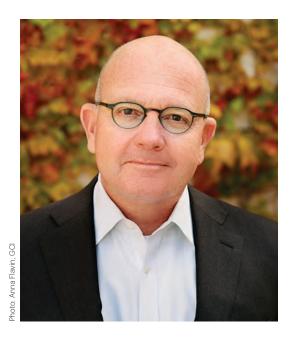


A Note from the Director



Throughout the world, COVID-19 has prompted a rethinking in numerous organizations about the efficacy of long-held policies and ways of working. While this reassessment has been triggered by a terrible turn in human events, the idea of thoughtfully and regularly reconsidering the ways things get done is both healthy and necessary.

One area in the cultural heritage field where serious rethinking of past practice was well underway *before* the pandemic is the care of Indigenous collections within museums not owned and operated by Indigenous communities. Beginning with a few scattered voices in the 1980s—some in the conservation field—a movement promoting collaboration between institutions with Indigenous materials and the communities themselves has grown to become an approach embraced by a number of museums around the world.

The GCI's primary activity with respect to Indigenous stewardship was its role years ago in creating what is now called the UCLA/Getty Interdepartmental Program in the Conservation of Cultural Heritage, which initially focused on archaeological and ethnographic objects. Because of significant changes occurring in the practice of caring for and conserving Indigenous materials since then, we thought it important to devote this edition of *Conservation Perspectives* to the subject.

A landmark initiative to advance collaboration between museums and Indigenous communities was undertaken in recent years under the auspices of the Indian Arts Research Center at the School for Advanced Research in Santa Fe, New Mexico, leading to the creation of *Guidelines for Collaboration*, a theoretical and practical

resource for planning and implementing collaborative work between museums and stakeholder communities. Two members of the core team that produced the *Guidelines*—Landis Smith, a conservator, and Brian Vallo, now governor of the Acoma Pueblo—describe in our feature article the drive and the process behind the development of the guidelines, as well as the results.

From Rwanda and Belgium, Siska Genbrugge, an objects conservator at the Royal Museum for Central Africa (RMCA) in Belgium, and André Ntagwabira, an archaeology researcher at the Rwanda Cultural Heritage Academy, describe how the Ethnographic Museum of Rwanda and the RMCA have collaborated on rethinking the conservation of the Rwandan cultural heritage objects in the collections of both institutions.

From the other side of the globe, Gabriel Nodea of the Warmun Art Centre (owned and governed by Gija people in northwestern Australia) and Robyn Sloggett of the Grimwade Centre for Cultural Materials Conservation at the University of Melbourne discuss the long-term partnership between their two institutions, with its goals of conserving cultural objects and knowledge to sustain cultural practice, conveying knowledge about Gija culture and conservation, and developing new ways of teaching and learning.

In our fourth article, Ellen Pearlstein, a professor in the UCLA/Getty conservation program, describes her multiyear research into the conservation of Indigenous California regalia, including an exploration of the value contemporary regalia makers place on natural feather coloration and how feather color has contributed to traditional values. In addition to authoring this article, Ellen worked with *Conservation Perspectives* editor Jeffrey Levin as a guest coeditor on this edition.

Finally, our roundtable discussion explores how traditional owners and creators of Indigenous materials in museum collections now participate in the care and conservation of these materials. Offering their insights are Kevin Gover, Under Secretary for Museums and Culture at the Smithsonian and former director of the National Museum of the American Indian; Heidi Swierenga, a senior conservator at the University of British Columbia's Museum of Anthropology; and Rangi Te Kanawa, a Māori textile conservator at the Museum of New Zealand Te Papa Tongarewa.

As this edition demonstrates, many conservation professionals are not simply concerned with the materiality of Indigenous objects. They are also highly engaged in seeking ways to preserve the cultures that have produced those objects.

Timothy P. Whalen

John E. and Louise Bryson Director

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(From left) Acoma potters Brenda Valdo, Dolores Lewis Garcia, and Claudia Mitchell examine pottery at the Indian Arts Research Center at the School for Advanced Research, Santa Fe. Photo: Jennifer Day. Courtesy of the School for Advanced Research.

Read this issue and more online at **getty.edu/conservation**.

GUIDELINES FOR COLLABORATION

BY LANDIS SMITH AND GOVERNOR BRIAN VALLO

Guidelines for Collaboration was created as a two-part theoretical and practical resource for planning and implementing collaborative work between museums and stakeholder communities: one part for museums and the other for Native American, and other, communities. Produced under the auspices of the Indian Arts Research Center (IARC) at the School for Advanced Research (SAR) in Santa Fe, New Mexico, the Guidelines were developed in a four-year collaborative process with more than fifty Native and non-Native museum professionals, scholars, and artists. The Guidelines are not a set of rules but rather a series of considerations and recommendations for building successful collaborations.

EVOLVING MUSEUMS AND THE CONSERVATOR'S ROLE

Museums are changing. The movement toward inclusiveness and collaboration can be seen in museums' efforts to address issues of representation, inclusion, authority, equity, and ownership. Today, more museums recognize community expertise and perspectives as critical to all aspects of responsible museum work, from collections documentation to public programs, exhibits, conservation, and education. Whereas prior museum policies limited access to collections and museum processes, often shutting out communities, many museums now welcome them and facilitate priority access to collections. (The terms "community" and "community members" in this article refer to tribes and tribal members, as well as to Native corporations and any community seeking to collaborate with a museum.)

This evolution in museums has occurred in the context of social justice movements that began in the 1960s, such as the American Indian Movement; the 1989 National Museum of the American Indian (NMAI) Act; the 1990 Native American Graves Protection and Repatriation Act (NAGPRA); the Indian Arts and Crafts Act (also in 1990); the 1996 Amendments to the National Historic Preservation

Act; the 2007 United Nations Declaration on the Rights of Indigenous Peoples; and the 2010 establishment of the Association for Tribal Archives, Libraries, and Museums. Collaborative work in museums can be seen as the inevitable outcome of these societal changes.

However, it was not until the late 1980s and early 1990s that we began to see deep changes in museum practices, mostly in the western United States. For example, at the Museum of Indian Arts and Culture (MIAC) in Santa Fe, collections reviews by tribal representatives and repatriations were part of museum operations from the 1980s, developing positive relationships and ties to surrounding communities prior to the 1990 passing of NAGPRA. The hiring of Native American museum staff from these communities was important as well. In other museums where there was a desire to work with communities but little prior experience, NAGPRA offered a nascent mechanism for working with tribes and locating community consultants and partners.

The first methodological movement toward collaborative conservation was largely tied to major, progressive exhibit projects in the Southwest United States in the late 1980s and into the 1990s. The conservation profession, very much based in art history, now



Coauthors Governor Brian Vallo and Landis Smith in the Museums of New Mexico Conservation Lab discussing condition issues with Acoma potters. Clockwise from head of table: Gov. Brian Vallo, Pearl Valdo, Joshua Sanchez, Landis Smith, Claudia Mitchell, and Dolores Lewis Garcia. Photo: Sophie Hunter, Courtesy of the New Mexico Department of Cultural Affairs.

struggled to apply theory to practice and work in alignment with the new, inclusive philosophy and ethical framework of these exhibit processes. The first conservation documentation formats to include specific places for community input were designed in conjunction with these exhibits.1 Given the importance of the conservation report form in both reflecting and prompting the conservator's process, the inclusion of Native input and a comprehensive rationale for any proposed treatment represented a real change in the way conservators thought about their work.2 In addition, the movement toward a more contextualized and inclusive approach to collections was gaining traction in various places in the world with other Indigenous populations.

As museums continue to progress toward a truly collaborative model of work, the conservator's role broadens to a more humanist orientation and practice. Listening to the nuances of discussion regarding tangible as well as intangible aspects of collections becomes paramount. Collaborative conservation is an iterative methodology, in which the physical condition of a cultural item is considered as one, but not the only, factor in a conservation decision. Collections are understood as embodiments of a worldview and as a living part of a community. In this model of conservation, the application of science and analytical instrumentation, which can be considered invasive, is employed within the context of collaborative relationships. Although slow and incremental, the drive toward true collaboration is a paradigmatic shift, moving our work as conservators from episodic consultations toward a methodological norm of collaboration. The profound connection between communities and their cultural heritage held in museums cannot be overemphasized and is evident in the many collaborations carried out in museums today.

A Resource for Engagement between Museums and Communities



Conservator Landis Smith and potter/artist Erik Fender of the San Ildefonso Pueblo discussing a treatment decision in the Museums of New Mexico Conservation Lab. Photo: Maureen Russell. Courtesy of the New Mexico Department of Cultural Affairs.

Essential to this work are positive relationships between museum staff and community members, relationships built on mutual respect and trust. As Elysia Poon, director of the IARC, has stated, "The foundation of the work is trust." Museums are realizing that accurate and culturally sensitive collections work, scholarship, programming, and exhibits depend on these relationships. Truly collaborative work benefits both the museum and the community in many ways. The commitment of both provides for never-before-realized opportunities for the meaningful exchange of ideas, understanding, and creative, community-based problem-solving. Examples can include revitalizing lost methods of manufacture, learning original uses and names, and sometimes recovering individual authorship. Ultimately, by achieving trust, the collaborative process fosters accountability in museum practices while providing access and a "seat at the table" for source communities.

THE IDEA

While collaboration between museums and communities is a positive development, ideas of collaboration vary, sometimes greatly, from one institution to the next, and from one conservator to another. Given these discrepancies, and with museums at a turning point, it seemed an opportune moment about a decade ago for museum professionals and artists involved in collaborations to gather and take stock of where we were with this work, and where we were going. Jim Enote, former director of the A:shiwi A:wan Museum and Heritage Center at Zuni, New Mexico, asked, "Collaborations are happening but how and with whom?" He described museums as sites for the mediation of different knowledge systems and collaboration. But what does it mean to truly collaborate? How can we advocate for a collaborative methodology? How can museums build positive relationships with Native—and other—community members?



(Left to right) Yup'ik seamstresses Martina John, Albertina Dull, and Elsie Tommy of Nelson Island, Alaska, examine a bird parka at the Smithsonian National Museum of Natural History during a project organized by Ann Fienup-Riordan. Photo: Landis Smith. Courtesy of the Smithsonian National Museum of Natural History.

In 2012 conservator Landis Smith brought the idea of a seminar to address these questions to Cynthia Chavez Lamar, then director of the IARC. The proposed initiative included creating a much-needed resource for museum staff planning and implementing collaborative work with communities. Chavez Lamar supported the idea, as the seminar proposal was well aligned with the IARC's collaborative initiatives in community-based documentation and stewardship of collections. Further, she suggested a series of seminars rather than just one and broadened the scope of the initiative beyond conservation to

all aspects of museum work. She went on to secure funding for the first seminar, thanks to the generosity of the Anne Ray Foundation.

The timeliness of the seminar and the need for a resource on collaboration were corroborated by the results of an informal questionnaire distributed to more than eighty attendees of a panel session on working with artists at the 2012 American Institute for Conservation annual meeting. The questionnaire asked about the attendees' experience with collaborative work. The majority stated that while they were very interested in collaborative conservation, they felt unprepared by their education and experience to work in this manner. Further, there was no resource or reference to help in carrying out this type of work.

After Chavez Lamar's departure from the IARC, she continued to support the initiative from her new position at NMAI, sponsoring writing and editing sessions. Commitment to the creation of the Guidelines was carried forward by the next IARC director, Brian Vallo, and most recently by the current director, Elysia Poon. Throughout, collaborative programs consultant and conservator Landis Smith co-facilitated and organized the process.

COLLABORATIVE DEVELOPMENT OF THE GUIDELINES

The first seminar brought together leading conservators of Indigenous collections from museums across the United States, Canada, and New Zealand, as well as curators, tribal museum directors, collections managers, and artists involved in collaborative work. Over three days, the group discussed the profound changes in museums during the previous two and a half decades, including priority access to collections for Native community members. Perhaps most impactful was the group's consensus to produce a resource for conservators and other museum staff engaging in collaboration with communities. Three days of audio recordings were transcribed, and a basic collaborative structure emerged: before, during, and after a museum visit by community members, a format that remained consistent throughout the development of the Guidelines.

The initial seminar was followed by a three-year period of critical discourse among Native and non-Native museum professionals, cultural leaders, artists, and scholars, which included small-group writing and editing sessions at SAR and NMAI, vetting sessions, and a large workshop at Acoma Pueblo. Although more than fifty Native and non-Native museum professionals, cultural leaders, and artists contributed to the Guidelines, a core group, including five conservators, remained fairly constant as writers and editors throughout the process. This core group—Cynthia Chavez Lamar, Martina Dawley, James Enote, Marian Kaminitz, Kelly McHugh, Ellen Pearlstein, Landis Smith, and Brian Vallo-met periodically with the goal of producing a resource for building successful collaborations. In addition, larger review sessions were organized to solicit feedback and to include the ideas and perspectives of a broader group. The Guidelines core group was also interested in exploring different ways to present the guidelines and receive feedback. To that end, a spring 2015 pilot workshop was planned and facilitated by Vallo, Smith, and Chavez Lamar at Acoma Pueblo's Sky City Cultural



Martha Arquero, a Cochiti Pueblo potter, perusing the pottery aisles at the Museum of Indian Arts and Culture, Santa Fe. Photo: Landis Smith. Courtesy of the Museum of Indian Arts and Culture.

Center and Haak'u Museum, where Vallo was founding director. The workshop included more than thirty Native and non-Native museum professionals, as well as tribal museum staff and students and faculty from the Institute of American Indian Arts. The workshop consisted of a range of presentation formats including small breakout groups, improvisational skits, and Post-it note feedback placed on an oversized printout of the Guidelines.

As work progressed, it became clear that just as museums needed a resource for collaborative work with communities, community members would also benefit from having a good reference for collaboration with museums. Such a reference would help community members understand what to expect in a museum and what they could ask for and negotiate. After years of work by more than fifty Native and non-Native museum professionals, tribal leaders and artists, and seminar participants, the core group in 2016 produced a first draft of a set of ethical and practical guidelines for collaborative conservation and collections stewardship—one for museums and one for communities.

GUIDELINES FOR MUSEUMS

Guidelines for Museums is geared toward conservators, collections staff, curators, and other museum professionals interested in, or currently engaging in, collaborative work with Native American and other communities. Guidelines for Museums offers information on topics such as providing a welcoming environment and building trust and long-term relationships with community members, essential for truly collaborative work. Such partnerships can lead to incorporating cultural information into the long-term care and conservation of collections, correcting and enhancing museum records, and bringing museum research back to communities. Native and non-Native community representatives also contribute to the development of other services and opportunities for expanded community engagement in the areas of exhibitions, interpretation, programming, and docent training, to name a few.

The reader is walked through arrangements for a museum visit by community members, addressing what is needed before, during, and after the visit. A section titled "Critical Considerations" is devoted to what were deemed the most important factors in building successful collaborations: following cultural protocols, creating a hospitable environment, respecting the restrictions on certain cultural knowledge, keeping a flexible and open agenda, and involving community partners in the collaborative process from the start in order to ensure that the goals set meet the needs of all involved. The "Critical Considerations" section also cautions against the common mistake of expecting any one person to represent an entire community or to be an authority on everything in the museum collection.

GUIDELINES FOR COMMUNITIES

Guidelines for Communities offers information for community members about how to initiate work with a museum and what to expect before, during, and after a visit. Video clips of museum staff describing their responsibilities, along with sample forms for access to collections and media permissions, help orient community members to the museum world. The rights to not answer questions and to edit information before it is entered into the museum record are explained.

The Guidelines acknowledge that there is no "one size fits all," since tribes are diverse, their government structures are different,



Reviewing museum records at the Smithsonian National Museum of Natural History: (left to right) Vernon Chimegalrea (Yup'ik), Chuna McIntyre (Yup'ik), and Landis Smith. Anchorage Loan Project, Arctic Studies Center, Smithsonian National Museum of Natural History. Photo: Courtesy of the Smithsonian National Museum of Natural History.

and only a small percentage of tribes operate a tribal museum or historic preservation office. The Guidelines help communities determine who, at the tribal level, might initiate communication with a museum. On the more theoretical side, a section titled "Why Work with Museums?" describes some potential benefits of collaborating with museums and is organized by topic, including reuniting collections with communities, cultural and arts revitalization, incorporating culturally appropriate care of collections, correcting and enhancing museum records, and collaborative conservation. These topics are explored through case studies illustrated with text, photos, and video.



A Guidelines for Collaboration development meeting at the Indian Arts Research Center at the School for Advanced Research in Santa Fe. Photo: Jennifer Day. Courtesy of the School for Advanced Research.

USE AND IMPACT OF THE GUIDELINES

Since the 2019 publication of the second online version, Guidelines for Collaboration has been used as a reference for museum professionals, a syllabus for graduate courses, and a reference for theses; it has also been incorporated into collections policies at major museums, among other uses. For communities lacking reliable internet connection or easy access to computers, a slightly abridged booklet version of the Guidelines was produced and distributed by SAR to tribal museums and individuals in a position to place them where they will be most useful.

The publication of the Guidelines is timely, as more museums are engaged in strategic and focused initiatives around inclusion and equity, with an emphasis on gaining a better understanding of Native American and other community collections. Furthermore, tribes are taking proactive steps to accelerate repatriation efforts via access to collections of their cultural heritage housed in federal, state, university, and private museums throughout the country. The Guidelines provide useful information that is generating discourse and collaboration among a wide range of cultural institutions. They

are also finding their place within federal and state agencies that steward collections of Native American materials, many of which are culturally sensitive and protected by federal law.

Looking ahead, Guidelines for Collaboration offers users an opportunity to impact, in a profound way, practice among museums, agencies, and the private sector, yielding transparency about collections and collaboration built on trust. While the focus of the Guidelines is the stewardship of Native American collections, a collaborative approach can be broadly applied to other collections and communities.

Guidelines for Collaboration continues to evolve with changing museum philosophy and practice. Currently, the downloadable second version of the Guidelines is posted at www.Guidelinesforcollaboration. info and on the SAR website at http://sarweb.org. As an evolving document, feedback and ideas are welcomed at guidelines@sarsf.org.

Landis Smith (smith.landis@gmail.com) is an independent conservator currently working with the Museums of New Mexico Conservation Unit and the Museum of Indian Arts and Culture. Under the auspices of the Indian Arts Research Center at the School for Advanced Research in Santa Fe, she co-facilitated the development and writing of the Guidelines for Collaboration. Brian Vallo is governor of the Pueblo of Acoma in New Mexico, former director of the Indian Arts Research Center, and an artist; he ensured the continued institutional support of the Guidelines process and online publication, and served on the core group that developed the Guidelines.

Acknowledgments: The Guidelines for Collaboration initiative has been sponsored by the Anne Ray Foundation through the Indian Arts Research Center at the School for Advanced Research in Santa Fe, with additional support from the Smithsonian National Museum of the American Indian. The current version of the Guidelines was designed and posted in 2019 by Santa Fe-based web designer Garret Vreeland.

Nancy Odegaard, Archaeological and Ethnographic Painted Wood Artifacts from the North American Southwest: The Case Study of a Matrix Approach for the Conservation of Cultural Materials (Doctoral thesis, University of Canberra, Australia, 1997)

Nancy Odegaard, "Artists' Intent: Material Culture Studies and Conservation," Journal of the American Institute for Conservation 34, no. 3 (Autumn/Winter 1995):187-93

^{1.} Landis Smith, "Abstract: A Collaborative Methodology for the Survey of Native American Collections" (Asilomar, CA: Western Association for Art Conservation, Fall 1993).

^{2.} Landis Smith, "Collaborative Decisions in Context: Loss Compensation in Native American Museum Objects," in Ellen Pearlstein and Michele Marincola, eds., Loss Compensation: Technical and Philosophical Issues (Objects Specialty Group Postprints Volume Two) (American Institute for Conservation of Historic and Artistic Works and Objects Specialty Group, 1994).

Guidelines for Collaboration in Practice

BY BRIAN VALLO Governor, Pueblo of Acoma Tribe

Nearly thirty years ago, following three years as my tribe's lieutenant governor, I worked on a project administered by the Institute for Astrophysics at the University of New Mexico (UNM) and the Air Force Center for Environmental Excellence. I was hired as the tribal liaison for a federally mandated Environmental Impact Statement (EIS), a critical provision of the National Environmental Policy Act (NEPA). My previous work on my tribe's behalf gave me experience working with NEPA, as well as with other federal and state policies related to environmental, natural, and cultural resources protection. During my term as lieutenant governor, I was also charged with implementing the intent of a new federal policy called the Native American Graves Protection and Repatriation Act (NAGPRA), a law designed to facilitate the repatriation of Native American ancestors, their associated funerary items, and objects of cultural patrimony held by federally funded museums and agencies.

Significantly, the NAGPRA law required consultation with tribal experts and officials to review inventories, address cultural affiliation, coordinate (when possible) visits by tribal representatives to view collections, and develop mutually agreed-upon repatriation processes. While NAGPRA's consultation provision was well intended, in almost every repatriation in which the Pueblo was engaged, federal officials and museum representatives "missed the mark" for meaningful consultation and outcomes that considered tribal input in decision-making. Moreover, when visits by tribal representatives to museums and federal agency repositories where some ancestors and other sensitive items had been stored for decades were authorized by museum administrators or federal officials, outcomes did not always favor tribes. Nevertheless, tribes remain committed to the process and have allocated significant resources to create historic preservation offices with trained tribal and non-tribal staff who engage in ongoing repatriation efforts. The Pueblo of Acoma established its Historic Preservation Office in 1997, and I was hired as its first director. Since then, I have been involved in various capacities that have afforded me an opportunity to advocate for tribes as they work to achieve equity and strengthen federal policy.

As the tribal liaison for the UNM project, I was responsible for facilitating consultation with New Mexico's twenty-three tribes regarding the project, the EIS process, and other issues of concern to tribes. My consultation strategy considered

tribal interests and input and ensured a decision-making process that involved the tribes. It was important to take the time to build trust to ensure that the EIS process produced the information necessary for decision-making, even if decisions were not in alignment with the proposed project. Early in the process, I discovered a lack of understanding within the project team about each tribal group, tribal sovereignty, and general sensitivities related to culture and tribal connections to the vast New Mexico landscape. In response, my colleagues and I developed training and produced materials to assist federal and university representatives prior to further consultation. Unfortunately, before comprehensive tribal input was obtained, the EIS took a different direction, as did the project scope. Clearly, the federal agency was unwilling to engage in meaningful consultation with the tribes.

In both the NAGPRA consultations and the UNM project, a set of guidelines to assist agencies and museums in meeting federal mandates for consultation and collaboration with tribes would have helped. Fast-forward thirty years. The Guidelines for Collaboration, published by the Indian Arts Research Center at the School for Advanced Research, is the long-awaited and valuable resource for museums, federal agencies, and tribes alike. In my ongoing work with museums in the United States and abroad, I have incorporated the use of the Guidelines as a tool and foundational guide for meaningful and innovative problem-solving and engagement between tribes and those entities they choose to work with. I am pleased to see the Guidelines utilized beyond museums to include federal agencies, universities, Native American artists, and collectors.

As governor of the Pueblo of Acoma, I recognize the value of the Guidelines for Collaboration and utilize it in various ways, including preparations for consultation with federal and state agencies, NAGPRA consultations, proposed collaborative projects with museums, and interactions with the corporate sector. I am confident that widespread use of the Guidelines will generate positive change for tribes and other users of this important resource.



Governor Brian Vallo addressing the Guidelines development workshop group at the Sky City Cultural Center and Haak'u Museum, Acoma Pueblo. Photo: Casey Mallinckrodt.

CONSERVATION OF RWANDAN CULTURAL **HERITAGE**

BY SISKA GENBRUGGE AND ANDRÉ NTAGWABIRA

IN RECENT YEARS, THE ETHNOGRAPHIC MUSEUM of Rwanda and the Royal Museum for Central Africa in Belgium have collaborated on rethinking the conservation of the Rwandan cultural heritage objects contained in the collections of both institutions. Prompted in part by renovations at each museum, the objective of the collaboration is to develop conservation approaches that are more holistic in nature—ones that consider both the tangible and intangible aspects of the objects, and that provide a context for these objects in the larger story of Rwandan culture.

TWO COLLECTIONS

The history of the relationship between Rwanda and Belgium is long and complex. From 1916 to 1962, Rwanda was governed by Belgium, through a League of Nations mandate (1922) and after the Second World War as a United Nations Trust Territory. In 1962, following the Rwandan "Revolution," the country became independent.

Beginning in the colonial period, thousands of Rwandan cultural objects were collected and shipped to Belgium. In 1950 Belgium created the Institute for Scientific Research in Central Africa (IRSAC) in Rwanda; some of the objects collected were kept in IRSAC while others ended up in the Royal Museum for Central Africa (RMCA) in Belgium. After Rwanda's independence, IRSAC became the National Institute of Scientific Research, and Rwanda assisted Belgian scientists in collecting materials and conducting research, often under the supervision of the RMCA. In 1989 the National Museum of Rwanda—an ethnographic museum built with Belgian government help and designed by Belgian architect and RMCA staff member Lode van Pee—opened.1

Both the Royal Museum for Central Africa and the renamed Ethnographic Museum of Rwanda hold collections of Rwandan objects amassed by Belgians without a full understanding of the values and cultural context of these objects within Rwandan communities. The objects, most of them still in daily use, were taken out of their natural contexts and processed like the thousands of Central African ethnographic objects collected by the Belgians during the colonial period. Since their collection, Rwandan and Belgian researchers have partnered to study the objects and their use. But until now there has not been similar collaboration among conservators and collections managers from both countries to discuss and study the conservation of these objects, their display methods, and the preservation of the skills and techniques for crafting them.



Beer Jar (kabehe) from Kibungo, Rwanda, made from Hagenia abyssinica wood. It shows signs of repair in Rwanda, prior to entering the RMCA collection in Belgium-an indication of the vessel's importance. Inventory number EO.1962.25.27. Photo: J. Van de Vyver, © MRAC Tervuren.

In 2013 the RMCA closed for a major renovation. Not only the building, but the exhibition and its story lines underwent a transformation. Behind the scenes, the conservators were rethinking their approach to the conservation of the collection, and they identified two major challenges. First, there was a need for more interaction with Central African heritage workers, experts, and craftspeople to exchange knowledge in order to improve preservation efforts. Second, they recognized that preservation and conservation must be based on a specific understanding of materials, structures, and techniques of the Central African objects.

In 2019 the Rwanda Cultural Heritage Academy (RCHA), which manages the Ethnographic Museum alongside other public museums, initiated a study for the renovation and decolonization of the museum and contacted the RMCA to share thoughts and experiences on the renovation process. In November and December 2020, during the COVID-19 pandemic, RCHA and RMCA heritage workers met virtually for a workshop, "The Renovation and Decolonization of the Ethnographic Museum of Rwanda," under the auspices of the RMCA program SHARE, financially supported by the Belgian Development Cooperation program. Conservators and collections managers of both museums discussed conservation philosophy and principles, priorities, and the tools used to preserve the collections.



Documenting intangible elements. This project, initiated in 2005, collects and conserves oral traditions and cultural practices as a way of rescuing endangered heritage and holistically documenting the museum collection. A wealth of information on the traditional use, conservation, and other intangible elements of the material culture is being recorded through the project. Photo: Courtesy of the Rwanda Cultural Heritage Academy.

The role of conservation and collections management within each institution was assessed, and different visions of collections preservation were shared. This first exchange energized both parties to question current conservation practices and to consider modifying these practices to better address the needs of the Rwandan objects.

CONSERVATION OF THE TANGIBLE

In the collecting process, objects went from the hands of their makers and users into the hands of curators, conservators, and lab technicians trained in the theoretical and practical aspects of preventive and curative conservation. The primary goal of the collections caretakers has been to prolong the original object's material life. After entering both museums, the Rwandan objects were stored according to international conservation guidelines: in a darkened storage space with a stable climate to protect the objects from harmful light exposure and from insects. Furthermore, the Rwandan collection at the RMCA in Belgium is very well preserved since the majority of the organic objects—such as fur headdresses, baskets and wickerwork, gourds, and wooden items—received a pesticide treatment upon arrival at the museum. However, as a consequence, museum workers and stakeholders have to wear PPE (personal protective equipment) when handling these objects.

If damage to the objects occurs, they undergo reversible treatments prescribed by international conservation standards. Conservation treatments are performed using materials and techniques approved by European and American conservation experts. The treatment methodology is strongly focused on testing conservation materials and reversibility. In addition, to minimize the risk of contamination and physical damage, museum visitors are prevented from touching objects if not in a controlled setting.

But is this kind of conservation appropriate for items that were living objects before entering the museum? While this approach prolongs the objects' material life, it does not preserve their use or symbolic meaning, without which their value as cultural objects portraying Rwandan identity no longer exists. Moreover, pesticide residue is a threat to the environment and the health of museum staff and stakeholders. And most synthetic conservation materials, such as polyethylene foam, adhesives, and plastics, are not made in

Rwanda; to be used there they obviously would have to be imported, which is expensive and unsustainable.

CONSERVATION OF THE INTANGIBLE

Ethnographic objects collected from a living culture have religious, ceremonial, symbolic, or other cultural significance. Unfortunately, no contextual information is considered in the conservation of many objects in the collection; in some cases, what used to be sacred, symbolic, or ritual objects are just conserved as simple ethnographic objects.

For many important life events (such as marriage, illness, death, and misfortune), Rwandans have rituals that require recourse to nature. This particular intangible aspect of Rwandan culture—and many others—should be considered with collection objects associated with these traditions. For example, Rwandans believe that a variety of herbs provide medicines for treating a range of illnesses.

The situation is worse for the collection in Belgium. Detached from their geographic context, these objects are in a place with no connection to the habits and rituals of Rwandans. During and after the SHARE workshop, the RMCA conservators identified their challenges in caring for Rwandan collections. They lack familiarity with the objects and often cannot identify their use or meaning. The Belgian conservator does not have the knowledge of these objects that comes naturally to Rwandans who grew up among them and the rituals for which some of them are associated. For example, most Rwandans can recognize a milk jar by its shape; they appreciate milk as a precious possession and can identify objects used for the milking ritual, such as different types of storage jars. But Belgian conservators can identify the object only as a bowl. The contextual meaning—the stories and rituals surrounding that jar—are available to them primarily as small paragraphs of texts found after a time-consuming literature search.

Rwandan artistic production—woodwork, basketry or wickerwork, pottery, beaded jewelry, and imigongo—includes rich decoration, and each decorative pattern has a meaningful name. But in both museums, Rwandan objects have been divorced from their cultural context, which keeps them from being living objects, and are simply conserved and exhibited as beautiful items of the past.

Rwanda has rich oral traditions, skills, and practices. Alongside well-elaborated royal rituals preserved by professional custodians

(ritualists known as abiru), artistic genres such as poems (e.g., dynastic poems, warrior poems, and cattle poems) and songs, among others, constitute a knowledge bank of Rwandan culture and history, which was passed down orally from generation to generation. In the Ethnographic Museum, presentations of traditional songs, dances, and poems are rare, despite reflecting the genius of Rwandan artists. Even the RMCA, which has a rich collection of that heritage, conserves these oral traditions on digital platforms where they are considered an archive of the past.

FINDING BALANCE AND COMMON GROUND

In reconsidering the conservation of Rwandan cultural objects, the RCHA and the RMCA have resolved to embrace the future together through a cooperation that respects the views and values of both institutions. In the renovation and decolonization process, both museums are promoting a holistic conservation that includes involving the Rwandan community and that fosters the idea of living in sync with the environment by protecting native species in Rwanda.

In Rwanda, more effort is being put into the conservation of intangible elements of its cultural heritage and the preservation of craft skills, objectives that were ignored when the national museum was created. Now, for example, the Ethnographic Museum runs a ballet and a traditional training center where elders train youth in traditional dance and songs, basketry, weaving, and beading. In addition, the museum has started collecting oral traditions and cultural practices not only for rescuing that endangered heritage, but also for filling the knowledge gap. Field research now documents how local communities used their objects and the traditional methods of conserving them. Thanks to this project, a wealth of information on how objects in the museum were produced, used, and treated is being documented. It also has led to a close relationship between the museum and traditional medicine practitioners, resulting in the creation of a garden of traditional medicinal plants at the newly established Rwandan Museum of Environment.

Currently, the Ethnographic Museum plans to expand its traditional plant garden to grow plants and trees that were and are used to make wooden objects, basketry, dance costumes, and other cultural items. The museum and the RMCA carry out continuous research into sustainable plant-based conservation materials that can be produced in Rwanda. The plants will also be useful for conservators who can study their properties and degradation; they can then work together with the local craftspeople to establish new conservation methods.

Ethnographic objects are just a part of the larger intertwined story of Rwandan culture, and it is the task of both museums to provide the whole story and keep the story alive; the objects themselves can serve as the glue that holds the story together. Within this framework, alongside focusing on preventive conservation in compliance with international standards, RMCA's conservators need to work closely with the Rwandan community in the diaspora in Belgium to document Rwandan objects and supplement the information they have on them. Crucial information includes their Kinyarwanda names, use, cultural significance, and treatment.



Experimental iron smelting in Central Rwanda, 2014. Before smelting starts, blacksmiths grease the sheepskins—the pot bellows covers—with cow butter to ensure suppleness. Damaged skin is replaced. These blacksmiths have reported that cow butter and smoke are the primary products used for conserving their bellows. Photo: Courtesy of the Rwanda Cultural Heritage Academy.

Geographical distances are made smaller through digital tools and virtual communication. Both museums use digital tools to connect heritage workers and collections, through sharing digital files of the objects, archives, and recordings. In coming years this bond will strengthen through an increase in digital and physical exchange of Rwandan heritage between the museums and through digital and physical meetings among museum staff.

The holistic conservation of Rwandan cultural objects for future generations in Rwanda and Belgium is not without challenges. In Rwanda, museum staff need first to understand and to adjust to the new approach, while regulations need to be adapted to accommodate that approach. In Belgium, besides being separated from the cultural environment of the objects, the very enthusiastic but limited conservation team confronts the vastness of the collection: objects can easily become just one of many unknown and uncared-for items. The conservators will need to consult frequently with their Rwandan colleagues to understand the significance and importance of the objects, and to know how to treat them respectfully.

Ultimately, holistic care of objects within the larger heritage story of Rwanda must be achieved through collaboration, no matter where the objects are. Human exchange through internships, workshops, and common research projects is crucial to be able to contextualize the collections, to understand their needs, and to develop preventive conservation strategies while respecting Rwandan cultural traditions. Collaborations on exhibition, exchange of collections, creation of workshops and cultural events, common publication in local languages, and digital dissemination of the collections all serve to keep Rwandan cultural heritage—and therefore Rwandan identity—alive today, and to help secure its future.

Siska Genbrugge is an objects conservator at the Royal Museum for Central Africa in Belgium, and André Ntagwabira is an archaeology researcher at the Rwanda Cultural Heritage Academy.

^{1.} Misago Kanimba and Lode van Pee, Rwanda: Its Cultural Heritage, Past, and Present = umurage ndangamuco, kuva kera kugeza magingo aya = son patrimoine culturel, hier et aujourd'hui (Kigali, Rwanda: Institute of National Museums of Rwanda, 2008), 11-15.

TWO-WAY LEARNING

Sharing Conservation Education at the Warmun Art Centre and the Grimwade Centre





BY GABRIEL NODEA AND ROBYN SLOGGETT

FOR THE GIJA PEOPLE OF THE KIMBERLEY REGION

in northwestern Australia, Ngarranggarni is the belief and knowledge system that guides the Gija way of life. Gija ancestors established Ngarranggarni when they created the land, law, plants, animals, and people. Ngarranggarni guides contemporary Gija life, governing family and clan relationships and Gija people's connection to, and responsibility for, their clan country. It defines who Gija people are and sets out clear rules for how to behave properly as a member of Gija society. Gija Elders, respectfully referred to as The Old People, are responsible for keeping Ngarranggarni strong, and for teaching younger generations. This knowledge cannot be passed on without the permission of The Old People.

ORIGINS OF THE PARTNERSHIP

Warmun is an Aboriginal community of around four hundred people situated on Gija lands that stretch along the Great Northern Road between Broome and Kununurra. Across Indigenous Australia, local art centers play an important role in keeping culture strong. The Warmun Art Centre (WAC) has responsibility for supporting contemporary art production, as well as for caring for the important Warmun Community Collection. The collection comprises artwork and artifacts produced for education from the late 1970s by Gija Elders. This was when senior Gija knowledge holders began twoway education programs with the Catholic Church to ensure that Gija children were not removed from Warmun for schooling and could learn in both Gija and Western education systems.

In March 2011 floodwater, warrambany, broke the banks of

Turkey Creek, engulfing the township and inundating the Warmun Art Centre. The room that held the Community Collection was filled with water, and the art and objects swirled around until the muddy water subsided, leaving the items saturated and moldy. The next week, senior Gija representatives from the Warmun Art Centre and staff from the Grimwade Centre for Cultural Materials Conservation (CCMC) at the University of Melbourne met to plan how best to preserve these severely damaged works.

Funds were limited, so treatment of the collection became part of the teaching program at the Grimwade Centre. For the next three years, Gija Elders visited Melbourne regularly to advise on treatment decisions and to talk about the collection with students, staff, and the public. In 2014 the return of the collection to Warmun was celebrated with a performance of the gurrir gurrir joonba, with dancers and singers telling the story of the journey of the spirit of a Gija Woman after her death in a car accident at Warmun in 1974 during a flood. For Gija people and for staff at the university, three years of working together clearly demonstrated the value of sharing knowledge. As a result, a continuing partnership was formalized in an agreement signed in Warmun in April 2014.

DEFINING THE PARTNERSHIP

The partnering agreement, titled Bangariny-warriny jarrag booroonbooyoo: Two good ideas talking together, opened with the explanation of "How We Built the Idea." After laying out the origins of the partnership, this section stated that:

The partners now wish to grow this relationship further to enable increased opportunities around knowledge, education, and employment outcomes.

A history of education is embedded in the Gija Way—from

Bush, to Boarding School, to Warlarri (White Tree), to the Bough Shed, and now Beyond—to the University of Melbourne. The focus of this new and bigger partnership will be "Two-Way Learning" in Arts and Education and will be multidisciplinary.

The University wishes to gain a better understanding of its place in Australia and wants to learn more about our Indigenous history and how this could impact on education and learning into the future.

Gija people, like First Nations people across Australia, are intrinsically conservators, and cultural conservation is embedded in the Gija way of life. Senior knowledge holders have maintained Gija knowledge, culture, law, and language for tens of thousands of years. Their responsibility to educate Gija young people parallels the responsibility academics have for teaching university students; knowledge must be properly passed on and properly understood.

The agreement declared that the purpose of working together

The CCMC (and the University of Melbourne) to understand Gija knowledge as a demonstration of Indigenous knowledge in Australia to improve the University's teaching, research, and engagement and make it more relevant to Australia; the University will learn how to work with Indigenous communities in proper ways, including ongoing support for education and employment opportunities for Gija people;

Warmun Art Centre (and the Gija people) to become stronger by supporting opportunities for Gija employment, education, and shared learning that are not available at the moment, through teaching, research, and engagement programs, focused on curriculum that is developed by Gija people with support of the University.

The agreement rests on three principles: that the partnership will create employment for Gija people; that Grimwade Centre conservation students will be taught on Gija country by Gija teachers; and that Grimwade Centre conservators will pass on knowledge and skills to Gija art workers for the ongoing care of the Warmun Community Collection. Gija Elders regularly visit the University of Melbourne to give public lectures and workshops, and to talk with staff and students. Their university-based teaching ranges across Gija history, art, economics, science, education, and more, reflecting the disciplines taught on campus. Gija art workers also regularly visit the Grimwade Centre on an annual basis for conservation education and training. In the past this has included training in conservation framing, mold removal, basic cleaning, triage responses, and preventive conservation. Similarly, staff and students from the university visit Warmun, working with Gija art workers in the Art Centre and passing on conservation knowledge.

NGARRANGGARNI GIJA ART AND COUNTRY

Gija Elders are the lead teachers for the master's subject, Ngarranggarni Gija Art and Country, which brings Grimwade staff and students for a week's intensive learning at the Warmun Art Centre and on surrounding Gija land. Two clan leaders, male and female—supported by other Gija Elders, artists and art workers, and younger family

members—share knowledge with conservation staff and students. Students are taught about the *Ngarranggarni*, an expansive and complex ontology that continues to encode, nourish, and maintain Gija law, language, social organization, trade, kinship relations, custodianship of country, and the practice of song, dance, spirituality, art, and philosophy. Artwork, ceremonial practice, and performance are part of the curriculum, but it is the visits to Gija country that enable students to acquire new knowledge in ways that are otherwise impossible.

Teaching opens with a formal welcome and mantha at the Art Centre. During the mantha, students are led through smoke from a fire made with snappy gum leaves and are formally introduced to their teachers. The mantha keeps students safe while on Gija country and teaches them the importance of being properly welcomed—and the danger of not following proper procedures. Manthas are critical first steps in any visit and are conducted when the students arrive at a new location in any part of Gija country. Making nalaja (a cup of tea) for the Gija Elders is an important part of a student's daily responsibility, securing relationships and teaching respectful interaction.

After nalaja, Gabriel Nodea guides students through the story of the creation of Warmun, using artwork he created to explain the relationship of hills and other landmarks visible from the Art Centre. In this class, students learn about the journey made by Gija ancestors as they moved across country and created Warmun. Students then tour the Art Centre before being seated in the *narwan* (cave) gallery where the Warmun Community Collection is displayed and where—often joined by local Gija school students—they are taught about two-way learning in Warmun. Students are also taught about the history of the gurirr gurrir, a joonba (performance) that was introduced at Warmun in the mid-1970s. A performance of the gurirr gurirr also takes place at night, either at Warmun or out oncountry (similar to the US term "in-country"). Other learning activities occur at the Art Centre before students pack to join Gija Elders out for three days of oncountry learning.

BEING ONCOUNTRY

Senior knowledge holders have clan responsibilities for specific parts of Gija country, and each year teaching responsibilities are rotated among the clan leaders from the eight Gija clans. Lessons on Gija history include accounts from the Killing Times, when massacres



Shirley Purdie and Max Thomas conducting a water mantha at the Balowa River in June 2018. Photo: The Grimwade Centre and Warmun Art Centre.

of Gija people occurred (1890–1926) as cattle stations were built across Gija country. Visits to these sites make this recent history vivid and help students understand the effects of intergenerational trauma. Visits to rock art sites introduce students to images of animals, historical figures, and ancestral stories. Cattle stations are located on Gija clan land, and Gija teachers talk about the Station Days and the places where they grew up, working from a young age as unpaid, or extremely low-paid, station hands.

Elders also share knowledge about traditional food collection, with a highlight being the collection of sugarbag (honey) from hives of native bees. Kangaroo, emu, and bush turkey are also part of sharing food while oncountry. At night performances, storytelling takes place before everyone settles to sleep on the ground under the stars.

Ngarranggarni sites are central to Gija knowledge; visiting these sites and hearing the ancestral stories is an important part of oncountry learning. As a result, the devastation felt by the Gija community when one of these sites was destroyed by granite miners in 2020 reverberated strongly among Grimwade students and alumni.

In 2020 and 2021 COVID-19 lockdowns meant travel to Warmun was not possible. Elders were adamant that teaching conservation students remained a priority, and teaching was conducted via Zoom from Warmun to an enthusiastic and grateful student cohort.

KEY PRINCIPLES

This partnership is kept strong by ten key principles embraced by both organizations. They include:

- being a two-way relationship, with WAC and the university having equal voices in working together;
- acknowledging that the University of Melbourne sits on the land of the Kulin Nation;
- respecting the traditional owners, past and present, of the Melbourne area;
- recognizing that senior teachers and their knowledge are very important; The Old People must be listened to, be taken seriously, and be the guides;
- sharing information with each other to ensure transparency and to build trust;
- being open and honest in communication and raising issues when needed;
- understanding that mistakes will be made and that partners should be supported and learn from these mistakes when they happen;
- taking responsibility for their role in the partnership;
- ensuring there is ongoing mutual benefit in working together;
- respecting Gija culture.

The Grimwade Centre for Cultural Materials Conservation and the Warmun Art Centre share the goal of conserving cultural objects and knowledge in order to sustain cultural practice, pass on knowledge about Gija culture and about conservation, and develop new ways of teaching and learning. The passion and commitment of both partners has nurtured, maintained, and grown the partnership, providing the basis for a strong future of working together.



Gabriel Nodea teaching about Warmun kinship and skin names at the Warmun Art Centre in 2018. Photo: The Grimwade Centre and Warmun Art Centre. Photographer: Lisa Mansfield.

A MODEL OF EDUCATION

From the time of Ngarranggarni, when the Gija ancestors first laid down the country, the law, the people, the plants, and the animals, and for over tens of thousands of years, Gija culture has remained strong. The generosity and support of the Gija Elders who are committed to two-way knowledge education have enabled Grimwade Centre staff and students to gain an understanding of the depth and richness of Gija knowledge. For Gija Elders at the Warmun Art Centre, conservation of important cultural material and training to ensure its care are a significant part of keeping culture strong.

The partnership between the Warmun Art Centre and the Grimwade Centre demonstrates the importance of two-way education as a conservation learning strategy. This model of education was built by Gija people when, at a time of crisis, they saw education as the mechanism for preserving cultural, social, community, and individual identity. The partnership evolved out of a more recent crisis when significant cultural material was at risk. It is founded on an understanding that knowledge is generated by powerful ancestral spirits whose agency is relevant in a university education. It confirms the resilience of millennia-old knowledge systems that now play an important role in contemporary tertiary education. Finally, it demonstrates the willingness of Gija people to share this knowledge in appropriate ways and their belief that conservation is important for future generations.

Gabriel Nodea is the Cultural Liaison Officer at Warmun Art Centre and Gija Research Fellow at the Grimwade Centre, the University of Melbourne. He has held positions as chairman of the Warmun Art Centre and deputy director of the Arnhem Northern and Kimberley Artists Aboriginal Corporation (ANKA). He graduated with the Specialist Certificate in Cross-Cultural Conservation from the Grimwade Centre in 2019. Robyn Sloggett is Cripps Foundation Chair in Cultural Materials Conservation and Director of the Grimwade Centre for Cultural Materials Conservation at the University of Melbourne.

Acknowledgments: The Old People are the catalyst and knowledge holders for this partnership. We thank Gija teachers Mabel Juli, Eileen Bray, Betty Carrington, Shirley Purdie, Nancy Nodea, Mary Thomas, Patrick Mung Mung, and Gordon Barney; those who have passed away, including Mr C Cann, Mrs P Thomas, and Mr R Peters; and those who no longer teach because of advancing years, including Peggy Patrick and Lena Nyadbi. We are extremely grateful for their generosity and hard work to keep the partnership strong. This article was reviewed and approved at the Warmun Art Centre meeting on 27 July 2021.

CONSERVING INDIGENOUS **FEATHERWORK**

A California Case Study

BY ELLEN PEARLSTEIN

FEATHERED REGALIA, OR DECORATED ITEMS WORN or held during either public or private Indigenous ceremonies, have tangible and intangible values for their makers and users. Throughout the Americas, objects created with feathers have strong connections to the behavior of birds in nature, to traditional beliefs associated with birds, and to the status and age of the wearer and user. In 2007, when I began researching issues related to conservation of Indigenous California regalia, I wondered how much value contemporary regalia makers placed on the natural coloration, as color is a conspicuous feature of feathers and one that, according to anthropological literature, contributed to traditional values.

I initially focused on the feathers of the Red-shafted Flicker (Colaptes auratus cafer), a black-and-white spotted woodpecker with brilliant salmon-red coloration on the lower sides of its wings and tail shafts. These feathers have been part of regalia from different communities throughout California and up into Oregon, Washington, and Alaska, with examples from all of these regions found in museum collections. Artist selection is evident in the use of yellow feathers from the closely related Yellow-shafted Flicker (Colaptes auratus auratus), alternating with the salmon-red feathers. The red and yellow feathers are from subspecies of the Northern Flicker, whose inhabitation areas both overlap and diverge from each other.

The role of color for Northern Flicker feather regalia, highly valued by the creating communities in California, prompts questions regarding feather selection and use, original appearances, and provisions for storage and exposure during cultural use. In museum practice and in preservation science, safeguarding the biological and structural colorants found in feathers, as well as the protein-based keratin support, is achieved through control of visible light and ultraviolet radiation in storage and display. My initial visual evaluation of Red-shafted Flicker feather regalia in several museums—the Brooklyn Museum, the American Museum of Natural History in New York City, the Phoebe A. Hearst Museum at UC Berkeley, the Autry Museum in Los Angeles, the Yosemite Museum at Yosemite National Park, and the Point Reyes National Seashore Museum in Northern California—revealed a wide range of coloration for the feathers. The appearance of regalia ranged from deep salmon-red all the way to nearly pure white.

My featherwork research included three components: studying environmental biology and ornithology to understand the different



plumage colors the birds can produce; conducting interviews and attending open ceremonies to learn the value of color and its selection by regalia makers and holders of feathers; and partnering with the Getty Conservation Institute (GCI) to scientifically assess fading behavior for these understudied biologically pigmented materials.

FEATHER COLORATION

Environmental biologists tell us that yellow- and red-shafted coloration is chemically distinguishable—that is, the carotenoids (or fat-soluble pigments) that cause yellow, red, and orange coloration are composed of distinct terpenes. The coloration possible for fresh feathers of the Red-shafted Flicker spans forty pages of color chips in the Munsell Book of Color, a color reference source.1 Despite the observation of near colorless regalia in old museum collections, the almost white coloration is not reported as biologically natural for these birds and is not found among the color chips. Since these birds produce feather coloration by circulating ingested pigmented lipids into the growing feathers, the color of these feathers is largely dependent on the bird's diet. Given the local ecosystems in which these birds live, diet-induced color variation is expected.

Museum conservation typically values preserving color across time—but how does this apply to materials drawn from Indigenous communities who never intended for these objects to land in museum collections? I learned a great deal from meeting with regalia makers and holders living along the Sacramento River basin whose backgrounds include Maidu, Konkow, Wintun, and Nisenan, and Pomo and Miwok artists closer to the coast—who all use feather regalia as part of a Kuksu cult—as well as Hupa artists from northern California. Meetings took place at people's homes, in area museums, and at festivals. Repeated attendance at the annual public Point Reyes National Seashore Big Time Festival held at Kule Loklo, a replicated Coast Miwok village, provided an opportunity to meet additional regalia makers and users. Flicker feathers are referred to as 'oye woloolok' by the Coast Miwok; documented use by the Miwok in kuksuyu dances of flicker feather headbands known as tamakila extends back into the nineteenth century.2 In each visit, I brought examples of Red-shafted

Yellow- and Red-shafted Flicker feathers used together in a Maidu headband in the collection of the Phoebe A. Hearst Museum. Photo: Ellen Pearlstein; with permission of the Phoebe A. Hearst Museum.



Flicker feathers from UCLA's feather bank, part of the university's Bird Genoscape Project.³ I also brought color-corrected images of museum flicker feather regalia to show to artists and makers, whose impressions I then recorded. How regalia is stored, protected from

insects and light, and repaired or replaced were valuable topics of discussion.

The contemporary regalia makers I spoke with refer to Red-shafted Flickers as "hammers" or "yellow hammers," even if the feathers are red orange. This is because the woodpecker makes a hammer sound when pecking and stabilizes itself on the tree with its pointed tail feathers. Having access to yellow feathers was a means for localizing the maker or owner through the bird source; my having access to "hammers" of any color was enviable to regalia makers. These feathers are a rare and coveted commodity, and artists were interested to learn about UCLA's feather bank, to which volunteers add feathers, only minimally touching (and not harming) the birds. In hindsight, I regret not bringing gifts of feathers to each artist I met. While flickers were traditionally caught by placing traps over their nest holes in trees and plucking off needed feathers, many regalia makers now talk about collecting roadkill birds, trading feathers, and being gifted birds by locals who know they are regalia makers. Some regalia

makers have reported dreaming about making ceremonial items, then finding the feathers on their workbench.

FEATHER USE

The use of flicker feathers in California regalia is possibly best known through dance headdresses and trailers, which consist of long narrow bands of the feather shafts with the barbs trimmed from the shafts, and with the pointed tips of the tail vane often retained. The shafts are then closely aligned and secured together with threads made of sinew, dogbane (*Apocynum cannabinum*), or cotton. The headdresses are worn horizontally across the forehead over the eyes with sides flapping, and the trailers are worn down the back. These forehead headdresses include the tamakila used by the Miwok. Making flicker feather regalia requires extensive resources—a single short headdress of 58.5 cm has been estimated as requiring feathers from sixty birds.4 Artists indicate that a great deal of time is consumed in trimming off the barbs, securing the shafts together, and keeping the headdress flat and the edges uniform. Having sufficient feathers of the correct size means that variation in color is tolerated.

The feather- and labor-intensive headdresses produced by feather artists are, like offspring, meant to be cherished, healed, and protected, and to outlive their creators. Increased ceremonial use increases their sacred worth. I had the privilege of seeing a thirty-six-year-old flickerfeather headband—still used for ceremonies—made by the late Maidu/ Wintu artist Frank LaPena. Frank proudly shared a black-and-white image of himself wearing the same regalia as a young man in the 1970s. He reported damage occurring during use, mainly at the side ends of the flaps, and trimming those ends to remove damage and maintain

> the headdress. Similarly, in a recent interview, Hupa artist Bradley Marshall shared examples of regalia made more than twenty years ago that had been used in many ceremonies, and he stressed his practice of signing and dating regalia in contrast to the past anonymity of regalia makers. Bradley and Pomo artist Meyo Marrufo describe their process of keeping bird carcasses in the freezer while waiting to use them. Bradley stores feathers in plastic bags within plastic-lidded tubs as further protection from insects. Historic examples of feather storage containers made by Yurok Tribe members are tightly lidded cedarwood containers with feathers wrapped in sagebrush mats or stored with bay laurel (pepperwood) leaves,5 all materials from plants that deter insects. Multiple artists reported washing feathers with mild dish detergent. Many artists transport regalia to ceremonies in luggage as another form of physical protection. One artist with close ties to Maidu traditions stores his headbands rolled.

> Artists were keenly interested in the images shared of regalia in museum collections. Responses to Red-shafted Flicker regalia that

had faded varied among individuals. Frank LaPena felt that regalia that had faded to a pale or white appearance might have been donated to a museum because it was no longer suitable for ceremony. Bradley Marshall reported being given very faded regalia that, unused and unnurtured, he characterized as sick and lacking in life force—and in which the color was returned through his care. Regalia makers wondered whether perspiration played a role in either color pres-



A male Red-shafted Northern Flicker (Colaptes auratus cafer). Red-shafted Flicker feathers have been part of regalia from different native communities throughout California and in Oregon, Washington, and Alaska. Photo: USFWS Mountain-Prairie, licensed under the Creative Commons Attribution 2.0 Generic license.







Three examples of regalia in the collection of the Phoebe A. Hearst Museum. Each has one end turned over to illustrate color differences presumed to be between front and back. The suspected front as worn is more faded in each case. Photos: Ellen Pearlstein; with permission of the Phoebe A. Hearst Museum.

ervation or color loss. Regalia makers Bradley and Meyo wondered about residual effects of museum pesticides on color (something conservators questioned as well). However, all artists agreed that preservation of the rich coloration of feathered regalia is important, and they appreciated the attention given to these museum items that often lack the maker's name or a date.

SCIENTIFIC STUDY

The value placed on natural feather coloration by Indigenous communities is clearly important in feather selection and use, and this importance supports practices that protect featherwork objects.

Consequently, culturally important California feathered regalia using the Northern Flicker and other species became the focus of a study done in partnership with the GCI (circa 2006–15). The Institute's museum lighting research, being led then by senior scientist Jim Druzik, offered the perfect facility and expertise to design and implement a study of the susceptibility to fading of an array of culturally important feathers with six different colorant sources. While the study did not examine the role of pesticides or perspiration in accelerating fading, it did conduct an in-depth examination of the color systems found in feathers, furthered an understanding of where within the feather anatomy color is deposited, and assessed the relative resistance to fading of these natural colors. The study also enabled the development of innovative measurement tools and strategies

to track color change, and added examination techniques, such as transmitted light and ultraviolet-induced visible fluorescence, to the conservator's toolbox for feathers.6

We discovered that the carotenoid pigmented feathers of the Red- and Yellow-shafted Flickers are among the most light-sensitive of naturally pigmented plumage. While the cultural-use lighting and the museum lighting histories for regalia collected around 1900 are impossible to reconstruct, ultraviolet exposure is likely, given what we know about the role of daylight in both outdoor ceremonies and early museum practices (for example, early fluorescent fixtures in museum lighting). Still unanswered is whether regalia with extensive color loss disproportionately found its way into museums, and we did not explore the private ways Indigenous artists with specialized skills are able to heal these items.

It remains essential to share these findings with stewards of feathered materials. Sharing took the form of publications, including coauthorship with our Indigenous colleagues, biologists, and conservation scientists, in both conservation and Native California venues, and presentations, notably at the California Indian Conference and the Association of Tribal Archives, Libraries, and Museums.

Indigenous knowledge, environmental biology, and conservation lighting science are all essential to understanding both the intended appearance of and the preservation goals for California featherwork. In Native California culture, feather color loss is associated with neglected and sick regalia; in environmental biology with poor bird diet;

> and in conservation with light-induced fading of museum specimens. All paths of inquiry converge to value the preservation of feather coloration and connect to healthy habitats. This ongoing work indicates the importance of interdisciplinary and collaborative study if we are to understand both tangible and intangible properties of feathered regalia, along with the meanings behind the preservation actions we take as conservators.

> Ellen Pearlstein is a UCLA professor in the Information Studies department and the UCLA/Getty Interdepartmental Program in the Conservation of Cultural Heritage. She is currently at work on Conservation and Stewardship of Indigenous Collections: Changes and Transformations, an upcoming volume in the GCI's Readings in Conservation series. Contributions to the preceding article by Hupa artist Bradley Marshall and Pomo artist Meyo Marrufo are gratefully acknowledged.



Maidu/Miwok dancers wearing flicker feather headdress regalia at the Point Reyes Big Time Festival (California) in July 2008. Photo: Ellen Pearlstein.

See also Renée Riedler, Christel Pesme, James Druzik, Molly Gleeson, and Ellen Pearlstein, "A Review of Color-Producing Mechanisms in Feathers and Their Influence on Preventive Conservation Strategies," Journal of the American Institute for Conservation 53, no. 1 (2014): 44-65.

^{1.} Jocelyn Hudon, Karen L. Wiebe, Elena Pini, and Riccardo Stradi, "Plumage Pigment Differences Underlying the Yellow-Red Differentiation in the Northern Flicker (Colaptes auratus)," Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology 183 (May 2015): 1-10, https://doi.org/10.1016/j.cbpb.2014.12.006

^{2.} Edward Winslow Gifford, "Miwok Cults," University of California Publications in American Archaeology and Ethnology 18, no. 3 (May 8, 1926): 391-408

^{3.} Bird Genoscape Project, https://www.ioes.ucla.edu/project/birdgenoscape-project/

^{4.} G. W. Hewes, "Californian Flicker-Quill Headbands in the Light of an Ancient Colorado Cave Specimen," American Antiquity, 18, no. 2 (October 1952): 147-54.

^{5.} Examples of these can be found at the Phoebe A. Hearst Museum

^{6.} Ellen Pearlstein, Melissa Hughs, Joy Mazurek, Kevin McGraw, Christel Pesme, Renée Riedler, and Molly Gleeson, "Ultraviolet-Induced Visible Fluorescence and Chemical Analysis as Tools for Examining Featherwork," Journal of the American Institute for Conservation 54, no. 3 (2015): 149-67.

CONNECTIVITY AND CULTURE

A Conversation about Collaboration in the Conservation of Indigenous Materials

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RANGI TE KANAWA is a conservator at the Museum of New Zealand Te Papa Tongarewa (Te Papa) who specializes in the conservation of-and research about-Māori textiles. She is a member of the iwi (tribe) Ngāti Maniapoto.

They spoke in June 2021 with ELLEN PEARLSTEIN, a professor in the UCLA/Getty Interdepartmental Program in the Conservation of Cultural Heritage, and JEFFREY LEVIN, editor of Conservation Perspectives, The GCI Newsletter.

ELLEN PEARLSTEIN You each work at highly engaged institutions with collections of Indigenous materials. How are relationships with Indigenous communities sustained at each of your institutions?

RANGITE KANAWA Te Papa, I believe, is leading in developing biculturalism, in that we have what we call Mana tāonga policies. Mana is the prestige and tāonga is the artifact. The museum has acknowledged the critical connectivity of an artifact to its people, which adheres to treaty obligations. The government has said that this institution will fully engage with the people of the land. Each tribe is offered an exhibition space for at least three years and has the opportunity to tell stories of their people and select artifacts from our collections, as well as bring their own into the museum. I started at the museum in 1990, and I could count on one hand the number of Māori staff. In a relatively short time, the number of Māori employed by the museum has increased significantly, and

it is now commonplace for museum visitors to see a Māori face talking about an exhibition in the museum. Te Papa is engaging with its communities on all levels and is also taking professionals out into the community. The feedback from our community is very positive because Māori have been disconnected from the makeup of their tāonga. When working with the community and their tāonga, many of them don't know the material they're made of—that's quite alarming for me. They often don't know anything about the procurement or the processes of the materials, or have real knowledge of the practices of our ancestors in the making of their tāonga. It's about being connected to nature, to the river, to the mountain, things relative to being a Māori. I like working in the community because I deal with people who are usually reluctant to come into the museum, and I have the opportunity to inform them about their tāonga.

PEARLSTEIN Kevin, I know that the NMAI also has these reciprocal relationships and broad outreach.

KEVIN GOVER The most important thing in building a relationship with an Indigenous community is that the museum yields authority. In the old relationship the museums had all the authority. They decided how to characterize not just the material but the significance and the meaning of objects. One of the most important things we did at NMAI was cede authority to the communities, saying "We want you to tell us about the things we have, and add to our knowledge." We have to regard the community, the culture bearers, as the experts—and for that reason, the communities carried the inaugural exhibits at the NMAI. We don't have communities curating exhibits much anymore, as our exhibits have taken on a more expansive, national perspective, as opposed to presenting new material from individual tribes. But working with the community on the interpretation of their history and culture certainly continues. Once a museum has yielded authority and made that clear to the community, that's probably the most important step in developing trust.

HEIDI SWIERENGA I can echo that. The most intense and valued relationships are those built over long periods and many projects. These are reciprocal relationships where knowledge is shared, but most important is that clear priorities and objectives are established early on. From a conservation perspective, an understanding that we're not the only ones bringing expertise to the table is essential. There are different types of knowledge, and they're all valued in an ongoing dialogue. It's critical to understand where communities are coming from, particularly when they've lost a connection to their material culture.

PEARLSTEIN At your institutions, do Indigenous communities have any involvement in the conservation and preparation of an item for exhibition?

TE KANAWA There are many different teams involved in an exhibition. The curators engage with the communities and discuss the narrative of an exhibition, so communities are involved in concept development. But I haven't had any experience working with them to develop a conservation support system. On rare occasions, they may come into the lab where we can discuss stabilizing treatment. During the exhibition, we do have kaumatua-elderly people of the tribe—hosting tours.

GOVER For us, it goes both ways. In general, early on when the museum is considering an exhibition using a tribe's material, we go to the community and talk about the material. One of the first things that happened when the NMAI was formed was that we delivered inventories of the NMAI collection to each tribe. This was mostly for repatriation purposes, but it was also to let them know what we had. Often, they want to visit these collections even though they don't continue repatriation claims, and those visits provide a rich exchange between community members and the museum, sharing knowledge about the collection and its care. It's an ongoing relationship. As the national museum for Native Americans, they're our primary constituents. We want to meet their requests as often as possible and accommodate them when they want to visit. But we've also seen exhibitions done in the community itself by a tribal museum, and we've asked if we can use it in our museum because it was so good and interesting. They didn't come to us saying, "Hey, we've got a great exhibition." It's not what they do. So we have an ongoing obligation to see what's going on in these communities and bring the best of it back to Washington and New York.

SWIERENGA It goes both ways for us, as well. We still have the model where there's a curatorial concept, that may or may not be community driven. But we have quite a few initiatives completely driven by community requests that don't necessarily relate to exhibits. An example of this is our collections access program, which came about because of the increasing demand by communities to reconnect with their belongings that are now held in institutions like MOA. It started with a couple of requests in the early 1980s, and this has slowly increased over time as families learn where

their belongings have ended up. Some individuals are quite interested in rebuilding their connections to these pieces and to use them in order to display for witness the inherited privileges that they hold. The collections access program was created to support this work with the goal of reducing financial barriers to access. Another example is the preservation of wet site materials. We hold in trust some perishable, waterlogged organics from a number of communities. These items often require stabilization, and this can sometimes mean sending them across the country for treatment. Communities don't necessarily want to see their belongings travel so far, so MOA has undertaken some research and learning at the request of these communities so that some of this work can happen closer to home. Over the last decade, we MOA conservators have learned much from this experience—we're privileged to get to do this work and expand our knowledge while engaging with the individuals to understand what they want in terms of the treatment outcome. The challenge is the time that it often takes because priorities on both sides can be fluid. We've had to become comfortable with the fact that the final outcome will happen when it's right for everybody.

JEFFREY LEVIN I'd like to drill down more on collaboration and the degree to which a real exchange offers both sides ideas that enrich the conservation process and an understanding of the materials.

GOVER Typically, we get lots of visits from tribe delegations and not just US tribes, but also Canadian and Central and South American tribes. They'll request time in the collections, and we have two or three staff working with them. Visits usually last a couple of days, sometimes longer, and we'll bring the objects into a room where they can examine them together. They go over the catalogue entries for the items, and quite often the entry is just wrong, either about what it is or that it's even from that particular tribe. Sometimes they can even name the specific artist who created it ninety years ago. And then they get into a discussion about what it is and its significance in the culture. Our staff gathers that information, which becomes part of that object's record. Sometimes the tribe may want to use the object in some ceremonial fashion. A big breakthrough NMAI made in museum practice was to say, "Yes, you can do that," and we created special places in our facilities where objects can be put to traditional use, whatever that may be. We don't observe the ceremonies, of course, unless invited. So there's an ongoing conversation between our collections people and the tribes. They do talk about conservation, but they don't think about preserving objects the way a museum does. They weren't created to exist forever, so it's slightly strange for the tribes that our objective is to preserve an item indefinitely. Probably most of the technical knowledge is on the museum side, but quite often the tribe will be intrigued by that because they may own things back in their tribal museum, or even in their homes, and our conservators can share with them the different techniques they use to preserve this material.

oto: Tamara Hoffer. Courtesy of the Office of the Under Secretary Museums and Culture, Smithsonian.



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KEVIN GOVER

SWIERENGA The way we practice conservation now is thanks to the lessons that we have learned from the community members we work with. It's been a privilege to be educated by them and to learn how to do things differently. We have had many teachers, but one in particular has shown incredible patience a weaver who was commissioned by the museum several years ago to create a Chilkat robe for the collection. The first time we brought up his weaving for use in a potlatch several years ago, we had crated it up in this big Coroplast box because that's how we've been trained to move textiles around. He laughed at me and said, "Here come the museum coffins." There were several more mistakes along the way, but now he's got us fully trained on how his robe needs to be packed so that it works best for him. It's because we're all willing to learn and make mistakes that we've had some pretty significant successes.

TE KANAWA My PhD research originally was going to focus on elemental analysis of the iron-rich mud that dyes fibers black in Māori textiles because it's a huge problem—they're fragmenting. But my supervisor set me in the direction of looking at dye recipes and processes. I collected the muds and made a whole lot of dye recipes, which I shared with the community, and they would take me to their historical site to collect mud and tell me stories of their family using this site. They'd also talk about the site's relation to the stream, and the stream's relation to the landforms, which are, in turn, connected to these people. The connectivity to the processes and engaging with communities is a restoration of the knowledge that makes up the artifact. Indeed, it goes beyond the actual artifact. I heard you, Kevin, talk about how preservation isn't really part of Indigenous thinking, and that nothing is supposed to last forever. This reminds me of my mother, who was a well-recognized weaver and always said that preservation is in the continuity of making it. In that respect, all things that make up an artifact—even the water from the stream, which maintains wetlands where deposits of iron-rich mud can be found—are part of preserving culture. In my research, I've engaged with people and walked the paths of their ancestors, and I've been privileged to do that. It's not just the artifact—it's the people and the processes that make up the artifact and all those other landforms and natural creations that are part of it. Interestingly, out of this research came the identification of some material processes typical to a region that could inform the conservation problem of the black fiber.

SWIERENGA One of my favorite examples of how collaboration can enrich the conservation process grew out of the research needs of the Salish weaving community here on the West Coast. A few years ago, the Musqueam Nation, on whose traditional territory MOA sits, asked MOA to bring home for study and exhibit ten ancestral weavings from the 1800s that are held in institutions in Europe and the United States. We worked with museum lenders, loan managers, and conservators in the various institutions to negotiate visitation and handling sessions for the weavers so they could do the research that they needed to do and to get up close to the woven structures, handle the surfaces, and look at the individual fibers. It was an incredible process of discovery for our institution, as well as for the weavers, and it left many of them with inspiration to fold into their current practices. But to get these weavings back home, we had to help the lending institutions understand why this project was so important, and that following standard loan guidelines and procedures would make costs prohibitive. We said, "Maybe we can reframe what we're doing here and think of these as community loans, not institutional loans." In all but one circumstance, the conservation and other staff bent over backwards to adjust their lending requirements. We sent one of our museum staff as a courier to an institution that could not drop the courier requirement, but that was a great savings because she traveled coach! And some institutions completely dropped the courier requirement because we made the case that we had resources to care for the weaving from point of pickup at the airport. Only one institution would not change



The most intense and valued relationships are those built over long periods and many projects. These are reciprocal relationships where knowledge is shared, but most important is that clear priorities and objectives are established early on.

HEIDI SWIERENGA

their practice and in the end sent a courier to oversee the handling sessions at enormous expense. It was the only institution that didn't have a conservator on staff. This highlighted the fact that conservators can help administrations understand what the risks actually are relative to the value of reconnecting communities with these significant pieces. I've nothing but respect for the institutions we worked with to make this happen. This should be part of the job of a conservator—to serve, when possible, as an advocate for change in practice.

LEVIN Kevin, what's the current practice with regard to providing objects from the NMAI collection to other institutions?

GOVER The challenges Heidi talks about are the same ones we face. We're anxious to see the collections out in the rest of the country, but we focus on the tribal museums. We do make loans to major regional museums, sometimes very large loans. But in every case, we ask the museum to get consent of the tribe whose material they're seeking, and we want assurances that they're consulting with the tribe about the interpretation of the material. We've turned down a fair number of loans because they didn't seem to want to do that. When they say, "Why would we talk to them?" we know that's not a museum we want to share with. We do have a lively program of returning objects to tribal museums. They're long-term loans, usually fairly large—several dozen items, sometimes even hundreds. We've been able to convince a foundation that this was a good project, and so all of those loan costs were basically paid by this foundation so we could deliver objects to tribes that lack the resources to borrow from the Smithsonian. We consider it our mission to place these things back there. The fact is, once we make a loan like that, those items are unlikely to return to Washington. We do the usual checks on the condition of the objects, but we don't do it often. We're more forgiving about certain environmental requirements, knowing we're usually not dealing with facilities built to be museums. It might be a storefront, or in certain cases it might be what once was somebody's house because that's what tribal museums are in many cases. Once you embrace the philosophy that you want these things back where they belong, and that we really hold them in trust for these communities, you find ways to overcome the obstacles that arise from any major loan of material from the museum.

LEVIN One thing we're circling around here is the role of collections care and conservation, not simply in the preservation of a material object but in the preservation of culture. It's this notion of conservation that goes beyond technical decisions about materiality, and that it has a responsibility to help shape practices that emphasize the preservation of culture.

GOVER I think that's absolutely true. And it's the philosophy of museums not to put culture in a case. It's to facilitate, to the extent you can, the ongoing practice of the culture and the evolution of these cultures. Once you see that as your job, the barriers become surmountable. I don't think any NMAI conservators are actually Native Americans, but they're ferocious defenders of these cultures and the right of these people to have these things and to see them preserved. You don't have to be Native to have that attitude.

TE KANAWA As a conservator, I found it hard to accept collection management going freely into storage and selecting tāonga kakahu cloaks, then draping them over the toi moko—the preserved heads contained in their museum boxes during the "welcoming home" ceremony. But I realized after a while that my concerns didn't fit with the concept of connectivity between a people, their culture, and tāonga. I was never alerted to any of the ceremonies because of my conservation perspective and practice that may have interrupted the process of embracing those repatriated tāonga with tāonga kakahu from the past, in welcoming them back. That's

something I've had to accept as a conservator, as well as touching without gloves. Conservation must be more understanding of a people and their culture. I now find that with my people, I must learn when to apply what I've learned in conservation and when not to apply it so they can feel connected.

LEVIN It seems that it was a bit of a struggle for you between your own background and your professional training.

TE KANAWA In the beginning, admittedly it was. Māori had a role within the museum, and they would choose collection items to use on ceremonial occasions. I eventually learned that they weren't going to engage with me because I put too many requirements on the use of gloves and condition reporting, and that didn't go down well. But we finally came to a place where there was mutual respect. Perhaps I turned a blind eye in accepting the issue of handling without gloves and the concept of touch. Regarding loans, cloaks are often requested for particular occasions. When somebody passes, if there's a cloak in the collection that's directly connected, that can be asked for. As you can imagine, gloves at a funeral don't quite fit in.

LEVIN Heidi, how has this widening notion of a conservator's role with respect to Indigenous material evolved for you personally?

SWIERENGA I've experienced a couple of strong teaching moments that speak to how the role of the conservator is changing. One was with the former MOA director, Michael Ames, a very wise, yet often formidable man, to whom I was summoned when I started at MOA. He proclaimed to me, "You are not the advocate for the object." I didn't have a clue what he was talking about at the time, and I fled the room totally intimidated. It took me awhile to realize that what he was referring to was how the ethics of conservation could be used to get in the way of community needs. He wanted to be sure I understood that there was more of value than the physical object itself. As a student of Miriam Clavir, this had already been drilled into me, but what I didn't understand at the time was that this perspective was still relatively unique twenty years ago. Another moment was when I was at a conference coffee break with a conservator from another part of the world in 2007, and I was telling them about an experience where we had an access visit with basket weavers who were helping us to reinterpret our new visible storage galleries. I told him how relaxed the environment was and how the weavers began to feel at home. While we had provided guidance on the care and handling of the objects, somebody picked up a basket by the handle—and the handle popped off. It was like we were in somebody's kitchen! For me it became a wonderful teaching moment for my own students and a wonderful conservation project for our intern, who reassembled the basket. But the conservator I spoke with said how terrible it was that I'd violated my code of ethics because I'd allowed this to happen. I was floored because there was no doubt in my mind that this is what we should be

doing—the reciprocal exchange of information that was made possible by the level of access provided was hugely valuable to both MOA and the weavers who were present. We use these occurrences as opportunities to talk about ways of working, and they cause us to question our established policies. For me, it's made loaning belongings back to families for use so much easier. If we come to a decision with a family member who's made a request, we might need to re-create missing parts for objects to be usable in ceremony. It's always something decided upon with museum staff and the family, and it's a decision always made by consensus. It can sometimes be a leap for a conservator who is participating in these modifications to understand that they should be done, given how "interventive" they can be. On our incoming documentation for these loans we no longer say, "note damage." It now says, "note change." Maybe the robe touched the ground while being danced in, so there might be some dirt on it, or maybe some ochre has rubbed off onto the collar from the dancer, but all of these, as well as the modifications, are retained and are understood to be part of the ongoing life of that piece.

LEVIN Kevin, it sounds like the conservators at your institution have already made that journey.

GOVER Yes, definitely. That was a wonderful description of the role of the conservator. Ours have certainly taken it to heart, and we spread the good word. We have a great conservation training program that the Mellon Foundation has funded for years, and that's what we're teaching.

TE KANAWA Because I'm the elder of the team, when I go into the community I prepare myself to respond to certain cultural protocols. That makes me slightly anxious and takes me out of my conservation practice, but it does get me involved in the culture, and I think the people we're visiting respect that. My next endeavor is to learn my native language because it is appropriate for working with communities. It would be good to start using that language, which would better prepare me when I go into the community.

SWIERENGA Yes, having experiences in communities has helped my colleagues and me, too. If a staff person travels with the loan, we remove the need for insurance, which can be the most significant financial barrier. Including staff in these trips who've never had the privilege of experiencing a potlatch is important in helping them understand why these returns for activation need to happen. They're pretty powerful events. I've seen interns and other conservators paralyzed because they want to do the right thing but feel that they can't because they don't know how to proceed with consultation—or even if something requires consultation. It takes time to understand where the line is between what does and what does not require consultation, and to understand that it is not a consistent line. Preservation policies can help with this, but one policy can never fit all situations.



In my research, I've engaged with people and walked the paths of their ancestors, and I've been privileged to do that. It's not just the artifact—it's the people and the processes that make up the artifact and all those other landforms and natural creations that are part of it.

RANGI TE KANAWA

PEARLSTEIN Why don't we have many Indigenous folks entering conservation? Rangi, of course, is a wonderful exception. At the UCLA/Getty Program in the Conservation of Cultural Heritage we have three students starting their graduate education who are Native American, and I'm thrilled. But how can we engage more Indigenous voices directly into our field?

GOVER We thought about it a lot but couldn't quite figure out how to do it. We're really relying on the universities. It's tough to find an Indian kid who wants to be a museum conservator. I'm sure they're out there, but we have no idea how to find them, so we count on the universities to do this. We could've spent a great deal of money with limited success, and we knew it would evolve naturally as more tribes have museums. More kids are going to say, "Hey, I'd like to work here," and will start learning different museum occupations. It will happen, and I'm just glad the universities are there for them to go to.

SWIERENGA It takes a certain type of personality to be interested in the conservation profession. But as we see the role of the conservator evolve, I'm hoping we'll increasingly attract different types of people. In terms of training, we have a few different programs at MOA, the most long-standing of which is the Native Youth Program, for high school students. We've just passed our fortieth year for the program, and over two hundred students have gone through it. It's a summer job that gives them access to different professions and activities within the museum, so it's not necessarily aimed at future conservators but rather at youth who might transfer what they learn to any number of professions from cultural ambassadors for their communities to curators and educators. We also teach conservation at the undergraduate level at UBC, and we do outreach with the university's own recruitment programs for Indigenous students, all with the goal of sparking some interest in conservation. A really exciting program we had to temporarily suspend because of COVID is the

Mellon-funded Indigenous Internship Program, which, again, provides paid learning experiences not just in conservation but across the institution.

TE KANAWA I have a growing concern about succession. I remain the only Māori textile conservator, and we need somebody else. The thing is, even if we had more Māori in conservation, we don't have the museum positions. We're a small country, and our national museum, Te Papa, has ten conservator positions at best. I'd also say that our conservation and cultural practices don't necessarily align. I can seek somebody in the Indigenous community to be a conservator, but I'm more likely to find someone who likes to create or be involved with materials as opposed to learning the chemistry of a material to stabilize it. When you talk about the sciences, it creates a bit of a distance. I'm proud to say that I think we now have maybe eleven or twelve Māori conservators working with the community. But will we expand? I don't know because I don't think the positions will be there. That said, I do like the idea of preservation both of materials within the communities and of the processes that make the artifacts. As my mother the weaver would say, "You just keep up with the practice, and that's your means of preservation."

RESOURCES CONSERVATION OF INDIGENOUS MATERIALS

The following readings are recommended for those interested in learning more about advances in conservation and care of Indigenous collections.

"Artists' Intent: Material Culture Studies and Conservation" by Nancy Odegaard, in Journal of the American Institute for Conservation 34, no. 3 (Autumn-Winter 1995), 187-93.

"Before They Are Gone: Capturing and Sharing the Traditional Methods of Textile Preservation in Thailand" by Julia Brennan, Nuchada Pianprasankit, and Piyamon Pochoom, in Preprints ICOM-CC 17th Triennial Conference, Melbourne, 15-19 September 2014, edited by Janet Bridgland (2014), Paris: International Council of Museums, 1-9.

"Collaborative Strategies for the Preservation of North American Indian Material Culture" by Bruce Bernstein, in Journal of the American Institute for Conservation 31, no. 1: Conservation of Sacred Objects and Other Papers from the General Session of the 19th Annual Meeting of the American Institute for Conservation of Historic and Artistic Works, Albuquerque, New Mexico, June 3-8, 1991 (Spring, 1992), 23-29.

"Conservation and Cultural Centres: U'mista Cultural Centre, Alert Bay, Canada" by Gloria Cranmer-Webster, in Proceedings of Symposium 86: The Care and Preservation of Ethnological Materials, edited by R. Barclay, M. Gilberg, J. C. McCawley, and T. Stone (1988), Ottawa: Canadian Conservation Institute, 77-79.

"Conservation in a Changing Museum Context: A Case Study at the Museum of New Zealand Te Papa Tongarewa" by Rose Evans, in New Zealand Museums Journal 25, no. 1 (1995), 39-41.

"Conserving Ourselves: Embedding Significance into Conservation Decision-Making in Graduate Education" by Ellen Pearlstein, in Studies in Conservation 62, no. 8 (2016), 1-10.

"Dynamics of Participatory Conservation: The Kamehameha I Sculpture Project" by

Glenn Wharton, in Journal of the American Institute for Conservation 47, no. 3 (Fall/ Winter 2008), 159-73.

"The Exhibition and Conservation of African Objects: Considering the Nontangible" by Stephen P. Mellor, in Journal of the American Institute for Conservation 31, no. 1 (Spring 1992), 3-16.

Guidelines for Collaboration (website), facilitated by Landis Smith, Cynthia Chavez Lamar, and Brian Vallo, Santa Fe, NM: Indian Arts Research Center, School for Advanced Research. https:// guidelinesforcollaboration.info/.

"Intangible Heritage: Museums and Preservation" by David Grattan and John Moses, in Preservation Management for Libraries, Archives, and Museums, edited by G. E. Gorman and Sydney J. Shep (2006), London: Facet Publishing, 42-53.

"Perspectives of an Elder/Curator on the Meaning of Heritage Objects and Why It Is Important to Preserve Objects and Care for Them in a Respectful Manner" by Stephen Augustine, in Preserving Aboriginal Heritage, Technical and Traditional Approaches: Proceedings of a Conference Symposium, Ottawa, Canada, September 24-28, 2007, edited by Carole Dignard, Kate Helwig, Janet Mason, Kathy Nanowin, and Thomas Stone (2008), Ottawa: Canadian Conservation Institute, 3-7.

"Practical Aspects of Consultation with Communities" by Jessica S. Johnson, Susan Heald, Kelly McHugh, Elizabeth Brown, and Marian Kaminitz, in Journal of the American Institute for Conservation 44, no. 3 (Fall-Winter 2005), 203-15.

Preserving What Is Valued: Museums, Conservation, and First Nations by Miriam Clavir (2002), Vancouver: UBC Press.

"Reflections around the Conservation of Sacred Thangkas" by Sabine Cotte. in Journal of Conservation and Museum Studies 11, no. 1 (2013), 1-12.

"Respectful and Responsible Stewardship: Maintaining and Renewing the Cultural Relevance of Museum Collections" by



Sala gamiilga gaax ganou (The Raven Dances with Frogs) MOA 2461/1, a chief's dancing robe woven in the Chilkat style by William White (Tsimshian)from the University of British Columbia Museum of Anthropology (MOA) collection—being danced at a potlatch. MOA supports activation of materials in its collection by originating communities, recognizing that "these objects may have a nonmaterial side embodying cultural rights, values, and knowledge." Photo: © Marina Dodis.

Sanchita Balachandran and Kelly McHugh, in Preventive Conservation: Collection Storage (2009), Washington, DC: American Institute for Conservation, 3-24.

"Traditional Care and Conservation: The Merging of Two Disciplines at the National Museum of the American Indian" by Ann Drumheller and Marian Kaminitz, in Preventive Conservation: Practice, Theory and Research, Preprints of the Contributions to the Ottawa Congress, 12-16 September 1994, edited by Ashok Roy and Perry Smith (1994), London: International Institute for Conservation of Historic and Artistic Works, 58-60.

"Tribal Collections Management at the Makah Cultural and Research Center" by Jeffrey E. Mauger and Janine Bowechop, in Living Homes for Cultural Expression: North American Native Perspectives on Creating Community Museums, edited by Karen Coody Cooper and Nicolasa I. Sandoval (2006), Washington, DC, and New York: NMAI Editions, Smithsonian Institution, 56-63.

For more information on issues related to the conservation of Indigenous materials, search AATA Online at aata.getty.edu

GCI News

New Project

GERMAN DEMOCRATIC PLASTICS IN DESIGN

The Getty Conservation Institute has partnered with Die Neue Sammlung-The Design Museum in Munich, the Wende Museum of the Cold War in Los Angeles, and the Cologne Institute of Conservation Sciences to launch German Democratic Plastics in Design, a project looking at how Soviet-era plastics were made and the factors contributing to their degradation.

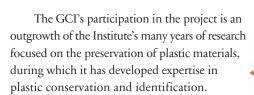
A team of conservators and conservation scientists from these institutions is studying more than three hundred household plastic objects made between 1949 and 1990 that are in the collections of the Wende Museum and Die Neue Sammlung-The Design Museum. Ranging from kitchen and audio appliances to children's toys and furniture, many of these colorful pieces are design achievements in their own right, and represent the modern aesthetic favored by many countries following World War II.

As durable as plastic may seem, many historically significant plastic objects are degrading dramatically, appearing stable for decades and then shrinking, distorting, and even disintegrating into piles of crumbs. Conservation scientists, including a team at the GCI, work with museums around the world to study plastic—whether it is plastic-based art or other culturally important everyday plastic objects. By studying the chemical profile of plastics, they can learn more about what they are made of, how they degrade, and how to possibly conserve and restore them.

One area that has not been explored indepth but that will be addressed by this project is how industrial production and manufacturing techniques, as well as the value countries and cultures put on their plastics, impact how they age and how long they are owned.



Radio Device SKR 730, 1990 VEB Stern Radio Berlin Werksentwurf. Photo: © Die Neue Sammlung-The Design Museum, A. Laurenzo.



German Democratic Plastics in Design will continue through 2023. More information on the project is available at the GCI's website: getty.edu/conservation.

Project Updates

MOSAIKON TECHNICIAN TRAINING **DIDACTIC MATERIALS**

Following the posting in English and French of mosaic conservation technician training lessons on the GCI website in 2020, an Arabic translation of the lessons is now available as free downloadable PDFs. These twenty-four richly illustrated lessons on the conservation of mosaics—those in situ, those detached and relaid on site, and those kept in storage—are now an important didactic resource that is more accessible to many in the MOSAIKON region not fluent in English or French. In addition to the Arabic version of the training lessons, a new landing page in Arabic for the training materials has been posted,* as well as a case study video with subtitles accompanying one of the PowerPoint lessons.

MOSAIKON ADVANCED TRAINING

As part of the GCI's MOSAIKON Advanced Training Course on Protective Measures for Archaeological Sites with Mosaics: Reburial and Shelters, conducted in partnership with ICCROM-ATHAR and the Department of Antiquities of Jordan, a yearlong online program was developed to supplement the two-week in-person course, to be held in Amman, Jordan. The delay of the in-person course—now scheduled for May 2022—was an opportunity to add content to the existing course program in the form of regular online meetings. These



meetings, begun in February this year, are held each month and will continue throughout 2021. They provide time for additional instructor-led presentations, lectures from Jordanian heritage professionals, presentations by course participants of their own work as it relates to protective sheltering or reburial, and extensive discussion among the participants and teaching team.

Through these additional meetings, a more robust course has been created. In addition, bringing the group together monthly reinforces the professional and collegial networks created through previous activities of the MOSAIKON initiative and provides a safe space for discussion and learning.

MOSAIC CONDITION ASSESSMENT FOR NEA PAPHOS

The GCI is working with the Cyprus Department of Antiquities (DoA) on producing a conservation and management plan for the site of Nea Paphos. During the past year, the project team made significant progress in drafting assessments

Among the assessments, to be completed later this year in collaboration with the DoA, is that of site threats and conditions. Part of this section is the assessment of mosaics and other ancient pavements, a prominent and significant



feature of Nea Paphos. GCI staff and consultants conducted a rapid assessment of more than 250 Hellenistic, Roman, and Byzantine pavements, considering each mosaic's condition, significance, and degree of exposure. The combined information was then used to rank the mosaics by priority for conservation action, including both preventive and remedial conservation measures.

The survey methodology, initially developed for the MOSAIKON Bulla Regia Field Project, has been adapted for the site of Nea Paphos, as it (like the site of Bulla Regia) contains many pavements that need to be included in a conservation plan. The mosaic and other pavement data collected from the rapid survey have been integrated into the site GIS (Geographic Information System), developed by GCI consultant Carleton University, in association with Luigi Barazzetti of the Polytechnic University of Milan. The GIS has been used to produce thematic maps of the pavements, providing important graphic tools for planning and prioritizing conservation and maintenance activities on pavements across the site.



Map of the Residential Area of Nea Paphos showing the relative priority for conservation intervention of the ancient pavements, including mosaics, based on a survey of their condition, significance, and degree of exposure. Credit: Luigi Barazzetti for Carleton Immersive Media Studio.

MONITORING AND MAINTENANCE OF THE CHURCH OF KUÑOTAMBO

In 2019, as part of the GCI's Seismic Retrofitting Project, retrofitting and conservation work was completed at the earthen church of Santiago Apóstol in the Andean village of Kuñotambo, a collaboration between the GCI and Ministry of Culture of Peru in Cusco (DDC-C). The Conservation Institute is currently working with the Archdiocese of Cusco, the Kuñotambo community, and the DDC-C to develop a multidisciplinary monitoring and maintenance plan for the church. The plan includes protocols and activities for the various groups involved in the long-term preservation of the site.



Workers of the Ministry of Culture of Peru applying one of the exterior finishes at the church of Kuñotambo in Peru, November 2020. Photo: Juan Carlos Mellado, © 2020 Getty Conservation Institute and Dirección Desconcentrada de Cultura de Cusco.

A field campaign was organized in May 2021 involving the Peruvian partners and local consultants, with GCI staff managing the project remotely. During this campaign, the project team carried out the first monitoring inspection of the site using the expedited monitoring protocol developed jointly by the partners. This exercise served to test the feasibility of the protocol and ease of use of the inspection forms, and to plan future maintenance activities.

As part of this maintenance planning, a team of specialists led remotely by the GCI tested exterior finishes for the church. The building's exterior whitewash has deteriorated significantly since 2019, especially in areas most exposed to weathering. In November 2020 lime-based and synthetic finishes were applied to seventeen mock-up panels, which were left exposed over six months during the rainy season. In May 2021 the performance of the panels was evaluated to select a durable and compatible finish. Seven tests based on various criteria were carried out, and the evaluation showed that silicate paint and lime-based finishes performed best. These data will be integrated with a cost and feasibility analysis to determine the most sustainable approach for the Archdiocese and the community of Kuñotambo.

Recent Events

KIM WORKSHOPS

From 2014 to 2021 the GCI offered a series of training workshops on heritage conservation planning to recipients of grants from the Getty Foundation's Keeping It Modern initiative. This Getty Foundation program provides support

for stewards of twentieth-century buildings to conserve significant modern architecture around the world and is a complement to the GCI's Conserving Modern Architecture Initiative.

The workshops brought together Keeping It Modern grantees with the aim of supporting their projects, promoting sound values-based conservation methodologies, and creating a community of practice. A total of 150 delegates from 36 countries across the globe attended. Attendees were introduced to a five-stage conservation planning methodology through lectures, group discussions, and site visits. They also shared valuable professional insights and knowledge gained from conserving significant twentieth-century buildings. The first six workshops were held in London and co-organized with the Getty Foundation and the Twentieth Century Society. However, the COVID-19 pandemic required redesigning and adapting the seventh workshop to an online format around eight weekly modules with prerecorded lectures and readings combined with live interactions, including time for participants to discuss, exchange ideas, and undertake practical exercises. Teaching materials from this last workshop will be made available on the GCI website by spring 2022 for professionals, teachers, and scholars concerned with the conservation of twentieth-century heritage architecture.

TECHNICAL EXAMINATION OF IRISES

Vincent van Gogh's masterpiece Irises—now in the collection of the Getty Museum—was painted in May 1889 in Saint-Rémy-de-Provence at a mental health hospital where the artist had admitted himself and where he spent a year after he experienced a deterioration of his mental state. During the first month of his stay, he was not permitted to leave the hospital grounds, and one of the first paintings he worked on during this confinement was Irises, which he painted from nature in the asylum's garden. Irises thus presents a rich subject for technical examination to further understand his painting technique during this critical period in his artistic practice.

In early 2021, during the COVID-19mandated closure of the Getty Center, Getty staff had the remarkable opportunity to take the painting off the gallery wall in the Getty Museum for an extended period to conduct a detailed cross-programmatic study. A multidisciplinary team, consisting of conservators and curators from the Museum and GCI scientists, examined the painting closely to elucidate Van Gogh's painting technique and materials, and to investigate whether any changes have



GCI scientist Catherine Patterson conducting visual examination of Van Gogh's Irises, part of the collection of the Getty Museum. Photo: D. Ormond, Getty Museum.

occurred in the paints over the last one hundred thirty years.

Over a few months, Getty researchers used a myriad of noninvasive analytical techniques microscopy, technical imaging (X-radiography, infrared reflectography), 3D scanning of the surface, X-ray fluorescence scanning, fiber optic reflectance spectroscopy, and microfade testing—to begin to identify the pigments Van Gogh used, how they were applied, and how they may have changed. Based on these initial observations, targeted small samples were removed from the painting for additional analysis by Raman spectroscopy, scanning electron microscopy, and gas chromatography-mass spectrometry to address questions regarding the painting's stratigraphy, binders, and possible degradation. The research is ongoing.

AFRICAN WORKSHOP ON THE TWENTIETH-CENTURY HISTORIC THEMATIC FRAMEWORK

In July 2021 the GCI's Conserving Modern Architecture Initiative hosted an online workshop to introduce African heritage professionals to The Twentieth-Century Historic Thematic Framework, which was created by the GCI and the ICOMOS Twentieth-Century Heritage International Scientific Committee (see page 30). Partnering with the African World Heritage Fund, the workshop was designed to increase familiarity with the Thematic Framework and explore its use in an upcoming survey of modern heritage in Africa. This event complemented the Modern Heritage of Africa Initiative, which is a continent-wide cohort of African conservation practitioners and academics focused on

identifying, protecting, and conserving modern heritage across Africa.

The *Thematic Framework* is a tool for assessing twentieth-century heritage places. It is intended to be used and adapted by people around the world who are working on identifying heritage places. It includes ten broad themes that represent the phenomena, events, and developments that characterized the twentieth century. Using a thematic approach helps to organize and contextualize the places that are being considered for heritage listing.

The workshop, first in a series of regional workshops, was developed to introduce the African participants to the framework and demonstrate how it can be used. The dozen or more participants were from African or international heritage organizations, from academia, and from private practice. After initial GCI presentations, a robust plenary discussed how it could be used, and if—and in what way—it was appropriate to the African context. On the workshop's second day, participants shared examples of heritage places and discussed what themes applied to them. The workshop demonstrated how the themes relate to modern heritage in Africa and identified where adaptation might be needed.

ACCESS TO GCI STAFF ARTICLES

For several years the GCI Information Center has tracked the dissemination activities of the Conservation Institute's staff. The first known GCI staff-authored work was for a conference abstract, "Protective Surface Coatings for Daguerreotypes," published in the Preprints of Papers Presented at the Twelfth Annual Meeting, American Institute for Conservation of Historic and Artistic

Works, Los Angeles, California, 15-20 May 1984. Since then, more than three thousand journal articles, conference papers, presentations, book chapters, books, and blogs have been authored by GCI staff. The greater part of this literature is published by third-party publishers, including major scientific and small specialty presses.

Since 2012 the Information Center has worked with staff to ensure that the J. Paul Getty Trust retains copyright to their contributions so these works can be shared widely with the field. However, despite our efforts to retain copyrights, much of the journal literature still resides behind expensive paywalls. To address this, the GCI recently embarked on an initiative in collaboration with the Getty Trust's Legal department to publish Getty staff-authored journal articles as open access whenever possible. Publishing open access provides several benefits, including increased citation and usage, greater public engagement, more interdisciplinary conversation, and wider collaboration. The most positive aspect of all is that open access articles are immediately available upon publication for anyone to read, anywhere, in perpetuity.

Open access articles authored by Conservation Institute staff will be announced on GCI's Facebook and Twitter feeds using the hashtags #OpenAccess and #ArticleOfTheMonth. This new feature complements our popular biweekly #FreeFriday posts.

KATHLEEN DARDES HONORED BY ICOM-CC

Kathleen Dardes, head of the Collections department at the GCI before she retired in 2020, was awarded the ICOM-CC Medal at the 19th Triennial Conference, which took place virtually in May 2021. This award is given to ICOM-CC members who have played a vital role both within the organization itself and in the field of conservation at large.

Kathy joined the GCI in 1988. During her years on staff at the Conservation Institute she



served in a variety of capacities and worked on a wide range of projects primarily related to preventive conservation and conservation education. The GCI is pleased that Kathywho gave so much to the work of the GCI over more than three decades—has now had her contribution to the conservation field as a whole recognized through this award, and we offer our enthusiastic congratulations to her.

GCI GETTY MARROW INTERNS

For many years during the summer months, GCI staff have supervised college undergraduate interns as part of the Getty Marrow Undergraduate Internship program. The aim of the programnow named in honor of longtime Getty Foundation director Deborah Marrow, who began the program—is to encourage greater diversity in professions related to museums and the visual arts. It supports substantive, full-time summer work opportunities for undergraduates from backgrounds traditionally underrepresented in the arts. The summer 2021 GCI undergraduate interns, supervised remotely, were:

Carolina Benitez

GRI Conservation and Preservation, GCI Science | California State University, Long Beach | Major: Art History

Carolina's internship was shared between the GRI and the GCI and focused on preventive conservation; tasks included analysis of survey data on color change, research into architectural model adhesives, and participation in the development of didactic material for a course on environmental analysis tools.

Alec Cabral

GCI Buildings and Sites | University of California, Los Angeles | Major/Minor: Biochemistry/Classical Civilization

Alec interned with the staff of the Nea Paphos Conservation and Management Project—a partnership with the Department of Antiquities in Cyprus—where he assisted with research and discussions on climate change affecting the region, issues of diversity in the Classics, and varying interpretations of the Orpheus myth depicted in a Roman mosaic of Nea Paphos, as well as the efforts undertaken to conserve the mosaics of the site.

Arely Hernandez

GCI Buildings and Sites | University of California, Santa Cruz | Major/Minor: Anthropology/History of Art and Visual Culture

Arely worked on the preparations connected with the Terra 2022 Conference, co-organized by the GCI, and assisted with the funding outreach, grant writing, and photo editing for papers to be published in conjunction with the conference.

Gabrielle Riter

GCI Information Center | Loyola Marymount University | Major/Minor: Art History/Classics and Archaeology

Gabrielle assisted with AATA Online, inputting literature into the AATA database, conducting research to identify articles missing from AATA, scanning articles, and helping with various database cleanup projects as AATA begins its transition to a new production system.

Jordan White

GCI Buildings and Sites | Loyola Marymount University | Majors: Art History and Political Science

For his internship with the Los Angeles African American Historic Places initiative—a collaborative project with the Los Angeles City Planning Office of Historic Resources—Jordan researched innovative tools used by various cities to improve diversity and inclusion in their historic preservation practices.

Upcoming Events

TERRA 2022 CONGRESS UPDATE

We are pleased to announce that Terra 2022 the 13th World Congress on Earthen Architectural Heritage-will take place in Santa Fe, New Mexico, June 7-10, 2022. In fall 2021 registration for the congress, pre-congress workshops, and post-congress tours will be posted on the Terra 2022 website: www.terra2022.org.

The Terra 2022 virtual lead-up event series was launched in June 2021 with a live webinar conversation among the partners, who discussed their work to conserve earthen architectural heritage in the southwestern United States and internationally, the challenges faced, and the future of the field. The virtual event drew more than 250 participants. The June event was followed by a live webinar in July, "Showing Our Strength: Resilience and Compassion in the Indigenous Southwest," hosted by the School for Advanced Research in Santa Fe. August showcased a series of webinars from the International Seminar on the Conservation and Restoration of Earthen Architecture, which addressed topics related to conservation of earthen heritage in the southwestern United States, northern Mexico, and farther afield. September's contribution was a series of didactic videos from the University of Minho, Portugal, on seismic testing of earthen materials and structures. In October, a

series of videos from Cornerstones Community Partnerships on techniques and traditions of earthen building was posted. The monthly series continues through June 2022 with contributions from both United States and international colleagues. Upcoming virtual events, as well as recordings from previous months, can be viewed on the congress website at www.terra2022.org/ website/8033/virtual-events/.

Terra 2022 is being organized by the GCI, the National Park Service's Vanishing Treasures Program, and the University of Pennsylvania Stuart Weitzman School of Design, under the aegis of the ICOMOS International Scientific Committee on Earthen Architectural Heritage.

GRADUATE INTERNSHIP PROGRAM

Applications are being accepted for the 2022-23 Getty Graduate Internship program. These internships are full-time positions for students or recent graduates who intend to pursue careers in fields related to the visual arts. Programs and departments throughout Getty provide training and work experience in areas including curatorship, education, conservation, research, information management, public programs, and grant making.

The GCI pursues a range of activities dedicated to advancing conservation practice, to enhance the preservation, understanding, and interpretation of the visual arts. Twelve-month internships are available in the GCI's Collections, Buildings and Sites, and Science departments. Instructions, application forms, and additional information are available online in the "How to Apply" section of the Getty Foundation website. For further information, contact the Getty Foundation at gradinterns@getty.edu. The application deadline is November 1, 2021.

SCHOLAR APPLICATIONS NOW **AVAILABLE**

The Conservation Guest Scholar Program provides an opportunity for professionals to pursue research on topics that bring new knowledge and fresh perspectives to the field of conservation. Successful candidates are in residence at the Getty Center for periods of three or six months and are chosen by a professional committee through a competitive process.

Instructions, application forms, and additional information are available online in the "How to Apply" section of the Getty Foundation website. The 2022–23 Conservation Guest Scholar program application deadline is November 1, 2021. For inquiries contact: gcischolars@getty.edu.

Print & Online Publications









Print publications are available for purchase at shop.getty.edu. Online publications are available free at getty.edu/conservation.

PRINT

The Renaissance Restored: Paintings Conservation and the Birth of Modern Art **History in Nineteenth-Century Europe**

Matthew Hayes

This handsomely illustrated volume traces the intersections of art history and paintings restoration in nineteenth-century Europe. Repairing works of art and writing about them—the practices that became art conservation and art history—share a common ancestry. By the nineteenth century, the two fields had become inseparably linked. While the art historical scholarship of this period has been widely studied, its restoration practices have received less scrutiny—until now.

Initial chapters of The Renaissance Restored discuss the restoration of works by Giotto and Titian, framed by the contemporary scholarship of art historians such as Jacob Burckhardt, G. B. Cavalcaselle, and Joseph Crowe that was redefining the earlier age. Subsequent chapters recount how paintings conservation was integrated into museum settings. The narrative uses period texts, unpublished archival materials, and historical photographs in probing how paintings looked at a time when scholars were writing the foundational texts of art history, and how contemporary restorers were negotiating the appearances of those works. The book proposes a model for a new conservation history, object focused yet enriched by consideration of a wider cultural horizon.

Managing Energy Use in Modern Buildings: Case Studies in Conservation Practice

Edited by Bernard Flaman and Chandler McCoy

This volume brings together case studies that address the urgent need to manage energy use and improve thermal comfort in modern buildings

while preserving their historic significance and character. Ten case studies address issues surrounding the improvement of energy consumption and thermal comfort in modern buildings built between 1928 and 1969 and offer valuable lessons for other structures facing similar issues. These buildings—international in scope and diverse in type, style, and size—range from the Shulman House, a small residence in Los Angeles, to the TD Bank Tower, a skyscraper complex in Toronto, and from the Calouste Gulbenkian Foundation, a cultural venue in Lisbon, to the Van Nelle Factory in Rotterdam, now an office building. Showing ingenuity and sensitivity, the case studies consider improvements to such systems as heating, cooling, lighting, ventilation, and controls. They provide examples that demonstrate best practices in conservation and show ways to reduce carbon footprints, minimize impacts to historic materials and features, and introduce renewable energy sources, in compliance with energy codes and green-building rating systems.

The Conserving Modern Heritage series, launched in 2019, is written by architects, engineers, conservators, scholars, and allied professionals. The books in this series provide well-vetted case studies that address the challenges of conserving twentieth-century heritage.

ONLINE

Cleaning Historic Concrete: A Guide to Techniques and Decision-Making

Myriam Bouichou and Elisabeth Marie-Victoire

Cleaning—whether to improve a building's appearance, arrest deterioration, assess conditions, or provide a clean surface for treatment—is often an integral part of any physical conservation project. This guide was produced for stewards and professionals working in the field of conservation facing the challenge of cleaning historic sites built in concrete. It contains a description of the types of soiling typically found in concrete-black soiling and biological growth. It also describes various techniques

tested in this research for cleaning concrete sculptures and buildings, in indoor and outdoor environments.

Included is a clear decision-making guide for selecting the most appropriate cleaning technique, as well as data sheets with detailed information on each of the thirteen techniques covering the following categories: water-based, abrasive blasting, poultices, peelable poultices, laser, and biocides.

Recognizing that one of the current challenges in the concrete conservation field is the limited availability of specific technical literature to guide practitioners, the GCI partnered with the Laboratoire de Recherche des Monuments Historiques and the Cercle des Partenaires du Patrimoine (CPP) to make available this Englishlanguage translation of the CPP's essential 2009 publication, Le nettoyage des bétons anciens: Guide des techniques et aide à la decision, which is based on CPP's research. The translation was produced as part of the GCI's Concrete Conservation project, which seeks to improve the conservation of twentieth-century concrete heritage by tackling some of the challenges facing this emerging field through development of scientific research, model field projects, training, and publications. The project is part of the Conservation Institute's Conserving Modern Architecture Initiative.

The Twentieth-Century Historic Thematic Framework

A Tool for Assessing Heritage Places French Edition

Susan Marsden and Peter Spearritt, 2021 With contributions from Leo Schmidt. Sheridan Burke, Gail Ostergren, Jeff Cody, and Chandler McCoy

The Twentieth-Century Historic Thematic Framework: A Tool for Assessing Heritage Places, originally published in English, is now also available in French. The publication was produced to promote broad thinking about the historical processes that have contributed to the twentiethcentury built environment worldwide. It identi-





fies and analyzes the principal social, technological, political, and economic drivers that have shaped twentieth-century buildings, cities, industries, and landscapes, emphasizing global forces, trends, and phenomena that have shaped the built environment.

The *Framework* uses ten succinct themes to organize and define history, helping to identify heritage sites and place them in context. Although globally structured, this framework can be used locally to survey and assess places within the context of the twentieth century and to conduct comparative analyses of places. It can be utilized and adapted by anyone involved in heritage conservation around the world.

Commissioned by the GCI working in collaboration with the ICOMOS Twentieth-Century Heritage International Scientific Committee, this publication is an outcome of the Conservation Institute's Conserving Modern Architecture Initiative.

ONLINE

Conservation Principles for Concrete of Cultural Significance

French and Spanish Editions

Susan Macdonald and Ana Paula Arato Gonçalves

Conservation Principles for Concrete of Cultural Significance, originally published in English, is now available in both French and Spanish.

Concrete conservation is a relatively new field with limited availability of guiding resources, and *Conservation Principles for Concrete of Cultural Significance* intends to fill that gap. While much knowledge can be drawn from best practices in the general repair of concrete, historic structures demand additional care to ensure that any work performed retains their cultural significance. This publication provides a framework for architects, engineers, conservators, contractors, and stewards to make sound, informed decisions for conserving culturally significant concrete buildings and structures by referencing both concrete repair standards and international conservation principles. The

principles it includes are meant to provide a logical approach to concrete conservation, leading practitioners through the typical conservation methodology, from investigation, to the development of conservation strategies, to implementation and maintenance.

This publication is an outcome of the GCI's Concrete Conservation project, which aims to improve the conservation of twentieth-century concrete heritage by tackling some of the challenges facing this emerging field with development of scientific research, model field projects, training, and publications. The project is part of the Conserving Modern Architecture Initiative.

ONLINE

América Tropical Mural Site: Monitoring Plan and Tools

The Getty Conservation Institute and El Pueblo de Los Angeles Historical Monument

This publication is an outcome of the GCI–City of Los Angeles collaborative project to conserve, protect, interpret, and provide public access to the mural *América Tropical*, painted in 1932 in downtown Los Angeles by David Alfaro Siqueiros, one of the great Mexican artists of the twentieth century.

As part of the project, the GCI committed to the monitoring and maintenance of the mural for ten years following conservation treatment in 2012. Monitoring tools were developed to facilitate the annual inspection and five-year condition assessment.

América Tropical Mural Site: Monitoring Plan and Tools provides a guide for site managers, conservators, contractors, and stewards for effectively monitoring the condition of América Tropical and the mural site in order to make sound, informed decisions for its maintenance and long-term preservation. The plan includes background on, and a description of, the mural and the site; the conservation history of América Tropical; the objective of monitoring; roles and responsibilities; and the methodology to be followed for annual inspections to be carried out by site personnel as well as the five-year condition assessments to be undertaken by conservators working with site staff. The volume contains a glossary of terms, photodocumentation guidelines, base maps for graphic documentation, and forms for inspection and condition assessment, which aid in producing reports that can be referenced over time using consistent terms and recording methods.

CONSERVATION PERSPECTIVES

THE GCI NEWSLETTER

VOLUME 36 • NUMBER 2 • FALL 2021

The J. Paul Getty Trust

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Conservation Perspectives, The GCI Newsletter

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Ellen Pearlstein, Guest Coeditor, Fall 2021

Conservation Perspectives, The GCI Newsletter is distributed free of charge twice a year to professionals in conservation and related fields and to members of the public concerned about conservation. Back issues of the newsletter, as well as additional information regarding the activities of the GCI, can be found in the Conservation section of the Getty's website, getty.edu/conservation.

The Getty Conservation Institute (GCI) works internationally to advance conservation practice in the visual arts—broadly interpreted to include objects, collections, architecture, and sites. The Institute serves the conservation community through scientific research, education and training, field projects, and the dissemination of information. In all its endeavors, the GCI creates and delivers knowledge that contributes to the conservation of the world's cultural heritage.

The GCI is a program of the J. Paul Getty Trust, a cultural and philanthropic institution dedicated to the presentation, conservation, and interpretation of the world's artistic legacy.





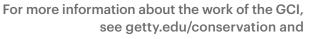


A donation to the American Forests ReLeaf program has been made on behalf of the GCI for its use of paper from well-managed forests.

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CONSERVATION PERSPECTIVES THE GCI NEWSLETTER



At the Warmun Art Centre in northwestern Australia, studio manager Ralph Juli teaches students from the Grimwade Centre for Cultural Materials Conservation at the University of Melbourne, July 2017. Since 2014 the two institutions have formally partnered in a two-way exchange of knowledge related to culture and conservation. Photo: The Warmun Art Centre and the Grimwade Centre.

