Map Data Geographically

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Digital mapping or "GIS" (Geographical Information Software) tools can be used to connect data to geographical information (typical a street address or longitude and latitude coordinates) so that it can be displayed graphically as a map.

Digital mapping can be as simple as using the location metadata attached to pictures taken from an iPhone to create a photo tour of a particular place, and as complex as analyzing geographic distributions of variable combinations using census data.

Getting Started

Several digital mapping tools are available to Bryn Mawr faculty, students, and staff. The free version of the web-based Google Maps is sufficient for many academic and non-academic mapping projects and is the easiest tool to use for finding geographic coordinates (latitude and longitude).

Digital Mapping Tools

For more complex projects, you may want to use full-service GIS tools to analyze, visualize, and explore geographic data. However, there are many tools to create web maps or use maps to tell stories are easy to use and do not require extensive geographic data training.

ESRI Suite

Students, faculty, and staff all have access to ArcGIS Online throughthis portal. After clicking the link, hit the blue Bryn Mawr College button to **log on via SSO.** Once you log in, you will have access to online GIS tools where you have the ability to import or create geographic data, author and edit 2D maps and 3D scenes, as well as access Living Atlas data provided by ESRI.

Additionally, ArcGIS Online provides access to a variety of customizable web-based apps, including **StoryMaps, Experience Builder, Instant Apps, Survey123,** and **Dashboards**. These allow you to present your digital maps through interactive sites.

ArcGIS Pro, the full-service GIS desktop application, is available on library lab computers and for download on a personal **Windows** device via the ArcGIS online portal. For more information on installing and accessing ArcGIS Pro, please see this help article.

Resources:

- Basics Course (ArcGIS Online)
- Walkthrough—ArcGIS Online for Archaeology

- Troubleshoot—ArcGIS Online Help | Documentation
- FAQ
- MyESRI Training Catalog
- Step-by-step Guide (StoryMaps)
- Getting started with ArcGIS StoryMaps

qgis

qgis is an open-source, full-service GIS desktop application which is free to use and can be downloaded onto any personal device, including on Macs. It is available for download at https://download.qgis.org or can be used on the Carpenter DMCL lab computers.

Resources:

- LinkedIn Learning Videos (see: Access LinkedIn Learning)
- Tutorials
- More Tutorials
- User Guide

LeafletJS

Leaflet is an open-source JavaScript library for building interactive maps on the web. Leaflet provides a frameworks for displaying map data within a browser and is compatible with GeoJSON layers, tile layers, and other Leaflet objects to customize your map. While little GIS knowledge is required for this tool, it requires web development experience and some knowledge of JavaScript and HTML. This tool is best used for inserting and creating interactive maps into your site, rather than geographical data analysis.

Resources:

- Reference Page
- Leaflet FAQ

StoryMapsJS

StoryMaps JS is another open-source tool for digital mapping projects which creates slides and allows the use of annotated maps and sharing media. This tool is especially useful for storytelling and combining geographic locations with text, media, and other web content. In order to access StoryMaps JS, you will need a Google account to log in but the platform itself is free to use.

Resources:

- Walkthrough Blog

- Building StoryMap by adding Media
- FAQ

Google Maps and Google Earth

Google Earth is available to download onto a personal device or for use on the web. Google Earth allows you to get close up 3D views of places around the globe, including historical places. Additionally, you can survey distances and sizes of geographic areas as well as create or import various GIS data. Google Maps is a good tool for on-the-go location tagging or for finding latitude and longitude of your points of interest.

Resources:

- User Guide (Google Earth)

Flourish

With Flourish, you can import geographical data into a variety of customizable templates offered. Thesite includes templates for 3D maps and projection maps, with the ability to make heat maps, point maps, spikes, categorical maps, animated, or hex maps. Additionally, you can use maps to create and publish stories, which can include multiple slides, images, text, and other media.

Resources:

- Flourish Help Center

SketchUp

SketchUp is a plug-in for Google Earth that lets you create location-specific 3D models. This is available for use in the Carpenter DMCL on the lab computers.

Support

If you want more support or training on any of these tools, check out the training videos available through LinkedIn Learning (for help logging on, see: Access LinkedIn Learning) or stop by Digital Scholarship Office Hours in Carpenter Library. Additionally, consult your camera or mobile device's documentation to determine whether it has geotagging capabilities and how to turn them on or off.

Please contact the Help Desk with questions or to request an appointment with an Educational Technology Specialist: help@brynmawr.edu or 610-526-7440.

Questions?

If you have any additional questions or problems, don't hesitate to reach out to the**Help Desk**!

Phone: 610-526-7440 | Library and Help Desk hours
Email: help@brynmawr.edu | Service catalog
Location: Canaday Library 1st floor