

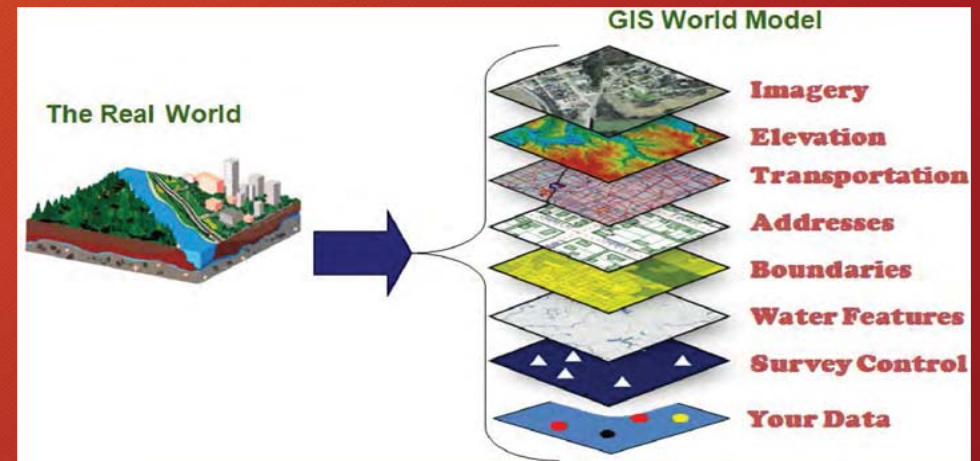
GIS Services at the J. Willard Marriott Library

Defining and Understanding GIS

GIS = "Geographic Information Systems" or
"Geospatial Information Systems"

Representing a number of different
technologies, processes and methods for
visualizing different types of data within a
single platform

Allows for the visualization, analysis and
interpretation of data in order to geospatially
understand relationships, patterns and trends



GIS at the Marriott Library



Marriott Library



Creativity & Innovation Services



GIS Services

To collaboratively support and assist University of Utah students, staff and faculty with the transformation and visualization of data through the creation of geospatial projects

GIS Services Offered at the Marriott Library

Services

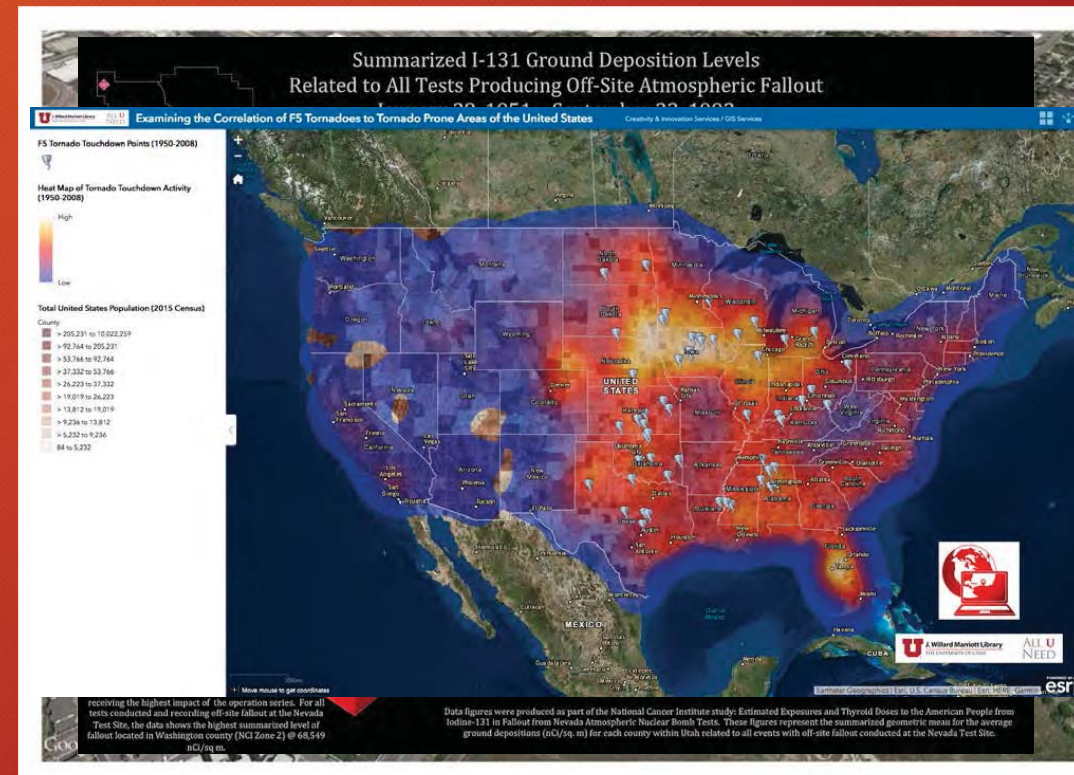
- Collaborative support in the creation and production of interactive and cartographic mapping projects
- Researching and procedures for locating, retrieving and creating geospatial data
- Support in developing skills for utilizing geospatial software programs
- Training support through workshops, online tutorials and resource materials
- Project collaboration assistance through one-on-one consultations

Specialized Expertise

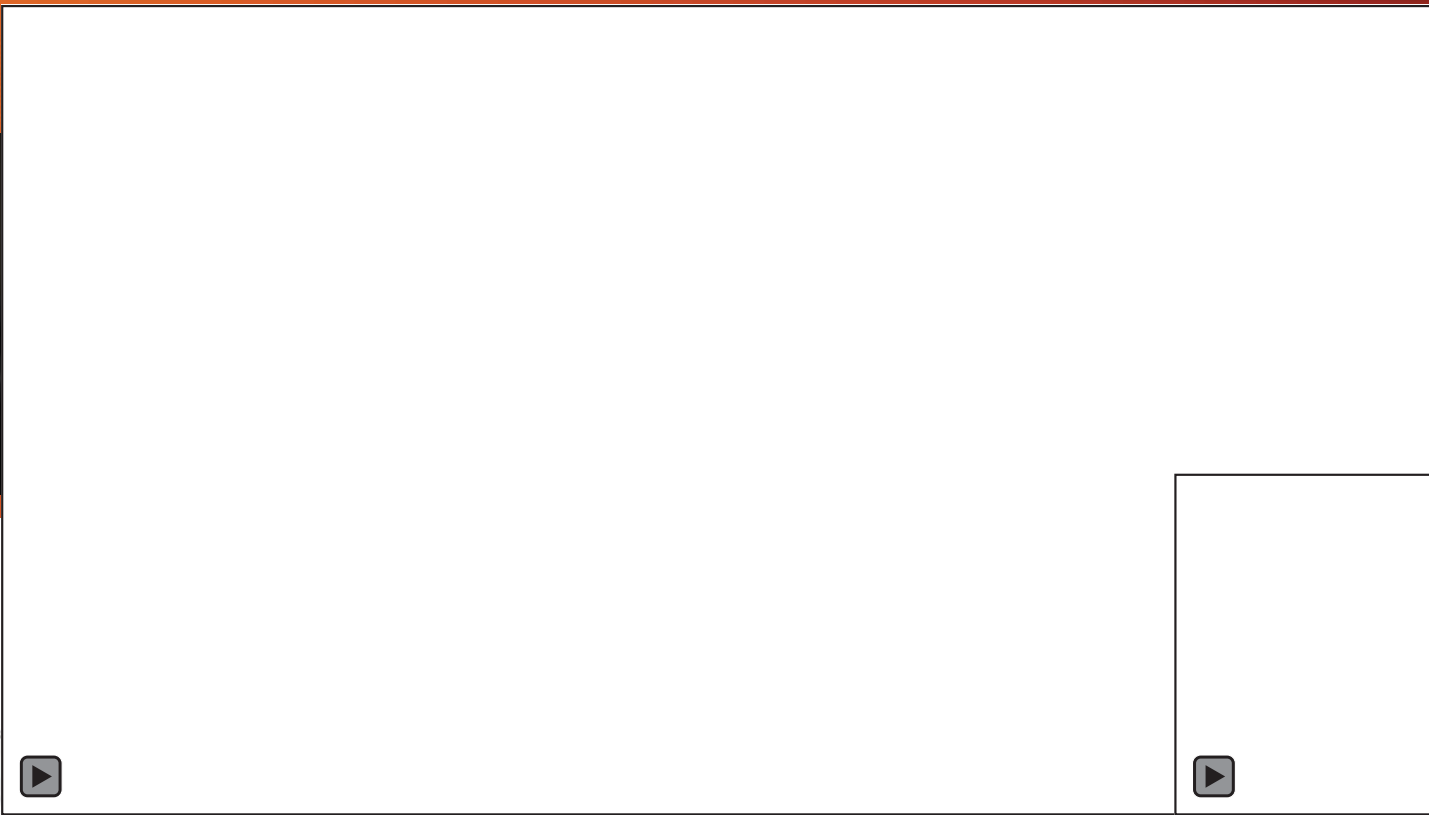
Technological Resources

Impact of GIS Throughout an Academic Library

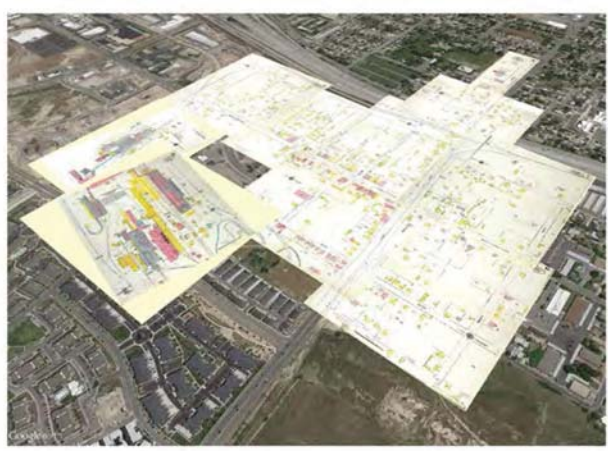
- Developing digital collections to closely interact with and examine materials in ways previously unavailable
- Methods for examining multiple datasets of various formats within a single program
- The ability to convey print and multimedia materials through easily understandable visualizations and interactive platforms



The Downwinders of Utah Archive



Reconstructing the Past Through Utah Sanborn Fire Insurance Maps



Libraries | Subject Guides
THE UNIVERSITY OF UTAH

University of Utah | Libraries Subject Guides | Digital Scholarship Lab | Reconstructing the Past through Utah Sanborn Fire Insurance Maps | Home

Reconstructing the Past through Utah Sanborn Fire Insurance Maps: Home

An innovative portal for all available Utah Sanborn Fire Insurance Maps hosted at the J. Willard Marriott Library.

Home American Fork Beaver Brigham City Coalville Columbia Corinne Duchesne Ephraim Garland Green River Heber Hyrum Kayville Layton Lewiston Logan Magna Manmoth Maui Marysvale Midvale Millard Moab Morgan Mount Pleasant Murray Myton Nephi Ogden Oquir Park City Panguon Pleasant Grove Price Provo Randolph Richfield Salt Lake City Sandy Scofield Spanish Fork Spring City Springville Tooele Vernal

Search this Guide Search

About This Project (Video Presentation)

Reconstructing the Past Through Utah Sanborn Fire Insurance Maps

About Sanborn Fire Insurance Maps

The Sanborn Map® Collection contains large scale, detailed maps from 1867-1909 depicting the commercial, industrial, and residential sections of cities. They were designed in 1868 by surveyor D.A. Sanborn to assist fire insurance agents in determining the risk associated with insuring a particular property. The D.A. Sanborn Co. was the first to offer insurance maps on a national scale in response to the growth of urban communities after 1850. The company's surveyors meticulously documented the physical evidence of urbanization - building by building, block by block, and community by community.

Sanborn Maps® illustrate the sites, shapes, and construction material of dwellings, commercial buildings, and factories. Details include fire walls, windows and doors, style and composition of roofs, wall thickness, cracks in exterior walls, and elevators. They also indicate building use, sidewalk and street widths, layout and names, property boundaries, distance between buildings, house and block numbers, location of water mains, hydrants, piping, wells, cisterns, and fuel storage tanks. The maps are color keyed. Please see map key to the left for details. For many years the maps were hand-drawn and hand-colored. After 1911, corrections and amendments were posted on top every few years.

The Marriott Library has digitized and georeferenced maps for Utah cities ranging from 1884 to 1950.


The Georeferencing Process

Georeferencing is a process by which a 2-dimensional print map or photograph's existence is defined within physical space. The process is achieved by giving the image a latitude and longitude that is dependent upon a particular map projection system.

Digital scanned PDF (approximately 1 MB) per map) were converted to smaller web-based images (2.3MB) using Photoshop to allow for easy access while preserving image quality. Each map was georeferenced using ArcGIS 10, aligning each image to its appropriate geographic location according to reference layers consisting of satellite imagery, street centerlines and parcel data. The georeferenced maps were then converted to KMZ files using Global Mapper software, allowing each map to be viewable in Google Earth.

While care has been taken to maintain georeferencing accuracy, some map features have changed over time, resulting in each map being georeferenced as closely to its appropriate location as possible. In addition, some maps were unable to be georeferenced due to lack of reference

Subject Specialist



Justin Sorensen

[Email Me](#)

Contact:
GIS Specialist
Creativity & Innovation Services / GIS Services
J. Willard Marriott Library - 1700M
801-565-7349

Subjects:
Digital Scholarship

Staff Acknowledgements

GIS Services Staff

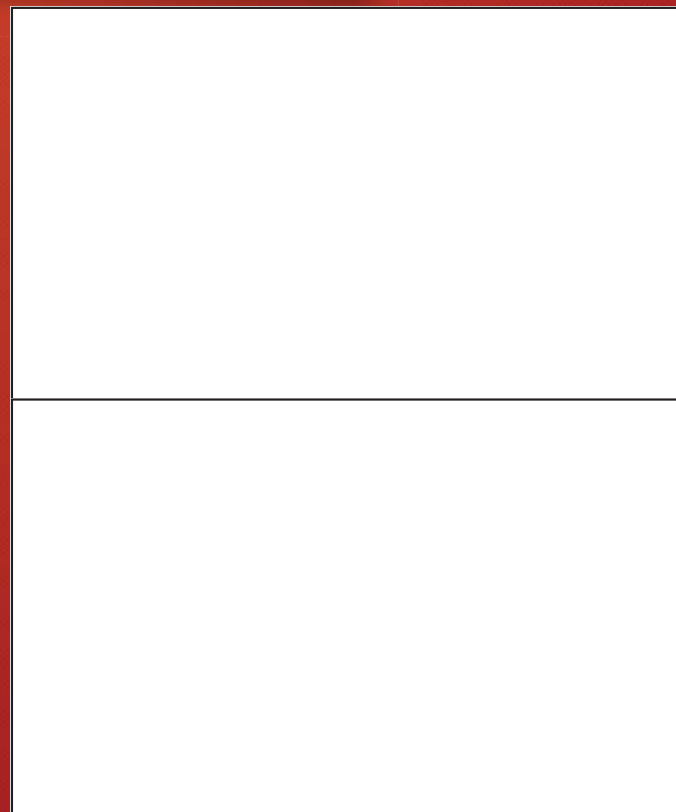
Justin Sorensen - GIS Specialist
Caitlyn Tubbs - Data & Visualization Intern (Former)

USpace Staff

Donald Williams - IR Coordinator (Former)
Cindy Russell - IR Workflow Specialist

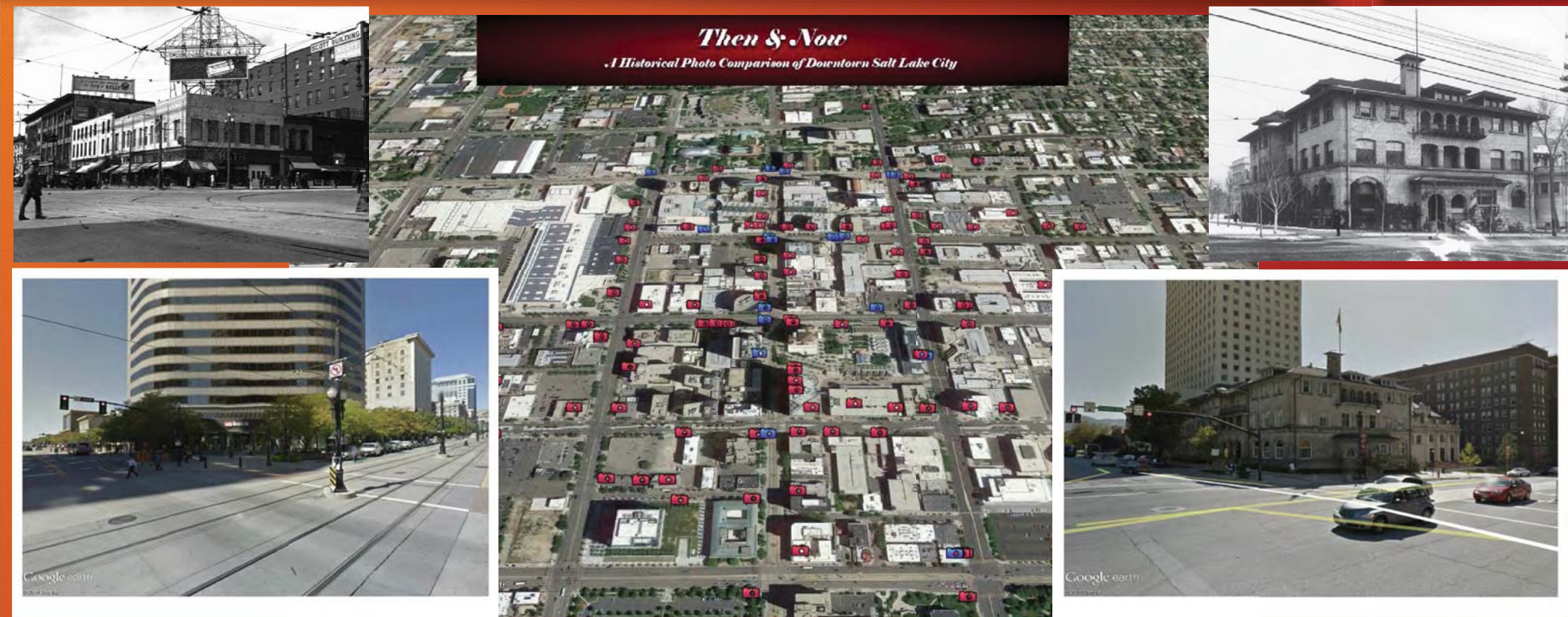
Article Publication

Read about our project in the March / April 2015 edition of O. Lib. Magazine.



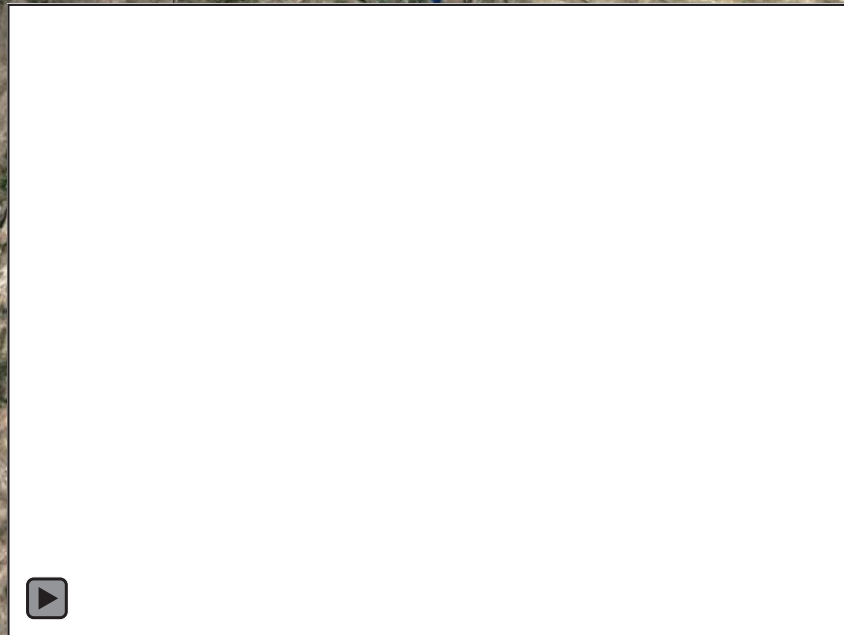
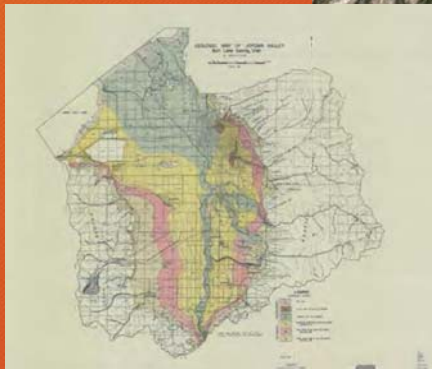
Then & Now:

A Historical Photo Comparison of Downtown Salt Lake City



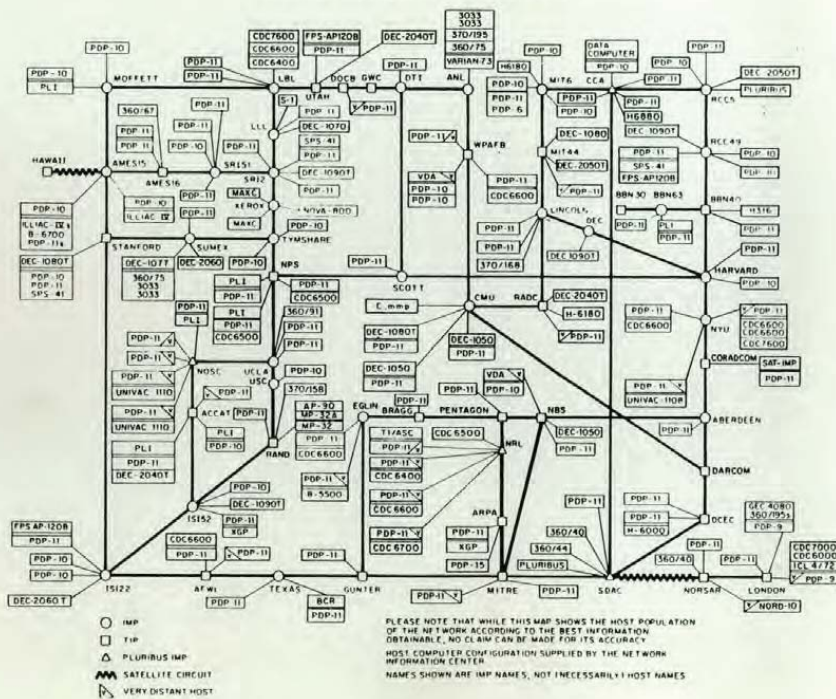
Just Digitize It!

The J. Willard Marriott Library's Endeavor to Bring Geological Scholarship to the World



The ARPANET Timeline (1969-1980)

ARPANET LOGICAL MAP, MARCH 1979



Hover to View a List of New Cities and Nodes



1969

[Click to Advance to the Next Year](#)

Legend

- ARPANET Nodes
- Other
- Other
- ARPANET Connections
- Land Based Wire
- Packet Radio
- Satellite

Bi-Weekly Map of the Week

History Through the Looking Glass: Thistle, Utah



History Through the Looking Glass: Thistle, Utah Creativity & Innovation Services / GIS Services

1914 Aerial Photograph of Thistle

Photographs of Thistle, Utah - (2) Wilford Marmion Library

Thistle, Utah #1
No Grande Western Railroad yards at Thistle, Utah (1888)
Utah State Historical Society - 2012

Thistle, Utah #2
The Junction House at Thistle is being raised where the railroad tracks intersected the high canyon highway (1900-1902)
Utah State Historical Society - 2012

Thistle, Utah #3
Partial construction of Thistle, Utah (1890)



Thistle, Utah Landslide
Public Domain Image - (USGS - 1983)

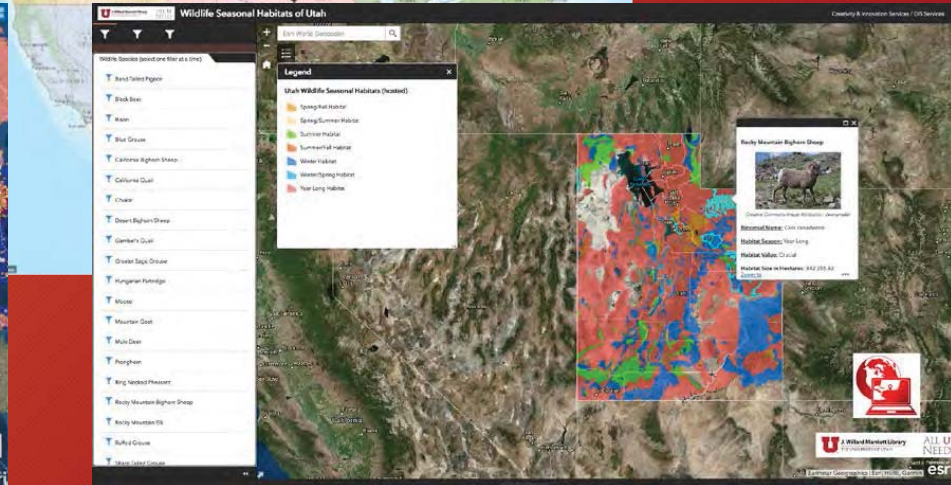
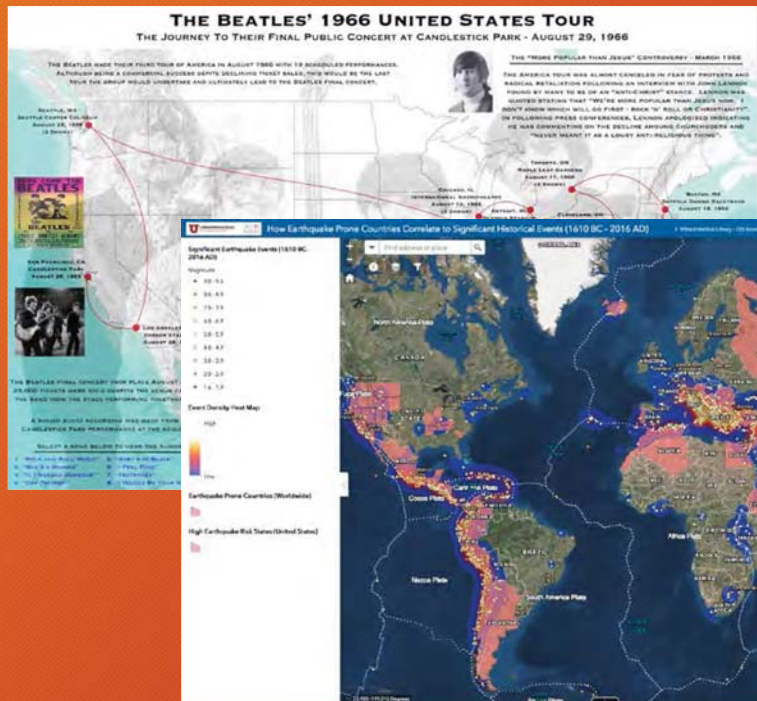
Record breaking snow and rain from 1982 - 1983 resulted in highly saturated mountains during the spring thaw. Indications that the ground was unstable presented themselves by April 1983 in the form of track deformations and highway buckling. By April 13, repair crews struggled to keep the highway open and the railway passable. The highway and railway would close on April 14 and by April 16, the tracks were completely buried and the Spanish Fork River began to back up.

On April 17, a final attempt to restore flow of the Spanish Fork River failed, resulting in a mandatory evacuation order issued to the town of Thistle, Utah. The current highway and railway would be abandoned and a new corridor would be constructed at a higher elevation. By April 18, the waterline had risen to rooftop level and on April 19, the mountain was progressively moving at a rate of 2 feet per hour. U.S. Route 6 was buried by 50 feet of sediment and a dam was formed creating a lake 3 miles long and over 200 feet deep.

Federal aid was requested to address the situation, resulting in the first presidential disaster area declaration issued for the state of Utah. In autumn 1983, a tunnel was completed to restore flow of the Spanish Fork River and drain the newly created "Lake Thistle". Construction of the new railway by tunneling 3,000 feet through "Billies Mountain" was completed on July 4 and the re-route of U.S. Route 6 was opened on December 30.

The cost of the landslide was estimated to be approximately \$200 million dollars with various lawsuit awards to Thistle

Marriott Library GIS Services



www.lib.utah.edu/services/geospatial

Concluding Remarks

GIS and Cartographic maps are beneficial tools for sharing data and resources geospatially

GIS and cartographic mapping will continue to be one of the many tools available to assist in sharing data and resources while aiding researchers in achieving their project goals

Thank You!

Questions / Comments?

Anne Hedrich - University Libraries, Utah State University

Todd Hugie - University Libraries, Utah State University

Justin Sorensen - Marriott Library, University of Utah

Sally Thompson - University Libraries, Utah State University