Annual Conservation Report 2020

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I HAVE NOW COMPLETED my first year as chair, and what a year it has been! We initiated our PhD program, admitted a new class of students, started a lecture series, launched fund-raising initiatives, and experienced faculty and staff changes. Yet everything was overshadowed by the Covid-19 pandemic, the burgeoning Black Lives Matter movement, climate change–induced fires, and an anticipated economic downturn.

Throughout this tumultuous year we revised our vision for the future of the program. Plans came into sharp focus with dramatic world events playing out all around us. As we build on the strong foundation constructed over the past fifteen years, we aim to increase diversity within our program and expand our efforts to address climate change through research and sustainability initiatives.

The first move of the year was to consider a new name for our program and MA degree. Our faculty, students, staff, and alumni all concurred that the term *ethnographic* is problematic in relation to the cultural materials that we research and conserve. Originating in anthropology to describe a methodology for study-ing other cultures, the term is rejected today by many Indigenous communities and scholars. I am pleased to announce unanimous support for our proposed name that should soon be approved: Conservation of Cultural Heritage Interdepartmental Program. Our MA Program will adopt the same name, whereas our PhD program will retain the name Conservation of Material Culture.

We worked on multiple fronts to increase diversity in our program. Ellen Pearlstein continues to direct the Andrew W. Mellon Opportunity for Diversity in Conservation initiative (Figure 1). This program provides outreach and mentoring to prospective students from underrepresented communities, along with annual weeklong workshops on all aspects of cultural heritage conservation. Pearlstein secured a financial partnership with the Metropolitan Museum of Art, hired Nicole Passerotti as a staff member, and strengthened the social media presence of the program. As a trained conservator, Passerotti has extensive experience collaborating with tribal collections in conservation research. During the pandemic, Pearlstein, Passerotti, and their coworker Bianca Garcia have been holding remote office hours for students, mentoring them toward conservation graduate study as well as work in allied fields. Pearlstein also continues to collaborate with two tribal collections: the Agua Caliente Cultural Museum in Palm Springs and the Barona Cultural Center and Museum in Lakeside. In these collaborations, our students work with tribal representatives in their research and conservation work.

Our community outreach included two events to introduce undergraduates and teenagers to the field. The first was the annual UCLA Exploring Your Universe science fair, which draws thousands of children and parents to experience hands-on demonstrations (Figure 2). Together with students in the Archaeology Program, our students set up a booth named “Mummies, Bones and Garbage.” The second event was the annual College Night at the Villa, hosted by the Getty Museum. For this event, our students provided tours and demonstrated their research to undergraduate students interested in museum work.

To address climate change and develop sustainability initiatives, our laboratory manager, William Shelley, worked with two of our students to develop practices and protocols to make our laboratories more sustainable as part of their summer work projects. This work

1. Chair of the UCLA/Getty Program in the Conservation of Cultural Heritage.

Figure 1. The Andrew W. Mellon Opportunity for Diversity in Conservation class of 2019.

involved assessing the ability of recycling locations in Southern California to handle conservation materials, investigating "green" solvents in the field of conservation, and creating a list of local vendors to reduce our carbon footprint.

This past summer, Pearlstein invited Catlin Southwick of Sustainability in Conservation, a nonprofit based in the Netherlands, to conduct a workshop for our students, faculty, and staff. The content ranged from larger issues of the impact of climate change on cultural heritage to specific measures that can be taken in our labs to conserve energy, recycle, and shift to green chemicals in cleaning and stabilizing artifacts at the bench. During the 2020–2021 academic year, Shelley will work with students from 15 conservation programs around the world to develop sustainable practices in the field as part of the Student Ambassador Program of Sustainability in Conservation. This program creates awareness of the environmental impact of our profession and introduces sustainable habits that students can carry into their professional careers.

The pandemic has greatly affected our research and teaching. While we learned that remote instruction has certain advantages, such as the ability to include guest speakers from different parts of the world, it does not replace the hands-on learning our students get by using analytical equipment and working directly on artifacts. Research could not be conducted in our laboratories for much of the year. Faculty, students, and staff rallied to make the best of a difficult situation. We purchased portable microscopes, tools, sample materials, and even artifacts on eBay for students to work on at home. We focused more on critical analysis of published case studies, at times with the authors through conference calls.

Ioanna Kakoulli and Christian Fischer prerecorded demonstrations of analytical protocols and operating

Figure. 2. MA student Isabel Schneider answers questions about conservation at the annual UCLA Exploring Your Universe science fair, November 3, 2019.

procedures for instruments for use in their teaching. Instead of instructing students to gather data from analytical instrumentation, they provided datasets to students to simulate technical studies of archaeological and anthropological materials. The focus shifted to data processing, interpretation, presentation, and accessibility. Pearlstein prepared materials kits for student study and manipulation, including donated artifacts from our study collection, material samples, and conservation supplies. She used demonstrations and practicums to teach characterization, cleaning, repairing, and stabilizing of artifacts. She made greater use of guest scientists, community members, and conservators to reflect on multiple analytical and treatment approaches. Lecturer Alice Paterakis sent

the students metallographic cross sections for analy-sis using portable microscopes at home (Figure 3). Despite these efforts, we all look forward to getting back to our laboratories.

Over the course of the year,we launched the UCLA Getty Conservation Program Distinguished Speaker Series. The aim of the series is to foster intel-lectual discussion about the role of cultural heritage conservation in critical readings of the past. In January 2020, we held a successful lecture by computer scientist Brent Seales on his important discoveries from ancient papyri manuscripts (Figure 4). Using reference amplified computed tomography, he virtually unwraps charred remains of burned scrolls that were previously illegible. In September 2020, Spencer Crew, acting director of the National Museum of African American History and Culture at the Smithsonian Institution, gave a lecture with the title "History, Memory and Conservation: Preserving the Past for Future Generations." Based on his scholarship and experience at the Smithsonian Institution and the National Under-ground Railroad Freedom Center, Crew made a strong case for the role of conservation in public engagement with the past.

During the summer of 2020, Pearlstein worked with our students to create a weekly remote alumni lecture series. The lectures were so well attended that we decided to hold a series of remote lectures throughout the academic year. We are now hosting monthly conservation lectures by speakers from around the world.

Ioanna Kakoulli is launching a new under-graduate program called Materials Science and Engineering on Ancient Technology, Materials and Forensics, aiming to provide engineering students with an experience that blends STEM (science, technology, engineering, and mathematics) education with social and humanistic theory and methodologies, turning STEM into STEAM (science, technology, engineer-ing, art, and mathematics). Kakoulli continues her research on ancient materials and technology, materi-als change, and the intersection of material objects and the human experience, as well as ancient forensics, with the identification of diagnostic fingerprint markers for authentication and provenance of stolen and looted antiquities. She is currently working on an invited chapter for the second edition of the *Handbook of Archaeological Sciences*, to be published by Wiley in 2021. She was also appointed diversity officer of the Department of Material Science and Engineering and will be working with the Diversity Task Force of the Henry Samueli School of Engineering and Applied Science.

Ellen Pearlstein was appointed academic adviser to the J. Paul Getty Foundation Post-Baccalaureate Diversity Conservation Internship Program. Her research continues to include Andean pigments as markers for dating wooden beer vessels called *qeros.* She has recently coauthored articles in *Heritage Science*; written invited chapters in *Materia Americana: The "Body" of Spanish American Images*, edited by Gabriela Siracusano and published by Consejo Nacional Para La Cultural y Artes and the J. Paul Getty Foundation; and published work on *qeros* with the Smithsonian Scholarly Press. Her recent research is on early twentieth-century basketry made from how-to instructions that appropriate American Indian designs and technologies. Pearlstein continues to work on her edited volume *Readings in Conservation: Conservation and Stewardship of Indigenous Collections: Changes and Transformations.*

Christian Fischer continued to mentor PhD students from the conservation and archaeology programs on the petrography of ceramics from Albania, West Mexican ceramics, and the scientific analysis of glass in colonial Mexico. Based on his research on ancient Khmer stone material culture, he has written a chapter with the title "From Quarries to Temples: Stone Procurement, Materiality and Spirituality" for the forthcoming volume *The Angkorian World* (Routledge), as well as a contribution with the title "Stone Material Culture at Phnom Da: New Insights from Recent Scientific Investigations" for the catalog of an exhibition to be held at the Cleveland Museum of Art in 2021. Fischer is working on the publication of research on various topics, including three-dimensional modeling and chemical imaging, Byzantine wall

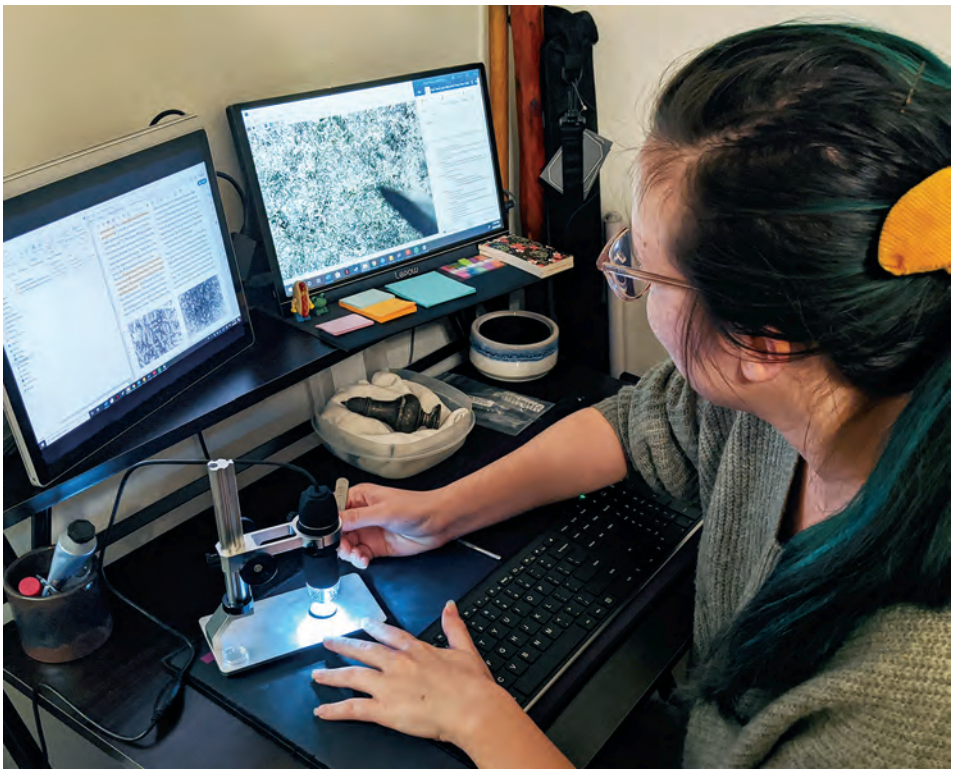

Figure 3. MA student Jenny McGough uses a portable microscope to analyze a metallographic cross section in Alice Paterakis's course Structure, Properties and Deterioration of Materials: Metals.

Figure 4. Brent Seales answers questions after his lecture on the use of reference amplified computed tomography to virtually unwrap the charred remains of burned scrolls, January 14, 2020.

paintings, spectroscopies of madder lakes, and reflectance transformation imaging technology on inscribed stone stelae.

I am navigating three contemporary art conservation research projects. One is the Artist Archives Initiative, which I cofounded with Deena Engel of the Department of Computer Science at New York University. We launched the Joan Jonas Knowledge Base in November 2019. Working with Barbara Clausen, professor in the Department of Art History at L'Université du Québec à Montréal, we used linked open data to facilitate user queries about Jonas's work as an internationally renowned performance and installation artist. The second project is coediting a book for the Getty Conservation Institute Press to be titled *Readings in Conservation: Philosophical Issues in the Conservation of Contemporary Art.* The third project is the final publication of articles regarding an institutional and collection survey I conducted with colleagues at the Metropolitan Museum of Art concerning their acquisition and care of time-based media art.

In the fall of 2019 we accepted five students into our MA program and four students into our new PhD program. The following are brief descriptions of their research.

Lauren Conway (MA) is conducting comparative research on dry cleaning methods for basketry. Her goal is to identify methods that will allow residues to be left in place to provide evidence of the history and function of a basket. To understand better how baskets are used, she plans to interview weavers from Indigenous communities.

Chris de Brer (PhD) is investigating figurative funerary ceramic vessels from the Late Formative/Preclassic period of West Mexico. He takes a holistic approach by combining material analysis, art historical research, and ethnography to understand better

the function of the vessels throughout their lives, from manufacture and funerary practices to their current role as exhibition and conservation objects.

Tamara Dissi (MA) is assessing the light-fastness of fungal pigments used by artists to create colored patterns on wood artifacts. Although characterizing their light and ultraviolet resistance through accelerated aging will be the primary focus of her research, she also plans to seek less toxic and more environmentally sustainable solvents for the pigments to aid the practice of artists who use them.

Jenny McGough (MA) is researching three-dimensional printing technology and printable media to create fills for areas of loss in historic Asian lacquerware. This novel method aims to replicate lacquer surface finishes and mitigate the potential for surface damage from manual applications of wax or resin fills.

Moupi Muhopadhyay (PhD) is focusing on the little-studied mural tradition in the Indian state of Kerala. She is interested in identifying the materials and techniques used by artists from the seventh to the seventeenth centuries, along with the current revival of mural production and changing practices of conservation within the temples where murals are located.

Jaime Fidel Ruiz-Fobles (PhD) is investigating methods to extend the effectiveness of silver nanoparticles in preventing the growth of microbial biofilms on archaeological stone monuments in tropical environments. In recent years, nanoparticles have been successfully used as biocides, but they are effective for only a few months.

Elizabeth Salmon (PhD) is interested in traditional, Indigenous methods of preservation and how they may be incorporated into the academic and professional fields of preventive conservation. Combining ethnographic and laboratory research methodologies, she focuses on plant materials traditionally used in India with the potential to eradicate pests in collection storage.

Isabel Schneider (MA) is studying the use of laundry bluing products as blue pigments in nineteenth- and twentieth-century sub-Saharan African art. She is developing nondestructive methods to characterize these pigments, which she will then use in the analysis of selected works from the collection in the Fowler Museum.

Celine Wachsmuth (MA) is investigating consolidation media for potential use in the treatment of low-fired and unfired Pueblo ceramics. Because the consolidators currently used by conservators darken the ceramics, she will explore the potential use of non-darkening materials that are already used in other subfields of conservation.

Student research and course work could not take place without the valuable support of our student affairs officer Shaharoh Chism. She helps keep the program running smoothly throughout the year, from admissions and managing finances and course logistics through to graduation. She is also pursuing a Master of Fine Arts in music at the California Institute of the Arts on the side. We all look forward to hearing her music at her own graduation.

This academic year was one to remember. Challenged by a global pandemic, our students, staff, and faculty managed to continue their research and training remotely. We look forward to returning safely to our laboratories, but we will no doubt take some lessons from the year with us into the future. Through remote teaching and lectures, we have strengthened relationships globally. Continuing some facets of remote communications in the future will help us achieve our goals of environmental sustainability and help build relationships with the communities we serve.