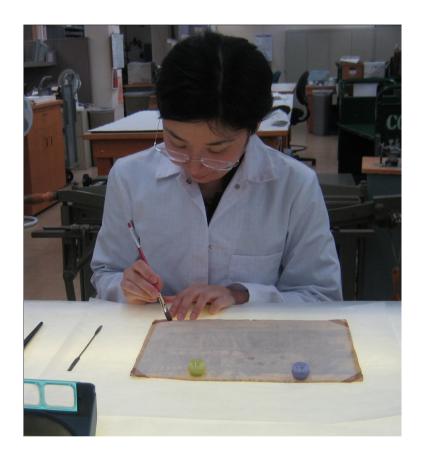
THE ZIBBY GARNETT TRAVELLING FELLOWSHIP

Report by Makiko Tsunoda



Paper and Book Conservation
At Conservation Treatment Division, Library Preservation
Department, University of California Berkeley, California,
United States of America

17 January – 13 April, 2012

Table of Contents

1.	Introduction	3
2.	Study trip	4
	2.1. State and country	4
	2.2. University of California Berkeley and its libraries	6
	2.3. Conservation Treatment Division	8
3.	Conservation of World War I bond posters	9
	3.1. Aims of the project	9
	3.2. Posters background	.10
	3.3. Treatment discussion	.13
4.	Conservation of charcoal sketches	.15
	4.1. Aims of the project	.15
	4.2. Charcoal sketches background	.16
	4.3. Treatment discussion	.19
5.	External visits	.22
6.	Life in California	.24
	6.1. Berkeley	.24
	6.2. Leisure time	.26
7.	Budget	.26
8.	Conclusions	.27
	References	
J.	· 1 \U1U1U11U1UU	

1. Introduction

My name is Makiko Tsunoda. I am a Japanese citizen and a permanent resident of the United Kingdom. I have lived in Oxford for the last seven years, where I developed a passion for paper and book conservation by working at The Ashmolean Museum and the Bodleian Library of the University of Oxford. This followed original studies (Bachelor of Arts) in Art History and Aesthetics in Japan, and many years working in art-related areas, primarily galleries and museums.

Following my career change, I completed a Master of Arts in Paper
Conservation at Camberwell College of Arts, London, graduating in the
autumn of 2011. The course provided training in both interventive and
preventive conservation of works on paper, parchment and photographs. This
was achieved through theoretical lectures (ranging from chemistry to medium
identification), practical laboratories (ranging from pastel making to material
analyses) and most importantly the teaching and practice of various types of
treatment methods. My own research project (thesis) was concerned with an
18th century album of Netherlandish drawings including various media, part of
a collection at The Ashmolean Museum of the University of Oxford, where I
carried out interventive conservation under the supervision of conservator
Alexandra Greathead.

In the future, I aim to continue my training in paper and book interventive conservation, and I would like to gain conservator accreditation through the Institute of Conservation (UK). In particular, I would like to deepen my

knowledge and skills related to the conservation of friable media on paper (e.g. natural chalk, pastel and crayon). More generally, I have a strong desire to contribute to the conservation of heritage material, and I wish to put my passion, skills and knowledge to good use (and ultimately transmit them to the next generation). After my current internships, I therefore hope to find a trainee level position in paper conservation, and take it from there.

I first heard about the Zibby Garnett Travelling Fellowship from my exsupervisor, Mr Robert Minte, Conservator at the Bodleian Library of the University of Oxford, where I worked as an Assistant Conservation Technician in 2009. I applied for support from to the Zibby Garnett Travelling Fellowship to further develop my knowledge and practical skills in paper and book conservation. In particular, I aimed to work with friable media and acquire related specialist skills with experienced conservators, this in a respected, supportive, and highly professional institution.

2. Study trip

I carried out my internship within the Conservation Treatment Division of the Library Preservation Department at the University of California Berkeley, from 17 January to 13 April 2012. My direct supervisor was conservator Erika Lindensmith.

2.1. State and country

Berkeley is located in the state of California, on the West coast of the United States. California is bordered by the state of Oregon to the North, the states of Nevada and Arizona to the East, Mexico to the South, and it faces Asia across the Pacific Ocean. It includes many major cities. Berkeley is located in what

are now the suburbs of San Francisco (the second largest city in California after Los Angeles), approximately 15 km northeast of the city across San Francisco Bay (see Figure 1).







Figure 1: Maps of North America (left) (source: Graphic Maps), California (centre) (source: Graphic Maps) and Berkeley (right) (source: Greenwich2000.ltd.uk).

California is a relatively new state. Spaniard Juan Cabrillo first discovered San Diego harbor in1542 and named California after the Spanish novel. British Sir Francis Drake landed near Point Reyes in 1579, just north of San Francisco (see Figure 2). The Native Americans were nearly literally wiped out by the Spanish occupation and the Mexican-American War, and the Americans effectively controlled the entire West Coast by 1847. Soon after, the gold rush started and attracted numerous prospectors from the United States and overseas (see Figure 2), leading to California's 1850 recognition as a United States state and the development of the railroad. In modern history, California developed rapidly, mainly through entertainment, information technology and agricultural industries.

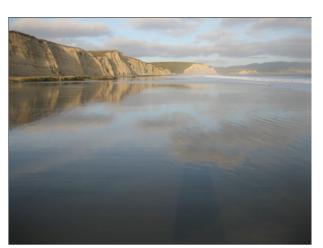




Figure 2: Point Reyes (left) and a sculpture in remembrance of the gold rush (right).

2.2. University of California Berkeley and its libraries

Founded in 1868 around the period of the gold rush, Berkeley was the first campus of the University of California system. It is named after the Anglo-Irish philosopher-theologian George Berkeley (1685-1753), well known for his saying "to be is to be perceived". The primary University aim was to provide both practical and philosophical education to the states inhabitants. Today, the University of California Berkeley is one of the top-ranked universities in the United States and the world, having yielded 22 Nobel laureates. Berkeley has a reputation as a liberal and militant campus (see Figure 3), dating to its high profile role during the McCarthy era, the American free speech movement, and the anti-war movement. Almost every day on my way to the library, there were active demonstrations by students around the campus. Strangely reminiscent of the recent events in England, the hottest issue was the ongoing very large increase in tuition fees for state students.





Figure 3: Sather Gate entrance to the University of California Berkeley (left) and a view of the campus from Sather Tower (right).

Not surprisingly, the University of California Berkeley libraries are considered among the top public university libraries in the world. Students and faculty members use the collections for their research and teaching, and there are exhibition spaces for the library collections.

The University collections are housed in several libraries. For my internship in paper and book conservation, I was considered an international visiting scholar within the Conservation Treatment Division, located in the Doe Library (see Figure 4).





Figure 4: The Bancroft Library (left) and myself in a workshop of the Conservation Treatment Division at the Doe Library (right).

2.3. Conservation Treatment Division

The Library Preservation Department's main purpose is to maintain the library collections in serviceable conditions. This is accomplished through disaster planning, treatment and replacement of damaged books, library binding and encapsulation, and providing appropriate environmental conditions. Based in California, it is notable that one of the main concerns is disaster preparation in view of potential earthquakes.

I was directly associated with the Conservation Treatment Division, with a total of 6 book and paper conservators and two students. I was warmly welcomed by all members of the Division on my first day, and a supportive atmosphere continued for the entire duration of my stay. My internship projects were prioritised based on the urgent needs of the University libraries. Throughout my internship, I had numerous meetings with conservators, curators and Department staff. I found that the meetings benefited me, allowing for a better understanding of the current problems and needs of the libraries (see Figure 5).





Figure 5: Departmental meeting (left) and book conservation treatment meeting (right).

Barclay Ogden is the director of the Library Preservation Department and was my first contact. He is very experienced and devoted to the Library Preservation Department. He has been providing lectures and actively publishing articles about library collection care activities nationally and internationally. Erika Lindensmith was my direct day-to-day supervisor. Erika was also very efficient, supportive and had a very soothing sense of humour throughout my internship. Other staff members of the Department such as Jim Boydstun, Kathryn Kowalewski, Emily Ramos, Hannah Tashjian and Martha Little were all supportive as well. The Department members all have impressive career paths and I learned a lot from them. It was a great pleasure to work with them (see Figure 6).



Figure 6: Lunch break with colleagues from the Conservation Treatment Division.

3. Conservation of World War I bond posters

3.1. Aims of the project

My first conservation project at the University of California Berkeley was to treat three identical World War I era oversized chromolithograph posters entitled *Fourth Liberty Loan* (BANC PIC 2005.004), designed by J. Scott

Williams and published in Rochester, New York state, by Karle Lithographic Co. in 1918.

The posters are part of the The Bancroft Library collections and were brought to the Conservation Treatment Division because they were not safe to be handled by researchers. The primary supports were extremely brittle and there were a number of large tears and losses (see Figure 7). These are common problems for paper from the middle of the 19th century, and are thought to be due to poor quality acidic wood pulp paper, heavy bleaching with agents like chlorine, rosin size and air pollution. The main aims of the project were therefore to ensure the stability of the posters and to secure them for proper long-term storage.



Figure 7: One of the three *Fourth Liberty Loan* posters (left) and detail of losses on a different poster (right) (poster copyright: The Bancroft Library).

3.2. Posters background

The three posters treated are part of a World War I poster collection donated by Edward Saunders Rogers (Medical Doctor and Professor of Public Health and Medical Administration at University of California at Berkeley) in 1968. In Rogers' letter to the Chancellor of the University of California Berkeley in

1969, he indicated that he assembled the World War I posters "as a boy" and was advised to donate them because of their value "as a record of a kind of approach to national propaganda for a particular period". He wished to ensure the collection's preservation, display and accessibility to students and scholars for their research. Rogers donated a total of 242 World War I posters plus duplicates (like the three identical posters treated here), mainly from America, Canada and several from France, with a total appraised value of \$2,250 at the time.

The artist, John Scott Williams (1877-1975), was a British born illustrator. He submitted seventeen poster sketches for the Fourth Liberty Loan poster campaign, and the "Victory" sketch was selected. According to an interview published in *The Poster Magazine* in 1920, "Mr. Williams began work on the idea one midnight, continuing until 5 a.m." and he "wished to visualise, if possible, in a poster expression, the dynamic energy of the American people, and of its irresistible force, to help a bit to concentrate every American thought on the idea of victory". He clearly indicated his awareness of the aim and effect of posters as a communication medium.

The posters image contains typical features of propaganda posters during wartime. Over a dark background, the viewer's eyes are easily caught by a large masculine but female figure in white, with a dynamic posture. The figure recalls the sculpture *Winged Victory of Samothrace* in the Louvre Museum, the goddess believed to lead to victory in war, or *Liberty Leading the People* by Eugène Delacroix, or even the *Statue of Liberty* in New York City, all symbolic figures of liberty (see Figure 8). Borrowing from those strong historical images,

the posters figure functions as an allegorical figure, strongly appealing to viewers and suggesting victory, liberty and American patriotism.



Figure 8: From left to right, inspiration pieces *Winged Victory of Samothrace*, *Liberty Leading the People*, and the *Statue of Liberty* (sources: Wikipedia Commons).

There are other symbols of patriotism in the posters. For example, the figure grabs in her hands a sword and a shield with the great seal of the United States, and she wears a United States flag bandana and a bay leaf crown. Behind her, there is a large winged bald eagle, the United States official bird symbol. There are marching soldier silhouettes among a red background, slightly facing down and holding guns. It is typical of propaganda posters to use bright and strong colour contrasts to achieve visual impact.

Near the bottom margin, there are bold words in light green and yellow over a largely black background: "FOR VICTORY, BUY MORE BONDS - FOURTH LIBERTY LOAN". When Word War I started in 1914, the United States originally tried to be neutral, but it joined the war effort in 1917 when German forces attacked a United States ship. The fourth liberty loan campaign was widely advertised, aiming to raise 6 to 8 billion dollars from 28 September 1918 to support the United States army.

3.3. Treatment discussion

For the safe handling of the posters and for the purpose of long-term storage, interventive conservation was prioritised. Due to the poor quality acidic paper used, the primary support was heavily discoloured and extremely brittle, with multiple large tears and losses. Multiple stains were also present on the verso of the primary support, possibly caused by bleeding of media on the recto.

After discussions with conservators, a treatment method was agreed upon that included surface cleaning, spot tests, tear repair and encapsulating.

Due to the material, a relatively gentle cleaning method (products and techniques) was adopted. Chemical sponges and Staedtler Mars plastic eraser crumbs were first used for surface cleaning. Extra care was taken not to apply pressure and catch tears when working on brittle edges.

Before further treatment, spot tests were carried on the media and all were found to be stable. As expected, a pH test indicated a pH of 4, which is extremely acidic. Splits and large tears were then treated using a wheat starch paste and lightweight coloured kozo paper, this treatment step taking a total of 9 -15 hours per poster depending on the damage (see Figure 9).

The treated posters were then encapsulated in Mylar polyester films using an ultrasonic encapsulator, providing extra strength for handling and protection from dust and air pollution (see Figure 9), a process which itself took 10 hours. A few other large posters from the same collection were put in a folder and stored horizontally in a cabinet, within an environmentally-controlled storage facility. An alarm system was installed in the storage facility and the items

were arranged by size and material. The targeted relative humidity was 50% and the temperature 15-16 C.

It was a very useful experience to handle and treat large-size brittle paper and to gain understanding in the paper chemical deterioration process. It was also interesting to experience first-hand the particular mission of conservation in a library (as opposed to e.g. a museum): safe handling is essential, as the materials are constantly accessed, and the goal is often to make the items safely accessible and readable rather than aesthetic beauty.





Figure 9: One of the three *Fourth Liberty Loan* posters during treatment (left) and being prepared for storage (right).

The Doe Library celebrated its 100th year anniversary during my stay, and an open day was organised for the occasion. One of the treated posters was displayed for the public along with other collection objects (see Figure 10). I manned the display desk for the day and found that visitors were overwhelmingly interested in conservation. I very much enjoyed meeting them.



Figure 10: University of California Berkeley's Doe Library 100th year anniversary open day. The Library Preservation Department (and myself!) featured in the Berkeleyside newspaper (source: Berkeleyside online).

4. Conservation of charcoal sketches

4.1. Aims of the project

My second conservation project was to treat 20 charcoal and pastel drawings titled *Charcoal Sketches of Los Angeles, California* (ca. 1934-1947) by John William Wardman (1902-1994).

The drawings were brought to the Conservation Treatment Division due to their poor condition, caused by inappropriate mounts and tapes (see Figure 11). Although the primary supports appeared to be good quality medium-weight machine-made paper, they had been attached to poor quality acidic mounts with various types of tapes. There were also heavy yellow stains and serious distortions along the edges, most likely caused by tapes, and the mounts caused media abrasion, discolouration, creases and tears. The media are extremely pressure sensitive.





Figure 11: One charcoal drawing from *Charcoal Sketches of Los Angeles, California* before treatment (BANCPIC1979.124-29.B) (left) and verso of a mount showing more tapes and an inscription (BANC PIC 1979.124-28.B) (right) (sketches copyright: The Bancroft Library).

After discussion with paper conservators, three treatment options were proposed to Jack von Euw, curator of Pictorial Collections at The Bancroft Library. Interventive conservation and proper housing were prioritised.

Removing the tapes decreases distortions and adhesive residues, while providing proper window mounts with inlay paper is important to ensure the safe handling and security of these high-value sketches for long-term storage.

4.2. Charcoal sketches background

Along with twelve lithographs, the drawings were donated to The Bancroft Library by the artist himself in 1979. Wardman was born in Leeds in the United Kingdom and emigrated to southern California by the early 1930s. He passed away in 1994 in Monterey, California. Wardman worked as a chemist and produced fine art during his spare time. His work has been exhibited at several institutions, including the Los Angeles City Hall, Portland Museum, California Palace of the Legion of Honor and others, and pieces are housed by the

Southwest Museum (Los Angeles), Los Angeles County Museum of Art, The Bancroft Library and others.

The works in *Charcoal Sketches of Los Angeles, California* depict the Los Angeles landscape during the Great Depression (1929 - late 1930s). The sketches include scenes of the Los Angeles Civic Center, old Chinatown, and other buildings demolished to build Union Station (see Figure 12). In a letter from James D. Hart, then director of The Bancroft Library, to Wardham in 1978, the director praised Wardman's works as "wonderful documentary visualizations of time and place". The director was very pleased to possess them for reference and display purposes at The Bancroft Library.





Figure 12: Photograph looking northeast on Apablasa Street east of Alameda Street in Los Angeles in 1933 (left) and a drawing from *Charcoal Sketches of Los Angeles, California* (BANC PIC 1979.124-31.B) showing Apablasa Street looking toward Alameda Street (right) (sketch copyright: The Bancroft Library).

In a letter in 1979, Wardman indicated that he made a note of the location of each sketch on the back of each mount. He also mentioned that some of the charcoal drawings had been exhibited at the Los Angeles Art Institute in Exposition Park, and that he made several lithographs based on the sketches, including of the Los Angeles Civic Center and old Chinatown. A coloured

lithograph of *old Chinese drug store* notably received the first prize in an international art show held in Hollywood in 1953.

Wardman depicted streets showing domestic, commercial and gigantic buildings with figures. His main interests appeared to be accurate architectural records and the local life of the period. His drawings are reminiscent of snapshots of the locations, and Wardham's calm and accurate 'camera' eyes reveal the lives of anonymous people during the great depression (see Figure 12).

The majority of the drawings were executed with charcoal, with white highlights and pastels (see Figure 13). The majority of the primary supports are good quality machine- made laid paper, and pinholes and eraser crumbles were observed.





Figure 13: Details of drawings from *Charcoal Sketches of Los Angeles, California* (left: BANC PIC 1979.124-33.B; right: BANC PIC 1979.124-30.B) (sketches copyright: The Bancroft Library).

4.3. Treatment discussion

Since it is essential to keep a record of all annotations made by artists, the drawings and annotations on the mounts were first photographed. The drawings condition was then assessed by raking, transmitted, and ultraviolet light, a stereotype microscope, and was documented. The primary supports were then carefully removed from the acidic mounts and spot tests were carried out.

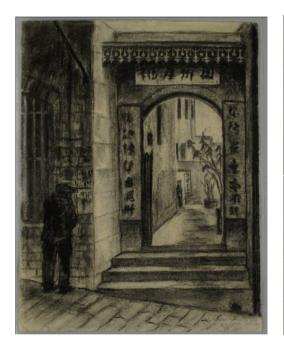
Dry treatments were favoured due to the friable and fugitive media. Tapes were removed mechanically using heated spatulas and local poultices. A majority of the pressure-sensitive tapes were cross-linked and were easily removed mechanically, nevertheless leaving crystallised yellow stains. The adhesive residues were removed with a dull-bladed scalpel, while being careful not to apply any pressure to the primary support. Masking tape was slowly removed with heated spatulas while brown gummed paper tape was removed with methylcellulose poultices. Remaining adhesive residues were removed with small pieces of crepe eraser. Cellulose powder was finally applied on sticky surfaces after removing the adhesives.

At the curator's request, tear repair and filling with toned Western paper were then carried out using wheat starch pastes and light-weight Japanese paper (see Figures 14 and 15).





Figure 14: Verso of one sketch of *Charcoal Sketches of Los Angeles, California* seen in raking light before (left) and after (right) treatment (BANC PIC 1979.124-30.B) (sketch copyright: The Bancroft Library).



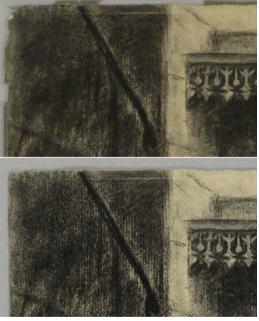


Figure 15: Totality (left) and detail (right) of one sketch of *Charcoal Sketches of Los Angeles, California* before (top right) and after (bottom right) treatment, illustrating tape removal and filling with toned paper (BANC PIC 1979.124-44.B) (sketch copyright: The Bancroft Library).

After treatment, the drawings were housed in inlay papers (65 gsm; 50% hemp and 50% unbleached cotton) with Japanese Usumino paper strips. The inlayed drawings were themselves placed in window mounts with protective flaps. Thick (8 ply) mounts were selected to avoid abrasion of the friable media.

The mount style was chosen to allow viewing of the verso of the sketches without handling the drawings themselves, to provide proper protection for the media, and to allow to easily display the sketches during exhibitions. The mounts were then stored in acid-free boxes (see Figure 16).





Figure 16: Safely mounted (BANCPIC1979.124-30.B) (left) and stored (BANC PIC 1979.124-29.B) (right) sketches (sketches copyright: The Bancroft Library).

Overall, the tape was successfully removed and distortions were significantly reduced (see Figures 14 and 15). The drawings are now in much better conditions and are safe to handle by students and researchers (see Figure 16).

During the sketches treatment, I practiced different types of tape removal techniques and saw first-hand how inappropriate mounts can damage works on paper. It was very challenging to safely remove tapes and adhesives from friable media; I had to be cautious at all times about abrasion and the introduction of humidity to the drawings.

The total treatment time for the 20 sketches was roughly 260 hours, or about 13 hours per drawing, including the photographic record, condition report, treatment, inlaying, mounting, and associated research

5. External visits

During my internship at the University of California Berkeley, I took the opportunity to visit other reputed conservation institutes nearby. It was very useful to learn about their conservation practice and priorities in respect to different collections. I was very grateful to the staff of these institutions, who spent significant amounts of time to show me their institute despite busy schedules. I would thus like to express my thanks to Maria Grandinette and her colleagues at the Conservation Department of the Stanford University Library, Debra Evans and her colleagues at the Fine Arts Museum of San Francisco, Legion of Honor, Shiho Sasaki and Katherine Holbrow at the Asian Art Museum of San Francisco, and Amanda Hunter Johnson and Paula De Cristofaro at the San Francisco Museum of Modern Art (see Figure 17).



Figure 17: Conservation Department of the Fine Arts Museum of San Francisco, Legion of Honor (left), and Artist Materials Collection at the San Francisco Museum of Modern Art (right).

I also visited Stanford University with Jim Boydstun and Martha Little and the Asian Art Museum of San Francisco with Emily Ramos. I visited them from my home base of Berkeley (see Figure 18). Meeting experienced conservators was not only a fruitful experience, but also interesting and enjoyable from the human point of view.



Figure 18: David Brock talking about a split-hinge board reattachment technique at the Conservation Department of Stanford University (left). Shiho Sasaki explaining consolidation techniques for Tangka and Thai paintings at the Asian Art Museum of San Francisco (right).

After my internship, I went to Los Angeles to visit The Paul Getty Museum and The Getty Conservation Institute (administratively separate institutes). Nancy Yocco, Sarah Freeman, Susan Maish, and their colleagues at The J. Paul Getty Museum, and David Carson, Karen Trentelman, and Christel Pesme at The Getty Conservation Institute, all welcomed me and spent a significant amount of time showing me around and explaining their work (see Figure 19). The technical resources and equipment at The Getty Conservation Institute were particularly impressive.





Figure 19: David Carson, Lab Manager, on a tour of The Getty Conservation Institute (left). Karen Trentelman showing a Raman spectrograph (right).

6. Life in California

6.1. Berkeley

When the airplane was approaching California and San Francisco, the desert first spread in front of my eyes, then the coastal hills and city appeared. From the airport to my accommodation in Berkeley, I crossed the Bay Bridge as the Sun was slowly setting and the sky colour was turning a warm rose, contrasting with the metropolitan architecture silhouette behind, shrouded with mist from the sea. This view gave me an illusion of the primitive American landscape.

I found the house where I lived through a University of California Berkeley website. I was fortunate to stumble upon the "McCreary-Greer House" (see Figure 20), located only 10 minutes on foot from the centre of the campus and library. The house was built in 1901 in the Late Colonial Revival Style, but despite its historical character was cheaper than most modern accommodation. After ownership changes, Ruth Alice Greer, who was associated with the University of California Education Department and lived in the neighborhood, purchased the house she loved. She donated the house to the Berkeley

Architectural Heritage Association in 1986, for preservation and appreciation of the house by future generations. The house now encompasses three rental apartments in addition to the offices of the Association and common spaces.

The house was under renovation on arrival and I was fortunate to rent my shared apartment at a discount rate (see Figure 20). Anthony Buffington Bruce, who works for the Berkeley Architectural Heritage Association and maintains the house, gave me tours of the entire house. Each room (entrance all, living room, offices, basement, attic, carriage house, garden, etc) has its own character and memories, all filled with a dusty heritage smell. I enjoyed exploring the house and rapidly found my own favorite spots.



Figure 20: The McCreary-Greer House (left) and the shared apartment where I stayed (right).

There are numerous international restaurants in Berkeley, second hand bookstores, movie theatres, music halls, and a good public library which I made good use of. There are also good selections of fresh bread, cheeses, fruits, vegetables and meats at the local grocery stores.

6.2. Leisure time

During my stay in California, I visited exhibitions at the Berkeley Art Museum and Pacific Film Archive, de Young Fine Arts Museum in San Francisco, Asian Art Museum in San Francisco, San Francisco Museum of Modern Art, and The J. Paul Getty Museum and The Getty Villa in Los Angeles. Alexandra Sofroniew and her colleague David Saunders kindly provided a tour of the exhibitions they were currently curating at The Getty Villa.

I also visited the wine-producing Napa valley and Point Reyes, Sequoia and Yosemite National Parks. I was deeply impressed to see and touch large sequoia trees that live up to 3000 years (see Figure 21), and I enjoyed to see wild animals and plants in a dynamic natural landscape in Yosemite.

Fortunately, I did not come across black bears and only saw lovely animals and birds such as elephant seals, California ground squirrels, mule deer, humming birds, Steller's jays and American robins. Purple wild lupines were widely spread in the mountains, among other wild flowers.



Figure 21: In front of a giant sequoia tree in the Sequoia National Park.

7. Budget

Items	Estimate (£)	Record
Return travel to/from departure airport	44	£ 44
Return travel to San Francisco	365	£ 365
Travel within destination country	10	\$ 15
Travel for ZGTF interview and presentation	21	ТВС
Accommodation	1,200	\$ 1,600
Subsistence	800	\$ 786
Essential medication	10	\$ 121
Visas, work permits, and essential documents	180	\$ 1,112
Travel insurance	156	\$ 436
Site and museum visits	30	\$ 70
Maps, guidebooks, notebooks	20	0
Materials (paper, film, printing, developing)	20	\$ 25
Cost of ZGTF written report in triplicate	15	TBC
£5 per week contribution to phone	65	\$80
Total	£ 2,926	£ 3,046

Note: £1= US\$1.61 (20 April 2012).

8. Conclusions

Overall, I found that all aspects of my internship at the University of California

Berkeley were extremely valuable for me. I learned many skills and techniques
that are essential for paper conservation, particularly tape removal techniques

and safe storage methods for friable media. In addition, to work independently with a minimum of supervision gave me more confidence in my abilities.

It was also a very valuable experience to see how conservation decisions are made within the Conservation Treatment Division, in discussions between librarians and curatorial staff. I found that the conservators, librarians and curatorial staff at the University of California Berkeley are all very supportive and dedicated to the library.

Finally, I would like to express my sincere thanks to the Zibby Garnett

Travelling Fellowship for supporting my internship financially. Without this support, my internship simply would not have been possible.

9. References

2. Study trip

Creative Commons Attribution-ShareAlike License, 2012. *George Berkeley*.[onine] Available at:<<u>http://en.wikipedia.org/wiki/George_Berkeley</u>> [Accessed 29 April 2012].

Graphic Maps, Worldatlas, California. [online] Available at: http://www.worldatlas.com/webimage/countrys/namerica/usstates/ca.htm [Accessed 2 June 2012].

Greenwich 2000 Limited, 2012, *Berkeley California map* [online] Available at: http://wwp.greenwichmeantime.com/time-zone/usa/california/berkeley/map-berkeley/index.htm> [Accessed 2 June 2012].

Moore, D.ed., A visitor's guide to the architecture & history of Doe Library, University of California, Berkeley. Berkeley: University of California, Berkeley

UC Regents, 2012. *History of UC Berkeley*. [online] Available at: http://berkeley.edu/about/hist/index.shtml> [Accessed 29 April 2012].

3. Conservation of World War I bond posters

Feller, R.L. and Encke, D.B., 1982. Stages of deterioration: The examples of rubber cement and transparent mending tape. *IIC Science and technology in the Service of Conservation*.

Hideharu Suzuki, 1993, *Kamino rekka to shiryou hozon.* Nihon Toshokan Kyokai

Smith, M. Jones, N.M.M., Page S.L., Dirda, M.L. 1984. Pressure Sensitive Tape and Techniques for its removal from paper. *Journal of the AIC*, Vol.23, No.2. Bredhoff, S. (1995) *Powers of persuasion, poster art from World War II.* Washington: National archives.

Creative Commons Attribution-ShareAlike License, 2012. *Chromolithography*. [online]Availabel at:<<u>http://en.wikipedia.org/wiki/Chromolithography</u>> [Accessed 29 April 2012].

Eason, J. (2012) Email, 4 March 2012. Personal email to: M. Tsunoda from J. Eason. [James Eason has worked as a Principle Pictorial Archivist at The Bancraft Library].

Encore Editions, For victory, buy more bonds. Fourth Liberty Loan / J. Scott Williams.[online] Available at: http://www.encore-editions.com/for-victory-buy-more-bonds-fourth-liberty-loan-j-scott-williams [Accessed 30 April 2012].

Hunter, D. (1978) *Paper Making, The History and Technique of an Ancient Craft.* rev. ed. USA: Dover Publications. INC.

Nelson, D. (1991) *The posters that won the war.* Osceola: Motorbooks International Publisher & Wholesalers.

Reed, A.C. M.D.(1918) *Fourth Liberty Loan*. [online] California State Journal of Medicine. Available at

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1593446/?page=1 [Accessed 30 April 2012].

The Regents of The University of California, *Edward Saunders Rogers, Public Health: Berkeley*.[online] Available at:

http://texts.cdlib.org/view?docId=hb4q2nb2nd&doc.view=frames&chunk.id=div00057&toc.depth=1&toc.id [Accessed 11 July 2012].

Samuel, L.R. (1997) *Pledging Allegiance, American identity and the bond drive of World War II.* Washington and London: Smithsonian Institute Press.

Williams, J.S. (1920) Interview. James Montgomery Flagg and Six Other W.W. I Poster Artists, *The Poster Magazine*, [online]. Available at http://www.oldmagazinearticles.com/WW1_James_Montgomery_Flagg_WW1_poster_artists> [Accesses 29 April 2012].

Wikipedia, 2007. *Nike of Samothrake Louvre*. [online] Available at: http://en.wikipedia.org/wiki/File:Nike of Samothrake Louvre Ma2369 n4.jpg >[Accessed 2 June 2012].

Wikipedia, 2011. Eugène Delacroix - La liberté guidant le peuple.[online] Available at: http://en.wikipedia.org/wiki/File:Eugène_Delacroix_-
La liberté guidant le peuple.jpg>[Accessed 2 June 2012].

Wikipedia, 2010. *Statue of Liberty*. [online] Available at: http://en.wikipedia.org/wiki/File:Statue of Liberty 7.jpg[Accessed 2 June 2012].

Ziggsy Communications, LLC, World War 1 Propaganda Posters/For vistory, buy more bonds. Fourth Liberty Loan.[online] Available at: http://www.ww1propaganda.com/ww1-poster/victory-buy-more-bonds-fourth-liberty-loan [Accessed 7 July 2012].

4. Conservation of charcoal sketches

Edan Milton Hughes, *Artist biography John W. Wardman*.[online] Available at: http://www.edanhughes.com/biography.cfm?ArtistID=704> [Accessed 1 May 2012].

Hart, J.D. (1978) *Discussion on drawings*.[letter], (Personal communication, 7 November 1978).

Hart, J.D. (1978) *Discussion on drawings*.[letter], (Personal communication, 22 December 1978).

Hart, J.D. (1978) *Discussion on drawings*.[letter], (Personal communication, 15 May 1979).

Online Archive of California, *Charcoal Sketches of Los Angeles, California, ca.* 1934-1947.[online]Available

athttp://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles<a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles<a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles<a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles<a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles<a href="http://www.oac.cdlib.org/findaid/ark:/13030/tf7z09p2wz/?query=charcoal%2520sketches%2520of%2520los%2520angeles

OskiCat UCB Library Catalog. *Wardman, John W*.[online]Available athttp://oskicat.berkeley.edu/record=b10733470~S59 [Accessed 1 March 2012]

Wardman, J.W., (1978) *Discussion on drawings*. [letter], (Personal communication, 16 October 1978).

Wardman, J.W., (1978) *Discussion on drawings*. [letter], (Personal communication, 11 December 1978).

Wardman, J.W., (1978) *Discussion on drawings*. [letter], (Personal communication, 19 April 1979).

Wardman, J.W., Contents of package to The Bancraft Library. [letter], (Personal communication).