



# Promoting Innovative Opportunities in Map and Geography Libraries through Research Data Management

A Case Study on Historical Landscape Images  
in Physical Geography Research



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# About Me

B.S., M.A., Ph.D., Geography

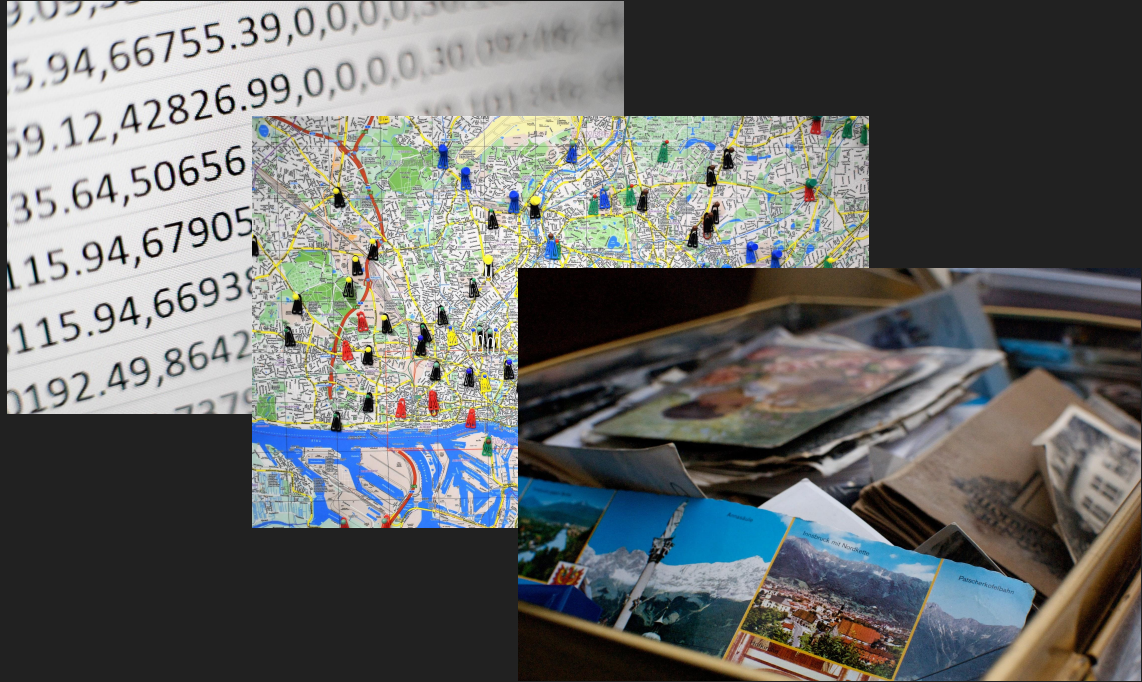
Specialties in biogeography, human geography, cultural geography,  
mixed-methods applied geography

Postdoc in library and information sciences domain

Faculty librarian, Research Data Management Consultant

American Geographical Society Library Fellowship recipient, 2019

# What are/is data?



Anything we can  
use to turn into  
meaningful  
information about  
*something* through  
analysis

# Map and Geography Libraries as Data

Contextualizing significance of map and geography libraries among digitalization of geospatial research data

Library collections as historical spatial materials

Historical maps

Globes

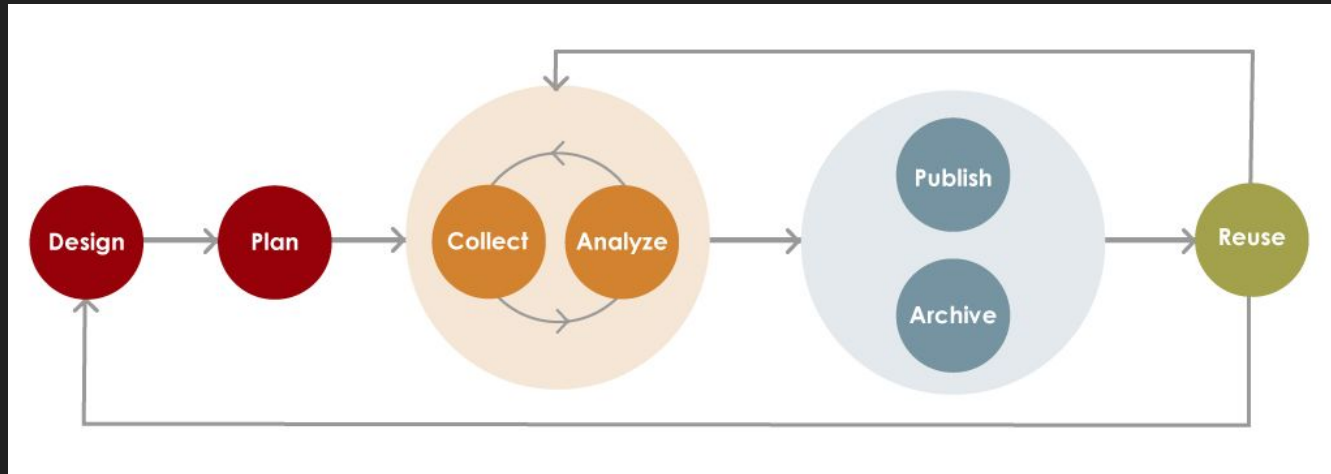
Historical GIS data

Historical landscape photographs: temporal context to trends and problems currently exhibited on Earth's surface

How do we make all  
these data available to  
researchers?

# Research Data Management (RDM)

Education, outreach, and applied techniques supporting the organization, storage, preservation, and sharing of data collected and used in a research project and beyond.



Case study: Two geographical  
libraries with their collections  
framed as data

RDM techniques (open access, metadata, documentation) used by both libraries can enable innovative opportunities for research



# American Geographical Society Library

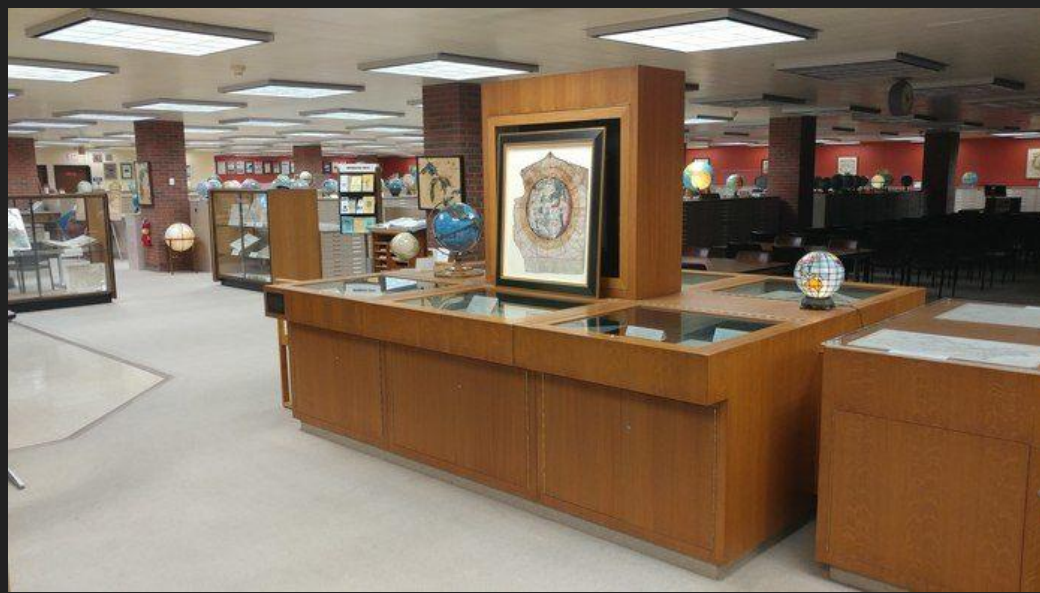
Housed at the University of Milwaukee-Wisconsin

Comprised of over 1 million items

Maps, atlases, books

Journals, pamphlets, photographs (on-site and digital), slides

Landsat images, digital spatial data



# United States Geological Survey (USGS) Library

*science for a changing world*

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## USGS Denver Library Photographic Collection



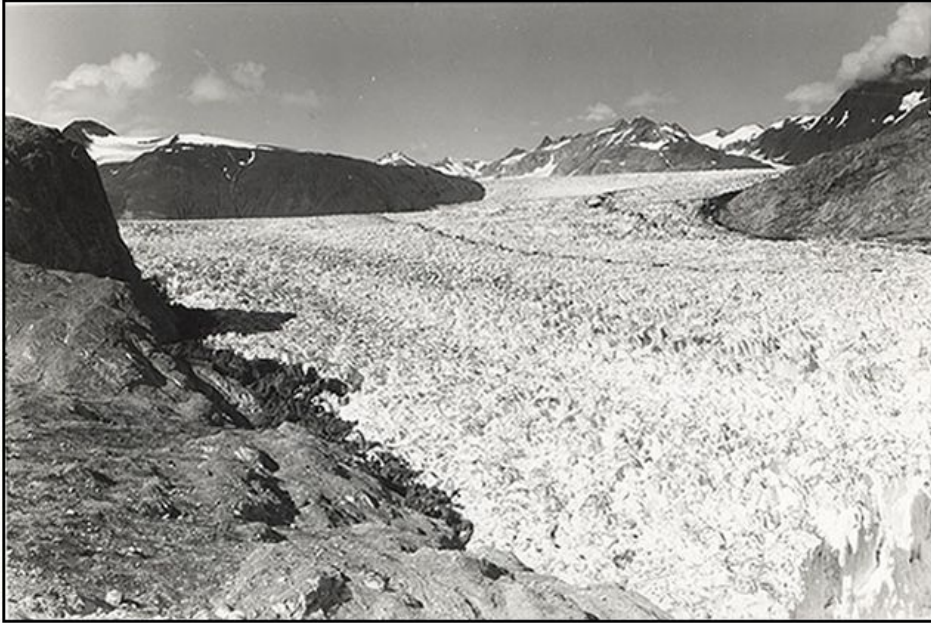
**Capertown Ferry on Tennessee River, three miles southeast of Stevenson, Alabama. View southeast tow...**

Capertown Ferry on Tennessee River, three miles southeast of Stevenson, Alabama. View southeast toward Sand Mountain plateau capped by Pottsville rocks. Jackson County, Alabama. November 24, 1928.

I used historical  
photographs in both  
libraries to build a  
blueprint for repeat  
photography research

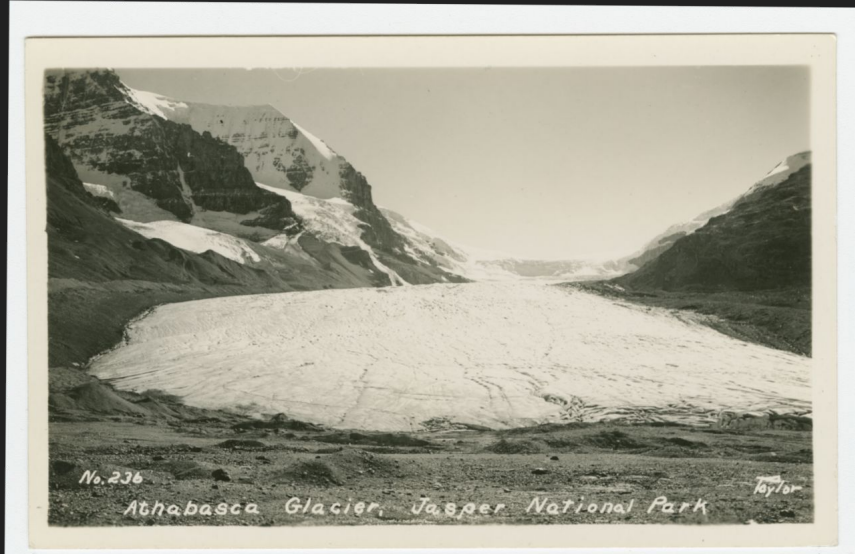


# Repeat Photography in (Physical) Geography



What about repeat  
photography, but with  
historical images and  
present-day fieldwork  
data?

# (1) Glaciers/Glaciated Landscapes



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Jason Amundson, Christian Kienholz, Roman Motyka, David Sutherland, Jonathan Nash, et al. 2017. Collaborative Research: Impact of subglacial discharge on turbulent plume dynamics and ocean-glacier heat and mass transfer, Southeast Alaska, 2016-2017. Arctic Data Center. [doi:10.18739/A22G44](https://doi.org/10.18739/A22G44), version: urn:uuid:807f8b0d-c85b-431b-a054-989ab57af655.



 Citations

0

 Downloads

1K

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## (2) Natural Disasters and Hazards



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Edward A Bulliner, Garth Lindner, Kristen Bouska, Robert B Jacobson, and Craig Paukert. 2017. **Science to Inform Management of Floodplain Conservation Lands under Non-Stationary Conditions**. USGS Science Data Catalog. 6cace517-2ec6-4057-9bd8-8bcebf5c1933.





### (3) Deforestation



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Michael Bungard. 2019. Species traits and occurrences for Trait Distribution Modelling (TDM) of Malagasy amphibians. Knowledge Network for Biocomplexity. doi:10.5063/F1N58JQ4.



This research was enabled  
by metadata for the  
photographs, open data, and  
free access to the collections.

Should map and geography  
libraries market their use of  
RDM techniques within their  
collections? Yes!

# Futures

Manuscript is under review

Research itself is wrapping up - open for new paths

Building more RDM infrastructure in geography

Workshops (happening here!)

Department visits

Research and scholarship

# Questions or comments?

Email me for reference list, slides, collaborations, or any other questions!

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# Sources

Slide 10: Atlas Obscura,

<https://www.atlasobscura.com/places/the-american-geographical-society-library-milwaukee-wisconsin>.

Slide 13: National Snow and Ice Data Center, <https://nsidc.org/data/g00472>

Slide 15 - 17: AGSL Library