

Narrative

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 propose an expansive digital collections project to demonstrate diversification of a digital repository and development of new secondary user tools that will substantially increase the effectiveness of online museum and library resources for research, teaching, and learning. Specifically, we will enrich the content of the *Quilt Index* digital repository, introduce innovative tools to work with the objects in the repository, train quilt experts and educators who will build online exhibits, multimedia presentations, lesson plans, and other resources that will become a part of the public website, and build a rich array of social networking features around the Index to enrich and augment its usefulness for individuals and groups of users.

1. Audiences and Assessment of Need

The Quilt Index: Online Tools and Ephemera Expansion digital collections project will build on the *Quilt Index*, a highly successful project originally conceived by the board of The Alliance for American Quilts, a non-profit organization comprised of a broad range of key scholars, curators, librarians, and quilt artists dedicated to the study and preservation of American quilts. The Alliance partnered with MATRIX and the MSU Museum to develop *The Quilt Index* concept into a pioneering digital repository with museum and library contributors from across the country. With funding from IMLS and the National Endowment for the Humanities, the current institutionalization phase has focused on creating a critical mass of quilt objects and information, training library and museum contributors, and creating formal documentation of *Quilt Index* processes to serve as a model for other collections. During this phase, collections from 23 museums, libraries, and universities will be integrated into *The Quilt Index*. As a result, *The Quilt Index* has become the model project in material culture research and documentation on quilts. It is the preeminent comprehensive and accessible resource to provide unified access to quilts and quilt materials for scholars, teachers, students, and the general public.

The Quilt Index (www.quiltindex.org) serves as a tool for public use and research and as a successful, well-documented model for producing thematic collections of digital materials from multiple sources. *The Quilt Index Comprehensive Fields*¹ have been adopted by new and established quilt documentation projects, and its development has been a model for other object-based material culture fields. With a critical mass of 50,000 digitized quilt objects coming online by 2008 from 23 different institutional contributors from around the country, *The Quilt Index* offers an unprecedented body of curated material upon which to develop and implement new ways to use digital resources and make them accessible. As an object-based repository, it offers a model research challenge for how to expand and diversify the types of related materials that can be accepted, stored, and sorted successfully within a digital resource repository. Equally important, it offers a unique opportunity to develop a suite of tools and protocols that greatly expand “access” by facilitating use and reuse of the digital content by a wide range or diverse users.

Using formal evaluation processes, conducted with IMLS funding, and recent needs assessment surveys (as well as informal statements and feedback gathered from archivists, curators, researchers, and scholars), we have identified several specific needs and target audiences for *The Quilt Index* that shape the work we propose for this new project.

1) Scholars and researchers need better access to authentic archival materials for quilt history and research. Scholars and teachers are interested in examining and understanding quilts within their cultural context. Recognizing the value of a wide range of diverse artifacts from quilt pattern books to fabric receipts, museums and archives, private collectors, and thousands of volunteers who registered quilts in the over 60 state

¹ Refer to supplementary documents for annotated list with web links to Comprehensive Fields and other *Quilt Index* documents and resources available or forthcoming on the website.

documentation projects have been saving these ephemera. This is precisely the kind of evidence used by historians and material culture researchers to unravel old and newfound mysteries, such as the “underground railroad quilt patterns” controversy that recently made the front page of the New York Times. This project will add a diverse array of inaccessible ephemera from key US collections as well as from the current institutional contributors to *The Quilt Index* in an integrative fashion that allows for relevant items to be associated with each other, both on ingestion and over time as curators work with the collections and scholars utilize them.

2) Digitization and searching/browsing on-line objects is only the first step towards building useful digital collections. Scholars and researchers need better tools for utilizing online collections, and digital resource managers need to enhance online access with more and better ways to compare, analyze, combine, and repurpose digital resources. This project will broaden the scope of the Index beyond a digital repository and collection management tool, by dramatically increasing user tools and providing rich cross-referencing of varied digital object types. The promise of digital “access” is “use.” The tools developed under this project are designed to vastly enhance the ability of resource users to work with digital objects in an on-line repository.

3) Individual owners of quilt-related data do not, at present, have a mechanism to contribute their data to the Index. There is a crying need for a curated-ingestion process to build upon the materials already in museum, library, and archival collections. Just as *The Quilt Index* pioneered the development of a trans-institutional repository for material culture, the Index can break new ground with the development of an on-line public ingestion process that is open to individual contributors, guided by best practices, and managed by leading curators in the field.

4) Teachers and scholars can make significantly more effective use of an online resource with training, modeling and peer interaction. Just as you cannot simply send a student to a traditional library without a tour or a model for how to use the resources for learning and research, the same is true for even the best digital libraries. Our data suggests that only expert researchers and teachers can design effective research or educational activities using our digital library resources on their own. After a “tour” and training session, however, over 90% of all participants could produce an effective research question or teaching exercise for the Index. Building on our evaluation efforts this project will develop and test training sessions and tours for *The Quilt Index* that can be modeled for other digital collections. Development of a rich array of social networking features to complement the *Index* will enhance usefulness and facilitate peer-to-peer education and training.

In addition to these main activities, museum and archival collections managers will be able to use *The Quilt Index* usage tools and training and modeling modules for improving access to their online collections. A growing number of quilt specialists and historians across the country have already indicated the fundamental value of the Index; this value will grow exponentially as the Index gathers more content and as user and training tools are increased. The Index has vast potential for teachers and scholars with interdisciplinary interests. Survey feedback, along with discussion logs in H-Quilts, indicates that educational uses for the Index cross the fields of history, anthropology, geography, literary studies, rhetoric, art history, and even mathematics. The study of material culture informs each of these disciplines, as research and analyses become increasingly inter-textual. As a national resource, the Index will work to provide the most comprehensive and historically thorough representation of our nation’s quilting heritage to a general public that has a growing interest in this aspect of our cultural heritage.

2. National Impact and Intended Results

Quilts are an ideal object-type to focus on building and improving digital collections because their ubiquity in American culture and their enormous popularity guarantee a wide impact on both collecting institutions and users, ranging from everyday web visitors to avid quilt history researchers. Quilting has become the quintessential American art, its form and commonly understood history coming to represent the very formation

of American identity. Originally produced at home by women using patchwork piecing saved through thrift and necessity, quilting has become a multi-billion dollar industry occupying more than 27 million people producing quilts.² Quilts are part of the collections of hundreds of American museums, making them both ubiquitous as collected objects and paradoxically inaccessible, by their geographical dispersion.

This project will make accessible and searchable important data related to quilts (i.e. ephemera, images, etc. described in section 3A) currently distributed in various types of repositories spread across the country. We will adapt existing tools and create new tools that will address needs of current users and broaden the capacity of the Index to serve research and educational purposes of new users. It is expected that some of these open-source tools will be adapted easily into other types of collection management and presentation programs.

The Quilt Index website already is in active use and serving as a model. Documentation of *The Quilt Index* processes is assisting libraries and museums across the country to document their holdings – from established institutions such as the New England Quilt Museum to local historical societies with volunteer assistance. (See supporting documents for unsolicited letter received from Sandra Munsey, November 11, 2006.)

3. Project Design and Evaluation

Planning Process:

The original vision of a fully developed *Quilt Index* comprised a complex and ambitious variety of information – from individual quilt objects to oral histories in multiple media to descriptions of quilt makers to full texts of selected books and periodicals, to digitized ephemera of inaccessible quilt-related research materials. This vision of rich resources offered to researchers, quilt makers, educators, students, and the general public has grown through three developmental phases, formal evaluation, gathering informal user feedback, and significant engagement by a professional community of quilt historians and museum and library staff. Technological advancements over the past ten years have also greatly broadened the possibilities for effective and creative use and dissemination of *The Quilt Index*.

The initial plans for *The Quilt Index* called for four phases of development: Phase I: Planning and Design; Phase II: Development and Deployment; Phase III: National Expansion and Data Integration; and Phase IV: Future Expansion. Phases I and II were completed by December 2004, creating a repository of images and information about individual quilts based on inaccessible data from state quilt documentation projects and several associated museum collections. Phase III is fully funded to expand the repository of quilt objects to 50,000. During Phase III, we are creating the baseline critical mass necessary to be a viable research tool containing state and regional quilt documentation, key museum and library collections, a pilot for adding journal articles, and a series of documents and resources about *Quilt Index* practices available for use or as a model for other material culture repositories.

This proposal seeks funding from IMLS for Phase IV: Future Expansion and Improvement of *The Quilt Index*. This proposed project will build the digital collection and improve the educational value and use of *The Quilt Index* through adding objects, increasing contextual materials, and developing repository user tools that will help users to frame and understand the cultural significance of quilts.

Technological Foundation:

Through MATRIX's digital library research, *The Quilt Index* has adopted current "best practices" and standards of digital library research for collection and presentation to optimize interchange of information stored in the Index. This design will help ensure the widest possible access to information as well as facilitate the inclusion

²DP Research Solutions (2006) "Quilting in America, 2006", Houston: CKMedia and Quilts, Inc.; and Kimmelman, M., (2002). "Jazzy Geometry, Cool Quilters" Art Review, The New York Times, November 29, 2002.

of collections from around the country. General areas of standardization include intellectual property, terminology, imaging, storage, and markup.

The project developed *The Quilt Index Comprehensive Fields*, a set of comprehensive descriptive metadata for quilts, as unique three-dimensional objects, cross-referencing quilt documentation forms and twenty significant reference sources on art and textiles including the Art and Architecture Thesaurus of the Getty Vocabulary Program (1999) and Barbara Brackman's *Encyclopedia of Pieced Quilt Patterns* (1979). A core subset of the Comprehensive Fields, *Quilt Index Core Fields*, represents the most common information that is collected by documentation projects, cited by curators, or used for searching by researchers. The core set crosswalks to Dublin Core descriptive metadata. The Core Fields are used in the main sorting and searching functions on the site and are displayed in the "basic display" view of a quilt record in the Index website. Contributors match their data fields to the Core Fields and to as many of the Comprehensive Fields as necessary.

The Quilt Index is housed in MATRIX's digital library repository, now in its second-generation application called *Project Builder*. This infrastructure for managing and delivering digital objects is a database-driven, online digital repository that allows institutions to ingest, manage, and deliver digital objects and their corresponding metadata. Project Builder is unique in that it can accommodate diverse metadata scheme without altering its table structure or design. This allows projects with vastly different collections and metadata to use the same architecture to create their digital library. In the case of *The Quilt Index*, it allows for local variation while also enforcing necessary vocabulary control and standardization to allow effective searching and sorting. Project Builder requires virtually no technical expertise to use. *Quilt Index* contributors master the application through hour-long telephone training sessions and follow-up email support, led by QI staff. With such training, the repository allows non-technical users to describe their digital objects and automatically generate ingestion forms to develop their metadata and move digital objects to QI servers.³

Because Project Builder is an online application, it supports the distributed development of collections where multiple users can develop the same resource from separate locations at the same time. This facilitates the rapid development of collections and allows users with differing expertise to develop different aspects of the project – content experts can develop the content for each object, scholars can build context for the collection, teachers can build learning materials, etc. For the QI, the Comprehensive Fields are a scheme option integrated into Project Builder. Each metadata field is a control in Project Builder including the group name and number, field name (actual database field name), sequence (order in which field appears within its group), description (further definition of field for data entry and management), caption (for online management view), field type, and notes.

Project Goals:

The goals of this proposed project are to (1) increase capacity and utility of *The Quilt Index* collection for target audiences, and (2) effectively evaluate the development and usability of tools and the expansion of diverse content throughout the project. Specific project activities include:

- A. Digitize and build collection of additional associated objects and materials
- B. Develop and implement online tools to enhance use, analysis, and publication
- C. Establish infrastructure and capacity for public object submissions
- D. Enhance usefulness of collections through on-line training and development of networking capacity

Project Activities:

³ See Kornbluh, M; Fegan, M.; Rehberger, D. "Project Builder: A Digital Repository Engineered to Function as a Robust Content Management System," Coalition for Network Information, Fall Task Force Meeting, Washington DC, December 4-5, 2006.

A. Digitize and build collection of additional associated objects and materials: Working within the flexible framework of the MATRIX repository, Project Builder, *The Quilt Index* staff will develop the capacity for additional types of digital artifacts to be entered into *The Quilt Index*. Project staff will draw on standards to determine metadata needs and establish schemes for quilt-related images (quilt makers, quilt-related activities), oral histories, richly linked articles, ephemera (historic patterns, magazines, news columns, quilt contest forms, diaries, exhibit catalogs, club newsletters), and group research projects such as the Signature Quilt Project.

This component of the work will expand the digital collection by incorporating ephemera, oral histories, published text, and photographs associated with quilting. Priority will be given to: 1) Materials affiliated with the quilts already in the digital repository. This will include photographs of quilters, unique items affiliated with specific quilts or quilt makers (i.e. diaries, drawings, newspaper clippings, exhibition catalogs) and 2) Key items identified by the field as critical to make accessible and searchable. Agreed-upon selection criteria include the inaccessibility, relevance, rarity, and/or fragility of the originals. Items to be digitized will include out-of-print pattern books, pamphlets, and journals.

Items will be drawn from a select number of private and public repositories, including those institutions that already have contributed collections of quilts and documentation records to the Index; unique repositories of specialized material such as the Cuesta Benberry Collection at the American Folk Art Museum (ephemera and oral histories); the Mary Schafer Quilt Ephemera Collection (http://www.museum.msu.edu/glqc/collections_special_schafe.html) and the Deborah Harding Redwork Collection (http://www.museum.msu.edu/glqc/collections_special_hardin.html) at the Great Lakes Quilt Center/Michigan State University Museum (ephemera, photographs, and oral histories); and the Kathleen McCrady Quilt History Archive (http://www.cah.utexas.edu/museums/winedale_quilts_two.php) at The University of Texas-Austin/Center for American History, Winedale (ephemera). Archivists and curatorial consultants will prioritize and select the highest priority items for digitization from each repository. Some of these priorities have been identified already through our needs assessment. In addition, resources will be sought from individual independent scholars/collectors who are willing to make their collections available for research and educational use, in particular the Merikay Waldvogel Collection and the Wilene Smith Collection.

Standardized metadata and the table structure of *The Quilt Index* will facilitate the association of related content across diverse types of digital artifacts in searching and browsing the collection. Users not only have an option to have their queries returned as a list of relevant quilts but they also will have the option to be supplied with a list of related materials (quilt patterns, images, oral histories, and related documents). Equally important, the “associator” tools within Project Builder will allow users and context experts to link together single digital objects into meaningful, complex objects.

B. Develop and implement online tools to enhance use, analysis and publication: During this grant funding, MSU will develop and implement a server side suite of tools that help users to find, segment, annotate, organize, and publish media and information found through *The Quilt Index*. Taking into account the advances of other web-based authoring projects, such as Pachyderm (<http://www.pachyderm.org/>), our new tools will feature the capacity to work with existing media drawn from the world wide web and to draw from various metadata schemes as appropriate. These new applications will provide users with an environment not only to work with and personalize digital media, but also to share and discuss their findings with a community of users. Because the applications store a significant amount of information about the digital objects selected by users and user-generated annotations per digital object, it both provides a corpus of data on how digital repositories are being used and creates materials that augment traditional cataloguing records. In so doing, the application forms a secondary repository that holds metadata generated by its users, and additional resources for target groups (scholars, researchers, educators, and students) can be easily generated: specialized searches and galleries spanning across the collections that group the quilts according to theme or topic, extended materials

such as lesson plans, interpretive essays, bibliographies, oral histories, and pointers to digital objects in primary repositories – either held within *The Quilt Index*, or related objects from other repositories such as the Library of Congress’s American Memory Collection. As part of this work, an experienced base of scholars and quilt experts will develop materials and commentary to augment the collections and contextualize the user’s experience. Thus, the value of the application is that this group can enhance the usability, access, and interactivity of such digital repositories by facilitating the creation of secondary repositories on top of the collections without significantly increasing costs and time needed to prepare and maintain additional resources.

Staff also will develop a user tool pack to increase the analytical impact of *The Quilt Index*. MATRIX developers will create specific tools that allow students, teachers, and researchers to isolate portions of images, segment streaming media, compare multiple objects and their metadata side by side, and allow quilt images to be viewed overlaid and partially transparent to compare details and differences. Also, the creation of an annotation tool will allow user to annotate specific digital objects, have those annotations appear when a digital object is viewed, and view the annotations created by others. Another frame will Online tools will include more sophisticated search and display capabilities; image zooming capabilities (for contributors with higher quality digital images); and sophisticated searching and sorting interfaces, allowing registered users to sort, save and display their own selected objects from the repository.

Equally important, in rolling out this set of tools, *The Quilt Index* Task Force and Editorial Board will work with MSU digital library developers to establish protocols and build systems for publishing and presentation capacity from digital repository. Open source modules will be developed to allow point-and-click creation of new educational and research materials based on the expanded content of the Index. Thirty quilt experts and educators in related fields have agreed to work with the contents of the Index to create multimedia resources such as online exhibitions, illustrated essays, lesson plans, and time-based presentations such as slide shows that will significantly enhance the value of the material in the repository and demonstrate to other potential contributors how to access and use the repository in creative ways.

C. Establish infrastructure and capacity for public object submissions: In keeping with serving a lay public as well as teachers and scholars, this project will develop capacity for individuals to submit digital objects. For example, someone may sit down with his or her grandmother, and document her quilts and submit them online. The Editorial Board and Task Force will establish a submission workflow and vetted acceptance process to ensure quality control of public contributions. Such a system bridges the social and democratic power of public websites such as YouTube and MySpace with the curated presentation, contextualization, and quality that museums and libraries provide.

Easy to use, online ingestion forms will allow users to describe and directly upload digital files into the MATRIX digital repository where they will be reviewed before release. We will supply contributors with guidance and best practices for digitizing and cataloging their contributions to the Quilt Index. Like the content experts who are creating complex objects with additional materials in the digital repository, public contributors will have the ability to combine or associate digital objects to their contributions using the tools being developed in B and D.

D. Build social networking capacity and training and user guides: Based on our evaluation results, we are developing a multi-layered strategy for building user capacity. These include developing 1) user guides, 2) training modules, multi-media materials and workshops; 3) modeling project uses; 4) presentations at target conferences that include a kind of “how-to” component to demonstrate how to use the tools for working with objects in the Index; and 5) collaborator training.

To enhance the large and growing user base of *The Quilt Index*, a capacity for group commentary will be developed on the site. Users may register and participate by making commentary on a topic or develop lists,

topics and groups. To enhance the large and growing user base of *The Quilt Index*, a capacity for social networking will be developed on the site. The online world has provided space for people to gain unprecedented access to information but has at the same time limited the ability of users to contribute to that knowledge base. Blogs, chatrooms, Wikis, portals, and new social networking tools (e.g. Facebook and Myspace) have empowered users to contribute to the wealth of online information and fostered the growth of communities of interests. The success of social networking tools is based on this ability of users to contribute their own information to a topic area, ease of use, and the ability of users to access the thinking of other users with similar interests. It is this ability to create user-generated context around traditional repository materials and to support a multitude of perspectives about these topics that makes social networks a powerful application and will work to strengthen the already vibrant network formed by the quilt community.

The social networking capacity will include tools that allow users to create content, gather resources, participate in community-wide discussions, and form interest networks with others in the communities. Users may register and participate by creating their own user space. Users can define their profile and interests as well as add “friends,” affiliations, and groups. They can gather and share objects not only from within this project, but from repositories and resources across the Internet. They will be able to store and share their own digital materials as well as publish their thinking on specific issues with a personal blog. Users with similar interests can form groups, and the groups will have the same features as individuals. Both groups and individuals will be able to post news and events and share information across the system.

The integrated social networking system will have a core set of community-maintained, quilt-based subject headings that will act as a kind of social tagging system. This system will be designed with close reference to current projects on social tagging, particularly discussions of the STEVE Museum project, to which several QI staff subscribe. Our system will start as a set of core subjects for describing quilts and quilt-related issues. From that initial set, members can add subject headings to the core list while describing a quilt or quilter or create specialized lists of headings for particular quilting interests. Groups therefore can develop highly specialized topics for particular subject areas that can be utilized by their members, but ignored by those not interested. This will create some standardization when describing quilt-related resources, yet will also be organic and give quilters the ability to add terms to the list.

The tagging of digital objects from the repository, as well as the information generated through blogs and groups discussions, will add specific grass roots value to the objects in *The Quilt Index*. It will work to provide additional context and diverse opinions about an object that certainly cannot be replicated in traditional cataloging metadata. This rich set of data created by users will provide an additional layer of metadata for finding aids. The social networking capacity also will include a Wiki for documentation. The Wiki documentation projects will harness the commitment, knowledge, and grassroots spirit of the quilt research community into a public listing and sharing space for groups doing quilt documentation. The Wiki will allow members of the community to define quilt-related terms, people, or issues over time. Terms can be approached from multiple perspectives, and this will become a valuable resource to the larger quilt community.

Program Evaluation:

Quilt Index staff members, including project evaluator Steve Cohen, have been trained in Outcome Based Evaluation by IMLS. The evaluation will be connected to the specific goals outlined in the project design section. The overall goal is to increase capacity and utility of the QI for target audiences. The target audiences are: museum and library institutions holding quilt related materials, digital library colleagues, quilt researchers, and teachers and scholars. We expect to see behavioral changes in these audiences based on the new tools and advancements produced by this project. For each of these audiences, we will use operationalized metrics to compare results to milestones. For example, our first goal is to increase capacity and utility of the QI for museums and library institutions holding quilt-related material. Our prior evaluation suggests that increase in

utility means universal accommodation of metadata for quilt collections regardless of metadata structure. Our goal, then, is to be able to accommodate 100% of all institutional collections. As part of the project evaluation, we will sample from the range of museums and institutions, encourage contributions, and tune the system to achieve universal accommodation (i.e., regardless of metadata, all quilts can be included). This type of metric-based outcome assessment can be done with all our goals and audiences. In addition, the most ambitious aim of this project is to increase use of material culture objects from the Index in mainstream fields outside of our core audiences. Working with the professional contributors outlined below, we aim to reach into mainstream fields not normally associated with quilts or quilting. Our goal is to integrate the historic quilts from *The Quilt Index* into one traditional introductory American History curriculum at the high school or college level. (Effective integration will be defined as at least two lectures and one graded assignment worth 5% of the total grade.) As part of the goal, we will publish a paper in a learning journal on the benefits of working both with quilts as historical data and *The Quilt Index*. Cohen will work closely with project staff, contributors and consultants to establish some additional ambitious but measurable benchmarks at the outset of the project and to measure them over the course of the grant period.

4. Project Resources: Budget, Personnel, and Management

This project includes an experienced team of collaborators and a growing base of institutional contributors and professional users of the resources. Communication and management for the project includes weekly telephone conference calls of principal project staff, email and telephone training and assistance with contributors and consultants, in-person planning and training meetings scheduled around major field and organizational meetings, and internal listserv communication for the Task Force and Editorial Board and for the staff at contributing institutions. Project staff at MSU and The Alliance work collaboratively on decision-making for the project, basing decisions on broad feedback from our community of stake-holders.

Principal Investigators: *Mark Lawrence Kornbluh* and *Marsha MacDowell* are PIs for this project. *Kornbluh*, Director of MATRIX and Professor and Chairperson of History at MSU, is a historian of 20th century U.S. He is an expert in delivering online humanities materials and directs several major humanities preservation and presentation initiatives. He and his staff will ensure that project developments follow national and international standards. He has served on several national standards boards including the Best Practices in Humanities Digitization Advisory Board for the National Initiative for a Networked Cultural Heritage (NINCH), the National Research Council committee advising the National Archives on long-term digital preservation, the scholars advisory committee for the Digital Library Federation, and the steering committee for the national summit of digital humanities centers. *MacDowell* is Curator of Folk Arts at the MSU Museum and Professor of Art and Art History. MacDowell has published extensively on American material culture (with an emphasis on Michigan, Native American, and African-American quilting traditions); curated numerous regional and national exhibitions; and served as principal investigator on over 200 grants. MacDowell directs the activities of the Great Lakes Quilt Center at MSU Museum, is a founding board member of The Alliance for American Quilts, and is former president of American Quilt Study Group.

Justine Richardson and *Mary Worrall* serve as **project managers** for MATRIX and MSU Museum respectively. Richardson is an Educational Media Specialist at MATRIX. With a background in Art History, American Studies, and Humanities Computing, she has written on gender and technology issues, and on the development and coordination of distributed and collaborative online arts and humanities projects. Worrall is an Assistant Curator of Folk Arts at the MSU Museum and has a background in Art History and Public History. She specializes in textile history and also is a quilt maker. Both have written and presented on *The Quilt Index*.

Other MSU Staff: *MATRIX:* Michael Fegan (Chief Technical Officer) has developed some of Matrix's most successful online projects; he is one of the key architects of the MATRIX online digital repository application and will coordinate construction of the Index expansion and tools development. Catherine Foley (Librarian)

assists in developing digital research projects including documenting metadata standards and managing internal production. MATRIX's Dean Rehberger (Associate Director and Operations Manager), Dennis Boone (Systems Administrator), and Scott Pennington (Head of Digitizing) also will contribute to the project, as will the following *MSU Museum* staff: Lynne Swanson (Collections Manager for Cultural Collections), Elizabeth Donaldson (Digital Collections Assistant) and Pearl Wong (Collections Coordinator, Multimedia Collections).

The Alliance for American Quilts: The Alliance will coordinate the subcontracting to the contributors and commissioned writers, participate in evaluation and dissemination through the quilt field, and communicate and disseminate project reports, publicity, and program results as they develop. This is an essential role for making sure the new activities fulfill the needs of the quilt community and the public. Amy Milne, Executive Director, will oversee this project, with her administrative assistant and The Alliance's *Quilt Index Task Force*.

Contributors of Ephemera Collections: Mary Evelyn Sorrell, Assistant Director of *Winedale, Center for American History, University of Texas at Austin*, and Maria Ann Conelli, Director of *The American Folk Art Museum*, will project manage and oversee digitization staff and volunteers as part of their staff duties. Merikay Waldvogel's and Wilene Smith's significant private collections will be included, as well.

Curatorial and Authorial Contributors: Experienced professional consultants from a wide range of disciplines will use *The Quilt Index* in their own research and teaching and in developing lesson plans, curated galleries and/or essays based on the quilt objects in the QI and new ephemera, oral histories, and photographs that will be added to it during this project. These new resources will demonstrate to other users of the site the exciting potential of the new tools to surround quilts with related materials, exposing both new meanings and new research questions. Twenty-four confirmed participants have agreed to work with the objects in the QI to add value, context, and meaning to the repository for multiple audiences. These include: eight MSU faculty members from History, Women, Gender & Social Justice, English, Labor and Industrial Relations, Teacher Education, Theater, Apparel & Textile Design, American Indian Studies, and Writing, Rhetoric & American Cultures Departments; eight distinguished scholars and teachers, museum curators, and independent researchers and writers who are current and former board members of The Alliance; plus eight other scholars, educators, and artists. (See List of Key Project Staff and Consultants and résumés.)

Current Contributors: Current *Quilt Index* contributors have an ongoing commitment to managing their contributed collections online; also, each has agreed to contribute at least three online exhibits, galleries, or lesson plans with quilt objects that they have contributed to *The Quilt Index*. (See full list of current contributors at: <http://www.quiltindex.org/collections.php>.)

5. Dissemination

The Quilt Index already enjoys a wide following in response to the pilot website and documentation materials that have been produced and made available. Currently, the resources section of the website is being expanded to make available documentation of the project; the availability of these resources will also increase the number of users. In the proposed project, a new section of the website will be opened to allow teacher, student, and lay users to search for essays, lesson plans and exhibit galleries by topic, author, and grade-level appropriateness. Workshops and presentation sessions at a wide range of professional conferences and symposia will promote the new resources and the new tools for accessing the collection. Project staff and library and museum contributors already have presented the project at conferences including the annual meetings of the American Historical Association, American Association of Museums, Michigan Museums Association, Museums and the Web, American Studies Association, American Quilt Study Group, American Folklore Society, and a special conference at the International Quilt Study Center. We expect that the new material will be presented at conferences representing even more diverse disciplines and user groups. Based on evaluation evidence, we also intend to refocus these presentations on demonstrating and modeling *Quilt Index* uses.

We will work with our large group of contributors and consultants from across the country to further disseminate the project. The project has an internal listserv for communication, which includes representatives from each contributing institution (currently numbering 23). Information about the Index will continue to be available through each contributor's networks and publications. Press releases about the Index are distributed to a variety of related publications. The new essays, galleries and lesson plans developed through this project will appeal to users from a variety of fields. We will continue to utilize several topical listservs for dissemination and evaluation of the project, including H-Quilts, a part of H-Net, which reaches over 400 professionals. Project staff members have used H-Quilts and QHL (Quilt History List) to gain response from the field about metadata for its databases, user issues, potential new contributors, and current and potential uses for the online materials.

6. Sustainability

The Quilt Index has demonstrated that it can bring significant change in the way information about individual objects is accessed and shared by museums and libraries across the country. The digital collection and repository tools expansion proposed here will accelerate this transformation by greatly increasing the depth and scope of available materials and the ways people can access and use the materials in the digital collection. Developed directly from our needs assessments and evaluation activities, these advances will provide working models for how to integrate diverse materials in a thematic digital repository and how to make those materials more useful to a wide range of users. Our experience and evaluation results have taught us that the development of multiple object-types and field-specific tools for utilizing digital collections needs to be built into the process of assembling digital collections. The new suite of tools will be part of a systemic shift towards building the usability and educational value of the site while continuing to significantly expand the digital collections.

As a model for such thematic-based collaboration, this work also has the potential to assist organizations that focus on other object-type specific materials. The web-based, contributor-specific management system enables contributors to sustain existing collections through a process of technological transformation: their collections are digitally preserved, their staff skills are improved, and their institutional horizons expanded because they are sharing their resources safely with a vast audience through a permanent digital archive. Contributing institutions have the ongoing incentive to manage their records. Many are following the lead of the New England Quilt Museum in planning to use *The Quilt Index* as their collection management system. Contributors retain copyright to any materials they contribute to the QI. Contributors agree to grant the project an irrevocable, non-exclusive, worldwide, royalty-free license for educational use online through *The Quilt Index*.

Staff and planners have considered issues of sustainability and continual enhancement of content, technology, and user features from the outset of the project. *The Quilt Index* is built upon an innovative, standards-based, and field-leading digital library at MATRIX, developed through a major NSF National Digital Libraries II grant and supported by institutional commitment from Michigan State University. The repository and this Index will be migrated to new technologies through MATRIX's long-term preservation and access plan for its digital libraries. Michigan State University is committed to maintaining *The Quilt Index* and its related applications in perpetuity. The QI Task Force and the QI Editorial Board will provide ongoing consultation to guide and assist in development and enhancement actions. Ongoing publicity efforts and monitoring of project feedback will ensure the vitality of the Index, as well as its use by scholars, teachers, and a broad public audience.

In 2006, as part of the institutionalization of *The Quilt Index* supported by IMLS funding, the two project partners, MSU and The Alliance for American Quilts, formalized a long-term letter of understanding outlining roles and commitments. The Editorial Board, now in formation, will act as an ongoing editorial body for the incoming content to *The Quilt Index*, advising on standards in the field and adjudicating future contributions.