Replication Files

for manuscript The Diffusion of Exclusion: Medieval Expulsions of Jews

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This R Project and associated files were developed for data cleaning and analyses associated with the manuscript "The Diffusion of Exclusion: Medieval Expulsions of Jews." The manuscript, available on SocArXiv, will be published in Comparative Political Studies.

Table of Contents

- Setup
- Code
- Data

Setup

All scripts were written for R. See the included RMarkdown-produced html report (Diffusion_2024-02-05.html) for R session info.

Code

- `Diffusion_main.R` contains the backbone code to run scripts that clean and merge data on urban expulsions, city rulers, participation in city leagues, and pogroms and then perform additional data manipulations to create spatial and temporal measures of expulsions
- `Diffusion_prep.R` contains code to reshape the "wide" dataset of cities where Jews lived into a "long" city-year dataset

- `Dominion_prep.R` contains code to clean and reshape the "wide" records of dominion succession over each city into a "long" city-year dataset
- `Bunde_prep.R` contains code to clean and reshape the "wide" dataset of city league treaties and their participants into a "long" city-year dataset

- `Pogroms_prep.R` contains code to reshape the "wide" dataset of pogroms by city into a "long" dataset by city and year

- `Routing.R` contains code to reproduce the distance matrices of distances between cities along travel networks using riverdist (igraph under the hood)

- `Climate_prep_annual.R` contains code to clean the CCSM4.0 climate data used in analysis in the appendix

- `Diffusion_analysis.Rmd` contains code to reproduce figures (except spatial autocorrelation) and Bayesian regression analyses using rstanarm

- `Diffusion_analysis_yyyy-mm-dd.html` is the html data report from the Rmd when the Rmd was last run (auto-generated date stamp in the file)

- `Diffusion_Autocorrelation.Rmd` contains code to reproduce spatial autocorrelation analyses and figures included in the appendix

- `Diffusion_Autocorrelation_yyyy-mm-dd.html` is the html data report from the Autocorrelation Rmd when the Rmd was last run (auto-generated date stamp in the file)

Data

Data can be found in the `in_data` (csv's) folder and the `GIS_data` folder (shapefiles, rasters).

- `Haverkamp_Ortskatalog_limited_resettlement.csv` - the "wide" dataset of cities where Jews lived, with years of entry and exit, plus reasons for entry/exit coded
- `Haverkamp_Ortskatalog_limited_dominion.csv` - the "wide" records of which political actors held rights of dominion in a city (text field), years of dominion transition, and coded reasons for transitions
- `Distler_Staedtebunde_cleaned.csv` - the "wide" dataset of city league treaties and their participants, recorded from Distler (2006)
- `Haverkamp_Ortskatalog_limited_pogroms.csv` the "wide" dataset of pogroms by city, with year and type of pogrom
- `GdJ_cleaned_nocov_meters.shp` - the georectified shapefile of city locations, reprojected to increase accuracy in measuring distances
- `SRTMs_Study_Area_meters.tif` - digital elevation model cropped to the study area (a geotiff) for calculating ruggedness, raw file downloaded from USGS Earth Explorer
- `GdJ_cleaned_snapped_road100km.shp` - a shapefile of city locations "snapped" to the nearest road, for reproducing distances between cities along roads
- `GdJ_cleaned_snapped_mainriv01road100km.shp` - a shapefile of city locations "snapped" to the nearest road or major river, for reproducing distances between cities along roads or rivers
- `CCSM_climate_annual.csv` - Complete CCSM 4.0 data is available for public download; I use netCDF rasterbricks of mean monthly temperature and precipitation 800-1800 CE (very large files! >2GB each, compresses to ~4GB total). I provide the extracted output created in the `Climate_prep_annual.R` script.
- `routes_all-segments_meters.shp` - a shapefile of medieval travel routes for all of Europe, shared by Bossak and Welford (2015)

Additional data reshaped or produced along the way can be found in `out_files`.

- `distances_mainriv01road_meters.csv` - the matrix of distances along rivers and roads, as produced in the `Routing.R` script
- `mainriv01road_meters_net.rds` - the R data file of the network of cities linked by rivers and roads, as produced in the `Routing.R` script
- `parties_coded.csv` - the hand-coded parties, post the production of the `parties.csv` file, as used in the `Dominion_prep.R` script