# Cartographic Extension

## About the Cartographic Extension

Harvard University is leading the development of an extension to BIBFRAME to describe cartographic resources including printed maps, atlases, and digital geospatial datasets.

**Note:** Documentation and ontology files being developed to support the Cartographic Materials extension project are available at the LD4P Cartographic Materials GitHub repository [Harvard Project Proposal](https://github.com/LD4P/Cartographic_Materials).

For questions or comments, please contact Marc McGee, Geospatial Metadata Librarian, mmcgee (at) fas (dot) harvard (dot) edu, or submit issues via [https://github.com/LD4P/Cartographic_Materials](https://github.com/LD4P/Cartographic_Materials).

## Deliverables

- BIBFRAME extension profile for cartographic resources
- Set of published BIBFRAME descriptions for a variety of cartographic resource types
- Written evaluation of the project and set of recommendations for future research and development
- Presentation of project findings to appropriate library cartographic materials and linked data communities.

## Current Activities

**Last updated: 7/17/2018**

### Analysis/Modeling

- Finalize supporting documentation for the Geospatial and Cartographic Resource Ontology, including recommendation papers and graphic models (July 2018)
- Create a Geospatial and Cartographic Resource Ontology (GCRO)-SHACL application profile (deferred to future date)

### Production Cataloging

- Test cataloging of a selection of geospatial and cartographic resources using the GCRO application profile in the Harvard geospatial metadata instance of VitroLib (deferred to future date)

### Community Engagement


See Harvard LD4P wiki for more documents.

## Team

**LD4P Cartographic Materials Working Group**

- Marc McGee (coordinator) (Harvard)
- Craig Thomas (Harvard)
- Iris Taylor (Library of Congress)
- Kathy Weimer (Rice)
- Kim Durante (Stanford)
- Louise Ratliff (UCLA)
- Megan Rush (East View Geospatial)
- Min Zhang (Library of Congress)
- Seanna Tsung (Library of Congress)
- Steven Folsom (Cornell, former member)
- Tammy Wong (Library of Congress)
- Tim Kiser (Michigan State)
**Completed Work**

**Last updated: 7/13/2018**

**Analysis/Modeling**

- Surveyed existing linked open data efforts in the library and geospatial domains (Aug. 2016).
- Compiled initial set of target use cases for cartographic metadata (Nov. 2016).
- Finished draft models for prioritized Geospatial and Cartographic Resources Ontology concept extension areas:
  - Projection (draft rdf examples)
  - Spatial Extent - Bounding Box Coordinates (draft rdf examples)
  - Scale (draft rdf examples)
  - Relief (draft rdf examples)
  - Types of Cartographic Resources (graphic model)
  - Prime Meridians (graphic model)
- Created Geospatial and Cartographic Resources Ontology (GCRO) OWL file
  - GCRO OWL file *(Beta version, April 2018)*
  - GCRO in Biblioportal
  - GCRO and LD4L/P Cartographic Extension project files

**Community Engagement**

**Presentations**

- **Linked Open Data Modeling for Library Cartographic Resources** (Kimberly Durante, Katherine Hart Weimer and Marc McGee; poster for American Association of Geographers Annual Meeting, April 2016)
- **Geoinformation in Digital Libraries and Linked Data** (Katherine Hart Weimer; presentation for Aplace4places, DH2016 pre-conference workshop, July 2016)
- **Linked Data Description of Cartographic Resources** (Marc McGee, ALCTS Webinar, May 2, 2018) [slides]
- **LD4P + LD4L Labs projects for geospatial and cartographic resources + moving image materials at Harvard** (Marc McGee and Christine Fernsebner Estao; presentation for IGELU-ELUNA Linked Open Data Working Group Show & Tell, July 10, 2018) [slides]

**Community updates**

- ALCTS-CaMMS MAGIRT Cartographic Resources Cataloging Interest Group meeting
  - Project updates ALA Annual 2016, 2017, 2018
  - Project updates ALA Midwinter 2017, 2018

**Papers**


See Harvard LD4P wiki for more documents