

Developing & Delivering an Instructional Session

[For History Undergraduates at McMaster University]

Saman Goudarzi

Prompt

"A faculty member in History has asked you to join a class session of their second-year course to introduce students to working with cartographic materials."

Agenda

1. ***Design Approach***
2. ***Sample Lesson Plan***
3. ***Setting the Scene***
4. ***Sample Presentation***
5. ***Questions***

Design Approach

Identify the information needs and capabilities of learners

Identify and fill gaps in my own knowledge in regards to course content



Assumptions

mid-size
class

canadian
history
course

minimal
technical
expertise

Define Session Objectives

SESSION OBJECTIVES

Introduce print and digital cartographic materials for historical scholarship

Introduce digital mapping tools for historical scholarship

Increase familiarity with MUL's print and digital cartographic collection

Promote MUL as a source for research support

Ensure the active learning of defined objectives

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Introduce print and digital cartographic materials for historical scholarship

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KEY TOPICS TO COVER

Prominent print cartographic resources

Prominent digital cartographic resources (spatial data)

Popular cartographic resources used by historians

Introductory explanation of GIS

Popular GIS tools used by historians

Common techniques utilized in historical GIS

MUL's digital and print cartographic collection

How to access this collection

Relevant resources and services offered by the MUL (consultations, online learning, workshops)

How to access them (contact info + links)

**Define
“How”
Session
Objectives
Will be Met**

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How to access them (contact info + links)

Ensure the active learning of defined objectives

Pre-assessment:

Inquire about familiarity with cartographic resources

Participatory learning activities:

Find digitized map in MUL collection & georeference using Map Warper

Post-assessment:

- Pose comprehension questions
- Assess completion of learning activity
- Follow up with course instructor

Accessibility:

- Learning materials made available in LMS prior to session date
- Minimize the use of technical language

**What would this lesson
plan look like in action?**

Historians also use digital cartographic resources to answer research questions.

HISTORIANS OFTEN USE
THREE KINDS OF DIGITAL
CARTOGRAPHIC RESOURCES



RASTER DATA

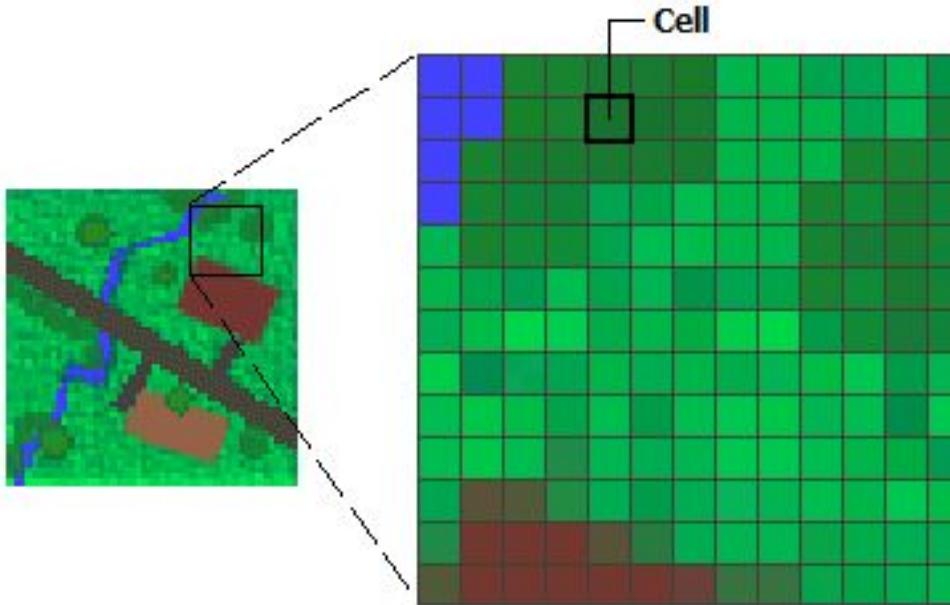


VECTOR DATA

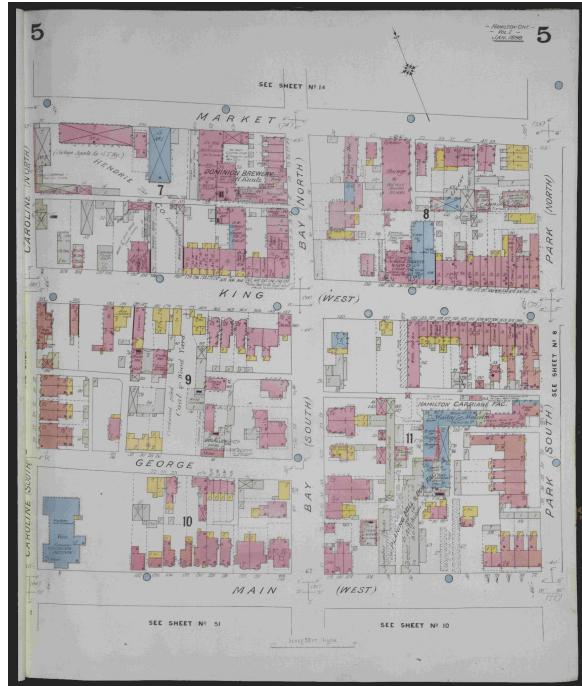


TABULAR DATA

popular data type: **raster**



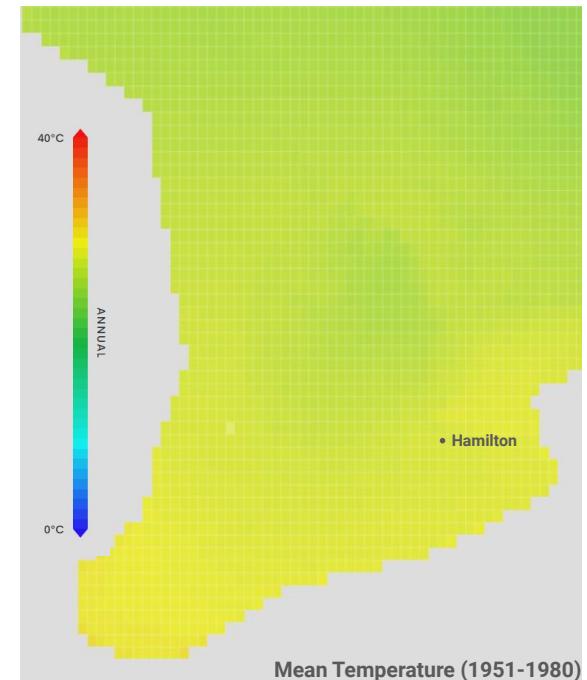
historical data as rasters



digitized fire insurance
plans (x)



digitized historical aerial
photographs (x)

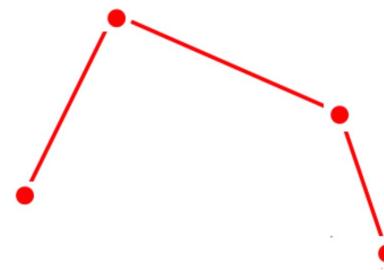


historical climate data (x)

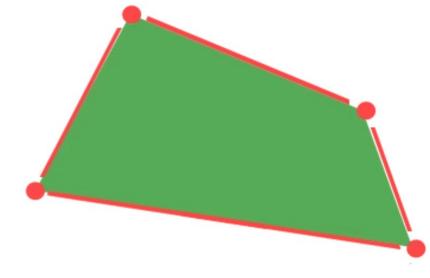
popular data type: **vector**



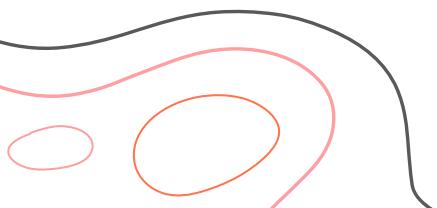
points



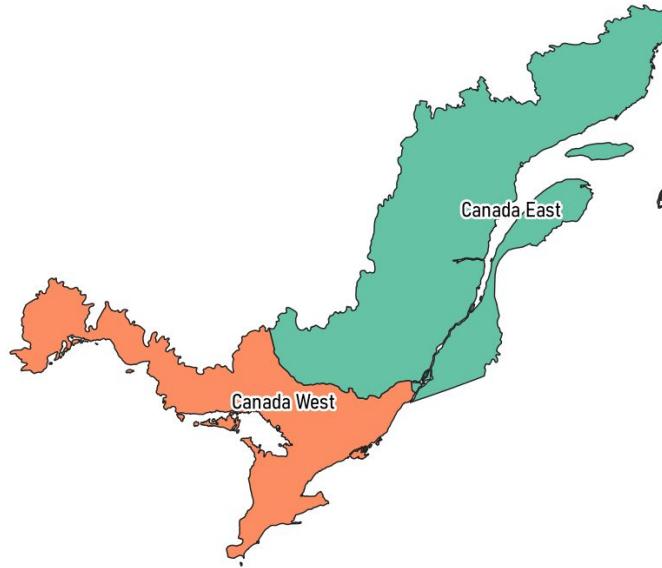
lines



polygons

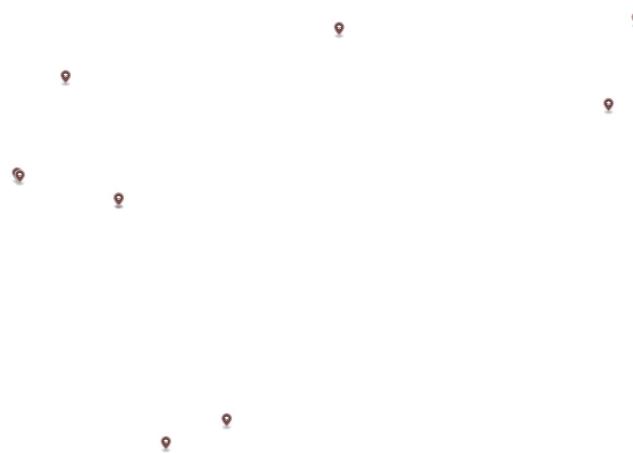


historical data as vectors

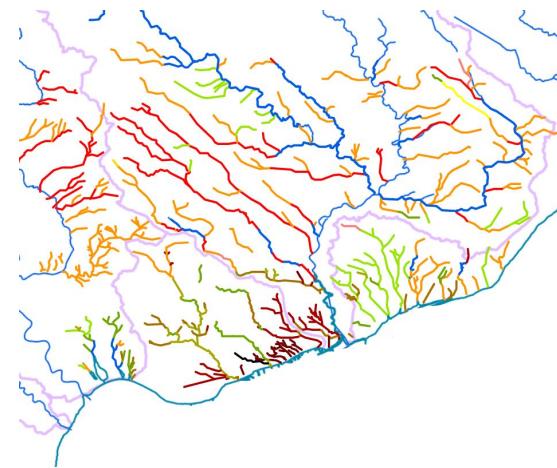


historical political
boundary (x)

historical data as vectors



select residential schools
recorded in ontario (x)

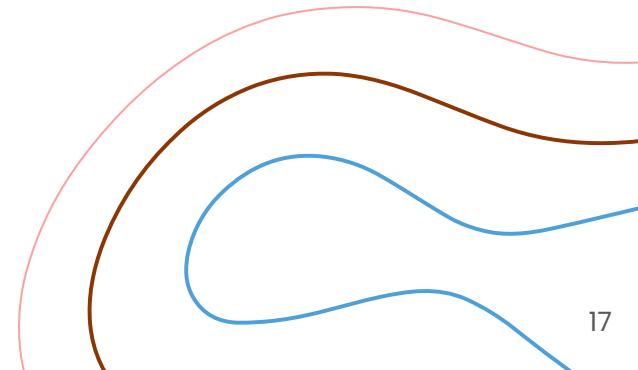


historical rivers of toronto (x)

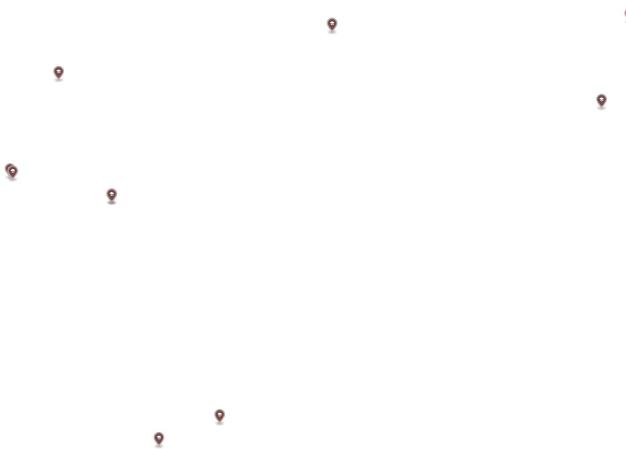
popular data type: **tabular**

Brewery_Name	ID	Date_Est	Date_Closed	Address	Latitude	Longitude
Cosgrave Brewery	1	1863	1963	297 Niagara Street	43.645267	-79.409781
Ontario Brewing & Malting Co.	2	1885	1901	311-337 King St. E.	43.651565	-79.365705
O'Keefe Brewery (formerly Victoria Brewery)	3	1840	1989	11-17 Gould Street	43.657417	-79.380519
Bloor's Brewery (later Castle Frank Brewery)	4	1830	1843	Bloor and Sherbourne Streets	43.672356	-79.379046
Copland Brewing and Malting Co. Ltd.	5	1832	1946	311-337 King St. E.	43.651556	-79.365532
Copland Brewing Co. Ltd.	6	1847	1946	55-65 Parliament St.	43.652295	-79.362177
Dominion Brewery Co. Ltd.	7	1878	1936	470-496 Queen St. E.	43.657052	-79.359928
Queen City Malting Co.	8	1882	1893	228 Front St. E.	43.651278	-79.365073
East End Brewery (Reinhardt Salvador Brewery)	9	1861	1889	2-22 Mark St. (formerly Beech)	43.661115	-79.356342
Walz Brewery / Korman Brewery	10	1857	1944	Duchess (now Richmond) and Sherbourne	43.6531	-79.3684

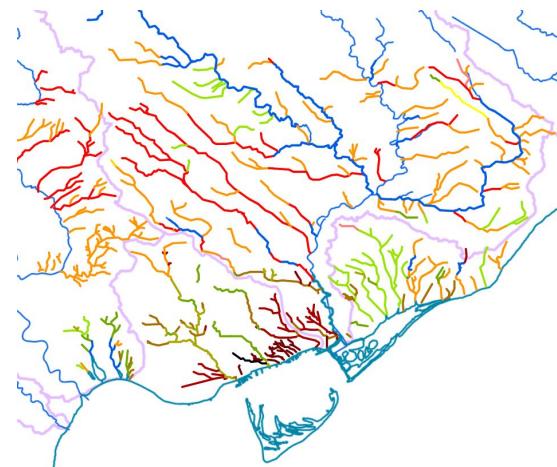
What makes digital cartographic resources especially valuable to historians?



going from this...

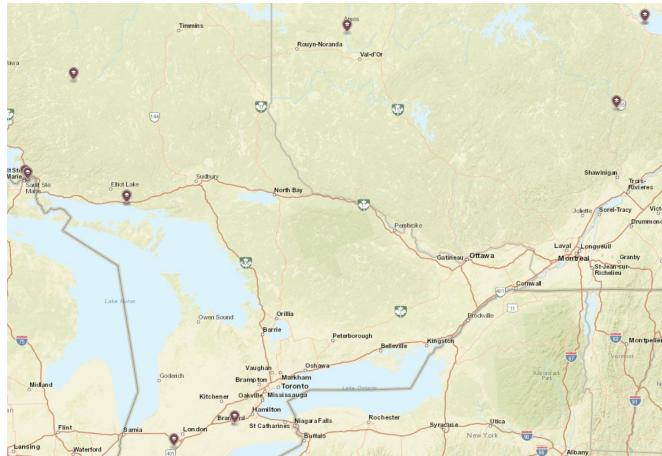


select residential schools
recorded in ontario (x)



historical rivers of toronto (x)

to this!

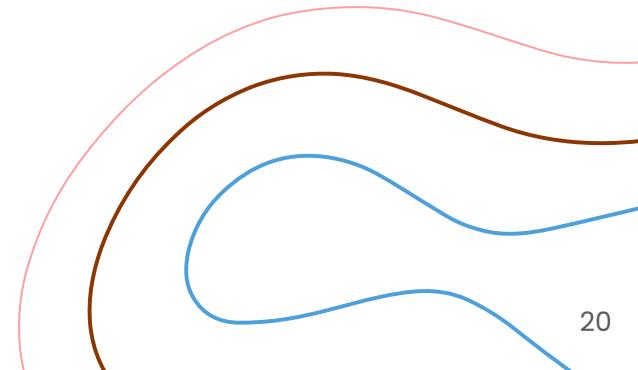


select residential schools
recorded in ontario (x)

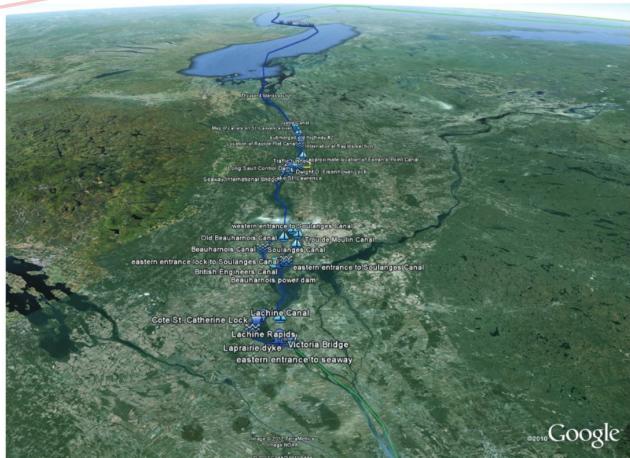


historical rivers of toronto (x)

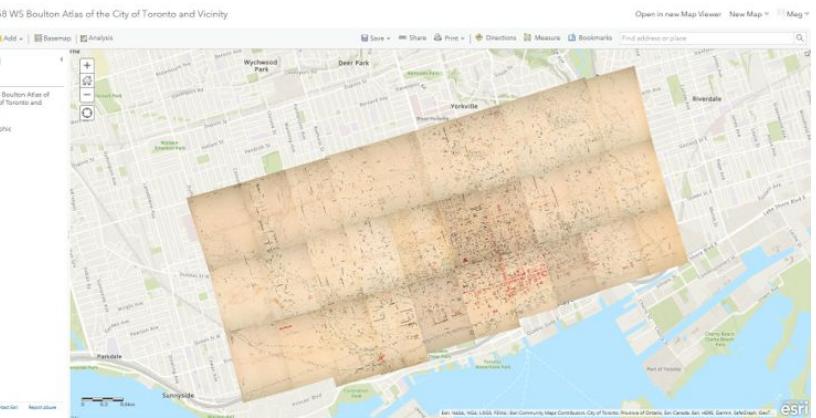
Digital mapping tools allow historians
to organize, visualize, and analyze
historical spatial data.



GIS (Geographic Information System): Any system that's used to analyze, capture, or work with digital cartographic resource



historical points of interest along the St. Lawrence Seaway visualized in **Google Earth** (x)

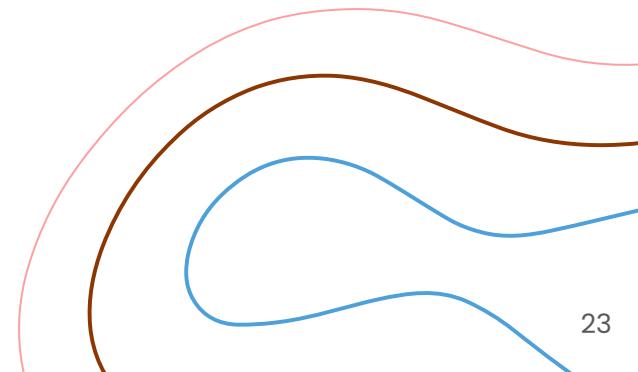


historical map of toronto visualized within **ArcGIS Online** (x)

In what ways could these digital mapping tools (**GIS**) be useful for historical research?

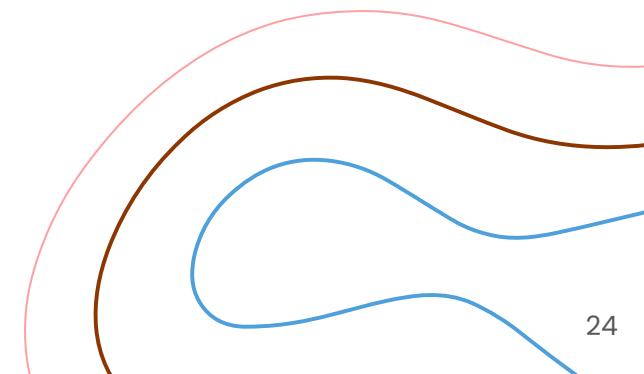
(1) Enable maps from different time periods to be compared systematically

Ex. MUL's Historical Hamilton Portal ([x](#))

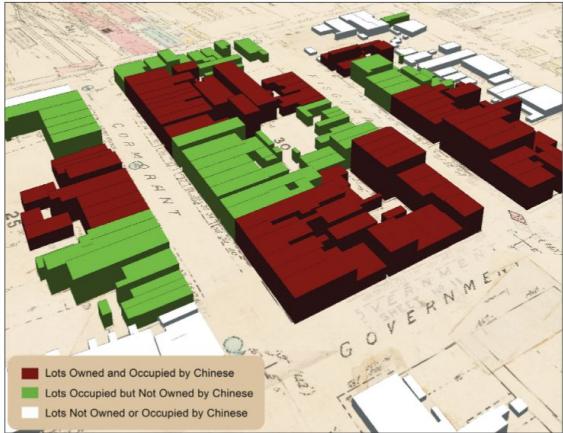


(2) Enable historical narratives to be communicated visually

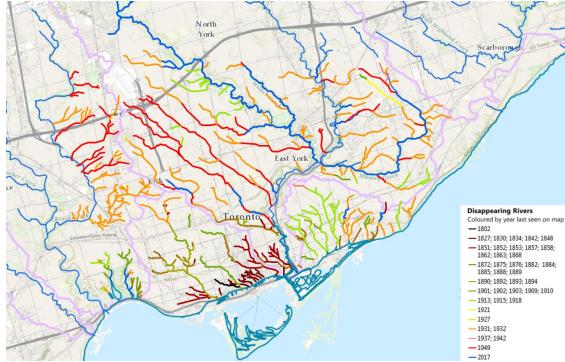
Ex. Historical Village of Waterdown Story Map (x)



(3) Enable the reconstruction of features from the past



chinatown lots in victoria,
british columbia (1891)

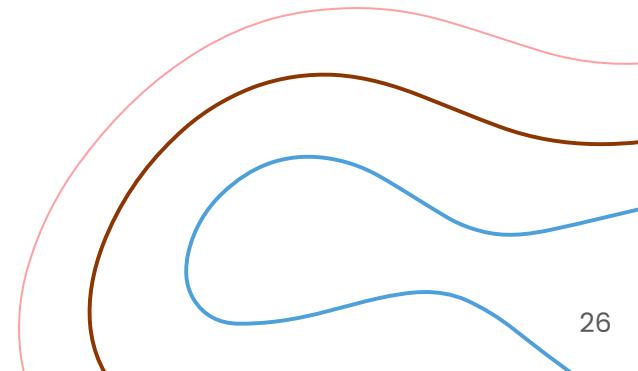


historical rivers of toronto (x)



native land canada (x)

(4) Enable geographic patterns
embedded in historical evidence to
be visualized



GENERAL REGISTER OF

CHINESE IMMIGRATION

1 Recd No. Serial No.	2 Name	3 Port from which Emigrated	4 Date of Emigration	5 CERTIFICATE ISSUED C.I.S. No.	6 C.I.S. No.	7 Fees Paid Amount	8 Sex	9 Age	10 PLACE OF BIRTH	11 City or Village	12 PLACE OF BIRTH	13 Title, official rank, Profession or Occupation	14 Last place of Residence	15 ARRIVAL IN CANADA	16 Last place of Residence	17 Physical Manner or Description	18 REMARKS
62401 24842 Wong Yuet Jack	Lancaster Nov. 18	55801 107945	500 -	Male	11	Jung Hung Sining	China	Student	Hong Kong	Vancouver	Emp. of China Nov. 18	292 -	Age 20. Head long hair on top, very thin face, very pale.	Expect to reside in Vancouver			
62402 24843 Yong Wee Quon	London Aug 1st	55802 110160	500 -	18	Fee Yuen (or Ping)	China	(Cleaning & is a merchant) Merchant Son	Emp. of Japan Oct. 10	293 -	Age 20. Head very pale, thin face,	293 -	293 -	293 -	293 -	293 -		
62403 24844 Chung Sing Chung	1885	55803 109460	Exempt	16	Bei King Yit Ling	China	Merchant Son	Emp. of China Nov. 18	294 -	Age 20. Head very pale, thin face,	294 -	294 -	294 -	294 -	294 -		
62404 24845 Cheng Sing Nam	1885	55804 106620	Exempt	13	"	"	"	"	295 -	Age 18. Head very pale, thin face,	295 -	295 -	295 -	295 -	295 -		
62405 24846 Chung Suk	1885	55805 106620	Exempt	48	I. Hing	China	Merchant	"	296 -	Age 48. Head very pale, thin face,	296 -	296 -	296 -	296 -	296 -		
62406 24847 Fee Cheuk Wo	1885	55806 121957	Exempt	18	Quo Joon Sining	China	Merchant Son	"	297 -	Age 18. Head very pale, thin face,	297 -	297 -	297 -	297 -	297 -		
62407 24848 Gip Bak	1885	55806 170221	Exempt	17	Sah Duy Serval	China	"	"	298 -	Age 17. Head very pale, thin face,	298 -	298 -	298 -	298 -	298 -		
62408 24849 Gee Cheung Yeo	1885	55807 107155	Exempt	18	Kim Sung Sining	China	"	"	299 -	Age 18. Head very pale, thin face,	299 -	299 -	299 -	299 -	299 -		
62409 24850 Chow Chew	1885	55808 108020	500 -	20	Ung Toon	China	(over)	"	300 -	Age 20. Head very pale, thin face,	300 -	300 -	300 -	300 -	300 -		
62410 24851 Gun Son Hung	1885	55809	500 -	20	Qew Wat	China	Labourer	"	301 -	Age 20. Head very pale, thin face,	301 -	301 -	301 -	301 -	301 -		
62411 24852 Chun Dick Sing	1885	55810 105145	Exempt	18	Siai Boo Nam Ho	China	Merchant Son	"	302 -	Age 18. Head very pale, thin face,	302 -	302 -	302 -	302 -	302 -		
62412 24853 Gee Way	1885	55811 104721	500 -	20	Yuen Lin Serval	China	(over)	"	303 -	Age 20. Head very pale, thin face,	303 -	303 -	303 -	303 -	303 -		
62413 24854 Fung Sing Tong	1885	55812 102320	500 -	35	Ting Wo Ying Pin	China	Labourer	"	304 -	Age 35. Head very pale, thin face,	304 -	304 -	304 -	304 -	304 -		
62414 24855 Ho Wing	1885	55814 107461	500 -	25	Bak Boo Hochan	China	"	"	305 -	Age 25. Head very pale, thin face,	305 -	305 -	305 -	305 -	305 -		
62415 24856 Ho Yuen Fat	1885	55815 102220	500 -	25	Wah Chun	China	"	"	306 -	Age 25. Head very pale, thin face,	306 -	306 -	306 -	306 -	306 -		
62416 24857 Ho Ying	Montreal	Dec. 31 55309	500 -	37	San King Canton	China	"	"	307 -	Age 37. Head very pale, thin face,	307 -	307 -	307 -	307 -	307 -		
62417 24857 Chan Chi Kee	Montreal	55816 102220	500 -	31	Gee Too Huen Lin	China	"	"	308 -	Age 31. Head very pale, thin face,	308 -	308 -	308 -	308 -	308 -		
62418 24858 Sam Ying	1885	55817 102220	500 -	28	Chun Hing Hoiping	China	"	"	309 -	Age 28. Head very pale, thin face,	309 -	309 -	309 -	309 -	309 -		
62419 24859 Chu Hang	1885	55818 101160	500 -	17	Yeo Toon Sining	China	Student	"	310 -	Age 17. Head very pale, thin face,	310 -	310 -	310 -	310 -	310 -		
62420 24860 Sam Kwong	1885	55819 101160	500 -	20	Van Hau Serval	China	Labourer	"	311 -	Age 20. Head very pale, thin face,	311 -	311 -	311 -	311 -	311 -		
62421 24861 See Chow	1885	55820	500 -	48	Gee Hoo Sining	China	Grocer	"	312 -	Age 48. Head very pale, thin face,	312 -	312 -	312 -	312 -	312 -		
62422 24862 See King Nam	1885	55821 101174	500 -	18	Sam On	China	Labourer	"	313 -	Age 18. Head very pale, thin face,	313 -	313 -	313 -	313 -	313 -		
62423 24863 Mo Poong	1885	55822 101174	500 -	21	Bow Luen	China	"	"	314 -	Age 21. Head very pale, thin face,	314 -	314 -	314 -	314 -	314 -		
62424 24864 Hung Toy Song	1885	55823	500 -	36	Chung Huk Ho Ying Pin	China	"	"	315 -	Age 36. Head very pale, thin face,	315 -	315 -	315 -	315 -	315 -		
62425 24865 Faung Yen Yen	1885	55824 101174	500 -	35	Gum Pui	China	"	"	316 -	Age 35. Head very pale, thin face,	316 -	316 -	316 -	316 -	316 -		

city names

Expect to reside in
VancouverNanaimo
Sethbridge, Alta.

Westminster, B.C.

Vancouver

Cumberland, B.C.

Montreal

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Vancouver

Montreal

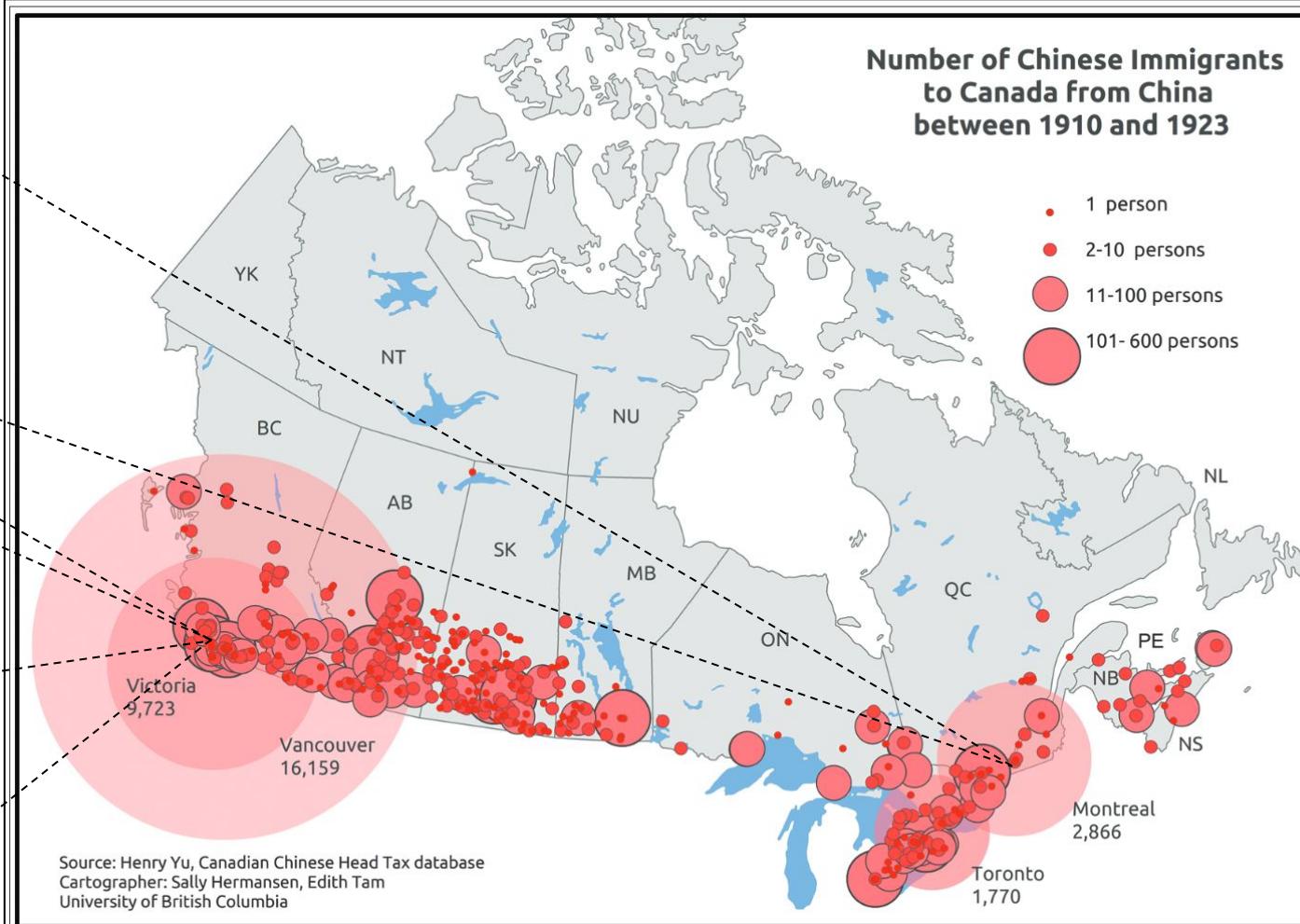
Vancouver

Montreal

GENERAL REGISTER OF CHINESE IMMIGRATION	
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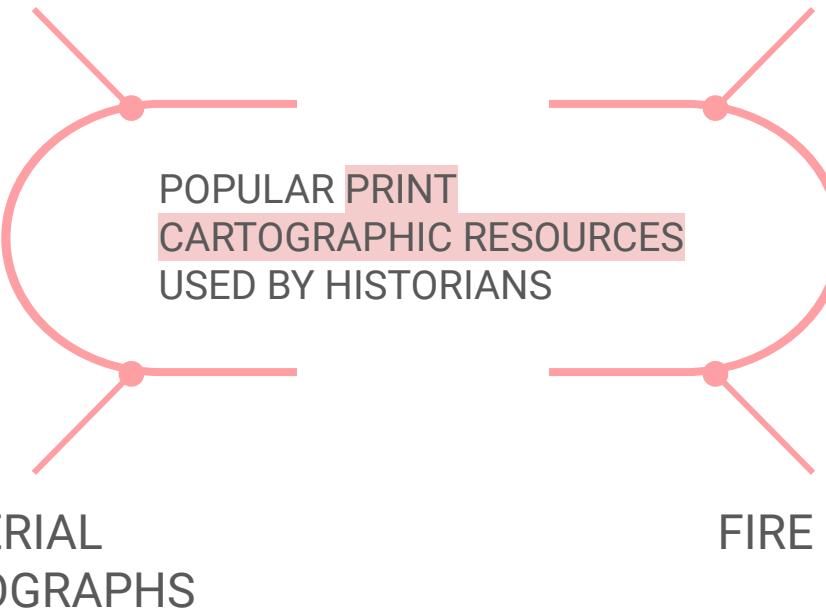
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LOCAL HISTORICAL
MAPS & ATLASES

TOPOGRAPHIC
MAPS



POPULAR PRINT
CARTOGRAPHIC RESOURCES
USED BY HISTORIANS

AERIAL
PHOTOGRAPHS

FIRE INSURANCE
PLANS

HISTORIANS ALSO OFTEN
USE THREE KINDS OF
DIGITAL CARTOGRAPHIC
RESOURCES



RASTER DATA



VECTOR DATA



TABULAR DATA



PRINT CARTOGRAPHIC MATERIAL

Source of historical
evidence



DIGITAL CARTOGRAPHIC MATERIAL

Also a source of
historical evidence, but
they can also be
organized, analyzed and
visualized with the use of
digital mapping tools
(GIS)

How can historians utilize digital mapping tools (GIS)?

01

Systematically compare maps
from different time periods

02

Present historical narratives
visually

03

Reconstruct features from the
past

04

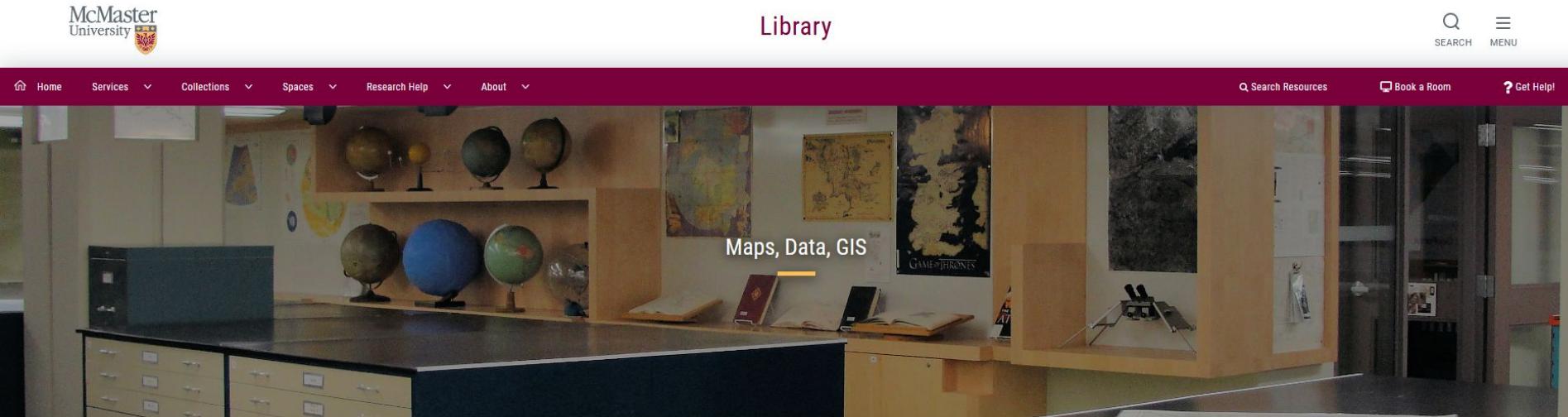
Visualize geographic patterns
embedded in historical
evidence

How can MUL support me with this topic?

01 Librarian Support ([x](#))

02 Online Learning ([x](#))

03 Workshops ([x](#))



Maps, Data, GIS

McMaster Library's Maps, Data, GIS Centre supports the geographic, geospatial, statistics, and research data needs of students, staff, and faculty at McMaster University. It provides researchers with access to a wide range of maps, geospatial, statistical and microdata sets, as well as resources and support for managing research data.

[Mills Memorial Library](#)

[Hamilton, Ontario L8S 4L6](#)

[Closed](#)

[905-525-9140 ext. 24745](#)



How can MUL support me with this topic?

01 Librarian Support ([x](#))

02 Online Learning ([x](#))

03 Workshops ([x](#))

9. StoryMaps

Presented in collaboration with DASH

Synchronous Workshop | March 3, 2022

Link to online module coming soon

Instructor: Christine Homuth

Learn how to make maps tell stories with ArcGIS StoryMaps. This multimedia digital storytelling tool allows you to incorporate maps and apps from your ArcGIS account, as well as text, photos, and videos.

At this workshop, Christine Homuth (Spatial Information Specialist) will provide attendees with an introduction to storytelling through maps using ArcGIS Online and ArcGIS Storymaps. No prior knowledge of GIS is required. This session will be recorded and made available openly.



Activity: Georeference a historical map
in MUL's digital collection using Map
Warper ([x](#))

Thank You

Image Credits

Slide 10: <https://desktop.arcgis.com/en/arcmap/10.3/manage-data/raster-and-images/what-is-raster-data.htm>

Slide 12: <https://gisgeography.com/spatial-data-types-vector-raster/>

Slide 17: https://prism.ucalgary.ca/bitstream/handle/1880/49926/UofCPress_HistoricalGIS_2014_Chapter02.pdf?sequence=4&isAllowed=y

Slide 21: https://prism.ucalgary.ca/bitstream/handle/1880/49926/UofCPress_HistoricalGIS_2014_Chapter01.pdf?sequence=3&isAllowed=y

Slide 24: https://prism.ucalgary.ca/bitstream/handle/1880/49926/UofCPress_HistoricalGIS_2014_Chapter11.pdf?sequence=13&isAllowed=y

Saman Goudarzi

<https://samangoudarzi.github.io/>

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