

Interactive Mapping Using Google Earth Pro

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Intro: initial maps to explore

Gwich'in Place Names and Story Atlas: <http://atlas.gwichin.ca/index.html>

Urbanarium Smartmap: <http://urbanarium.org/smartmap>

Montréal Sound Map: <http://www.montrealsoundmap.com/>

Exploring Google Earth Pro

The data used for this exercise can be downloaded from this address: <http://bit.ly/2eoJrun>

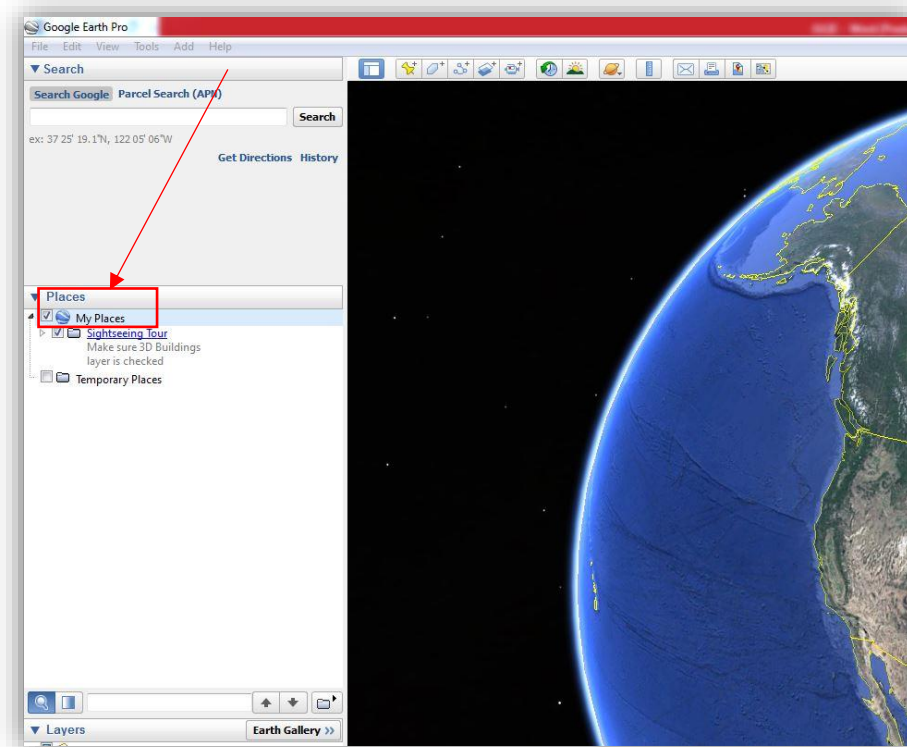
- Create a folder on your Desktop and name it "Google Earth workshop"
- Copy the data folder to the folder you just created and unzip the files

Open Google Earth by either:

- Double clicking on the Google Earth icon on your desktop; or
- Navigating to > Applications > Google Earth

Before we start our exercise, we need to create a folder in Google Earth in order to be able to save our work.

- **Right-click on "My Places"** then add a new folder (Right-click "My Places" > Add > Folder)

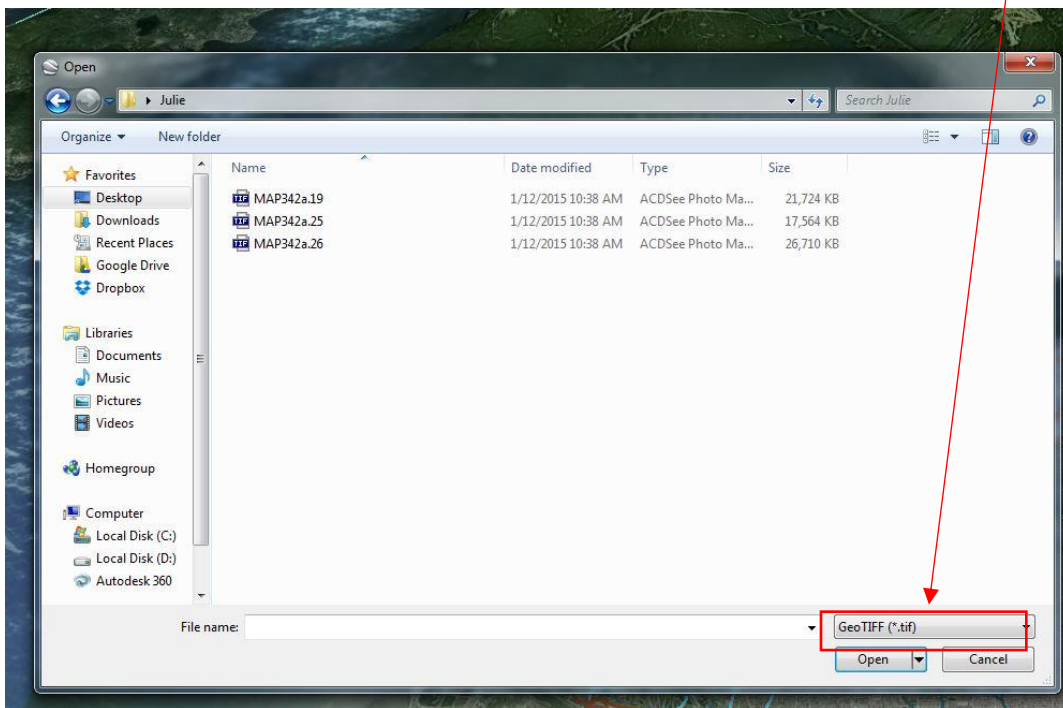


- A new window will pop-up in which you can **name** your new folder. Name it “Historical streams”.
- Now we will be adding spatial data to this folder. From your working folder **Please double-click on the “OldStreamsPolylineGoogleEarth.kmz” file.** This is a dataset of Vancouver’s historical streams and shoreline.
- Upon clicking, Google Earth will take you to Vancouver and show the old streams and former shoreline of the city as a layer.
- Now, **drag and drop** the old stream dataset into the folder you created in My Places.
- Locate the salmon stream described in the poem and then right-click on it and change its colour to something that stands out more. [If you want to change the colour of the entire dataset, right-click on it in the Table of Contents and then click Properties > Style, color, > Share style and then click on the colour box.]

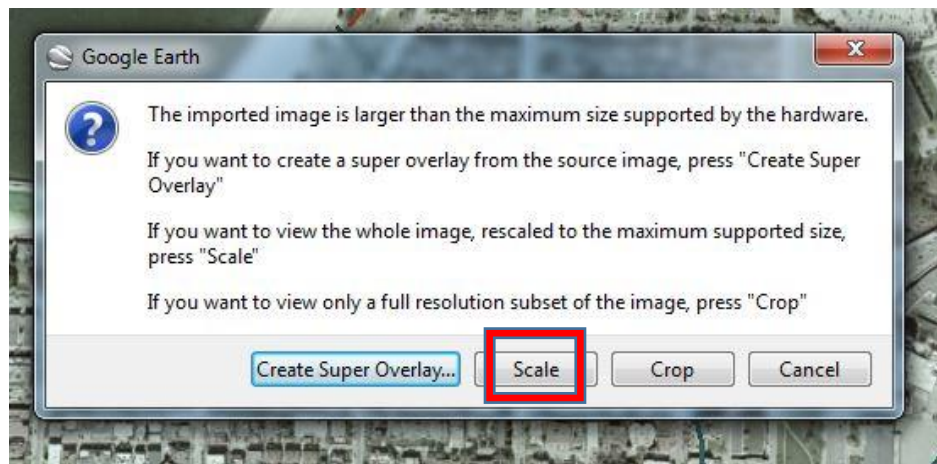


- Now we will add some georectified images from the City of Vancouver Open Data Catalogue. These images have already been provided to you in your working folder. There are 4 images that cover the area discussed in the poem from the 1912 Goad’s fire insurance map of Vancouver. These images are parts, or tiles, from a larger map.

- Please go to **Google Earth > File > Open ...** and navigate to the working folder to find the images. The images can be found if you **change the file type to “Geo TIFF (*.tif)”**.



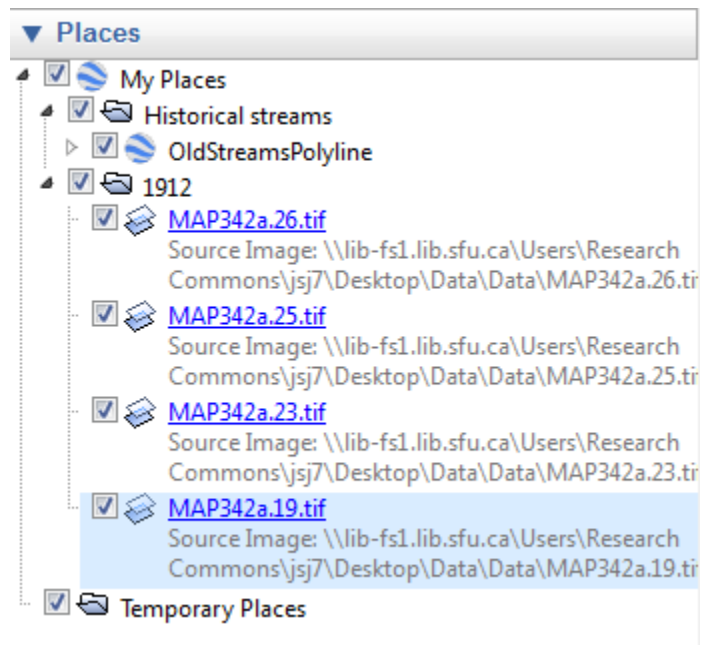
- Now add the images one by one. You will encounter a warning message in Google Earth like this:



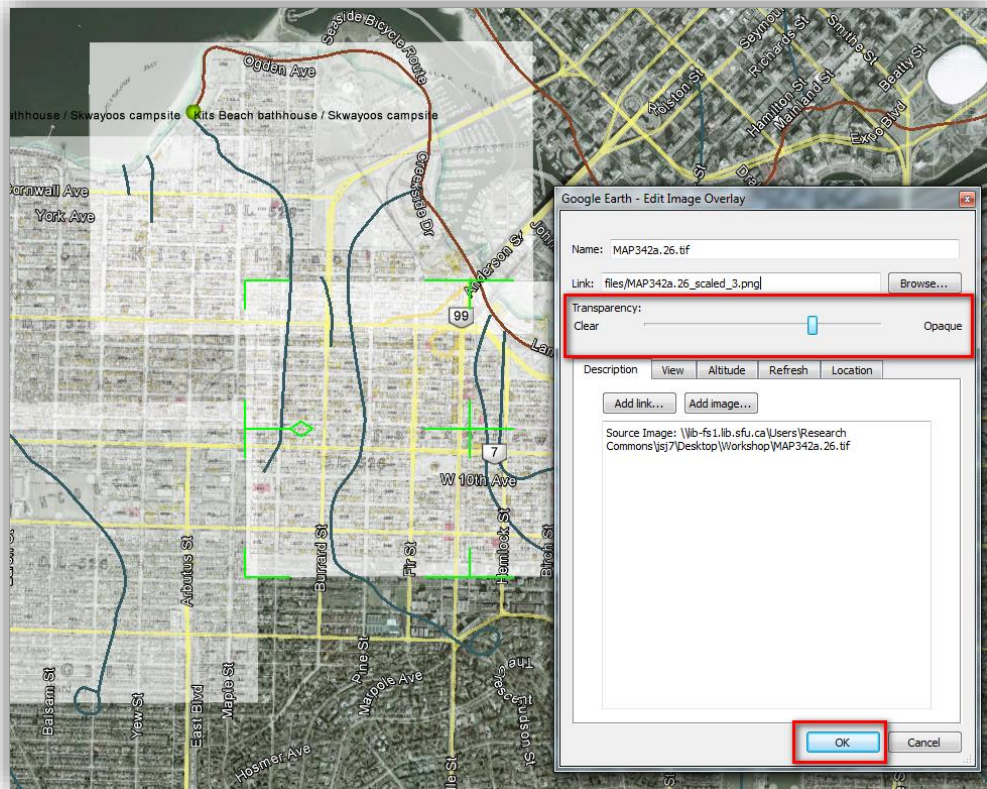
- Please click on **“Scale”** for all the images you add to Google Earth. When all four images are added, your screen should look like this:



- This is a screenshot of the images overlaid with the old streams and the satellite image of the city of Vancouver in the background.
- Create a new folder in My Places and name it 1912
- Now, please **drag and drop** these four images to the new folder you created in My Places. Your folder should now look like this:







- You can turn each layer on and off to explore how that will affect the representation of your work. There is a certain order that is needed to make the tiles work together.
- You can adjust the transparency of the historical map images by right clicking on an image file in the folder and choosing “Properties” and then adjusting the transparency slider for each:



Adding a georectified map from Map Warper

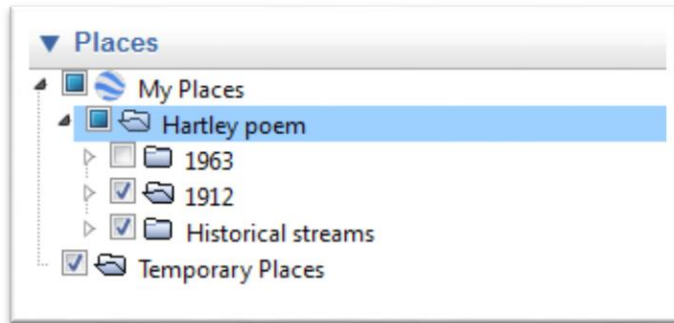
- Go to Map Warper (<http://mapwarper.net/>) and search for “Vancouver” in the **title** field.
- **Click on Map of Vancouver, 1963** (it should be your third result)
- Notice that there is also the option to search for maps by location.

MAP	TITLE
	Map of City of Vancouver, British Columbia <i>Item is a map of Vancouver 1937 showing streets, blocks, parks, country clubs and golf courses, as well as distances from City Hall.</i> View Map Rectify Map Download KML <small>Links: Source / Biblio Ref</small>
	map of Vancouver1963 View Map Rectify Map Download KML <small>Links: Source / Biblio Ref</small>
	Lighthouse Park, West Vancouver, Canada <i>Lighthouse Park trails and points of interest.</i> View Map Rectify Map Download KML <small>Links: Source / Biblio Ref</small>
	City of Vancouver park sites June/80 <i>Map is a City Engineering Department base map of Vancouver, with parks hand-coloured in green. Shows city blocks and Canadian Pacific, Canada schools, theatres and other structures are identified. "Metric Vancouver" and "Guide Map 15" appear in the bottom right corner of the map.</i> View Map Rectify Map Download KML

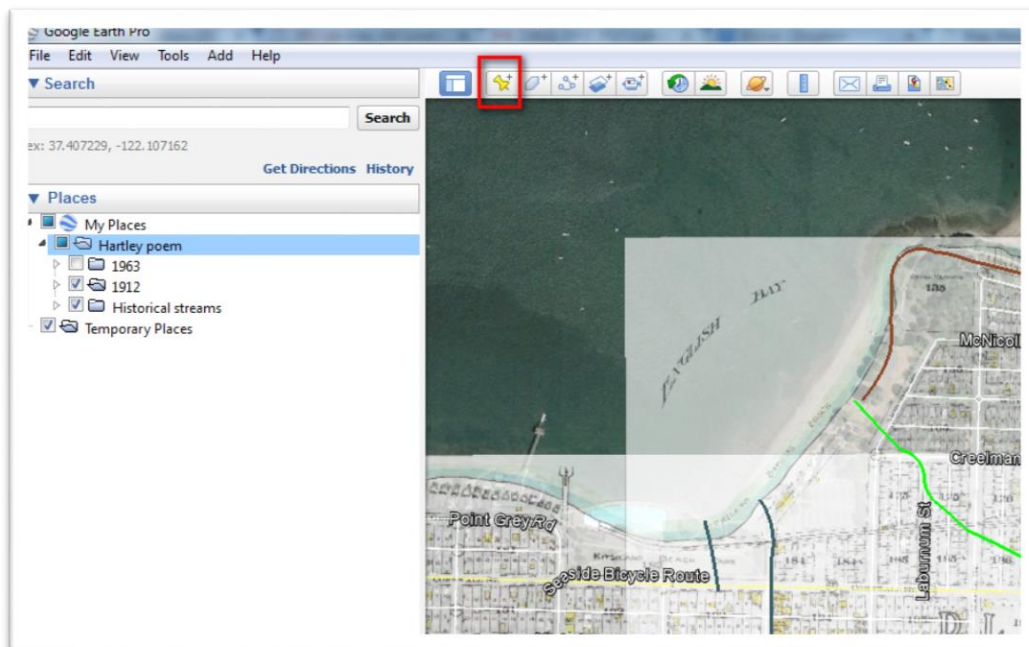
- **Click on “Export” and then choose “Download KML file”**
- **Open the KML file in Google Earth** to add the 1963 map as another layer.



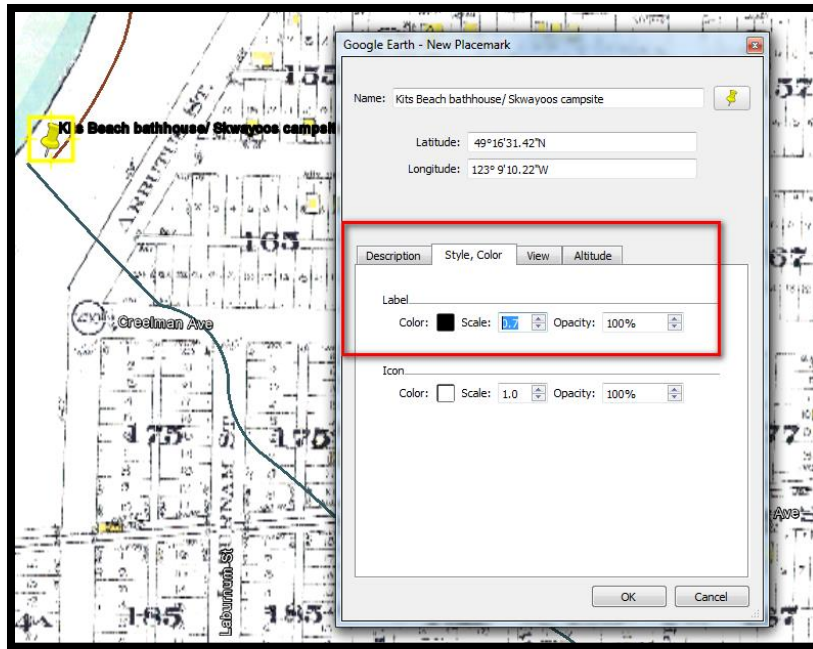
- Experiment with the different historical layers you have. Do features line up?
- Notice that because this map is not an image file, we cannot adjust the transparency.
- Create a new folder named 1963 for this map and drag and drop the file in the folder.
- At this point, create a “master folder” named “Hartley poem” and drag and drop all of the folders into it. See screenshot next page.



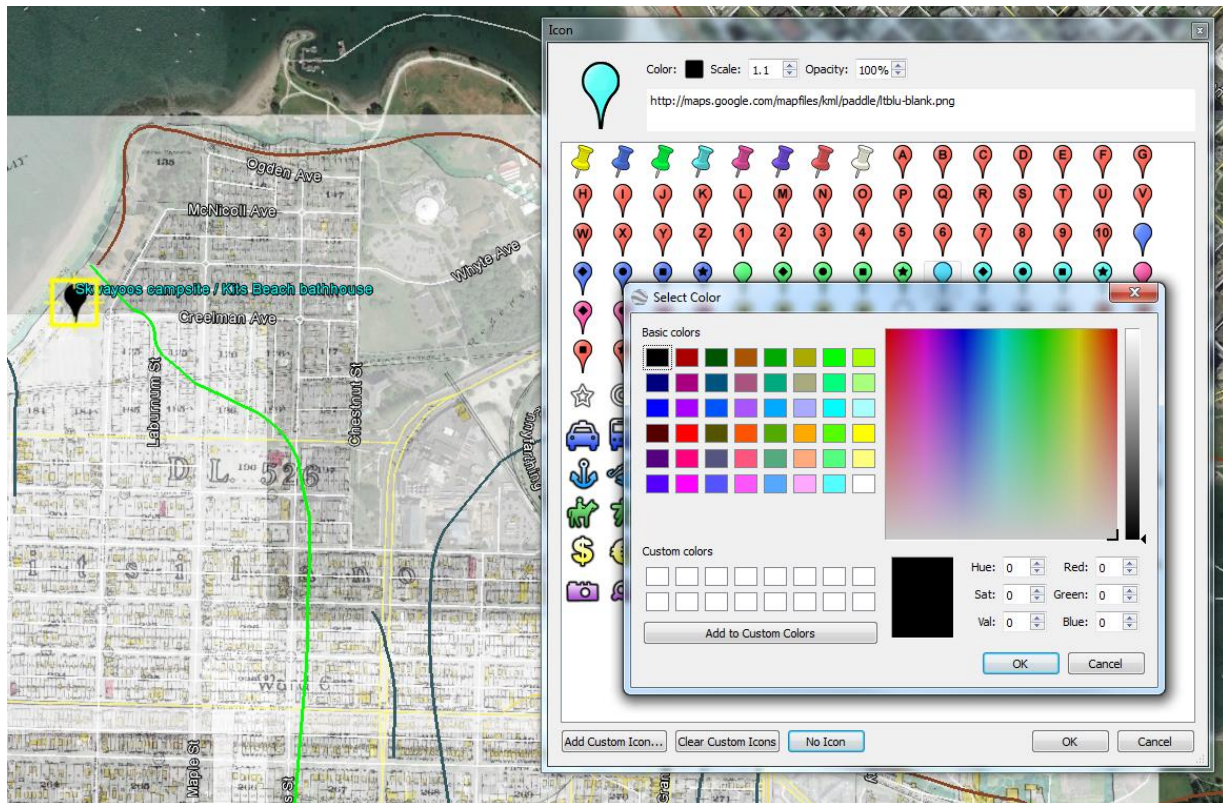
Now, we will geo-locate points mentioned in the poem by adding placemarks to our map. To do this, locate an address and then **right-click on the Hartley poem folder in My Places > Add > Placemark** to store it.



- Start by adding a point for Skwayoos Campsite, which is mentioned in the poem and is where Kits Beach Bathhouse has come to stand.
- You can name your points as you see fit and set the colour, scale, and opacity of your points and their labels by **clicking on the “Style, Color” tab**. See screenshots next page.

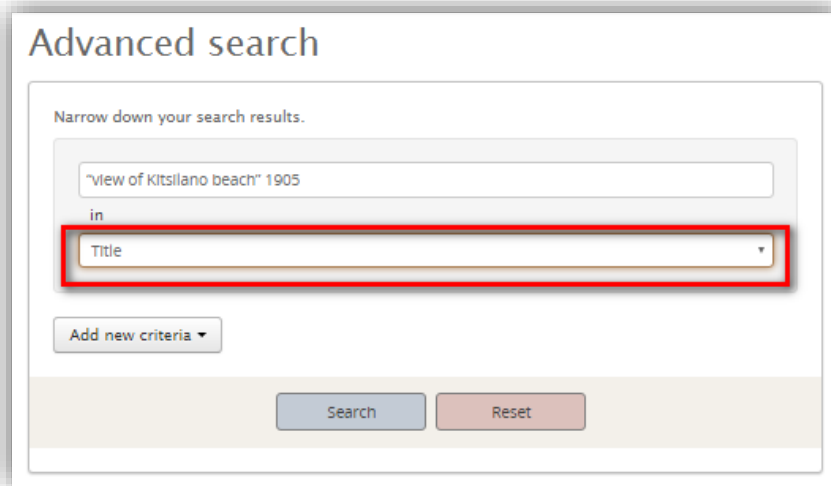


- Choose a placemaker style by **clicking on the thumbtack** in the popup window.
- Set the colour and size of the placemarkers and labels by clicking on the shape you want and then **clicking on “Colour” and “Scale” and “Opacity”**.
- Notice there is also the option to add custom icons.



Adding historical photos and other types of data to your points

- We can add lines from the poem, links, images, and other information in the Description field of your points.
- Go to the Vancouver Archives website (<http://searcharchives.vancouver.ca/>)
- Click on **Advanced search** under the search box at the top of the screen. Once on the Advanced search screen, type **"view of Kitsilano beach" 1905** [be sure to use the quotation marks] and set the search to **Title**:



Advanced search

Narrow down your search results.

"view of Kitsilano beach" 1905

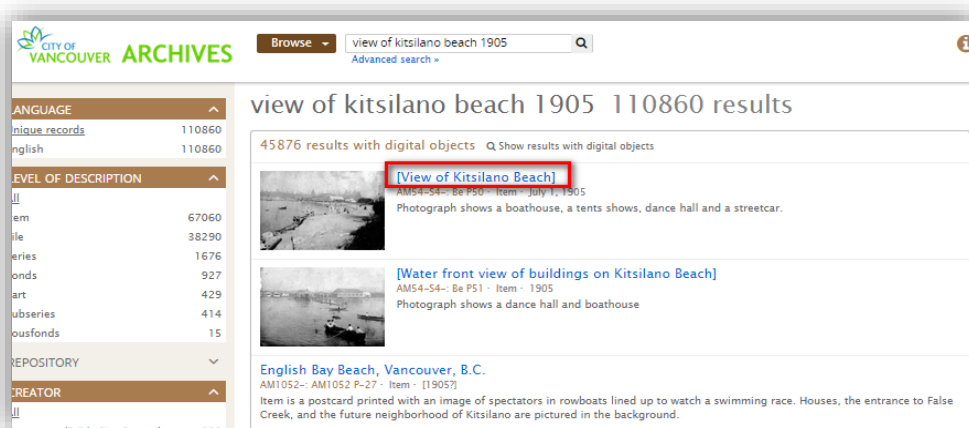
in

Title

Add new criteria

Search Reset

- Click on the first result, a photo from July 1, 1905 with the title "View of Kitsilano Beach":



CITY OF VANCOUVER ARCHIVES

Browse view of kitsilano beach 1905 Advanced search

view of kitsilano beach 1905 110860 results

45876 results with digital objects Show results with digital objects

[View of Kitsilano Beach]

AM54-54-- Be P50 - Item - July 1, 1905

Photograph shows a boathouse, a tents shows, dance hall and a streetcar.

[Water front view of buildings on Kitsilano Beach]

AM54-54-- Be P51 - Item - 1905

Photograph shows a dance hall and boathouse

English Bay Beach, Vancouver, B.C.

AM1052-- AM1052 P-27 - Item - [1905?]

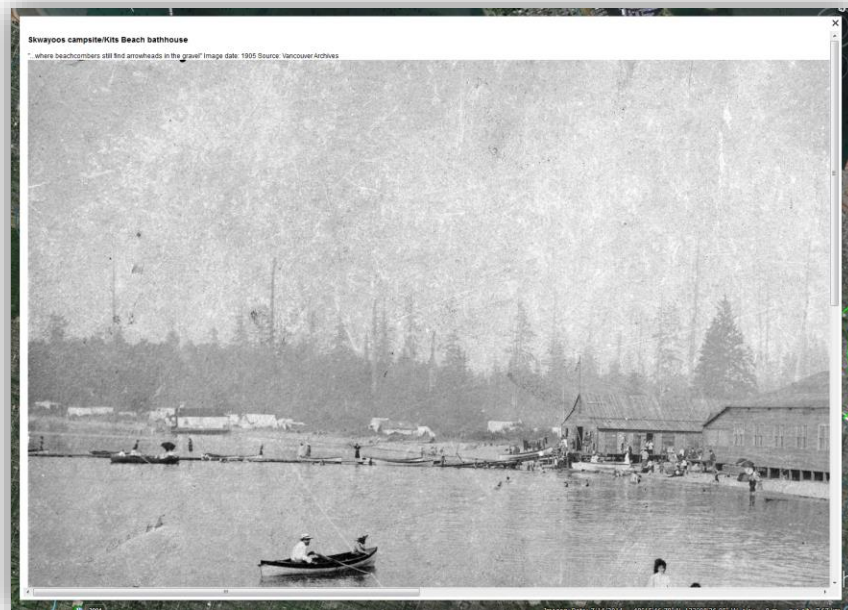
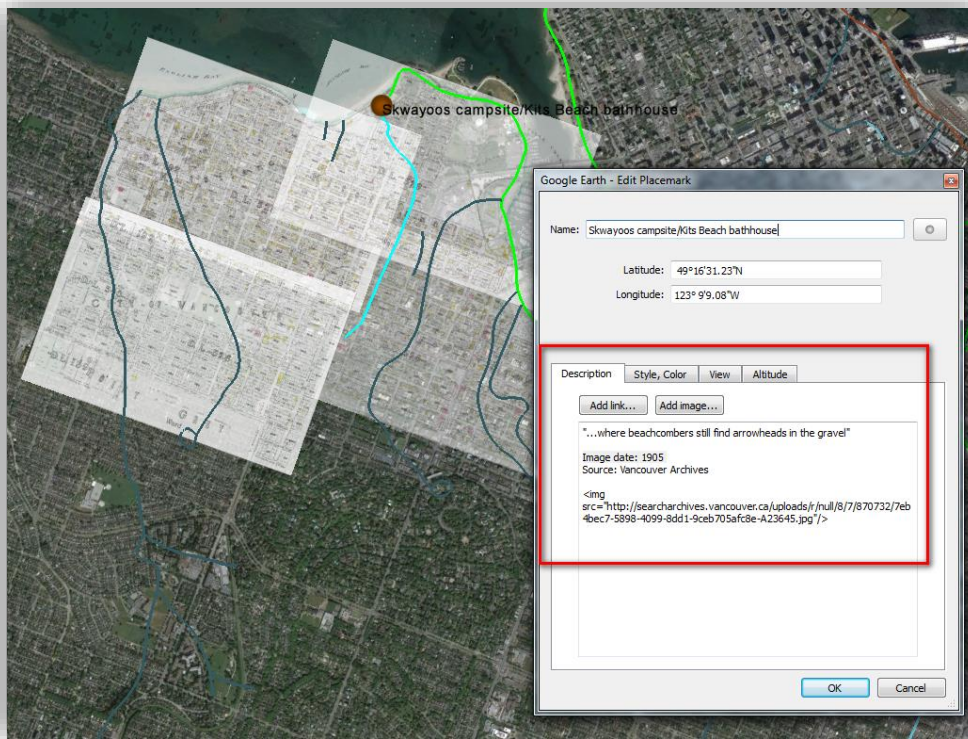
Item is a postcard printed with an image of spectators in rowboats lined up to watch a swimming race. Houses, the entrance to False Creek, and the future neighborhood of Kitsilano are pictured in the background.

- **Click on the photograph so you can view the JPG full size. Copy the link to the JPG and paste the link in the "Add image" field in the "Description" field** of the Kits Beach bathhouse/Skwayoos campsite point that we have created and click "OK". You will need to resize the image by editing the HTML code so that it is as follows:

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- **Add the line from the poem about the point** if you like. (See screen shots below.)
- **Add source/citation information.**



- Carry on adding points to your map, and information of your choice in the Description fields.

Sources of historical photos and other historical information:

Vancouver Archives (<http://searcharchives.vancouver.ca>)

Vancouver Public Library's Historical Photos of BC and Yukon
(http://www.vpl.ca/find/details/historical_photos_of_bc_and_yukon)

The Commons on Flickr (<https://www.flickr.com/commons>)

British Columbia City Directories, 1860-1955 (<http://www.vpl.ca/bccd/index.php>)

Historical atlases and newspapers at the Library

Novels, poetry, nonfiction books.

Suggested keywords to get you started:

"Greer's Beach", "Kitsilano fill", Snauq, Khahtsahlano,"Kitsilano Indian Reserve", CPR, "Canadian Pacific"

Other datasets may be of interest:

Downtown Historic Railway. Vancouver Open Data Catalogue.

<http://data.vancouver.ca/datacatalogue/downtownHistoricRailway.htm>

Building footprints, 2009. Vancouver Open Data Catalogue.

<http://data.vancouver.ca/datacatalogue/buildingFootprints.htm>

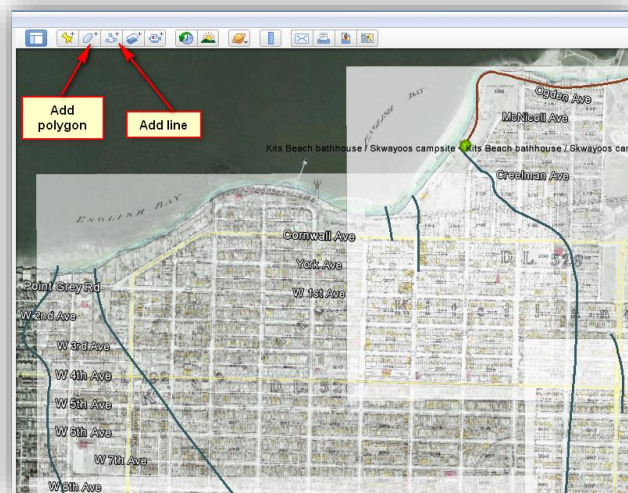
Goad's Fire Insurance Map 1912 (georectified). Vancouver Open Data Catalogue.

<http://data.vancouver.ca/datacatalogue/goadsFireInsuranceMap1912.htm>

Railway. City of Vancouver Open Data Catalogue. <http://data.vancouver.ca/datacatalogue/railway.htm>

Adding lines and polygons

- You can also add lines and polygons (shapes) if you'd like:



Saving and sharing your work

- When all the locations are pinned, you can save and export your work as a .kmz file. This file can then be opened on any computer that has Google Earth Pro installed on it.
- To save your work, **right-click on the master folder ("Hartley poem") > Save Place As... > kmz** to save a .kmz file of your entire folder that makes up your map. This file can then be emailed or uploaded on a website so that other users can view your map in Google Earth Pro. Providing a link to the page where Google Earth Pro can be downloaded is a nice touch. **Google Earth Pro may be downloaded free of charge** from this page: <http://www.google.ca/earth/download/gep/agree.html>.
- Save the map (or various views of the same interactive map) as an image/images (.jpg). The **Save Image** option in the toolbar gives you options for designing the map, including adding a title and legend. You are also given a number of options for the resolution that you want to save your image(s) in. The **Print** option in the toolbar offers the same design options.
- The **Email** option in the toolbar lets you send a screenshot of the current view or a .kml file of either the current view of your map or the entire map (with all the layers in a folder) that will open in Google Earth Pro.
- The **Print** option in the toolbar lets you print the current view of your map (with the title and legend).
- Embedding the interactive map into a website without doing a ton of coding is a bit tricky, as Google has depreciated the plug-in that enabled easy embedding: <http://googlegeodevelopers.blogspot.com.au/2014/12/announcing-deprecation-of-google-earth.html>. There has been some effort to re-create the depreciated gadget: <http://google-earth-plugin.blogspot.ca/p/blogger-kml-embed-gadget.html>. If using WordPress only, it looks like there are a few plug-ins that allow you to embed KML files/Google Map: <https://wordpress.org/plugins/search.php?q=kml>. This is something we are continuing to monitor.

About the data used in this workshop

All of the data is open data, so there are no issues with sharing and using however you may desire. The historic streams and shoreline data came from the public section of Abacus: <http://dvn.library.ubc.ca/dvn/dv/ABACUSPD>.

Lesack, Paul; Proctor, Sharon J., 2011-03-23, "Vancouver's Old Streams, 1880-1920", <http://hdl.handle.net/11272/IKHNO>

Goad's Fire Insurance Map 1912 (georectified). Vancouver Open Data Catalogue. <http://data.vancouver.ca/datacatalogue/goadsFireInsuranceMap1912.htm>

Remember to cite any datasets and photos you use in creating a map. Data and images should be cited like other documents are and included in the References section of your document.

Please do not hesitate to get in touch if you have questions.
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