FINAL PERFORMANCE REPORT

Grant No.: PW-50625-10

Mapping the Southwest

Submitted by:

Cathy Nelson Hartman,
Principal Investigator
940-565-3269
cathy.hartman@unt.edu

Mark Edward Phillips
Co-Principal Investigator
mark.phillips@unt.edu

Daniel Gelaw Alemneh
Project Manager
daniel.alemneh@unt.edu

University of North Texas Libraries
1155 Union Circle #305190
Denton, TX 76203-5017

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Introduction

The Mapping the Southwest project, led by the University of North Texas, is pleased to submit this final report to the National Endowment for the Humanities (NEH). Herein, we summarize activities undertaken between the project start date, May 1, 2010 and project completion date, April 30, 2013.

The University of North Texas (UNT) Libraries and their partner, the University of Texas at Arlington (UTA) Libraries Special Collections, are very grateful to NEH for this We the People Grant which provided generous support for digitizing and making available online 5,000 historically significant maps.

Project Highlights

The Mapping the Southwest project has been completed successfully on-schedule and in-budget. Highlights of this collaborative project’s accomplishments in the last three years include scanning more than 5000 maps, creating MARC records and Dublin Core metadata records for each map, providing full and open access to the maps, and promoting the availability of the maps through our Portal to Texas History.

This final report briefly describes the Mapping the Southwest project activities and accomplishments in our six work areas, and a discussion of achievements, issues faced and resolved, and lessons learned that may be of benefit to others. Additional detail is provided in some areas with appendices.

Mapping the Southwest Project Aims

Through the Mapping the Southwest collaborative project, the University of North Texas (UNT) Libraries and the University of Texas at Arlington's Libraries Special Collections identified, digitized, and made available online 5,000+ historically significant maps. The collection includes maps dating from 1493 to the present and features noted cartographers. While containing maps of all parts of the world, the collection particularly emphasizes the region of the Gulf Coast and the Greater Southwest, which has been defined as the area comprising the state of Texas and the other southwestern states annexed by the United States after the U.S. War with Mexico of 1846-1848. All of the maps digitized for this grant project are available online for free public access through UNT’s Portal to Texas History at http://texashistory.unt.edu/explore/collections/UTAM/.

Project Activities

The overall work plan consisted of six major work areas. The work areas are:

1. Catalog maps without existing MARC records
2. Prepare the maps for transport
3. Capture and process digital images of the maps
4. Create software to automate import of MARC data to populate the metadata template

5. Create or enhance metadata

6. Assess quality of the digital images, cataloging, and metadata

The following sections discuss activities in the above mentioned six major work areas of the project.

1. Catalog maps without existing MARC records

One of the major areas of UTA’s involvement was cataloging maps that lacked prior cataloging records. In July, 2010, the University of Texas at Arlington hired a new cataloger to work on this project. Hiring student assistants proved to be more difficult particularly during the summer months, which caused delays in preparing the maps for the cataloging process. As a result, the project members made a significant change to the project work plan. Originally we had planned for the maps to be cataloged at UTA before coming to UNT for scanning. However, in order to facilitate the scanning process and to accomplish the quantities promised in the grant proposal on time, we modified our workflow. Maps came to UNT for scanning and then were returned to UTA for cataloging. UTA cataloged maps from most batches retrospectively, in time to complete the metadata descriptions.

2. Prepare the maps for transport and digital capture

Another major area of UTA’s involvement was packing the maps for transportation to the UNT digitization lab. In the early phase of the project, we purchased the needed packaging materials, and the UTA staff trained the UNT scanning team on their requirements for handling the maps. Over the duration of the project, the UNT and UTA groups created, tested, and revised packing procedures that incorporated detailed inventories that could be verified by both groups. UTA maintained records of items sent, their general condition and value, and historical data. The UTA group generated a “pull list” from their database to physically retrieve the maps for packing. Maps were prepared, arranged, and packed by size which allowed for a smooth and efficient unpacking process and facilitated the scanning workflow that was based on map dimensions to increase efficiency. UTA also informed UNT of maps that would require special handling.

UNT modified its workflows as needed, settling on maps being packed after scans were completed and the quality of the digital surrogates had been assessed.

We also revised the pick-up and delivery schedule from 15 to 14 trips and saved on costs while still spreading the work out evenly. The revised map pickup and drop-off schedule for the whole grant life cycle is shown in Appendix 3.
3. Capture and process digital images of the maps

As planned, UNT employed the Better Light Scan Back System (see Figure-1) to digitize the majority of the items for this project. After digital capture, the image files were processed for optical and color accuracy. A ruler and a color chart were captured with each map to allow for 1:1 image resizing and color comparison. The Better Light software used a digital focusing system that produced images at maximum sharpness. To ensure the best capture of maps with varying dimensions and surfaces, the Digital Imaging Technician typically set up and recalibrated equipment and lighting several times during the scanning of each batch of maps.

UNT added a dedicated flatbed scanner, the Epson 10000XL, to scan items 8” x 10” or smaller more efficiently than with the Better Light. For extremely delicate items, UNT made use of its existing Zeutschel Omniscan 10000TT planetary scanner. For small books or atlases associated with the map collection, UNT scanned and processed the files with OCR (Optical Character Recognition) software to make these items fully text searchable.

Figure-1 Capturing Digital Images of the Maps with the Better Light Scan Back System

To improve overall production speed, UNT hired a half-time student worker from other library funds to assist the Digital Imaging Technician with scanning and file processing duties. Scanning workflows and procedures were modified based on experience gained early in the project. As a result, scanning efficiency increased from 30 maps per week to more than 70 maps per week.

4. Create software to automate import of MARC data to populate the metadata template

As mentioned under work area #1, delays in hiring cataloging staff at UTA resulted in a change of workflow - maps came first to UNT for scanning and then were returned to UTA for cataloging. Since MARC records were not ready for the batch ingest of scanned images into UNT’s digital library system, the project did not need to create software to automate MARC importation to UNT’s metadata template. At the January 2011 project members meeting, UNT and UTA agreed jointly to proceed without an automated MARC to UNTL conversion script. This decision also affected metadata creation (work area #5).
5. Create or enhance metadata

As mentioned above, since the project lacked MARC records for many of the maps at the time of uploading map images into the digital library system, UNT and UTA jointly made changes in the work plan related to metadata creation for the maps. Instead of auto-MARC import, UNT populated the metadata template with “short records” that provided basic retrieval information. The UTA metadata team then added additional information to complete the records. All of the 5,181 digitized maps now have complete metadata and, as can be seen in the screen capture below (Figure-2), are visible to the public with all digital library functionalities.

Figure-2: The UTA Map Collections in The Portal to Texas History, as of July 2012:
6. Assess quality of the digital images, cataloging, and metadata

The UNT Libraries investigates new tools and techniques in an ongoing manner in order to provide the highest level of image capture for all formats it digitizes. In addition to image capture, the quality control process is systematically reviewed during the digitization process in order to address and correct any problems that show up in a given workflow.

During the Mapping the Southwest project, there were two instances where the imaging and quality control workflow was adjusted because of anomalies that were discovered during the digitization process. First there were 58 map images that suffered from pixel anomalies caused by vibrations in the camera system. These vibrations were identified as being caused by construction in other portions of the library which caused the floor in the digitization facility to move enough to cause artifacts in the final images. These images were flagged for re-scanning later in the process. In another situation the imaging technician on the project noted that colors associated with the embedded color profiles in images were not being rendered correctly across different browsers. This ended up being a problem with how the ingest system for The Portal to Texas History created derivative images from each master TIFF and was fixed, and previously processed images had new derivative images created for the system.

As an outcome of previously mentioned quality control issues, UNT instituted the process of examining scans at least two times after scanning and before clearing the digital items for ingest, and the physical items for delivery back to UTA. This helped to ensure that maps were re-scanned immediately if any errors were detected. Detecting and correcting most errors early in the process allowed UNT to save time by minimizing the number of requests for items to be re-sent in order to be re-scanned later in the project. Before ingest, a final round of quality control was executed as a sanity check on the naming conventions, file organization, and imaging standards. These final quality assurance steps were programmatic in nature but identified a small number of anomalies that were easily corrected before ingest.

Metadata quality was addressed during the project in a variety of ways. First as questions about crosswalks between MARC and the UNTL metadata format were raised, the UNT metadata team was consulted and all decisions were documented in correspondence with all project members via the project management system Basecamp as well as in metadata documentation used for the project. (See Appendix 4) During the metadata entry phase UNT monitored the records created by UTA staff and made suggestions for changes during the process. Finally any errors, omissions, or other anomalies identified in the newly created metadata records were quickly and efficiently corrected via The Portal to Texas History’s edit system.

**Project Audiences**

All of the maps digitized for this grant project are available online for free public access through UNT’s Portal to Texas History: [http://texashistory.unt.edu/explore/collections/UTAM/browse/](http://texashistory.unt.edu/explore/collections/UTAM/browse/). Digital objects displayed on the Portal have already been optimized for indexing by various search engines, such as Google and Bing. The UNT Libraries compile usage statistics for digital resources they manage, which can be viewed by any user at any time. As can be seen from Figure-3, the newly created Mapping the Southwest collection has been used more than 109,000 times.
During the project the UNT Libraries noticed an increase in the number of questions and comments being routed through the Digital Libraries’ Comment system pertaining to maps. These questions and comments ranged from a question about the availability of maps for purchase or if they were available for reproduction. There were a number of instances where authors were seeking rights information about including a copy of the map image in a forthcoming book or article. In a few situations there were municipalities who were interested in using copies of the digitized maps to showcase a historic view of their county via their county website. Finally there were several occurrences of blog posts which referenced a specific map in the UTA collection and a series of comments between blogs and Facebook resulted in a spike of user activity around the map, its metadata and the history of the place being described in the map. UNT has found that as we increase the number of high quality, well-described digital resources freely available on the Web, users will find, and interact with these resources in unexpected and exciting ways.

Figure 3: Statistics for Map Collections from the University of Texas at Arlington, as of July 25 2013
Presentations and Promotion

The project is publicized through the UNT and UTA web sites. In addition, staff of The Portal to Texas History promotes the project as part of their regular outreach activities. Project members have also delivered several presentations on the project goals, progress-to-date, and intended outcomes:


The final report appendices contain examples of the articles and presentations. Now the project is successfully completed and all 5,000+ maps are available online for free public access, we are planning to continue promoting our UNT-UTA collaborative project by publishing more articles and posting on mapping-related discussion forums as well as professional associations’ listservs and blogs.

Summary and Lessons Learned

The maps in the UTA Special Collections Library were already heavily used by scholars and researchers. By making them available online in the Mapping the Southwest project, the maps will be more broadly available to the academic community and others interested in learning about the Southwestern U.S. region. Our intent in working on this project over the last three years has been to work efficiently and accurately with these materials, protecting the condition of the original material, and to build good working relationships with our colleagues across institutions. Building such a large digital map collection requires a well-developed infrastructure and dedicated support from all stakeholders.

The close working relationship, team spirit, and active engagement by both institutions contributed to a successful completion of the project. Regular project status meetings helped to communicate and evaluate accomplishments in comparison with planned work to ensure targets were met. Although we had a late start at the beginning of the project, the collaborative efforts of both UNT and UTA allowed us to catch up with backlogs and meet the project objectives. Both teams have remained flexible, accommodated some unforeseen situations, and allowed for changes as needed to improve workflows and complete the project on-time and on-budget. For example, from the UTA side, pulling and grouping the maps more consistently by size before packaging them for transport to UNT significantly enhanced efficiency with scanning because changes in map sizes affect the camera set up and lighting. Similarly, from the UNT side, adding a dedicated flatbed scanner for smaller maps and hiring a student assistant to work with our Digital Imaging Technician significantly enhanced overall digitization efficiency.
The project developed documentation that described the process of converting legacy catalog records from both MARC and a local database at UTA into format used at the UNT Libraries by The Portal to Texas History. The documentation covered both the field mapping from one format to another but also the semantic and stylistic differences between the different systems. This documentation when combined with training and systematic monitoring of new metadata creation led to high quality metadata that serves the needs of a broad range of users. The models and methods used for this project are easily adaptable to future projects.

We very much appreciate the funding from NEH that made this work possible and enabled us to make this important collection available to current and future users around the globe. In light of the “We the People” initiative’s goal to encourage and strengthen the teaching, study, and understanding of American history and culture, we believe that our Mapping the Southwest collaborative project contributes significantly to these goals in a number of ways. First and foremost, the project provides online free public access to a significant number of historic or rare maps from the UTA collection which allows for a greater audience that can find, study, and utilize these maps in new and interesting ways. Secondly the project allowed the partners to create or enhance the item level description of a large number of maps in the collection, which improves the discoverability for others to locate and select the map they are interested in viewing. Finally the partnership provides a mechanism through the collaboration to ensure long-term access and preservation of these valuable resources by sharing the long-term responsibility for the management of these digital maps. We enthusiastically look forward to continuing to promote and share the lessons learned from our collaborative project!
### Appendix-1: Mapping the Southwest Project Members

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Contact Address</th>
<th>Roles in the Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cathy Hartman, Associate Dean</td>
<td>Email: <a href="mailto:Cathy.Hartman@unt.edu">Cathy.Hartman@unt.edu</a> Tel. No.: (940) 565-3269</td>
<td>Principal Investigator, UNT</td>
</tr>
<tr>
<td>2</td>
<td>Mark Phillips, Assistant Dean for Digital Libraries</td>
<td>Email: <a href="mailto:Mark.Phillips@unt.edu">Mark.Phillips@unt.edu</a> Tel. No.: (940) 891-6746</td>
<td>Co-PI and Technical &amp; workflow management (work areas: 3 &amp; 4)</td>
</tr>
<tr>
<td>3</td>
<td>Daniel Alemneh, Metadata Librarian</td>
<td>Email: <a href="mailto:Daniel.Alemneh@unt.edu">Daniel.Alemneh@unt.edu</a> Tel. No.: (940) 891-6746</td>
<td>Project management</td>
</tr>
<tr>
<td>4</td>
<td>Jeremy Moore, Lab Manager</td>
<td>Email: <a href="mailto:Jeremy.Moore@unt.edu">Jeremy.Moore@unt.edu</a> Tel. No.: (940) 369-7809</td>
<td>Scanning supervision &amp; quality control (work areas: 3 &amp; 6)</td>
</tr>
<tr>
<td>5</td>
<td>Jerrell Jones, Digital Imaging Technician</td>
<td>Email: <a href="mailto:Jerrell.Jones@unt.edu">Jerrell.Jones@unt.edu</a> Tel. No.: (940) 369-7809</td>
<td>Scanning Technician (Work area: 3)</td>
</tr>
<tr>
<td>6</td>
<td>Dreanna Belden, Assistant Dean for External Relations</td>
<td>Email: <a href="mailto:Dreanna.Belden@unt.edu">Dreanna.Belden@unt.edu</a> Tel. No.: (940) 369-8740</td>
<td>Grant Advisor</td>
</tr>
<tr>
<td>7</td>
<td>Ann Hodges, Special Collections Program Coordinator</td>
<td>Email: <a href="mailto:ann.hodges@uta.edu">ann.hodges@uta.edu</a> Tel. No.: (817) 272-7510</td>
<td>Project Coordinator for UTA</td>
</tr>
<tr>
<td>8</td>
<td>Ben Huseman, Cartographic Archivist</td>
<td>Email: <a href="mailto:huseman@uta.edu">huseman@uta.edu</a> Tel. No.: (817) 272-0633</td>
<td>Supervision of maps handling, transportation, and related activities (work area: 2)</td>
</tr>
<tr>
<td>9</td>
<td>Carolyn Kadri, Special Collections Cataloger</td>
<td>Email: <a href="mailto:kadri@uta.edu">kadri@uta.edu</a> Tel. No.: (817) 272-7153</td>
<td>Supervision of cataloging, training, and metadata quality (work areas: 1, 5, 6)</td>
</tr>
<tr>
<td>10</td>
<td>Leslie Wagner, Cataloger</td>
<td>Email: <a href="mailto:leslie.wagner@uta.edu">leslie.wagner@uta.edu</a> Tel. No.: (817) 272-3000</td>
<td>Cataloging (work areas: 1, 5 &amp; 6)</td>
</tr>
<tr>
<td>11</td>
<td>Chris McDougal, Metadata Specialist</td>
<td>Email: <a href="mailto:Chris.McDougal@uta.edu">Chris.McDougal@uta.edu</a> Tel. No.: (817) 272-3000</td>
<td>Metadata creation, editing, quality control (work area: 5)</td>
</tr>
</tbody>
</table>
# Appendix-2: Maps Pickup-and-Drop-off Schedule

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<th>Yr.</th>
<th>Batch #</th>
<th>Schedule</th>
<th># Maps Picked-up</th>
<th># Maps Digitized</th>
<th>Remark</th>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-</td>
<td><em>June 10&lt;sup&gt;th&lt;/sup&gt;, 2010</em></td>
<td>-</td>
<td>-</td>
<td><em>The 1&lt;sup&gt;st&lt;/sup&gt; kickoff meeting held at UTA.</em></td>
</tr>
<tr>
<td></td>
<td>Batch-1</td>
<td>September 30&lt;sup&gt;th&lt;/sup&gt;, 2010</td>
<td>098</td>
<td>0098</td>
<td>-All scanned and returned to UTA.</td>
</tr>
<tr>
<td></td>
<td>Batch-2</td>
<td>November 3&lt;sup&gt;rd&lt;/sup&gt;, 2010</td>
<td>387</td>
<td>0485</td>
<td>-All scanned and returned to UTA.</td>
</tr>
<tr>
<td></td>
<td>Batch-3</td>
<td>January 26&lt;sup&gt;th&lt;/sup&gt;, 2011</td>
<td>389</td>
<td>0874</td>
<td>-All scanned and returned to UTA. <em>(2&lt;sup&gt;nd&lt;/sup&gt; project status meeting).</em></td>
</tr>
<tr>
<td></td>
<td>Batch-4</td>
<td>April 11&lt;sup&gt;th&lt;/sup&gt;, 2011</td>
<td>550</td>
<td>1424</td>
<td>-All scanned and returned to UTA.</td>
</tr>
<tr>
<td></td>
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<td><em>Year-1 – [2010-2011]</em></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><em>Year-2 – [2011-12]</em></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Batch-5</td>
<td>July 14&lt;sup&gt;th&lt;/sup&gt;, 2011</td>
<td>436</td>
<td>1860</td>
<td>-All scanned and returned to UTA. <em>(3&lt;sup&gt;rd&lt;/sup&gt; status meeting).</em></td>
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<tr>
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<td>Batch-6</td>
<td>September 16&lt;sup&gt;th&lt;/sup&gt;, 2011</td>
<td>265</td>
<td>2125</td>
<td>-All scanned and returned.</td>
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<tr>
<td></td>
<td>Batch-7</td>
<td>December 9&lt;sup&gt;th&lt;/sup&gt;, 2011</td>
<td>643</td>
<td>2768</td>
<td>-All scanned and returned.</td>
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<tr>
<td></td>
<td>Batch-8</td>
<td>March 9&lt;sup&gt;th&lt;/sup&gt;, 2012</td>
<td>378</td>
<td>3146</td>
<td>-All scanned and returned.</td>
</tr>
<tr>
<td>2</td>
<td>Batch-9</td>
<td>June 12&lt;sup&gt;th&lt;/sup&gt;, 2012</td>
<td>364</td>
<td>3510</td>
<td>-All scanned and returned to UTA. <em>(All scanned and returned. The actual # of maps transported were 424 (366 new + 58 rescan).</em></td>
</tr>
<tr>
<td></td>
<td>Batch-10</td>
<td>August 17&lt;sup&gt;th&lt;/sup&gt;, 2012</td>
<td>366</td>
<td>3876</td>
<td>-All scanned and returned.</td>
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<tr>
<td></td>
<td>Batch-11</td>
<td>October 23&lt;sup&gt;rd&lt;/sup&gt;, 2012</td>
<td>460</td>
<td>4336</td>
<td>All scanned and returned.</td>
</tr>
<tr>
<td></td>
<td>Batch-12</td>
<td>January 11&lt;sup&gt;th&lt;/sup&gt;, 2013</td>
<td>264</td>
<td>4686</td>
<td>All scanned and returned.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td><em>January 14&lt;sup&gt;th&lt;/sup&gt;, 2013</em></td>
<td>-</td>
<td>-</td>
<td><em>The 4&lt;sup&gt;th&lt;/sup&gt; status meeting held at UNT.</em></td>
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<tr>
<td></td>
<td>Batch-13</td>
<td>March 13&lt;sup&gt;th&lt;/sup&gt;, 2013</td>
<td>493</td>
<td>5,063</td>
<td>377 maps (375 FEMA and other 2 unique maps) have been scanned.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>April 25&lt;sup&gt;th&lt;/sup&gt;, 2013</td>
<td>0</td>
<td>5,063</td>
<td><em>From the last batch, all 118 (Non-FEMA) maps returned to UTA.</em></td>
</tr>
</tbody>
</table>
Appendix-3: Mapping the Southwest Project Metadata Fields

Appendix-3.1: Mapping the Southwest Project Metadata Field Overview

Pre-Set Fields

- **[Title]** – map identifier
- **Language** – English
- **[Content Description]** – Map of...
- **[Physical Description]** – 1 map : col. ; h x w cm. – Change as necessary
- **Subject (UNTL-BS)** – Landscape and Nature - Geography and Maps
- **Subject (UNTL-BS)** – Places
- **Primary Source** – Yes
- **Collection** – Map Collections from the University of Texas at Arlington
- **Institution** – University of Texas at Arlington Libraries
- **Resource Type** – Map
- **Format** – Image
- **Identifier (Accession or Local Control Number)** – map identifier
- **Note (non-displaying/digital preservation)** – standard digitization information

Fields in [brackets] must be changed; fields that are not in brackets will not change unless there is an exception (e.g., “Language” will remain the same unless the map is not in English)
## Appendix-3.2: Mapping the Southwest Project Metadata Field Description

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Main Title** | • There is a single main title for each item  
• The title of the map as it appears on the item (including capitalization)  
• Similar to 245 but does not include the statement of responsibility  
• In cases where there are multiple maps on a single physical page (or no title printed), create a title in brackets that describes the entire item |
|             | Mapa de los Estados Unidos de Méjico  
North America.  
[Maps from Mitchell’s School and Family Geography] |
| **Parallel Title** | • If the (same) title is in multiple languages, the primary one should be the main title and the secondary one should be a parallel title  
• If the title is in a foreign language that has been translated or can be easily translated, the English form can be a parallel title |
|             | [Map of the United States of Mexico] |
| **Added Title** | • If there are multiple titles, additional titles can be entered as added titles  
• If a main title was created for multiple maps, the individual titles can be included here  
• If there are important insets, the titles can be added here |
|             | No. 12 Map of the State of Texas: Engraved to Illustrate Mitchell’s School and Family Geography  
Carta de los Caminos &c. Desde Vera Cruz y Alvarado a Méjico |
| **Alternate Title** | • Used for an abbreviated version (write out terms in title) |
|             | Alex J. Miller Subdivision of the North 2/3 of a 3.055 Acre Tract out of Survey No. 86, Block 14, T. & P. R. R. Co. Surveys. |
| **Creator** |                                                                                                                                               |
|             | • If creator(s) are known, enter each separately; use authorized forms of names when possible  
• Creator type/role are required  
• Add information/statement of responsibility when appropriate |
|             | Gamble, W. H. (William H.)  
Person  
Cartographer  
"Drawn and Engraved by W.H. Gamble, Philadelphia." |
| Contributor | P.S. Duval & Co. Organization  
Engraver  
"P. S. Duval's Steam Lit. Press, Phila’d.a." |
| --- | --- |
| Publisher | White, Gallaher & White  
New York, New York  
“Lo publican White, Gallaher y White.” |
| Date | Creation  
[1665]  
1928  
1921/1922 |
| Language | Latin  
French |
| Description | "Engraved map of the United States of Mexico and the surrounding areas. Major cities are marked and the Mexican states are outlined in color. Bodies of water and geographic features are also marked, with relief shown in hachures. Scale ca. 1:4,752,000  
Near the lower-left of the page, there is a table showing distances between cities (Tabla de Distancias) and a table of statistical notes regarding size, population, etc. for each state (Tabla Estadistica). There is also an inset map in the lower-left corner titled "Carta de los Caminos &c. Desde Vera Cruz y Alvarado a Méjico" (Map of the Roads etc. from Vera Cruz and Alvarado to Mexico). The inset has..." |

**Contributor**

- Secondary persons responsible for creating the item (e.g., engravers, printers, authors of text, etc.)

**Publisher**

- Include name and location (when relevant), information is optional

**Date**

*Creation*  
- Format YYYY-MM-DD  
- For a date range (e.g., multiple maps or a range of possible time when the item was created) YYYY-MM-DD/YYYY-MM-DD

**Language**

- Change/add languages as necessary  
- This field is required; if there is no title/writing on the map that constitute “language” choose “No Language”

**Description**

*Content*  
- Write a brief description in paragraph form which describes the map, including:  
  - The region/country  
  - Kind of map (if relevant)  
  - Color markings  
  - Features/items marked on map  
  - Method of relief (hachures/pictorial/etc.)  
  - Meridians/points of reference  
  - Scale  
  - Insets, notes, any other special features of the map  
  - Be sure to note anything on the back  
  - Generally, descriptions will only be 2-3..."
<table>
<thead>
<tr>
<th>Physical</th>
<th>We follow AACR2 guidelines for this field</th>
<th>1 map : hand col.; 35 x 48 cm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LCSH</td>
<td>Terms in the item record can be added</td>
<td>East (U.S.) -- Maps.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>United States -- Maps.</td>
</tr>
<tr>
<td>UNTL-BS</td>
<td>There must be at least 1 UNTL-BS term in every record</td>
<td>Places - United States Landscape and Nature - Geography and Maps</td>
</tr>
<tr>
<td>Keyword</td>
<td>Additional terms can be added to find the map including terms about features in the map or the kind of map</td>
<td>topographic maps geologic surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mississippi River city maps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>continents Indian Territory</td>
</tr>
<tr>
<td>Coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place(s)</td>
<td>Include places that are fully represented on the map</td>
<td>United States - Texas North America Central America and Caribbean</td>
</tr>
<tr>
<td></td>
<td>Do not include bodies of water</td>
<td>colorful</td>
</tr>
<tr>
<td></td>
<td>In most cases, it will be country names or continents (always use the most current name)</td>
<td>Guatemalan</td>
</tr>
<tr>
<td>Time Period(s)</td>
<td>When relevant, add appropriate time period(s) matching the date that the map was created</td>
<td>Mexican Texas, 1821-1835 Spanish Texas, 1690-1821</td>
</tr>
<tr>
<td>Coverage Date/Start &amp; End Dates</td>
<td>If the map is “about” a specific year, it can be added as a single coverage date</td>
<td>1828 Start Date: 1821 End Date: 1835</td>
</tr>
<tr>
<td></td>
<td>If it covers a range of time, the start and end dates can be added separately</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Used only when the item is a part of something else (e.g., a map from an atlas or book)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If relevant, choose the kind of item and cite the source (see guidelines)</td>
<td></td>
</tr>
<tr>
<td>Relation</td>
<td>Used to connect two things that have a specific relationship (e.g., versions, formats, etc.)</td>
<td></td>
</tr>
</tbody>
</table>
- If relevant, choose the kind of relation and cite the item, including the ark (see guidelines)

### Identifier

| Add other identifiers when relevant and choose the appropriate kind | Call Number: 127/8 00656  
Local Control Number: UTA_972644 |
|---|---|

### Note

**Display**

- Information that does not fit elsewhere that should be searchable/visible to the public
- Coordinate information can be put here, or in the content description with the scale

From the Virginia Garrett Cartographic Collections.

"Entered according to act of Congress by Lea and Blanchard in the year 1849 in the Clerk's Office of the District Court of the eastern district of Pennsylvania."

Full title in upper-right corner: Mapa de los Estados Unidos de Méjico, Sugun lo organizado y definido por las varias actas del Congreso de dicha República: y construido por las mejores autoridades.

**Non-Display**

- Information for internal or administrative usage/notes (is not visible or searchable from the public interface); this might include:
  - Preservation notes
  - Information changed/omitted
  - Internal notes from 500 fields

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Appendix-3.3: Mapping the Southwest Project Metadata Field Overview: Brief Record View

(http://texashistory.unt.edu/ark:/67531/metapth298825/)
Appendix-3.4: Mapping the Southwest Project Metadata Field Overview:
Full Record View

(http://texashistory.unt.edu/ark:/67531/metapth298825/)
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>The second age of the world</td>
</tr>
<tr>
<td>Partner</td>
<td>University of Texas at Arlington Library</td>
</tr>
<tr>
<td>Identifier</td>
<td>LOCAL-GOVT-NO: 220004, OCLC: 805700101, Ark: ark:367531/metaph0298825</td>
</tr>
<tr>
<td>Resource Type</td>
<td>Map</td>
</tr>
<tr>
<td>Format</td>
<td>Image</td>
</tr>
</tbody>
</table>
Appendix-4: Conference Presentations


“Mapping the Southwest”: UNT-UTA Collaborative Project

Daniel Ge'elaw Alemneh, Ann Hodges, Jerrell Jones

Building: AT&T Executive Education and Conference Center
Room: Room 102
Date: 2012-05-25 08:30 AM - 09:00 AM
Last modified: 2012-04-25

Abstract

Mapping the Southwest is a 3-year project (2010 to 2013) funded by a National Endowment for the Humanities (NEH) We the People grant. For this project, the University of North Texas (UNT) Libraries partner with the University of Texas at Arlington (UTA) Library’s Special Collections to digitize 5,000 historically-significant (mostly) rare maps. The collection includes maps dating from 1493 to the present and features noted cartographers. While containing maps of all parts of the world, the collection particularly emphasizes the region of the Gulf Coast and the Greater Southwest, which has been defined as the area comprising the state of Texas and the other southwestern states annexed by the United States after the U.S. War with Mexico of 1846-1848.

All of the materials digitized for this grant project will be available online for free public access through The Portal to Texas History. More than 1,000 items are already available at http://texashistory.unt.edu/explore/collections/UTAM/browse/. We have registered almost 20,000 uses, and as we complete the project, we expect even more users around the world to access this new collection. In addition to showcasing the cartography of the region, the Mapping the Southwest project seeks to promote best practices and to advance the capacity of academic libraries to reliably curate, preserve, and provide seamless access to historic maps, atlases, and related wide-format items.

This panel brings together diverse stakeholders and provides information on the project’s background, deliverables, workflow, and major areas of activity. The participants on this panel will discuss a number of issues from both institutions’ perspectives:

- The UTA group will discuss the importance of the collection, selection criteria, cataloging and metadata operations (including workflow for maps without existing MARC records), preparation of the maps for transporting, and the possible impact of the project in facilitating access to such unique and valuable resources.

- The UNT team will discuss organization and management of collaborative activities, workflow for capturing and processing digital images of the maps, assessments and enhancements of the quality of the digital images and metadata records, ensuring long-term access and key lessons learned along the way.

As we are now starting the second half of the Mapping the Southwest project lifecycle, the project team looks forward to sharing its progress at the upcoming 2012 TCDL Conference.

Full Text: SLIDESHOW
Appendix 4.2: Panel Presentation Summary: Texas Library Association Annual Conference (TLA-2013), Fort Worth, Texas, United States:

http://www.txla.org/groups/dlrt-programs-2013-627

“Mapping the Southwest” Project: Collaboration for Curation of Wide-format Items

Daniel Gelaw Alemneh
University of North Texas Libraries

Introduction

- Mapping the Southwest Project Background:
  - 3-year project (2016 to 2013) funded by NEH We the People grant.
  - The UNT Libraries partner with the UTA Library’s to digitize 5,000 historically significant and rare maps.
  - Available online for free public access via The Portal to Texas History gateway.

- Project Plan:
  1. Catalog maps without existing MARC records.
  2. Prepare the maps for transport.
  3. Capture and process digital images of the maps.
  4. Create software to automate import of MARC data to populate the metadata template.
  5. Create or enhance metadata.
  6. Assess quality of the digital images, cataloging, and metadata.

Project Workflow and Major Areas of Activity

UTA’s involvement includes:
- Cataloging maps without existing MARC records
- Preparing the maps for transport
- Creating and enhancing Metadata according to UNT metadata standards:
  http://www.library.unt.edu/digital-projects/metadata/descriptive-metadata

UNT’s major areas include:
- Capturing and processing images
- Uploading digital images of the maps
- Continuing quality control (pre- and post ingest enhancements activities to ensure completeness, consistency, etc.)

Lessons Learned and Project Impact

- Challenges
  - Digitization of large-format items presents many challenges:
    - Inter-institutional differences in priorities, workflows, etc.
    - Map handling and scanning: folded, oversized, and fragile maps
    - Equipment maintenance and software updates
    - Metadata and related workflow issues

- Project Summary:
  - The UNT-UTA collaborative project was able to meet the challenges and share the rich cartography collections of the region widely:
    - More than 80,000 users.
    - Besides showcasing the cartography of the region, the project promotes best practices:
      - Advance the capacity of academic libraries to reliably curate and provide seamless access to such large-format items.

Project Contacts

- UNT
  - Larry Blum, Project Coordinator
  - Daniel Alemneh, Project Manager

- UTA
  - Ginger Karlin, Cataloging and Metadata Librarian

Better Light Super 8K-2 scanning back
Appendix-4.3: Poster Presentation at the Texas Conference on Digital Libraries (TCDL-2013),
Austin, Texas, United States:
https://conferences.tdl.org/TCDL/TCDL2013/paper/view/614

And/or
http://digital.library.unt.edu/ark:/67531/metadc159528/

Mapping the Southwest Project: Putting the Region’s Maps Online

Background
Mapping the Southwest is a 3-year project (2010 to 2013) funded by a National Endowment for the Humanities (NEH) We the People grant. The University of North Texas (UNT) Libraries partnered with the University of Texas at Arlington (UTA) Library’s Special Collections to digitize 5,000 historically significant and rare maps. The collection includes maps dating from 1485 to the present and features noted cartographers. While containing maps of all parts of the world, the collection particularly emphasizes the region of the Gulf Coast and the Greater Southwest.

Project Plan
The overall work plan consists of six major work areas.
1. Catalog maps without existing MARC records.
2. Prepare the maps for transport.
3. Capture and process digital images of the maps.
4. Create software to automate import of MARC data to populate the metadata template.
5. Create or enhance metadata.
6. Assess quality of the digital images, cataloging, and metadata.

Workflow and Equipment
- Better-Light Scanning System
  - Better Light Super 8K-2 scanning back
  - 4 x 5 camera with an array of changeable lenses
  - Heavy-duty studio stand with versatile head
  - High Intensity Discharge (HID) lights
  - Vacuum table
- Ensure the long-term access and preservation of the maps by creating a high quality product
  - Tiff (uncompressed)
  - RGB color (24-bit)

Impact and Lessons Learned
- The UNT-UTA collaborative project was able to meet the challenges and share the rich cartography collections of the region widely:
  - All of the digitized maps are available online for free public access
  - 80,000+ views from all over the world
- Besides showcasing the cartography of the region, it promotes best practices:
  - Advance the capacity of academic libraries to reliably curate and provide seamless access to such large-format items

Project Contacts
- Daniel Gelaw Alemneh, dgelaw@unt.edu
- Jerrell Jones, jjones@unt.edu
- Cathy Hartman, cathy.hartman@unt.edu
- Mark Phillips, mark.phillips@unt.edu
- Ann Hodges, ann.hodges@unt.edu
- Ben Huseman, ben.huseman@utdallas.edu
- Carolyn Kadri, cadri@unt.edu
- Carolyn Kadri, cadri@unt.edu
Appendix-5 Promotional Activities

Appendix-5.1: UNT’s Promotional Activities

(Source: [http://research.unt.edu/news/grant-support-digitization-historically-significant-and-rare-maps-0](http://research.unt.edu/news/grant-support-digitization-historically-significant-and-rare-maps-0))

The maps will be digitized by the UNT Libraries’ Digital Projects Unit and placed on the portal. These show the Gulf Coast and the Greater Southwest area that includes modern-day Texas and other southwestern states annexed by the U.S. after the Mexican war of 1846-48. The oldest map is a representation of a world map created by 2nd-century astronomer, geographer and mathematician Claudius Ptolemy.

About 250 maps in the UT Arlington collection are already on the portal, with the rest scheduled to be online by April 2013.

- Learn more about Mapping the Southwest: contact Iranne Belden, assistant dean for external relations, UNT Libraries, or 940-365-8740.

Jerrid Jones, digital imaging technician for UNT Libraries, said approximately 41 maps are being scanned and digitized each week via a camera, energy-efficient copy lights and vacuum easel. The maps are scanned using a flattening scanning back system and then processed for side, detail and color accuracy.

"Maps that are deteriorating are definitely a challenge," he said. "We are taking care of fragile maps during the scanning process and using digital presentation to get those maps to the people who need them."

Belden said many of these valuable maps are fragile and should not be handled often. Facing them online, she said, allows them to be viewed by a much wider audience.

The NEH funding allowed the UT Arlington library to hire a project cataloguer, which Ann Hodges, program coordinator of UT Arlington’s Special Collections, said will increase the scope and quality of the information. "We are very appreciative of the opportunity to collaborate once more with UNT in support of the Portal to Texas History."

The Cartographic History Library was added to the Division of Special Collections of UT Arlington’s University Library in 1978. Fort Worth attorney Stanley Garrett and his wife Virginia gave UT Arlington their collection of rare books and archives documenting the history of Texas and the American Southwest. Virginia Garrett donated more than 900 maps of Texas and the Gulf Coast in 1997. The library also acquired items from Edward Blaustad and Sons of New York, and other dealers in Amsterdam, London and New York City. Today, the collection includes more than 10,000 maps.

The Portal to Texas History was created and managed by the UNT libraries’ Digital Projects Unit and offers more than 2 million pages of material from archives, historical societies, libraries, museums and private collections from all regions of Texas. The portal emphasizes primary source historical materials, including diaries, personal accounts of events and daily life, newspapers, illustrations and photos, original documents and maps. The portal also includes the Resources for Educators section, which provides history lessons for elementary and middle school students that are compliant with Texas Essential Knowledge and Skills standards.

Source: [http://inhouse.unt.edu/grant-support-digitization-historically-significant-and-rare-maps](http://inhouse.unt.edu/grant-support-digitization-historically-significant-and-rare-maps)
Appendix 5.2: UTA’s Promotional Activities
