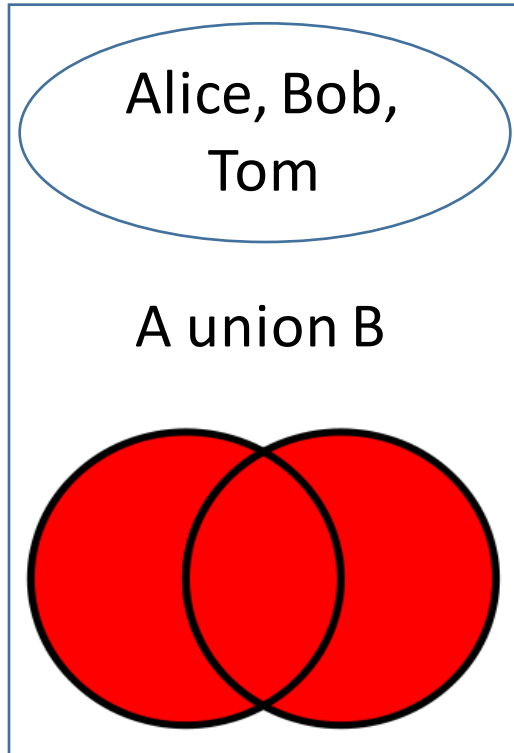**Weber State University**

Key Features

- Sets of data
- A number of independent controls:
  - Map view (location and zoom)
  - Two sliders to control time:
    - Map slider
    - Person slider
   - Sliders can be synced either at low end or high end

Alice, Tom

Alice, Bob

Set A

Set B

Alice, Bob, Tom

A union B

Alice

A intersection B

Bob, Tom

A symmetric difference B

Examples of sources of historically-correct maps

- Historically-correct maps of Africa from 1879 to the present: http://www.brown.edu/Research/AAAH/map.htm

- Ancient maps of Japan: http://www.fas.harvard.edu/~chgis/japan/archive/

- Historically-correct maps of China from 221 BC – 1911 AD: http://www.fas.harvard.edu/~chgis/data/chgis/downloads/v4/

- The National Historical Geographic Information System (NHGIS) - GIS-compatible boundary files for the United States between 1790 and 2010: www.nhgis.org/

- Ancient Greece and Rome: http://pleiades.stoa.org/

Example of Africa in
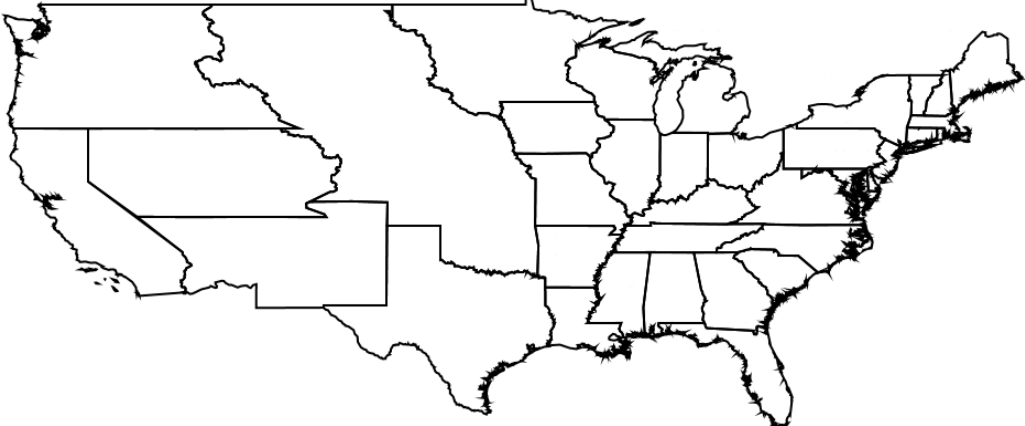# 1900 (left) and 2002 (right)
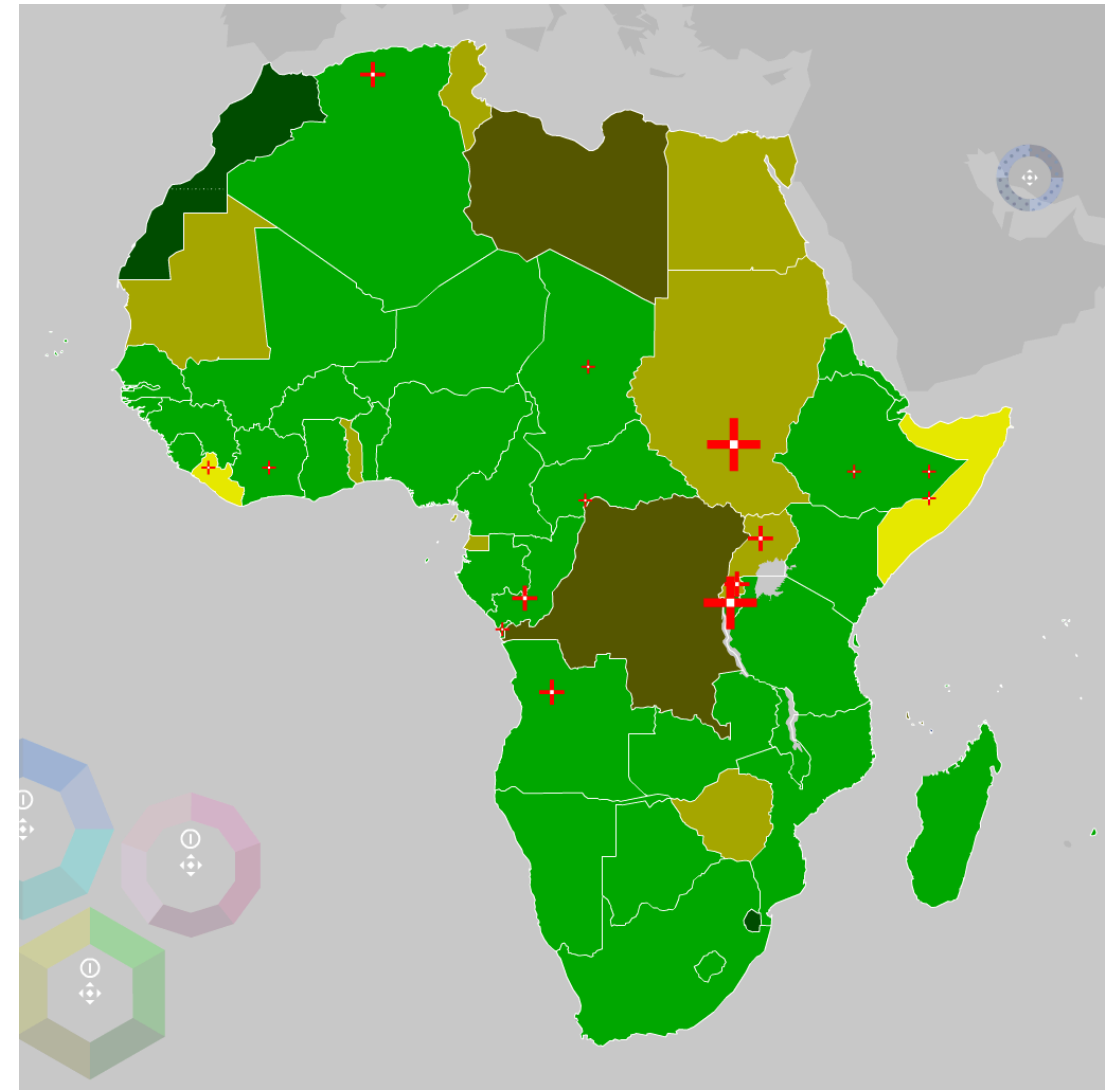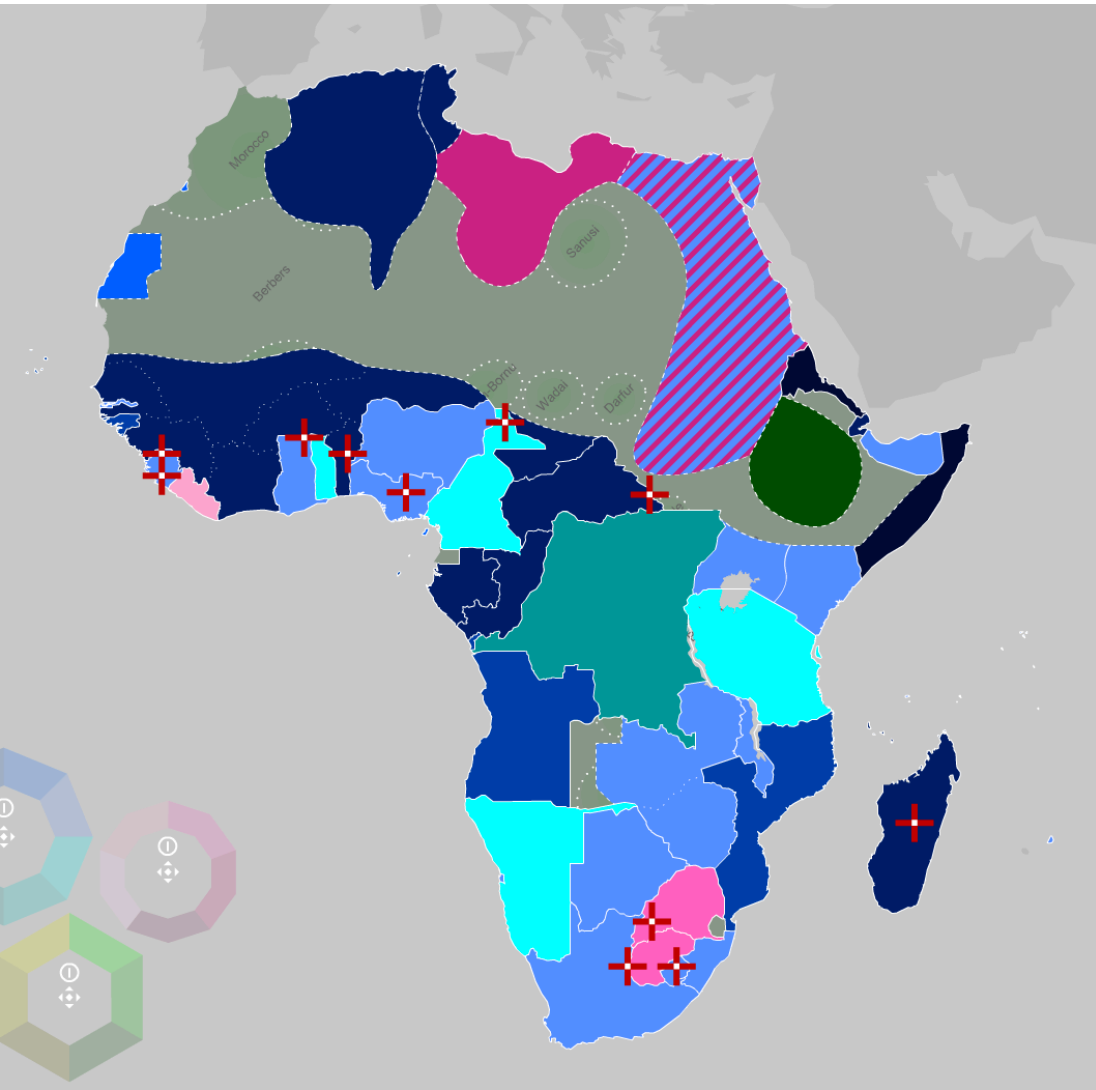
Map View

Can show historically-correct map with or without present-day overlay
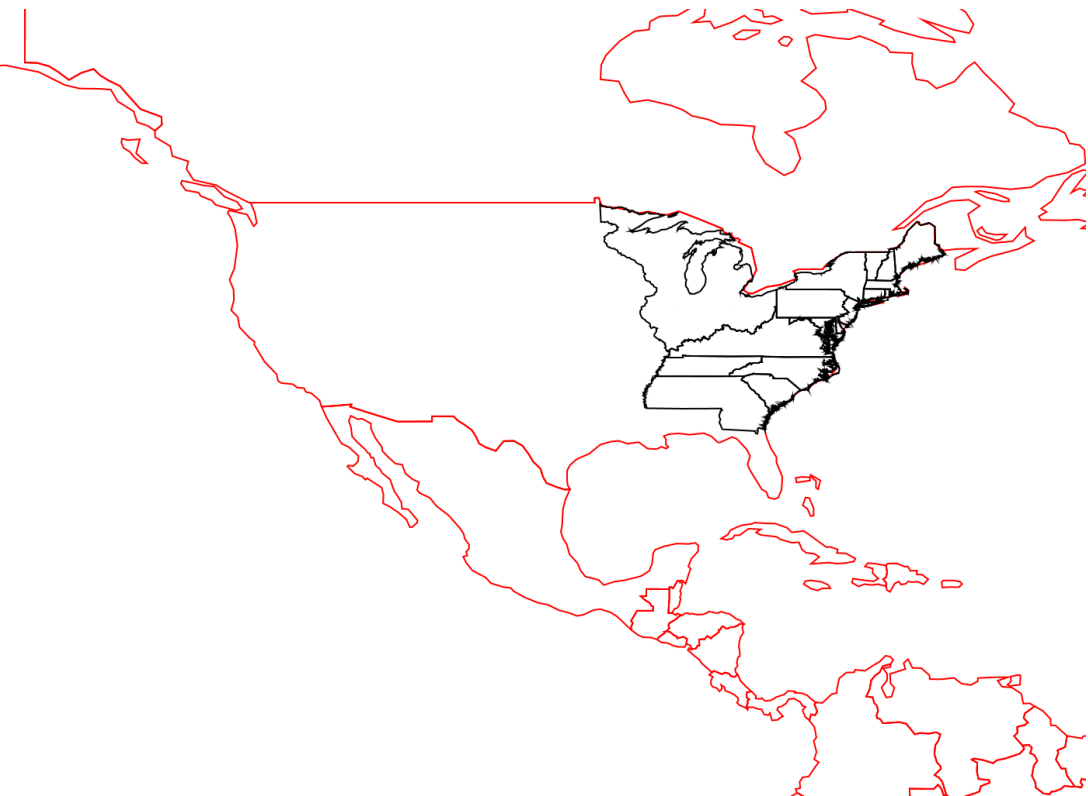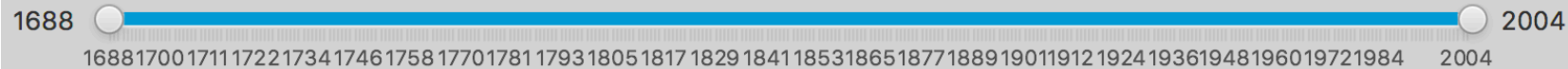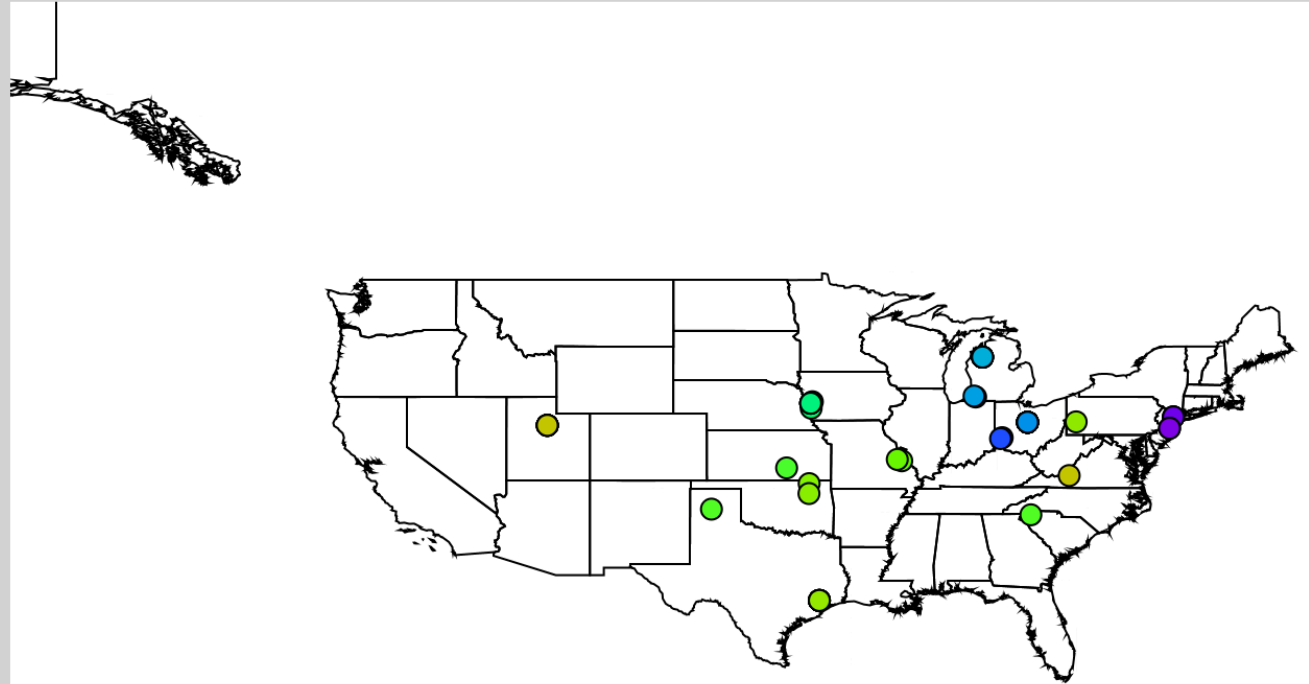
Slider to move through historical maps

Person-slider

- Color-coded to indicate year of event

- Each colored circle is an event for a person

Demo