New Uses for Old Maps
Exploring Transforming Landscapes Online through Historical Topographic Maps

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Project overview

Initiated by Ontario Council of University Libraries Geo Community in 2014
Over 1000 historical maps (1:63,360 and 1:25,000 series)
Why?

- Topographic maps at these scales are heavily used by researchers interested in examining changes over time
- Access to older series is uneven across institutions
- Ability to leverage the OCUL Scholars Geoportal platform and existing equipment at our institutions
- Funding from OCUL ($32,000 - January 2015 to April 2017) allowed us to cover student staffing costs and the cost associated with commercial scanning
Major steps

1. Build an inventory (Google Sheets)
2. Scan the maps at universities with high resolution scanners
3. Add metadata back to inventory
4. Perform a quality check
5. Plan for preservation
6. Georeference the maps using GIS software
7. Load the maps and metadata onto Scholars Geoportal
8. Build a project site
Project workflow
Scanning specifications

600 ppi scans in TIFF with derivative JPEGs
24 bit colour depth
Calibrated scanners, standardized QA
Minimized number of scanners
Scanning errors

Left/Right Stitch Error

Front/Back Stitch Error

Discolored Streaking

Scan Direction
Accuracy vs. time to georeference

Transformation using a 2\textsuperscript{nd} order polynomial, 8-12 ground control points
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Georeferencing

Our tests revealed that georeferencing with 10 GCPs per sheet offered the best balance between time spent and georeferencing quality.

15 minutes per map, 250 hours total.
Project website

http://ocul.on.ca/topomaps
Scholars Geoportal

http://geo.scholarsportal.info
Thank you!

Archives of Ontario
Brock University Library
Carleton University Library
Library and Archives Canada
McMaster University Library
Natural Resources Canada
Queen’s University Library
Ryerson University Library
Scholars Portal
Toronto Reference Library
Trent University Library
University of Alberta Library
University of Ottawa Library
University of Toronto Libraries
University of Waterloo Library
Western University Library
Wilfrid Laurier University Library
York University Library

Jordan Aharoni (McMaster University)
Jo Ashley (Scholars Portal)
Victoria Balkwill Tweedie (McMaster University)
Colleen Beard (Brock University)
Gordon Beck (McMaster University)
Trudy Bodak (Emeritus, York University)
Jason Brodeur (McMaster University)
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Kara Handren (Scholars Portal)
Charles Hill (University of Ottawa Library)
Amber Leahey (Scholars Portal)
Katie Maloney (McMaster University)
Kaitlin Newson (Scholars Portal)
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