

RUNNING HEAD: North Carolina Maps

Digital Library Website Analysis: North Carolina Maps

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Purpose

The *North Carolina Maps* digital library¹ was completed in 2010 and serves as a common portal to access map collections from the North Carolina State Archives, the Outer Banks History Center, and the University Library at UNC-Chapel Hill, which takes care of the technical hosting for this digital library. These three main collaborators are financially supported by a grant from the Library Services and Technology Act. *North Carolina Maps* allows a wide variety of users to access high resolution digital scans of over 3,000 maps of the state, originating anywhere between the years 1500 and 2000. By providing digitized maps via this website, the collection holders safeguard original maps, while also expanding their accessibility and available features. Although the collective audience for this project is variable and large, the stakeholders chose to target K-12 teachers and students with specially designed lesson plans and resources.

Content

The majority of original content for the *North Carolina Maps* digital library is stored at and owned by one of the three project collaborators (see above). Smaller holdings come from Davidson College, the Forsyth County Public Library, the Granville County Public Library, and the North Carolina Collection Gallery. Content is provided in multiple formats, mostly jpegs and interactive historic overlays, and it is hosted by the University Library at UNC-Chapel Hill, which uses the same database system as other digital collections of the university: CONTENTdm Digital Collection Management Software.

Each of the *North Carolina Maps* maps is marked with the following metadata: title, creator, publishing information, date depicted, caption, abstract, historical note,

¹ <http://www.lib.unc.edu/dc/ncmaps>

bibliographic note (e.g. how the map was catalogued), reference, subjects, medium, language, repository, and call number. In addition, each map is described with a type, such as “Government (Local)” or “Discovery and Exploration,” and tagged with details, such as “soil types” or “post offices.”² Types and details allow library users to search the collections descriptively, and find maps that they weren’t previously aware of.

Interface

Information and resources for the *North Carolina Maps* project are available through the primary project website³, but searching the collections and accessing individual map jpegs happens through the UNC’s CONTENTdm web interface. CONTENTdm allows users to narrow results by collection, format, repository, and creator in its default search. Through an advanced search, users can also search keywords for title, theme, creator, publisher, date published, format, source image, and language. The browsing function is nicely designed on the *North Carolina Maps* website, but from the UNC CONTENTdm interface, selecting “browse” offers users no different options than the initial search interface. One browse feature (from the *NC Maps* site) I found particularly useful was “Browse by Library of Congress Subject Headings,” because it provides a guided method of exploring different map topics.

Small and medium size images of all maps are available for download as jpegs, without restrictions such as watermarks. Although these jpegs are not very high resolution, and thus can’t be zoomed in on effectively, the images available to view online are very high resolution and are displayed in an interface that supports zooming. Once zoomed in, the user can navigate around the image using a thumbnail.

² See <http://www2.lib.unc.edu/dc/ncmaps/search.html> for full descriptions of metadata.

³ <http://www2.lib.unc.edu/dc/ncmaps>

The contextual material provided for each of the map images is thorough and well displayed—many of the descriptors are hyperlinked to show related maps. For example, if the map you are viewing was created by the “U.S. Coast and Geodetic Survey,” this text will be highlighted, and clicking it will show you the search results for all other maps by this creator. The contextual material does not provide scholarly analysis, but it is fully adequate, especially complemented by the other (some more scholarly) resources that the *North Carolina Maps* website offers.

Overall, the interface is very intuitive and I wouldn’t modify it, except to align the browse function so that offers the same experience from both the *North Carolina Maps* site and the UNC site.

Online Functionality & Project Creation

North Carolina Maps is a fundamentally online project. The web allows these three repositories to share access to holdings in a way that offline collaboration cannot. Providing online access also means that users can interact with maps differently, for example, by viewing a historical overlay of roads from 1885 on a base layer of today’s Google Maps. Different scales, delicate physical condition, and other difficulties would prohibit the historical overlay feature offline.

This project was created over from 2007 to 2010, during which time maps were digitized and tagged with metadata, and the online project interface was established. *North Carolina Maps* has excellent documentation of the digitization process available on a wiki⁴; This documentation covers everything from the physical process of scanning maps to the project’s metadata scheme and geotagging methodology.

⁴ http://www2.lib.unc.edu/wikis/ncmaps/index.php/Main_Page

Document Analysis

I browsed the “Discovery and Exploration” maps, and chose to examine one titled, “Americae pars, Nunc Virginia,” (1590) by Theodor de Bry⁵. This map depicts the coast of North Carolina in 1585, when the British were first settling the area. Bry hand-drew and colored in the coastal landform, as well as Native American villages, British settlements, and decorative items (e.g. ships, sea monsters). Bry’s map is very typical of the project, which focuses on historical maps such as this.



To divide the map’s information conceptually, I would categorize the data by function: identity, explanation, location, and classification. “Identity” includes such metadata as title, author, and year. “Explanation” is for data about the subject of the map—fields like caption, abstract, and reference. “Location” groups both descriptive and geotagged information, and “classification” is for true metadata, from catalog numbers and repositories to details and types (as described above).

Similar Projects & Future Directions

The *Harvard Map Collection Digital Maps*⁶ is similar to *North Carolina Maps*, although Harvard’s scope is much broader, its holdings much larger, and its interface much more clunky. Both digital libraries provide high-resolution scanned images of historical

⁵ <http://dc.lib.unc.edu/cdm/ref/collection/ncmaps/id/117>

⁶ <http://hcl.harvard.edu/libraries/maps/digitalmaps/index.html>

maps, and allow users to search for and view these images online. *North Carolina Maps* has a much better designed search interface, both in terms of functionality and appearance. Harvard's interface is difficult to understand because the text is misaligned and spaced unevenly, and viewing the image of a map requires moving to a different website. However, Harvard does have significantly more maps available online (a portion of 500,000 versus *North Carolina Maps'* 3,000), and its maps are from all over the world.

Digital map libraries, such as the *Harvard Map Collection Digital Maps* or *North Carolina Maps*, are very effective resources for all sorts of users. Because maps—especially historical ones—tend to be printed in smaller volumes, access to them can be difficult. Furthermore, maps are generally unbound and therefore more prone to damage through physical handling. Digital access mitigates these issues in addition to providing more features, like overlays. I think the future of the *North Carolina Maps* project should focus on these additional features. Currently users can overlay a small selection of historical maps, and expanding the number of maps that are set up for overlay would be very useful. Although users can always view historical and current maps side-by-side, overlaying is a powerful technique for visualizing cartographic change.