Genealogy, Migration, and the Intertwined Geographies of Personal Pasts: Utilization of the FamilySearch API

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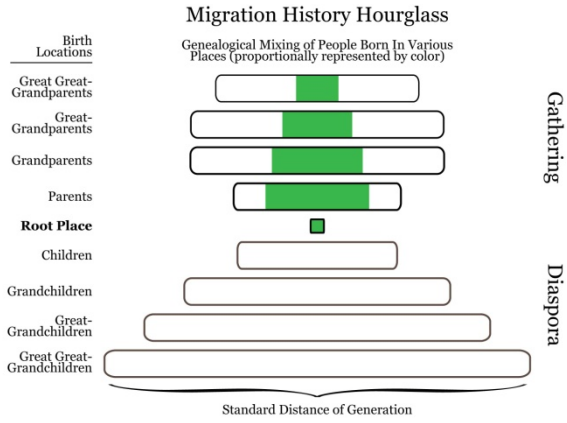
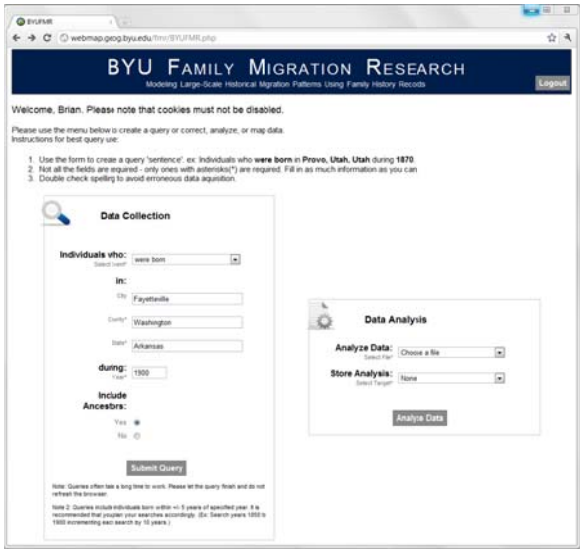
Expanded Abstract:

Genealogical data has tremendous potential to reveal the geographic web of past family connections (Otterstrom 2009). In this poster we present a genealogical geography paradigm that utilizes queries of New FamilySearch to analyze historical migration patterns. Our conceptual model uses these statistics to illustrate hourglass shaped community ancestry and descendancy (however, only the ancestry portion is now available because of query limitations with New FamilySearch) hinterlands that spread out from a local place, and incorporates the ideas of diaspora, gathering, community stability, and genealogical mixing (Figure 1).



The queries collect data from certain places and times, rather than by name. First a specific place, year, and option to include ancestry are entered into the system, in this case Fayetteville, Arkansas for 1900

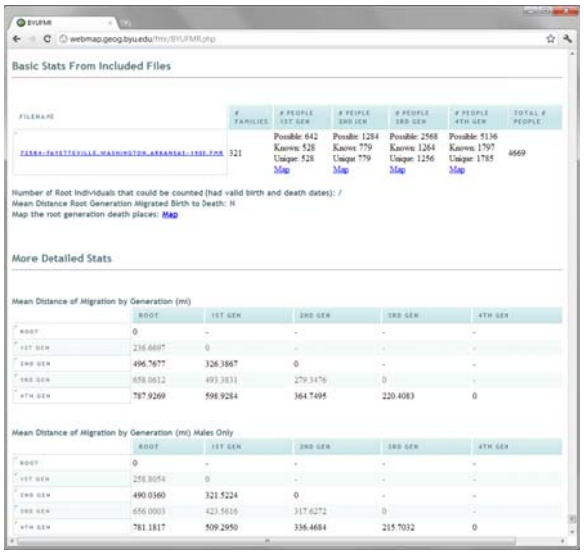
(Figure 2).



Then potential matches to that place are retrieved. Finally, after the correct place is chosen the system makes calls to the FamilySearch API for all people born in that chosen location and time (usually about five years before and after the chosen year). This retrieved dataset of individuals, usually including four generations of ancestors, is collated into a single file.

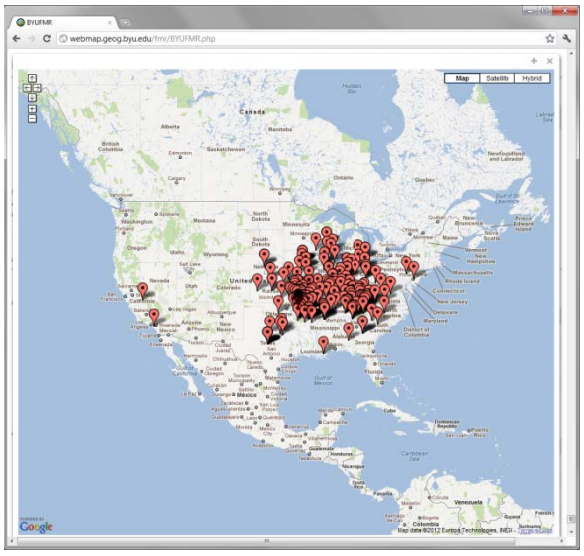
Next our set of descriptive spatial statistics can be calculated for Fayetteville, Arkansas in 1900 using the “Data Analysis” tool in our migration query system. The program first runs through all the place identification numbers attached to each ancestor of the root generation (those born in Fayetteville in about 1900), to see which places are not contained in our local place database. Those locations, with their names, ID numbers, and latitude and longitude values that are not currently in our dataset, are appended into the local system. This speeds up the later analysis process.

A useful set of numbers is the summation of individuals in each generation that precedes the spatial statistics. The display then shows this variety of measures that were derived using the latitude and longitudes of each person organized by generations (Figure 3):



- Mean Migration Distance (MMD) - Average distance between the birthplaces of parents and their children who were born in a specific city or county at a certain time.
- Standard Distance of Generation (SD) – Relative dispersion statistic of all birth places from the weighted mean center in one generation.
- Dispersal Index (Ancestor or Descendant) (ADI/DCI) - Mean migration distances compared and computed between generations.
- Concentration Index (Ancestor or Descendant) (ACI/DCI) - Weighted mean center and standard distance of generation compared between generations.
- Genealogical Mixing Ratios (GMR) – Proportion of ancestors from various source regions/countries.
- Community Stability Index (CSI) – Ratio of parents born within 25 miles to parents born farther away.
- Ravenstein Close Migration Index (RCM) – Ratio of parents born within 50 miles to all parents in that generation.

A link to Google Maps allows one to also map the locations of all the individuals in each generation (Figure 4).



Three case studies utilizing these methods give an indication of what can be done with this analytical approach. The first case study examines the ancestry of

Midwestern US cities of 1900 illustrating multiple migration trajectories projecting eastward over four generations that show an interesting latitudinally based generational migration trend.

The second considers patterns of migration to the Gold Rush impacted areas of Northern California (1850-1900) and highlights increasing community stability and shifting migration distances among mining and commercial centers. The third analyzes the geographic congruence of David Hackett Fischer's (1989) four cultural pathway origins of people who migrated to Colonial America, and lends mixed support of his claims. This research approach enriches our understanding of the migration and family processes that formed the geographically interconnected settlements and regional structures of the world.

Keywords: genealogy, generational migration, North America historical geography

References:

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Otterstrom, S. M. 2009. "Genealogy and Family History." In *International Encyclopedia of Human Geography*, eds. Rob Kitchin and Nigel Thrift. V. 4, p. 334-340. Oxford, UK: Elsevier.