

## Step 1: Where is my photo located?

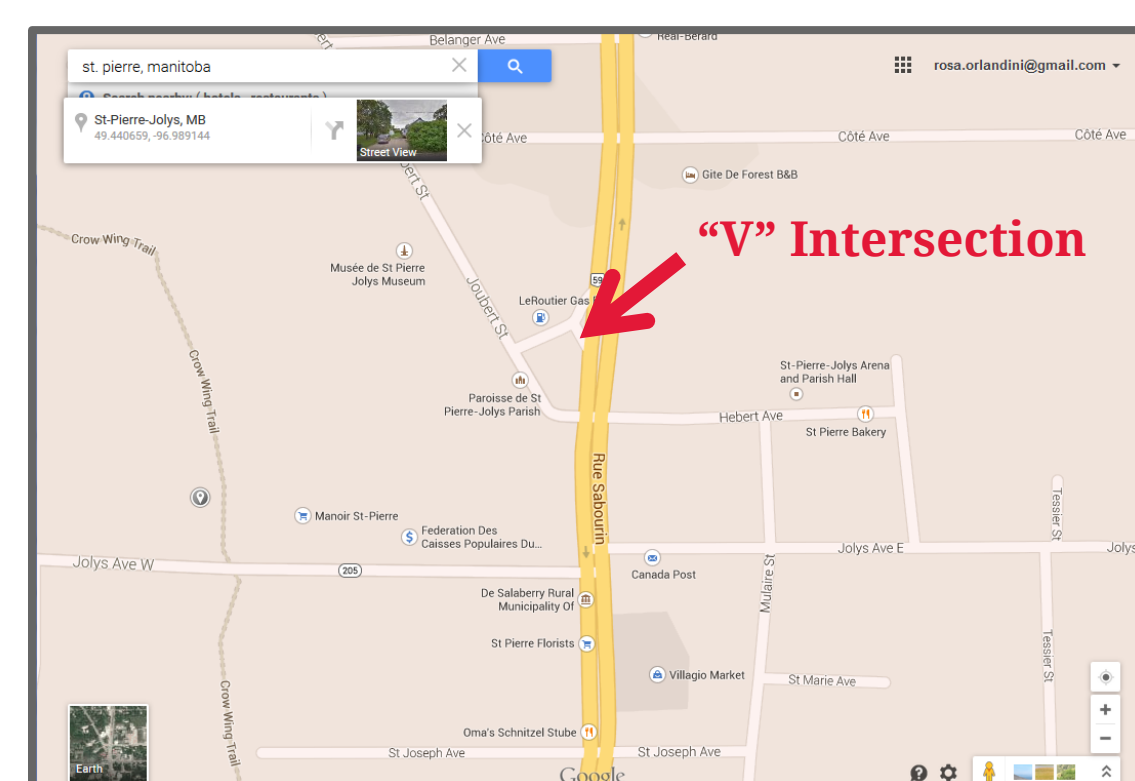
Historical photos and other visual images often have clues to help you identify their geographic location. Start by looking for landmarks in the photo and clues in the description.

On the right is a photo of “St. Pierre” Manitoba from the John Warkentin fonds. The landmarks in this photo consist of a church spire, bank building, “V” intersection and a statue.



Photo description : "Item consists of a photographic slide with annotations including: "St. Pierre," "Crossroads centre," "3-51," "June/58." Photo Source: John Warkentin fonds (F0184) <https://digital.library.yorku.ca/yul-73352/manitoba-region-3>

A search in Google Maps retrieves a village called St-Pierre-Jolys located in the rural municipality of De Salaberry. Using the “map view”, “satellite view” and “streetview” in Google Maps, the landmarks on the original photo can be identified. The spot where the photo is geographically located can be determined, along with the latitude and longitude coordinates.



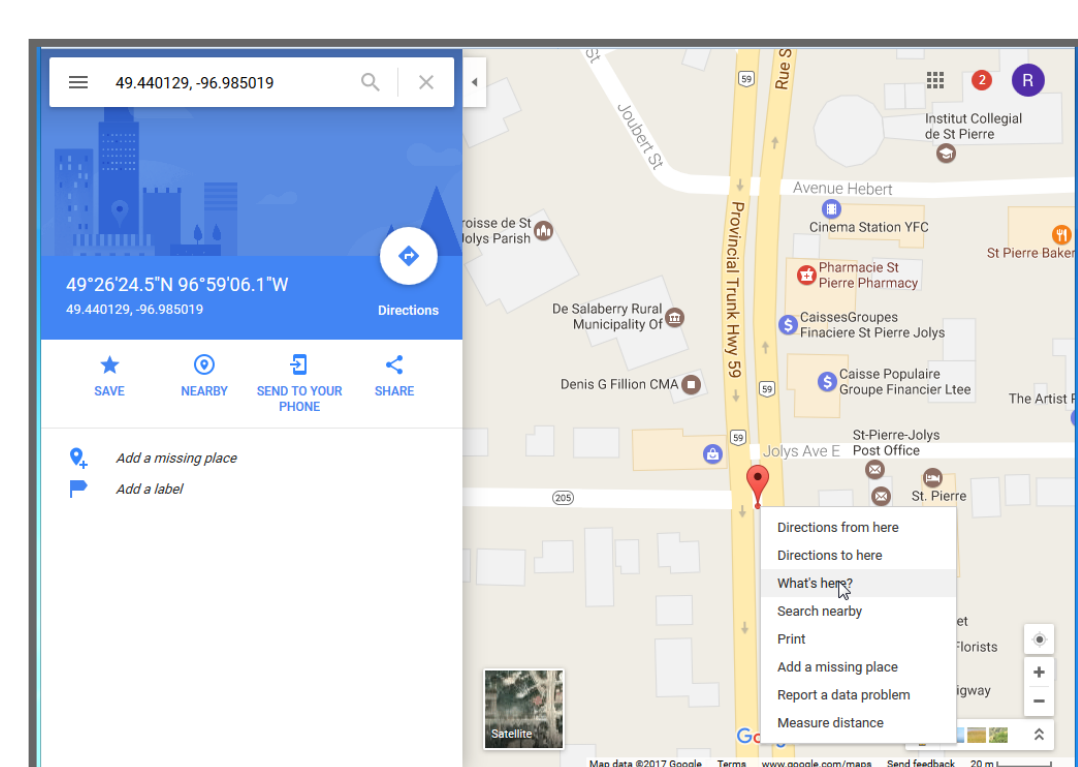
“Map View” in Google Maps of St-Pierre-Jolys



“Satellite View” in Google Maps of St-Pierre-Jolys



“Streetview” in Google Maps of the intersection of Joly Avenue and rue Sabourin, in St-Pierre Joly.



In Google Maps, right click on the geographic location and select “What’s Here.” The latitude and longitude coordinates of the photo is displayed.

Some photos are more challenging to geolocate. Resources such as fire insurance plans, topographic maps or street directories can be used to narrow down the geographic location of the photo.<sup>2</sup> For example, the photo below is the interior of a Royal Bank at Bloor and Lansdowne in Toronto. The building no longer exists. The 1966 Might’s City Directory confirms that it is located at the southwest corner at 1287 Bloor West. The coordinates were verified in Google Maps.



Source: “Royal Bank of Canada : Bloor and Lansdowne, Robbery.” Toronto Telegram fonds, F0433. <https://digital.library.yorku.ca/islandora/object/yul:99297>



Source: Might’s 1966 Greater Toronto City Directory, page 118

## Introduction

A multi-year project is underway featuring a collaboration between York University’s Clara Thomas Archives & Special Collections, the Map Library, and Bibliographic Services. Similar to projects at other institutions,<sup>1</sup> our goal is to determine the geographic location of photos and create interactive maps of specific collections, in our case the John Warkentin fonds and Lou Wise fonds. Using visual examples, this poster presentation discusses the methodology we use at York University Libraries to create interactive maps of our digital collections.

This poster was presented at the Association of Canadian Archivists Annual Conference in June 2017. References and background notes for this presentation are available upon request.

## Step 2: Enter geographic location data into your metadata record

Geographic information can be recorded using arrangement and description standards and schemas including: Metadata Object Description Schema (MODS), MARC21, Dublin Core, Resource Description Access (RDA) and Encoded Archival Description (EAD).<sup>3</sup> Digital objects in York University Digital Library (YUDL) are described in MODS/XML with a future plan of migrating to RDF (Resource Description Framework). It is best practice (when permitted) to record the latitude and longitude coordinates in decimal degrees instead of degrees, minutes, seconds, because coordinates in decimal degrees can read by online mapping tools.

**Decimal Degrees**  
49.440129  
-96.980519 ✓

**Degrees Minutes Seconds**  
49° 26' 2.5" North X  
96° 59' 6.1" West X

After the geographic coordinates of the photo are established, we then determine the hierarchical geographic jurisdiction (e.g., Province, County, Municipality/City, or City Section/Unincorporated area) of the photo using the Canadian Geographic Names Database.<sup>4</sup> The geographic location information for each record is ingested into YUDL via a data entry form.

The added geographic information allows users to browse and search for photos using place names in YUDL.

A section of the YUDL data entry form

## Step 3: Preparing your data for mapping

Online mapping applications such as ArcGIS Online and Google Fusion require data to be organized in a spreadsheet. At York University, we batch export the records in YUDL into a spreadsheet. In the spreadsheet we include the descriptive metadata fields, latitude and longitude coordinates, URI to the object in YUDL, and the URL to the thumbnail image.

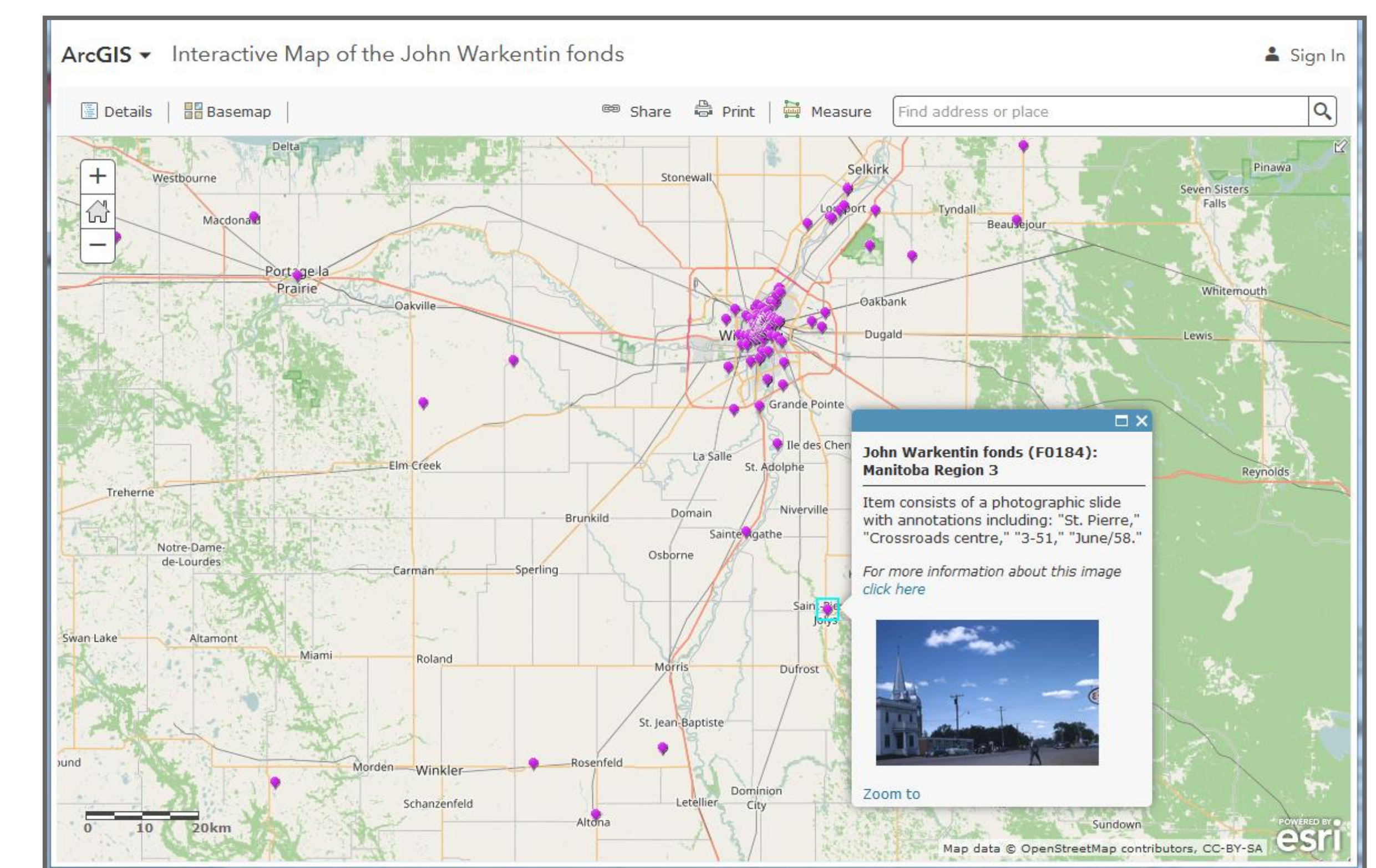
Latitude	Longitude	Title	Description	Fonds	URL	URL #
49.895482	-97.138418	CBD [Commercial Business District] fr	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275571">http://digital.library.yorku.ca/islandora/object/yul:275571</a>	http://
49.899444	-97.139167	Winnipeg from Tower	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275572">http://digital.library.yorku.ca/islandora/object/yul:275572</a>	http://
49.895111	-97.139369	Winnipeg	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275574">http://digital.library.yorku.ca/islandora/object/yul:275574</a>	http://
49.897111	-97.139318	Winnipeg	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275575">http://digital.library.yorku.ca/islandora/object/yul:275575</a>	http://
49.897155	-97.139128	Winnipeg Post Office Completed in 18	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275576">http://digital.library.yorku.ca/islandora/object/yul:275576</a>	http://
49.891761	-97.150814	Manitoba College/St. Paul's College, U	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275577">http://digital.library.yorku.ca/islandora/object/yul:275577</a>	http://
49.912839	-97.131597	Houses on Selkirk Avenue	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275578">http://digital.library.yorku.ca/islandora/object/yul:275578</a>	http://
49.899444	-97.139167	Winnipeg	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275579">http://digital.library.yorku.ca/islandora/object/yul:275579</a>	http://
49.907615	-97.131892	Entrance to [1893-built] Immaculate Co	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275580">http://digital.library.yorku.ca/islandora/object/yul:275580</a>	http://
49.895111	-97.139369	Houses on Selkirk Avenue	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275581">http://digital.library.yorku.ca/islandora/object/yul:275581</a>	http://
49.900789	-97.139393	Winnipeg	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275582">http://digital.library.yorku.ca/islandora/object/yul:275582</a>	http://
49.887843	-97.146971	[1902-built] Science Building at the Uni	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275583">http://digital.library.yorku.ca/islandora/object/yul:275583</a>	http://
50.442209	-96.302131	Carlin (Vale), Alexander, Manitoba	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275584">http://digital.library.yorku.ca/islandora/object/yul:275584</a>	http://
49.899444	-97.139167	Winnipeg	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275585">http://digital.library.yorku.ca/islandora/object/yul:275585</a>	http://
49.896307	-97.138688	Entrance to Winnipeg Grain Exchange	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275586">http://digital.library.yorku.ca/islandora/object/yul:275586</a>	http://
49.8939	-97.143531	Government House [Lieutenant-Govern	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275587">http://digital.library.yorku.ca/islandora/object/yul:275587</a>	http://
49.871111	-97.159234	Manitowishong Hospital building	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275588">http://digital.library.yorku.ca/islandora/object/yul:275588</a>	http://
49.902734	-97.138223	Old CPR [Canadian Pacific Railway] Bri	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275589">http://digital.library.yorku.ca/islandora/object/yul:275589</a>	http://
49.900258	-97.138928	Winnipeg City Hall	Item consists of a photographic slide with annot	John Warkentin fonds (F0184)	<a href="http://digital.library.yorku.ca/islandora/object/yul:275590">http://digital.library.yorku.ca/islandora/object/yul:275590</a>	http://

Section of the spreadsheet that is used to create an interactive map of 422 photos in the John Warkentin fonds.

## Step 4: Create an Interactive Map of Your Collection

At York University, we use ArcGIS Online to create interactive index maps of our cartographic collections.<sup>5</sup> In 2014, using the methodology described in this poster, we created an interactive map of the 5767 oblique airphotos in the Lou Wise fonds (<http://arcgis.com/arcgis/1rc13jL>).

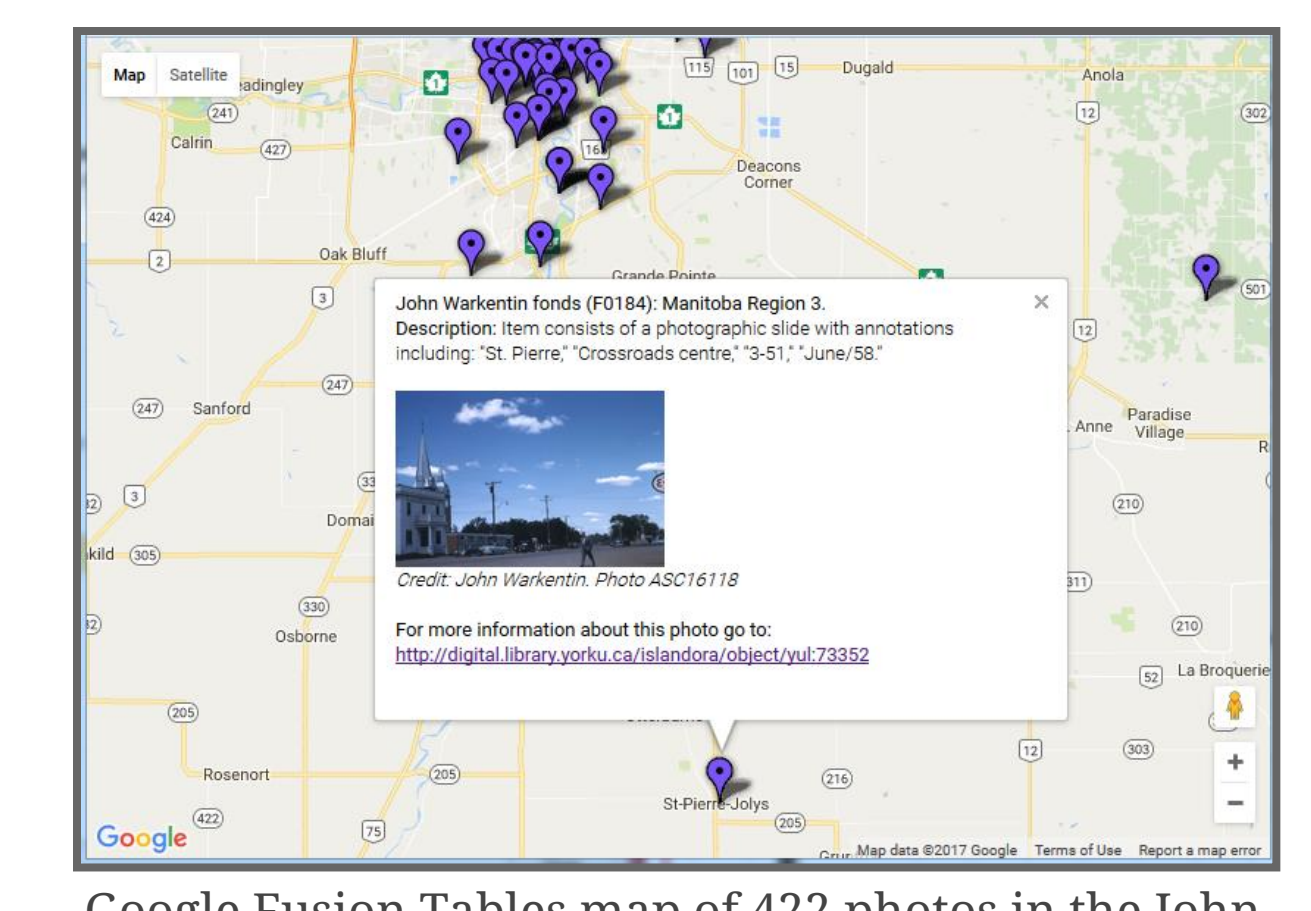
Recently, we used ArcGIS Online to create, customize and publish an interactive map displaying the location of 422 photos from the John Warkentin fonds. The map can also be embedded in a website.



ArcGIS Online interactive map of 422 photos in the John Warkentin fonds.<sup>6</sup>

ArcGIS Online isn’t the only online mapping application that can be used to map your collections. Google Fusion Tables,<sup>7</sup> a free app on Google Drive, can be customized, and published maps can be embedded into webpages.

Likewise, Neatline plugin for Omeka, Tableau Public and CartoDB have similar capabilities.<sup>8</sup>



Google Fusion Tables map of 422 photos in the John Warkentin fonds.<sup>9</sup>

## Future Goals

In the next couple of years the staff at York University’s Map Library, Bibliographic Services and Archives & Special Collections, will create enriched metadata for over 12,000 photos in the John Warkentin fonds. The metadata will include geographic coordinates, hierarchal geographic jurisdictions for locations, and topic headings for each photo. In addition, we will publish interactive maps of the collection, and we intend to publish the methodology in a peer-reviewed journal.

## Acknowledgements

I wish to thank various people and organizations for their contribution to this project to date; Anna St.Onge, Michael Moir, Nick Ruest and Dr. John Warkentin for their professional guidance and support; students and staff at Archives & Special Collections, the Map Library, and Bibliographic services for their work in scanning, describing and geo-locating slides;<sup>10</sup> Young Canada Works and York University Libraries for funding to hire students; and Joy Kirchner (University Librarian) for funding to present this poster at the ACA conference.