

Boston By Map

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Overview

- History Through Maps
- Survey of Boston Maps
- Where To Find Maps Online
- Overlaying Maps
- Georeferencing Maps
- Using Georeferenced Maps In GIS Tools

bit.ly/bbm18

History Through Maps

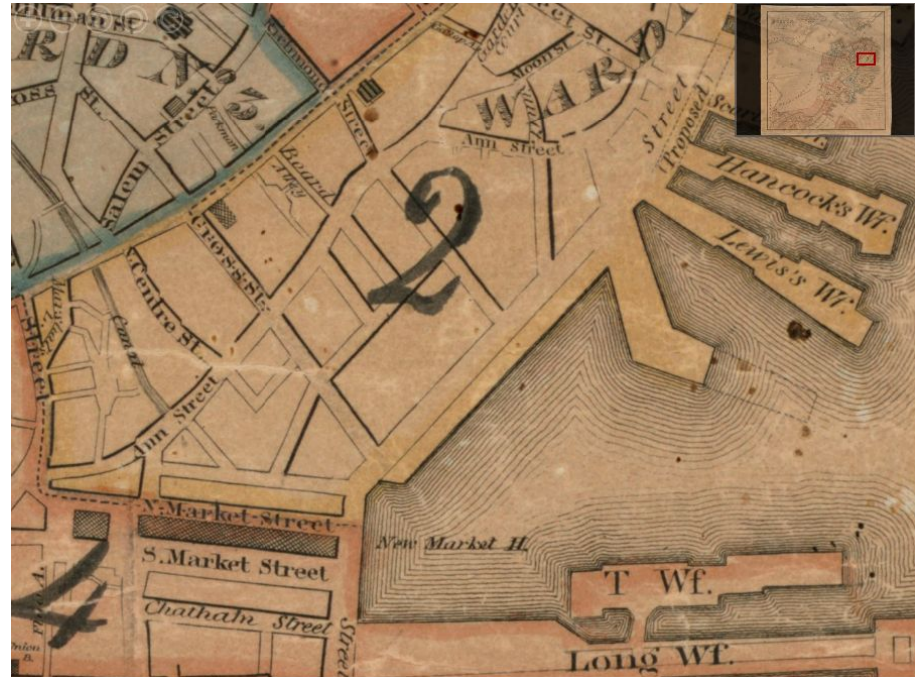
- What used to be here?
- Where is that on today's map?
- How did this part of Boston develop over time?
- Example: Mercantile Wharf

Example: Mercantile Wharf

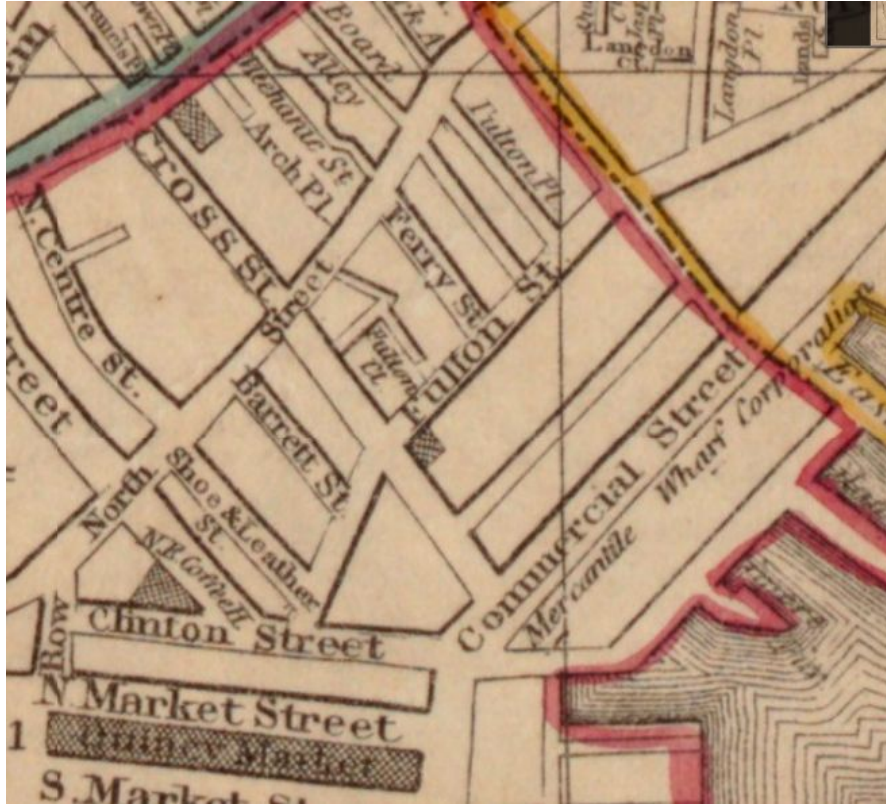
- Mercantile Wharf Buildings
- Designed by Gridley Fox Bryant
- Boston Granite style
- Built on made land in 1856
- Did not originally look like this
- Partially demolished in 20th century
- For a large transportation project
 - Which project?
 - Reason for demolition?
 - What did it look like originally?



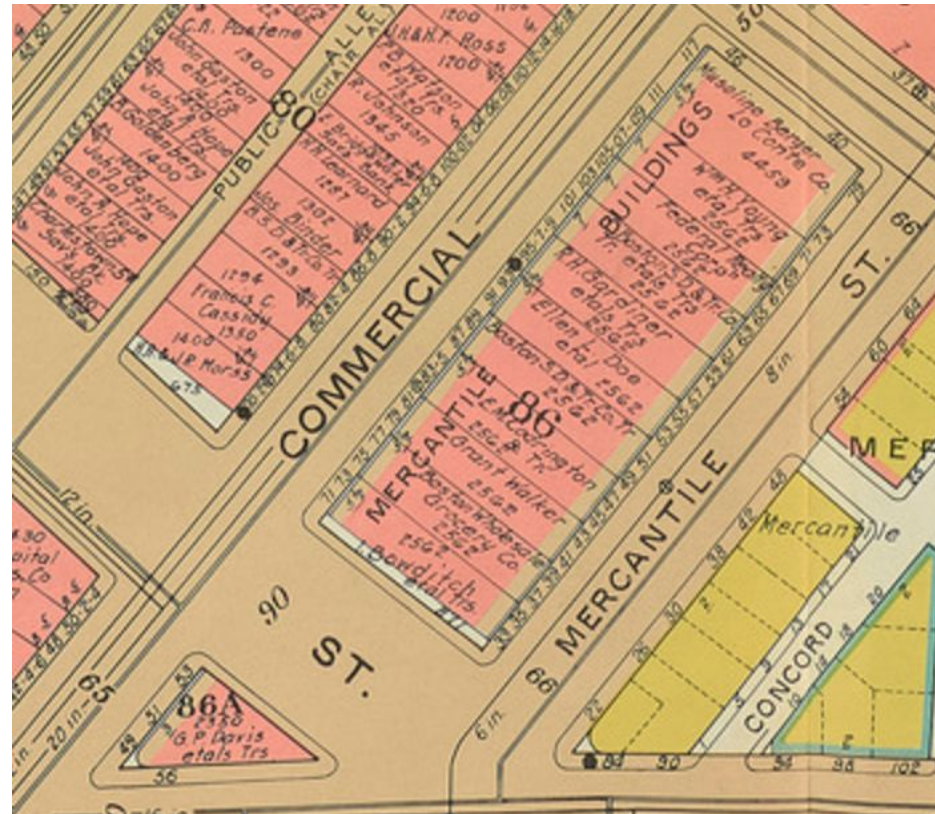
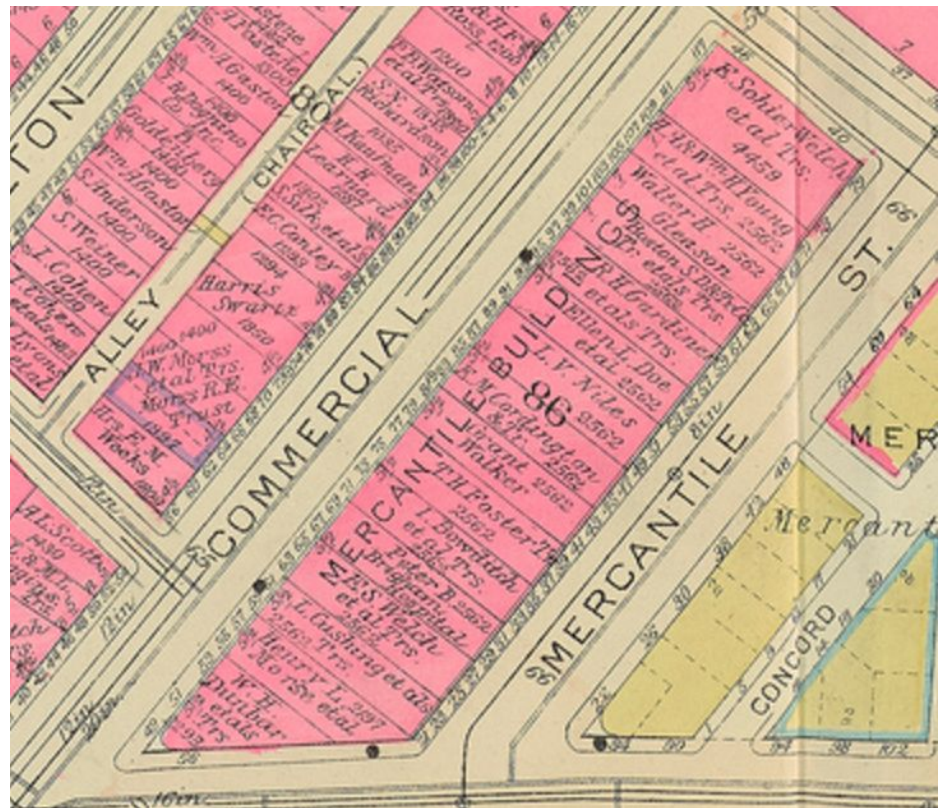
Cross Street Before Mercantile Wharf



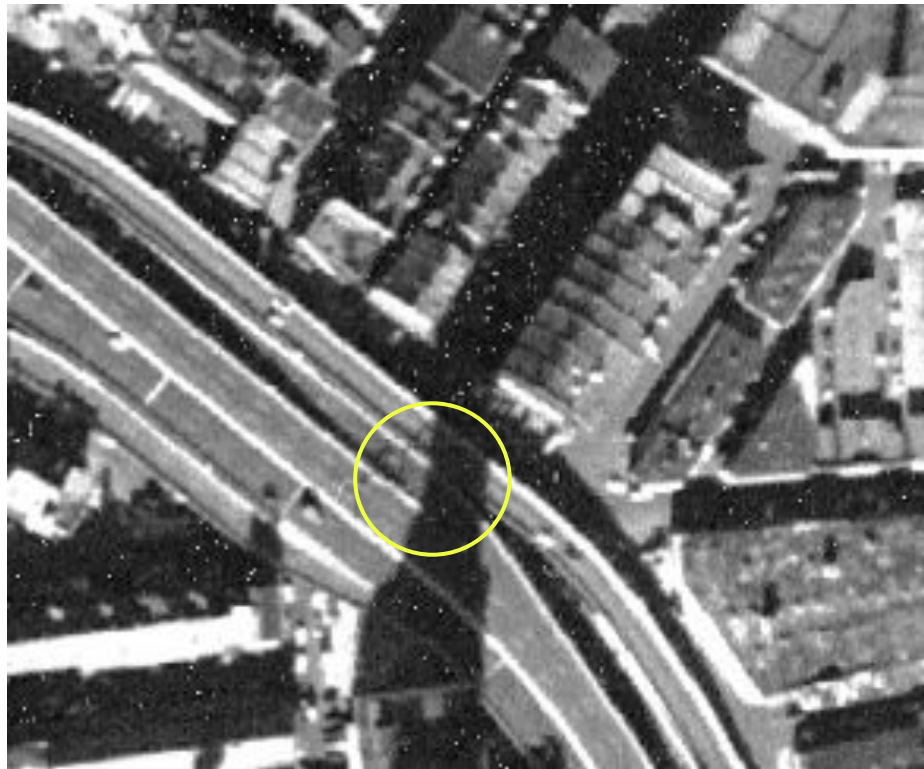
Mercantile Wharf Buildings 1856



Cross Street Expansion 1933



Fitzgerald Expressway 1950's



Types of Maps

- Maps
 - Bonner 1722
- Atlases
 - Bromley 1880's - 1930's
- Specialty Maps
 - sewage, railroad
- Reconstructed Maps
 - Clough 1600's, shoreline 1630-1995
- Bird's Eye and Aerial Maps
 - Nutting 1866
 - Fairchild aerial surveys 1920's
 - USGS aerials 1938-78



Best of Boston

- [Clough reconstructed 1600's](#)
- [Bonner 1722](#)
- [Page 1775](#)
- [Annin & Smith 1826](#)
- [Slatter & Callan 1852](#)
- [Bromley atlases 1880's - 1930's](#)
- [USGS aerial photos 1938-1978](#)
- [1630 - 1995 shorelines](#)
- [Carleton 1797](#)
- [Hales 1814](#)
- [McIntyre 1852](#)
- [Pinney 1861 fire insurance](#)
- [Hopkins 1874 atlases](#)
- [Sanborn fire insurance](#)
- [BRA 1962](#)

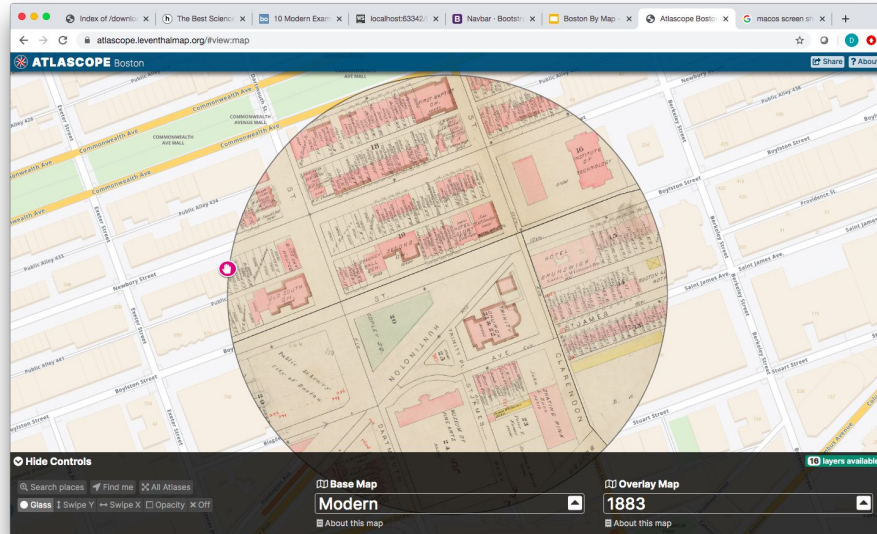
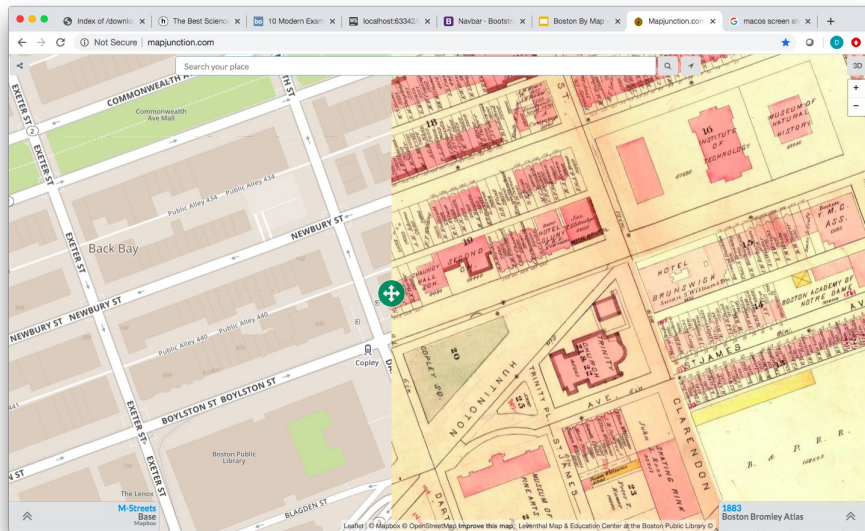
Where To Find Maps of Boston Online

- [Leventhal Map Center - Digital Collection](#)
- [Digital Commonwealth](#)
- [Massachusetts Real Estate Atlas Digitization Project](#)
- [Boston Atlas](#)

Overlaying Maps

- Mapjunction
 - Bill Warner, ca. 2000
 - Wider range of content, both type of map and cities/towns included
 - Older image scans of varying quality
- AtlasScope
 - Leventhal Map Center, 2019
 - Limited to atlases of Boston and bordering towns, from their collection
 - New image scans by Digital Image Center at the Osher Map Library
 - Tile server for use with GIS tools
- Features
 - Same: pan, zoom, map lists, slider, bookmark/share link
 - Different: opacity, spyglass

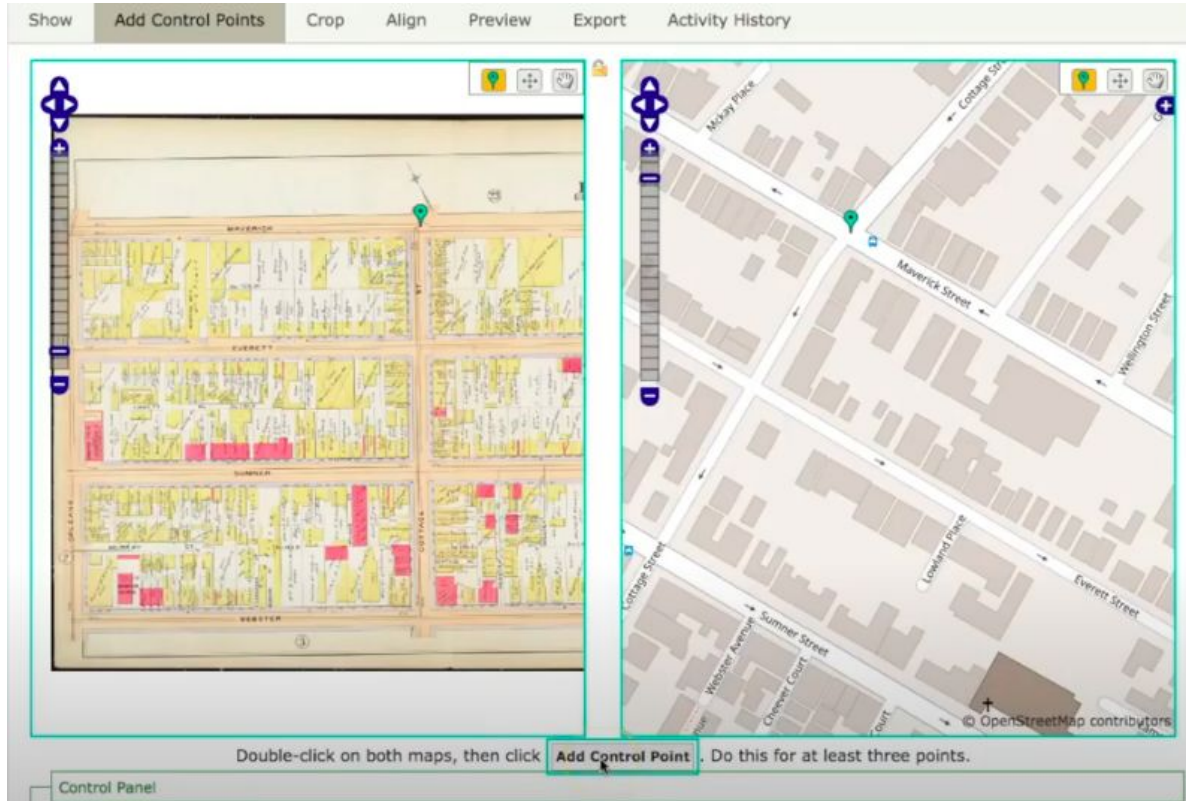
Mapjunction and Atlasscope Demos



How Does It Work?

- Georeferenced Maps
 - Map image annotated with location information
 - GeoTIFF = TIFF + lat/long data
 - Enables software to overlay maps at same scale and location
- Georeferencing
 - Using GIS software: MapWarper (mapjunction) or QGIS (AtlasScope)
 - Using a pair of maps, one already georeferenced
 - Person enters “control points”: same location plotted on both maps
 - Software uses control points to extrapolate (“warp”) lat/long of other points on map image

Georeferencing With MapWarper



Example: B&M Rail Yards In MapWarper




map from *Boston and Maine, City and Shore*, Robert Willoughby Jones, 1999

Using Georeferenced Maps In GIS Tools


- XYZ Tile Layer and Server
 - Add a georeferenced map to a GIS project
 - Using link to “tile server”
- Stacking Multiple Maps
 - Layer per map, in chronological order
 - With opacity slider for each map
 - To show evolution of an area over time
 - Example: demo on Leventhal website
- Data Layers Over Base Map
 - Use historic map as base layer under data layers
 - Example: Reinventing Boston tour route using Carto

Overlaying Multiple Maps - Leventhal Website



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DIGITAL COLLECTIONS

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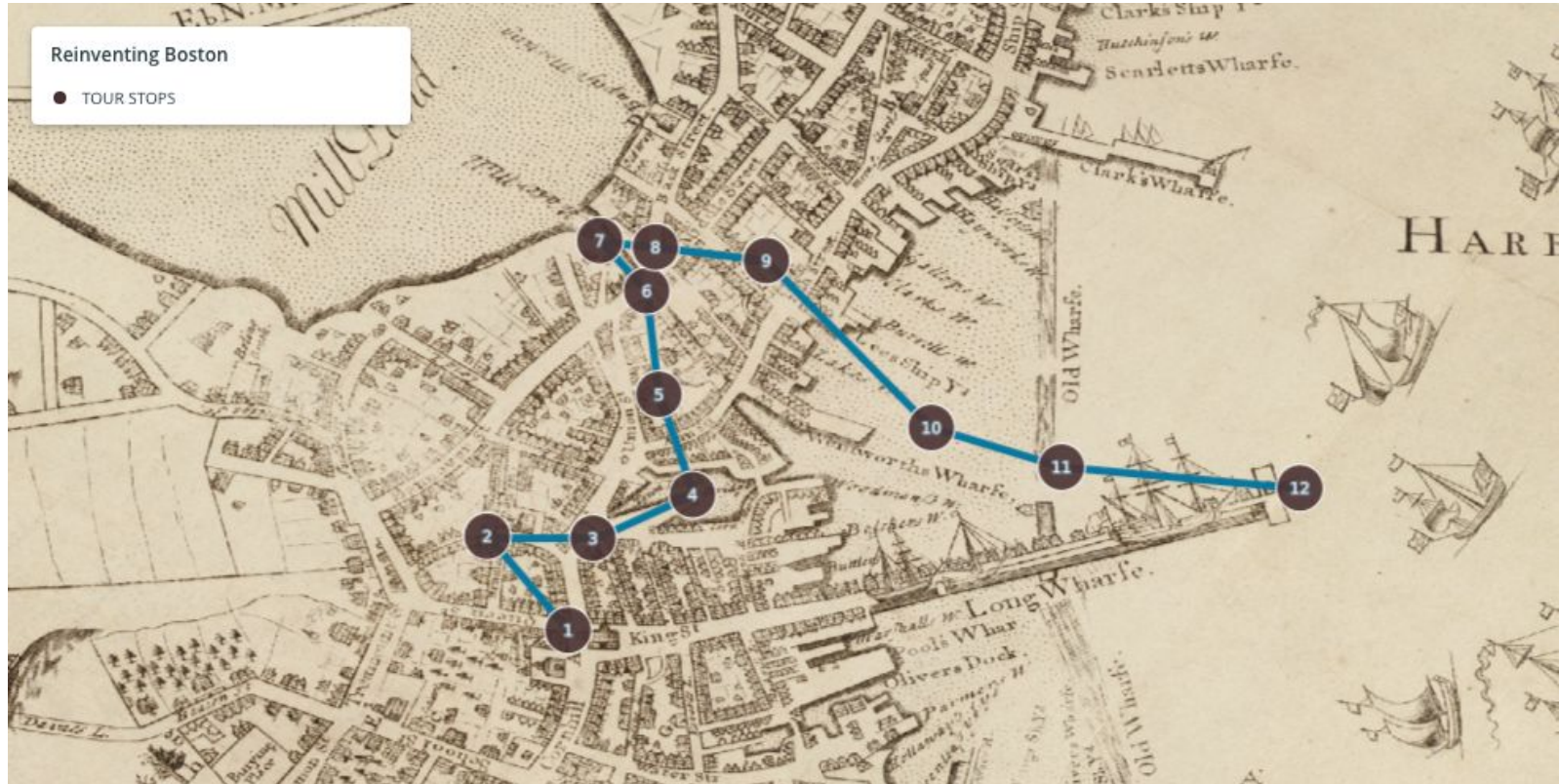


Check the box next to an item to show it as an overlay on the modern map.

- ☒ **Bonner Map 1722**
[View Item Detail](#)
Visibility
- ☒ **Hales Map 1814**
[View Item Detail](#)
Visibility
- ☒ **McIntyre Map**
[View Item Detail](#)
Visibility
- ☐ **Pelham Map**
[View Item Detail](#)
Visibility
- ☐ **City Planning Board Map**
[View Item Detail](#)
Visibility

Leaflet | © OpenStreetMap contributors

Example: Reinventing Boston Route



Summary

- You Can Do This!
 - Learn to use Mapjunction or Atlasscope
 - On your phone or tablet while walking in Boston
- You Can Help Everyone Else
 - Share overlays on BBF volunteer Facebook page
 - Georeference a map