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GEOG 590 Web Mapping

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Final Project Report

***General Information***

This project displays genealogical information that my grandmother has collected on our family. My grandmother has always been interested in family history, and since the death of my grandfather five years ago she has spent a considerable amount of time tracking down additional information and ancestors to expand the family tree. In some lines, she has tracked down ancestors to the 1600s. Her family has been in the US since at least the early 1800s, and the different branches migrated (both voluntarily and involuntarily) from the East Coast to the interior of North America as the frontier opened. While the information she has collected does include some geographic information (e.g., birth location, death location, and other major life events) it has never been mapped. Migration is inherently mappable, as at its core it is movement from one area to another. In mapping the information that my grandmother has painstakingly collected, this project shows a different aspect of our family history and supplements all of the work she has done by displaying the information in a different way.

Additionally, by pairing my own family history with events in US history, it is possible to see how major events in the history of the country affected the lives of individual people. This helps make the story that I will tell with my web map interesting to more than just my family; hopefully people will think of their own family history as they view the final product.

Family trees can quickly get overwhelming and unwieldy as you go farther back in time, especially if you are showing siblings/all children. While showing the all ancestors and where they lived could be interesting, the story would be complicated and difficult to interpret, particularly since generations overlap or are completely misaligned as you go back in time. To focus the story I am trying to tell, I decided to narrow my dataset to just one “line” of ancestors. And, because the grandmother that has compiled all of this information is my maternal ancestor and she has substantial Cherokee ancestry—and Cherokee society is matrilineal—I decided to focus on maternal ancestors (i.e., only mothers). This choice dictated the geographic area my map focuses on (as well as the time period): the southeastern and southcentral United States from the early 1800s to present. Because my grandmother moved to Minnesota in the 70s and still lives there today, Minnesota is also included in the scope of this map.

***Data Sources/Collection and Processing***

The majority of the data shown on my map is from work my grandmother has done. She has most of her findings posted in an Ancestry.com family tree which I was able to draw on. This data took very little processing, though I did have to geocode the rough birth locations into coordinates to on the map. Because most of the birth locations were very general (e.g., “Cherokee Nation East”) and there were fewer than 10, I used Google Maps to get rough locations for each person. I also communicated directly with my Grandmother, particularly for biographical details about the people shown on the map and photos (where possible).

I also included modern state borders, which I retrieved from the US Census, converted into a GeoJSON file using mapshaper.org, and then filtered for when the state entered the Union. The statehood year was not originally included in the file; this was something I entered manually using geojson.io and a list of statehood year.

***Map Description***

The primary user interaction in this map is by scrolling through the narrative panes. As you scroll, the birth location of the person highlighted in that pane is highlighted with a different color marker. The one exception to this is the very last marker; this marker represents the current location of my grandmother, in Minnesota. I felt it was important to show her current location because it was a major move, and she has now lived in Minnesota for longer than she lived in Oklahoma. I chose the scrolling interaction style because it forces the user to interact with the elements of the map in a set order, much like a timeline. (I considered using a true timeline, but decided against it because it wasn’t as effective for telling a story with major overlap between the different elements—the lives of individual people. Timelines are better for highlighting individual events, rather than telling an overall story about someone’s life.) This also required disabling zooming and panning ability, which limits the user’s interaction with the map and forces them to focus more on the narrative with information about each person and only interact with the map in a set order. Because there are really only two areas that the people shown on this map lived in (i.e., only one major migration event—the Trail of Tears in the 1830s), I don’t think this weakens the map or the user experience. Deciding what zoom level to use required a lot of testing to find a solution that would both allow the user to see detail and have a sense of where they are in the country.

I used traditional markers showing only the birthplace of each person to keep the story simple. People are very familiar with this type of marker, so there is no need for a legend. I considered using a more complicated marker (e.g., a house) but ultimately decided that would make the map too busy given how close together most of the markers are. As the user scrolls, the marker that corresponds to the active pane changes color and also enlarges, which helps it stand out in a cluster of markers. Each marker then reverts to its original grey color and size when it is scrolled past. I thought about having markers appear and disappear instead of just changing color, but decided that it was more interesting to be able to see where previous generations lived and where the next generations would live.

In addition to the markers, states that were already admitted before 1790 are shown when the map is first opened. As you scroll through the panes, the borders of the states that entered the Union during that person’s lifetime are added to the map. Because the zoom level is set for the scale of small regions (a few states), the user doesn’t see many of the states added, but when they reach the end and zoom back out to the whole country all of the state borders are shown. This effect is intentionally somewhat subtle, as states entering the Union is background information and not the focus of the story.

I used a basemap developed by Mapbox which resembles terrain and landcover. I chose this because it doesn’t have roads and cities that didn’t exist during the lives of many of the people shown on my map and it creates a feeling of what the US might have been like when the earliest settlers were moving west.

*UX Diagram*

