The Evolution of Pittsburgh's Bridges

# Topic

This map is designed to be an interactive companion to the book, [*Pittsburgh's Bridges (Images of America)*](http://www.amazon.com/Pittsburghs-Bridges-Images-America-Wilson/dp/1467134244), by Todd Wilson, PE, and Helen Wilson, showcasing how the river bridges in Pittsburgh, Pennsylvania evolved from the covered bridges of yesterday to those that define the skyline today.

# Map Objectives

The two printed maps I developed to accompany *Pittsburgh's Bridges (Images of America)* both show all of the city's bridges throughout history on one map. After learning that the theme of this year's NACIS conference is "Mapping Change", I wanted to create a way for users to explore how the city's bridge landscape has changed over time.

My goal is to provide users with an interactive map where they can learn more about the river bridges of Pittsburgh and examine how the city's bridge landscape has evolved throughout its history.

The bridges will be symbolized by their primary design type (e.g. covered, truss, arch, suspension, beam, etc.). Data will be clustered as needed so that the map remains legible. Users will be able to search for a specific bridge by its name and will be able to click a bridge to get a photo and more information about it.

Each bridge will be visible on the map during the years in which it existed. A time slider will allow users to scroll through time to see which bridges existed in a specific year. A bridge will appear on the map when the time slider reaches the year it was built and disappear from the map when the time slider reaches the year it was demolished. This new functionality will help to illustrate when certain areas of the city were or were not connected by bridges and when certain bridge designs were most common.

# Mapping Scenario

A typical user would be a local historian or bridge enthusiast interested in learning more about the history of Pittsburgh's river bridges. The user would be visiting the site to learn about a specific bridge or learn how the city's river bridge landscape evolved over time.

The user is expected to interact with the map in the following ways:

* View a spatial distribution of Pittsburgh's river bridges, symbolized by their primary design type (e.g. covered, truss, arch, suspension, beam, etc.)
* Zoom and pan
* Search for a specific address or location within the city
* Search for a specific bridge by name
* Click a bridge to see a photo and description
* Scroll a time slider bar to see which river bridges existed in the city in a particular year

# Data Sources

Bridge data will be stored in a CSV file with latitude and longitude data, various attributes including the bridge name, year built, year demolished, notes, and photo path and name. It will be imported onto the map as point data.

Photos and drawings will be stored on the web server with the paths and names specified in the CSV file. They are included in the lab-06 directory.

Bridge data and photos were acquired from *Pittsburgh's Bridges (Images of America)* (Arcadia Publishing), Bruce Cridlebaugh ([www.pghbridges.com](http://www.pghbridges.com)), or Todd Wilson and should not be distributed.

# Technology Stack

The CSV data will be imported into the map via the Omnivore plugin.

The map will use the Leaflet JavaScript library for the primary map development and the Mapbox JavaScript library to support point clustering and searching (geocoding) functionality.

The site will initially be hosted on GitHub pages (skeetidot.github.io/pittsburghbridges) , with the hopes of ultimately hosting it on my own web server ([www.bridgemapper.com](http://www.bridgemapper.com)).