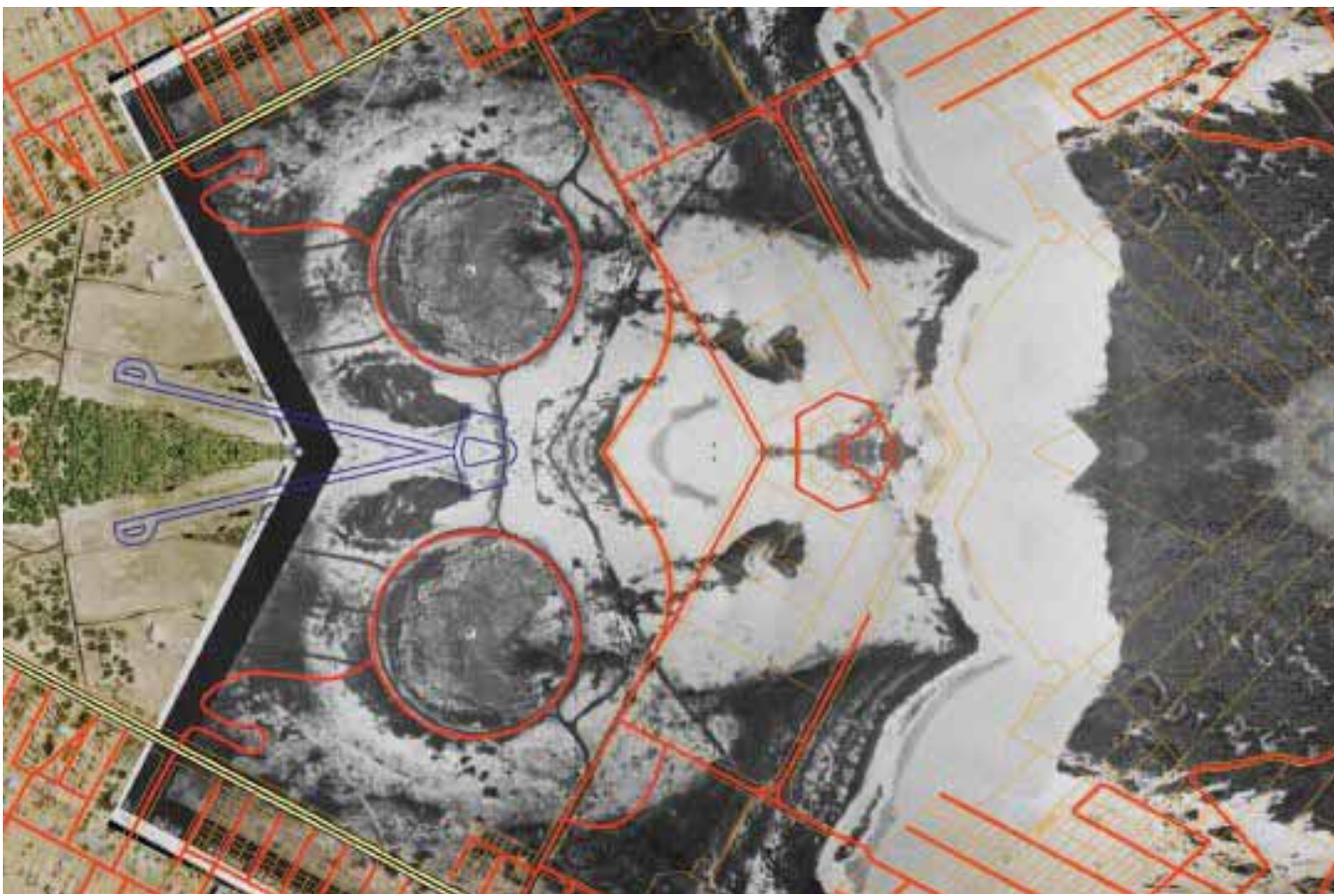


GEOSPATIAL DATA STEWARDSHIP: KEY ONLINE RESOURCES

AN NDSA REPORT



Modified image courtesy of the state of North Carolina.

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An Introduction to Geospatial Data Stewardship Resources

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EXECUTIVE SUMMARY

Legislators, funders and planners have long understood the value of using geospatial information in decision-making processes and planning efforts. These users are beginning to recognize the value of having access to older geospatial data as a resource to explore societal and environmental change over time. Compelling business uses such as tracking changes in population, land or vegetation over time or providing a cultural record of place to document economic change are spurring users to seek out and use superseded geospatial content.

This document lists online resources that highlight key concepts and practices supporting the preservation and stewardship of digital geospatial data and information. GIS practitioners take the initial preservation actions in the decisions they make regarding data creation and management. Librarians, archivists and museum professionals are often called on to support access and the long-term historical and temporal analysis of these same materials. The resources below offer a starting point to methods, tools and approaches across the information lifecycle to assist in understanding current best practices in the stewardship of geospatial data. These resources will be regularly updated at http://www.digitalpreservation.gov/ndsa/working_groups/geo-stewardship-resources.html.

A comprehensive list of resources can be found at Geospatial Data Preservation, a site hosted and maintained by the Center for International Earth Science Information Network (CIESIN) at Columbia University: <http://geopreservation.org>.

ABOUT THE NATIONAL DIGITAL STEWARDSHIP ALLIANCE

Founded in 2010, the National Digital Stewardship Alliance (NDSA) is a consortium of institutions that are committed to the long-term preservation of digital information. NDSA's mission is to establish, maintain and advance the capacity to preserve our nation's digital resources for the benefit of present and future generations. NDSA member institutions represent all sectors and include universities, consortia, professional associations, commercial enterprises and government agencies at the federal, state and local levels.

More information about the NDSA is available from <http://www.digitalpreservation.gov/ndsa/>.



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Persistent URL: <http://hdl.loc.gov/loc/gdc/lcpub.2013655116.1>

URLs current as of 3/1/14

INTRODUCTIONS TO GEOSPATIAL DATA STEWARDSHIP

Resources that provide a high-level understanding of the issues involved in geospatial data stewardship.

- Geospatial Multistate Archive and Preservation Partnership (GeoMAPP) Final Report http://www.geomapp.net/docs/GeoMAPP_FinalReport_final_20111231.pdf
- Final Report of the National Geospatial Digital Archive (NGDA) and Federated Archive Cyberinfrastructure Testbed (FACIT) Projects <http://www.ngda.org/docs/ngda-final-report.pdf>
- North Carolina Geospatial Data Archiving Project Final Report http://digitalpreservation.gov/partners/documents/ncgdap_final_report.pdf
- DPC Technology Watch Report: Preserving Geospatial Data http://www.dpconline.org/component/docman/doc_download/363-preserving-geospatial-data-by-guy-mcgarva-steve-morris-and-gred-greg-janee
- GeoMAPP Geoarchiving Glossary <http://www.geomapp.net/using.htm>

GEOSPATIAL STEWARDSHIP BUSINESS PLANNING

Resources on the business and legal issues that must be addressed to secure sustainable support for geospatial stewardship activities.

- GeoMAPP GeoArchiving Business Planning Toolkit http://www.geomapp.net/publications_categories.htm#busplan
- GeoMAPP GeoArchiving Self-Assessment Tool http://www.geomapp.net/docs/GeoMAPP_GeoArchiving_SelfAssessment_20100914.xls
- State of Utah Business Plan For Archival Preservation of Geospatial Data Resources http://www.geomapp.net/docs/Utah_Business_Plan_Geospatial_%20Archive_2008.pdf
- Libraries as Distributors of Geospatial Data: Data Management Policies as Tools for Managing Partnerships http://muse.jhu.edu/journals/library_trends/v055/55.2steinhart.html
- Legal Agreements Governing Archiving Partnerships: The NGDA Approach http://www.ngda.org/docs/Pub_Sweetkind_Arch2009%20_09.pdf

GEOSPATIAL DATA APPRAISAL AND SELECTION

Resources that address the processes of appraisal and selection as they apply to geospatial data with long-term value. Appraisal is often associated with government archival and records management processes and concerns the identification of records or other information to determine the merits of long-term or permanent retention. Selection is typically associated with libraries and addresses the identification of materials for preservation because of their continuing value.

URLs current as of 3/1/14

- NDSA Issues in the Appraisal and Selection of Geospatial Data Report
http://www.digitalpreservation.gov/ndsa/working_groups/documents/NDSA_AppraisalSelection_report_final102413.pdf
- Collection Development Policy for the National Geospatial Digital Archive
http://www.ngda.org/research/Collections/NGDA_Collection_Development_Policy_11_06_final.doc
- FGDC: Managing Historical Geospatial Data Records: Guide for Federal Agencies
<http://www.fgdc.gov/library/factsheets/documents/histdata.pdf>
- Collection Development Policy for Montana State Library
http://apps.msl.mt.gov/About_the_Library/Policies/22_colldev.pdf
- Collection Policy - Cornell University Geospatial Information Repository
http://cugir.mannlib.cornell.edu/CUGIRCollectionDevtPolicy_20060825.pdf
- Library of Congress Collections Policy Statements: Cartographic and Geospatial Materials
<http://www.loc.gov/acq/devpol/cartog.pdf>
- California's Geospatial Records: Archival Appraisal, Accessioning, and Preservation
<http://salt.unc.edu/eLegacy/>

GEOSPATIAL DATA DESCRIPTION

Resources that address the issues around efforts to describe geospatial data, especially as the description (metadata) deals with the need to document in order to support long-term preservation and use.

- Federal Geographic Data Committee: Geospatial Metadata <http://www.fgdc.gov/metadata>
- Center for International Earth Science Information Network : Data Model for Managing and Preserving Geospatial Electronic Records http://www.ciesin.columbia.edu/ger/DataModelV1_20050620.pdf
- GeoMAPP: Archival Metadata Elements for the Preservation of Geospatial Datasets
http://www.geomapp.net/docs/GIS_OAIS_Archival_Metadata_v1.0_final_20110921.pdf
- An Investigation Into Metadata for Long-Lived Geospatial Data Formats
http://www.digitalpreservation.gov/meetings/documents/ndiipp08/session7_hoebelheinrich_paper.doc
- GeoMAPP: Utilizing Geospatial Metadata to Support Data Preservation Practices
http://www.geomapp.net/docs/GeoMetadata_Items_for_Preservation_2011_0110.pdf

GEOSPATIAL DATA MANAGEMENT, TRANSFER AND STORAGE

Resources that address the issues around the management of digital geospatial data, including the challenges of managing, storing and transferring digital geospatial data.

URLs current as of 3/1/14

- GeoMAPP Storage Primer
http://www.geomapp.net/docs/GeoMAPP_Storage_Primer_final_20111231.pdf
- Grade: Scoping a Geospatial Repository for Academic Deposit and Extraction
<http://edina.ac.uk/projects/grade/>
- GeoMAPP: Best Practices for Archival Processing for Geospatial Datasets
http://www.geomapp.net/docs/GIS_Archival_Processing_Process_v1.0_final_20111102.pdf
- GeoMAPP: Geospatial Data File Formats Reference Guide
http://www.geomapp.net/docs/GeoMAPP_Geospatial_data_file_formats_FINAL_20110701.xls
- NCSA/NARA Technical Report: Scientific Formats for Geospatial Data Preservation: A study of Suitability and Performance http://www.hdfgroup.org/projects/nara/Sci_fmtns_and_geodata_HDF.pdf
- Advancing Geospatial Data Curation
<http://www.ukoln.ac.uk/events/pv-2005/pv-2005-final-papers/030.pdf>
- GeoMAPP: Best Practices for Geospatial Data Transfer for Digital Preservation
http://www.geomapp.net/docs/Geo_Data_Transfer_BestPractices_v1.0_final_20111201.pdf
- Library of Congress: “Bagger” Data Transfer Tool <https://github.com/LibraryOfCongress/bagit-java>

FURTHER INFORMATION

- Geospatial Multistate Archive and Preservation Partnership (GeoMAPP): A multi-year project supported by the National Digital Information Infrastructure and Preservation Program (NDIIPP) at the Library of Congress that explored ways to expand the capabilities of state governments to provide long-term access to geospatial data. <http://www.geomapp.net/>
- The National Geospatial Digital Archive (NGDA): A multi-year project supported by NDIIPP at the Library of Congress that explored the development of a collecting network for archival geospatial information. <http://www.ngda.org/>
- North Carolina Geospatial Data Archiving Project (NCGDAP): A multi-year project supported by NDIIPP at the Library of Congress that focused on the collection and preservation of digital geospatial data resources from state and local government agencies in North Carolina. <http://www.lib.ncsu.edu/ncgdap/>
- National Digital Stewardship Alliance Geospatial Content Work Group: Part of the NDSA Content Working Group interested in exploring challenges and solutions to the long-term preservation, stewardship and accessibility of digital mapping information. http://www.digitalpreservation.gov/ndsaworking_groups/content.html
- Federal Geographic Data Committee (FGDC) Users/Historical Data Working Group: The U/HDWG promotes and coordinate activities among Federal agencies who are primarily users of, not generators of, geospatial data. <http://www.fgdc.gov/participation/working-groups-subcommittees/hdwg>

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