

**Minnesota Historical Society
Geography and History Online
Project Status Report, November 1 2006**

The Minnesota Historical Society's Geography and History Online project has successfully completed its two initial phases and made significant progress in the succeeding phases.

As described in our grant application, we had proposed to divide our project into six phases: 1) preparation; 2) content selection; 3) application and web site development; 4) curriculum and workshop development; 5) prototype testing; and 6) project completion and review.

Preparation: The initial phase called for forming our advisory committee, launching the web site, and hiring the project staff person. We hired a GIS staff person and hosted our first Advisory Meeting in July of 2006. Our Web site was launched in late January at <http://www.mnhs.org/preserve/records/geographyonline/main.htm> and presently offers a brief description of the project; links to the project abstract and related sites; a PowerPoint overview; a direct (password protected) link to the live project prototype; and contact information.

Content Selection: The second phase of the project called for analysis of graduation standards, development of selection criteria for maps, preliminary selection of available digital resources, and review of the preliminary selection of maps with the advisors. We reviewed both local and national standards for geography and social studies, and identified both the broad standards and precise benchmarks that relate to our project. With that in mind, we identified the categories of maps most valuable to teachers and students, and made the initial selection of maps in those categories. A large percentage of those maps already exist in the *Minnesota Environmental Atlas*, the Land Management Information Center's (LMIC) previous project. Additional maps that do not yet exist in digital format were also identified, and we began the process of researching and developing them. We reviewed our maps and general website prototype with our

Advisory committee members on July 18, 2006 and received positive feedback and critique from them.

Application and Site Development: In our project timeline, we had scheduled this phase to begin in July, however, we began this process in May. During this phase, our GIS Specialist, Lesley Kadish, and Education Specialist Nancy O'Brien Wagner, meet weekly with the technical and web developers at the Land Management Information Center (LMIC). These weekly meetings focus on the website, ensure collaborative deadlines are met, and give all sides an active hand in classroom-focused design. Between June and mid-August, priority was given to designing a front end that can be easily navigated, aesthetically pleasing, and logically presented. We are very pleased to report that the foundation of this stage has been successful. The website now has an overall layout which includes a Welcome page, tabs for Lessons and Maps, sub-tabs for Layers, Legends, and Related Links, as well as a preliminary Help Page. The website is live, but remains password protected. Now that the website has been organized and built, our current and ongoing work involves filling these tabs with data.

Beginning in August, our focus shifted from the ongoing site development, to application development, including map acquisition and categorization. The map Layer tab will allow users to browse through the maps and choose which ones to display. To give teachers a way to search and organize map layers, we divided the existing map list of approx 170 individual layers into 6 separate sections: Background Maps, Natural Resources, Transportation/Production, People, Public Systems, and History. Final maps and names for these divisions will be decided with input from the teachers and advisors. We use our weekly meetings with LMIC to get these maps online. Each week an average of 6 new maps become available. As of November 1st, 2006, 47 maps have been put online.

During the month of October, LMIC and MHS spent time developing the legend capabilities for each map. The Legend tab will allow users to view and manipulate the legends for each map layer. During the weekly meetings, a handful of legend formats were showcased and tested. We are in the process of choosing the fonts, font size, etc. that will be most clear and visible to our online users. As well, LMIC is in the process of

developing manipulation tools that will allow users to define the transparency level or change the color of the legend. (I.e.: a user could make a layer of “immigration frontier” fade into the background, and change the color of “railroads” from black to red.) Once a legend design has been selected, the remaining maps will receive their associated legends.

Recently, LMIC and MHS have begun to develop the Related Links tab. Each map will contain links to a handful of pertinent associated resources. Research for the related links began in late September, and will be ongoing. These resources include images from Minnesota Historical Society’s visual resources database, archives from the manuscripts collections, and books available in the Library.

In addition, every map will contain a link to its original source, as well as metadata including projection, year, cartographer, etc. As each new map is added to the webpage, the spreadsheet of associated metadata grows. Creation of the metadata list is an ongoing task, and will culminate in linking this information to the website in the next stages of development.

Curriculum and Workshop Development: The curriculum development phase of the project has begun. Nancy O’Brien Wagner has surveyed existing web sites and recent academic articles to uncover some of the significant trends in online-based GIS and Geography and History education. This research reconfirms our general approach and techniques, and helps to refocus our commitment to making our web site practical and informative for teachers and students. Nancy has begun to research content and map sources for the lessons, and Lesley Kadish has begun to develop the maps. Plans to have the curriculum developed and ready to test by mid January are on track.

Prototype Testing: We have developed a specific schedule for online testing next spring, and will begin our testing in February. We have had great response to our request for teacher testers, and will be contacting them to set up the testing by December.

The remaining phases of the project: workshop development, project completion, and review will begin after the previous steps are farther along.

Public Education and Awareness: With an eye towards the public release in October 2007, we have made outreach a significant aspect of this stage of our project development. The reasons for this timing are twofold: *First*, as we acquire and develop mapping content, we rely heavily on the newest pre-existing data, much of which is available, but not made public. Visibility is key to this extent. We have made the project visible through conferences and exhibitions. For example, this October 2006, we presented a poster at the 18th annual GIS/LIS consortium meeting. While there, we made important contacts with state agencies and research institutions who provided us with groundbreaking new GIS map layers that we will be pleased to provide to classrooms. *Second*, public outreach has “gotten the buzz out” about our project with teachers. This awareness gives teachers time to brainstorm our project’s use in their classrooms and allows for their early feedback and involvement in the classroom testing capacity. On October 28, we presented at a statewide Geography Education conference, called GeoFest, attended by over 300 Minnesota educators, and received positive feedback from social studies teachers, many of whom signed on to be teacher testers beginning in February 2007.

Unexpected Obstacles and Successes: As with any collaborative project, clear communication is essential. Both sides come to the table with existing experience, ideas, and idioms. This terrain must be navigated carefully, and with explicit focus on the original goals presented in the grant application. To facilitate communication, MHS’s web specialist, Jason Andrea, joined the team as an advisor. MHS staff also joined a MapServer users group, which meets monthly to talk about technologies and applications associated with the opensource Web Mapping product we are using for our Website. In this capacity, the disparate languages of GIS, web technology, and history can more easily translate into a groundbreaking new online product.

Ongoing Work: We are scheduled to review our site and application development progress with the Advisory board in December 2006. They will give feedback on the website’s map list; legend capabilities; related links; and navigational tools, as well as the

overall development. As well, we decided to hire a web designer in the upcoming stage, to ensure an output that is at once technologically impressive and classroom savvy. At the next advisory meeting, we will begin a closer involvement with our evaluation specialist, Christa Treichel, who will help us to determine what issues and questions to bring forward to our user testing.

As our project continues to develop, we are pleased with our progress and the positive feedback we have received from colleagues in the GIS, history, and education fields. As one teacher at the GeoFest conference exclaimed last week, “When can I get it? I want it now!” We are enjoying the process of development, and looking forward with excitement to the upcoming stages of testing and revision.