

What are the basic metadata required to annotate historical maps?

Short answer

The basic metadata for historical maps should cover at least four areas: descriptive metadata to identify and describe the map; technical metadata to document the digital file; spatial metadata to record georeferencing information, such as coordinates and projection; and preservation or administrative metadata to document how the map was digitised, managed, and preserved over time. These elements make the map easier to find, interpret, reuse, and preserve. (1, 2, 6)

Detailed answer

To describe and annotate historical maps properly, the metadata should do more than name the file. It should help future users understand what the map is, where it refers to, how the digital version was created, and how it can be preserved and reused.

The first group is descriptive metadata. This includes the basic identity of the map, such as title, creator, date, region or geographic coverage, subject, language, and a short description. For example, in the context of historical geobotanical maps, it is also useful to record the vegetation theme, taxonomic or floristic focus, and time period represented, because those are central to interpretation. (1)

The second group is technical metadata. This records how the digital object is stored and rendered, including file format, file size, image dimensions, colour profile, resolution, and compression (3, 4, 5). Technical metadata matters because it helps users assess image quality and helps repositories manage files in a consistent way.

The third group is spatial metadata, which is especially important for maps. At a minimum, this should include coordinates or bounding area, coordinate reference system, projection, scale, and georeferencing information where available (2, 3). The Library of Congress format guidance for geospatial and cartographic works specifically notes that metadata for these materials should record characteristics such as projection, scale, and datum for coordinates (2). For digitised map images that are georegistered, spatial metadata supports location-based discovery and reuse.

The fourth group is preservation and administrative metadata. This should document digitisation method, equipment used, software, date of digitisation, operator or institution, rights information, and any later processing steps (1, 6). Preservation metadata is important because it records provenance and supports long-term management. PREMIS also makes clear that preservation metadata includes technical, administrative, and relationship information needed to maintain digital objects over time. (6)

References

1. [Table of Core Metadata Elements for Library of Congress Digital Repository Development](#)
2. [Recommended Formats Statement – GIS, Geospatial and Non-GIS Cartographic](#)
3. [GeoPDF File Format \(TerraGo\)](#)
4. [GeoPDF Encoding \(TerraGo 2.2\), OGC Best Practice](#)
5. [GeoTIFF, Revision 1.0](#)
6. [PREMIS Data Dictionary for Preservation Metadata, Version 3.0](#)

