

California Digital Library:

Designing for the User

Missouri Digitization Conference

March 10, 2009

Rachael Hu



CALIFORNIA DIGITAL LIBRARY

California Digital Library (CDL)



- ☐ Established in 1997 by University of California's Office of the President
- ☐ Develops tools and services for 10 UC campus libraries
- ☐ Provides access to both licensed and freely available digital content

Assessment, Design, and Web Production Services

- ☐ Provide user assessments
- ☐ Information architecture and interaction specifications
- ☐ Create and maintain web pages

CDL programs and their interfaces

- ❑ Bibliographic Services
 - (UCeLinks, Melvyl)
- ❑ Digital Preservation
 - (Web at Risk)
- ❑ Digital Special Collections
 - (Online Archive of California, Calisphere)
- ❑ eScholarship Publishing
 - (eScholarship Repository, Mark Twain Project Online)



Build it and they may not come

- ☐ No research done into users needs
- ☐ Audience not clearly defined
- ☐ No clear branding
- ☐ No usability testing
- ☐ No marketing plan



Benefits of user-centered design



- ☐ Online product that will be used
- ☐ Scopes and prioritizes features
- ☐ Help to make design decisions based on user data

Checking in with the user



- ☐ Before- discovery period
- ☐ During- iterative design
- ☐ After- evaluation and marketing

Online Archive of California (OAC)

<http://www.oac.cdlib.org>

- ❑ 9,000 online finding aids/collection guides
- ❑ 200,000 digital items
- ❑ Over 100 contributing institutions from across California
- ❑ Intended primary audience: researchers of all levels



Reasons for OAC redesign

- ☐ Outdated visual design (current look and feel dates back to 2002)
- ☐ Need to improve navigation and overall usability
- ☐ New technologies (for upgrade display features and also backend infrastructure and contributor tools)
- ☐ Inclusion of MARC records
- ☐ Calisphere



<http://www.calisphere.universityofcalifornia.edu>

- ❑ Over 200,000 digitized primary sources
- ❑ From the UC campuses and institutions across California
- ❑ Audience: Serves the general public, and is tailored to meet the needs of K-12 educators



Two audiences, two sites



Online Archive of California

- Archivists
- Historians
- Researchers



- K-12 Teachers
- Lifelong learners
- Undergraduates

Two different goals

OAC is where you go for
finding aids/collection
guides for primary sources

Calisphere is where
you go for digitized
primary sources

Getting our sea legs

- ❑ Literature review
- ❑ Comparative analysis of display features
- ❑ Defining user groups...
 - Reference archivists
 - Expert researcher
 - Novice researcher



Comparative analysis

Northwest Digital Archive (NWDA)

The screenshot shows the NWDA website with a navigation bar at the top containing links: search, about NWDA, participating institutions, tools for members, contact us, and home. The main content area is titled 'Guide to the Rollin H. McKay Photographs 1880-1965' and includes a finding aid prepared by Leo Rhein, Jr. (1994) and Jodi Allison-Bunnell and Ann Sullivan (2004). The Maureen and Mike Mansfield Library logo is prominently displayed. A sidebar on the left lists various sections: Contents, Overview of the Collection, Biographical Note, Content Description, Arrangement, Administrative Information, Custodial History, Acquisition Information, Processing Note, Use of the Collection, Restrictions on Access, Restrictions on Use, Preferred Citation, Subjects, and Detailed Description of the Collection. The main text provides an overview of the collection, including repository information (University of Montana-Missoula), sponsor information (National Historic Publications and Records Commission), and collection information (Mrs. 249).

Bentley, University of Michigan

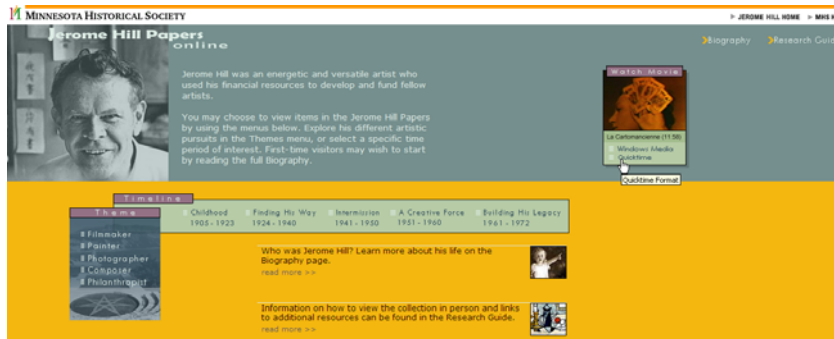
The screenshot shows the Bentley Historical Library website. The navigation bar includes links: Home, Search, Browse, Booking, and Help. The main content area is titled 'Alan E. Abrams Papers 1961-1982, (bulk 1964-1970)' and includes a finding aid prepared by Leo Rhein, Jr. (1994) and Jodi Allison-Bunnell and Ann Sullivan (2004). The Maureen and Mike Mansfield Library logo is prominently displayed. A sidebar on the left lists various sections: Contents, Overview of the Collection, Biographical Note, Content Description, Arrangement, Administrative Information, Custodial History, Acquisition Information, Processing Note, Use of the Collection, Restrictions on Access, Restrictions on Use, Preferred Citation, Subjects, and Detailed Description of the Collection. The main text provides an overview of the collection, including repository information (University of Michigan), sponsor information (National Historic Publications and Records Commission), and collection information (Mrs. 249).

Rocky Mountain Online Archive (RMOA)

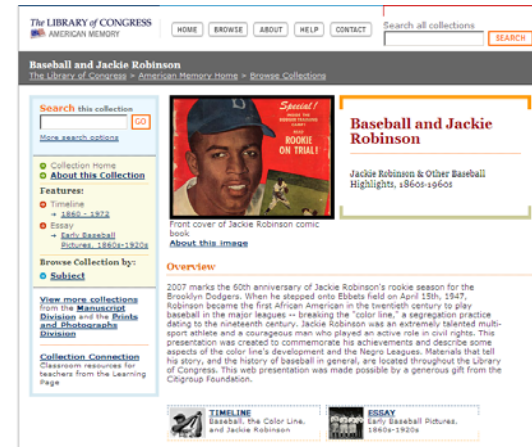
The screenshot shows the Rocky Mountain Online Archive (RMOA) website. The navigation bar includes links: Home, Browse, Advanced search, About, Help, and Contact. The main content area is titled 'Inventory of the Charles J. Belden photographs and negatives, 1908-ca. 1940' and includes a finding aid prepared by Leo Rhein, Jr. (1994) and Jodi Allison-Bunnell and Ann Sullivan (2004). The Maureen and Mike Mansfield Library logo is prominently displayed. A sidebar on the left lists various sections: Contents, Overview of the Collection, Biographical Note, Content Description, Arrangement, Administrative Information, Custodial History, Acquisition Information, Processing Note, Use of the Collection, Restrictions on Access, Restrictions on Use, Preferred Citation, Subjects, and Detailed Description of the Collection. The main text provides an overview of the collection, including repository information (University of Wyoming), sponsor information (National Historic Publications and Records Commission), and collection information (Mrs. 249).

Comparative analysis

Jerome Hill Papers Online



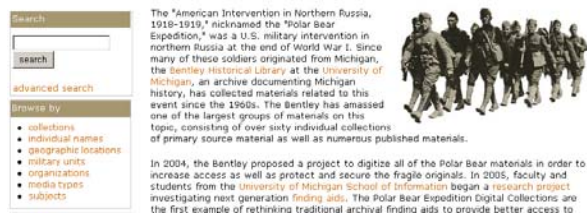
American Memory



Polar Bear Expedition Digital Collections



Polar Bear Expedition Digital Collections

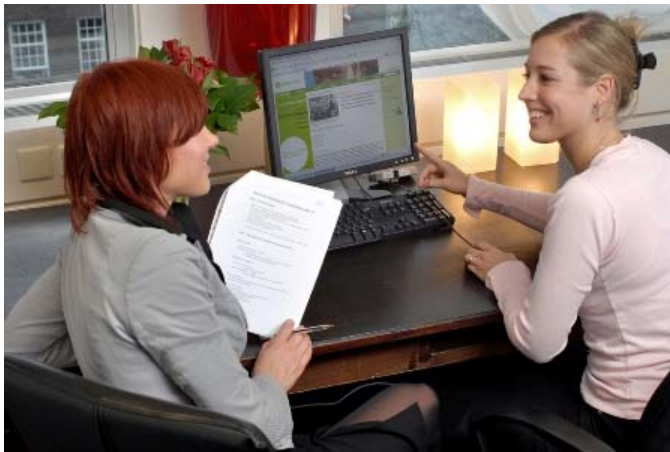


OAC display goals

- ❑ Historical context of collection
- ❑ Online items vs offline items
- ❑ Serve main user groups
 - Archivists
 - Researchers

Before: Pre-design assessment

- Contextual interviews and observational walkthroughs
- Points of pain
- Heavy use areas
- Entire research workflow



TIPS

- ❑ *Listen* to what users say
- ❑ *Watch* how they use the resource
- ❑ Advocate for users during development

Recruiting users

❑ Archival contributors

❑ Researchers

- Sign-up sheets at reference desks
- Email announcements to departmental listservs
- Craigslist



Recruitment process

Online survey

- Scheduling
- Demographic
- Experience with archives, primary sources, and finding aids

On time deliverables



✓ Functional personas

- ☐ Do's and don't list
- ☐ Requirements list with prioritization
- ☐ Interactive wireframes with specifications

Archivists

Goal: To locate relevant material that are a part of their institution's collection.

- Use library's online catalog in conjunction with OAC for content discovery
- Use OAC for EAD processed records
- Starts with institution's browse page
- Control+F popular location technique
- Uses collection level search box


Bancroft Library: 1073 finding aids









Related Pages:

[UC Berkeley,
Bancroft Library
home page](#)
[Search Images](#)
[Finding Aids:
Advanced Search](#)
[List of Finding Aids](#)
[About the OAC](#)

Finding Aid Search

limit search to Bancroft Library

Entire finding aid 

-  [1906 San Francisco Earthquake and Fire Digital Collection](#) (8920 digital objects (approximately 14,000 images and 7,000 pages of text))
-  [1916 Preparedness Day Parade Bombing, 1916-1933 - Photographs](#) (32 digital objects)
-  [1934 International Longshoremen's Association and General Strike](#) (247 digital objects)
-  [1984 Free Speech Movement Memorial Rally - Photographs](#) (3 digital objects)
- [Academy of American Franciscan History Microfilm Collection](#)
- [Account Book for Sugar Plantation](#)
- [Adams \(Jewett W.\) Papers](#)
- [Adler \(Kurt Herbert\) papers](#)
-  [African Americans in the San Francisco Bay Area, 1963-1974](#) (140 digital objects)
-  [Agricultural Laborers in California, ca. 1906-1911 - Photographs](#) (100 digital objects)
-  [Alameda County, California, ca. 1913 - Views](#) (25 digital objects)
- [Alameda County Land Papers](#)
- [Alaska Indians of Yukutat Bay](#)
-  [Alaska to Mexico, ca. 1859-1902 - Stereoviews](#) (23 digital objects)
- [Alaskan Scenery - Photographs](#)
- [Albee \(George S.\) Papers](#)
- [Album of Pacific Northwest and California Views](#)
- [Album Souvenir of St. Matthews School, San Mateo, Cal.](#)
- [Alexander \(Annie Montague\) Papers](#)
- [Alexander Family Papers](#)
- [Allen \(J. A.\) Papers](#)
- [Allen \(James T.\) Papers](#)
- [Alvarez \(Luis W.\) Papers](#)
- [Alviso Family Papers: Documentos para la historia de California](#)
- [Alvord \(William\) Papers](#)
- [American Association for the Advancement of Science, Pacific Division - Portraits](#)
- [American Civil War Era - Portraits](#)
- [American Seafarer Bait Company records](#)

Guide to the William R. Melton Papers

View options:

[Standard](#)[Entire finding aid](#)

Search within this document:

Contents:

[Descriptive Summary](#)[Access](#)[Publication Rights](#)[Preferred Citation](#)[Acquisition Information](#)[Processing History](#)[Biography](#)[Chronology](#)[Collection Scope and Content Summary](#)[Collection Arrangement](#)[Indexing Terms](#)[Collection Contents](#)[African American History](#)[Aviation History](#)[Military Service](#)[Personal History](#)[Tuskegee Airmen, Inc.](#)

Series 3 . **Military Service** . 1939-2004, undated . 1.70 Linear feet

Series Scope and Content Summary

This series includes, but is not limited to, newspaper clippings relating to the military service and history of the Tuskegee Airmen, photographs of the Tuskegee Airmen and Tuskegee Army Air Field nurses, lithographs of fighter planes, and awards that William R. Melton received from various entities.

[Box 1]

[Folder 4]

Stapled packet from Pete Peters to William R. Melton including "Black Redtail Angels' gather with Eagles" by Pete Peters from the Las Vegas Sun (3 photocopies) . 1996

[Box 1]

[Folder 5]

Newspaper clipping titled "Tuskegee Airmens Confab Attracted Top Black Military Brass" from the St. Louis Sentinel . 1982

[Box 1]

[Folder 5]

Newspaper clipping titled "Black pilots broke segregation barrier" from the Star News . 1983

[Box 1]

[Folder 5]

Newspaper clipping titled "Black Pilots Shatter Myths" from the Sacramento Union . 1974

[Box 1]

[Folder 5]

Newspaper clippings titled "Tuskegee Alumni Honors Jenkins" and "Airmen Honor Doolittle" from the Los Angeles Sentinel . 1983

Researchers

➤ Advanced

Goal: To locate relevant material both physical and digital objects.

- Understands primary source collection arrangements
- Will interact with reference archivist and visit institution
- Uses OAC search
- Search terms in context and search hits very important
- Needs institution's contact information

Search

Related Pages:

[List of Finding Aids](#)
[List of Contributing Institutions](#)
[Browse Images](#)

Finding Aids

Images

Texts

Keyword

**Tip**

Truncation: **cloth*** finds cloths, clothing, etc.
Exact phrase: Enter **"Gold Rush"**

[View more search tips](#)

A "finding aid" describes and provides an inventory of primary source materials (manuscripts, papers, pictures, etc.) in a collection. Of our 6,000 finding aids, roughly 300 include digitized images or texts.

Advanced Search

Entire finding aid



all



GO

Optional Limit

Contributing Institution:

Any contributing institution (or choose an institution from the list below)



Inventory of the California Horse Racing Board Records

View options:

[Standard](#)

[Entire finding aid](#)

Search within this document:



[\[Clear Hits\]](#)

39 occurrences of horse

Contents:

[Descriptive Summary](#) [4 hits]

[Administrative Information](#) [2 hits]

[Agency History](#) [10 hits]

[Scope and Content](#) [4 hits]

[Related Materials at the California State Archives](#) [3 hits]

Arrangement

[Indexing Terms](#) [4 hits]

[Series Descriptions](#) [5 hits]

[Satellite Facilities Minutes, 1986-1990](#)

[Correspondence, 1984-1988](#)

[Publicity Files, 1968-1995](#)

[Investigation Files, 1982-1990](#) [2 hits]

[Minutes, 1933-1984](#) [1 hits]

[Transcripts, 1940-1984](#) [1 hits]

[Meeting Files, 1980-1984](#)

[Advisory Committee Files, 1982-1984](#)

[Reports, 1933-1994](#) [1 hits]

Series 9. **Reports, 1933-1994** [Folder F3635:361-362,96-05-13]

10 file folders.

Arranged chronologically by year.

Reports include: reports, budgets, and Statistical Reports of Operation, which are annual economic reports on horse racing in California.

Want to learn more?

Do you have a question about this collection?

Would you like to view the original items in this collection?

Are you seeking permission to publish or reproduce items in this collection?

Please contact the contributing institution: [California State Archives](#)

To learn more about these issues, please see the [OAC Frequently Asked Questions](#)

CDL

[Comments?](#) [Questions?](#) | [Copyright Statement & Conditions of Use](#)
The Online Archive of California (OAC) is an initiative of the [California Digital Library](#)
© 2006 by The Regents of The University of California

Researchers

➤ Novice

Goal: To locate relevant content or digital material.

- Use library's online catalog or Google for general topic searching
- Unfamiliar with primary source collections or finding aids
- Enters OAC mid-stream at the collection level
- Hard for them to understand online vs offline
- Needs general overview of collection

On time deliverables



- ✓ Functional personas
- ✓ Do's and don't list
- ✓ Requirements list with prioritization
- ☐ Interactive wireframes with specifications

Do's and Don'ts → Requirements

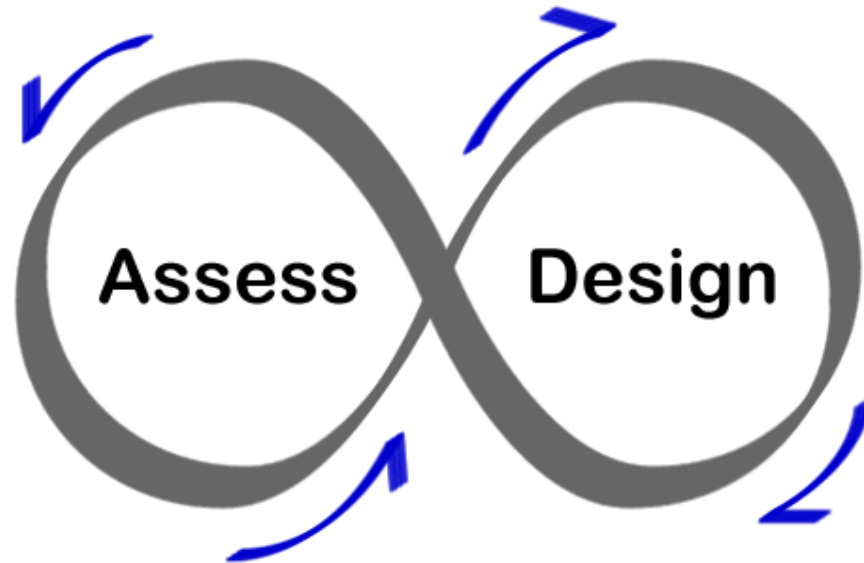
- Print entire collection guide
- Wanted to search digital objects within a collection
- Wanted yellow search term highlighting
- Lost their place in long scrolling lists
- How do I get the item?

On time deliverables



- ✓ Functional personas
- ✓ Do's and don't list
- ✓ Requirements list with prioritization
- ✓ Interactive wireframes with specifications

During: Iterative design



- Participatory design
- Clickable wireframes for quick reaction testing
- Quick development prototypes with real data

Online Archive of California

Search OAC

[More search options](#)

[Home](#) [Browse institutions](#) [Browse collections](#) [About OAC](#) [Help](#)

[Contributing Institutions](#) > [\[Insert Campus Name\]](#) > [\[Insert Institution Name\]](#)

Collection Title

Contributing Institution
Collection Number

► [Physical collection available at \[insert contributing institution name\]](#)

 [Online items available](#)

Collection Overview


Description:


Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. [More](#)

Background:

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. [More](#)

Extent: data 

Restrictions: data 

Availability: data 

View collection guide: ?

-  [HTML](#)
-  [PDF](#) (1MB)

Search inside:

☒ Entire Collection Guide
☐ Online Items

Contents: ?

-  [Overview](#)
-  [Administrative information](#)
-  [Collection outline](#)

[Series c01 title](#)

[Sub-series c02 title](#)

[Sub-series c02 title](#)

[Sub-series c02 title](#)

[Sub-series c02 title](#)

[Series c01 title](#)

[Series c01 title](#)

[Series c01 title](#)

Overview link

Specification: This link will display the description, background, extent, restrictions, and availability of a collection.



CALIFORNIA DIGITAL LIBRARY

Major additions to new OAC

- Browse by institution page with prominent contact information
- Incorporation of dynamic maps
- Auto complete search on browse collections pages
- Inclusion of MARC records within search and browse displays
- Collection level page with prominent and stationary collection information

Bancroft Library, UC Berkeley

Address line 1

Address line 2

City, California Zip Code

Phone number

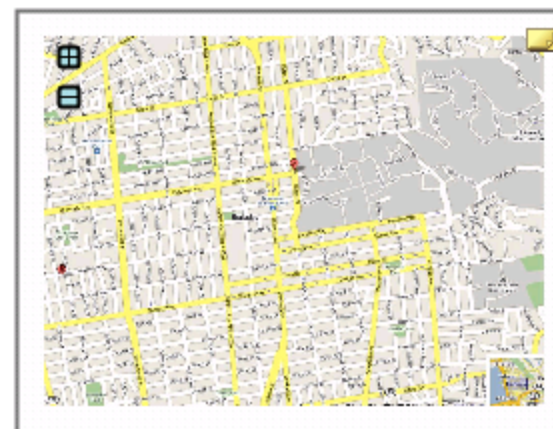
Fax number

[Email](#)

[Archives' URL](#)

Collections with online items: **58**

Physical collections: **250**



► [View larger map/directions](#)

Find a collection at this institution

Find

Hit escape key to turn off autocomplete feature.

[0-9](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)



Online items available

► [Show collection descriptions](#)

0-9



[1906 San Francisco Earthquake and Fire Digital Collection](#) (8920 digital objects (approximately 14,000 images and 7,000 pages of text))



[1916 Preparedness Day Parade Bombing, 1916-1933 - Photographs](#) (32 digital objects)

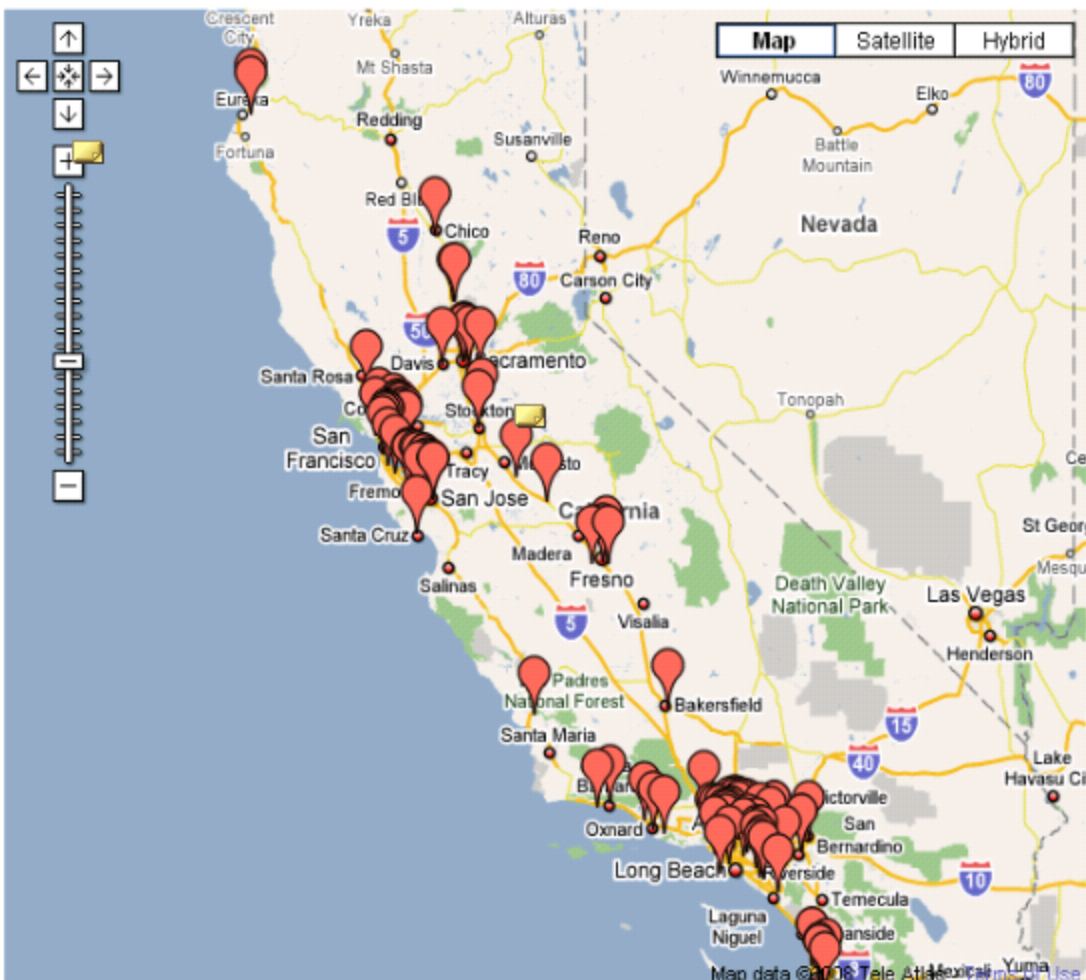


[1934 International Longshoremen's Association and General Strike](#) (247 digital objects)

Choose a city:

Choose a campus:

Zoom in to view an institutions location. Click on an icon to see more information about the institution.



Map data © 2006 Tele Atlas, Inc. All rights reserved.

Contributing Institutions

- [Albany Library](#)
- [Anaheim Public Library](#)
- [Arcadia Public Library](#)
- [Archives and Special Collections Department, California State University, Dominguez Hills](#)
- [Art Center College of Design Archives](#)
- [Arts Library Special Collections, UC Los Angeles](#)
- [Bancroft Library, UC Berkeley](#)
- [Berkeley Art Museum/Pacific Film Archive, UC Berkeley](#)
- [Berkeley Public Library](#)
- [Biomedical Library \(Louise M. Darling Biomedical Library\), UC Los Angeles](#)
- [California Historical Society](#)
- [California Institute of Technology](#)
- [California Institute of the Arts Library](#)
- [California Museum of Photography, UC Riverside](#)
- [California Polytechnic State University](#)
- [California Social Welfare Archives, University of Southern California](#)
- [California State Archives](#)
- [California State Library](#)
- [California State Parks](#)
- [California State Railroad Museum Library](#)
- [California State University Archives, California State University, Dominguez Hills](#)

Melton (William R.) Collection, 1927-2004, undated (bulk 1944-1986)

Collection Number: 233

Riverside Library, Special Collections Department.

Riverside, CA 92517-5900

Series 3 **Military Service** 1939-2004, undated 1.70 Linear feet

Series 3 **Military Service** 1939-2004, undated 1.70 Linear feet

Series Scope and Content Summary

This series includes, but is not limited to, newspaper clippings relating to the military service and history of the Tuskegee Airmen, photographs of the Tuskegee Airmen and Tuskegee Army Air Field nurses, lithographs of fighter planes, and awards that William R. Melton received from various entities.

[Box 1] [Folder 4]	Stapled packet from Pete Peters to William R. Melton including "Black Redtail Angels' gather with Eagles" by Pete Peters from the Las Vegas Sun (3 photocopies) 1996
[Box 1] [Folder 5]	Newspaper clipping titled "Tuskegee Airmens Confab Attracted Top Black Military Brass" from the St. Louis Sentinel 1982
[Box 1] [Folder 5]	Newspaper clipping titled "Black pilots broke segregation barrier" from the Star News 1983
[Box 1] [Folder 5]	Newspaper clipping titled "Black Pilots Shatter Myths" from the Sacramento Union 1974
[Box 1] [Folder 5]	Newspaper clippings titled "Tuskegee Alumni Honors Jenkins" and "Airmen Honor Doolittle" from the Los Angeles Sentinel 1983
[Box 1] [Folder 6]	Booklet titled "Tuskegee Airmen, The First Top Guns: The Last Hurrah" 2004
[Box 1] [Folder 7]	Artwork brochure for the "Tuskegee Airmen 332nd Fighter Group" (3 copies) undated
[Box 1] [Folder 8]	"Tony Brown's Journal", January/March (2 copies) 1983

Collection guide:

- [See entire collection guide](#)
- [Download collection guide \(PDF-1MB\)](#)

Search Inside:

☐ Entire Collection Guide
☐ Online Items

Collection contents:

- [Overview](#)
- [Administrative information](#)

Collection Contents

[African American History](#)
[Aviation History](#)
[Military Service](#)
[Personal History](#)
[Tuskegee Airmen, Inc.](#)

Evaluation: test, test, test



- Paper prototyping
- Detailed task based usability testing
- Extended testing period with working group and contributors
- ADA compliance testing

Usability testing

- ❑ Beta release to archival contributors
 - Feedback on labeling
 - Data display
 - Functional testing
- ❑ First round testing with advanced researchers (August, 2008)
- ❑ Second round testing with researchers (April, 2009)

Evidence is key!

- Task-based testing
- Audio clips
- Camtasia clips
- Video clips
- Review with stakeholders and development team

Things discovered during iterative design

- ❑ Archivists need:
 - Sort MARC from EAD
- ❑ Visual emphasis:
 - Labeling and search term highlighting
- ❑ Online vs offline:
 - Increase clarity in labels

After the release party...

- Surveys
- Usage logs
- Workshops with archivists



OAC User Timeline

- ✓ **Before** (4 mos)
 - Research, plan, define scope
- ✓ **During** (12 mos and ongoing)
 - Iterative design, visual design, and program functionality
 - Usability testing and contributor feedback
- **After** (still to come)
 - surveys, workshops, ADA compliance testing

Image attribution

"Deserted Building – B&W" by cncphotos available through a Creative Commons Attribution credit and retrieved on 3/5/09 from <http://www.flickr.com/photos/cncphotos/3164670190/>.

"Darts" by Bogdan Soditu available through a Creative Commons Attribution credit and retrieved on 3/5/09 from <http://www.flickr.com/photos/bogdansuditu/2377844553/>.

"white check mark on blue - acrylic on canvas" by kylemac through a Creative Commons Attribution credit and retrieved on 3/5/09 from <http://www.flickr.com/photos/kylemacdonald/3199283481/>.

"Discover" by karstenkneese available through a Creative Commons Attribution credit and retrieved on 8/29/08 from <http://www.flickr.com/photos/28481088@N00/1353519063/>.

"students signing up for activities" by peigianlong available through a Creative Commons Attribution credit and retrieved on 3/5/09 from <http://www.flickr.com/photos/goldendragon613/296795071/>.

"Mail box" by Mark Sardella available through a Creative Commons Attribution credit and retrieved on 8/26/08 from http://www.flickr.com/photos/dr_television/2257036216/.

"test" by SideLong available through a Creative Commons Attribution credit and retrieved on 8/25/08 from <http://www.flickr.com/photos/sidelong/246816211/>.

"After the Party" by cucchiaio available through a Creative Commons Attribution credit and retrieved on 3/5/09 from <http://www.flickr.com/photos/cucchiaio/463121106/>.

Final checklist

- ☐ Thank you!
- ☐ Email: rachael.hu@ucop.edu
- ☐ Questions?