

Preservation Mapping

Changes to Initial Proposal

The final draft proposal for the Preservation Mapping Tool further clarifies the phases of the project and the collaboration between the Weissman Preservation Center and the Harvard Maps Collection.

The Problem

Preservation is listed as one of Harvard Library's ten foundational strategic initiatives for a world-class research library and will soon be a core shared service among the 73 libraries. The library's preservation team will need to grapple with a more comprehensive overview of preservation needs across campus and will need to develop new methodologies to determine priorities. How can competing demands be objectively weighed when allocating preservation resources? Can area-based solutions to preservation problems be discovered and implemented?

The Potential Solution

This Library Lab proposal is for the development of a web-based, analytical and reporting tool based on geospatial mapping technology. At its most basic level, the tool could overlay preservation data with campus maps showing Harvard's local libraries. The Weissman Preservation Center has been tasked with carrying out a preservation needs assessment for every Harvard library and is working with the Statistics Department to develop an assessment model that will provide statistically usable data. This mathematical data could be used with the mapping tool to illustrate "hot spots" of need, such as: concentration of vulnerable AV media, libraries with greatest "born digital" content in need of preservation, and areas with inadequate environmental controls. Such graphic representations could help the Harvard Library understand the scale of any particular preservation need and determine if solutions for some priorities could be implemented across zones of multiple libraries.

Many libraries use electronic environmental monitoring systems to measure temperature and relative humidity in collection storage areas. Known algorithms exist that plot temperature and relative humidity readings against the optimal conditions for specific types of collection material (e.g. books vs. photographs). Perhaps this so-called "time weighted preservation index" could be plotted across campus monthly, showing zones of appropriate and inappropriate storage environments and how those conditions could change seasonally. Using more sophisticated geospatial data, perhaps one could map ground water levels, for example, with incidents of flooding in lower level stack areas as reported by LCET, the Library Collections Emergency Team.

Thinking beyond the libraries, a preservation mapping tool could be used for all of Harvard's cultural assets in libraries, archives, museums, faculties, and houses around campus. Such a tool does not exist in the field of preservation. Beyond Harvard, it would certainly be welcome in any organization that is responsible for the care of collections in multiple locations, such as New York Public Library and the Library of Congress or even the Smithsonian Institution and Colonial Williamsburg.

Phase I

The first phase is to research system options. In a cross-departmental collaboration, Brenda Bernier of the Weissman Preservation Center and Scott Walker, Digital Cartography Specialist in the Harvard Maps Collection will develop the technical specifications for the user interface. Ideally, the appropriate back end of the system would leverage existing technology, such as Google Maps, Open GeoPortal or World Map. Additional IT support from the Berkman Center might be necessary. A technical consultation from the Berkman Center is pending. (Estimate: 4 weeks)

Phase II

The second phase would involve developing a mapping tool using data collected in a 2002-3 Mellon-funded assessment of the preservation needs of Harvard's photograph collections. The data is similar in format to the type of data that will be collected in the upcoming library-wide preservation needs assessment. The photograph survey data will not only be useful as proof-in-concept for the preservation mapping tool but could be a good case study in how updated information will be incorporated into the system. (Estimate: 8 weeks)

Phase III

Fine tuning of the mapping tool could take place during the third phase, which will see the incorporation of data from the preservation needs assessment. The assessment itself will take place in early FY13. Mapping of this data could be very useful in University-wide preservation planning and reporting. (Estimate: 9 months, ending December 2012. Long lead time is designed to reduce burden on staff time.)

Phase IV

The final phase involves researching the feasibility of incorporating data from electronic environmental monitoring systems or other data sources. The research for this phase will occur somewhat concurrently with the earlier phases but may not lead to immediate product development. A future Library Lab proposal might be necessary if significant IT support is needed. (Estimate: 12 months, concurrent with earlier phases. Long lead time is designed to reduce burden on staff time.)

Evaluation Criteria

Successful project outcomes include: selection of mapping tool, adaptations made to system to accommodate preservation data, uploading of preservation data, visual representation of preservation needs across Harvard, and making the mapping tool available to other institutions.

Successful project impact would be demonstrated through rational preservation priorities and resource allocation based on need, as illustrated through the mapping tool.