

UNIVERSITY-WIDE RESEARCH GRANTS FOR LIBRARIANS COVER SHEET

NOTE: Grant proposals are confidential until funding decisions are made.

INSTRUCTIONS: The applicant(s) must submit two (2) copies of their application packet. The application packet consists of the Cover Sheet and the Proposal. Applicants send 1 (one) printed copy of their application packet, with signatures, to the Chair of the divisional research committee, who forwards the packet to the Chair of the university-wide Research and Professional Development Committee. Applicants send the second copy of their application packet as an email attachment to the Chair of the divisional research committee who forwards it on to the Chair of the university-wide Research and Professional Development Committee.

Date of Application: 10/17/2014
Title of Proposal/Project: History of Fairchild Aerial Surveys
Expected Length of Project : 18 weeks
Total Funds Requested from LAUC University-Wide Research Funds: \$2967
Primary Applicant Your Name (include your signature on the paper copy): Jon Jablonski Academic Rank and Working Title: Librarian. Head, Map & Imagery Laboratory. Bargaining Unit Member/Non-Member: Non-member Campus Surface Mail Address: UCSB Library; UC Santa Barbara; Santa Barbara, CA 93106 Telephone and Email Address: 805-893-4049; jonjab@library.ucsb.edu URL for home campus directory (will be used for link on LAUC University-Wide Funded Research Grants web page): http://www.library.ucsb.edu/users/jjablonski
Co-Applicant(s) Name: Academic Rank and Working Title:

Bargaining Unit Member/Non-Member:

Campus Surface Mail Address:

Telephone and Email Address:

Proposal Abstract (not to exceed 250 words):

Fairchild Aerial Surveys (FAS) was one of a group of pioneering corporations founded by Sherman Fairchild. Including Fairchild Semiconductor, Fairchild Aircraft, and FAS, these companies were responsible not only for the widespread adoption of aerial surveillance and surveying, but also for the commercial production of the transistor. Little is written about the company's founder or the technologies developed by the early aerial photography businesses. The UCSB Library's Map & Imagery Laboratory hold the largest collection of aerial photographs in an American academic library. Through three acquisitions over a period of 30 years, UCSB has amassed the most comprehensive collection of images created by FAS.

This project will begin to gather together information about the earliest Fairchild companies and document the technologies that have now disappeared: the production of large photomosaics in the darkroom; optical orthorectification of images; and photogrammetry. We know that retired employees of FAS who used these techniques in the 1960s are still alive and living in the Los Angeles area, and that there are Fairchild archives at the Library of Congress and the National Air and Space Museum. By gathering oral histories and conducting archival research, I will produce at least one publishable article, and contribute to documenting an important era of American technological innovation.

Does the proposal require any of the following:

Use of UC Library facilities or other site(s) requiring prior approval (Yes/No):

No

If yes, include signature and position of person authorized to permit use of facilities on paper copy of application:

Release time (Yes/No): Yes

If yes, include signature(s) of person(s) authorized to approve release time on paper copy of application:

Use of Human Subjects (Yes/No): No

If yes, attach appropriate university form to paper application form. The process of obtaining IRB approval or a determination of exemption from subject protection regulations does not have to be completed prior to submitting your grant proposal. However, the grant cannot be awarded without evidence that the approval or exemption has been obtained.

List any previous grant proposals (divisional and university-wide) from this program that have been awarded to the primary applicant or co-applicants by title. Include date of completion and amount funded:

Budget Summary**Total amount requested from LAUC statewide research funds:**

\$2967

Total amount requested from LAUC divisional research funds:

\$

Other funding obtained or expected (amount and source):**Fiscal Year of Application (fiscal year that funding begins):** FY15**New Project (Yes/No):** Yes**Supplemental Funding (Yes/No):** No**Salaries:****Total Salaries:****Supplies:****Total Supplies:****Travel:** \$2967**Total Travel:****Other Expenses:****Total Other Expenses:****Total State-Wide Research Funds Requested:** \$2967**Campus Fund Manager****Name of business officer who will manage receipt of your funds:**

Vessela Jivkova

Phone, email:

(805) 893-3474, jivkova@library.ucsb.edu

Revised 2/2014 nr

Part 2: Need for Research

Aside from a handful of articles in trade magazines and passing mentions in histories of Silicon Valley, little is written regarding the life and work of Sherman M. Fairchild, and less about his second company: Fairchild Aerial Surveys. This project will compile information about the man, his company, and the technologies they developed in the mid-20th century. The UCSB Library holds the most comprehensive collection of FAS photography. While we are actively working with the collection, the documentary evidence about how the collection was created, and for what purpose, is lacking. This project aims to correct that.

Over the course of its 28 years of business, FAS's Los Angeles office repeatedly surveyed most of Southern California and huge swaths of the desert Southwest. The company and its sibling, Fairchild Aerial Camera, perfected the techniques that now allow us to rapidly monitor the earth's surface from aircraft and satellites. It is not an exaggeration to say that Fairchild invented scientific aerial photography and enabled photogrammetry—the practice of precisely extrapolating ground measurements from aerial photographs.

Over more than 30 years of collecting, the UCSB Library's Map & Imagery Laboratory has gathered together in one place the bulk of the FAS's vertical survey photos (about 750,000 individual images). UCLA holds about 35,000 oblique images. These images were all created with large-format aerial cameras on black and white film. We hold equal amounts of film and silver gelatin prints. While we are fully engaged in preserving and making these images available, we also hold a sizable collection of derivative products about which we know little: seamless photomosaics, photomaps, and indexes.

Since acquiring the final portion of the collection from Whittier College in early 2013, I have conducted background research into the history of the company and the techniques they employed. The story of the Fairchild's founding of the company is well documented in a 1995 article by Dorothy Cochrane, but there are significant gaps. UCSB's Special Collections has acquired several vintage publications that hint at this much wider story. Of biographical note is a photo album given to Sherman Fairchild in 1966 on the occasion of his birthday—shortly after he sold FAS and its archive of images and well after the success of Fairchild Semiconductor. The album shows a jovial captain of industry at the height of his financial power—power that would leave behind a foundation with a \$400 million endowment. More interestingly, the other two publications are an engineering treatise on multi-lens cameras and what can best be described as a corporate propaganda book. These both describe instruments and techniques for film photography that are now obsolete and largely forgotten. They also have intriguing details about night-time surveillance photography developed at the end of World War II. I believe we hold examples of this imagery, but I have yet to be able to confirm this. The books also show Rube Goldberg-like contraptions for rectifying oblique images so that they can be used for photogrammetry.

So we have this period literature on how to implement these technologies, but there are no descriptions of how they were used. What we have left instead are the artifacts that the technologies left behind: hundreds of thousands of individual images, tens of thousands of derivative products, and dozens (perhaps hundreds) of vintage cameras. This project aims to document their stories.

A short bibliography:

Campanella, Thomas J. *Cities from the Sky: an aerial portrait of America*. New York: Princeton Architectural Press, 2001.

Cochrane, Dorothy, "Sherman Fairchild: Pioneer of Aerial Photography," *Air Power History* 42 (1995): 30–43.

Fairchild Camera and Instrument Corporation. *Focusing on victory: the Story of Aerial Photography at War*. Jamaica, New York, 1944.

Fairchild Aerial Camera Corporation. *Multiple Lens Aerial Cameras in Mapping*, New York, 1933.

Fairchild Aerial Camera Corporation, *For Photography from the Air* (Woodside, N.Y: Fairchild Aerial Camera Corporation, 193?).

Fairchild Industries, Inc. Collection, 1919-1980.
http://www.nasm.si.edu/research/arch/findaids/pdf/Fairchild_Finding_Aid.pdf

Fairchild, Sherman M., 1896-1971. Sherman M. Fairchild papers, 1950-1960. <http://lccn.loc.gov/mm82020206>

Part 3: Design and Methodology

This is very much a traditional history project, but one that can provide great context for an important UC collection. I propose to visit the Library of Congress and the National Air and Space Archive to examine Sherman Fairchild's papers and to track down surviving technicians of FAS's Los Angeles office and record oral histories with them.

For the archival research, I will spend a week at the Library of Congress and National Air and Space Museum Archive examining relevant portions of Sherman's papers, with special emphasis on how the technologies came to be widely adopted. Both collections are extensive. I will fully document my research and make available any reproductions I wind up making.

For the oral histories, I intent to interview as many employees of FAS as I can squeeze in to 4 trips to Los Angeles, which is within easy striking distance of Santa Barbara. In my four years at UCSB, I have made personal contacts with a number of people obliquely involved with FAS. I have come to know the curator of the oblique images that are held at UCLA, Matt

Zebrowski, who has met family members of Fairchild employees. There is also an extensive aviation history enthusiast community in Los Angeles, and that community tells me that there are also surviving pilots and photographers. Matt is also in contact with Norman Thrower, who was one of three LA-area faculty members who rescued the photographs after FAS was sold.

While I have never conducted oral history interviews, I do have experience conducting semi-structured interviews. After research methods training in Library School, I conducted long, semi-structured interviews during fieldwork in China for my geography master's thesis, *Cultural Heritage Cyberinfrastructure: A Geographic Case Study of China*, and six shorter, bilingual interviews as part of an unpublished library-as-place project conducted in Wuhan, China in 2011. Ann Lage, retired director of UC Berkeley's Regional Oral History Office, has offered guidance on the methods particular to conducting oral history interviews. UCSB's Special Collections department has agreed to accession the recordings of these interviews.

When writing up the results of the research, I intend to take a socio-technical approach to summarize my findings. This approach, popularized by scholars such as Bruno Latour, N. Katherine Hayles, and Sherry Turkle, analyzes complex systems (such as those used to produce the end-products of aerial surveys) through the lens of their social, political and cultural contexts. In addition to a journal article, I will use the information gathered during this project

FAS closed in 1964, making all of my interview subjects elderly today. Additionally, aerial surveying using these technologies ceased for all intents and purposes in the early 1990s. The opportunity to capture these stories and the corporate and technical knowledge stored with these individuals, is fading.

Part 4: Budget

Library of Congress archival research: 1 week

\$600 airfare
\$1000 lodging
\$497 per diem(7 * 71)

5 trips to Los Angeles: 3 daytrips, 2 overnights

\$336 (motorpool car \$48 / day)
\$250 (2 overnights @ \$125 each)
\$284 (4 days per diem for overnights)

Total: \$2967



**Librarians Association of the
University of California**

SUPPLEMENTAL BUDGET INFORMATION

This Sheet Must Accompany the Grant Application

PER DIEM

Please indicate the source of the per diem rates used in the application

- a. Federal Government
- b. University
- c. Other _____
- d. Other _____

Location	Rate	Source
1. Washington DC	\$71	b
2. Los Angeles	\$71	b
3.		
4.		
5.		

TRAVEL

Please indicate the source of the travel information used in the application

- a. Federal Government
- b. University
- c. Internet Search (list which service used) _____
- d. Travel Agency
- e. Other _____

Location	Type	Amount	Rate	Source
1 Washington DC	airfare	\$600		Travelocity
2. “	hotel	\$1000	\$142.85	Travelocity
3. Los Angeles	motorpool	\$336	\$48	UCSB
4. “	hotel	\$250	\$125	Travelocity
5.				
6.				

Part 6: Personnel

This project will be completed independently.

Part 7: Timeline

To minimize disruption to my unit, I will conduct all travel during summer of 2015. Writing will be completed over the course of fall term, 2015. Report to LAUC will be made by January 1, 2016.