Introduction

The Columbia River Basin Ethnic History Archive (CRBEHA) project received an Institute for Museum and Library Services (IMLS) leadership grant in September 2001. The grant was titled: Engaging the Public with Digital Primary Sources: A Tri-State Online History Database and Learning Center. The institutions involved in the project were Washington State University Vancouver, Washington State University in Pullman, the Oregon Historical Society (OHS) in Portland, the Washington State Historical Society (WSHS) in Olympia, and the Idaho State Historical Society ISHS) in Boise.

The project's goal was to identify, digitize, and describe library and museum collections concerning non-Native American ethnic groups of the Columbia River Basin, and to stimulate public use of and discussion of those sources. The collaborative project developed a digital archive that highlights the hidden ethnic histories of the region, provides tutorials on how to research and interpret library and museum collections, and encourages public discussion of critical historical and contemporary issues concerning ethnic history. Although many institutions have embraced digital archives to make their collections more accessible, few have joined in multi-state efforts to combine resources concerning a specific topic to explore the medium's teaching potential. This is the first of a series of projects envisioned by these collaborating partners in the Pacific Northwest.

Along with the digital archive, the CRBEHA web site includes a tutorial module and a discussion board module (CRBEHA web site, available at: www.vancouver.wsu.edu/crbeha/). The tutorials provide the web site's users the tools necessary to become their own historians and encourage more sophisticated use and analysis of library and museum collections. Using the archive as the “research focus”, the tutorials include junior high and high-school level lesson plans, articles written by project historians about how to analyze documents, oral history interviews, photographs and artifacts, and illustrations by project librarians on how to search the CRBEHA database and a library's history database. The discussion module is a moderated threaded discussion board that links historical research to contemporary issues about Columbia River Basin ethnic groups.

Collaboration

The IMLS award was in a category called “library museum collaboration”, therefore the actual work of collaboration was an important process for the CRBEHA partners to study. What actually is the definition of collaboration? Michael Scharge (1995), in No More Teams! Mastering the Dynamics of Creative Collaboration states that:
... collaboration is the process of shared creation: two or more individuals with complimentary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own.

Scharge also makes the point that “the linguistic root of communication is the Latin verb *communicare* – which does not mean “to communicate” but “to share”. The CRBEHA partners and project directors discussed the meaning of collaboration at our earliest face-to-face meetings as we wrote the IMLS grant proposal. Our core understanding of “collaboration” for the CRBEHA project was that each partner and project director, as institutional representatives and as professionals, had specific reasons why we wanted to participate in the project and goals we wished to attain through the project.

It was very important in the CRBEHA collaboration that everyone's goals were understood to be of equal importance. The Oregon Historical Society was developing new emphases on partnerships, wanted to make their collections more visible, needed to digitize more of its collections, and was increasing its educational activities. The Washington State Historical Society hoped to demonstrate the educational potential of digital archives. The Idaho State Historical Society wanted to share its collections with a broader public and hoped to learn more technical skills in the process. The Washington State University Libraries Manuscripts, Archives, and Special Collections department wished to continue to expand its online collections. Laurie Mercier, co-project director and history professor at WSU Vancouver, wanted to create a learning space where primary sources were accessible along with background materials and tutorials to help people learn to do good history research. Leslie Wykoff, co-project director and library and information technology director at WSU Vancouver, wanted WSU Vancouver to become a recognized archival site for southwest Washington historical materials. Throughout work on the CRBEHA two-year project, meetings (conference calls and videoconferencing) were held to brief partners on project progress, and to check in the collaborative effort. MaryAnn Campbell at OHS, Linda Morton-Keithly and Jody Ochoa at ISHS, and Gary Schalliol at the WSHS and their staffs participated in the original IMLS proposal design, nominated collections for inclusion in the CRBEHA archive, and organized their organizations’ spaces and staff to work with the traveling project team.

The IMLS grant allowed the co-project directors to hire staff and also to use specified Washington State University colleagues for the project. Robert Schimelpfening, CRBEHA Research Associate, is a doctoral student in religion with interests in history and librarianship. Mario Compean, Research Coordinator, is a doctoral student in American History with a specialty in Pacific Northwest ethnic history. Jeannette Altman, Principal Artist/Designer, is interested in turning very technically complex online projects into beautiful web sites. These staff members carried out the daily work of the project from selecting and digitizing materials to populating the database, from adding the metadata and writing tutorials to adding watermarks, from designing the web site to writing partner reports and lesson plans. The project was kept on track by meeting minutes and grant administration provided by Jane Sanders at Washington State University Vancouver.
Other Washington State University faculty members provided their expertise to the project team as in kind contributions to the grant. Nicole Campbell, reference librarian at WSU Vancouver, conducted CRBEHA web site usability focus groups for local ethnic group members, senior citizens, and teachers. Rick Sawyer, professor of education at WSU Vancouver with an interest in qualitative research, conducted the project's evaluations. Trevor Bond, the Special Collections Librarian in Manuscripts, Archives, and Special Collections, and Al Cornish, Systems Librarian, both at the Washington State University Libraries in Pullman, provided essential technical expertise and support, materials for the CRBEHA collections, and access to the CONTENTdm software and server.

The project directors extended the invitation to collaborate to all members of the CRBEHA project team and faculty colleagues. All the project's team members shared the professional goals each of us hoped to achieve by working on the project. There was a distinct climate of mutual respect for one another's goals among all the team members. One team member said to the project evaluator that project team members and partners were “flexible and cooperative. It felt a little like heading off into a mysterious place, like there was some risk, but everyone seemed rather up for the game”.

Much collaborative work between the partners and the project team occurred in the fall and winter of 2001-2002 when both the material selection process and the metadata field names were determined. During this time, following the guidelines for nominating materials for scanning from the Handbook for Digital Projects (Sitts, 2000) the museum partners agreed to provide general inventories of their Columbia River Basin ethnic group holdings, noting specific collection strengths. The inventories were shared at a partners’ meeting where the ethnic groups that were strongest in terms of both variety of material and depth of collection between all the museums were nominated for inclusion in the archive. Once the specific ethnic group collections were nominated, a timeline for museum visits by CRBEHA project staff was established. Robert Schimelpfenig and Mario Compean, the traveling scanning and metadata crew, selected materials from the each of the nominated collections at the partner museums. Another important collaboration was determining the metadata scheme. CONTENTdm uses the Dublin Core standard for the metadata. The WSU Vancouver project team members worked closely with the WSU Pullman project partners to draft a proposal on metadata field names for a multi-institutional, multi-material type digital archive for all CRBEHA partners to consider. The scheme was unanimously approved by all partners.

Throughout the CRBEHA project careful attention was paid to the collaborative process. Using Scharge's definition of collaboration being a “process of shared creation”, collaboration for CRBEHA meant that each member of the project team, including the project partners, were all on the management team. All talents, all conceptualizations, all contributions were important for the project's development. Meeting minutes became critical for recalling our decisions since there was such a complexity of inter-related professional interests involved. This collaboration was not always easy because all of us are independent-minded academics, librarians, administrators, artists, philosophers, and historians. The CRBEHA project goals as outlined in the IMLS proposal were very useful
in helping to focus our efforts. And, as collaboration thinkers might expect, each of us, with our individual intensely-held professional goals, was simply compelled to create our vision of an outstanding online ethnic history archive and learning resource.

**Technical aspects**

The OCLC/DiMeMa CONTENTdm multimedia software suite is used to support object and metadata management for the CRBEHA project. CONTENTdm supports the decentralized development and central housing of collection data, both of which matched well to the needs of this project. Importantly, the CONTENTdm toolset has been successfully used in several multi-institutional projects, including the Mountain West Digital Library (Arlitsch and Zick, 2002) and in Louisiana Library Network (LOUIS) member projects. To support collection building, the CONTENTdm Acquisition Station client software package was loaded onto a workstation at the WSU Vancouver Library. A CONTENTdm collection was created for each participating institution. At the central server located at Washington State University in Pullman, institutional collections (e.g. Oregon Historical Society, Idaho Historical Society) were created and populated with objects and metadata. Manuscripts, Archives, and Special Collections (MASC) at WSU in Pullman also contributed two existing CONTENTdm collections to the project.

To scan items selected for the project and to collect metadata, the traveling scanning and metadata team visited each of the participating institutions. During these visits to the Oregon, Washington, and Idaho Historical Societies, the team scanned objects with a Microtek 9600XL ScanMaker or employed a Nikon D1x Camera to photograph materials. The descriptive metadata was entered on site into a Microsoft Excel file on a Dell Latitude Lap top. Using the Acquisition Station software, this Excel file (as a tab-delimited output) and the digitized object files were imported into CONTENTdm using its batch import capability. Collection objects and metadata were then transmitted from the Acquisition Station client at WSU Vancouver to the server supporting the project, which is housed at WSU Pullman. By using this model (a mobile scanning and metadata team complete with their own hardware), the project team ensured that collections could be contributed to the CRBEHA project from repositories without an established technical infrastructure. Even though the partners did not actually scan and describe the own collections, a critical component of the success of this methodology was the realization during the planning stages of the proposal that participating institutions would nevertheless be required to devote considerable staff time to establish workspace for the visiting crew and to select and retrieve materials, as well as to answer questions. To alleviate these staffing demands on the already inadequately staffed partners, funds for temporary employees were provided to them in the project's budget.

The CRBEHA search page (www.vancouver.wsu.edu/crbeha/browse.htm) provides an integrated search and retrieval interface for all six project collections (see Figure 1). To enable access to the CONTENTdm collections, project staff used the CONTENTdm Query Builder application to generate search query strings. These query strings or database commands were then embedded into HTML documents that have the same look and feel as other CRBEHA web documents (Bond and Cornish, 2002). So, the user who
enters keywords on the main search page is actually searching across six individual collections. By creating individual institutional collections, participants, such as the Oregon Historical Society, can also link directly to their own collections. This framework will allow for the addition of new collections from future partners.

All of the collections that form the CRBEHA web site are fully integrated in the Digital Collections page hosted by MASC at WSU Pullman. Visitors to the WSU Digital Collections site will find a link to the CRBEHA project under the heading Ethnic History, or can search across all of the collections hosted on the WSU Pullman Server. Topics covered in the CRBEHA site, such as African Americans and other groups, are listed in a drop-down list of pre-defined searches along with topics relating to the other WSU digital collections (see Figure 2).

An important advantage of CONTENTdm is that it supports collection dissemination using the Open Archives Initiative-Protocol for Metadata Harvesting. Using OAI-PMH, metadata for the CONTENTdm collections that make up the CRBEHA project is exposed so that an OAI Service Provider can harvest the metadata and integrate it with collection information from other institutions into a subject repository. The harvested information includes descriptive information and pointers to the original objects (images, streamed sound files) residing on a WSU Libraries server. For the CRBEHA project, metadata has been harvested into several repositories, including the Gateway to Cultural Heritage Materials housed at the University of Illinois. By sharing the descriptive metadata of the CRBEHA project, users searching other sites, such as the Gateway to Cultural Heritage Materials[1], may discover the resources included in the CRBEHA project in addition to similar resources from libraries, museums, and other cultural heritage repositories from around the country. Sharing metadata in this way ensures another layer of back-up by distributing project data off-site. A further benefit for long-term sustainability of the CRBEHA project is the demonstration that all metadata can be successfully migrated to future systems independent of proprietary software (see Figure 3).

In addition to image files, oral history interviews are accessible from the CRBEHA site. To support this, oral history interviews were converted from analog formats and encoded into MP3 files. The digital audio files were then mounted on a Helix Universal Server streaming server, which assigned each audio file a unique URL (Bond, 2004). To catalog the streaming audio files, project staff entered the audio URLs to the appropriate CONTENTdm collection by selecting the import URL feature in CONTENTdm's acquisition station. This process launches a CONTENTdm metadata template so that project staff can add descriptive metadata that describes the audio file. Alan Cornish, Systems Librarian, also entered additional metadata into the Helix Universal Server. This information displays in the RealAudio player as the users listen to an interview. Though users must download and install a RealAudio player, the use of the Helix Universal Server provides significant functionality including the ability for users to listen to and navigate through extremely long interviews without actually downloading the file and the ability to fast forward, pause, and rewind the streaming files using the RealOne Player (RealNetworks Inc., 2002). The Helix Universal Server can also sense the speed of the user's connection and stream the selected file accordingly. Some participants in the
CRBEHA project also liked being able to limit the ability of users to download the streaming files without formally requesting permission to do so.

**Metadata scheme creation**

In January 2002, Trevor Bond, Robert Schimelpfenig, and Leslie Wykoff drafted a data dictionary (or data schema) that outlined the use of the Dublin Core metadata in the project. This basic guide included three elements. The first element listed the field name as displayed in the public interface. The second element showed the corresponding Dublin Core field and included notes indicating whether the field would be searchable and hyperlinked. The third element of the data dictionary contained notes and examples for applying the descriptive information. After a period of review, the project adapted this data template and agreed on the display order of the Dublin Core elements. The metadata scheme was unanimously agreed on by the project's partners.

The Dublin Core identifier field was repeated so that identifiers used by partner institutions that describe the physical objects would be maintained in addition to those identifiers for the digital files. Given the collaborative nature of the project, participants were eager to have clear rights statements and repository information. One somewhat strange choice in the metadata was the treatment of circa dates. CONTENTdm does not elegantly support the searching of date ranges so we adopted a “work around” used by colleagues at the University of Washington. We included a date field that displayed to the public but was non-searchable. To allow for the retrieval of these circa dates, we added a second date field that did not display, but was searchable. For example if someone searched the collections for photographs from 1935, an image listed as ca. 1935 would display since the “hidden”, but searchable date field included a string of dates within a decade of the circa date or 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940. As CONTENTdm continues to develop new features, we will revisit some of the metadata decisions, such as the treatment of circa dates.

For the subject terms, the Thesaurus for Graphic Materials (TGM) published by the Library of Congress served as the base controlled vocabulary (Library of Congress, 1995). In addition to the TGM vocabulary, the project staff created a controlled list of local terms that reflected current usage for describing ethnic groups, e.g. Basque Americans. A link – located just below the keyword search box – is provided that lists all the subject terms used in the project. This list also includes the locally created terms in bold (CRBEHA subject terms, available at: [www.vancouver.wsu.edu/crbeha/subheads.htm](http://www.vancouver.wsu.edu/crbeha/subheads.htm)).

**Engaging database users with the past**

From the outset of planning the project, we sought to make this web site more interactive than scores of digital archives inhabiting the internet. In recent years, many institutions joined the digital age by scanning and posting their collections, but without exploring the pedagogical possibilities of the medium's interactive dynamism. As Carl Smith (1998) noted in the American Historical Association's newsletter, many web sites “seduce the
senses without engaging the mind”. While digitizing collections and making them more accessible through the web has been a laudatory goal, we wanted to push this accessibility further to more deeply engage users with the rich historical sources that the database would highlight. To paraphrase the historian Carl Becker, we wanted to help make “every [person] his/her own historian”. To accomplish this, we created interactive tutorials that lead users through the steps of how to locate library secondary sources and archival primary sources, how to evaluate and interpret primary sources, and how to incorporate and teach library and museum resources in the classroom. By focusing on the ethnic history archive and creating an online discussion board, this process also implements another goal of the IMLS project: to increase public awareness of the region's diverse ethnic groups and their histories.

Users are introduced to the ethnic history of the Columbia River Basin in the historic overviews, which appear for each ethnic group in the “Browse the Archive” section. Combining selected photographs, written materials, oral history interviews, and artifacts from four major regional repositories enabled us to create a significant online database about an important and popular topic. This collaborative effort also allowed us to incorporate new information that the CRBEHA provided in original essays. Bibliographies, which suggest where to find more information and take users to the existing literature about Pacific Northwest ethnic groups, follow each overview. In addition to providing general background information about each ethnic group, the overviews highlight a variety of database items in order to pull the reader into exploring the collection (CRBEHA historical overview, available at: www.vancouver.wsu.edu/crbeha/ja/ja.htm). For example, in the Japanese American section, tantalizing images of a handbill from the Yasui Brothers’ business, a photo of the Japanese baseball club of Nampa, and a letter to the Ed Tanaka family in Pocatello describing the residual postwar hostility towards Japanese Americans returning to their homes in the Puyallup Valley, invite users to click on the image and learn more about the particular source (see Figure 4).

The second major section of the web site, “Tutorials and Lesson Plans”, is designed to deepen user engagement with the digital database. Here, users are introduced to the categories of primary and secondary sources and may select one of six tutorials under “Locating Materials” or “Interpreting Materials”. Under Locating Materials are tutorials on searching the CRBEHA archive, using simple examples of Boolean operators. Also included here is a more complex strategy for searching a Pacific Northwest ethnic history question in the library database America: History and Life.

In tutorials that explain how to interpret written documents, oral history interviews, and photographs, users are encouraged to “read” these sources with a critical eye and consider factors and questions that go beneath the surface appearance. The tutorials attempt to problematize these sources by scrutinizing what and how museums and libraries collect. In researching ethnic history, reports produced by officials and observers outside the cultural group need to be examined in an appropriate context. For example, in the tutorial about interpreting written documents, users are asked to examine WPA and state of Washington reports on African American communities and folkways in Washington
during the late 1930s, and a “Memory Book” produced by a black church in Hanford during the Second World War. After studying the documents, the user returns to the tutorial (www.vancouver.wsu.edu/crbeha/tutorials/int_text.htm) to think about a series of questions that probe the nature of the sources and ask for tentative interpretations and conclusions that might be drawn about African American communities in Washington during this time period (see Figure 5).

In the oral history tutorial, users are guided to examine a series of interviews, both aural and written excerpts, with Mexican Americans of the Snake River Valley of Idaho. Users return to the tutorial (www.vancouver.wsu.edu/crbeha/tutorials/int_oh.htm) to evaluate the differences between oral and written forms of the interviews; to explore the theme of cultural traditions and determine what connections and conclusions, if any, can be made about the origin, importance, and persistence of some of these traditions in various communities; and to interpret the dynamics of the interview as a creation at a particular time and place and with a particular interviewer.

Educators and historians have increasingly recognized the value of using primary sources to teach critical thinking and the ways historical evidence is used in formulating ideas about past events. A series of structured lesson plans for teachers of grades 6-12 address four curriculum topics – the history of African Americans in the Columbia River Basin, immigration and migration, immigration and settlement, and ethnic culture and identity – which model the kinds of lessons that teachers might prepare about a specific ethnic group or more comparative theme. Each lesson plan includes activities that take students directly to CRBEHA primary sources and encourage analysis and interpretation of those sources. For example, in one activity students read and critically analyze two oral history interviews selected by the teacher, and then evaluate the photographs of early African American settlers in the region. Following these activities, students then examine two additional sources of their choosing. This process not only introduces them to new historical content, but also involves them in situating the sources in an appropriate historical context. In addition, each lesson plan relates content and activities to the Essential Learning requirements for social studies curriculum in Oregon, Idaho, and Washington. As a result of a teacher focus group created in the summer of 2003 to evaluate the effectiveness of the web site, one teacher remarked:

I learned what a great resource this site is for me and my students. It reinforced my desire to use more primary documents in the classroom … Something that I get frustrated with [in teaching] is the lack of textbook information about minorities in the Northwest. The books just don't tell their stories … This site allows me to have my students become historians and study the experience of minorities first hand.

Focus group members reported that the site not only allowed students to dig deeper into history, but also gave teachers a meaningful way to introduce discussion about diversity within a classroom.

Finally, the “Discussion Forum” module of the web site is the least realized module to date. We hope this interactive forum will provide teachers, students, and the general
public a place to talk about discoveries made or dilemmas posed by items in the archive. We want to launch stimulating discussions about various aspects of ethnic history, including ethnic identities and race relations, work and labor, immigration and migration, discrimination and civil rights, and family life, religion, and social customs. Ideally, this could be an online humanities program, a place for scholars and the general public to interact and create a community of learners, and a place where members of various ethnic groups might share their stories, information, and recollections. Employing a WSU-developed threaded discussion software program, the forum encourages discussions whereby participants can respond to one another's comments in a hierarchical or layered manner. Because of its accessible format, teachers can and have used the discussion board for encouraging students to post observations and interpretations of the materials they encounter in the digital archive.

Our inability to strengthen the discussion portion of the web site reflects a larger problem for institutions with limited resources to expand the educational possibilities of their digital archives. Initially, we had hoped we could employ graduate students to develop, stimulate use of and moderate the discussions. But a lack of funding and time has stalled this effort for the time being. Nonetheless, we hope that teachers will make use of the site and that special projects may be developed in the future to expand the general public's consideration, analysis, and discussion of ethnic history primary sources and issues. As one museum professional participating in a focus group noted:

The discussion boards will likely evolve as there is more participation. The contributions of users may provide interesting first-person accounts to supplement the prepared histories, thereby enlivening the site with current experiences and attitudes.

All of these educational components of the CRBEHA will stimulate more thoughtful consideration and use of the rich primary resources of the partnering institutions. We hope that by increasing the visibility of these collections and the subjects they illuminate, along with the growing public and school interest in the history and cultures of the peoples of the region, the project will expand collecting, preservation, and educational activities in this area. Moreover, our successful collaboration has motivated all the partners to agree to work again on a project that will combine our resources to illuminate a broad, central topic in regional history that has been “hidden” or underrepresented in the documentary and archival record.

Figure 1 CRBEHA main search page. Search options include keywords and controlled vocabulary searches within ethnic groups, and also searches by museum collection, by date, or by material type
Figure 2 The Washington State University Libraries Digital Collections. Link to the Columbia River Basin Ethnic History Archive. CREBHA is part of the larger WSU digital collection.
Figure 3 A CRBEHA record (“Sample audio clip from an interview … ”) within the UIUC Cultural Heritage Repository, an OAI Service Provider site.
Figure 4 Historical overviews introduce the user to each ethnic group and provide images from and links to specific items in the collection.
The second major module of the CRBEHA web site, the tutorial section, instructs users how to “become a historian”, or how to interpret documents, photographs, oral history interviews, and artifacts.
References


RealNetworks Inc. (2002), RealServer Administration Guide RealServer 8, RealNetworks Inc., Seattle, WA.
