Spatial thinking, GIS, and community stories

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GIS = Geographic Information Systems

Agnes Sinclair Holbrook (1895), Nationalities Map No. 1. In Hull-House maps and papers: A presentation of nationalities and wages in a congested district of Chicago, together with comments and essays on problems growing out of the social conditions. New York: T.Y. Crowell.
GIS = Geographic Information Systems

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- GIS allows for the simultaneous representation of the where and the what

GIS = Geographic Information Systems

- A GIS map is made up of layers, or collections of items that are alike, attached to geographic locations and defined by a visual symbol.

- By adding a few or many layers to a GIS map, we can see relationships between different objects.

Thinking about GIS as encompassing a wide range of technologies

- Desktop software
- Web/cloud-based mapping
- Mobile options
- Location-based services on our devices
Spatial relationships

• By overlaying different layers, we can compare the spatial relationships between features.

• For example, we can ask which features are nearest others, which ones cross others, which ones are contained by others, and which ones are adjacent to others.

• If we have data that spans different points in time, we can ask questions about the features over time.
John Snow’s cholera map: London, 1854

Source: Mapping the 1854 London Cholera Outbreak
https://www.udel.edu/johnmack/frec682/cholera/
GIS: Why does it matter?

- Visual explanation over text-based
- Efficient, jargon-free communication of data
- Often interdisciplinary and multilingual
- Can be participatory
- Information synthesis
- Visually compelling, aesthetic beauty
- Often leads to new understandings
- Plurality: can allow for simultaneous representations of experiences, history, time, space, and place


The U.S. has more jails than colleges. Here’s a map of where those prisoners live. Christopher Ingraham. The Washington Post, Jan. 6, 2015.
Maps can be objects of power

Maps can lie

Enbridge depiction of clear tanker route sparks outrage

The Douglas Channel as seen in an Enbridge ad, left, and a comparison image created by graphic designer Lori Waters. (Facebook)
Maps can obscure understanding

Not only is it easy to lie with maps, it’s essential. To portray meaningful relationships for a complex, three-dimensional world on a flat sheet of paper or a video screen, a map must distort reality. As a scale model, the map must use symbols that almost always are proportionately bigger or thicker than the features they represent. To avoid hiding critical information in a fog of detail, the map must offer a selective, incomplete view of reality. There’s no escape from the cartographic paradox: to present a useful and truthful picture, an accurate map must tell white lies. (Mark Monmonier, *How to Lie with Maps*, p. 1)
Chad Skelton’s work

Where were Vancouver's busiest polling stations? (interactive map)

See how many in your neighbourhood are organ donors on this map of B.C.

Mapping proposed school closures

Andy Yan’s work

$1 Million Single Family Residential Properties in Metro Vancouver, 2015

$1 Million Single Family Residential Properties with Average Transportation Costs (25 years) in Metro Vancouver, 2015

Pete McMartin: Factor in travel costs and Metro Vancouver is awash in $1 million houses: study

PETE MCMARTIN, VANCOUVER SUN 09.15.2015
Redlining: mapping racism

Contemporary redlining

Mortgage loan applications to Hudson City Savings Bank (in green) mapped against majority black and Hispanic census tracts (in red and orange), from a government redlining complaint against the bank.

Anti-Eviction Mapping Project

Narratives of Displacement: Oral History Map

Please do not use any of these stories for your own work without first checking with us. Interviewees have only authorized the release of their stories to the AEMP.

Fill out our survey here to add your story to our map!


Narratives of Displacement Oral History Project by the Anti-Eviction Mapping Project

http://www.antievictionmap.com/#/narratives-of-displacement/
Anti-Eviction Mapping Project


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Red eviction markers in San Francisco represent no-fault evictions from 1994-2016; those in Alameda represent Unlawful Detainers in Oakland, Fremont, and the City of Alameda from 2005-2016. Blue circles represent eviction sites that contain oral histories.

Click on eviction sites to hear stories of home and displacement.
AirBnB maps by Karen Sawatzky

About

Submitted by Wendy Anthony on Tue, 07/19/2016 - 10:35am

Our vision is the engagement of citizens in the creation of healthy, vibrant and sustainable communities. Our mission is to facilitate processes for community engagement, student learning, globally-relevant research, sustainable community development and planning through participatory community and green mapping.

Using in person and virtual spaces, the wisdom of communities, the research of academics and the passion of educators and students, the Mapping Network is working toward a new kind of knowledge co-creation.

Come explore our work.

Year: 2016
UVic Community Mapping Collaboratory

Capital Regional District (CRD) Community Green Map
a celebration of living sustainably in the Victoria Region of British Columbia

CRD Community Green Map
Expand the legend (to the right of the map) and filter the types of sites you want to explore.
Click on the + sign in the top right corner of the map to change the base map or add layers from the CRD Atlas.

Legend
Select the map icons you would like displayed.

- Culture and society
- Nature
- Sustainable living
- Newcomers
Urbanarium’s Smartmap

What place, space or building do you think is smart or not so smart in your city?

Urbanarium’s Smartmap

North end of Cambie Street

There's no there there. It needs a climax.

I AGREE

That's Not Smart

https://urbanarium.org/smartmap
Montreal Sound Map

Montreal Sound Map

Gwich'in Place Names and Story Atlas

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Gwich'in

Place Names and Story

Atlas

http://atlas.gwichin.ca/index.html

Gwich'in

Place Names Atlas

PDF-Maps

About

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Gwich'in Place Names Atlas

Sitr’ijyeh Van

Skin rash–lake

Sitidgi Lake

This place name refers to a large lake northeast of Campbell Lake in the Inuvik area.

This place name refers to a skin rash that people would get if they ate the loche (livers) from this lake. The livers are extremely rich and would make your skin peel. The loche in this lake are large and black in color.

There is an old trail which runs between the north end of Campbell Lake and Sitidgi Lake. This trail goes up Campbell Creek and through a series of lakes with one portage at the height of land and again through another series of lakes and creeks which flow into Norris Creek, Nehdoh Njaa Niiñlajj and then into Sitidgi Lake. The portage part of the trail was described as being a foot deep by a foot wide with red clay on top of the ground.

Landscapes of Injustice
The Atlas of Early Printing

Mapping Choices by Surging Seas

Kitsilano Point
ghost muskrat swamp
our home’s on native land

WES HARTLEY

August Jack Khahtsahlano told Major Matthews
Kits Point used to be a sprawling muskrat swamp
black willows hardhack cattails heron nest trees
from Snauq longhouse where Burrard Bridge abutment sits
across to Skwayoos summer fishing campground on the beach

A salmon stream ran downhill under Cypress Street
curved west at Cornwall and crossed the tree streets
Walnut Maple Laburnum and Arbutus into English Bay
at Kits Beach bathhouse, Skwayoos campsite
where beachcombers still find arrowheads in the gravel
The CPR dumped thirteen feet of sand in the creekbed
at Maple Street when the railroad tracks were laid down
trucked in fill to the swamp when the streetgrid was laid out
disappeared salmon run, disappeared muskrat swamp
Molson built the brewery on top of Snauq Graveyard

Mapping poetry in Google Earth Pro at SFU

Datasets used here:
Lesack, Paul; Proctor, Sharon J., 2011-03-23, "Vancouver's Old Streams, 1880-1920", http://hdl.handle.net/11272/IKHNQ
Mapping poetry in Google Earth Pro at SFU

Bringing historical content into Google MyMaps at SFU

Hastings Grove Store, 1912

name
Hastings Grove Store, 1912

description
Source: Vancouver Archives
Bringing historical content into Google MyMaps at SFU
Fun ways to get started
Ideas for Vancouver
GIS Day is an annual worldwide celebration of Geographic Information Systems (GIS) technology. Mark your calendar; this year’s celebrations will take place on November 16, 2016. GIS Day 2016 at SFU will feature talks from researchers and practitioners, a student poster competition, and a hands-on GIS workshop. This is a public event, and anyone with an interest in GIS is welcome to attend.
Thanks for your time

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