Maps and Atlases Transcripts

Module 1 Transcript

Welcome to the video workshop on Map and Atlas Discovery. This is Module one, a quick introduction to maps.

After this video, you will be able to understand the various elements that are part of a map. You will also be able to identify different types of maps, including study area maps, thematic maps, topographic maps, fire insurance plans, property data maps, and aerial photographs and photo maps.

Let's start with a review of the many different parts of a map. These elements include the map, the title, the author, the legend, the map source, the north arrow, the scale and the inset map. Depending on the type of map, the north arrow, the scale and the inset part of your map may be optional. But the key information that's usually included in the map is the map itself, the title -- which usually describes the purpose of the map, the author of the map, the legend which helps to interpret the map, and then the source of the information used to create the map.

As a researcher, you might encounter study area maps. Study area maps are a type of map that describes a specific area of study or key points of interest that are affiliated with a research study. For example, you might find an article on a case study in the Parkdale neighborhood in Toronto, and embedded in the article, there may be a study area map of Parkdale. A study area map is commonly used in articles, academic books, reports, theses and dissertations, major research papers, and other scholarly publications. It's an important visual element for providing geographical context for the reader, given that whoever is reading the document may not be familiar with the region. This map type usually communicates the boundary of a study area, identifies key points of interest, and additional geographic information. A study area map might be copied from another source and labelled as a "Figure", followed by a description and a citation, because other existing maps might be reused in studies.

This is an example of a study area map. It's from a student's thesis, titled "With the Salween Peace Park, we can survive as a nation: Karen environmental relations and the politics of an indigenous conservation initiative." In this case, the researcher has produced a study area map of the region of Thailand discussed in the thesis.

This is another example of a study area map from a journal article. This figure has 2 panels, one that shows all the neighbourhoods of Toronto and the second indicates where the study area is located, in the city of Toronto's Dovercourt neighbourhood, from Bathurst to Dufferin Streets, then between College and Queen Streets. This map is zoomed in with major streets labeled. Note that the source shows that this study area map comes from the City of Toronto.

Here is another example of a study area map from a journal article. The article's author has reused the study area map from a different source. It was reprinted with permission and the figure statement provides the citation for the original source.

We encounter thematic maps on a day-to-day basis. These maps are designed to show how a subject can be connected with a specific geographical area and are created by mapping thematic data to spatial.

The thematic data can range from physical phenomena, such as temperature, to human data such as income, population density, and health. Thematic data are mapped onto a general map or a base map which contains layers such as coastlines, boundaries, roads and places so that the reader can situate data that are being mapped. Thematic maps are sometimes referred to as a “data visualization” given that they portray spatial variations in geographical relationships.

This is an original thematic created by Dr. John Snow, showing cholera deaths in London, England during the 1840s. It was published in a book called *On the Mode of Communication of Cholera* and depicts a base map with the streets and boundaries of a neighborhood in London; the cases of cholera are shaded in black and the location of the water wells are also labelled. With this map, John Snow and others could see that the deaths were all geographically proximate, demonstrating that the outbreak was a result of one infected water pump.

This is another thematic map, showing socioeconomic data. The base map, which is also a form of a thematic map, shows the major routes and roads in Toronto from the waterfront to the boundaries of the city. Perhaps less identifiable are features that also show the different census tracts. The information that's mapped on top of each census tract is socioeconomic data and, more specifically, the number of households where the language of Tagalog is spoken in the home. The data are from the 2016 Census of Population by Statistics Canada which are then mapped onto a base map of Toronto. This thematic map displays the concentration of Tagalog speakers in Toronto, with the dark green patches indicating the highest concentration. This map is a static map that is available online in PDF format.

In comparison, some thematic maps are in the form of an interactive map. This is an example of a map of Toronto’s Zoning Bylaw 569-2013, which depicts the various zoning categories in the city. This interactive map allows you to zoom-in on areas of interest and identify the zoning categories, then how they're divided and subdivided. The colors represent different broad categories like residential, commercial, institutional, or open space. Here again, underneath this thematic data, lies a base map layer of the city of Toronto.

A topographic map is another type of base map, but it's also considered to be a thematic map. A topographic map is a detailed representation of cultural and physical features on the landscape, showing features such as roads, buildings, urban development, waterways, geographic elevations, vegetation, and place names.

A topographic map is useful for scientific purposes where people need to measure precise areas on a map, such as for surveying water systems impacted by building developments. From a planner's perspective, topographic maps have an interesting use given that they provide a historical window into how an area may have looked like in the past. This image is a topographic map of the Malton area in 1974, which looks quite different from this area today. In the lower left-hand corner is where the city of the town of Brampton should be, but at this time period it was called the village of Bramley. Although some urban areas are indicated on this topographic map, the rest is completely rural, demonstrating visually how the region has changed over time. If you were to look at this map today, it would be entirely filled with urban, residential, industrial, or commercial areas. This map is available through a web-based platform called Scholars GeoPortal, which we will introduce in a later module.

Fire Insurance Plans are a rich historical resource. They are urban city maps initially created for insurance companies to provide information about building composition and to assess fire risk when assigning insurance rates. These plans provide details on building construction and usage in relation to streetscapes, neighborhoods, and commercial regions. They were created for fire insurance underwriters so that they could understand the physical characteristics of buildings and structures that they were providing insurance for. In this example image, we have a fire insurance plan from 1923 of the Mount Dennis area of the City of Toronto, near Weston Road and Eglinton. This map represents every physical structure from this neighbourhood, including homes, schools, public offices, businesses, and commercial buildings.

When Fire Insurance Plans ceased production in the mid-1970s, most cities, municipalities and counties in Ontario began producing large-scale base maps called “property data maps.” These maps indicate property boundaries, building footprints, addresses of buildings, street names, and the precise area covered by a given street. Some cities, like the City of Toronto, map other features, such as: fire hydrants, street sewer holes, elevation points, sidewalks, traffic lights, or light poles. This is an example of a property data plan located in the West end of Toronto and is very similar to the fire insurance plan. It records information for street addresses, building footprints, and property boundaries. Since the City of Toronto created it, this example also shows the location of light standards, traffic lights, and even where the sewer holes are situated on the street. This map is available through York University libraries in both print and digital versions.

Finally, we have aerial photographs and photo maps. Aerial photos are individual photographs, usually printed on a small sheet of photographic paper. In comparison, a photomap is a large format aerial photograph printed on a large sheet of paper. Photomaps are produced by creating a mosaic of individual aerial photos. In this example, a scanned photo map of the area around the Pearson airport in Toronto is depicted from 1954. You might note that Highway 401 is not shown, because the roadway had not been built yet. These historical maps give an idea of the structure and fabric of the landscape at a given point in time, whereas a property data plan, a topographic map, or fire insurance plan are interpretations of what is located on the landscape. This map can be accessed online and can also be found in a hard copy in the Map Library, along with other photo maps.

Module 2 Transcript

Welcome to part 2 of the Map and Atlas Discovery workshop, titled Finding and Creating Study Area Maps.

In this video, we will identify readily available tools to create study area maps and how you can use them for your own research outputs.

Many governments produce interactive maps of their jurisdictions that can be a great source for base maps. For example, if you want a study area map of a subset of the city of Toronto, the municipal government has an interactive map. This mapping tool allows us to choose the type of base layer, such as the basic property data map on the bottom left corner, indicating the outline of buildings; or to choose depictions of the landscape using aerial photos, as on the bottom right. The interactive map also allows you to go back in time and look at aerial photographs from between 2005 to 2021; you could switch between two years to compare how the city has changed over time, for example, some areas have significant construction zones in 2021 that were not there previously. Eglinton Avenue comes to mind! It is important to note that there may not be a print or save button for these government maps. You may need to use the screen capture function of your device and then bring it into an editing software, like PowerPoint or Canva, to add map elements like title, legend, author, and source.

Another source you could use is a tool called Google Earth Pro. There are two versions of Google Earth Pro, the online version, and the one that you can download. The downloadable version is available on Mac and PC and is recommended as it allows you to zoom-in to specify a study area, then add a title and labels. Google Earth Pro allows you to export as well for use for your research outputs.

Another tool is Scholars Geoportal. It is a platform commonly used to retrieve GIS data for Ontario and Canada, but it also allows you to make study area maps. Because Scholars Geoportal hosts many GIS datasets, it is a great tool for adding these datasets as data layers on a map. For example, this study area map on the right was created in Scholars Geoportal by adding a layer for the census tracks around York University. This tool also has the ability to add map elements like a title, in this case "YorkU and Surroundings" and to export the map to different formats such as JPEGs. Please note, it can take an extended time to export the map, so you may need to be patient.

As mentioned earlier, you may want to enhance your base map taken from an interactive map like from the City of Toronto's website. There are many software options that will allow you to open a screenshot of a map and add elements, like the title, the author, the source of the data, the study area, and labels for locations such as sites of interest. These tools include iPaint or Preview for Macs, Powerpoint or Publisher on Microsoft devices, or by using graphic design platforms like Canva, or opensource software like GIMP and Inkscape. Regardless of the tool, it critical to include an acknowledgement of the original source from where the map came from. See Module 5 for how to cite maps and atlases in more detail.

Finally, another type of software that can create professional looking maps are geographic information systems, or GIS, software. GIS software include tools like ArcGIS and QGIS. Although more complicated to use than the tools previously mentioned, GIS software has features that enhance abilities in creating sophisticated, interactive maps. Please see the separate workshop on Geospatial Data and the Geospatial Data Research Guide for more in-depth information on GIS software.

Module 3 Transcript

Welcome to the third module in the Maps and Atlas Discovery workshop, "Finding and accessing online maps".

In this module, we will introduce the primary starting points you need to know to successfully find maps online. Beginning with the York University Libraries' "Maps and Atlases Guides," we'll see how this is the entry point to open access map and data portals, then also the best way to find specialized licensed databases for creating your own maps.

The Library has created a research guide on how to find maps and atlases that is an essential starting point for your research. The guide can be found on the Library's website by clicking the Research Guides link.

From the Research Guides directory, the Maps and Atlases Guide can be found by selecting Finding Types of Information, then choosing Maps and Atlases. Alternately, you try searching "maps and atlases" in the keyword search box which will search through all York University Library's research guides for relevant pages.

This guide provides background information, self-directed tutorials, and links to a comprehensive selection of map resources at York University and beyond. The guide facilitates browsing by map type or by topic using the tab-based format of the page. Note the dedicated tab for guidance on how to cite maps. It is the ideal starting point for all your research needs, so bookmark the page for your future projects that require maps, data sets, visualizations and more.

Accessing the "Browse by Map Type" tab is useful for most major map and data portals from Canadian and international governmental sources. Of course, many of these sites could be accessed through a Google search; however, many are obscure end up buried far down in one's search results. Knowing that all these resources have been vetted, evaluated, and verified for authority by data and map librarians offers a value-added feature for researchers in the academic environment. By selecting "General Resources Online," you'll be offered the most important portals hosted by municipal, provincial, or federal levels of government. In the city of Toronto, we're fortunate to have free access to a vast array of information sources on the city's geography, urban planning, social networks, and environment and ecology.

Although we won't explore each individual portal; the City of Toronto hosts an interactive city map that offers information by city ward on topics such as local heath indicators, neighbourhood improvement areas and heritage conservation districts, natural heritage and archaeologically sensitive areas. It is an ideal source for creating base maps, thematic maps, or study area maps. From the screen capture, you can see the alphabetic list of maps, giving an idea of the diversity of thematic maps available such as "Art Exhibits and Events"," Audiology Clinics," Basement Flooding Protection Programs," "Bike Corral Locations." For any topic related to the Greater Toronto Area, this map portal is a quintessential entry point.

Navigating back to the Maps and Atlases Guides, the final tab offers access to the Geospatial and GIS research guide, here you will find access to specialized databases that offer capabilities for web-based mapping, analytics, and data visualization applications that makes it easy for anyone to create interactive maps, charts, or reports.

As mentioned, accessing databases using our Research Guides offers support for you as a researcher by providing user guides and links to self-guided tutorials on key databases supportive of geospatial research. We'll explore two of these collections in greater detail. Scholars Geoportal offers a wealth of cultural, economic, demographic, and environmental sources on the Canadian context, with a strong specialization in datasets and maps related to the province of Ontario. Simply Analytics, although not as robust for information on the Canadian context, does offer economic and business-related resources that offers an excellent gateway to research on the socio-cultural impacts of the economy on our lives.

To emphasize the value of accessing Scholars GeoPortal using our Research Guides, the Geospatial Data Guide is shown, offering a step-by-step overview of using the resource. Scholars GeoPortal provides access to over 5,000 large scale geospatial datasets and over 3 million Ontario aerial images, while providing users with sophisticated tools for searching, discovery, map visualization and data analysis. Resources include data licensed or created by Ontario universities, such as land-based vector data on soil, water, cultural points of interest, and more. Provincial and municipal data are included for viewing census geography or aerial images and orthophotography. The GeoPortal also offers enhanced open data and historical digitized maps that include topographic maps from Ontario university library collections.

Scholars GeoPortal is supportive of searching through data sets or by geographic location. The image shown demonstrates how easily a search on a geographic location, such as Mississauga, can yield rich results by keyword searching data resources.

Be sure to use the facets on the results screen to refine your results by topic; in this case, by limiting "Land Use," three potential maps resources are available. I'll select the 2010 Official Land Use Area study, by clicking on the "Add" button.

Now we are provided with five potential vector maps. I selected two from 2020 and 2016 by clicking the "Add" button. Note that the tab at the top of the page indicates how many maps I have selected thus far. Be sure to use the "Zoom" button after selecting variables to immediately focus on your geographic region of study.

By selecting the Map tab, I immediately see the Legend needed to interpret the maps on the left-hand side of the screen. Because both surveys use the same colour-coding, it is difficult to distinguish between the two maps, so I can either: use the toggle bar to increase the transparency of the map on the top layer, so the other is more visible Or deselect the radio box at the bottom of the legend to temporarily hide a map from view.

You are able to layer multiple maps using Scholars GeoPortal, in this case, I've selected the "Commercial" topic field, then added two resources on Mississauga Zoning. Immediately, the Map tab indicates the four maps I have layered so far.

To download results, you can use the Download tab. This offers the capability of Downloading entire datasets, but I'm only interested in a specific area, so I'll select the "Area of Interest" option, which allows three different ways to highlight a geographic region. I selected the pencil icon to draw directly on the maps. Now I can select the file format, in this case a Shape File. Finally. I can select the datasets I want to download to then choose the location to save the files.

Note too that quick and easy export features are available, by printing or exporting an image of the map as depicted on the screen in different image file formats, such a JPG, PDF, PNG, or GIF. These options might be useful if you are seeking to create a "Study Area Map" for a journal article, report, dissertation, or other form of academic publication.

Moving back to the Geosptial Data guide, SimplyAnalytics can also be accessed. It is an online data mapping and reporting application that provides users with access to hundreds of demographic variables covering the Canadian population, from census data sets on health, household spending, crime, digital lifestyle such as social media usage, mobility, or devices. Business location points and profiles are also available. SimplyAnalytics data can be mapped at a variety of census geographies from across provinces to local neighbourhood census tracts and dissemination areas. Users can export their maps into a variety of formats, including Shapefiles, or customize their data into tables for export into Excel, CSV, or PDF.

SimplyAnalytics can be accessed through a "Guest" account, however any queries, maps, or tables created will not be saved. For optimal usage, York University users are advised to create their own account with a log in and password. This will allow your work to be saved and you can return to the same settings. When creating your SimplyAnalytics account, please use a "yorku" or "my.yorku" email address. Other email addresses will not be recognized by SimplyAnalytics.

Simply Analytics offer robust capabilities for creating nuanced geospatial maps, but a quick overview of basic functionality will demonstrate how intuitive and accessible the resources is for first time users. After a brief tutorial on Simply Analytics (which you can skip through), you will be asked to start a New Project; the search box provided auto-populates with potential data subjects as you type. In this case, starting to type Mississauga yields several recommended options.

By selecting the "Census Subdivisions" option, I have numerous variables that can be added to my map. I've selected Total Population, Household Income, and Level of Education using the radio boxes. Now I'm ready to "create a project"

The results displayed are immediately visible in the Data" field which now provides numerous options for refining and enriching my variables by age, language, ethnicity, and more.

By selecting "ethnicity," for example, a window pops up offering ways to limit results by date, data type, or subject. Click any of the potential variables to add it to your mapped results.

To further enrich your variables, the Business tab will allow you to add marketing and economic factors, by searching for businesses either using a North American Industry Classification System code or by keywords. In my case, I simply added the word "food."
Use the Zoom toggle bar to focus on specific neighbourhoods to view an interactive, closer look at the relationship between ethnicity and food services business in the Mississauga region.

Finally, to download map results, use the "View Actions" drop down menu to select options such as "export Shape file."

Alternately the Export menu allows for the creation of image files in JPG, PNG, or PDF formats, which are ideal for use as a Study Area Maps in reports, research papers, or academic studies.

Module 4 Transcript

Welcome to the fourth module of the Map and Atlas Discovery video workshop, titled “print maps and atlases” an overview.

In this module, you will be introduced to different types of sheet maps and books that are part of the Map Library’s collection. We will also feature a tour of the physical space to show where individual map and atlas collections are located.

For an introduction of the Map Library, be sure to explore the link on the Library Homepage, which will provide access to information on collections, spaces, and services.

The Map Library is located in room 102 on the first floor of the Scott Library, We will use a floor plan of the library to explore the uniquely diverse collections available, beginning with our map collections.

When you enter the library, the expanse of map cabinets are distinctly noticeable. They may all look the same, but each drawers holds a diverse array of sheet maps and cartographic materials. We’ll provide a brief overview of some of these resources.

Topographic Maps are two-dimensional representations of the Earth’s three-dimensional landscape. These give geographic positions and elevations for natural and human-made features in a given region or area. Contour lines—usually brown lines drawn on the terrain—depict the elevation of a land mass in equal measurements from sea level. Finally, a fractional scale, typically represented as a ratio, indicates that one unit (such as a centimeter) on the map represents the second number of that same unit on Earth. So, if the ratio was 1:25,000 one centimeter on the map would represent 25,000 centimeters in real life, or to make it easier 250 meters. Topographic maps use different scales, but the most frequently used are 1 to 25,000 or 1 to 50,000. Somewhat counterintuitively we describe detailed maps of smaller areas as large-scale maps and global maps as small scale, this is because “large-scale” maps have more details such as streets or building footprints. You will learn about how to search for and locate topographic maps in Module 5 “Searching Maps and Atlases in Omni” and Module 7 “Searching for Canadian Topographic Maps in the Map Library. ”

Fire insurance plans were originally produced by fire insurance companies to assess insurance risk and rates for fire, an ever-present threat to early Canadian urban centres, consisting largely of wooden dwellings. For contemporary researchers they provide detailed information about buildings and neighbourhoods and how they changed and developed over time. For the City of Toronto, the York University Map Library has plans for the downtown core of the City between 1858 and 1954. Production of fire insurance plans ceased in 1975, but other maps have taken their place such as property data maps or cadastral maps showing the extent, value, and ownership of land, especially for taxation.

A thematic map is a type of map that portrays the geographic pattern of a particular subject matter, or theme, in a geographic area. This usually involves the use of map symbols to visualize selected properties of geographic features that are not naturally visible, such as temperature, language, or population. In this, they contrast with general reference maps, which focus on the location of a set of physical features, such as rivers, roads, and building. It is common to have essays or documentation included to contextualize the visual elements.

The maps cabinets are arranged by geographic region and are ordered in a zig-zag type configuration beginning at the entrance of the library with world maps – then moving to general Canadian maps – regional and provincial maps – the U.S. – Latin America and the Caribbean – Europe – Asia, the Middle East, and South Asia – Africa – Oceania – and Fire Insurance Plans.

We will describe how to search for maps in later modules, but note that by accessing the Maps and Atlases Guide—available from the Research Guide portal on the Library homepage—you can select the Print Map Collections tab to view the Map Library's Holdings List. These PDF guides will list every sheet map in the entire collection.

Simply select the region of the world you need—for example Ontario Cities---to retrieve a list of relevant maps with the call numbers displayed. These will be the location code for retrieving the map from the library.

At the entrance of the Map Library, we have a selection of resources that are useful for getting started with your research including Quick Reference materials such as dictionaries, guides, atlases and gazetteers. As well, we offer a selection of international travel guides.

Our collection of books and atlases located at the back of the library offer a unique array of publications. Module 5 from this video workshop series will provide details on searching for books or atlases in the collection. When searching, however, be sure to note the two main collections: regular sized books & atlases; these items are not qualified by any descriptors in Omni catalogue records and just offer call number. Also, we have oversized books & atlases, which are described in Omni beside the book's call number. Both collections offer resources that cover a range of topics in cartography, map making, and the historiography of geography. We also have books on geographic information systems (GIS), map librarianship, even titles covering science fiction, cinematic, or fantasy worlds.

When searching for Map Library materials, be aware of the different designations for collection items:
Available at the Map Library Map Stacks – this is a book or atlas which can be loaned out. These are found in the bookshelves behind the map cabinets.
Available at the Map Library Scott Maps – this is a sheet map located in the map cabinets. It cannot be loaned out.
Available at the Map Library Scott Maps Oversize – this is a large atlas, located in the shelves at the back. It cannot be loaned out.
Available at the Map Library Scott Maps Reference – this is a reference book that cannot be loaned out, it is located along the side wall.

Finally, on the far wall of the library, are filing cabinets containing our Aerial Photographs.

We will explore how to search for and locate these items in module 6 "Searching for print aerial imagery in the Map Library. " Aerial photography (or airborne imagery) is the taking of photographs from an aircraft or other airborne platforms. York University has a collection that spans the years 1946 to 1998. In addition, a series of photomaps are housed, which are large format aerial photographs printed on paper. Both vertical and oblique photographs can be used for planning land-use projects, movie production, environmental studies, archaeology, power line inspection, oil and gas surveying, surveillance, commercial advertising, and even artistic projects.

If you need help, have questions about starting your research, or putting the finishing touches on a project and need guidance on citations, don't hesitate to reach out by email. Use our gislib or datalab addresses for any questions on accessing maps, geospatial data, visualization questions for data and statistics. You can also book a consultation with a data librarian, by accessing the Ask & Services tab on the library homepage.

Module 5 Transcript

Welcome to the fifth module in the Maps and Atlas Discovery workshop, titled "Searching for Maps and Atlases in Omni".

In this module, you will learn how to use the library search portal OMNI to locate atlases, books about maps and cartography, and print maps at the York Map Library.

An atlas is a collection of maps, usually bound together. At York University Libraries, we have a large collection including international atlases in many diverse languages as well as ones profiling the Canadian context from national to provincial to city-specific subjects. Thematic atlases are included, such as those depicting visualized subjects relating to ecology, the environment, economics, history, cultural studies, or linguistics. For any subject related to a location in our world, there probably will be a related print map! OMNI, the library's primary search interface, makes it easy to find atlases by using a keyword search. For example, if you are looking for an atlas of Ukraine, simply type in "Atlas Ukraine". As this example shows, the search returns over 15,000 results, most of which are not atlases, so, use the facet on the left side bar to filter to only holdings within the Map Library's collection.

Now, with the "Map Library" filter applied, we are shown: 10 results, all of which are physical copies of atlases on Ukraine in the Map Library. By clicking the title of an entry, you can find out more information about the publication and its location in the library collection.

The record shown for the publication, titled "Ukraine, a historical atlas," indicates that it is located in the Map Library, which is on the 1st floor of Scott Library, then in the Map Stacks, which are the bookshelves at the back of the library. The string of characters after that, starting with G 2151, is the call number for that individual resource, in this case an atlas, and it identifies the specific resource and location within the stacks.

With the call number, you can locate the individual atlas you are looking for. The library's shelves are all labelled at the side with the range of call number on that group of shelves, to make it easy to locate the atlas of your choice.

In the Map Library, we also have numerous books related to maps and cartography. We have gazetteers, which are indexes for place name, and geographical dictionaries. You can use either to look up variations in the spellings of place names, find the precise location of a geographic place (using latitude/longitude coordinates), and or learn about how the placename came to be. Gazetteers are particularly useful to historians, genealogists, and researchers doing environmental assessments. There are also books on cartography, as well as on the history of cartography and maps. We also have books on geographic information systems (GIS), map librarianship, even titles covering science fiction, cinematic, or fantasy worlds.

To locate the books that are available in the Map Library, you can use the OMNI search interface. For example, if you are looking for books on cartography, you can do a simple keyword search for "cartography" and filter to just the books available in the Map Stacks. You can then use the subject facet on the left menu to filter the results, such as if you want results just for cartographic history. Click on any title for find out more information and the location of the resource in the collection.

We have over 100,000 maps in the York library collection! Most are in the Map Library, but some historical original maps are also in the Clara Thomas Archives and Special Collections, located on the 3rd floor of Scott Library.

To locate maps in the collection, OMNI is again a great resource! To search for Maps, use the Advanced Search link from the library homepage. This will bring us to a new page that will allow us to search only for "Maps“ as a Resource Type. Then search for locations as Subjects, meaning that everything retrieved will be about the location.

OMNI returns 877 results for Maps with Toronto as a subject. If you only want Maps that are available in the Map Library, you can also add the additional filter for the York U Libraries facet, which offers 289 results. This then excludes maps that are available online and printed maps in other locations like the Clara Thomas Archives and Special Collections, which can be accessed by appointment only.

You could also try limiting to certain types of maps, like a topographic map of Toronto, by adding more keywords. In this example, we want to search for all variants of the term --such as topography or topographic or topographies, so we use an asterisk at the end of the root word.

While most of the print maps in the Map Library are searchable through the OMNI search interface, there are some maps that are not included. All maps are arranged by geographic area, so if you are looking for maps of Toronto, those maps are all grouped together. This topographic map of Metropolitan Toronto uses a call number starting with G for the broad subject of geography, the number 3524 for the geographic area covering Southern Ontario, and the third line, T61, is the code indicating that the localized area is Toronto. Thus, other maps that start with G 3524 T61 will also be about Toronto, and they will all be in similar areas of the library.

As well, all individual maps or maps in a series are listed in the Map Library's holdings list binders. The maps listed are arranged by call number and geographical area. So, while the holdings list doesn't have the search capabilities of OMNI, the Holdings lists will help you find maps of a similar location. The holdings lists are located in binders at the entrance of the Map library as shown or online as PDFs.

You can learn more about everything in this presentation, including accessing the online holdings list, through the Maps and Atlases library research guide, accessible from the library homepage, by selecting “research guides.”

Module 6 Transcript

Welcome to the sixth module in the Maps and Atlas Discovery workshop, titled “Searching for print aerial imagery in the Map Library."

In this module, you will learn how to use York University Library’s online Maps and Atlases guide to search for print aerial photographs at the Map Library then to search for print photo maps.

The York University Map Library contains several series of air photos and photo maps of various parts of Ontario from the 1940s to the 1990s. The first step to find the air photos and print photo maps is to go to the library home page, select “research Guides” then use the search box to type in Maps and Atlases guide. The research guide contains information to find many map types, including air photos and photo maps. To find both of those, click on the Browse by Map Type tab, then click Air Photos.

On the Air photos page, there are further instructions on how to retrieve air photos. We first want to select the year, for example, the 1971 series. Note that the next steps in our process will be the same for all years displayed on the page.

The link leads to the index map of the 1971 air photos, where each red marker represents a single air photo. We can Zoom in and select a red marker for our area of interest. Alternately, we can also search for a specific address or location by clicking on the search button in the bottom right corner. We can search for "York University", for example, and select the third option from the top, to Zoom to York University's Keele campus.

Our selection brings us to York University and the surrounding area. The red markers now show the centre of each air photo. Clicking on one of the markers will bring up details on where to find that exact air photo. For the air photos held at York University Libraries, the Year, Flightline, Roll, and Photo number are all required in order to find the physical air photo in the collection, so it is a good practice to take note of these numbers or take a picture of it on your cellphone.

All of our air photos located in the Map Library are in the black file cabinets on the back wall, opposite from the entrance of the Map Library. Each drawer is labelled with the year or years of air photos it contains. In our example, we want to find the 1971 drawer that covers our Flight line number 4332.

In the drawer we will find the series covering Flightline 4332, then identify the files for Roll 38 in numerical order. Finally, in our case we want to find Photo no. 11, which will be in the folder that covers numbers 1 to 32.

The photos within each file are in order, and we can identify photo #11 by locating the number in the bottom right corner. It may also be of interest to look at the air photos before and after #11 as they oftentimes overlap in area, so will show the surrounding areas around York University's Keele campus.

The Map Library also has digital copies of the air photos for the years 1946, 1954 and 1971 as the copyright has expired and the images are now in the public domain. To request a digital copy, visit our GAIA request services form, located at gaia.library.yorku.ca.

The Air Photos webpage of the Maps & Atlases Research Guide also gives instructions on how to find photo maps in York University's Map Library. These instructions are located below the Air Photos

section. To locate a specific photo map, select the year desired and click on the link to view the index map. For example, we can select the year 1989.

The index map displays all photo maps in the series in a grid each with a unique identifier that uses both numbers and letters. Individual photomaps can be identified by looking for major streets, green spaces, and highways. If we want to find the York University Keele campus, we can use the street boundaries of Finch, Steeles, Jane, and Keele, to identify the appropriate photomap, which in our case is "47Q". To locate this physical photomap in the library, the call number for the series of photomaps is displayed in the bottom right hand corner of the index.

For our York University example, we want to find the photomap with the call number G/3524/T61/A4/5/1989, so the number is identifiable from the map cabinet drawer label. But where is 47Q? Note the final numbers in brackets which cover the final call number range needed for map 47Q.

All the maps between numbers 39 and 50 are in one file folder in numerical order. In our case, all of the number 47 maps were available organized in alphabetic order from A to Z.

As to be expected the map 47Q shows the street boundaries of Finch, Steeles, Jane, and Keele in 1989.

Module 7 Transcript

Welcome to the seventh module in the Map and Atlas Discovery workshop series titled “Searching for Canadian topographic maps in the Map Library."

In this module, you will learn about the National Topographic System, or NTS, and its different map scales, then how to determine the NTS number of a specific map and use it to locate the topographic map in the Map Library collection.

A topographic map provides detailed representation of cultural and physical features on the ground. These features include roads, buildings, urban development, water, elevation, vegetation, and place names. We have thousands of topographic maps in the Map Library for most countries around the world. We specialize in topographic maps of Canada, at various map scales.

As described in module 4 from this series, a map scale is the ratio of the distance on a map compared to the distance on Earth. So if a map scale is 1:50,000, that means that 1 cm on the map represents 500 metres in the real world, which would cover approximately 1000 square kilometers. An example of this scale is displayed on the left side, where we see downtown Toronto and Lake Ontario primarily shown. At this scale, a topographic map can accurately show natural geographies like hills, lakes, and trails for recreational activities and human-made features like buildings, power lines, and dams. Because of this, the 1:50,000 scale is widely used by researchers, as well as governments and private businesses. As a result, the majority of maps in the Map Library are 1:50,000 scaled topographic maps. In comparison, the right image shows a map scale of 1:250,000, also of the Toronto area. At this scale, 1 cm on the map represents 2,500 real world metres, and all of the Golden Horsehoe area, from Toronto to St. Catherines and most of Lake Ontario are covered in a single map. There are many other map scales available at both smaller and larger ratios. The Map library has topographic maps of Canada for scales ranging from 1:25,000 to 1:500,000.

To locate maps, there is a well-organized system called The National Topographic System, or NTS, which is the standardized system for mapping used across Canada as produced by Natural Resources Canada. The country is subdivided into different tiles; each tile is given a starting NTS, such as 030. Each tile can be further subdivided, so that the map of the Golden Horseshoe area, or GTA, is 030M, which is the NTS for the map at the 1:250,000 map scale. Further subdividing to get to the 1:50,000 scale, we then have 030M11 to represent the downtown part of Toronto. Thus, with this system, each topographic map is given a unique NTS number for identification.

To determine the NTS number of the map area you are looking for, there are three options. One option is to use an index map. There is an online index map for all of Canada located in the ArcGIS platform, as shown. The online index map allows you to pan across a map of Canada and zoom in on the geographic area you are looking for. It also has a search bar at the top right corner, where you could enter the place name you are interested in.

Another option is to use the printed index maps in the Map Library. They are located on top of the first row of Map Cabinets, as shown. The printed index maps can be helpful if you are already in the Map Library and know the general area for which you are seeking a topographic map.

The final option to determine the NTS number of an area is to look up the geographic name in the Canadian Geographical Names Database. The search features allows you to search by the name of a city,

town, lake, or geographic feature. For example, we could look up Vaughan, select the city of Vaughan, and then near the bottom of the table is the NTS Map Number. In this case, it is 030M13. Make note of this to retrieve that specific map in the Map Library.

The final step to finding the topographic map is to physically locate it in the map collection. Use the NTS number and proceed to the map cabinets at the back of the first row of blue cabinets, the ones closest to the computers in the Map Library. The topographic maps are all organized by NTS number and the NTS numbers and the map scales are described on each drawer. To find a 1:50,000 map of Toronto, remember that the NTS number is 030M11 and find the map drawer with that map scale and 030M description. Pull out the drawer and remove the map that you are interested in. You can place the map onto the top of the map cabinets to look at. Please know that the maps must stay inside the Map Library and that you should leave the maps on top of the cabinets when you are done with them.

More information on searching, accessing, and making sense of topographic maps is included in the Maps and Atlases Research guide by clicking the Browse by Map Type tab, then selecting “topographic maps” from the homepage of this tab.