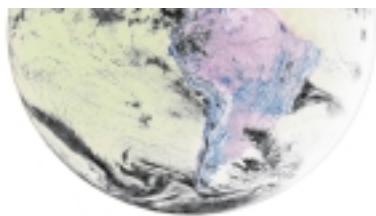


MERCANTILE LIBRARY — FOUNDED 1846



A Search for New Stories



Education & Academia

APPLICATION DESCRIPTION

The “Native People, Natural Land” project will create a digital archive of interactive K-12 teaching material from the rich historical and artistic collections of the St. Louis Mercantile Library (founded 1846). An on-line exhibition and educational website makes selected works available to students and their teachers, enabling them to draw on the archive to create their own multi-media explorations of the American Westward Expansion.

In 2004, the United States will celebrate the bicentennial of the Lewis and Clark Expedition, an event that changed the course of North American history. Many Americans will commemorate this incredible journey that documented the native people, resources, natural history and the great beauty that became our nation.

The University of Missouri-St. Louis College of Education’s project, Native People, Natural Land is designed to increase understanding of the impact of that historic event on America and the world. The goal of this project is to expand and enrich learning about the interrelationship of Native Americans, natural lands, and American westward expansion. This is being accomplished via new technologies that will preserve and provide new accessibility to the historically and artistically significant collections of the Saint Louis Mercantile Library at the University of Missouri-St. Louis, the oldest library west of the Mississippi, founded in 1846.

Only on rare occasions do opportunities arise to unveil significant artistic and historical treasures that have long been virtually unknown or inaccessible to the broader public. Because it was a private, membership-based library for 152 years prior to moving to the University of Mis-

A DIGITAL ARCHIVE OF INTERACTIVE K-12 TEACHING MATERIAL MAKES RARE ONE OF A KIND DOCUMENTS AND ARTIFACTS ABOUT NATIVE AMERICAN PEOPLE AND WESTWARD EXPANSION AVAILABLE TO STUDENTS WORLD-WIDE. [CWH2001279]

souri-St. Louis in 1998, the Mercantile Library’s collections have remained virtually untapped as resources for K-12 education, and were scarcely represented in existing educational materials available to teachers, students and the broader public.

Before the city opened its art museum at the 1904 World’s Fair (Louisiana Purchase Exposition), the Saint Louis Mercantile Library possessed the finest art collection in the city, much of it reflecting American frontier experiences of the 19th century. Among its collections are original hand-colored Audubon folios of Birds and Mammals of North America, priceless Ledger Drawings of Native American chiefs, early maps, woodcuts, engravings, oil paintings, and marble sculptures. Thousands of rare photographs document the impact of riverboats and railroads on the explosive growth of the 19th century. Other one-of-a-kind documents include original journal entries and diaries of Native Americans in captivity.

The project creates a virtual learning site filled with collections of artifacts and images accompanied by interdisciplinary, interactive content. Specific collections from the Mercantile Library will be digitized and stored in a searchable, indexed, digital archive. Supporting materials will also be catalogued and stored, and may include audio/video components, links to research, related images or historical texts.

From within the online exhibition, visitors click on icons for more information about the art, history, or geography contexts of an image. Teams of practicing teachers, under the guidance of college faculty, will develop inquiry-based curricu-

lum for the site with questions and activities that encourage students to explore, research and submit their own interpretations of the materials in the exhibition.

By design, an archive will support the creation of new exhibits. After teachers and learners have explored, expanded their understanding and sharpened their opinions about the historical events, they will be encouraged and supported to draw from the digital archive, and create their own exhibits.

Objectives of this project include:

* Increase effective interdisciplinary learning opportunities for K-12 students.

- Provide a replicable national model for effective use of educational technologies.
- Provide hands-on learning for college education students increasing inquiry-based learning curricula using web technologies
- Engender students with a capacity for critical thinking and contextual analysis in their learning.
- Provide teachers with professional development in designing and creating interdisciplinary curricula using interactive, instructional technologies in accordance with Education Secretary Riley’s appeal to appropriate funding for a new Teacher Training in Technology initiative.
- Conserve and provide public access to rare books and other historic American artworks and treasures.

BENEFITS

Has your project helped those it was designed to help?

Practicing teachers engaged in hands-on curriculum development will use interactive, web-based technologies. The guides to be set up allow teachers to produce lessons with materials that were pre-

viously unavailable. These lessons will give a clearer picture of Native Americans and of the importance of the Lewis and Clark expedition. The lessons are published online, and are thus available to any teacher who has access to the Internet.

In your opinion, how has it affected them?

Native People, Natural Land: Art of American Westward Expansion will open up new creative avenues for teachers in using technology to increase K-12 student involvement and learning. The collection of an organized set of artifacts for teachers to use in creating lessons is very helpful. The guides for creating lessons and the posting of lessons on the Internet means that a teacher has at her fingertips tools that were previously difficult to find and use.

What new advantage or opportunity does your project provide to people?

Native People, Natural Lands represents a unique opportunity to bring rare books, works of art and documents of significant artistic and historical value to elementary and secondary school teachers and their students. The project uses documents, artwork and artifacts that for more than 150 years have been available primarily to scholars and researchers. The project will:

- Conserve and provide new public access to rare books and other historic American artworks and treasures.
- Provide practicing teachers with opportunities to learn how interactive learning technologies are used to engage elementary and middle school students in effective learning experiences.

Has your project fundamentally changed how tasks are performed?

Teachers are beginning to use the Internet in their teaching. Native People, Natural Land: Art of American Westward Expansion allows teachers to electronically use artifacts that were previously unavailable to them. The students also use these materials in learning about Native Americans and the expansion of the west.

In your opinion, have you developed a technology that may lead to new ways of communicating or processing information?

The technology used is common and unique. The information is accessible through the Internet—a commonly used technology. The unique portion of the project comes from the use of the software, DocuShare. This collection software allows teachers and students to easily find and use the digital artifact in the Mercantile Library.

How might that change unfold?

The project will allow students and teachers to be involved in learning any place and any time. The collection of materials that was previously available by appointment at the library by “qualified” persons is now available to every teacher and child who has access to the Internet. The power of the Mercantile collection will become useful to teachers as they understand the power of the Internet and as staff development programs assist them in using the tools.

IMPORTANCE

How quickly has your targeted audience of users embraced your innovation? Or, how rapidly do you predict they will?

The teachers in the regional area will have workshops on Native People, Natural Land: Art of American Westward Expansion. We anticipate that use of this site will build slowly through these workshops and thorough presentations at conferences and in publications. We also anticipate that the use will increase exponentially with the growing interest in the Lewis and Clark celebrations in 2004. We are preparing technically to handle the intense interest for these previously unavailable resources.

Does your work define new challenges for society? If so, please describe what you believe they may be.

A challenge exists of integrating technologies to engage teachers and students in content and effectively increase student learning. Native People, Natural Land: Art of American Westward Expansion places content and a strategy for integrating the content on the web. The project will enable teachers and students to integrate technology into learning. Being on the web means that learning can occur outside the classroom walls.

ORIGINALITY

What are the exceptional aspects of your project?

Project uses new technologies to unveil previously inaccessible historical materials that will be used to provide K-12 student learning. Provides a venue for these students to contribute their interpretations of the events and effects of our country's Westward expansion that will add to the public body of knowledge. The on-line “repository” represents new public access to rare artifacts, documents and new interpretations of our nation's art, culture, and natural history.

Is it original? How? Is it the first, the only, the best or the most effective application of its kind?

Native People, Natural Land: Art of American Westward Expansion is unique in that rare documents are digitized and made available using interactive, web-based technologies specifically to serve as the basis for elementary and secondary student learning curriculum.

The following works have been initially identified for inclusion in the site:

Native People

- “Thomas McKinney and Louis Hall's documentary portfolio of hand-colored engravings titled The Indian Gallery, dating from the mid-1830s. This groundbreaking volume preceded other documentary folios depicting Native Americans. Several artists are represented in this portfolio, including Charles Bird King, well-known for his Native American portraits
- Karl Bodmer's detailed, naturalistic hand-colored engraving illustrating Travels in the interior of North America, by Maximilian of Wied, 1839-41.
- George Catlin's colorful North American Indian Portfolio, which includes exciting scenes of hunting buffalo, taming wild horses, and ceremonial dances. Hand-colored engravings, 1840-41.
- Alexander Gardner's Scenes of the Indian Country, a photographic portfolio dating from the 1860s.
- Charles Deas's suite of portraits, Four Winnebago Leaders, oil on canvas, ca. 1842. As none of these paintings is signed or dated, the story of their attribution makes for an interesting “art detective” story.
- Battle of Little Shield, War Chief of the Arapaho, 1860s. This set of “ledger drawings” is one of the rarest and most valuable items in the collections.
- Theodore Kaufmann's Westward the Star of Empire, ca. 1838. This dramatic oil painting depicts a Plains Indian war party conspiring the dark of night to derail an oncoming train.

Natural Land

* Alexander Gardner's Across the Plains on the Kansas & Pacific Railroad, a photographic portfolio dating from the 1860s

- John James Audubon's celebrated, Birds of America (1828-36) and Viviparous Quadrupeds of North America (1845-48); hand-colored engravings. The Mercantile Library's copy of the double elephant folio, first printing of Audubon's Birds of America was acquired in 1858 from

Audubon's family by marriage for the original subscription price of \$1000.

- The Grapes of California, a large-format portfolio of botanical illustrations; hand-colored engraving, 1872
- Thomas Houseworth's Views of Yosemite Valley, a large format photographic portfolio which captured the pristine beauty of this site as it was in 1869

Supporting materials will also be catalogued and stored, and may include audio/video components.

How did your project evolve? What is its background?

After 152 years, the formerly private, membership-based Mercantile library became a part of the University of Missouri-St. Louis in 1998, bringing greater public access to its outstanding, historically significant collections. From woodcuts and early engravings depicting the culture of the early westward expansion of the nation, to photographs of the West during its explosive growth in the late 19th century, to railroads and river boats across the nation — the library's collection has served the research needs of countless researchers and authors.

A year later, Dr. Louis Lankford, E. Desmond Lee Endowed Professor for Art Education, became interested in using the Library's rare artwork and holdings for elementary and secondary art education. He enlisted a collaborative partnership with Dr. Carl Hoagland, the Emerson Electric Endowed Professorship in Technology and Learning and John Hoover, curator of the Mercantile Library. The Xerox Corporation generously supplied seed money for the project. Initial website development began as has research into specific documents and artifacts will be digitized from the library's holdings. Curriculum development is slated to begin in the winter 2001 semester.

The collaboration for this project includes:

- * Project Leaders
- Instructional Designers
- Graphic Designers
- Master Teachers
- Content Consultants
- Technical consultants
- Production staff

The College of Education at the University of Missouri-St. Louis, the largest producer of educators in Missouri, is fully accredited by the National Council for Accreditation of Teacher Education (NCATE), and committed to innovative and technologically advanced forms of education for K-12 learning. New facilities and school/community partnerships

have been established to make the College a leader in collaboration (Peabody Journal), educational materials development, and teaching, including a state-of-the-art Technology and Learning Center.

In addition, the College of Education has established ties with the community, including creation of an Education Park to assist in linkages among regional school districts, resource centers, and state educational assessment support. Notable, too, are formal collaborations between the University and local institutions, promoting significant opportunities in interdisciplinary learning. An unprecedented 12 Endowed Professorships formally link the School of Education with the Saint Louis Art Museum, Saint Louis Symphony and Opera Theater, and St. Louis Science Center, youth service agencies, and the St. Louis City School District. The Department of Art and Art History at the University employs full time regular faculty dedicated to working with computer-mediated art, and the Fine Arts Building houses two advanced imaging computer labs.

SUCCESS

Has your project achieved or exceeded its goals?

The project will have achieved its goals when teachers and students from all parts of the United States regularly use the Mercantile collection for learning. The project should have achieved this goal during the celebration of the 200th anniversary of the Lewis and Clark expedition in 2004.

Is it fully operational?

The website is nearly developed for deployment to teachers and students. The DocuShare software is in place and images are being stored in the collection. A fully operational site will be available in the summer of 2001.

How many people benefit from it? If possible, include an example of how the project has benefited a specific individual, enterprise or organization. Please include personal quotes from individuals who have directly benefited from your work. Describe future plans for the project.

The teachers will begin benefiting from the project in 2001. Teachers who have assisted in setting up the project have strongly supported putting the valuable resources online.

DIFFICULTY

What were the most important obstacles that had to be overcome in order for your work to be successful? Technical problems? Resources? Expertise? Organizational problems?

The most difficult obstacles to overcome have been the lack of resources. Two \$20,000 grants and approximately \$50,000 of University of Missouri resources have been used to develop the project. These resources have been used for the development of the website and the software. The Xerox Corporation and the staff at the E. Desmond Lee Technology and Learning Center have given technical assistance.

Often the most innovative projects encounter the greatest resistance when they are originally proposed. If you had to fight for approval and/or funding, it would be useful to include a summary of the objections you faced and how you overcame them.

The barriers have centered on an understanding of how DocuShare (the collection software) will be used in the project. This software provides the foundation for a digital library. Educators do not commonly use digital libraries. Convincing funders that teachers will use precious artifacts stored in a digital library has been difficult.

CHALLENGES

Staff development of teachers online is a monumental challenge. A portion of the problem is being solved because more activities are offered online. A partial solution to this problem is the adoption of WebQuests - a common online, inquiry based learning format.