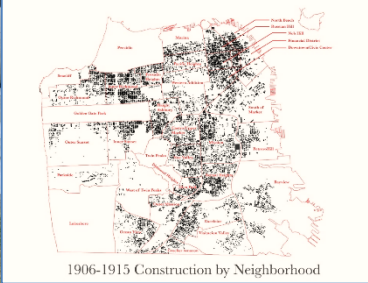
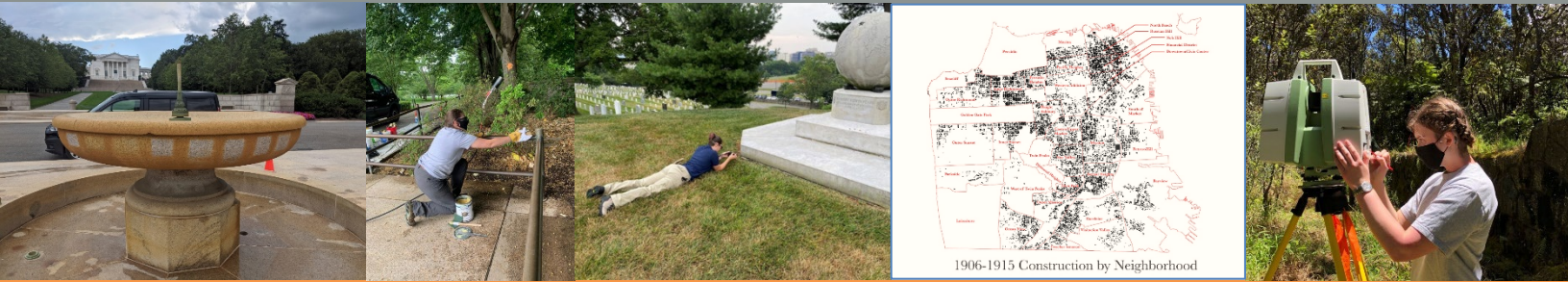
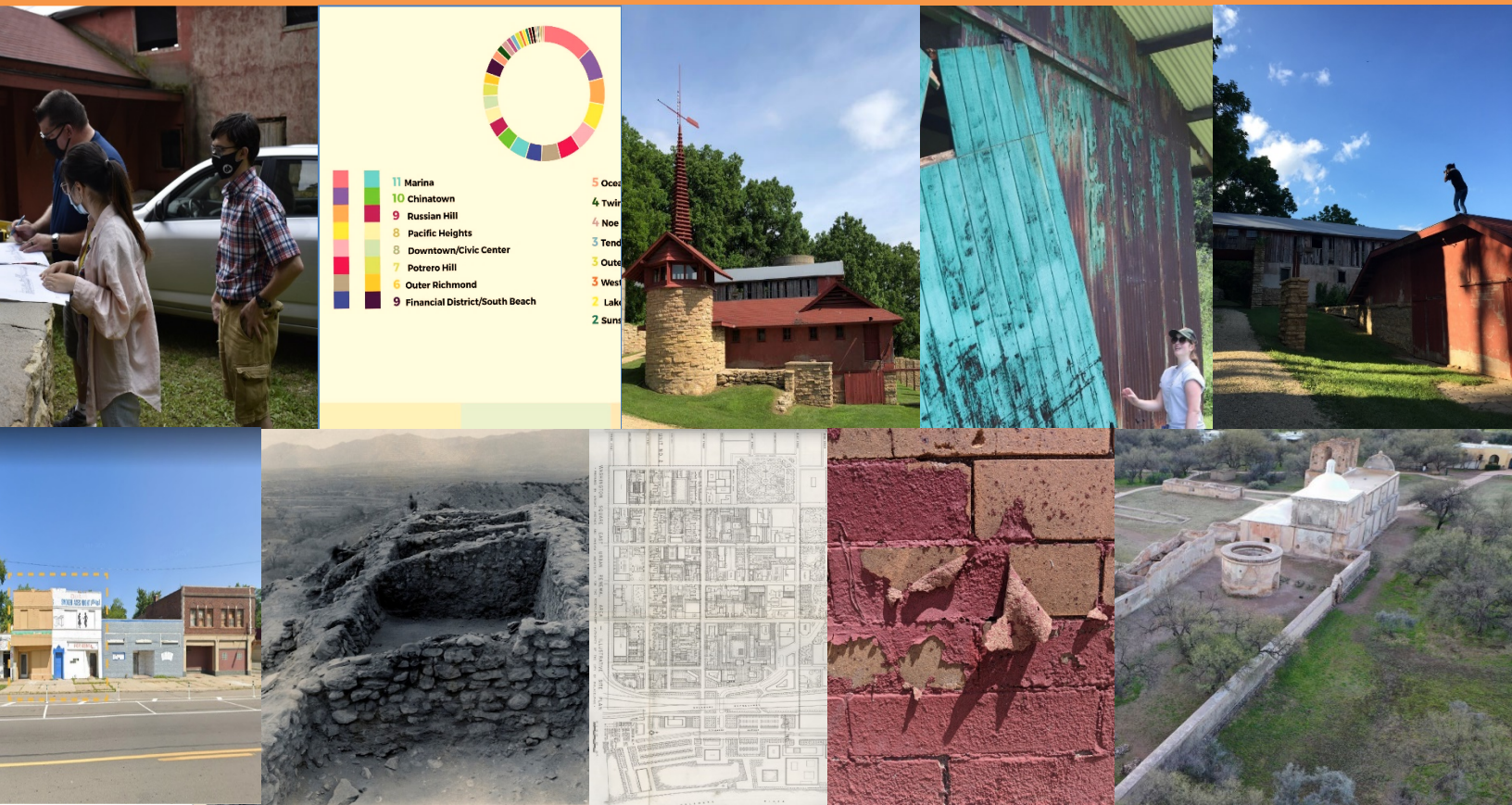


UNIVERSITY OF PENNSYLVANIA  
STUART WEITZMAN SCHOOL OF DESIGN  
GRADUATE PROGRAM IN HISTORIC PRESERVATION



STUDENT INTERNSHIPS  
SUMMER 2020



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## Ifrah Asif

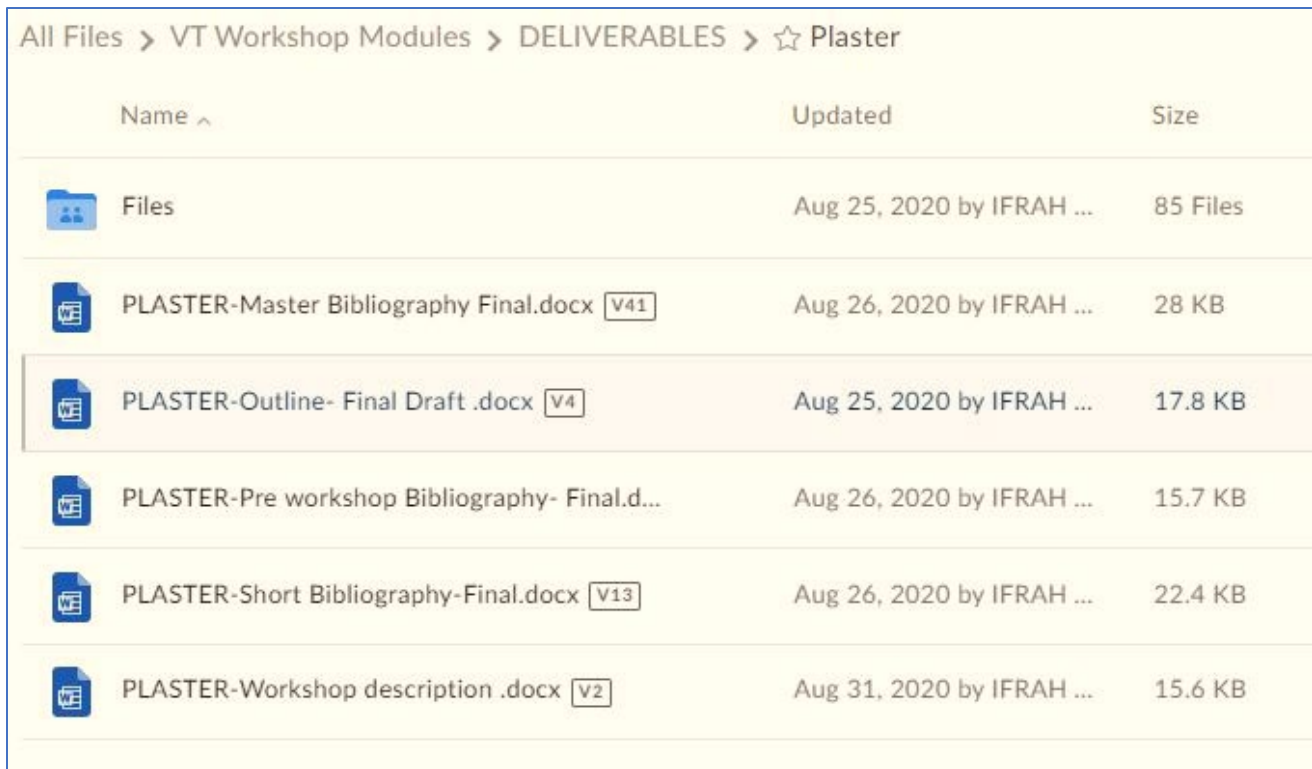
Center for Architectural Conservation, National Park Service BEST Workshop

Philadelphia, Pennsylvania







This summer I worked as a research fellow at the Center for Architectural Conservation (CAC) within the Department of Historic Preservation at UPenn. The project was in collaboration with the Western Center for Historic Preservation (WCHP) and Historic Preservation Training Center (HPTC), under the National Park Service. The project, Vanishing Treasures, was related to the curriculum development for the WCHP's BEST (Brick, Earth, Stone, Timber) workshops. BEST Preservation Workshop series train employees at all levels of the NPS in the preservation of traditionally-built historic resources using problem-

modules, and a Zotero database. The project outline included technical history, material properties, and characteristics, performance and deterioration, documentation and assessment, intervention, and maintenance.

A master bibliography list compiled through research relevant to the outline, from which major readings and resources were shortlisted and compiled into a shortlist bibliography. A comprehensive pre-workshop bibliography was created to be provided to the trainees before the



The screenshot shows a file management interface with a breadcrumb trail: All Files > VT Workshop Modules > DELIVERABLES > ☆ Plaster. Below the trail is a table with three columns: Name, Updated, and Size. The table lists several files, including a folder named 'Files' and several Word documents with version numbers in brackets.

Name ^	Updated	Size
 Files	Aug 25, 2020 by IFRAH ...	85 Files
 PLASTER-Master Bibliography Final.docx [v41]	Aug 26, 2020 by IFRAH ...	28 KB
 PLASTER-Outline- Final Draft .docx [v4]	Aug 25, 2020 by IFRAH ...	17.8 KB
 PLASTER-Pre workshop Bibliography- Final.d...	Aug 26, 2020 by IFRAH ...	15.7 KB
 PLASTER-Short Bibliography-Final.docx [v13]	Aug 26, 2020 by IFRAH ...	22.4 KB
 PLASTER-Workshop description .docx [v2]	Aug 31, 2020 by IFRAH ...	15.6 KB

based and hands-on learning. The Vanishing Treasures Project is to develop new courses that focus on the six predominant building systems and materials; heavy timber construction, light-frame construction, historic masonry, adobe, plasters, and painted finishes.

My role in the internship was to develop the Plaster Conservation curriculum for the project, which included course description, project outline, bibliographic data compilation, developing plaster conservation curriculum

workshop. A list of relevant case studies for plaster conservation was developed as well.

The project was an incredible opportunity for research as it allowed me to deepen my understanding of plaster conservation. Through this project I explored new ways of researching, gathering data, and compiling resources in a useful bibliographic format. I am grateful to Professor Matero, Erin Gibbs, CAC, and the NPS for allowing me to have this opportunity.



## Jennifer Boggs

Arlington National Cemetery, National Park Service

Arlington, Virginia

During the summer of 2020, I worked as an architectural conservator at Arlington National Cemetery through the National Park Service's National Council of Preservation Education Internship program. There were two conservation interns, including myself. We worked under a UPenn HSPV alumni, Caitlin Smith.

We had numerous projects this summer primarily focused around the Memorial Amphitheater. Our first task was to document the conditions of the items recovered from the Memorial Amphitheater Memorabilia box. Next, we applied zinc oxide to the Amphitheater to reduce the amount of grey biofilm present on the marble surface. The project that took the longest involved the bronze railings adjacent to the Tomb of the Unknown Soldier Plaza. We hand-shaved, applied patina, applied 2 coats of hot wax, and applied 1 coat of paste wax to over 30 railings. The experience we gained from the railings was very useful when it came time to spot treat the Sir John Dill sculpture and when we got to re-conservate the Memorial Amphitheater bronze flagpole base. The most interesting project we performed this summer was the rust reduction and cleaning of the Tomb of the Unknown Soldier plaza and ledger stones. We performed several rounds of



*Chemical test results for the Roosevelt Fountain rust reduction project*

tests on both the granite and marble ledger stones to determine the safest and most effective chemicals for the jobs. We even got to use a digital microscope to monitor closely the effects of the test treatments. The rust reduction on the Roosevelt Fountain went quite efficiently after performing the plaza tests. In the end, we learned much about site safety and environmental protection while working on the rust reduction and stone cleaning projects.

On rainy days, our outdoor work was limited. As a result, we spent the time writing reports for the work that we completed. Such reports included writing comprehensive statements of work, providing photos of every stage of the treatment processes, reading and adding all of the Safety Data Sheets, and writing thorough Conditions to be Treated statements. We also had the opportunity to prepare Section 106 forms for the cemetery. When reports were complete, we researched the conditions that we were treating and how others (not ANC) were going about with their own projects (i.e. Jefferson Memorial Laser treatment).

Overall, our summer was very productive. We had the unique opportunity to work at one of the most congested portions of the cemetery without the interruption of thousands of daily visitors. We even had the opportunity to speak with numerous other people in the National Park Service, the Smithsonian, and the Army about the role preservation plays in their particular jobs. I am incredibly grateful for the opportunity I had this summer to work as a conservator at our nation's most premier military cemetery.



*Me applying hot wax to the bronze railings*



## Alli Davis

Arlington National Cemetery, National Park Service

Arlington, Virginia

This summer, I had the novel experience of interning at Arlington National Cemetery (ANC) in Arlington, Virginia, just across the Potomac River from Washington, D.C. It is one of the most prominent and well-known military cemeteries in the nation, with more than 400,000 active duty service members, veterans, and their families interred there. Over 3,000 funerals and memorial ceremonies are held annually, and over 3 million visitors arrive each year. This year, the COVID-19 pandemic created very unusual circumstances and ANC closed its doors in April to visitors except for family members with visiting passes and funeral or memorial service attendees. Funerals were also reduced in frequency and attendees. Three other interns and I had the opportunity to experience ANC without the throngs of tourists and were therefore able to work in high profile areas during the day as a result. I joined the team of interns as one of two Architectural Historians.

In 2014, the Arlington National Cemetery Historic District was added to the National Register of Historic Places. As part of the compliance with National Register status, the other architectural historian intern and I performed a condition assessment survey of over 130 features within ANC and its additional property, the Soldiers' and Armen's Home National Cemetery. The fieldwork included a visual assessment with formalized infield condition notes and photographic documentation. Each survey was completed by updating previous year reports or creating new reports for newly added features. We made significant improvements to the reports and their organization and added about 10 new features to the list. We gave each feature a condition rating of Good, Fair, or Poor, and a deficiency rating of Minor, Severe, or Critical, and provided treatment recommendations based on the National Park Service's preservation briefs. From the ratings, we created a prioritized list for ANC to address.



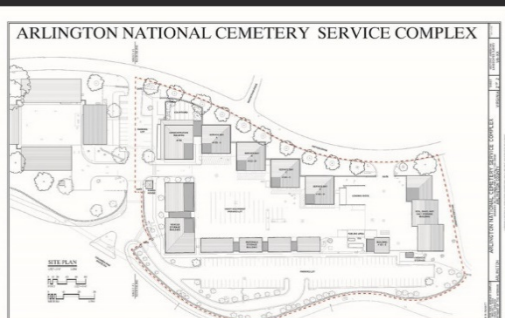
Photo documentation of the survey at Arlington National Cemetery, 2019

We also fulfilled requirements from a Programmatic Agreement between ANC, the Virginia Department of Historic Resources (DHR), the Department of Transportation, the Air Force, and other stakeholders for ANC's Southern Expansion Project. This project includes the demolition of a large, modern maintenance complex and disassembly of a section of the southern boundary wall. Our duties for this project were to perform a selective survey and document the maintenance complex and enter the information into the DHR's online Cultural Resources Information Systems database.

Other secondary tasks of the internship required us to create a non-character defining features survey (as opposed to the character defining features) and a historic lighting fixture survey of the Memorial Amphitheater to support the HABS Historic Structures Report. We were also able to assist the conservation interns with some treatments around the Tomb of the Unknown Soldiers Memorial Plaza.

## Service Complex

- Documentation of Service Complexes 117 & 123
- Entry into Virginia Cultural Resource Information System (VCRIS)
- Compliance with Programmatic Agreement for Southern Expansion Project

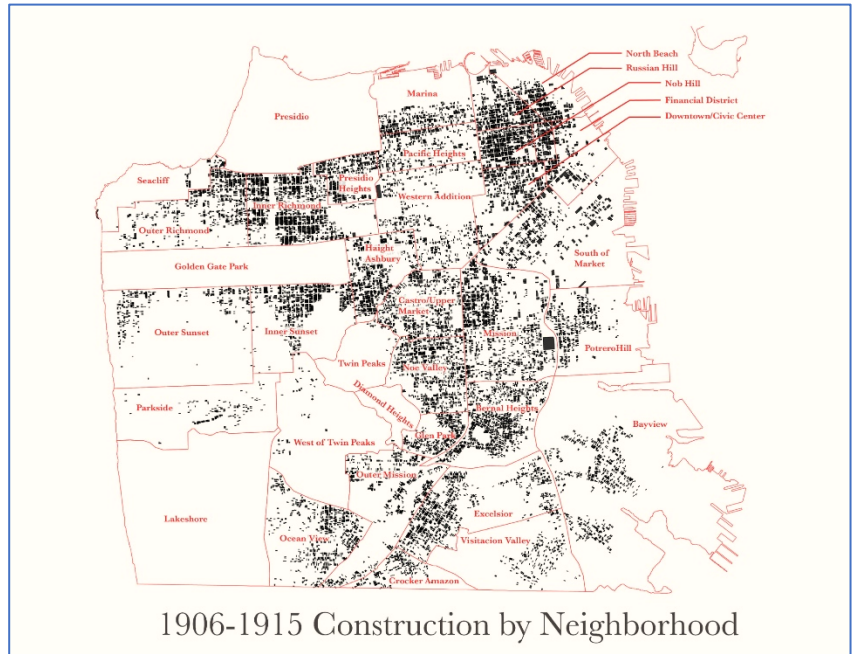


Planned demolition of the service complex required entry into the Virginia Cultural Resource Information System

At the end of the summer, we presented the results of our internships to prominent Cemetery executives, including the Chief of Staff and Chief Engineer, to demonstrate the necessity and importance of the work, as well as point out some universal practices within ANC that accelerate the damage to many of their historic features. Overall, I found the internship rewarding, and our supervisors, Tom Vitanza and Rebecca Stevens, were enthusiastic about how important our work was for Arlington National Cemetery. I learned a great deal about the intricacies of inter-

agency collaboration between the National Park Service and the Army Corps of Engineers, which I hope will inform my future career.

In a multi-year effort to compose a comprehensive historical narrative for the city, the Citywide Historic Resources Survey team is writing a series of Historic Context Statements through three lenses: thematic, cultural, and architectural. This summer, I was tasked with devising an Edwardian-era residential architectural context statement under the umbrella of 20th century architectural styles. Descriptions of historic and cultural themes, architectural styles, patterns of development, significant groups, events, and building typologies provide an advanced understanding of matters that have influenced the city's physical form. Historic context statements provide Planning Department staff and other professionals a consistent framework within which to contextually identify, interpret, and evaluate the city's historic and cultural resources. Though the internship operated remotely and did not allow me to complete traditional survey work (a lot of time was spent trying to find my bearings on Google Street view while 3000 miles away) my research, a series of intern trainings, and various virtual meetings made for a really interesting summer experience!



1906-1915 Construction by Neighborhood  
Graphic created from ArcMap data to represent the scope of reconstruction efforts after the 1906 earthquake and fire

SF SURVEY:  
CITYWIDE HISTORIC RESOURCES SURVEY

Context: Architectural  
THEME: Early 20th Century Residential Architectural Styles, 1900 – 1935  
SUB-THEME: Edwardian-era Residential Architectural Styles 1900 – 1915

Chapter 1:  
**PROJECT DESCRIPTION**  
Introduction

Chapter 2:  
**METHODOLOGY**  
Historic and Archival Resources  
Complementary Historic Context Statements  
Complementary Historic District Reports

Chapter 3:  
**EDWARDIAN AS A PERIOD OF ARCHITECTURAL CHANGE**  
Period Justification  
Defining “Edwardian-era” – Architectural Context  
The Reconstruction Era (1906-1914) – Historical Context  
Building Typologies – Residential

Chapter 4:  
**EDWARDIAN-ERA RESIDENTIAL ARCHITECTURAL STYLES (1900-1915)**  
Queen Anne, (1880-1910s)  
Classical Revival, (1890-1920s)  
Mission Revival, (1890-1920s)  
Craftsman, (1900-1920s)  
First Bay Traditional, (1880-1910s)  
Active Practitioners in Residential Design

Chapter 5:  
**PRESERVATION GOALS AND PRIORITIES**  
Criterion for Designation  
Eligibility for Designation Standards  
Considerations of Integrity  
Recommendations

Bibliography  
Appendix

Historic Preservation staff operate under multiple divisions within the San Francisco Planning Department including Citywide Planning, Environmental Planning, and Zoning & Compliance, thereby providing myself and the other interns with a wide range of mentors, projects, and meetings. Weekly training sessions centered around the San Francisco Planning Code, race and social equity in preservation, CEQA, and permit review; they also connected us with the Urban Design Advisory Team, Residential Design Advisory Team, the Planning Director himself, and many more! The remote nature of the internship allowed for many virtual meetings and lectures all in one day’s work. It also meant I had to get creative crafting the Historic Context Statement and finding resources in unexpected places. My research was built on dozens of SF Planning Department documents and resources, online repositories, ArcMap data, staff interviews, architectural dictionaries, and more. I was able to take the lessons and skills I had learned throughout first-year and apply them to the complexities of my planning work and research.

I am so grateful to the SF Planning Department for continuing their robust and engaging internship program despite the challenges of 2020, and for connecting interns from all over the country to their incredible staff and the work that they are doing.

Table of contents for the final deliverable, a Historic Context Statement, the culmination of weeks of research into the city’s diverse, historic built environment



## Tali Flatté

Hawai'i Volcanoes National Park, Cultural Resources Management

*Big Island of Hawai'i, Hawai'i*



I spent this summer at Hawai'i Volcanoes National Park (HAVO) on the Big Island of Hawai'i working in the Cultural Resources Management department. The park consists of 335,000 acres, ranging in elevation from sea level to 4,169 m.a.s.l. The park encompasses both the Kīlauea and Mauna Loa volcanoes. As such, the landscape is extremely dynamic, often subjected to eruptions and earthquakes which can drastically change the appearance and makeup of the park. In particular, the 2018 eruption of the Kīlauea volcano drained the Kīlauea caldera and caused it to collapse approximately 2,000 ft downwards. In addition to the lava flow, the subsequent months were rocked by tens of thousands of earthquakes causing property damage and structural instability for many of the HAVO structures. My work this summer involved investigating the condition of many cultural resources in the aftermath of these events. Through a mix of onsite survey and archival research, I updated the NPS Cultural Resources Inventory System (CRIS) with conditions assessments, impact investigations, management texts, significance statements, and photo documentation for the resources.

One main project concerned the Thomas A. Jaggar Museum along Crater Rim Drive. Situated on the rim of the caldera, the museum overlooks Halema'ūma'u Crater, considered to be the home of the volcano goddess Pelehonuamea. The 2018 eruption compromised the structural stability of land upon which the museum is situated. As a result, the park will be remodeling the site to create a new observation point for the Crater. My fellow intern and I were tasked with assisting to close out the historical record on the structure prior to its remodel. On site, I documented the changed appearance of the museum by retaking photographs and

cataloguing the various damage which had occurred. I also delved into the HAVO archives for blueprints, work orders, and park correspondence to help illustrate the chronology of the building. This project will culminate in a National Register nomination.

Another project involved the documentation of resources located in the recesses of the Kahuku Unit. The Kahuku Unit operated as a cattle ranch for over 150 years (during which it had a brief stint as a secret radar station for the military in WWII) before being acquired by HAVO in 2003. Scattered within the 116,000 acres are water tanks, corrals, cattle ramps, water troughs, sheds, logging stations, and other enclosures. Many of these resources had no photographs and minimal description in the database. Armed with some rather uninformative maps, a Garmin GPS, and four-wheel drive, we spent several days on site tromping through waist-high grass and mud, stepping on hidden pipes and falling down steep slopes. We were able to find, photograph, and assess approximately 80 resources.

One of my side tasks was to assist the archaeologists with laser scanning different structures around the park. We spent one day scanning a CCC incinerator and a few days scanning the 'Āinahou Ranch House. During these excursions, we discussed how the park was affected by both the 2018 eruption and the COVID-19 pandemic, as well as how it has adapted its preservation mission and techniques over the years.

Throughout this internship, I was able to implement many of the skills I acquired over the past year. The largest aspect of my work included documentation and survey, and I constantly drew upon building pathology and conservation science for conditions assessments. The conversations we had on site often felt like a real-time theories of preservation discussion as we considered whether to repair, reconstruct, or stabilize damaged resources. This internship provided the opportunity to experience working at a National Park and to observe how cultural resource management functions in real time.



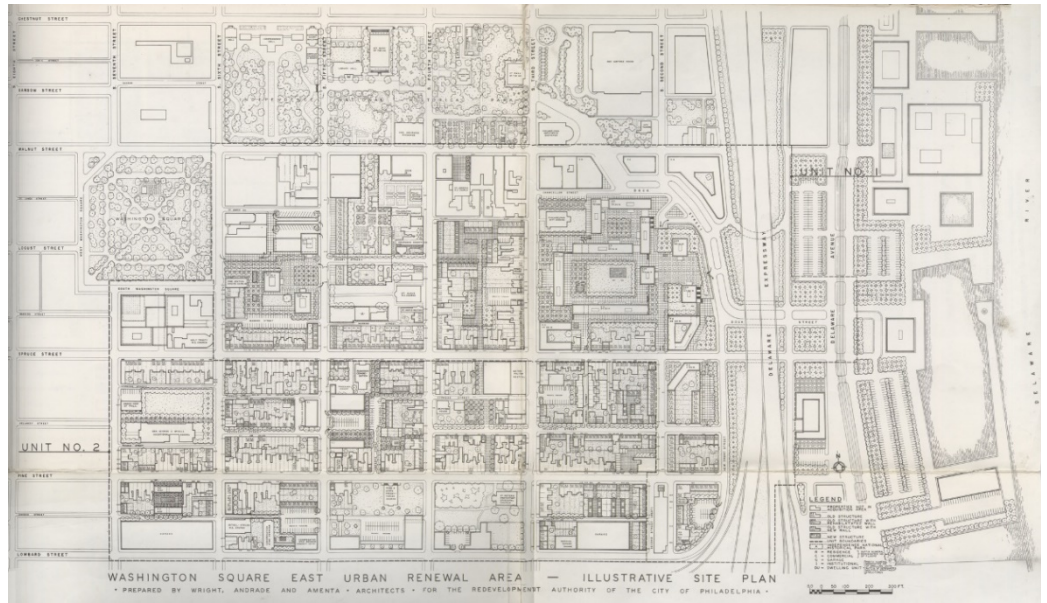


## Gabrielle Goldstein

Society Hill Research Assistant

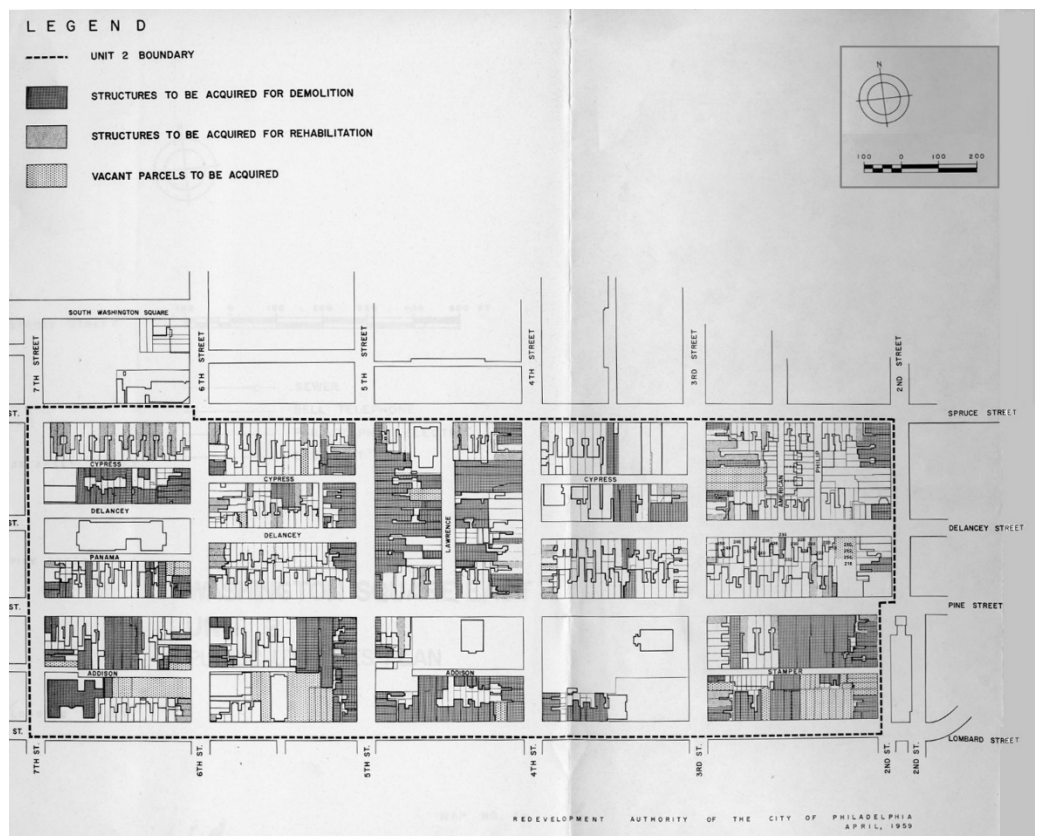
Philadelphia, Pennsylvania

This Summer, I was a research assistant for Francesca Ammon, who is doing research on the urban renewal project of Society Hill, which took place starting in 1959. My primary job was doing deed research. The goal was to understand how urban renewal impacted residents living in the neighborhood before and after the project started. The main questions I was trying to answer were whether residents remained through renewal, whether the properties were rehabilitated, demolished, newly constructed, and finally, how the prices of the properties changed throughout the 20th century.



I traced the deeds back, when possible, to the person who owned the lot prior to the urban renewal project. From there, the deeds told various stories of residents of Society Hill during urban renewal. Some lots were sold several times between 1950 and the late 1970s/early 1980s, indicating that people were not able to or not interested in rehabilitating their properties. Occasionally, families chose to remain through renewal. Often, lots were acquired by the Philadelphia Redevelopment Authority, which more often than not, acquired them through condemnation.

In order to track all of this data, I created a spreadsheet that collected dates of sale, grantors and grantees, sale prices, and actual value of lots. The collection of data allowed for calculations which tracked critical trends of the neighborhood. In doing so, Francesca can now more easily understand what happened to the residents of Society Hill and what happened to each house throughout the urban renewal process.



I will be continuing this research throughout the semester, which will now include visits to City Archives in order to fill in any information that is missing due to lack of information online.



## Namratha Kondam

Center for Architectural Conservation, Mission San José de Tumacácori

Santa Cruz County, Arizona [remote]

This summer, I interned at Center for Architectural Conservation (CAC) under the supervision of Frank Matero and John Hinchman. My project site was Mission San José de Tumacácori which is a National Historical Park located in Santa Cruz County, Arizona. The Tumacácori mission was established by Father Kino in January 1691, making it the oldest mission site in Arizona. My work was to concentrate on the Campo Santo structure which is also known as the cemetery situated at the North end of the Franciscan church complex. The Campo Santo was built around 1822. The project was a part of vulnerability studies on the Campo Santo structure for which site visit was required. Due to the COVID-19 situation and travel restrictions I had to work from home. But I was lucky enough to have visited the Tumacácori park site for a week in February 2020 as a part of Conservation of Archaeological Sites course that I have taken in my Spring 2020 semester. So, I had a good idea of the historic space and structures.

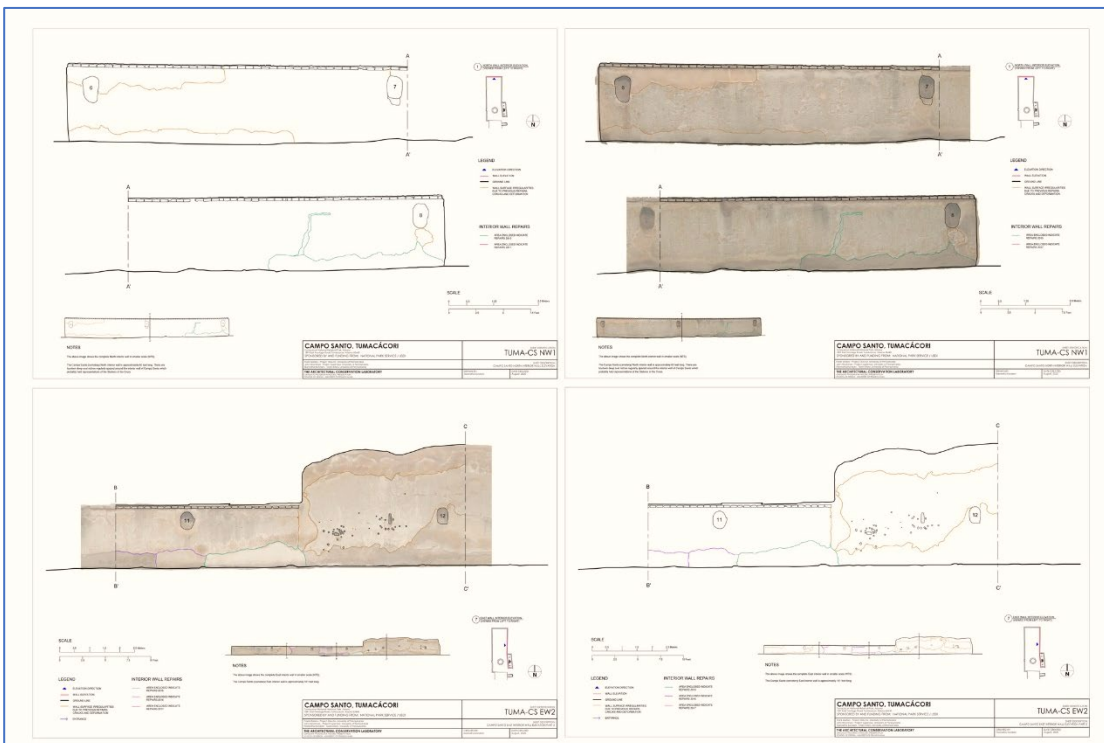


Aerial view of the Campo Santo along with the church complex

My responsibilities in this project were to create elevation drawings of the Campo Santo walls from the images generated from Agisoft. I also worked on creating plan layouts of the site and Campo Santo. Later these drawings

were plotted on 36\*24-inch sheets. The software I used during my internship include AutoCAD, Adobe Bridge, Photoshop, Illustrator and InDesign. These drawings are created to indicate past repair works and for future condition assessment of the walls of Campo Santo. Though my resource accessibility was restricted, I received all the necessary resources from my supervisors and the NPS during the course of my internship. Throughout the summer internship I was in contact with my supervisors with regular updates and discussions on the project. This internship was a great opportunity for me to work on my design, graphic software and presentation

skills. Although I didn't have a hands-on experience during the project, I was still able to learn a lot from my supervisors through their guidance, suggestions and comments on my work.

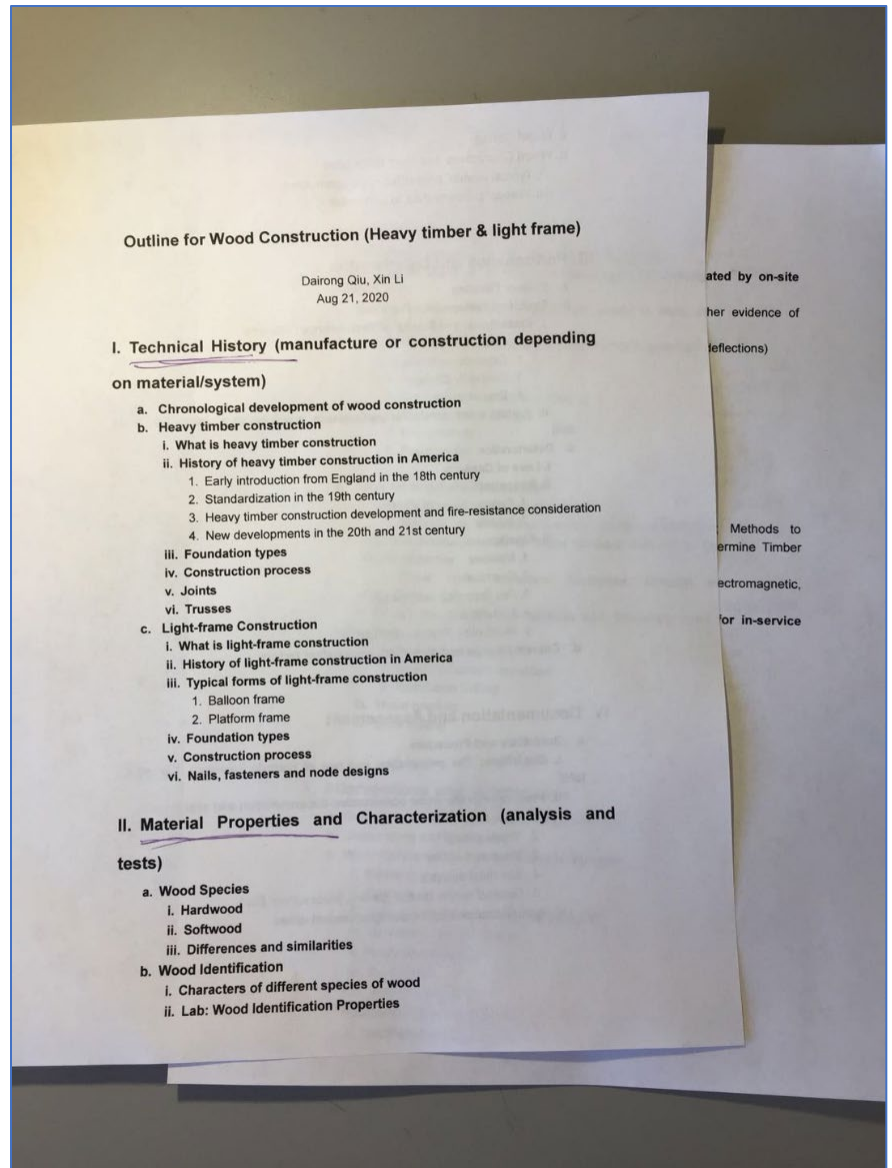


Example of elevation drawings created of the Campo Santo wall

I worked as a research fellow at the Center for Architectural Conservation during the summertime. Cooperating with National Park Service, we (Dairong Qiu and I) did exhaustive research on wood and wood construction conservation, serving as a basis in the near future to develop a workshop for craftsmen.

In order to reflect advances in preservation principles, practice, science, and technology, including integrating practical methodologies for wood and wood construction conservation, we did literature research and case studies, interviewed professionals in relevant fields, created an outline for the workshop and categorized all the research materials into seven categories: the technical history of wood construction (especially the heavy timber construction and light-frame construction), material properties and characterization, performance and deterioration, documentation and assessment, interventions and maintenance, sustainable development and ecological approach, and appendices or references. We then selected the readings and videos that could best illustrate the wood conservation topic vividly and concisely and created a pre-workshop list (the best and most easily digestible resources applied to students ahead of the workshop) and a short-list bibliography (supplied to students for continued research during the workshop). In the end, we drafted our suggestions for the workshop course module list, which can be used as a reference for further workshop development.

This internship not only trained my research abilities to understand a brand-new field in a relatively short time and to organize all the materials clearly and logically, but also improved my skills to cooperate with my partners efficiently.



All Files > VT Workshop Modules > DELIVERABLES > ☆ Wood Construction		
Name	Updated	Size
Materials in Master Bibliography	Sep 3, 2020 by XIN LI	148 Files
Materials in Pre-workshop Bibliography & Teaching resources	Sep 3, 2020 by XIN LI	34 Files
Materials in Short list Bibliography	Sep 1, 2020 by DAIRONG QIU	32 Files
Workshop Description.docx	Aug 31, 2020 by XIN LI	14.8 KB
Pre-workshop & Short list & Teaching materials.docx	Aug 31, 2020 by DAIRONG QIU	25.2 KB
Master Bibliography.docx [V2]	Aug 31, 2020 by XIN LI	47.4 KB
Class Module List- Wood Construction.docx [V3]	Aug 30, 2020 by DAIRONG QIU	21.3 KB
Outline(Final) - Wood Construction.docx	Aug 25, 2020 by XIN LI	19.3 KB



## Julia Marchetti

PennPraxis, San Francisco Legacy Business Program

San Francisco, California

Largely motivated by mounting development pressures and increasing fears of displacement and cultural erasure, San Francisco's Legacy Business Program was established in 2015 as the first of its kind. While traditional preservation policies, like historic designation at the local level, are successful in protecting particular buildings from demolition, this type of tool does very little to protect the uses of a building, such as a business.

Under the auspices of PennPraxis/RM in collaboration with the San Francisco Planning Department, Julia Marchetti (MCP/MSHP) considered the effectiveness of the program from a number of perspectives such as business proprietors, City Council, the San Francisco Planning and Small Business departments, and community activists concerned with historic preservation and anti-gentrification efforts over the course of a six-week research project. The goal of this project was to create a baseline assessment of the data available and recommend other data that should be collected, analyzed, and updated in the months and years to come. This project marshals quantitative data, documents spatial patterns, and uses these data to reflect on larger conceptual and strategic questions surrounding the Legacy Business Program.



## ASSESSING THE LEGACY BUSINESS PROGRAM

Prepared by:  
Julia Marchetti  
PennPraxis/RM  
in collaboration with  
the San Francisco Planning  
Department

A series of interviews added important context by providing key insights into the program's strengths and weaknesses as well as raising additional questions. Specific outcomes of this project include a master spreadsheet with complete business and property level data for all LBP participants, a report (drawing on document research, interviews, SWOT analysis, and recommendations for next steps and additional research), and a PowerPoint slide deck summarizing this initial foray into evaluation (for presentation to the Historical Commission and other interested parties).

## INTERVIEW KEY TAKEAWAYS

Insights	Biggest Barriers	Goals
<ul style="list-style-type: none"> <li>Intangible heritage is highly fluid</li> <li>The importance of formal recognition through a registry</li> </ul>	<ul style="list-style-type: none"> <li>High rents and fixed costs</li> <li>Funding and Staff Capacity</li> <li>Lack of awareness</li> <li>Difficulty filling out application</li> <li>Political challenges</li> </ul>	<ul style="list-style-type: none"> <li>A continued focus on equity</li> <li>Improved communication and clarified language</li> <li>Program expansion</li> </ul>

## SELECT DATA

### Neighborhood Clustering



32 Mission  
18 South of Market  
15 Western Addition  
15 Castro/Upper Market  
14 Bayview Hunters Point  
13 Haight Ashbury  
12 North Beach  
10 Inner Richmond

11 Marina  
10 Chinatown  
9 Russian Hill  
8 Pacific Heights  
8 Downtown/Civic Center  
7 Potrero Hill  
6 Outer Richmond  
9 Financial District/South Beach

5 Oceanview/Merced/Ingleside  
4 Twin Peaks  
4 Noe Valley  
3 Tenderloin  
3 Outer Sunset  
3 West of Twin Peaks  
2 Lakeshore  
2 Sunset/Parkside  
2 Bernal Heights  
2 Hayes Valley  
2 Nob Hill  
1 Outer Mission  
1 Japantown  
1 Parkside  
1 Excelsior  
1 Presidio  
1 Crocker Amazon

Source: San Francisco Property Information Map

## Greg Maxwell

Center for Architectural Conservation, Tuzigoot National Monument

*Clarkdale, Arizona [remote]*

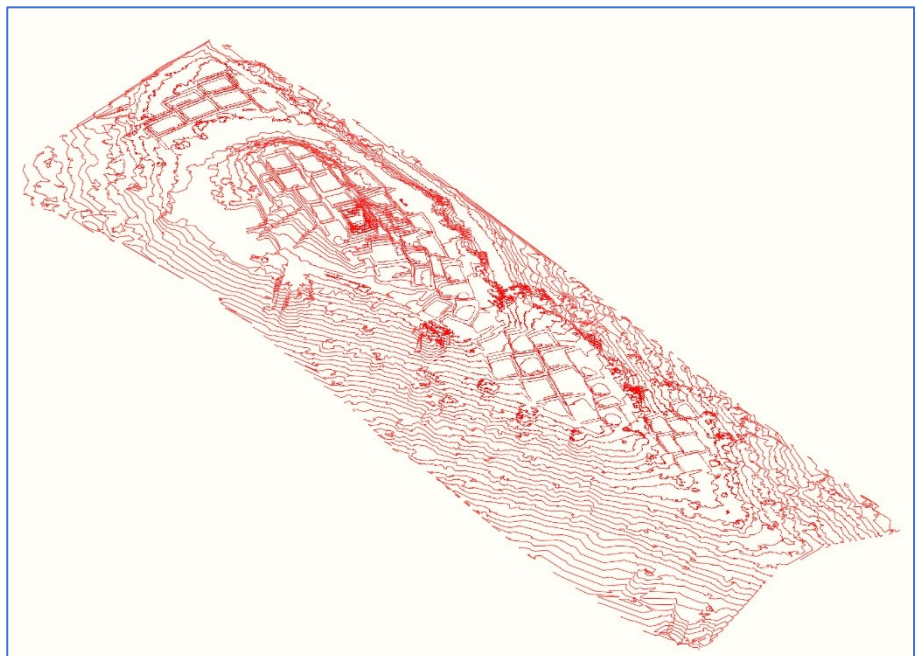
This summer, I worked (from home) for the Center for Architectural Conservation as a Researcher focused on Tuzigoot National Monument in Clarkdale, Arizona. Tuzigoot is a tiered pueblo made of rubble walls and is built on a ridge in central Arizona. My responsibilities this summer included managing legacy data, compiling it in a working database for future use and manipulating an aerial lidar scan (point cloud) of the site in an effort to develop baseline documentation for future surveys and field work.

One focus of my summer work was determining how to disseminate existing and new data in a way that would aid in the rapid assessment and targeted intervention on site. Historically, conservation of the pueblo walls has been identified by room. I added wall segments to the site plan as a precursor to a new wall numbering system. These wall segments are based upon how walls were chronologically built and how they join with other walls on site. The polygons that can be linked to data in GIS. I also maintained polygons for the rooms so that historical data may be represented in GIS by room rather than solely by wall or wall segment. Going forward, data can be layered and analyzed in different ways in GIS.

This summer, I relied upon many of the things I had learned and studied in my first year. Classes such as American Architecture, Documentation, Recording, Digital Media, and Building Pathology all related to my work over the summer. At the end of the summer I had developed a working database, manipulated a dense point cloud model, and created a site plan that will serve as a canvas for future data analysis and interpretation. Although pandemic conditions prevented a site visit, I still feel as though I benefited from the experience of working with materials for this type of site and

typology of historic architecture. I look forward to continuing my work on Tuzigoot National Monument with the CAC.

I compiled available documentation from the park archives including maintenance records, field notes and photographs from excavation and stabilization work, and investigative reports relating to architectural and archaeological resources. I formatted that data into a working database to be used in conjunction with geographic information system (GIS) software such as ArcMap or QGIS and site base maps in order to perform spatially based analysis of the pueblo walls. The conservation history database compiles data from prior conservation work beginning around 1990. Each report was reviewed and included in the database. As work on a site progresses, new data may be added and graphically analyzed to target future maintenance work.





## Dairong Qiu

Center for Architectural Conservation, Vanishing Treasures Program

Philadelphia, Pennsylvania [remote]









This summer, I worked remotely for the Center for Architectural Conservation as a Research Fellow focused on WCHP/ HPTC Workshop Curriculum Development. This project is coordinated by the Vanishing Treasures Program (VT) and the University of Pennsylvania (UPenn). The project aims to develop a preservation training strategy that addressed technical preservation and its underlying principles, theories, and methodology for VT. Our work this summer was to develop new (or expanded) courses that focus on the six predominant building systems and materials currently missing or underdeveloped from the VT curriculum: heavy timber construction, light-frame construction, plasters, and painted finishes.

We (Xin Li and I) did exhaustive research on wood and wood construction conservation and set a bibliography, serving as a basis shortly to develop a workshop for Vanishing Treasures Program. We did literature research and case studies to set up a basic knowledge system of wood and wood construction for ourselves and found the best reading and virtual resources that are suitable for our audiences. After that, we set an outline for the workshop. Additionally, we scheduled several meetings with teachers and professionals in relevant fields to ask for advice about

the course outline and appropriate resources. We then selected the readings and virtual materials that can best explain and illustrate the wood and wood structure conservation to our audience and created a pre-workshop list and a short-list bibliography. Moreover, we spent some time and drafted a workshop course module list. We cooperated closely with the National Park Service to correct and revise our work to fit our clients' needs during this process.

To finish this work, I relied upon many of the things I had learned and studied in my first year, such as Building Pathology, Conservation Science, Theories of Historic Preservation. Through this work, I set up a knowledge system of wood and wood construction, which will be really helpful for my future study. I nurtured the ability to do literature research and find out useful information quickly. I also learned how to set up an excellent bibliography and outline for a course, which may help my future research and career development. Though it's a pity that we haven't finished a full course module yet, I'm looking forward to continuing my work.

All Files > VT Workshop Modules > DELIVERABLES > ☆ Wood Construction

Name	Updated ▾	Size	⋮ >
 Materials in Master Bibliography	Sep 3, 2020 by XIN LI	148 Files	
 Materials in Pre-workshop Bibliograp...	Sep 3, 2020 by XIN LI	34 Files	
 Materials in Short list Bibliography	Sep 1, 2020 by DAIR...	32 Files	
 Workshop Description.docx	Aug 31, 2020 by XIN...	14.8 KB	
 Pre-workshop & Short list & Teachin...	Aug 31, 2020 by DAI...	25.2 KB	
 Master Bibliography.docx <span>V2</span>	Aug 31, 2020 by XIN...	47.4 KB	
 Class Module List- Wood Constr... <span>V3</span>	Aug 30, 2020 by DAI...	21.3 KB	
 Outline(Final) - Wood Construction.d...	Aug 25, 2020 by XIN...	19.3 KB	

## Ha Leem Ro

Center for Architectural Conservation, Taliesin

Spring Green, Wisconsin

Over the summer, I worked for the Center for Architectural Conservation under the supervision of Frank Matero, John Hinchman and Evan Oskierko-Jeznacki. I had the opportunity to intern at the Taliesin estate in Spring Green, Wisconsin, particularly documenting and recording Midway Barns, one of the only Frank Lloyd Wright designed farms. Staying in a Taliesin apartment for three weeks was also one of the highlights of the internship.

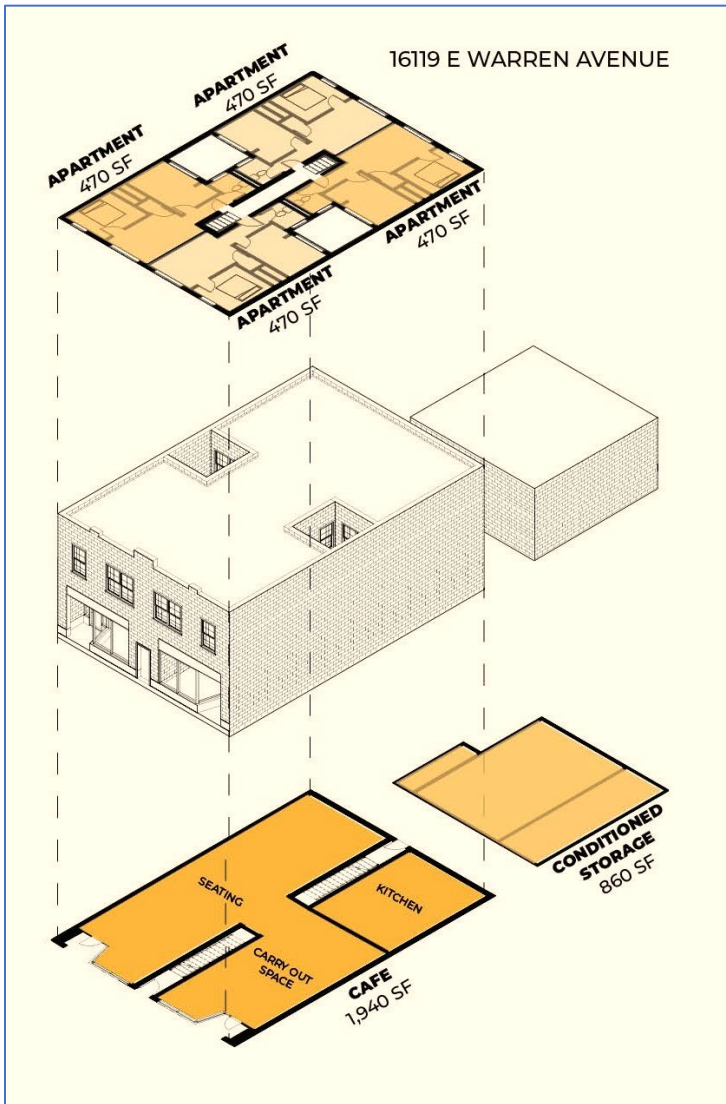
The internship entailed quite heavy documentation of the whole site, from collecting/organizing archival material to photography and field recording. In the initial stages of the internship, I worked closely with Taliesin Preservation, Inc. (TPI) collecting any historic documents and photographs to establish a database for Midway. The later majority of the internship mostly involved working on site; I focused particularly on repeat photography, taking historic photos and replicating them as closely as possible. TPI also helped in taking field measurements as it involved taking dimensions of all the buildings on site as well as the roof.

After coming back to the CAC, I worked on creating a 3D point cloud model through using softwares such as Agisoft and ReCap. The point cloud data was used for capturing further measurements which was then also used in building a 3D model of Midway Barn through SketchUp.

My time at Midway Barn allowed me to see how theories, principles and ideas that we discussed in class come into play in the field. I learned that preservation is not always as clear-cut of an issue as much as I like it to be - it is about being flexible, setting up priorities and realizing what can and what cannot be done.







This summer, I was a PennPraxis Design Fellow, where through Professor Mason, I was able to remotely intern at the City of Detroit Planning and Development Department. This role is part of the Detroit-Philadelphia Preservation Exchange funded by the Knight Foundation. I had three specific projects this summer, focusing on tactical preservation, a program that encourages the phased, incremental reuse of vacant buildings.

For the first two projects, I reported to Ann Phillips, an Historic Preservation Architect. The first task was to create a one-page document to educate the public on tactical preservation details. This was an excellent starting point, as I was able to deepen my understanding of the initiative. Second, I was asked to provide schematic designs, following tactical preservation principles, for Smoken' Aces, a vacant, former night club. I researched zoning requirements and the Michigan rehabilitation code to ensure all my proposed uses were viable. I developed five proposals for the space, utilizing my architecture background.

For my final project, I reported to Garrick Landsberg, the Director of Historic Preservation. Part of tactical preservation's goal is to streamline the application and permitting process for projects. To support this, I was asked to begin developing a rules manual that allows the public to understand this process better. A focus was the twenty-two unique elements of design for each of Detroit's fifty multi-building historic districts. These design elements guide rehabilitation and construction in the district, and currently, they can only be found in Detroit's City Code. Making these more accessible to the public and contractors is a priority.

Each of my three projects allowed me to gain a deeper understanding of Detroit's efforts to encourage tactical preservation. I am so grateful for Professor Mason, the Knight Foundation, and PennPraxis for allowing me to have this opportunity to learn from Ann and Garrick.





## Meris Westberg

Center for Architectural Conservation, BEST Preservation Workshop Series

*Philadelphia, Pennsylvania*

This summer, I dove into the wide world of exterior finishes to develop teaching resources for an internal National Park Service training program called the BEST (Brick Earth Stone Timber) Preservation Workshop Series. This workshop series was originally administered through the Vanishing Treasures program that focused on the needs of Western and Southwestern historic sites. When the VT workshops were folded into the all-NPS BEST Workshop Series, our project partners realized that they had a lot of ground to cover on other topics to meet the needs of the entire country's NPS sites, and that's where we fit in! Frank had already worked with the program, so he was able to mentor us through his insight and experience on developing a pre-contact masonry preservation training for the BEST series.



Our primary point of contact, Erin Gibbs (stationed at Grand Teton National Park), was a great resource and friend throughout the internship. She had interned on the project herself in its earliest stages, so had a good sense for where the program needed to go. She really encouraged us to think freely and use our intuition as students and as professionals to develop course content and find resources that would support different levels of technicality and learning modalities (visual, audio, reading, etc.).

I worked independently on my research topic using various databases such as Franklin, APT: Bulletins, HathiTrust, as well as just general web searches to identify sources that supported my curriculum outline. I focused on the different behaviors of finishes (particularly oil vs water-based paints) on wood and masonry, as well as best practices for surface preparation and

repainting. As a team, the four interns, Erin, and Frank worked discussed and established project goals, themes, and a streamlined course outline. The outline we devised will in theory serve as the structure for all subsequent trainings.

Our deliverables were a comprehensive bibliography of every source we found, a 'shortlist' bibliography for trainees who wanted to go deeper into the subject, and a 'pre-workshop reading list' which trainees would receive in advance of their in-person training. This was a good exercise in thinking like an instructor, a student, and a building maintenance staff member all at once.

My research on exterior finishes (paints and clear coatings) took me into areas of study that we did not cover thoroughly in the Finishes seminar last year, so I learned a lot on this project. Surprisingly, exterior paints and coatings have almost exclusively been studied for their aesthetic value, while their protective value remains a largely unturned stone in the preservation field. Anyone who is interested in finishes and preventive maintenance could easily turn this into a thesis!

In summary, the BEST workshop internship allowed me to explore a subtopic of preservation material science that I otherwise might never have thought to research. It kept me connected with a few of my classmates, but also gave me an opportunity to connect with a few non-Penn preservation professionals. Last, it forced me to finally learn how to use Zotero, and to organize a massive bibliography of all types of sources, which will be helpful for my thesis. And hey, now I know more about exterior paint than the average bear!





## Xiaoran Zhang

Center for Architectural Conservation, Taliesin

Spring Green, Wisconsin

During the summer, I worked for the Midway Barns project at Taliesin in Spring Green, Wisconsin with Ha Leem Ro under the supervision of John Hinchman, Evan Oskierko-Jeznacki and Frank Matero. I also had a great opportunity to work as an intern with the Frank Lloyd Wright Foundation to deliver a baseline documentation and interpretation for Midway Barns. Although it is the one and only barn Mr. Wright had designed and built, Midway Barns has been forgotten for years. We spent two and half weeks in Spring Green to get to know the site and finished our on-site measurement and photography. After returning to CAC, we continued working on drawings, 3D modelling and building digital archives.

During the time we prepared for our Taliesin trip, I worked with the digital archive including photos and drawings from Frank Lloyd Wright Foundation to collect historical data to establish a database. After working on site, I focused on taking measurements of the building and collecting data for 3D modelling. We used several tools including UAV to take photos with John and Evan. We also took measurements with the help of people from the Frank Lloyd Wright Foundation.

After coming back to CAC, I worked on creating a 3D point cloud model and building Sketchup models. The point cloud data gathered volumetric information including measurement and texture. It captured the information which we cannot take from photos. Using data from photos, measurements and point cloud modelling, we built the 3D model and extracted CAD drawings from the model.

From this internship, I started to practice the tools and theories I learned from my previous courses and have realized how important and relevant they are.

