FINAL NARRATIVE REPORT TO INSTITUTE FOR MUSEUM AND LIBRARY SERVICES, NATIONAL LEADERSHIP PROJECT GRANT LG-30-04-0245-04: "THE QUILT INDEX"

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Project Title: The Quilt Index

Partners:
Michigan State University Museum, MATRIX: The Center for Humane Arts, Letters, and Social Sciences Online, The Alliance for American Quilts, The Daughters of the American Revolution Museum, Quilts of Tennessee, The Rocky Mountain Quilt Museum, The Museum of the American Quilter's Society, The University of Nebraska-Lincoln Libraries, The Winedale Center for American History at the University of Texas, Austin

Project Overview:
The Michigan State University Museum and MATRIX: Center for Humane Arts, Letters and Social Sciences Online in collaboration with partner The Alliance for American Quilts and seven collection contributors, proposed to lead and expand the Quilt Index National Leadership Project (www.quiltindex.org) as an innovative national model for distributed online management and presentation of thematic collections for museums and libraries. The three main project goals — to obtain a critical mass of quilt objects and information, to lead and serve US quilt and quilt information collections in museums, libraries and archives with content management and interoperability, and to enhance the value, usefulness and relevance of the Index's thematic presentation with targeted inclusion of special collections or ephemera — were successfully achieved. Currently home to over 18,000 quilt records and images, the Quilt Index is now poised to become one of the largest test beds for digital humanities and is becoming one of the most advanced cultural heritage resources on-line.

Describe the Project Activities:
The Quilt Index is a partnership activity of The Alliance for American Quilts, Michigan State University's MATRIX: The Center for Humane Arts and Letters Online, and the Michigan State University Museum. The MSU Museum is the organization of record for this particular phase and Marsha MacDowell the project director of record on this grant. Assistant Curator Mary Worrall served as the MSUM's project manager. Mark Kornbluh co-directed and led on technical and overall management issues. Justine Richardson served as MATRIX's project manager. Shelly Zegart (2004-2006) and Amy Milne (2006-present) served as project managers of the Alliance portion of the project. The MSU Museum and MATRIX worked together on a weekly, sometimes daily, basis in the management and implementation of the project and periodically with each new contributor as well as with Steve Cohen, evaluation consultant. In the summer of 2006, Amy Milne, executive director of the Alliance for American Quilts began joining weekly project management phone conferences and implemented increased engagement in the Index by Alliance staff and board members. The Quilt Index Task Force is composed of Patricia Cox Crews, Alan Jabbour, Kathie Johnson, Patricia Keller, Mark Kornbluh, Marsha MacDowell, Justine Richardson, Merikay Waldvogel, Jan Wass, Mary Worrall, and Shelly Zegart.

Completed activities included:

A. Obtained a critical mass of data
     Seven institutions contributed new data, resulting in a new database total of more than 18000 records. Contributors under this grant work are:

- Michigan Quilt Project/Michigan State University Museum (8484 quilt records and images),
- Daughters of the American Revolution Museum (360 quilt records and images),
- The Quilts of Tennessee, housed at the Tennessee State Archives and Library (3146 quilt records and images),
- Rocky Mountain Quilt Museum (384 quilt records and images),
- Museum of the American Quilter's Society (301 quilt records and images),
- University of Nebraska-Lincoln Libraries (4276 quilt records and images), and
- Winedale Center for American History at the University of Texas, Austin (430 quilt records and images).

B. Enhanced the value, usefulness and relevance of the Index's thematic presentation with targeted inclusion of special collections or ephemera
- *The Quilt Journal*, a pioneering quilt studies journal, was digitized and text made available and searchable online.

C. Served US quilt and quilt information collections in museums, libraries and archives with content management and interoperability
- Next generation of repository software, called KORA, was developed. Database was migrated from previous system into KORA. This management system is based on long term preservation protocols and features plus extensive new tools to facilitate the contributors' record management and to increase both the capacity for display on the web and interoperability with other digital library projects.
- Metadata for searching text (journals, articles, etc.) was developed.
- Capacity and specificity for searching website records was expanded.
- Quilt Index comprehensive fields were revised.
- Repository Usage and Management Protocols were completed.
- Project/Contributor Methodology Template for presenting each project's data collection, selection, and entry was completed.
- Imaging Standards were refined and published online.
- Application process to become a Quilt Index contributor was developed and implemented.
- A crosswalk template and system for transferring data into the Quilt Index from preexisting databases were developed.
- A documentation form based on the Quilt Index comprehensive fields was developed.
- KORA training manual was developed.
- The Quilt Index Editorial Board, composed of Linda Eaton, Dr. Judy Elsley, Dr. Bobbie Malone, Dr. Elizabeth Richards, and Jan Wass, was appointed.
- Answered inquires from users of the Quilt Index and from organizations interested in joining the Index.
- Answered inquiries about documentation.
- Fielded phone and online line inquiries regarding internal workflow, museum cataloguing, imaging, and data entry.
- Weekly project management calls between the MSU Museum, MATRIX, and the Alliance for American Quilts were established.
- Partnership agreement between the MSU Museum, MATRIX, and the Alliance for American Quilts was developed and signed.

- Evaluation was conducted at the American Association for Museums (2005, 2006), University of Wisconsin-Madison's Education Outreach/Wisconsin Art Board's Annual Conference on Arts, Curriculum, and Community (2005), and the American Quilt Study Group (2005, 2006).
- Conducted an initial survey of oral history projects related to quilts, quilt making and quilt makers and presented the material on the website in a new wiki page (The wiki tools are being developed and implemented under separate funding).

Project Audience:
The Quilt Index is a tool that can be used by researchers, students, quiltmakers, genealogists and a wide public audience to locate, reference, and search quilt materials. Scholars from a variety of fields, including art history and criticism, women's studies, cultural studies, folklife studies, material culture studies, textile history, racial and ethnic studies, political and religious history, American social history, and state, regional, national, and international studies are able to use this information as primary, documentary source materials.

Students fulfilling classroom assignments in the humanities are able to use these materials in lessons on ethnic and racial studies, by, for example, documentation of African-American, Native Hawaiian, and Mexican-American quiltmaking. Contemporary quiltmakers seeking pattern identification and technical information, and family members tracing genealogy and the social and cultural contexts of an heirloom quilt also benefit from this research tool. Local and state historical societies have reported using the Index to assist in identifying quilt patterns that citizens bring in.

Equally important, the Quilt Index collections form the seed of what is growing into an extensive network of digital documentation, images, and aggregate information, as well as K-12 curricula materials, online exhibits, and forums for scholarly exchange.

Project Analysis:
We have accomplished each of the major goals and objectives set out in this grant proposal. Significant achievements include the training and capacitating of participating museum and library partners and the development and publication of national leadership documents that reveal the standards, protocols, and procedures of the Quilt Index to allow broad participation from a wide variety of museum and library institutions as well as replication by other groups with particular object-type interests. In fact we have been contacted by groups interested in indexing dolls, baskets, and embroidered samplers who have used our extensive documentation to develop their own projects. We have also been contacted by and have consulted with organizations and individual researchers who wanted to use the Quilt Index comprehensive fields at the initiation of their research and data cataloguing projects. Their goal is to eventually have their data projects ready for inclusion in the Quilt Index.

Developing live cross-database querying of existing databases has proven to be an intransigent problem at this time. We expected that the comprehensiveness of the Quilt Index metadata scheme and the mapping of our "Quilt Core" set would permit satisfactory crosswalking, but ingesting legacy databases from multiple sources, developed in as many different ways proved problematically time consuming and error prone. For databases that are live on the Internet (such as the American Folklife Center, Library of Congress' Quilts

and Quiltmaking in America records), the preferred solution for both institutions is to ingest core metadata and images into the Quilt Index and include direct link referencing to the AFC's website. We are presently implementing that solution and it will be complete in January 2009.

Please refer to the evaluation report for additional information about this project's impact.

What's Next:
The Quilt Index continues to expand the content, tools for management and users, evaluation, and audience development. As examples, the following activities took place.

Quilt Index Expansion and National Integration
The Quilt Index was awarded a $275,00 grant from the National Endowment for the Humanities that is supporting the incorporation of 13 project partners, including 12 quilt data collections: West Virginia Department of Archives and History (4,000 records, 6,000 slides), North Carolina Museum of History (10,106 documentation records and images), Connecticut Quilt Documentation Project (3,200 records, 6,000 images), Hawaiian Quilt Research Project (1,200 records, 1,500 images), Louisiana Regional Folklife Program (2,500 records and images), Minnesota Quilters Inc. (4,000 records and images), New England Quilt Museum/MassQuilts (200 records and images), Rutgers University Library/Archives (2,619 records and images), Historical Society of Iowa (2,558 records and images), University of Rhode Island (889 records, 1,600 slides), Western Carolina University's Mountain Heritage Center (40 records and 60 images), and Wyoming Quilt Project, Inc. (2,300 records and images) for a total 33, 612 new quilt records and corresponding images. This grant also supports planning with the scholarly society the American Quilt Study Group to develop metadata and a plan to integrate its flagship journal, *Uncoverings*.

The Quilt Index: Online Tools and Ephemera Expansion
In October 2007, the Quilt Index was awarded a three-year grant from the Institute of Museum and Library Services totaling $911,809. Michigan State University, through MATRIX: The Center for Humane Arts, Letters and Social Sciences Online and the Michigan State University Museum, and its partners in The Alliance for American Quilts are an expanding this digital collections project to demonstrate diversification of a digital repository and developing a rich array of secondary user tools that will substantially increase the effectiveness of online museum and library resources for research, teaching and learning. Specifically, we are enriching the content of the *Quilt Index* digital repository, introducing innovative tools to work with the objects in the repository, training quilt experts and educators who are building online exhibits, multimedia presentations, lesson plans, and other resources that will become a part of the public website, and building a rich array of social networking features around the Index to enrich and augment its usefulness for individuals and groups of users.

Protocols for New Contributors
In spring 2008, an application process for new contributors to join the Quilt Index was established and application materials were posted on the Quilt Index website. As of October 2008, we have received one application. An evaluation of the application process

will take place during fall 2008 to access why more applications have not been received.

Visual Representation Research on Quilt Index
We are working with computer scientists from the University of Illinois at Champaign-Urbana to develop an effective National Science Foundation proposal for conducting visual pattern recognition research using the Quilt Index as a research corpus. Solving the classification problem of sorting quilts by automatic computer-aided visual recognition is two-phase process consisting of tasks such as finding the quilt primitives followed by identifying symmetry and repetitions of primitives. Currently, each task is an open ended research problem in the pattern recognition community. The first task boils down to a segmentation problem with probably thousands of publications about multiple approaches that work only for a very specific class of images. The second problem is close to texture detection where there has not been an agreement among the researchers on the definition of texture. Other expansion efforts under stages of development are with the Michigan Museums Association (to develop a "deep Michigan" documentation and digitization project); a partnership with the American Folklore Society; the National Folk Arts in Education Roundtable and the Michigan Arts Education association (for curriculum development); subsidized inclusion of private collections; and a consortium of New England museums holding significant quilt collections.

Lastly, we are reviewing technical options and intellectual issues regarding various ways to develop public object submissions, which will involve either implementing an additional public layer in KORA or customizing a separate section of the site, such as the wiki section, to incorporate public uploading. Launching, structuring, populating and restructuring the wiki has been an important process for moving towards public submissions of resources to the Quilt Index. We have learned a lot about issues involved in adding a wiki to an existing site as well as modeling it to be useful to a specific community.

Summary
With the addition of thousands of new quilts during the past year, the Quilt Index is reaching a critical mass of digital quilt images and expanding its scope to include journals and quilt ephemera. This mass of diverse objects from multiple institutions is unique in the digital humanities field. Based on the initial formative evaluations and feedback from contributors and authors, this project's new tools, contextual essays, lesson plans and gallery offerings, and trainings we are planning and conducting across a wide range of disciplines will significantly increase the usefulness and meaning-making (search for relevance) of the Quilt Index itself and as a model for other projects.

We know of no other database that integrates collections from so many institutions (actual digitized objects as images or text, not just bibliographic records). Already, the Index serves as a national leadership model for online access to material-specific collections. Contributors to the Quilt Index come from across the country; and additional potential partners are located in every state in the US and internationally.