Map Corner

New Interactive Data Maps

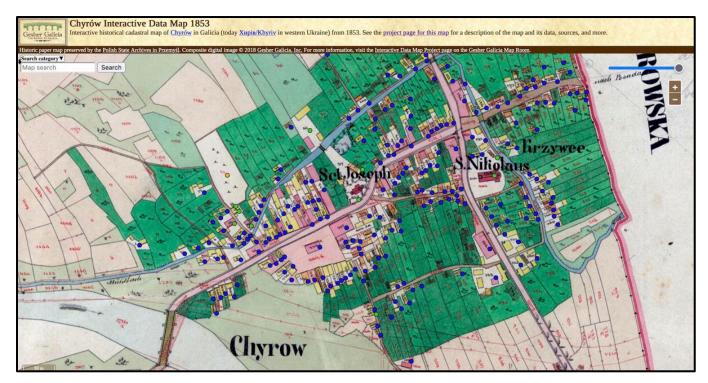
by Jay Osborn, Gesher Galicia Digital Maps Manager

IN PRIOR MAP CORNER articles, we have demonstrated how the cadastral maps in the Gesher Galicia Map Room can be used for two aspects of family history research. The first is to use the maps to locate residences, businesses, and community buildings within historical neighborhoods, giving researchers a spatial orientation to the surroundings and movement of their families over time. The second is to compare the layout and features of ancestral towns in Galicia to their present versions in Poland and Ukraine today.

In this article, we introduce readers to a new web tool that supports these two types of research. This tool, called an interactive data map, enables researchers to simultaneously see modern and historical maps of a given town. It also assists in locating ancestral residences and businesses in the town and in accessing lists of relevant genealogical records.

Published in the Map Room in December 2021, these interactive data maps were developed as a pilot project by Gesher Galicia in coordination with other individual and group researchers over the past few years. We have so far created these maps for the towns of Chyrów (Khyriv, Ukraine), Nadwórna (Nadvirna, Ukraine), Rohatyn, and Skała (Skala-Podilska, Ukraine), and hope to expand the project to other towns going forward. The first four maps are accessible online at maps.geshergalicia.org/datamap/.

Whether or not your ancestral town is included in this first group of interactive data maps, we



The interactive data map for Chyrów, with indexed genealogical records tied to an 1853 cadastral map

encourage you to browse the maps and explore this new tool to see how it seamlessly connects indexed genealogical data with historical and modern geography. The goal is to provide researchers with a multidimensional understanding of their ancestors' lives.

Overlaying History

Each data map consists of three components: a suitable historical cadastral map, web-based modern satellite imagery, and an organized spreadsheet of place-based genealogical records data. Place-based records are those that include house numbers (addresses) or building or land parcel numbers (tax identification numbers) in addition to whatever other information they provide.

The national and regional archives in Poland and Ukraine serve as the key resources for acquiring cadastral maps. The archives preserve thousands of sheets of cadastral maps from the 19th and early 20th centuries. Gesher Galicia has obtained highresolution scans of the surviving sheets for selected cities, towns, and villages in the former Galicia, while some of the archives have published their own scans of many places as well.

For maps that are reasonably complete and clear, we then digitally "stitch" the separate sheets together to create a coherent single image that closely matches the landscape and features of these places at the time they were surveyed, up to two centuries ago. We then publish the completed maps in our online Map Room.

To be suitable for use in our new interactive data maps, a historical map must be annotated with house numbers, as on a preliminary survey field sketch. (See Osborn, Jay, "Map Corner: Nadwórna 1847 Field Sketch," *Galitzianer*, December 2018, 27–30.) If the map is only annotated with building parcel numbers, we must have access to a real property register that correlates parcel numbers to building owners' names and house numbers. (See



Comparing the 1862 cadastral map of Skała and the modern Bing satellite image, aligned and overlaid in the Skała data map.

Osborn, Jay, "Map Corner: Research with the Rozdół Cadastral Map of 1850," Galitzianer, March 2017, 21–23.)

The second component of the interactive data map—the web-based satellite imagery—can be obtained from multiple sources. Web mapping applications such as Google Maps and Bing Maps are good options to use because they provide free and relatively simple presentations of aerial and satellite imagery.

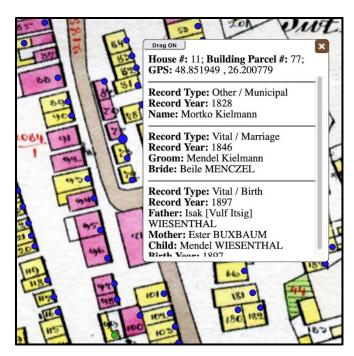
In creating the interactive data map, a historical map of a town is overlaid on the current aerial images of the same geographic area. Natural and manmade features—such as rivers, roads, and significant buildings that have survived largely unchanged—are used to obtain the proper alignment.

On the upper right-hand corner of the map, there's even a slider tool that enables us to make direct comparisons of former and current buildings, as well as other features, at several zoom levels. As demonstrated by the side-by-side comparison of historical and modern Skała on the previous page, this tool gives us a sense of what has changed and what has stayed the same in the town during the many years since it was surveyed for the cadastral map. While this overlay comparison can be very illuminating for historical research and context, it is only one part of the full application of the interactive data maps.

Locating and Linking the Data

The third component of the data maps is the broad variety of archival records that get linked to the maps. As previously mentioned, all the archival data we use must be tied to a place, such as a private home, community building, or land parcel, that can be identified on the historical map.

For example, vital records for births, marriages, and deaths usually include family house numbers,



A close-up of the data map for Skała, showing blue dots where data is available, as well as the pop-up data window for one house

meaning these types of records can be connected to locations on historical maps-and using the overlay, approximately linked to modern towns as well. The same is true for voter lists and certain other administrative records. Some tax registers are tied to building and land parcels, and these records may include house numbers too.

Organizing the records by their locations within towns is fairly simple for individual families, even over decades, but collating all the available records for a complete community or town can be quite challenging. The genealogy team that developed one of the interactive data maps for this pilot project assembled more than 3,000 individual records for the map.

Completed data maps include colored dots at locations where data has been linked. Typically, these places are private houses and businesses. In addition, the maps identify non-residential community buildings, such as churches, synagogues, hospitals, and some civic and military administration structures. They also identify some community land parcels, usually cemeteries.

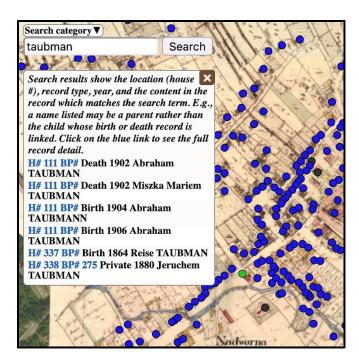
Clicking on one of these dots launches a pop-up window on the map, like the one shown on the previous page, which lists in chronological order all the available records data linked to that location. The list can sometimes include more than a dozen individual indexed records spanning as much as a century in time. Browsing a town and clicking on the dots provides a broad place-based understanding of the town's history. It gives researchers a glimpse into who lived in the town and when and where they lived there.

Doing More: Search and Study

The data maps application also includes a small genealogical search tool enabling users to research within the linked data for each map. The results of a search are listed on the left side of the map, typically by house number and by year of record, as indicated by the sample search for the surname Taubman on the segment of the Nadwórna data map on this page.

Simple searches yield every match to a chosen search term within all the data collected for that map. A user can also narrow a search by selecting one or more specific search categories, such as house number, names of individuals on birth or death records, and property owner names. Using search categories to narrow a search is helpful with large data sets.

Clicking on the blue house number for any search result causes the map to center on the selected house and launches the same pop-up window described above, with all the records data for that location listed in chronological order. Clicking other blue house numbers in the search results window re-centers the map on those locations. In this way, users can directly see the people and places related to their chosen search.



Search results on the Nadwórna data map

Other Options for Place-Based Studies

The Gesher Galicia Interactive Data Maps Project is a visual demonstration of one way to connect genealogical records data to locations in parts of the former Galicia. A unique advantage of this tool is that it allows users to see records data for an entire village, town, or city.

There are, of course, other ways to do place-based studies. Researchers who are interested in focusing more narrowly on a limited number of families may consider personal mapping with location pins and annotation, which is available for free from several of the larger online mapping services, including Google, Bing, and HERE. Even more features are available with advanced mapping software like OpenLayers and Leaflet.

Regardless of what tool they use, we encourage all genealogists to consider mapping as an additional way to gain new perspectives on the lives of their ancestors.