

## An Historical GIS of Holocaust Ghettos: Revealing Places and Chronology through Spatial Interrogation

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Although scholars for several decades have been using geographic information systems (GIS) to structure, map, and analyze the spatial patterns inherent in historical sources, rarely has this digital technology been used to study a phenomenon as complex and dynamic as the Holocaust.

This paper explains how the project team involved in the Holocaust Ghettos Project has used historical GIS (HGIS) to disaggregate much of the information contained in the ghettos volume of the United States Holocaust Memorial Museum's Encyclopedia of Camps and Ghettos to study ghettoization both close up –looking at particular places –and from a distant view that encompasses German-occupied Eastern Europe. We will first explain why the systematic, multi-sourced entries in the USHMM Encyclopedia's ghettos volume are well suited to being translated into an HGIS database. Then we will highlight challenges the project team faced in attempting to parse historical information into database form, notably the ambiguity of references to when key events occurred, such as dates of German occupation, ghetto creation, and ghetto liquidation.

In a series of still maps, animated maps, and other data visualizations, we will show what the approach of building an HGIS of Holocaust ghettos can yield: (1) visual answers to historical questions, which reveal general patterns in ghettoization over space and time while also revealing exceptions to broad trends; (2) a means of comparing the occurrence and intensity of events, from incidents of disease to mass murder, among more than 1,100 ghettos; and (3) a richly detailed context for analyzing other sources related to ghettoization, with examples that incorporate historical weather data and Holocaust survivor testimony.