

CONSERVATION PERSPECTIVES

THE GCI NEWSLETTER

SPRING 2021

CONSERVATION AND THE PANDEMIC



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Institute

A Note from the Director



Photo: Anna Flavin, GCI

Last year, as we considered a theme for the spring 2021 edition of *Conservation Perspectives*, one topic quickly rose to the top of the list and remained there. We could not imagine failing to reflect upon, in a substantive way, the altered landscape of conservation in the wake of the COVID-19 pandemic.

The spread of the virus throughout the world has threatened and altered the health and livelihood of millions, with lives of family and friends lost, jobs and opportunities gone, and ways of living altered, perhaps forever. No event in recent memory has touched so many people in so many ways and in so many places.

In the face of the pandemic, several international heritage organizations have done important work by surveying their members to create a broad picture of the effects of the virus, specifically on the cultural heritage field. Our purpose here is to complement those efforts. We have not sought to comprehensively depict the pandemic's impact, but rather to offer "snapshots" of its effects on a variety of professionals and organizations.

It has long been a function of this publication not only to inform its readers of the ongoing work of the Getty Conservation Institute, but also—and equally important—to provide a platform for our conservation colleagues throughout the world to impart aspects of their own work. They share our dedication and commitment to the conservation of cultural heritage, and we wish to acknowledge

their work, particularly over the course of this very difficult year.

For that reason, all the articles in this edition are authored by non-GCI professionals, in order to give greater voice to our colleagues striving to continue their work under most challenging conditions. Participating in this special edition of the newsletter are conservation professionals working around the world, in Australia, Brazil, Egypt, France, India, Malaysia, Mexico, Peru, Sweden, the United Kingdom, the United States, and Zimbabwe.

Here at the GCI, we, too, have tried, to the degree possible, to continue our work in safe and effective ways, while also engaging in thought and planning for what we will do when the pandemic finally, and thankfully, recedes. It has not been easy, but we have been fortunate in our Getty leadership—including Jim Cuno, our president and CEO; Steven A. Olsen, our vice president, chief financial officer, and chief operating officer; and the Getty board of trustees, led by its chair, David Lee. They have supported our work and sought to safely maintain the activities of all the programs of the Getty Trust, navigating our way through the pandemic.

As always, glimpses of the Institute's current work can be found in the GCI News section of this publication. We are grateful for the work that we continue to do, and to our colleagues, both within the Getty and beyond, who enable us to do that work. The pandemic has forced us to do many things differently, and, in some instances, we have discovered that there are better ways, indeed, to do those things. We have every intention of carrying those lessons with us as we move forward.

There is no question that the grueling situation the entire world has been dealing with will have long-term consequences for so many human endeavors, including the conservation of cultural heritage. Let us hope that we have garnered enhanced understanding from what has occurred—including a greater recognition of the tremendous inequities that continue to exist within society—and that conservation can play an enhanced role not only in preserving cultural heritage, but also in ensuring that what is preserved honestly reflects and represents the full range of peoples and experiences that constitute history and humanity.

A handwritten signature in black ink that reads "T. Whalen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Timothy P. Whalen

John E. and Louise Bryson Director

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ON THE COVER

Moving signage at the National Museum of American History during the COVID-19 pandemic. Pictured left to right: Langston Swiecki, Pedro Colón, Anthea Hartig, and Stephen Walczak.
Photo: Irene Kariampuzha, National Museum of American History.

CONSERVATION TRAINING DURING COVID-19

A SHARED INTERNATIONAL EXPERIENCE

BY GLENN WHARTON, ANA LIZETH MATA DELGADO,
AND STAVROULA GOLFOMITSOU

As faculty members from three universities in different parts of the world, we describe in this article the impact the pandemic has had on our programs, our teaching, and our students. Despite diverse approaches to managing the pandemic by our national governments and our universities, we are struck by one common finding—teaching conservation remotely is difficult and exhausting. Faculty struggle to develop methods of communicating and provide learning experiences for students, while students struggle to modify their research and learning at home.

Governing authorities in Sweden, Mexico, and the United States failed early on to recognize the severity of the virus, yet all three universities were shuttered by mid-March 2020. Faculty, staff, and students quarantined at home, and all teaching became remote. Hands-on conservation and research in university labs ended. Workshops, field trips, and demonstrations were canceled or postponed. Most summer internships were lost because of the closure of museums, archaeological sites, and other cultural institutions, although some students were able to pivot to remote internships that involved research.

At first, the three universities expected to return to normal during the summer session, then during the fall session, then for some during the winter session. Not knowing when they could return to laboratories and classrooms made planning difficult for faculty, staff, and students. For faculty, this meant planning two different courses—one remote and one in person, and in some cases hybrid courses in which some students might return while others



Safety precautions taken after a return to laboratory-based learning in the Department of Conservation at the University of Gothenburg. Photo: Charlotta Bylund Melin.

remained at home. Some students went back to their hometowns and moved in with their families. This meant abruptly breaking leases, leaving roommates, and then finding new apartments and roommates when they returned to in-person learning.

The Department of Conservation at the University of Gothenburg, Sweden (UGOT), began teaching laboratory courses under social distancing measures in fall 2020, while lecture courses remained remote. As of this writing, the National School of Conservation, Restoration, and Museography (ENCRyM) in Mexico City is still teaching all courses remotely, as is the UCLA/Getty Interdepartmental Program in the Conservation of Archaeological and Ethnographic Materials (UCLA/Getty).

The three programs differ in scope, size, and mission. UGOT offers a three-year bachelor of science degree and a two-year master of science degree in conservation of cultural heritage objects. The department is part of the Faculty of Science.¹ Teaching is delivered through lectures, practical sessions, tutorials, and seminars. Both degrees include internships.

ENCRyM² offers a five-year degree in restoration. The core of the program is the Seminar-Workshop, an academic space where theoretical and practical content on different types of cultural heritage is taught together with various theoretical subjects. The program covers a wide range of materials and types of heritage, including archaeological, historical, and contemporary. It also offers master's degrees focused on architectural heritage conservation, museum studies, and archives.

UCLA/Getty³ offers a three-year master's degree in the conservation of cultural heritage and a PhD degree in the conservation of material culture. Lecture, seminar, and laboratory courses are taught on the UCLA campus in Westwood and in training laboratories at the Getty Villa in Malibu. Both programs require internships.

ADJUSTMENTS IN THE PROGRAMS

Despite the different structures of the programs and different governmental and university policies, the experience of remote teaching in Gothenburg, Mexico City, and Los Angeles was similar. Faculty shipped tools, inexpensive magnifying devices, material samples, and even non-collection objects to students for learning at home. They made training videos and used video cameras to capture demonstrations of conservation techniques for students. All home treatments had to be aqueous, for health and safety reasons. It was a challenge for students and professors to work with artworks from a distance, but the result was enriching and provided students with academic and professional competencies.

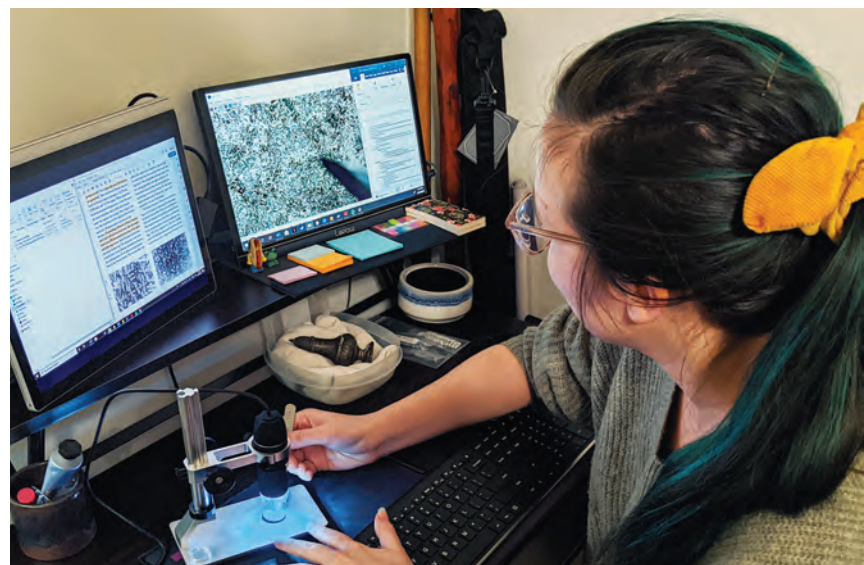
Use of digital platforms such as Zoom, Microsoft Teams, and Google Meet for lecture courses and seminars has been challenging. Students find long lectures tedious even in person, but they are particularly fatiguing online. Faculty have been creative by breaking up lectures into short segments, interspersed with student discussions and presentations. A Zoom feature that has served some faculty well is the breakout room, where students can divide into small groups to discuss a reading or an approach to a challenging situation. They then return to the classroom to report on their discussion. Google provides the Classroom platform, which functions as a repository of information and communication between students and teachers. One clear advantage to remote teaching is inviting lecturers from around the world into classes without having to pay travel and per diem costs.

At UGOT, in spring 2020, the second-year bachelor's students received boxes prepared for different classes in the conservation of organic materials. These included samples of deteriorated papers, textiles, and other organic materials, mainly original or in some cases artificially soiled and damaged, for demonstrating treatment methods. Students also used objects from their homes. Practicals were carried out partially with tutors online following the work, and

designated tasks were followed by one-to-one tutorials; tutors were based in Sweden and the United Kingdom. As the practicals had to move online suddenly and staff were also working from home, there was little possibility of obtaining portable microscopes. Later in the year, the faculty acquired extra funding to cover such equipment. Many of the kits were prepared by laboratory manager Maria Höijer and conservator Liv Friis, with additional help from individual tutors including Dr. Charlotte Björdal, Dr. Johanna Nilsson, and Flavia Ravaoli. Students were grateful to continue their studies, even if remotely, but they said they missed learning from the objects their peers were working on, a benefit of working together in a laboratory. Additional tutorials were added, a number of discussions were created on the digital platform used, and meetings were scheduled for the students to discuss their work with each other. As laboratory sessions are now allowed but with restrictions, a number of home exercises were designed by Stavroula Golfomitsoy for the students to do at home. These are over and above what is done in the lab, in an effort to experiment with new ways of developing practical skills and critical thinking.

At ENCRyM, students in different seminar-workshops have received didactic packages of materials both for practice and for carrying out restoration processes in test tubes. An example is the seminar-workshop Restoration of Documents and Graphic Work taught by Professor María del Pilar Tapia López, who, together with the team of professors, organized the necessary materials to carry out conservation-restoration processes on paper, binding, and engraving. These were collected at the school facilities and in some cases sent by mail.

Another interesting case was the seminar-workshop Restoration of Modern and Contemporary Art by Professor Ana Lizeth Mata Delgado, in which students had to diagnose a work of art and propose an intervention. As it was not possible to work in the museum or in the workshop, the professors organized virtual conservation visits. This activity took place at the workshop and



Jennifer McGough—a master's student in the UCLA/Getty Interdepartmental Program in the Conservation of Archaeological and Ethnographic Materials—studying remotely at home. Photo: Courtesy of Jennifer McGough.

at the Memory and Tolerance Museum. Through video calls, scans were made with smartphones so that students at home could have a general and detailed view of the work. Professional photographs were taken with different lighting conditions and samples obtained for laboratory analysis, and the research was complemented with archival material and interviews with the artists and staff in charge of the works. This allowed students a real-time approach to the works, reviewing together manufacturing techniques, deterioration, and storage history.

Another successful activity at ENCRyM was the creation of conservation and assembly manuals for the collection of the University Museum of Contemporary Art at the National Autonomous University of Mexico. To this end, students and faculty worked with archival information and conducted interviews with artists, curators, conservators, and the museum’s Registration department.

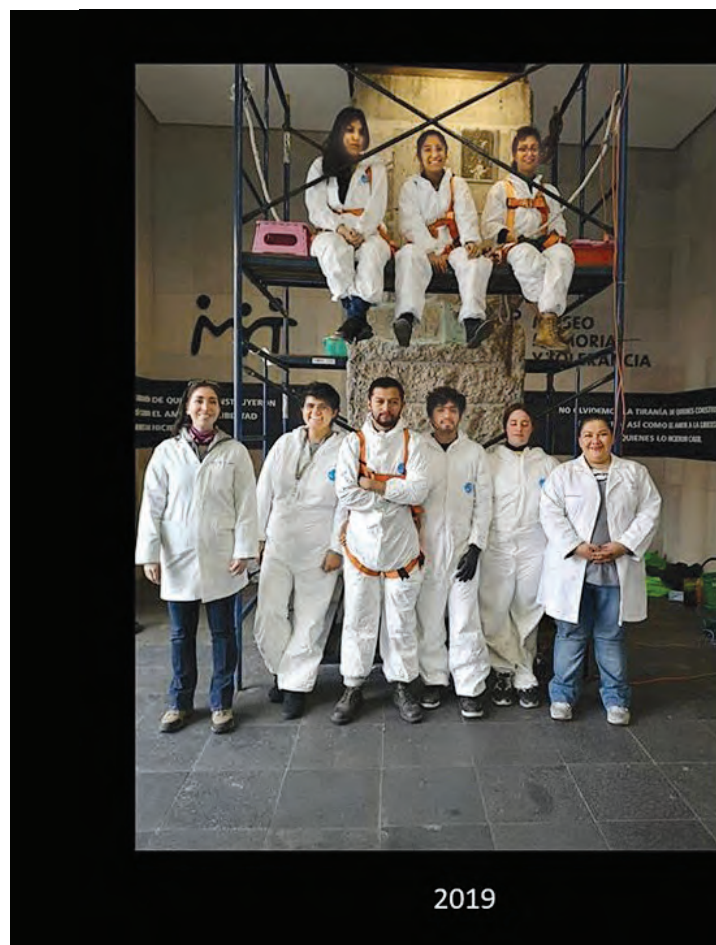
An example from UCLA/Getty is Professor Ellen Pearlstein’s two paired classes on animal-sourced organic materials. Students received boxes containing 115 items, including deteriorated leather and feathered artifacts; sample sets of feathers, quills, animal hairs, leather, and skin from different species; and tannages, horn, bone, and shell samples to illustrate properties valuable for visual characterization. Tools such as head loupes, USB microscopes and stands, UV flashlights, color checkers, and photography scales were included as well. Pearlstein designed exercises using consumable samples and artificially soiled samples to practice conservation techniques such as cleaning and archival housing. Lab manager William Shelley worked with Professor Pearlstein to procure these supplies and ship them to the students, who had either stayed in Los Angeles or returned to live out the pandemic with their families. One student reported that, “the instructor and lab manager went above and beyond planning learning exercises and preparing home learning kits, which allowed for personal exploration of material. The practicals were well-designed for applying learned information, without being overwhelming in workload. The readings were helpful and well-chosen. The choice of invited guest speakers was phenomenal and provided valuable diversity in perspectives and approaches to these materials.”

As mentioned, UGOT is the only one of the three programs to partially return to in-person learning. Starting in January 2021, it commenced laboratory sessions, taking health and safety precautions. Groups of undergraduate students attend laboratory sessions on different days, with master’s students exempted from this system because of their small class sizes. Students and faculty wear masks and visors in the lab, and working spaces are designated to keep students two meters apart. Students are not allowed to use the labs unless scheduled or there is an advance agreement with relevant parties and the lab manager. Because of the virus, all waste is treated as chemical waste. A large monitor was installed so students from different laboratories or those who cannot attend in person (e.g., those infected with COVID-19) can see the demonstrations and follow from home. In cases of students suffering with COVID-19, materials and tool kits are prepared and delivered to them to work from home.

Currently, ENCRyM still operates with distance learning; however, educational processes are being strengthened, teaching practices

are being reviewed, and new technologies are being utilized. Since the first semester of 2020, distance work has been augmented and its impact evaluated. As part of this process, courses have been given to professors to provide tools to enhance their teaching; for example, in the second semester of 2020, the course Teaching Strategies in the Twenty-First Century was given by the Tecnológico de Monterrey.

In mid-2020, the Reincorporation Commission was created, comprising students, professors, and authorities. The commission reviews all changes and adjustments involved in teaching at a distance, as well as the practical content in workshops and laboratories; various reinstatement plans are worked on so that the mainly practical classes can be regularized in the best way. It is possible that in the near future a hybrid modality will be implemented, teaching



Before and after lockdown at the National School of Conservation, Restoration, and Museography in Mexico City. Image: Courtesy of the seminar-workshop Restoration of Modern and Contemporary Art (STRAMC)–INAH.

theoretical classes at a distance with practical activities returning to school facilities, always prioritizing that students acquire the necessary competencies in their education. Faculty training on this and other educational topics will continue into the future.

During summer 2020, UCLA/Getty master’s students requested a gap year. Faculty initially rejected the idea, in part because it would throw off the teaching cycle with a new class arriving in fall 2021. Moreover, no program at UCLA had ever given their students a year off. By mid-fall 2020, recognizing that the end was not in sight, faculty reconsidered since the students were not

receiving the education they deserved. The following two months of negotiating the request with UCLA administration paid off. The MA students were given a leave of absence for the 2021 calendar year and will return in January 2022. The students were pleased, in part because they had lost their internships in 2020 and were likely to lose them again in 2021 as they continued struggling to learn at home. They retained their stipends, which are funded from endowment proceeds, and now have an additional year of graduate study. Faculty still teach courses in their home departments of Art History, Information Studies, and Materials Science and Engineering, and they work with the students online to conduct their thesis research and locate remote or in-person internships. Some students are shifting their thesis topics away from laboratory

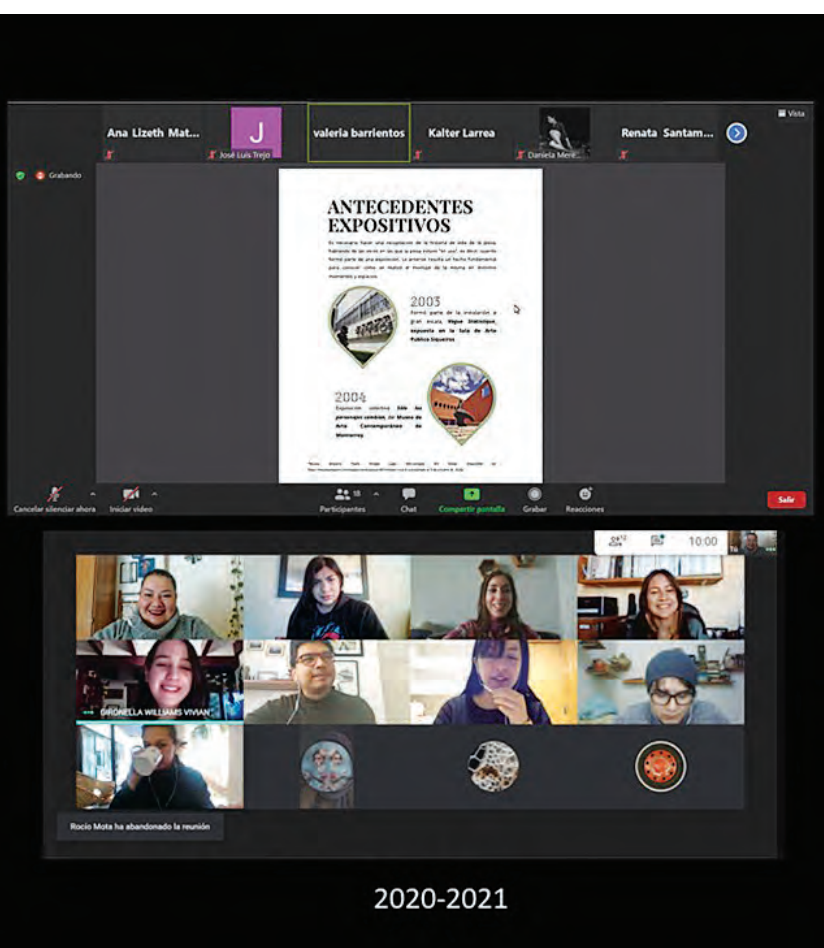
in clear fatigue for some. Yet faculty are resilient and adaptable, and together they developed new ways to teach practical skills remotely and to work flexibly by sharing their resources and expertise with each other.

CHANGES AHEAD

As we look to the future, we ponder how conservation education will change. The field itself has altered significantly over recent decades, with increased focus on preventive conservation, new methods of documentation and technical investigation, and concern for environmental and social sustainability. Traditional practical skills and theoretical knowledge remain important for the physical treatment of collections. We anticipate assessing the new methods of teaching developed during the pandemic and integrating some of them into our standard laboratory and lecture teaching. Some aspects of instruction may remain remote, including lectures from practitioners and scholars elsewhere in the world. Students may continue to undertake some problem-based learning exercises at home. Remote learning is here to stay, as it agrees with new sustainability goals and governmental agendas. It also allows a broader spectrum of people to gain knowledge about the field, which could address some of the social inequalities that became clear during professional forums in response to the Black Lives Matter movement.

As in the world outside of conservation education, the impact of COVID-19 varies substantially among individuals in our programs. Some of our faculty, staff, and students have experienced financial, health, and mental stress. Some have family members and close friends who have been ill and even lost their lives, and some have had the added stress of home schooling. Others have adapted to working at home with ease. We all look forward to returning to in-person education without PPE and social distancing, while building on lessons learned from the pandemic.

Glenn Wharton is a professor in the UCLA Department of Art History, and the Lore and Gerald Cunard Chair, UCLA/Getty Interdepartmental Program in the Conservation of Archaeological and Ethnographic Materials. Ana Lizeth Mata Delgado is head professor-researcher for the seminar-workshop Restoration of Modern and Contemporary Art, and Academic Coordinator of the Restoration Degree, at the National School of Conservation, Restoration, and Museography-INAH, Mexico City. Stavroula Golfomitsou is senior lecturer in the Department of Conservation at the University of Gothenburg, Sweden.



2020-2021

research, while others are conducting literature reviews, surveys, and interviews this year with plans to carry out laboratory research when they return. PhD students in the program are continuing their research at home without taking a leave of absence.

The Internet offers a lot of opportunity for teaching, and the pandemic came after a number of faculty members at all three universities had already taught online courses. We relied on their experiences, as in-person courses pivoted to remote learning. Faculty were hastily trained by IT staff on the use of online tools, and over time, new skill sets developed. The process was enormously time-consuming, requiring additional meetings and tasks. This led to a significant workload increase and faculty stress, resulting

1. <https://www.gu.se/en/conservation>
2. <https://www.encrym.edu.mx>
3. <https://conservation.ucla.edu/>



We asked two conservators in private practice—one in the United States and the other in England—to reflect on how the pandemic affected their work. Below are their thoughts.

REFLECTIONS OF PRIVATE PRACTITIONERS

Perseverance: A Private Practitioner's Perspective

BY CLAUDIA CHEMELLO

One of the biggest challenges of being a small business owner of a conservation consultancy is developing and sharpening a skill set you never knew you wanted or needed when you entered the field. Among the most important of these skills is learning how to embrace doubt and uncertainty and to practice it daily, even hourly. Private practice requires sheer perseverance, much like daily life in the past year. So much of your life is in your business, and this can be unnerving at times. Despite extensive public outreach in recent decades, cultural heritage conservation is vastly misunderstood and undervalued in the private sector. It's impossible to say what a typical experience is in private practice, as each project is so different. The challenges can include wildly ineffective and indecisive procurement processes, competing with untrained and general contractors, lack of a common language among clients, and the lowest price often being

the deciding factor in private contracts, while other considerations (knowledge, skills, experience) are ignored.

We're thankful to have navigated 2020 and come out the other side. Despite the many challenges, the past year was a time to reflect on our practices, adapt to new ways of working, and reexamine how we work in the context of local and global events.

I attribute our ability to persevere to four strengths. The first is resilience. Private practice is a study in uncertainty. The ability to rapidly pivot and draw strength from being a small and lean company was essential in 2020. The second is our ability to perceive "the hidden"—to discern what is important in the myriad aspects of a conservation project—a skill resulting from years of applying an archaeological conservation perspective, both literally and figuratively. This proved vital for navigating the swiftly changing and confusing landscape created by the pandemic. The third strength is an ability to develop and nurture creative collaborations and partnerships that push our knowledge and understanding of what's possible in conservation. We drew a fourth source of strength from striving to stay engaged with our colleagues and wider professional community during a tumultuous time.

Assessment in 2020 of the large-scale glass mural *Divergent Threads*, *Lucent Memories* by David Wilson, at the Harvey B. Gantt Center for African-American Arts + Culture in Charlotte, North Carolina. Photo: Claudia Chemello.

These seemingly disparate ideas—perseverance, a stratigraphic approach, and a penchant for collaboration—intersected intensely in 2020 and triggered a reflection on our work that coincided with a global movement for change, in turn brought about by a deadly pandemic. Conservation went global, becoming part of numerous narratives worldwide about contested monuments, social justice, and the future of museums. Meanwhile, with the pandemic itself, the global became local. We specialize in site conservation—whether in archaeological sites, public spaces, military installations, industrial heritage sites, or museums—treating a range of materials from traditional to modern. We rarely work in a studio, as our “patients” cannot be moved. We don’t see this as a disadvantage but as a distinct advantage and opportunity for finding unique solutions to complex conservation problems that arise from the diverse environments where these objects are situated.

The pandemic changed our approach to how we work and whom we worked with. Postponed, canceled, and rescheduled projects were the norm with a fundamentally changed work environment, often with socially distanced subcontractors in difficult outdoor conditions. We navigated insanely inconsistent requirements for site meetings and response times for contracts at the height of the stay-at-home ordinance, learned how to effectively communicate complex concepts using Zoom during reporting, and waded into the government stimulus package, itself a feat of endurance.

Our projects spanned diverse countries and communities, from the Middle East to the United States military, from small regional and historic house museums with challenging narratives to contemporary public art celebrating diversity. The projects encompassed ancient stucco artifacts, modern concrete sculpture, complex composite maritime archaeological objects, hand-painted monumental art glass, and large-scale contemporary art installations. Each object had a deep story, and notably almost all were affected in some way by intolerance, misunderstanding, bias, or neglect. On reflection, this stark realization underscored both the importance of the conservator’s voice in elevating narratives that may go unseen, and the power and privilege of that position.

Each of our projects revealed why a perspective gained from studying the past enabled us to make sense of a difficult present. This perspective gave us a framework for approaching complex objects whether ancient or modern, emphasizing that context is key for interpretation, that collaborations are fundamental for success, and that objects have nuanced layers of meaning and the ability to unlock powerful stories. The difficulties of the past year further reinforced the social role our work has and the interconnectedness of objects to their communities.

The ongoing challenges for private practitioners align with the challenges facing the cultural heritage field, coupled with the familiar stress of financial uncertainty. The way that contracting agencies define and specify conservation work, and search for and hire conservators, needs to evolve to better support our field and create a permanent shift in the way that cultural heritage is perceived and valued. Diminishing budgets mean we’ll continue to live with uncertainty. However, this may create an opportunity for more flexible and innovative working models for conservation practitioners.

A sense of professional inclusion and recognition is often missing among conservators in private practice (something we also hear from institutional colleagues), resulting from a disparity in the way work is obtained, practiced, and represented in the private sphere. A sense of isolation persists, deepened by the pandemic, in part because of the nature of the work. Connectivity was a central theme of the past year, and in many ways we were more connected than ever. Nevertheless, finding creative ways to connect private and institutional voices is a recurring need. Partnerships and collaborations between institutions and private conservators could help to better distribute and share knowledge, as well as connect to new communities.

An objective for our field moving forward is to fully accept that conservation is at the center of the dialogue and not at the periphery. Conservation is, at its core, a practice of balance, care, and sustainability, key concepts for transformative advocacy and meaning in the field of cultural heritage after the pandemic. This viewpoint requires a shift beyond the materiality of our work toward a synthesis of the tangible and intangible aspects of conservation, reinforcing the idea that we are, at heart, a humanist discipline, as much as we want to be portrayed as a scientific one. This under-realized strength connects our field to all branches of knowledge and acknowledges that our work encompasses a broader sphere of responsibility than we could have initially imagined.

Here’s to 2021. It will be a year of transition, continued resilience, and evolution to harness our collective strength as a profession.

Claudia Chemello is principal and co-founder of Terra Mare Conservation, LLC, a private conservation practice located in Charleston, South Carolina.

Building Conservation in a Pandemic: An English Case Study

BY CHRISTOPHER GARRAND

Early on April 7, 2020—two weeks after the start of the first COVID-19 lockdown in England—a fire all but destroyed the South Lodge (gatehouse) to Grim’s Dyke, a country house erected 1870–72 for artist Frederick Goodall (1822–1904) and later home to librettist W. S. Gilbert (1836–1911). The lodge and house were designed by Richard Norman Shaw (1831–1912); both buildings and the landscape in which they sit are statutorily protected (listed). As an architect specializing in the conservation of historic buildings—and as part of a management contractor-led team—I have been guiding the restoration of the lodge, a project involving the stabilization and repair of surviving brickwork, stonework, and tile hanging, combined with the re-creation of its roof, floors, joinery, and interior.

Catastrophic damage to historic buildings is always tricky to address. It is even more so in the case of the lodge, where design and construction have needed to respond to a number of COVID-19-related challenges. The project is a microcosm of some of the ways in which the pandemic in England has affected the process and practice of building conservation. I will highlight three.



Left: Grim's Dyke South Lodge in Old Redding, 1969. Image: © London Metropolitan Archives (City of London). **Right: The Lodge after the fire of April 2020.** Photo: Christopher Garrand.

Initially, the lack of physical access to archival information that might provide information on the form, detail, and construction of the lodge prior to the fire raised the prospect of a failure to understand the building's significance and establish a sound basis for an evidential approach to restoration. Fortunately, online sources provided a number of photographs of the building before the fire, including a high-quality image from 1969 showing the two principal elevations, both of which had collapsed. In addition, the local council had scanned planning application drawings (plans and elevations) dating from the 1980s and 1990s, which officers working from home were able to access remotely and provide digital copies of. Further research located an extensive online archive of Richard Norman Shaw drawings held by the Royal Academy in London, and although none were of the lodge, sections of similar ancillary buildings suggested that the destroyed interior of the lodge had been of a plain, functional design.

Beyond this, a careful survey of the archaeology of the surviving fabric—soot “shadows,” empty pockets, partially charred woodwork, and pools of solidified molten lead—added enough information to enable a faithful reconstruction of the roof, floor, staircase, external joinery, and other lost detail. This intensive focus on the lodge's surviving fabric and what it revealed more than compensated for an absence of archival information, resulting in a deep understanding of how the building was put together and the idiosyncrasies of Shaw, whose seemingly effortless Arts and Crafts architecture turns out to be anything but.

Another pandemic-related problem during the development of restoration proposals was the unavailability for consultation of local government officers, all of whom were (and still are) working from home and prohibited from all but essential site visits. This created difficulties on a number of fronts, including ecology and “works to trees” that were necessary to enable the erection of scaffolding. However, an informal yet positive dialogue with the conservation officer—who before my involvement had advised the building owner—enabled not only direct access to others but also a streamlined approach to decisions on materials and working methods, especially with regard to emergency works to prevent further loss of

historic fabric. This led to fast-track legislative procedures that have allowed large elements of “like-for-like” repair and reconstruction to proceed far earlier than would have been the case with a more conventional, staged approach to the project.

In terms of construction, supply of materials during the pandemic has been the biggest challenge, most notably obtaining handmade clay tiles—a major element of the architecture and hence significance of the lodge—of which there is in the UK only one producer capable of exactly matching the required colors and textures of a variety of now defunct imperial-size tiles. While a long lead-in time was expected, a pandemic-related decision by the parent company of the tile manufacturer to shut factories for all of December, combined with post-Christmas COVID-19 outbreaks, meant that delivery was delayed for at least two months. This affected the need to dry out hose-drenched masonry, gravimetric analysis of mortar having revealed moisture levels as high as 16 percent even six months after the fire. The original plan was to complete the shell of the lodge and then run a two-to-three-month regime of monitored dehumidification. Now, in order to maintain a semblance of the original program, it has been necessary to devise a scheme for sealing the building in a way that internal drying can run in parallel with roofing and tile hanging.

What can be learned from these examples as England moves cautiously toward lifting restrictions that have become part of everyday life? Mainly that in difficult situations, successful building conservation is even more dependent than usual on close collaboration between disciplines. Somewhat surprisingly, the flexibility of a management contracting approach to procurement made up of small firms operating within an “open book,” flat structure—one in which boundaries between architect, engineer, contractor, and conservator are blurred—has proved remarkably agile when it comes to dealing with the challenges posed by COVID-19. As an optimist, I'd like to think that this has revealed another facet of what is possible, and that post-pandemic building conservation will not be just “business as usual.”

Christopher Garrand is a conservation architect based in Bedfordshire, England.

REFLECTIONS ON THE INTERNATIONAL INSTITUTE FOR CONSERVATION AND THE COVID-19 PANDEMIC

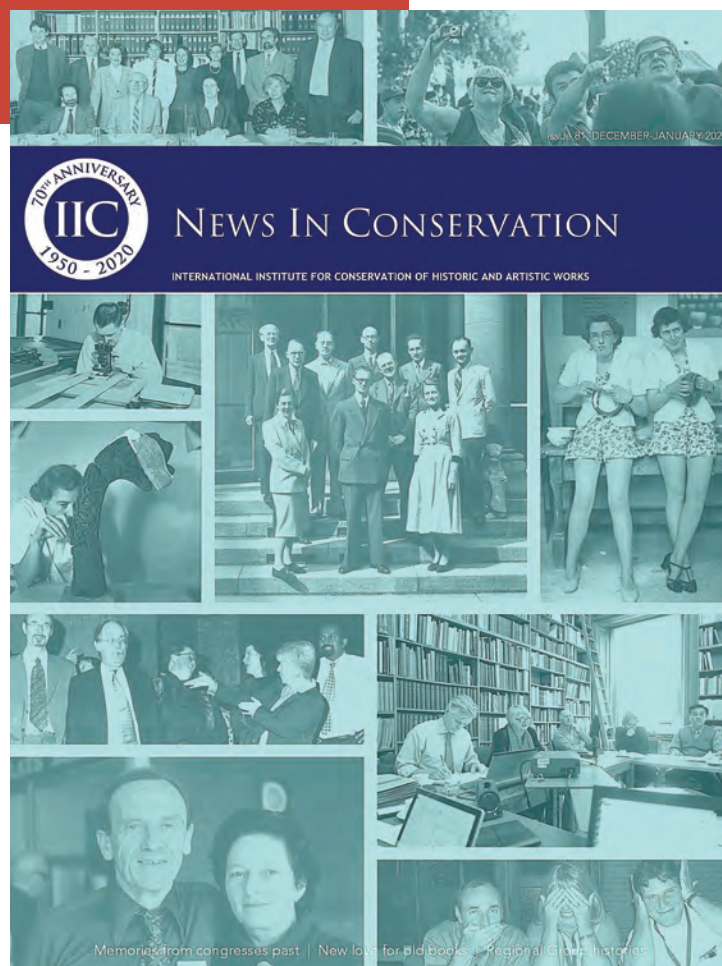


FROM JULIAN BICKERSTETH IIC President

The role of an independent international membership-based learned society in a pandemic is an interesting and uncharted one for the International Institute for Conservation. Although in our seventieth year, we've never seen such an event that threatens the livelihood of many of our members. A year into the pandemic, it is clear that what ultimately concerns these members is holding on to their jobs—yet IIC was not established to advocate for such, nor has it the national infrastructure in any country to do so. IIC's role is to support professional conservators through publications, conferences, mentoring, and recognizing excellence.

So how has IIC decided it should, in a relevant way, reach out to, support, and encourage our members? First, we have not wavered from our mission—namely, to be a global organization bringing together in one community, and providing technical support to, conservators around the world. Our twenty-eighth biennial congress in November 2020 had almost four times the usual number of registrants, from eighty-nine countries, confirming that we are currently achieving this purpose.

Second, IIC is a membership organization deriving a substantial part of its revenue from member subscriptions, and COVID-19 struck at a time when membership in professional organizations was already seriously threatened. We put in place various membership incentives, including delayed payment, and established a special fund to support those struggling to make any payment at all. We also recognized early on that the value of remaining or becoming an IIC member needed to be explicitly stated. To make an analogy from economics, the value derived should reflect the value paid. It is easy to point to the tangible returns from membership in IIC, such as access to technical publications, free attendance at the 2020 Congress, opportunities to participate in a range of workshops and webinars, and mentoring.



Courtesy of *IIC News in Conservation*, Issue 81 (December 2020 to January 2021).

But we also knew that we needed to emphasize that the value derived includes less tangible benefits, such as being part of a global community that can provide moral support from the Institute and from fellow conservators. In a world where much of what we treasure is under threat and valued by the lowest common denominator, IIC has demonstrated that support and recognition for excellence are important to our members. We have done this through our newsletters and social media, and through acknowledging excellence with

our fellowship program. That does not mean that IIC's membership has not dropped. But interestingly, our student and emerging conservator categories—sectors where it is generally recognized that the pandemic's economic impact is most felt—actually increased.

Over the span of our current strategic plan (2018–21), IIC has moved toward a participatory rather than a transactional relationship with our membership, so we are conducting a series of surveys to ensure that we are servicing members in the most relevant way. Given that the extent of the pandemic was initially unclear, we framed it as a disaster from which conservators would find common ground to work together, especially since many work in museums—identified as among the most trusted institutions in a world full of fake news. By May 2020, alongside an internal rethink of how the Institute would operate and the decision to go fully virtual in our November Congress, we saw how the first wave of COVID-19 had created in many parts of the world a greater sense of community cohesion and care for each other; we encouraged conservators to value that and hold on to it when they returned to work.

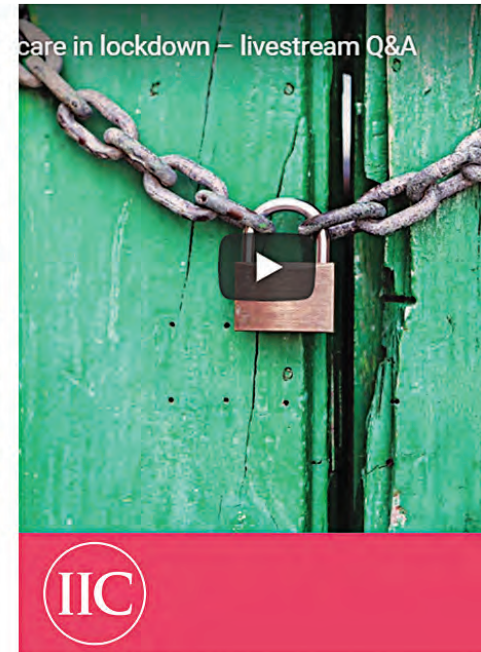
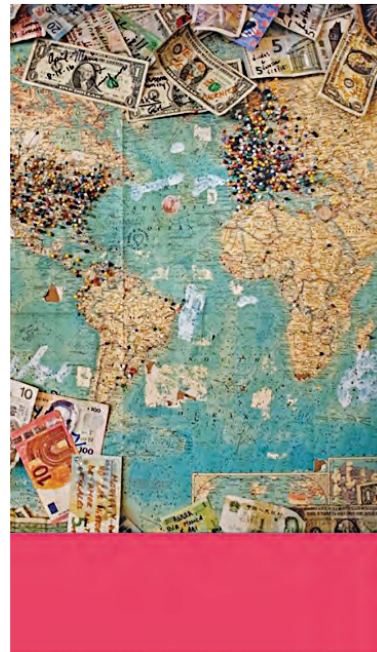
By August the Black Lives Matter movement with its global reverberations had been added to the issues the profession needed to address, and we urged members to recognize that through dealing with the direct consequences (e.g., graffiti on statues), we could not be neutral and had an important and mediating part to play, as with many others. Our focus then moved to the twenty-eighth biennial congress in Edinburgh, which we delivered as a fully virtual conference in November. The success—indeed impact—of that event is already being factored into future planning not only for congresses but also for the organization as a whole. It is clear that the acceleration of the fourth industrial revolution (as it has been called) resulting from the pandemic is now making the digital component of our lives fundamental to our profession. The critical lesson from the congress was that we must work harder at ensuring accessibility and inclusion for all our members. We now have some idea of how many would like to participate in an IIC Congress but for whatever reason are unable to physically attend. Where previously we saw the digital online component as supplementary and subordinate to the physical, we now recognize it as a necessary parallel experience for all our future conferences, which must become hybrids. We've also learned that staging an online conference is a great deal more time-consuming and complicated than staging a physical one, and that it requires a new range of skills to learn about the preferences and behaviors of online audiences and the best way to connect with them.

In sum, it has been a year requiring considerable agility and flexibility, to use those common words of 2020, but one that has come at an opportune time for IIC. As we plan for 2021 and beyond, we understand that in the digital age membership organizations such as IIC will continue to struggle with the traditional membership model. Our future lies in being a participatory center of support and excellence for the profession with our revenue drawn from generating online traffic from our activities. We also recognize that only now in 2021 are we likely to see the real economic impact of the pandemic and its effect on employment. We must continue to appropriately care for our younger members, whose careers will be most severely impacted by the pandemic, but with whom the future of our profession resides.

FROM SARAH STANNAGE IIC Executive Director

Just getting to this point seems to have required an unimaginable amount of energy, adaptation, and creativity. For many of us, living through a global pandemic has been a whirlwind of intensely eventful periods and seemingly slow, eternal moments of standing still.

Even in these circumstances, somehow at IIC we have found the headspace to reflect on our founding seventy years ago and to



Home page of IIC's digital hub of new resources for members. Image: Courtesy of IIC.

help the profession find comfort in knowing that, as a community, we have the resolve not only to consider our own individual survival but also to attend to and care for each other. Often society turns to culture and heritage in times of crisis for a sense of identity, education, or escape—and even in the midst of isolation and hardship, as a profession we have sought ways to care for both cultural heritage and our community. This is something we all should be proud of.

Since 1950, IIC has led international discourse on the conservation of historic and artistic works through our unique position in the world, with our growing network of international fellows and members bringing different disciplines together—from conservators to conservation scientists. As technologies create new possibilities with digital content and social media, communication is central to our evolution as an organization in the midst of the pandemic. Our communications team, supported by a brilliant group of Digital Engagement Volunteers, has expanded threefold within the last year, and our publications, including *News in Conservation*, have been reformatted to offer more interactive online content and provide opportunities for more tailored and personalized engagement with members.

As we learn to adapt, it is important to appreciate the positive effect we have as a community by coming together to engage, debate, and discuss with open minds the best routes to tackle the challenges that face the field—whether that is a global pandemic, inequality,

or climate change. This was a fundamental driver in IIC's decision not to postpone the 2020 Congress; instead, as the pandemic swept across the world, we pivoted and reshaped the event online to ensure that the profession still had an opportunity to come together.

When we began planning for the 2020 IIC Congress, months of lockdown, uncertainty, reduced travel, and social distancing meant we had to bridge not just disciplines, but fissures in the world as we knew it. The congress topic, Current Practices and Challenges in Built

learning using online platforms, applications, and resources to teach and connect with students and learners. While heritage conservation learning has continued, challenges in training and education face the field, including impacts on research and wider learning opportunities.

There is also increasing awareness that alongside the global economic, social, and health crisis caused by the COVID-19 pandemic, we still face a climate emergency. IIC has many members working in challenging situations caused not only by the pandemic



Heritage Conservation, was devised to overcome the divide between built heritage and collections conservation, acknowledging the interconnections in the conservation work on the subject. Our congresses are known not only for the quality of peer-reviewed papers, but also for the quality of the events themselves, providing an ideal forum for the exchange of ideas and the development of networks. Our goal was to pursue these objectives online. Overall, we recorded over two thousand people accessing the congress site, representing eighty-nine countries across five global regions—the largest international reach of any IIC Congress so far. We entered the virtual congress business not knowing what we could achieve, but based on the social media coverage and feedback received, we discovered we could cut through the personal and professional isolation of our shared circumstances.

The COVID-19 crisis has led to a number of events, learning programs, and initiatives moving online. However, this does not mean the content is accessible to all, a problem discussed during a joint webinar hosted in September 2020 by IIC, ICCROM, and Athabasca University, “Heritage Conservation Learning in the COVID World.” Consequently, we all need to ensure we develop more equitable and inclusive approaches to supporting participation online and build digital solutions into our thinking at the outset rather than bolting them on at the end.

The global lockdown of educational and training institutions has highlighted this point. With the disruption of heritage conservation learning caused by the pandemic, educators have shifted to remote

but also by extreme and hostile environments resulting from climate change—at times with few resources or little support. We want to offer practical as well as moral support to those professionals and help germinate the new approaches we’ll need as conservation professionals, and as members of society, in the years ahead.

This commitment drives everything we do, from radically revising our programs—not just with our congresses but also in our awards and grants, including our Opportunities Fund, expanding the funding available and opening it up to all members within two categories—the first focused on needs and the second on mobilizing collaborative practice.

For IIC—a small office with the equivalent of fewer than three full-time staff—planning and delivering major programs is always an exercise in managing and realigning resources. Collaborating with like-minded organizations, including those outside our sector, will become increasingly important in order to help our community access learning, professional development programs, and networking opportunities.

Ultimately, our tenacious, creative, and collaborative approach will, we believe, help us achieve our ambition to grow a strong, diverse, and inclusive network of fellows and members. And it will be our collective resolve to bring together a breadth of experience and knowledge that will ensure that we respond to the important issues and opportunities of our times—bridging disciplines, distances, and digital divides. It will be these qualities that will stand IIC and our community in good stead for the next seventy years.

THE PANDEMIC IN THE NOT-FOR-PROFIT SPHERE

We asked three cultural heritage professionals working with not-for-profit heritage organizations in Egypt, India, and the United States to tell us how their organizations have fared over the course of the pandemic. Here is what they told us.

Outreach through Access: ARCE's Response to the Pandemic

BY LOUISE BERTINI

Founded in 1948, the American Research Center in Egypt (ARCE) is a private, nonprofit organization composed of educational and cultural institutions, professional scholars, and private individuals. ARCE's mission is to support research on all aspects of Egyptian history and culture, foster a broader knowledge about Egypt among the general public, and strengthen American-Egyptian cultural ties.

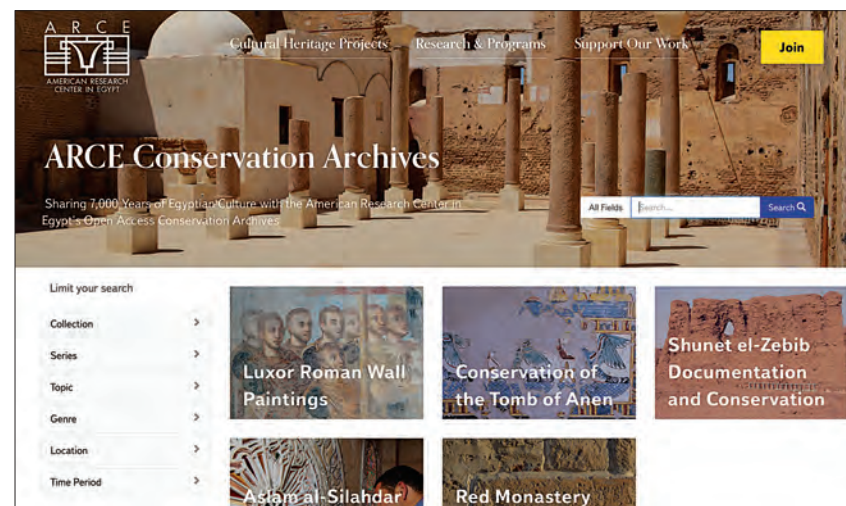
The pandemic presented ARCE with many challenges also faced by others in the scholarly realm, such as the inability to hold in-person meetings, the closure of libraries, and limited international travel. In response, ARCE shifted gears to offer increased online access to educational opportunities, including hosting our annual meeting virtually and launching monthly online lectures. The virtual lectures are now offered continuously, in the form of exclusive lectures for ARCE's members, as well as public lectures open to anyone curious about Egypt.

ARCE's podcast program was launched as another medium for virtual learning, to bring educational entertainment and lively conversation to listeners across the globe. The podcasts feature exciting research and fieldwork presented by esteemed scholarly authorities. ARCE's 3D scanning efforts were extended to allow our audiences anywhere in the world to experience ARCE's conservation and site management projects, as well as Institutional Members' projects.

Even under the current circumstances, ARCE has striven to resume its various programs for researchers. The Antiquities Endowment Fund annually awards one- and three-year grants for discrete and highly focused professional projects that serve the conservation, preservation, and documentation needs of Egyptian antiquities. Our fellowship program aims to support emerging and established scholars who conduct research on Egyptian history and culture. ARCE facilitates on-ground research in Egypt, by advising and guiding fellows on practical research approaches. ARCE also assists researchers in accessing Egyptian archives, museum collections, and cultural heritage sites. Both programs are currently open for new rounds of applications.

An open-access website for ARCE's Conservation Archives was developed with NEH funding and in partnership with the UCLA Library, where five collections are currently available. ARCE identified the need for disseminating research publicly and freely and therefore applied a Creative Commons Attribution-NonCommercial-ShareAlike license on the content of the platform. In line with ARCE's mission statement to preserve Egypt's cultural heritage, an award from the US Department of Education was secured to further digitize, describe, and publish on the website thirteen more conservation projects, providing the public with further access to ARCE's conservation archives.

ARCE's online library catalogue was another project launched in 2020, linking to 180 volumes of publications to provide learners, members, and scholars with access to books despite the closing of the library. In collaboration with Google Arts & Culture, ARCE has recently launched a page titled "Preserving Egypt's Layered History." This partnership will give people access to content developed through and based on ARCE's repository of conservation projects in Egypt reflecting the diversity of its history.



Home page for ARCE's online conservation archives. Image: Courtesy of ARCE.

Finally—a little over ten years after the unfortunate crash of the Theban Mapping Project (TMP) website—ARCE is proud to announce that TMP is back online. With a user-friendly interface and contemporary look and feel, the latest iteration of this data-rich portal is more accessible and engaging than ever. TMP online is a digital passport to the Valley of the Kings, and we are proud to be starting 2021 with this news.

Louise Bertini is the executive director of ARCE in Cairo. An Egyptologist and specialist in faunal analysis, she has worked on more than twenty archaeological projects in Egypt and has taught Egyptology at the American University in Cairo.

Reflections on the Pandemic and the Indian National Trust

BY A G KRISHNA MENON

The Indian National Trust for Art and Cultural Heritage (INTACH) was established by the central government in 1984 as a not-for-profit entity with an ambitious mandate to holistically engage with the country's cultural legacy. Until then, cultural heritage in India, both in the public imagination and official practice, was limited to protection of a few iconic historic monuments by the Archaeological Survey of India. INTACH sought to enlarge the definition not only by including quotidian buildings and historic cities, but also by considering the significance of the interconnections between the tangible, intangible, and natural heritage. While these initiatives enriched understanding of cultural heritage, the imperative to conserve has been bitterly contested, both by the putative stakeholders and by official policy makers, who see such conservation as inimical to the pursuit of the aggressive development they think the country needs to modernize. The dynamic of this ideological tension defines the nature of “conservation illiteracy” in India, which has largely determined the conservation discourse and the activities of INTACH.

But the terms of the discourse changed with the COVID-19 pandemic. Of course, this is true not only for conservation, but also for architecture and urban planning, and indeed, for what we have considered to be our “normal” daily lives. To understand the pandemic's impact on conservation in India, I will focus on the experience of the Delhi Chapter of INTACH.

The Delhi Chapter

INTACH has some two hundred chapters across a very diverse country, each focused on local problems and issues. While its basic activities are supported by modest returns from a corpus fund, all conservation projects are commissioned. To grow as an institution, INTACH must seek more commissions. The Delhi Chapter is among the more active chapters, not least because Delhi possesses a rich legacy of tangible and intangible cultural heritage showcased by both the national and the state governments.



Before and during conservation of a 15th-century Lodhi period tomb in the urban village of Lado Sarai in South Delhi. The area around the tomb is now dense, unplanned development. Conservation work started in 2019, but progress has been delayed because of the difficult site condition and the restrictions imposed to contain the COVID-19 pandemic. Photo: Courtesy of the INTACH Delhi Chapter.

Since most of the conservation projects the Delhi Chapter undertakes are government funded, they are subject to labyrinthian bureaucratic processes, including rigorous audits with stringent official oversight. But actual conservation is undertaken by the chapter through specialist, self-employed contractors who hire skilled craftspeople. In the best of times, this public-private relationship is contingent on balancing the flow of government funds with the technical and contractual demands of site work. This system collapsed when a nationwide lockdown was imposed in March 2020 to contain the pandemic. Work at all sites came to a standstill, and over two hundred skilled and unskilled workers—mostly migrants with familial roots in, and emotional allegiances to, distant towns and villages—abandoned the city to return home.

This exodus resulted in considerable damage to works in progress. Payment cycles were disrupted, jeopardizing the financial health of both the contractors and the Delhi Chapter. While the chapter had some financial resources and could perform certain

administrative and studio work from home, the contractors, without the workforce, were helpless. No assistance was available to them to mitigate their losses.

With progressive unlocking of restrictive protocols starting in June 2020, workers and craftspeople slowly returned to Delhi. The semblance of normality enabled conservation strategies and contracts to be reworked and work at sites to progress. However, new problems emerged because many sites were in congested city areas, where, in addition to guidelines for ensuring the safety of the workforce, separate containment protocols were enforced for the safety of local residents. These requirements posed additional logistical challenges to carrying out conservation work.

The economy suffered because of the pandemic, and government budgets were reprioritized. Even in “normal” times, conservation projects are grudgingly approved—they are generally the last to be funded and the first to be trimmed. The chapter’s conservation projects are therefore now operating on a short leash. This has adversely affected projects’ schedules and consequently the financial viability of the chapter.

While the chapter is working to cope with the new normal, it has simultaneously begun considering other strategies for survival. These include focusing on the larger lessons learned during the pandemic.

Emerging Issues

The COVID-19 pandemic has demonstrated the need to rethink the appropriate economic and management models to sustain not-for-profit institutions like INTACH. With its weak resource base, should it undertake commercially structured conservation projects? After all, good conservation work requires stable and robust funding—so, should INTACH refocus and undertake only exemplary, research-oriented projects?

Of equal concern is the plight of craftspeople engaged in conservation work. There are two immediate issues. First, craftspeople require and are due substantial increases in income for their essential contributions. Second, their skills must be continuously upgraded commensurate with their stake and significance in the whole process of conservation. And then there is the question of their status as “migrants” in the city and their importance in urban planning strategies and the economics of conservation. Is all of this a legitimate agenda for institutions like INTACH?

The root of the problems confronting conservation in India is the extent of “conservation illiteracy” within society in general, and with politicians and administrators in particular. Enhancing conservation literacy was, in fact, part of INTACH’s founding agenda, but it was sidelined over time in lieu of more immediate issues. In 2015 the chapter became rudely aware of the consequences of this neglect when the central government unreasonably aborted the chapter’s initiative to nominate Delhi to the List of UNESCO World Heritage Sites. Another reminder came in 2017 when the chapter failed to prevent the demolition of the Hall of Nations in Delhi. The recent controversy over the redevelopment of Louis Kahn’s

iconic design for the Indian Institute of Management campus in Ahmedabad reinforces the significance of this issue. Will the impact of the pandemic finally force INTACH to rework its business model?

A G Krishna Menon is an architect, urban planner, and conservation consultant practicing in Delhi. In 2004 he drafted the INTACH Charter for the Conservation of Unprotected Architectural Heritage and Sites in India.

Resilience and Relevance: The National Trust for Historic Preservation and the Pandemic

BY KATHERINE MALONE-FRANCE

As 2020 began, at the National Trust for Historic Preservation we were planning our annual PastForward national preservation conference to be held October 2020 in Miami. Working with our steering committees, we chose “Resilience and Relevance” as the conference theme, unknowingly capturing the challenges, imperatives, and opportunities for heritage in a year of upheaval.

Indeed, for the past year, the National Trust and the entire US preservation infrastructure have demonstrated the resilience and relevance of cultural heritage, as the country has grappled with the distinct but intertwined impacts of COVID-19, economic disparities, political strife, and a long overdue national reckoning on racial justice and equity. From small historic sites, to legacy neighborhood businesses, to government agencies—and everything in between—the US heritage sector has been remarkably flexible, adapting our practices not only to continue but also to expand the ways we serve our communities. At the same time, we’ve recognized how much *more* relevant and resilient we can and must be in utilizing technology to engage people in our work, address structural racism in our policies and practices, advocate to extend the benefits of preservation more equitably in support of community cohesion, and examine and share the *full* history of the places that define us.

Early in the pandemic, with support from American Express, we took the Preservation Month celebrations that we’ve held each May since 1973 online as *Virtual* Preservation Month. Engaging digital programs brought visitors into spaces they don’t usually see on tours of our National Trust Historic Sites, involved children in creating art inspired by our Historic Artists’ Homes and Studios network, and allowed them to experience a concert in Nina Simone’s childhood home. The success of our digital programming has grown since, connecting people with historic places in ways unrestricted by geography, and sharing our changing practices in the pandemic—from conducting public meetings to monitoring preservation easements and covenants.

At our twenty-eight National Trust Historic Sites, we saw the resilience and relevance of these places play out, particularly in their landscapes. Visitors have responded positively to experiencing



Suffrage Outside exhibition in the garden of the President Woodrow Wilson House in Washington, DC, with replicas of the banners that suffragists used during his administration. The exhibition highlighted the impact of women working outside the home on their activism, the women of color who were kept outside the mainstream suffrage movement, and the influence of suffragists outside the United States. Photo: Courtesy of the National Trust for Historic Preservation.

modernist icons like the Farnsworth House in Illinois and the Glass House in Connecticut from the outside looking in—and exploring and experiencing the larger landscapes that inspired them in new ways through performances and recreational activities. At the President Woodrow Wilson House in Washington, DC, the *Suffrage Outside* exhibition in the site’s small garden highlighted the protests against Wilson’s views on women’s right to vote, with replicas of the banners suffragists raised in protest at the White House and around the world during Wilson’s term. At Drayton Hall in Charleston, South Carolina, archaeology is engaging volunteers as they work together with staff to identify new sites related to people who were enslaved by the Drayton family on this former rice plantation. All of these new efforts will continue to influence our programming even when we are allowed to gather inside again.

In our grant-making, we pivoted to permit grantees to use a portion of grants for operating expenses, retooled our application process to expand access, and allowed funds to support capacity building. Our advocacy efforts went virtual, too, focusing on online engagement and digital resources, such as our report *Preserving African American Places: Growing Preservation’s Potential as a Path for Equity* and its accompanying online mapping tool as a part of our African American Cultural Heritage Action Fund. For our 11 Most Endangered Historic Places list—our signature annual advocacy campaign—we shifted to virtual events to highlight these powerful but threatened places, and achieved record-setting media engagement. Throughout the pandemic, we’ve seen the positive outcomes from these shifts, including significant increases in grant applications,

particularly from first-time applicants. Nominations to the 2021 11 Most Endangered Historic Places list have more than doubled, and we have just unveiled a new grant fund in collaboration with American Express to support historic restaurants owned by women, people of color, and other underrepresented groups.

Our 2020 online PastForward conference went digital, and it was the best-attended and most diverse conference in our history, with more than four times the usual attendees. More than 70 percent of the sessions featured speakers who were people of color, and the largest category of attendees were between the ages of eighteen and thirty-four. In post-conference surveys, respondents described the content as “mind-blowing,” “powerful,” and “inspiring.”

Going forward, the National Trust is not looking for a “new normal” but rather an “evolving normal” as we think strategically about building on last year’s successes and lessons learned. Since the pandemic began, we’ve been reminded of the variety of ways that historic places are resilient and relevant, and the preservation movement itself must be as well. As an organization, a profession, and a movement, we have considerable work to do to enable heritage to realize its full potential to strengthen our communities’ health, address inequities, and bring people together to write the true shared narrative of our history. Our 2021 PastForward conference theme is “Lead the Change,” and we’re committed to it being as meaningful—and as prescient—as “Resilience and Relevance” was in 2020.

Katherine Malone-France is the chief preservation officer of the National Trust for Historic Preservation.

NAVIGATING SAFETY AND ACCESS

A Conversation about Museums in the Time of the Pandemic

DAVISON CHIWARA is a lecturer in the Department of Archaeology, Cultural Heritage, and Museum Studies at Midlands State University in Zimbabwe. He is earning a PhD in Heritage and Museum Studies at the University of Pretoria, where his research focuses on the conservation of heritage and museums, and in gallery practice.

ANTHEA M. HARTIG has been the Elizabeth MacMillan Director of the Smithsonian's National Museum of American History since February 2019 and is the first woman to hold the position since the museum opened in 1964. Before joining the Smithsonian, she was the executive director and CEO of the California Historical Society in San Francisco.

CECILIA WINTER, whose education was in museum studies and paintings conservation, has worked in the area of preventive conservation since 2004, first as a registrar then as a conservator. In 2015 she began working in the collection department of the Museum of Art of São Paulo and from 2018 to the end of 2020 was the Collection and Conservation department manager.

They spoke in January 2021 with **TOM LEARNER**, head of Science and interim head of Collections at the GCI, and **JEFFREY LEVIN**, editor of *Conservation Perspectives*, *The GCI Newsletter*.

JEFFREY LEVIN How has the pandemic affected the institutions that you're associated with, or that you're aware of?

CECILIA WINTER Brazil and São Paulo closed all the museums in mid-March 2020. With the closure, we met with the directors and staff, and the worst-case scenario we envisioned was four months without having to let people go and without having to readjust anything. The Museum of Art of São Paulo is a private, relatively wealthy museum compared to other museums in Brazil, so we all had laptops and institutional cell phones. We went home, and even staff who didn't have the Internet could use their cell phone connection, which was paid for by the museum. For us in conservation, it was awkward in the beginning, but right now it seems normal. After a short while, we put in a rotation schedule—someone from the Exhibitions, Collections, or Conservation departments would

go to the museum at least two or three times a week to have a general look at the collections and temporary exhibitions. When we realized that the closure would last more than a couple of weeks, we covered all the works that were sensitive to light and moved more fragile works to storage. We had a WhatsApp group, so we could talk on a daily basis and respond quickly in case of an emergency. One thing I was most afraid of was fire, but the civil firefighters who are part of the museum staff were kept in place twenty-four hours a day. They were trained to perform the gallery checks and basic artwork handling in case the situation escalated to a total lockdown and only essential workers could go to the museum.

ANTHEA HARTIG The National Museum of American History, which I'm honored to direct, is one of nineteen museums and the National Zoo, along with research centers, that are part of the Smithsonian Institution. We have a fine collection on the history of medicine, and our medical curators along with the Smithsonian leadership had been tracking the virus closely, so it was not a surprise when we shut down all our facilities to the public on Friday, March 13, 2020—nearly eight hundred thousand square feet on the National Mall, hundreds of thousands of square feet more in off-site storage, and about 250 staff. It was quick and dramatic, and also frightening and uneven. You're dealing with people's fears of COVID. The pivot in taking a very in situ, place-based set of operations and transferring them to telework was pretty Herculean and intense. Very few colleagues were used to telecommuting. I was grateful it went as well as it did. I put in place rigorous protocols for access to the museum, because access means taking a Metro ride or carpooling or otherwise getting out of the safety of your home. We also set up three task forces—a digital production task force, a COVID collecting task force, and a scenario planning team—to look at both what we needed to do right away and what we needed to do for the indeterminate length of the pandemic. We acknowledged immediately the disproportionate impact on those who didn't have an option to telework, and on caretakers, as well as on those living alone.

DAVISON CHIWARA Most of the museums here in Zimbabwe were totally closed down until August 2020. There was no access until the lockdown restrictions were eased. When they were eased, only staff regarded as essential—mostly administrative staff—were



The adoption and utilization of digital technologies by museums to reach both domestic and international audiences ensures that museums remain relevant at a time when travel restrictions have led to a massive reduction of museum visits.

DAVISON CHIWARA

allowed to go to work, while most staff responsible for looking after collections were allowed to come to work only once or twice a week. This had an adverse impact on the museums' ability to properly care for their collections. Some colleagues told me they had limited time to do housekeeping, collections inventory, and condition assessments, and with the lack of adequate planning and with curatorial staff labeled as nonessential, this negatively affected the monitoring and conservation of the collections. Financially, the COVID-19 pandemic has negatively affected museum attendance, leading to the closure of income generation entities for museums, such as restaurants and museum shops, as well as the reduction of income realized through admission fees. Museums that were able to plan properly for this pandemic—particularly those in South Africa—could manage their collections. Some colleagues in South Africa told me that their conservators were considered essential staff, so they were allowed to come to work. They also had built-in monitoring systems that could regulate temperature and humidity, and information from these systems was collected via cell phones, so they were able to track the collections environment. After October in Zimbabwe, all staff returned to work when the museums were opened to the public till the end of December 2020. But now in January, we are again under total lockdown. Museums are partially closed, with only essential staff allowed to come, and curatorial staff only when needed.

HARTIG Great to hear about the foresight and planning, Davison, and I feel you on the open-only-to-close-again yo-yo! For us, collections are distributed on numerous floors of our large building, as well as off-site, and that led to an increasingly delicate balancing of risk mitigation and operations. The emphasis was on safety, especially when we were open to the public for about six or seven weeks in the fall. We shifted our education and public history programs online, but everything physical was challenging. Normally managers are in our collections rooms almost every day, but they weren't allowed to come to work, so we set up an intensive rotation for senior leadership and our dedicated security officers to go in. It takes at least three hours, if you're really good, to check out every space and make sure everything is OK in terms of environmental controls. It's been incredibly challenging. I'd be remiss if I didn't also reflect on how the virus has disproportionately affected the very people who

take care of and keep our building safe—people of color. Our highest levels of infections, illness, and deaths related to the pandemic have been with our at-risk and economically challenged community.

CHIWARA In Zimbabwe, when museums are open, staff have adapted well to the added responsibilities, especially tour guides, personnel from education departments, and security staff who have been reporting for work. They have been tasked with collections care responsibilities, particularly assessing the condition of collections on display, conducting inventory work, and assessing the environment in which collections are displayed. They then give updates to curators on the state of the collections and report on any anomalies observed.

HARTIG We, too, have relied on our security officers for more on-site collections monitoring. More broadly, at the Smithsonian, we've worked with our internal planning team, our leadership team, and the leadership team Secretary Lonnie Bunch coordinated Smithsonian-wide. In the end, it's the people who must come first. We privilege the safety of our employees. But we know that in the aftermath we'll have to deal with our lack of access to collections and our lack of active conservation. So far, we've been fortunate.

WINTER Because in the beginning we had no idea how the virus was spreading, I wouldn't go into an elevator or pick up groceries—and if I did, I'd take showers and clean everything. Now we know it's airborne, and we've come to understand the risks of sending staff to the museum. But, of course, we privileged people who had their own vehicle and didn't have to take public transportation. When the museum opened to the public and staff had to be there, we had different opening times so people could go when it was less crowded, and we organized shifts so no one had to have lunch or dinner there, because the cafeteria and restaurants were closed. Balancing the safety of staff and the safety of collections was difficult.

LEVIN Anthea, in the midst of all this, your museum continued its collecting work, correct?

HARTIG Yes, and the collecting work we've done to document the pandemic is some of our finest. After the killing of George

Floyd, we also started to talk about the pandemic as part of a series of cascading crises—viral, racial, political, constitutional, and then climatic of course, because these crises have been made more intense by global warming, which has exacerbated the pandemic’s impacts. We’ve been trying to document all these crises together—and for a collecting institution with literally millions of objects, the challenges of *how* to collect are even more pronounced. We rely on relationships, phone calls, and emails, asking people to hold on to things for us—such as a handmade sign from a New York restaurant that says, “We have to close now but we’ll be back in two weeks,” dated March 15. The full breadth of our general processes was completely interrupted, and almost everyone’s job changed. It took a delicate set of iterative efforts to keep the activities of the museum going. We’re a public-private partnership with two-thirds of our funding coming from the American people via Congress, so we have a cushion other institutions don’t. However, all of our earned revenue, which funds a lot of programming—and which relies on special events, cafeterias, and gift shops—came to a standstill, devastating the business side of our operations. Still, it’s been a remarkable effort that’s brought us closer together, both on the staff level and certainly on the leadership level under Secretary Bunch.

LEVIN Davison, how difficult has it been to keep staff employed in Zimbabwe?

CHIWARA While state museums in Zimbabwe did not retrench during the 2020 and 2021 lockdown periods, staff are heavily affected by economic hardships that have reduced the purchasing power of their earnings. This has been caused by the weak local currency, which has continuously fallen against the US dollar. Hyperinflation has eroded their earnings, and this has been worsened by lack of review of their salaries. Around October and November 2020, national museums staff went on strike, citing incapacitation to report for work. This problem not only affects national museums staff, but all of us in civil service in Zimbabwe. While staff may not have been laid off, one cannot rule out the possibility of some leaving museums in search of greener pastures. However, in South Africa the situation is different. Its economy is relatively stable, and the government has provided safety nets for workers and the vulnerable.

TOM LEARNER In addition to this difficult issue of striking a balance between staff safety and collections safety, there’s also the notion of the social responsibility of providing “safe” spaces for people during lockdown. Do you think museums could or should be such spaces?

HARTIG Isn’t that such an urge? I’m guessing that it’s felt in all corners of the globe—COVID fatigue. In the fall there was just this incredible desire for something that looked like a society that people recognized. We felt that if we regulate the flow and behaviors of people—and with the proper air handling systems—indoor spaces like museums could be made relatively safe, and they were. For many museums, they remain so.

WINTER Yes, here we had pressure from museum sponsors and

even from the public to reopen. They wanted to see things look kind of normal, and so the museum director decided to reopen in mid-October.

CHIWARA There was a sense of social responsibility for us, too, as museums were later opened to the public during the latter part of the lockdown. Now, since January 4, the country is under total lockdown again, but museums are partially opened with a limited number of visitors allowed. There are few people visiting museums in Zimbabwe, and the issue of overcrowding is not a problem. Visitors have their temperatures taken to check for signs of possible COVID-19 infection, and they are sanitized as they enter museums. Visitors are encouraged to wear masks, and social distancing is observed by limiting the number of those who can get in.

LEVIN Cecilia, what kind of procedures are in place to reduce risk for visitors, as well as staff?

WINTER For the staff, there is a nonmandatory rotation shift. If you are in a risk group, or a parent, or live with somebody in a risk group, you don’t go in. Anyone who can work from home will stay home indefinitely. In São Paulo right now, everything has reopened, so even alternative schedules are crowded and the subway is crowded. Some people live close to the museum, but almost 80 percent of staff take public transportation to get there. Regarding the public, they have to schedule visits, and as Davison also pointed out, a limited number of people are allowed inside the rooms.

Previously, we’d had an environmental group set up to monitor conditions in the exhibition rooms, and we had decided to diminish the external air exchange so we didn’t have to keep reconditioning the air and could lower the relative humidity and thus save energy. But when the pandemic came, those recommendations went. I thought, “This is going to ruin all our previous work,” because when the museum reopened in October and November, we were entering the season of rain, humidity, and cold, which is the worst air to recondition. But it was a choice. The safety of the staff and the public comes first, and if anything happens we’ll have to deal with it later.

LEARNER Anthea—were there changes with the environmental controls at your institution?

HARTIG Absolutely. It’s so stable without people there! We joke that the museum was never this clean except in 1964 when it opened. Yes, we, too, dealt with a pretty complicated set of environmental and air handling requirements. The museum has been remodeled in different phases, so it’s really running three or four different systems, but we rely on some remarkable facilities colleagues to help us. We altered our environmental controls because we allowed so few people in during that brief period in the fall. It was about a tenth of what we’d normally have, so we could balance the safety of our visitors and the safety of our collections. And only a small percentage of our collections are out in exhibitions. We calculated how many people we could safely have in the building, again with safety and collections care being the priority, and



We have an opportunity to help tell our story better and to help more people—especially people in power—understand the critical role we have in caring for memory and for what has sustained us throughout time, whether that is immovable or movable heritage.

ANTHEA M. HARTIG

were able to bring in fresher air, which we usually do anyway. We pushed our filtration system hard, but we didn't overextend it.

LEARNER I often think about how workers at grocery stores would presumably never have predicted the level of risk that they're now exposed to. Isn't that similar to many museum staff who never signed up for this sort of social responsibility?

HARTIG Regarding visitor services, you're absolutely right. Everybody's job on the floor when we reopened was different from what it had been on March 12—not only because of the fear of the pandemic but because staff were helping people understand new safety procedures we put in place, as well as a new timed pass system. Free tickets, in essence. People arrived and said, "I have a pass," and of course they wanted to hand you their phone. Early on we had our fair share of mask compliance, but toward the end of the time we were open, some people really pushed back. This was unsurprising given how mask wearing was politicized in the States, but we had to develop protocols for that. If with your charm and visitor service acumen you couldn't convince them to put on their mask, you'd walk away and call a security officer. It's such a strange set of visitor experience protocols.

WINTER We were also measuring visitors' temperature, which, among other things, was mandated by the state. We had people angry about that, too.

HARTIG Interesting, Cecilia, that you became the enforcers of that policy. Having no national requirement, we decided not to. Colleagues around the nation did. My friends up at the New-York Historical Society did. One of the reasons we didn't was that we didn't want our staff getting that close to people. Do you think it was helpful?

WINTER No, we're just doing it because we have to. Having a fever doesn't mean anything and not having a fever doesn't either. I think it comes down to providing a sense of safety. There are studies saying that since September 11 security at airports has turned into a kind of theater—you feel safer just because you have to go through that security, even though it guarantees almost nothing.

HARTIG If I may, I'd like to go back to collections stewardship. We had a number of conversations with our curators about the living, organic aspects of our collection. For example, one thing we allowed was having our amazing curator of chamber music go in and play some of the rarest instruments in our collection, such as the Stradivari stringed instruments. They are alive, and used to being played, so we put the curator on the essential staff list. It was interesting explaining to my colleagues that our chamber music instruments truly needed that level of care.

WINTER The lack of access of staff and the public to objects has reinforced for me the idea that the dilemma of conservation versus access, or use, is a false one. As conservators we learn in school that the ideal situation for the safety of objects is to lock them in a dark room away from people and never use them. But what we saw was the opposite. If you lock up objects and never access them, you'll find problems when you come back.

LEARNER Davison, have you seen anything similar, with respect to the various museum departments engaging in a different way with each other over preservation and access?

CHIWARA Here in Africa, where museums have opened exhibitions to visitors, curators have talked with other staff—such as tour guides and security personnel who help facilitate visitor access—and given them added responsibilities in preserving collections, both in display and storage, by controlling light and ensuring that the museum environment is beneficial for the collections. They take care of these responsibilities in the absence of curators, who are often at home because of COVID-19 restrictions. Other well-resourced museums in South Africa—such as the Iziko Museums, The National Museum in Bloemfontein, and Albany Museum in Grahamstown—opened to the public, and their conservation needs were taken care of. For instance, Iziko museums have conservators who ensured that collections were conserved by coordinating activities for their care while museums were partially opened for visitors. The museums also have environmental control systems that monitor temperature and relative humidity. These systems are connected to the cell phones of staff who are regularly updated about the museum environment.

LEVIN Have any of you undertaken an activity that probably wouldn't have happened had we not been in a pandemic?

CHIWARA Yes, although for me it is not directly in a museum environment. I have been offered an opportunity to deliver a lecture via Zoom on Preventive Conservation in Zimbabwean and South African Museums to a University of Delaware conservation class. Because of travel and accommodation costs, it would not have been possible for the university's Conservation department to sponsor my travel to the United States. But the pandemic has enabled me to do the lecture, which I will deliver in May, together with my colleague Isabelle McGinn, who is at the University of Pretoria.

WINTER For us, we slowly started doing things we never had time for before the pandemic. We had so many policies, procedures, and manuals we wanted to write, and we never could do that in the day-to-day setting. So now was the time to start writing those materials.

LEARNER Cecilia, do you think that there will be some advancement in how collecting institutions think about conservation—and will they do so in a more balanced way?

WINTER I hope so. In the beginning we had high hopes of doing much more about the environment, but I'm afraid we're just going to go back to the way things used to be. I'm not that optimistic, I guess. I don't think a year is enough to change people's behaviors or conceptions. I wish it were.

HARTIG Before the pandemic, we were in an interesting moment as a museum. In 2019 we looked at our inherited strategic plan that ended in 2018 and came up with a new ten-year plan. This new plan, staff-written with significant public outreach to different audiences, was adopted as the pandemic was starting. It's an overarching collections and interpretive plan that tries to balance accessibility, inclusivity, conservation, and relevance with sustainability. And that means that with each of our loans, and in our internal conversations about triaging and collections care, we try to adhere to a series of values. I'm hopeful that we'll be more cognizant of all that. But the old issues we were dealing with—the old constraints and the silos and the capacity needs—remain. Very few of us in the world have the resources we need to truly take care of our collections. Can we start changing that equation?

LEVIN What do each of you think will be the long-term effects on museums given the circumstances we're going through?

HARTIG They're estimating that a third of museums will never reopen. Coming from the US West, I've often thought about how so much of our history collections are contained in small historical societies under conditions that are less than ideal. If a third of US museums go out of existence, it's a crisis in museum stewardship and in conservation. At the same time, I think this presents an opportunity to make people more aware of what goes on behind the closed doors of our institutions. We have an opportunity to help tell our story better and to help more people—especially people

in power—understand the critical role we have in caring for memory and for what has sustained us throughout time, whether that is immovable or movable heritage.

WINTER Definitely things will change, but change is not necessarily for the better. However, I think we're reaching an understanding that all these crises come down to one crisis—the climate change crisis—and we have to act now.

HARTIG As my brother director Dr. Kirk Johnson of the National Museum of Natural History likes to say, after over three hundred thousand years of humanity, it is we who either steer it off the cliff or avert the plummet.

CHIWARA I do believe that museums will have to go green and adopt sustainable practices in their operations to help fight climate change. Their research should focus on addressing and responding to climate change.

WINTER I totally agree with you, Davison. Museums have to become aware of their role—not only of what they're showing to the public but what they're doing inside. How do we make the museum environment sustainable? Just because you can have the air-conditioning on twenty-four hours a day, should you? Museums do have a really important role in terms of climate change—and social justice. ICOM Brazil organized a survey, and it's really scary to see how closed the museum community is. Of the staff and the public, it's 80 percent white. We still have a lot to do to change things.

CHIWARA The inclusion of marginalized groups, particularly people of color, in management positions is a development I feel will help on policies regarding inclusivity on recruitment and museum programs. For instance, the Jewish History Museum and Holocaust History Center in Tucson, Arizona, recently appointed Gugulethu Moyo, a Black woman originally from Zimbabwe, as its executive director. The drive for diversity has also been embraced by conservation organizations such as AIC that have advocated for the inclusion of marginalized groups in the field. Such initiatives are the way to go in changing attitudes and perceptions.

LEARNER Could you talk a bit about how your museums stayed connected with the public through digital activities, such as virtual tours, social media, livestreaming events, and online educational programs?

CHIWARA This was certainly a way for museums to stay connected with their audiences when museum visits were prohibited or extensively restricted. Digital activities offer museums a great opportunity to connect with both domestic and international audiences, and build online communities. The main advantage of digital activities is that they are not affected by the geographical location of audiences. Among the museums I surveyed, both in Zimbabwe and South Africa, many have adopted digital media to connect with their audiences. For instance, the Natural History Museum of Zimbabwe



I think now more than ever museums cannot be seen as neutral. There is no way to define a museum as a place where we put objects and take care of them. ... The role of the museum is so much more important.

CECILIA WINTER

has its own website, and its Facebook page is very active, keeping the audiences connected to the museum. However, there is a need for museums to hire digital experts who are technologically savvy and able to manage museum digital programs. They must be able to coordinate collaborative activities across various departments in museums in order to create rich and worthwhile online programs. Livestreaming using social media platforms such as Facebook and Twitter, as well as YouTube, has been a huge success and promises to be the most effective future tool for audience engagement. I have seen museums such as the Metropolitan Museum of Art in New York livestreaming its exhibition events with thousands of people following the exhibitions. The adoption and utilization of digital technologies by museums to reach both domestic and international audiences ensures that museums remain relevant at a time when travel restrictions have led to a massive reduction of museum visits.

WINTER In Brazil, museum websites are not that developed, so they rely more on social media. It's a good thing that they're starting to talk with the public, but digitization and going online are not necessarily democratization. We need to think about all the biases we have in social media—even the bias of choosing which object is going to be on the Facebook page or in the Instagram post. We've had a lot of conversations about databases and how the vocabulary of cataloging carries biases in it. What are the categories to classify an artwork? It's great to have collections online, but we have to be aware that doing only that doesn't necessarily change the kind of access we're giving the public.

On the other hand, I do think that being online has brought professionals closer. Brazil really worked on having museum staff work together during the pandemic, especially in the beginning. We were able to organize and talk to people in Rio and São, and had the opportunity to meet with people from all over. I hope we can reassess how much traveling we really need to do. We had artworks in Mexico, and at some point they couldn't pay insurance anymore, so we had to pack them via videoconference. Some of them had to travel in a charter flight that went to Frankfurt, so we just called a conservator in Frankfurt to see to the change of planes. It was fine. We didn't need to send someone from Brazil to Mexico and then to Frankfurt. We can rely on our colleagues.

LEVIN Is this a moment that can engender a more holistic view of museums' roles in society, particularly in the context of the many crises we face?

CHIWARA Apart from collecting, museums can be a forum where contemporary issues are discussed and addressed. Museums could take a leading role in public education by informing people about topical issues affecting them, such as the COVID-19 pandemic. This may help museums stay relevant at a time when some of them are facing closure.

WINTER I think about all the discussion within ICOM to re-write the definition of museums—and they couldn't get anywhere and had to expand the discussion and postpone the date to get to a final agreement. I can't imagine what the discussion is going to be after the pandemic, because there was already a lot of talk about education and the social role of museums. I think now more than ever museums cannot be seen as neutral. There is no way to define a museum as a place where we put objects and take care of them. That's not what a museum is, now more than ever. The role of the museum is so much more important.

HARTIG I agree. And if we can't do it *now*, then when? And if *we* don't do it, then who? That concept is derivative of a lot of ancient teachings, including the Judaic tradition. Even before the pandemic we were asking ourselves these questions, especially with colleagues working in the area of decolonization, who've been putting forth these questions for a generation. I do feel there is now an opportunity to engage in self-inquiry about our role. From my perspective as a public historian and now a museum director, if we aren't doing what we do in order to empower people to create a better future, then why are we all working so hard? What is the true soul of our mission? Being open to that inquiry and to all the changes it will require is something we must do. We must do it to better serve people who need us more than ever to help them make sense of this world, to find the moments where we've connected, and to find the beauty of our past—as well as, of course, the horror and the pain of it.

HISTORIC PLACES, SACRED SPACES

A Conversation about Built Heritage Conservation in the Time of the Pandemic

JOSÉ M. BASTANTE, an archaeologist, is the director of the National Archaeological Park of Machupicchu in Peru. He is also the director of the Interdisciplinary Research Program of Machupicchu and has a background in cultural heritage management.

LAURENCE LOH, an architectural conservator in Malaysia, is a recipient of the Malaysian Institute of Architects Gold Medal for Design Excellence, which acknowledges his lifelong contributions to the profession. He teaches heritage conservation management at the University of Hong Kong and is a director of Think City, a Malaysian agency that focuses on crafting solutions in sustainable urbanism.

JONATHAN TRUILLET, a conservator, is the deputy director for the conservation and restoration of the Cathedral of Notre Dame in Paris.

They spoke in February 2021 with **SUSAN MACDONALD**, head of the GCI's Buildings and Sites department, and **JEFFREY LEVIN**, editor of *Conservation Perspectives*, *The GCI Newsletter*.

JEFFREY LEVIN The pandemic has affected all of us in a variety of ways—and certainly has affected the conservation of built heritage. You three work in different kinds of places, but they all are World Heritage Sites. Jonathan, you're undertaking the restoration of the Cathedral of Notre Dame, an iconic monument that suffered a disastrous fire in 2019. Laurence, you work in historic George Town, part of the city of Penang in Malaysia. And José, you're director of a world-famous archaeological site—Machupicchu in Peru. Can each of you talk about how the pandemic has affected your site and your work?

LAURENCE LOH Before the pandemic, George Town was very vibrant because of the tourism industry, but as soon as the government announced the first lockdown, everything stopped. The streets were deserted, no one could leave their house, and hotels shut down. The whole conversation in the tourism industry was about survival. With our second lockdown, it's come back to the same issue. Many hotels have closed or cut their staff, and some

owners have taken the opportunity to redesign their hotels. All the small industries, the trades, have closed. Friends of mine who had shops have literally moved out. The pandemic has affected the economy tremendously. A lot of the people in Malaysia have very small businesses, and the government is cognizant of the fact that no matter how you try to protect people, if there's no economy it's difficult for life to go on.

JOSÉ BASTANTE The Historic Sanctuary or Archaeological Park of Machupicchu is not just the famous Inca city but an area that encompasses more than thirty-seven thousand hectares. Within this area there are more than sixty archaeological sites that we have to maintain and conserve whether they get tourism or not. The resources that Machupicchu generates from entrance to the main site or to the Inca Trail are divided among the Ministry of Culture, SERNANP [Servicio Nacional de Áreas Naturales Protegidas por el Estado, the Peruvian Service for Natural Protected Areas], and the Municipality of Machupicchu, helping to fund research and maintain the archaeological and historical sites in the Cusco area, and also the Qhapaq Ñan, which is a transnational World Heritage Site. Dealing with the pandemic has been difficult for us. We're trying to make sure that the workers of Machupicchu keep their jobs because we need all of them—professionals in architecture, archaeology, sociology, anthropology, history, and geology; security staff; and conservation and maintenance workers. After closing in March 2020, we opened again in November but with a limited capacity and without charging entrance fees. We started with 30 percent, and by the end of December we opened it to 50 percent of capacity. In January we were getting an average of eight hundred tourists a day, but the government decided to close all parks, archaeological sites, and museums because the infection numbers were getting higher. The only way we are going to control the pandemic is with the vaccine. Some authorities don't understand that the most important thing we can do is to maintain our health and fight the pandemic.

LEVIN Jonathan, you're working to restore a prominent monument from damage caused by a disastrous fire. I'd imagine the pandemic has added to the complications you face.



Tourism cannot be or should not be in a permanent fight with heritage. People need to understand that heritage conservation is what makes tourism possible.

JOSÉ M. BASTANTE

JONATHAN TRUILLET Work on the cathedral, underway since 2019, actually has had to deal with two important problems. The first is the risk linked to contamination generated by the fire due to the lead roof. The second is the risk of the pandemic, which has caused more than seventy thousand deaths in France. Both problems have led to delays. We have to restore the cathedral in time to reopen the building in 2024, and the risk posed by lead contamination caused a three-week shutdown in August 2019. The pandemic has been a new source of delay. For example, during the first lockdown in France in spring 2020, work stopped for almost two months. During the second lockdown, work did not stop, but we had several people getting sick, and, as a result, part of the team was in quarantine, which led to other delays. The situation is better now because we've designed some technical improvements to deal with the risks. Our goal was to make lead risk management and COVID risk management compatible or complementary—both involve airborne pollutants. Work is still conducted in small enclosed spaces, which is a problem given the pandemic. Nevertheless, we have tried to make construction activity as safe as possible, and the situation is better now.

LEVIN Did the pandemic also affect the way you scheduled work in terms of the number of people you had on-site at a time?

TRUILLET Because of delays due to the pandemic, we made changes to improve work productivity. For example, we conducted night work for a few months with a team in charge of clearing the vault of the cathedral, and another team, during part of the night, dismantling the scaffolding. It was a good solution for us. We stopped night work at the end of 2020.

SUSAN MACDONALD José, how did you at your site initially respond to COVID?

BASTANTE The day after January 30, 2020, when the World Health Organization issued a statement regarding COVID-19, we gave out masks, gloves, and gel alcohol to those workers in direct contact with tourists. At the time, we didn't have a single case in Peru. We didn't close our borders, and the lockdown didn't come until March 15, but because we took these measures early on, none

of the workers at the National Park of Machupicchu were infected. That shows that social distancing, wearing a mask, applying alcohol, and washing hands work. But there are still people who don't respect this or follow the protocols.

MACDONALD Jonathan, did you have to change any other protocols on-site about the way craftspeople were working there?

TRUILLET Because the cathedral is not a very big place, it is very difficult to create distance between two workers. However, because of the lead, all workers are obliged to wear a mask anyway—and the mask can protect people from the pandemic. When the workers are in a place where there is a lot of lead, they have to wear a specific respirator, and where there is not a lot of lead, they can just use a protective mask. But we were obliged to wear masks before the first lockdown.

LEVIN Were there any other challenges you faced as a result of the pandemic?

TRUILLET During the first lockdown we tried to get some rooms in Paris hotels because we had a lot of craftsmen coming to Paris from outside the city to work on the project who were finding it difficult to get a place to sleep. We still have that problem today because a lot of hotels are not open. It is the same situation with restaurants. It is impossible to find a restaurant in Paris after six o'clock, and even during the day.

MACDONALD Laurence, with the pandemic, did the government provide any financial support specifically related to conservation or management of heritage sites?

LOH Not at all. In fact, the only government project that we were still running had to stop because the funds ran out. Although the project had negotiated a budget for the next three years, we were informed that the funding was not a priority. We'd been working on a fort site for the last three years, and we'd reached quite a critical point, but we had to stop because there was no budget. They just pulled the plug. Those projects that belonged to state and local authorities—they had the money and so they

I've been doing conservation work a long time, and what I've found is that we all are missionaries. We like to go out and save the world and are inspired to work way beyond our means.

LAURENCE LOH



Photo: Courtesy of Laurence Loh.

continued. But if their projects were at a certain stage and the contractor had not been appointed, then they pulled back for a while. So it varies. With respect to major monuments in prominent locations, halting conservation for three or four years doesn't look very good for Penang, but the government doesn't seem bothered by it.

TRUILLET The restoration of Notre Dame is financed by private money only. Because Notre Dame is an iconic monument—not only in France but also in Europe and all around the world—the fire generated a worldwide emotional response. We have 340,000 donors and have received 840 million euros in donations. Despite the pandemic and the economic crisis, none of the donors have canceled their gifts. On the contrary, Notre Dame always attracts new donors. Which is good news because we have a lot of work to do. The French government wants to finish the huge part of the restoration in 2024, and this is still our main objective in spite of the pandemic.

LEVIN Laurence, given that there's been little support for continuing conservation work within George Town and Penang, how has that affected the financial stability of conservation professionals?

LOH Most of us rely more on new construction work to keep our offices going. None of us have ever really made money working on conservation projects, in part because they take so long. But I also know that those who relied on small jobs, like restoring shop houses, all their work has stopped. Conservation was never a very sexy or popular area to work in. When George Town became a World Heritage Site, everybody thought, "Why don't we jump on the bandwagon and call ourselves conservation architects as well?" Now they're finding that a bit of a problem.

MACDONALD What about the craftspeople and contractors who'd provided specific conservation services?

LOH There is very little work. One of my subcontractors was taking several jobs at a time, and then things started to get bad and he wasn't being paid. Soon he owed suppliers money and disappeared off the scene completely.

LEVIN What about loss of jobs at your site, José?

BASTANTE In the case of the Ministry of Culture in Cusco, nobody has been fired. But guides live off tourism, and at the moment they don't have jobs. A lot of tourist agencies, restaurants, and hotels have been forced to close. The modern town of Machupicchu, Aguas Calientes, has been severely affected because its economy is based on tourism. In February the site was closed again [it reopened in March]. Safety measures are enforced at Machupicchu Inca city, as well as visitor rules and protocols. But we don't have the means to control how people get to Machupicchu. In the train, people may be wearing their mask down and their face shield up. The fact that we went back to closing the site in February is in great measure due to people not respecting safety protocols.

LEVIN Jonathan, given the scope of the cathedral project, I presume you're employing a mix of people that includes a number of consultants and freelance craftspeople.

TRUILLET Yes. I work for a public institution the French government created to undertake the conservation and restoration of the cathedral, and we have a lot of private craftsmen specialized in restoration. At the moment, Notre Dame is the nation's most important construction site for historic buildings, so that's why a lot of craftsmen are interested in coming to work here. Currently, more than 150 craftsmen are at the site every day to finish the work necessary to secure the structure. That number will decrease at the end of 2021 but will increase in 2022 and 2023 when we begin actual restoration. That said, since the end of the first lockdown, *all* restoration projects of historic buildings in France are a priority. In fact, there is a big plan to increase the money we use for historic buildings and improve their conservation. This is linked with economic crisis. Our government wants to add to this activity.

LEVIN So the pandemic hasn't been problematic with regard to government support for built heritage conservation?

TRUILLET Actually, with the pandemic, the government decided to give an important part of the budget to historic buildings.

We have more than forty thousand historic buildings in France, and there are a lot of small French companies, like carpenters, that are a significant part of the country's economic activity. For that reason, it is very important for the government to support this work—which is also important because historic buildings are part of the attraction for tourists. The link between these two activities was recognized by the French government even before the pandemic. It was an important budget. But it is sometimes difficult to use this budget because a lot of historic buildings are in very small cities that are unable to spend this money. To use the money, you have to bring together a team of specialists, and sometimes it is not possible to find these kinds of specialists in small cities.

LOH In Penang, there is government stimulation of the construction business, but heritage is lowest on the rung of priorities. The government doesn't see conservation as having any stimulating effect. Under the Think City organization, which I happen to direct, we are getting new work confirmed in Kuala Lumpur rather than in Penang, but these are more like studies than actual physical conservation work. That will be another two to three years down the road. When life goes back to normal, then maybe projects will be normal, too.

LEVIN Has the pandemic provided any opportunity to do something that might not have been possible previously?

LOH We had been working at the fort I mentioned, and we brought in a master mason from Rome. He had trained a team of workers over two or three years and then, all of a sudden, the project came to a halt. So I said to him, "You're so good at doing different finishes, why don't we just start manufacturing materials for other places?" Within the last month we've started a pilot industry where he's creating tiles and floor finishes we can use in almost any project. I've really wanted to create our own crafts with the criteria that we use all local materials, preferably from within a hundred-mile radius, manufacture everything on-site, and try to see whether there's a market for it—which I think there will be. It's almost like reviving the old industry. We are trying to connect with technical colleges and the vocational groups in different parts of the country, and build up this whole ecosystem again. If we're successful, it's because the pandemic forced us into this situation. We are talking about using our Think City Institute to teach students who are going to go to vocational schools to bring in people who are willing to learn. I just co-opted a very old family company that used to be very successful in marble and terrazzo. They were going to close down next year, so I got a hold of the present generation—two of the children were architects—and said, "Come back." It's really related to sustainable development. Once we get the ball rolling, it could be a source of income to advance the social enterprise we're trying to promote.

BASTANTE Because of the pandemic, we have people doing some conservation and maintenance work in places within the

archaeological park where normally we couldn't because there were hundreds and hundreds of tourists. At the main site, even nature has recovered. We've even seen bears coming into Machupicchu once a week, so that means that we're doing something good—and the only thing we're doing is not having tourists. The Inca city of Machupicchu was not built to have more than four hundred people living there. Historically, when there was a festival there, that number might triple. In 2018 and 2019 we were getting an average of four thousand visitors a day. The roads are pretty narrow, and now we have walking circuits that guide visitors in just one direction. You cannot backtrack. It's not like Machupicchu twenty years ago when you could take a nap and have a picnic. We cannot afford that. So those places where tourists were walking through daily are now empty, and that's enabled us to do more proper maintenance work.

MACDONALD José, what is the site's appropriate visitor capacity?

BASTANTE There have been many studies of the number of tourists that the Inca city of Machupicchu can handle. The last valid one—and the one we use—was done in 2015, and it found that no more than 2,244 tourists a day should go in. That was, in fact, lower than the number established in the 2005 master plan. But in truth, over the last few years we've just been letting in all the tourists who arrive at Machupicchu while making enormous efforts for the site's conservation. Failing this could affect the site's "Outstanding Universal Value" as defined by UNESCO. However, based on that study and other measurements we have been working on for the past two years, we have confirmed that 2,244 visitors a day is the site's maximum. In July 2020 the Minister of Culture established the maximum capacity at that number. Period. The only way we can surpass that number is with new infrastructure that allows us to regulate tourist flow. And that means creating a visitor center at the base of the Inca city, next to the river. At the moment, we are at the final step before starting to build the center, but we have some small problems. There are some misconceptions, promoted by some interests, that suggest that if we make the visitor center, the train will not stop in the modern town anymore, and restaurants, hotels, and craft shops will not have any business. That's completely false, but that's what some people have been telling the inhabitants of the modern town. On the other hand, the regional governor of Cusco and the mayor understand we cannot surpass this number if we don't have the visitor center. Tourism cannot be or should not be in a permanent fight with heritage. People need to understand that heritage conservation is what makes tourism possible.

LEVIN José, what do you think will be the long-term effect of the pandemic on the way Machupicchu is conserved and managed?

BASTANTE Well, we're not going to allow the Historic Sanctuary or National Archaeological Park of Machupicchu to go onto the endangered list, that's for sure. And we are changing a lot of things regarding how the place is managed. We're setting more

limitations with new rules for visiting the site. We are even establishing fines for visitors and guides who do not follow the visiting rules. Under the current rules for Machupicchu—because of the pandemic—the maximum group number is seven plus a guide. Or eight if you are in a family group and decide to go without a guide. But in the previous Machupicchu regulations, groups could be sixteen in number, plus a guide. We're trying to lower that to twelve because sixteen is a completely unworkable number, by any measure. With a group that size, there will be six or seven who won't even pay attention to the guide or will do something else that's not allowed on the site.

LEVIN Jonathan, do you think that the pandemic was in some way a motivating force in further propelling the restoration of Notre Dame?

TRUILLET Yes, I think the pandemic has been a real motivation to move forward. All the teams—the curators, architects, engineers, private consultants, and craftsmen—know we have a duty to the cathedral and the project. In France, the cathedral fire was a real catastrophe, so we have to rebuild to create a new hope in the country. We have a situation in France that's not very good. People are depressed because of the pandemic and because of the economic crisis, which is the worst economic crisis since the end of the war. Rebuilding the cathedral is a symbol of hope, and we have to work to give that symbol of hope to France.

LOH I've been doing conservation work a long time, and what I've found is that we all are missionaries. We like to go out and save the world and are inspired to work way beyond our means. This tragedy that Jonathan is talking about—there are times like this where you really see people put things beyond themselves, beyond the dollar, beyond their own survival. They want to be part of something. And that's been missing from our work for a long time. We used to save great monuments like Angkor, and now it's all been done by national bodies. We have no national aspirations left. Maybe that's why the cathedral project in the midst of the pandemic brings people together in France, whereas in Malaysia people are falling apart. As is the government. They're just fighting for survival. There's no flagship project that inspires hope. I am very happy for Jonathan. We're trying to pin our hopes on something else in this world of heritage we care so much about, and yet what's another building if nobody cares about it. It's just a budget for some contractor to make some money. It's not the same.

LEVIN Laurence, do you feel that something is lacking in your own community with regard to the way that people feel about maintaining, restoring, and preserving elements of their community that form part of their material memory of a place? Is the sense of engagement in the community not there?

LOH In Penang there *is* that sense of engagement, but it's moved away from heritage per se and is more focused on the environment,

the social agenda, and equality. Heritage is part of that, but it's not as meaningful anymore. I think people have taken it for granted. We're two to three centuries old, and we are saving buildings that are a hundred years old. Now that it's mainstream, everybody feels that they can leave it to the government. It's only when the government starts to fail that the private sector will come in and take over again. But at the moment they feel that it's in safe hands—maybe not the best hands, but they're willing to let them get on with the job and wait and see.

LEVIN You described how tourism came to a halt as a result of the pandemic. Looking ahead, what are the prospects for the return of that kind of international tourism—and what will be the impact of that on efforts to preserve the city's built heritage?

LOH I have no doubt that tourism will come back with a vengeance. In fact, when the government lifted interstate travel, all the hotels were full in Penang. Everybody left Kuala Lumpur and came north. It was just like old times—and it was terrifying. And that's just local. If that's anything to go by, the tourism players don't need to worry. It will be a huge explosion, and you cannot stop these people. It's like a fever. Nobody is really thinking about how to stimulate the economy in the right way. Heritage can stimulate the economy. If only they could see this and get our cities ready for the next wave. In terms of civil society, we're always shaking our heads and saying, "Hasn't government learned anything from this? Why are they still looking at the old development models?" This is actually now on everybody's lips. Maybe we should stop building highways and bring in better public transport. Maybe we should put money into communities instead of bolstering government departments. We try to get government to see what climate change is about and to create new paradigms. But it will take another few election cycles. Hopefully, it's not too late by then.

MACDONALD José, over the course of the pandemic when the site was open, did you see a change in the composition of visitors—local versus foreign?

BASTANTE Before the pandemic it was probably 75 percent foreigners and 25 percent Peruvians. When we reopened in November 2020, it went the other way—75 percent Peruvians and 25 percent foreigners. In January 2021 we probably got 10 percent foreigners and 90 percent Peruvians.

LEVIN Jonathan, on an average workday, are there people who gather around the cathedral just to watch the work being done?

TRUILLET Yes, today we still have people coming to the area around the cathedral and taking photographs. There is also a lot in the French press about the restoration of Notre Dame. People want to know what kind of work we are doing, and we are also trying to prepare for the reopening of the cathedral in 2024. Before the fire, Notre Dame was one of the most visited monuments in



I think the pandemic has been a real motivation to move forward. ... Rebuilding the cathedral is a symbol of hope, and we have to work to give that symbol of hope to France.

JONATHAN TRUILLET

Europe, with twelve million visitors a year. We also know that the average length of the visit was only twenty minutes, which is a very limited amount of time to understand the cathedral, its history, and its architecture. As we prepare for the reopening, we want to improve the visitor experience while enabling better conservation and understanding of the monument. And we'd also like to increase the number of local visitors to Notre Dame. When you are Parisian, the mass tourism is a reason not to visit the cathedral. We don't know actually how many visitors will come in 2024, but we do know that mass tourism can be bad for the monument because, for instance, the flooring was damaged by the high number of visitors. The fire and the pandemic have given us the opportunity to think about how the cathedral should be visited in the future. We have to improve visitor experiences while protecting the monument. We understand well that mass tourism can be a problem for historic buildings.

BASTANTE In terms of trying to manage our visitor numbers, our website, which we started almost three years ago, has worked perfectly. You can be in China and buy your ticket for Machupicchu for December. We are working with other institutions for a worldwide campaign regarding the need to have a ticket to enter Machupicchu in advance. We had so many problems when we reopened because according to law we could only allow in 30 percent of our full capacity, which wasn't five thousand as before—it was 2,244. This meant that about 675 visitors per day was our maximum. And so we had people outside the site complaining and crying. But we cannot go against our established capacity. People need to understand that if you don't get to see Machupicchu, there are still a lot of other places in Peru that are beautiful to see. Sadly, however, you can have a sky full of stars, but if suddenly the sun appears, the stars will fade. Well, Machupicchu is like that. The "Outstanding Universal Value" of the site is just too strong. If you have been to Machupicchu, you understand that.

LOH I'm quite optimistic in the sense that while there are huge problems related to tourism, with digitization we can use artificial intelligence to control our sites by predicting how many people will come at any one time. The technology that's going to come

out of China in the next couple of years will amaze you, and if we use it properly to control tourism—to give people a variety of experiences rather than a singular experience—we may be able to handle the crowds.

TRUILLET We are also thinking about artificial intelligence in preparing to reopen the cathedral and to organize the way that people visit. But this is not easy, because Notre Dame is a church—a place where people also come to pray and to have a connection with God. It is not easy to control the way that people visit this kind of monument, but we are trying to find a solution in time for the cathedral's reopening.

BASTANTE With our new visitor center, we are going to change the whole experience of Machupicchu. People will enter the center—which will be part of the Machupicchu site—and then a ten-minute introduction will explain to them what Machupicchu is and how they should behave in a sacred place. Some tourists do not understand that Machupicchu is the same as any other sacred religious place. They arrive, they see grass, and they say, "Oh, this is a park, I can lie down and do whatever I want." No, it's not like that. Machupicchu really is a sacred place, like Notre Dame. If you inform tourists in advance what they're going to see—and the rules—that helps conservation of heritage. A hundred informed tourists do less harm to a site than one tourist who is not informed.

GCI News

New Project

LOS ANGELES AFRICAN AMERICAN HISTORIC PLACES PROJECT ANNOUNCED

In 2020 the GCI began a collaboration with Los Angeles City Planning's Office of Historic Resources (OHR) to advance the recognition, understanding, protection, conservation, and celebration of the city's Black heritage. It is estimated that currently just over 2 percent of Los Angeles's 1,200 Historic-Cultural Monuments (or designated local landmarks) reflect associations with African American history. This project aims to address that deficiency and examine how historic preservation policies and processes can better support antiracist, social justice, and equity goals. It builds upon the earlier collaborative work of the GCI and the OHR, including the citywide historic resource survey, SurveyLA, and inventory, HistoricPlacesLA.

In December 2020 the GCI convened a vir-



Watts Coffee House, located in the Mafundi Building, built in 1969 (Robert Kennard and Arthur Silvers, architects). The origins of the Watts Coffee House date back to 1965, and it has been operating at its current location since the mid-1990s, where it is both a restaurant and a living museum. Photo: Stephen Schafer, © 2020 schafphoto.com.

tual roundtable comprising a group of national and local thought leaders from the urban planning and heritage policy sectors, whose discussions of diversity and inclusion in preservation policy will inform the work. This project's first phase includes such activities as expanding and refining the city's existing African American historic context statement, identifying and officially designating additional African American historic places, and developing better cultural heritage strategies to manage, preserve, interpret, and celebrate the tangible and intangible

heritage of historically Black neighborhoods. A robust community engagement program will facilitate meaningful input into the process and draw on local knowledge of hidden histories. The project will also include internship opportunities for emerging professionals as well as related public programming.

This work will offer a potential model for initiatives related to other specific communities in Los Angeles. Future phases of the work will look at how the lessons learned in Los Angeles can be shared nationally.



Jewel's Catch One, 1973–2015, Mid-City. This was one of the first Black gay dance clubs in the US. Until its closure in 2015, this Black, lesbian-owned dance club provided a safe space for the Black LGBTQ community. Photo: Elizabeth Daniels, © J. Paul Getty Trust.



Holman United Methodist Church, 1958. Jefferson Park (Kenneth Nels Lind, architect). As the African American population of such areas as West Adams and Jefferson Park began growing in the 1940s, new Black churches were founded. Photo: Elizabeth Daniels, © J. Paul Getty Trust.



Wilfandel Club House, West Adams. The club—founded as an African American women's organization dedicated to civic betterment, philanthropy, and culture—purchased this property in 1948 as its clubhouse and as an elegant event venue for the Black community, which was excluded from many similar facilities. Photo: Elizabeth Daniels, © J. Paul Getty Trust.

Project Updates

CHINA'S NATIONAL SURVEY OF ANCIENT BUDDHIST GROTTO SITES

As reported in previous GCI Newsletters, the GCI and Dunhuang Academy (DA), in cooperation with the Gansu Cultural Heritage Bureau, have been developing conservation and management guidelines for ancient Buddhist grotto sites on the Silk Road in Gansu Province. The Grotto Guidelines take their place alongside other important recent initiatives to inventory, understand, and document this significant component of China's cultural heritage. In 2003 the DA's Archaeology Institute began a multiyear survey of grotto sites in the Hexi Corridor, and a comprehensive review and updating was recently undertaken of the province's inventory of over two hundred sites, which, like the Mogao Grottoes, date from the fourth to the fourteenth centuries.

In late 2020 China's National Administration of Cultural Heritage organized a comprehensive national survey of lesser-known grotto sites to assess their state of preservation and lay a foundation for developing policies and plans for their protection. This daunting effort was undertaken in 28 provinces with 150 investigation teams and over 2,000 participants. An initial survey established the methodology, approach, equipment, and logistic support required, followed by in-person training of teams for the eight major grotto provinces and online training for the others.

Gansu Province—one of the most significant for Buddhist grotto sites—launched training in late 2020 with fifteen investigative



Xianyangdong grottoes, Taizhou, Zhejiang province. Photo: Courtesy of National Grottoes Investigation Unit of the National Administration of Cultural Heritage of China.

teams and participation from the province's municipal and prefectural cultural heritage departments and the DA. Many of its sites are located in remote mountainous areas with difficult terrain, some requiring a two-to-three-hour hike to reach them. Surveyors undertook their investigations in the winter, often in freezing temperatures, in order to meet the summer 2021 deadline for compiling results. Conducting the survey during winter also allowed them a unique perspective on these sites.

The Grotto Guidelines are a conservation and management tool developed for Gansu Province but suited to all grotto sites in China, as they are compliant with the China Principles, jointly drawn up with the national authority and promulgated in 2000.

NEW AUDIOVISUAL RECORDS IN AATA ONLINE

Shortly after COVID-19 forced academic institutions to temporarily close, Joyce Stoner, professor and paintings conservator at the University of Delaware/Winterthur program, contacted AATA Online about abstracting online audiovisual recordings to aid remote teaching. Stoner, her graduate student Amanda Kasman, and private practitioner Rebecca Rushfield helped AATA develop a list of videos distributed on the websites of various museums and conservation organizations, as well as on YouTube. The AATA team has been writing abstracts and inputting them into the database ever since.

Starting with the spring 2021 update, some records will be available for searching, with much more to follow from the Metropolitan Museum

of Art, the Smithsonian Institution, ICON Book & Paper Group, and many others. The videos include how-to demonstrations, museum productions on the conservation of a single object, and recent webinars and Zoom panel discussions held during the pandemic on specific topics.

HOUSE OF THE BICENTENARY MOSAIC TREATMENT COMPLETED

In February 2021 the conservation treatment of the mosaic pavement in the tablinum of the House of the Bicentenary at Herculaneum was completed by GCI consultant conservator Livia Alberti of Consorzio Arke, with injection grouting of areas where detachment between bedding mortar layers was present. Previous surface treatment of the opus sectile central panel was also adjusted to make its appearance more uniform with that of the opus tessellatum section of the pavement. Unlike at many other mosaics at the site, visitors will not be allowed to walk on the tablinum pavement, to ensure its long-term preservation and reduce the need for frequent maintenance.

This activity marks the end of the treatment phase of the multiyear project in collaboration with the Archaeological Park of Herculaneum and the Herculaneum Conservation Project, which has focused on the investigation and conservation treatment of the decorated architectural surfaces in the room.

At this time, Phase II of the environmental monitoring of the tablinum is being implemented in collaboration with Studio Massari and the partners at Herculaneum. In January 2021 an environmental monitoring station was



Guangdong Renhua Danxia Mountain. Photo: Courtesy of National Grottoes Investigation Unit of the National Administration of Cultural Heritage of China.



GCI consultant conservator Livia Alberti carrying out conservation treatment of the mosaic pavement in the tablinum of the House of the Bicentenary at Herculaneum. Photo: Domenico Ventura, for the GCI.

installed to monitor conditions of the tablinum. Short-term tests are first being carried out to determine monitoring parameters and to select an appropriate shade fabric, followed by a yearlong monitoring program, which will inform decisions about climate improvement strategies for the room to ensure the long-term preservation of the wall paintings and mosaic.

Recent Events

FIRST GCI MODCON ONLINE WORKSHOP

In response to the COVID-19 pandemic, GCI staff brainstormed on alternatives to their in-person educational activities. In March 2021 the Institute presented its first online workshop on treatment methods, created by the GCI Modern and Contemporary Art Research Initiative (ModCon) to address the needs of the conservation field, even while forced to deliver a program remotely.

The three-hour “mini” workshop was on the conservation of Poly(methyl methacrylate), or PMMA. Titled “Treating PMMA: Filling Scratches and Chips,” it covered additive treatment methods developed by the GCI to address surface damages on PMMA in sculptures and other objects, as well as on face-mounted photographs. The workshop, for both objects and photographs conservators, was designed by instructor Anna

Laganà of GCI Science and organized in collaboration with Flavia Perugini and Ellen Moody, ModCon members in GCI Collections. Lauren Samchisen and Reem Baroody, also of GCI Collections, provided support throughout the organization—and the running—of the event.

Twenty professionals from Europe, North America, South America, and Africa were selected to participate and then divided into two groups of ten for the two dates the workshop was offered, March 2 and 4, 2021. In addition to geographic diversity, the participants represented a range of institutions, private practices, museums, conservation programs, and universities.

A tool kit, containing the necessary tools and damaged samples of PMMA, was specially designed for the practical work and sent to participants in advance. Two short videos demonstrating PMMA repair techniques were prepared by GCI staff to compensate for the lack of in-person training.

In the workshop, Anna Laganà, using a PowerPoint presentation on Zoom, delivered the results of her research on PMMA characteristics and surface damage treatment. The presentation was followed by the videos of the treatment techniques, after which participants, together with the instructor, put into practice what they learned. The workshop aimed to provide conservators with theoretical and practical tools to repair surface damage on PMMA. During the practical sessions, participants experimented with the treatment techniques presented.

The workshop was well received on both days; additional dates will be planned to accommodate interested professionals in Asia and Australia. The positive feedback confirmed that it is possible to relay practical bench skills online despite the lack of in-person instruction. Given the event’s success and the need for virtual learning opportunities, the GCI ModCon team is exploring new topics for future practical workshops.

ONLINE WORKSHOP HELD ON SYNCHROTRON RESEARCH

On February 22–24, 2021, the Stanford Synchrotron Radiation Lightsource (SSRL) and the Getty Conservation Institute hosted an online workshop, “Hot Topics in Synchrotron Research in Heritage Science,” under the auspices of the Synchrotron Radiation and Neutrons in Art and Archaeology (SR2A) conference series. The series focuses on innovative use of synchrotron and neutron radiation to investigate cultural heritage materials and artifacts, and offers an opportunity for researchers and emerging professionals from all disciplines with experience in large-scale re-

search facilities—as well as potential synchrotron users—to share expertise and experiences.

Because of the COVID-19 pandemic, the planned 2021 in-person event, organized by the SSRL and the GCI, was postponed. The organizing committee, with support from the SR2A international standing committee, developed a virtual platform to engage heritage scientists, emerging professionals, and the broad conservation community in discussion on recent synchrotron applications to heritage studies, in advance of the in-person conference (conference updates will be regularly published via the official website: www.sr2a2021.org).

The online event included lectures on developments in instrumentation and analysis, and recent applications to cultural heritage materials, followed by panel discussions. On the last day, Sam Webb of the SSRL led a workshop on data analysis, and participants could download reference data sets, along with the open-access tool kit developed by the instructor.

The online format proved successful in attracting both wide enrollment and international participation. More than 300 people from 40 countries attended the lectures and engaged with the speakers during the panel discussions, while the data analysis workshop reached almost 150 attendees. Participation by researchers in training and emerging professionals was particularly encouraged.

Recordings of the lectures, panel discussions, and workshop will be available to the registered participants.

CAI GUO-QIANG EXHIBITION AT PALACE MUSEUM

The long-anticipated *Odyssey and Homecoming* exhibition of Chinese contemporary artist Cai Guo-Qiang opened to the public at the Forbidden City’s Palace Museum in Beijing in Decem-



Wang Xudong (left), director of the Palace Museum in Beijing, and artist Cai Guo-Qiang (right), at the GCI’s display *A Material Odyssey*. Photo: Lyu Xiaoyu, courtesy of Cai Studio.



Panoramic view of entrance to *A Material Odyssey*, highlighting aspects of Cai's materials and processes. The sculpture visible through the doors is Cai's *Exploding Hercules* (2019, gunpowder on plaster). Photo: Lin Yi, courtesy of Cai Studio.

ber 2020. The exhibition ran until the end of February and, despite the pandemic, attracted at its peak over six thousand visitors a day.

The GCI has been undertaking a long-term research project into the artist's materials and processes, led by Rachel Rivenc (now head of Preservation and Conservation at our sister program, the Getty Research Institute), and was pleased to have been invited by Cai to curate a three-gallery display—*A Material Odyssey*—within the main exhibition. It explored the nature and properties of gunpowder, chronicled its use by the artist, and peered into the future by discussing some of the aging properties of gunpowder and pyrotechnics. Cai has used gunpowder to create his works of art for close to thirty-five years, and this explosive material, invented in China over eleven hundred years ago, has come to define his work. Its often-unpredictable nature dictates his artistic process and determines the outcome.

Coinciding with the six hundredth anniversary of the Forbidden City's founding, this first-ever solo exhibition of a contemporary artist at the Palace Museum included approximately 180 of Cai's signature gunpowder paintings and other works from his ambitious multiyear *Individual's Journey through Western Art History*, and explored his dialogues with Eastern aesthetics, his original passion for painting, and his eternal homeland, the cosmos.

In a note to the GCI, Cai acknowledged that "when the China-US relationship was not at its best, to hold our Getty exhibition in almost the most culturally significant place in China bears special significance and sends a positive message.... It speaks to the scholarly depth and aspiration of the GCI, which is especially inspiring for the Chinese intellectuals and art world. Every time I showed the exhibition to guests and friends—be they national officials or intellectuals/artists, they would spend a great amount of time in the Getty gallery, reading carefully the gallery text and graphics."

The exhibition now travels to Shanghai and will open in July as one of the inaugural events at the newly built Museum of Art Pudong, designed by Jean Nouvel. It will run until March 2022, enabling many more to see it.

CODING FOR CULTURAL HERITAGE

In December 2019 the GCI organized a meeting, Tools for Temperature and Humidity Analysis in Collection Care, in collaboration with and hosted by the Winterthur/University of Delaware Program in Art Conservation. This interdisciplinary meeting explored current and future tool development for preventive conservation. One idea coming from the meeting was to establish an informal network for people—with all different levels of expertise—who use coding for cultural heritage.

During the pandemic, when many professionals have relied on online activities, two of the Winterthur meeting attendees, Melissa King and Bhavesh Shah, created a Slack channel that was established as ConCode: A Collaborative Network for the Promotion of the Development of Coding for Cultural Heritage Preservation and Research.

This initiative seeks to form a community that fosters learning and collaboration. The emphasis of the group is to evaluate the ways data gathering and processing can best assist in meeting needs related to cultural heritage preservation and research. The ConCode Slack channel is a space to share events, code, sources, quick Q&A, and other information. Monthly get-togethers are organized, consisting of a project presentation followed by informal discussion and breakout rooms. This network has quickly grown to over four hundred members, illustrating the growing need in the field to efficiently deal with large and complicated data sets and to improve interdisciplinary communication, either between user and developer or between different data users across disciplines.

Beginning or expert coders interested in participating or supporting this platform should visit the ConCode website: www.concode.info to request an active Slack link, or directly contact one of the administrators below. They look forward to hearing from you.

Bhavesh Shah, *Environmental Scientist, Victoria and Albert Museum, London*
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Upcoming Event

TERRA 2022 VIRTUAL LEAD-UP EVENTS

Terra 2022—the 13th World Congress on Earthen Architectural Heritage—will take place in Santa Fe, New Mexico, June 7–10, 2022. The Terra 2022 partners continue to monitor the COVID-19 situation and are following guidelines issued by the US Centers for Disease Control and the World Health Organization. Updates on Terra 2022 and registration information will be posted to the Terra 2022 website: www.terra2022.org.

Since the congress was postponed for a year because of the pandemic, it will now be held fifty years after the first meeting of specialists in the conservation of earthen heritage in Yazd, Iran. To celebrate this anniversary and to stimulate conversations about earthen heritage prior to the congress, the Terra 2022 partners have invited earthen architectural heritage specialists from around the world to present a series of virtual lead-up events, including blogs, videos, interviews, and webinars on the significance of earthen architecture, the people who work and live with earth, and how the field has developed. These events will showcase the wealth, variety, and significance of earthen heritage in the Southwestern United States, Northern Mexico, and elsewhere in the world. These monthly virtual events and materials can be viewed through the congress website: www.terra2022.org June 2021 through June 2022.

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.



Photo: Erica Avrami.

Tribute

HUGO HOUBEN (1944–2021)

Hugo Houben, a giant in the field of earthen architecture and a valued colleague to many at the Getty Conservation Institute, passed away in January 2021. Hugo was a true trailblazer and visionary who trained a generation of professionals in the use of earth as a building material. He also forged meaningful connections with the heritage community that had a profound effect on conservation practice in the realm of earthen architecture.

Hugo was trained as an engineer in electronics and nuclear physics and surely could have pursued a successful career in those arenas. However, his life path changed radically when, at the age of twenty-eight, he left with his young family for Algeria to assist in constructing a village of three hundred earth houses. It was there that he discovered the power of earth as a building material to meet worldwide needs for sustainable habitat and developed a new direction for his considerable energies. It was also at this time that he met Patrice Doat, then an architecture student at the Grenoble School of Architecture (ENSAG), and forged what would become a lifelong friendship and professional partnership. In 1979 these two events led to the formation of CRAterre (International Center for Earth Construction) as well as publication of the foundational text *Construire en Terre*—and the stage was set for important advances in the construction and conservation of earth buildings.

As CRAterre flourished in the realms of both research and education, Hugo had another chance encounter that would substantively affect his life and work. In 1984, at a conference in Brussels on earth construction technologies, he met two staff of the International Centre for the Study of the Preservation and Restora-

tion of Cultural Property (ICCROM), located in Rome. The conversations begun there led to a collaboration between ICCROM and CRAterre that ultimately resulted in a series of international courses on the conservation of earthen architecture (the “PAT” courses) in Grenoble. In the mid-1990s, the GCI was asked to join forces with ICCROM and CRAterre to help adapt the PAT model into a regional, site-based program. Over time, the resulting partnership evolved into the Terra project and a decade-long collaboration, including the delivery of two Pan-American PAT courses, hosted at the archaeological site of Chan Chan in Peru in 1996 and 1999. It is not an exaggeration to say that these courses transformed the teaching of earthen architecture conservation by strongly linking theory and practice, forging an international community of professionals, and creating a recognized body of knowledge.

Of course, Hugo had many other accomplishments during his long career. With colleagues at CRAterre, he created a unique post-master’s qualification in earthen architecture at the University of Grenoble. He helped develop the UNESCO Earthen Architecture Chair and the World Heritage Earthen Architecture Programme (WHEAP). Later in life, he became increasingly interested in sharing his knowledge of earthen architecture with young people and with the general public, and developed a series of innovative and interactive pedagogical models (the Grains de Bâisseurs program) to promote interest in and understanding of earth as a building material. This new pedagogy has now been adopted internationally by many institutions of higher learning.

Hugo surely left his mark on the world through his work. However, it is perhaps most significantly through the many lives he touched that he will live on. Hugo was an extraordinary scientist whose intellectual curiosity was infectious. He was a generous teacher and mentor who always expected the best of his students—and usually got it as a result. A gentle man of few words, he built bridges between people through his committed professionalism, deep humanity, and sense of humor. He not only imagined a better world, he made it so, forging allies along the way.

We are grateful to Hugo for all he contributed to the understanding of earthen architecture and its conservation, and for enriching our lives these many years. We will seek to honor his memory in the work we take forward with the knowledge and spirit he so generously shared.

Online Publications

The Twentieth-Century Historic Thematic Framework: A Tool for Assessing Heritage Places

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

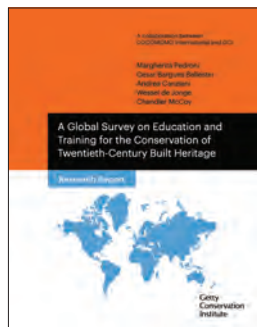
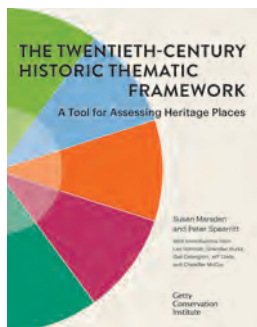
This publication promotes broad thinking about those historical processes that contributed to the twentieth-century built environment worldwide. It identifies and analyzes the principal social, technological, political, and economic drivers that have shaped the buildings, cities, industries, and landscapes of the twentieth century, emphasizing global forces, trends, and phenomena that have influenced the built environment.

THEMES

The framework uses ten succinct themes to organize and define history, helping to identify heritage sites and place them in context:

1. Rapid Urbanization and the Growth of Large Cities
2. Accelerated Scientific and Technological Development
3. Mechanized and Industrialized Agriculture
4. World Trade and Global Corporations
5. Transportation Systems and Mass Communication
6. Internationalization, New Nation-States, and Human Rights
7. Conserving the Natural Environment, Buildings, and Landscapes
8. Popular Culture and Tourism
9. Religious, Educational, and Cultural Institutions
10. War and its Aftermath

Beginning with an overview of the themes, subthemes, and places that exemplify them, readers can quickly navigate to any one theme of particular importance to them. Each section concludes with a photo gallery showing a diverse range of buildings, sites, structures, and landscapes that illustrate the issues discussed.



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. The hope is that it will aid many forms of research, analysis, and survey work, and ultimately help sustain and conserve the heritage of the twentieth century.

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

A Global Survey on Education and Training for the Conservation of Twentieth-Century Built Heritage

Margherita Pedroni, Cesar Bagues Ballester, Andrea Canziani, Wessel de Jonge, and Chandler McCoy, 2020

DOCOMOMO International and the Getty Conservation Institute collaborated to assess the status of education and training on twentieth-century built heritage conservation worldwide. The Conserving Modern Architecture Initiative of the GCI and DOCOMOMO's International Specialist Committee on Education and Training developed and distributed an online survey aimed at understanding whether the subject of twentieth-century built heritage conservation is being taught—and, if so, where and how.

This report shares the methodology and findings of the survey with the goal of helping other organizations, academic institutions, and professionals involved in teaching heritage conservation develop an understanding of available resources and existing gaps in the field. It begins with an explanation of the survey's purpose, the methodology employed, and the challenges encountered. The second section provides readers with a detailed presentation of

the findings; the answers received from institutions are described and illustrated with tables and graphs. Finally, the third and fourth sections summarize the findings and outline lessons and recommendations.

The recommendations at the end of the report will guide the future initiatives of the GCI's Conserving Modern Architecture Initiative and the DOCOMOMO International Specialist Committee on Education and Training in their aim to contribute to twentieth-century built heritage conservation and support related educational efforts.

Online publications are available free at getty.edu/conservation.

CONSERVATION PERSPECTIVES THE GCI NEWSLETTER

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The J. Paul Getty Trust

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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 Forest ReLeaf program has been made on behalf of the GCI for its use of paper from well-managed forests.

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For more information about the work of the GCI, see getty.edu/conservation and



CONSERVATION PERSPECTIVES

THE GCI NEWSLETTER



Staff at the National Archaeological Park of Machupicchu in Peru undertaking conservation and maintenance at the site. The park has been closed at various times because of the pandemic, and the absence of tourists during these periods has enabled some of this work to be carried out. Photo: Courtesy of the Dirección Desconcentrada de Cultura de Cusco.



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