CONSERVATION PERSPECTIVES

THE GCI NEWSLETTER

SPRING 2025

ART IN TRANSIT

Getty Conservation Institute

A Note from the Director

Photo: Elon Schoenholz.

In 2013 the Getty Conservation Institute's Managing Collection Environments (MCE) Initiative was launched to address the sustainable management of exhibition, storage, and transit environments for museums, galleries, archives, and libraries. The initiative led to the creation of the Assessing the Transportation Environment project, which began in 2017 and was designed to examine the performance of packing crates for art and objects during transit. Art preparators are skilled at determining appropriate crate and cushioning designs to mitigate the risk of damage, but data verifying performance may not always be available. By monitoring shock, vibration, temperature, and relative humidity at different locations within a crate and, when possible, on the crate's exterior, we can gauge the overall environmental conditions of the object at the different stages of its movement. In addition, collecting and analyzing this data can provide us with a better understanding of the relative risk of damage to art and objects during transit and an opportunity to manage the risk more efficiently.

This issue of *Conservation Perspectives* examines what is involved in getting a painting or cultural object from point A to point B. As GCI scientist and coeditor Vincent Laudato Beltran points out in his feature article, art in transit is by nature interdisciplinary and collaborative, consisting of a diverse field of conservators, scientists, preparators, registrars, curators, insurance brokers, transport providers, airport and air-cargo personnel, and others.

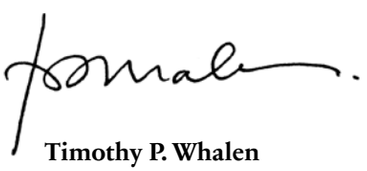
Vincent also writes about the modern development of art in transit as a dedicated field of study, tracing its origins to the International Conference on the Packing and Transportation of Paintings and accompanying workshop, held in London in September 1991, and to the two seminal books published in conjunction with the conference: *Art in Transit: Studies in the Transport of Paintings* and *Art in Transit: Handbook for Packing and Transporting Paintings*. Later in his essay, Vincent writes about the ongoing collective efforts—conferences, workshops, symposia, professional bodies, and networks—furthering this important work.

In their essay "Climate Colonialism in International Loans," Margarita C. Villanueva, Adriana I. Páez Cure, Agnes W. Brokerhof, and Bart Ankersmit present four strategies for loaning objects between different climate zones that can more fairly distribute the risks of potential damage to an artwork because of fluctuations in relative humidity and temperature.

In an article about returning a Māori cultural object, a toki pounamu (jade adze) from a regional museum in New Zealand to its original papakāinga (village), Kararaina Te Ira discusses the Māori approach to handling and transporting cultural material as well as how her Māori heritage influenced her decision to become a conservator.

And in this issue's roundtable discussion, Cayetana Castillo, T. Ashley McGrew, and Mary Pontillo discuss the transportation of artworks from the perspective of a registrar, preparator, and fine-art insurance broker, respectively. One of the takeaways from the conversation—and hopefully from this issue as a whole—is the need for trust in the process, which involves many hands in the chain of care.

Works of art and historical objects are transported for a variety of reasons—for research, conservation, exhibition loan, sale, or storage—but the stewardship for them, however brief that may be in the transit phase, is shared equally.



Timothy P. Whalen
John E. and Louise Bryson Director

ART IN TRANSIT

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ON THE COVER
Preparators from the Art Institute of Chicago wheeling crates from the Georgia O'Keeffe Museum through the galleries in preparation for the show *Georgia O'Keeffe: "My New Yorks,"* which opened at the Art Institute in June 2024. The O'Keeffe Museum's associate registrar Sherri Sorensen oversaw the transit and installation of the museum's loans to the exhibition. Photo: Courtesy of the Georgia O'Keeffe Museum.

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BUILDING CRATES AND COMMUNITY

Towards Art in Transit 2.0

BY VINCENT LAUDATO BELTRAN

As the modern public museum took shape in the seventeenth and eighteenth centuries, art and cultural institutions understood the benefits of sharing and assembling geographically separated objects into meaningful narratives. Through active programs of lending and borrowing objects, often for temporary exhibitions, museums could expand their research and educational goals, elevate the visibility of their collections, and seek out new audiences, both local and international.

Financial pressures to generate revenue and offset expenses—including for insurance, conservation, and shipping—have increased the pace of loans over time. Using data from 2012 to 2017, the National Museum of American History estimated the average one-way loan cost—from Washington, DC, and including conservation, mounting, packing, and shipping—to be USD 3,630 for a poster going to the Midwest US; USD 7,850 for a uniform going to the Northeast US; and USD 6,825 for a microscope going to the United Kingdom.[1] In fiscal year 2019–20, national museums in the UK loaned 71,205 objects for display to 2,290 venues, and 499,973 objects for research to 6,423 institutions; these values were similar or had increased compared to prior years, though the subsequent COVID-19 pandemic saw significant declines.[2] Additional reasons for object movement included accession, deaccession, repatriation, and conservation treatment.

The increased traffic of art moving around the world poses challenges for the cultural heritage field. Though the duration of travel for a loaned object is relatively brief, and while the object is typically buffered by its packing crate, the potential exists for exposure to extreme environmental conditions that exceed what the object has encountered in its lifetime. Damage related to transit—which includes handling and accidental damage—is indeed the most common cause for insurance claims.[3] In response to the global climate crisis and "a world with depleting natural resources, growing inequality and social injustice,"[4] there is also urgency to integrate sustainability into all museum practices. For art in transit, this may include extended exhibition durations that reduce loans and waste from temporary displays; increased use of art shuttles

Preparators from the Getty Museum and Huntington Art Museum loading the Huntington's *The Blue Boy* painting (1770) by Thomas Gainsborough into its crate, in the first phase of its transport to the National Gallery, London, in January 2022. The crate was designed and built by the Getty Museum; the painting's travel frame was made by the Huntington. Photo: Courtesy of The Huntington Art Museum, San Marino.

that consolidate shipments of artwork for multiple clients; and greater use of sea freight, which produces less than 2% of the carbon dioxide equivalent of traveling similar distances by air.[5]

This article reflects on the framework of practice established by the seminal 1991 Art in Transit conference and workshop and shares recent contributions on the topic by the Getty Conservation Institute and other partner institutions.

FRAMEWORK OF PRACTICE

In 1991 the Canadian Conservation Institute, the Smithsonian, the Tate Gallery, and the National Gallery of Art (Washington, DC) organized the International Conference on the Packing and Transportation of Paintings, held in London September 9–11 at the Queen Elizabeth II Conference Centre, with an accompanying workshop held September 12–13 at the Tate Gallery. Building on prior individual contributions to the body of knowledge on packing and shipping, the conference and workshop represented the culmination of a cooperative and interdisciplinary effort to address a specific area of study. The event generated two publications that have continued to be major references for the field: *Art in Transit: Studies in the Transport of Paintings*[6] and *Art in Transit: Handbook for Packing and Transporting Paintings*.[7]

The first publication presented scientific research on the material properties of paintings and their response to the transit

The author with former Getty Museum lead preparator Rita Gomez considering positioning of sensors on a crate housing the sculpture *Boy with a Dragon* (about 1617) by Pietro Bernini and Gian Lorenzo Bernini, in the Getty Museum collection. Photo: Anna Flavin. © J. Paul Getty Trust.

environment; tools and methods for improving packing design; and philosophical and logistical considerations of packing and shipping. Recognizing that this research is most beneficial if clearly understood by its audience—including preparators, registrars, conservators, and curators—the second publication translated the scientific information and sophisticated methodologies from the former into practical procedures described in "how to" language. Key topics discussed in the handbook included the selection criteria for objects; insulation and wrapping materials, and silica gel; the use of cushion curves for shock mitigation and backing boards to limit vibration; case construction; soft packing; chemical stability of materials; and courier responsibilities.

The Art in Transit conference and workshop established a foundation of knowledge for the cultural heritage field, and its inclusion of a wide range of stakeholders among its speakers and audience supported the development of professional organizations that advanced practice. One example is the Preparation, Art Handling, and Collections Care Information Network (PACCIN)[8] that coalesced a community of collection care professionals interested in elevating standards of object handling and housing. Originally a task force of the American Association (now Alliance) of Museums (AAM) before becoming independent in 2014, PACCIN has conducted numerous conference sessions, workshops, and seminars for the field. Similarly, the Association of Registrars and Collection Specialists (ARCS),[9] established as an independent group in 2012 after holding committee status in AAM, supports and empowers collections professionals through education, leadership, and building a diverse collections community.

MONITORING THE TRANSIT ENVIRONMENT

The Getty Conservation Institute's Managing Collection Environments (MCE) Initiative was created in 2013 as a response to the evolving discussion about environmental conditions for collections in exhibition and storage. Given the increasing volume of objects being loaned by cultural heritage institutions, it was important for the MCE Initiative to expand its focus to include the transit environment, which represents an extension of the museum environment.

With continued development of packing techniques and sensor technology, the MCE Initiative—largely through the work of the author, GCI scientist Vincent Laudato Beltran—collaborated with the Preparations and Conservation Departments of the J. Paul Getty Museum (JPGM) to monitor temperature, relative humidity, shock, and vibration during the transport of crated objects. The JPGM Preparations team, including former lead preparator Rita Gomez and senior preparator Andrew Gavenda, has earned a reputation for quality packing, typically employing a double crate design and system. Shock and vibration are mitigated by the positioning of cushioning material, such as Sorbothane, on all six sides between the inner and outer crates, and next to the object within the inner crate. The choice and amount of cushioning material are informed by cushion curve data reported by the manufacturer and the dimensions and weight of the object and the inner crate. Despite this expertise, verification of packing crate performance during transit, particularly with respect to shock and vibration mitigation, was not commonly conducted, and this information was of keen interest to the Getty.

The monitoring protocol developed for this project aimed to compare the external and internal crate environment during transit. In addition to temperature and relative humidity data loggers, accelerometers, which detect and measure shock and vibration, were arrayed from the crate exterior—including the truck floor when possible—to locations near the object, allowing us to assess the ability of the crate and its packing materials to absorb shock, dampen vibration, and mitigate temperature and relative humidity fluctuation. While the bulk of monitoring occurred when the crate was in a truck or plane, attention was also given to periods of transition, where handling could pose added risk.

The MCE Initiative has collected environmental data for more than thirty transits of crated objects, including those from partner institutions such as the Los Angeles County Museum of Art, the de Young Museum, and the Huntington Library, Art Museum, and Botanical Gardens. A visualization of shock data collected during one of the monitored transits is shown in the accompanying figure. Depicted is a time series of shock events—

reported in terms of g, or multiples of the gravitational acceleration—recorded on the climate box, the exterior crate, and the truck floor; also identified are modes of transit and locations, including trucking, flight, and periods in between. Apparent are the low g levels during flight and the slightly elevated values during trucking; these contrast with the instances of high shock events occurring at the airport, which may coincide with the movement of the crate within a warehouse or to the plane using non-air-ride dollies. It should be noted that damage to the object was not observed upon its arrival at the museum. Case study presentations have been shared at the conferences of PACCIN, the American Institute for Conservation (AIC), and the Western Association for Art Conservation (WAAC); a summary publication is forthcoming.

THE PROCESS OF MUSEUM LOANS

Beyond characterization of the transit environment, the MCE Initiative also embarked in 2019 on an exploratory study of museum loans. Led by former GCI colleagues Joel Taylor and Caitlin Spangler-Bickell, this work was prompted by the persistence of loan agreements calling for narrow environmental parameters despite advocacy by professional bodies—such as IIC, ICCROM, ICOM-CC, and the Bizot Group[10]—for more sustainable collection care practices, including the potential for broader climatic conditions for mixed collections. The researchers adopted an anthropological approach and conducted a series of open-ended interviews with professionals involved in various aspects of the loans process to gain insight into their relationships and communications, both between institutions and within.

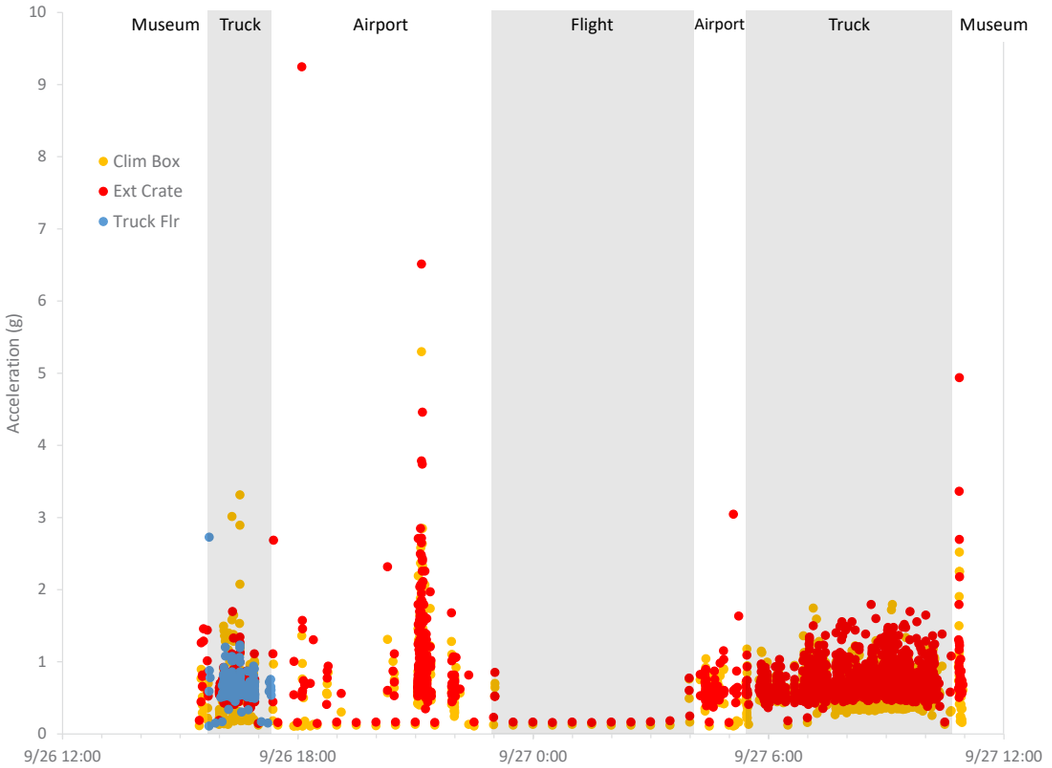
Interviewees were based in the United States, Australia, Denmark, Sweden, and Brazil; all worked in conservation, registration, exhibitions, collection management, curation, or insurance at a variety of institutions, including national or large museums of art and natural history, library special collections, artist estates and foundations, and insurance companies. The systematic collection and synthesis of their shared experiences, frustrations, and motivations—which remain anonymous—provide real-world evidence of the loans process that would likely be absent from existing publications on loans and can help inform discrepancies between practice, research, and policy. The authors hope to better understand these complex situations using different interpretive lenses, such as network mapping, behavioral economics, and game theory. Some of the issues that surfaced as factors in decision-making for loan agreements or barriers to change include:

- A need for access to recent studies and environmental guidance;
- Imagined or assumed conflict with other groups that may prevent beneficial actions desired by both;
- A lack of agency to take steps toward change;
- Characterization of decision-making for loans as a "marketplace" that depends on more than just the preservation of the object.

A preliminary discussion of the study's findings was shared on ARCS Chat,[11] and a summary article by Taylor and Spangler-Bickell is expected soon.

TOWARDS ART IN TRANSIT 2.0

With over thirty years elapsed since the 1991 Art in Transit conference, the opportunity was ripe to revisit the topic, an idea that had long been percolating in the cultural heritage field. Following the release of the 2022 international survey report *Vibratory*



Time series of shock events recorded during transit of a crated object.

Installation view of *Olafur Eliasson: OPEN*, September 15, 2024–July 6, 2025, at The Geffen Contemporary at MOCA. MOCA is piloting wider climate control parameters and reducing building energy use for the run of the exhibition as part of the PST Art Climate Impact Program. Artwork © Olafur Eliasson. Photo: Courtesy of The Museum of Contemporary Art (MOCA). Photo by Zak Kelley.

Climate Impact of Exhibitions

The recent Southern California–wide arts event, PST ART: *Art & Science Collide*, which launched in September 2024, offered an opportunity for more than seventy participating institutions to collectively explore impacts of temporary exhibitions, including transit. Organized by LHL Consulting and funded by the Getty, the Climate Impact Program[1] provided participating PST ART organizations with education, resources, and tools to build climate fluency among regional arts professionals, unite climate action across partners, and collect benchmark data that would illuminate the climate impact of exhibition-making. Partner institutions were encouraged to complete a Climate Impact Report (CIR) that would examine the environmental footprint of the exhibition and offer data-driven analysis of emissions from travel, shipping, and building energy; waste from fabrication and construction; and worker and community engagement. For example, the CIR from the Birch Aquarium at the Scripps Institution of Oceanography, who contributed the exhibition *Embodied Pacific: Ocean Unseen*, reported that 58% of their carbon emissions could be attributed to powering the exhibition space, 39% for air travel of the artist and their partner, and less than 4% for road freight.[2]

The PST ART Climate Impact Program included training on the management of the climate impact of exhibitions, as well as individual consultations to establish project-based goals and data-backed recommendations to support meaningful change. Among the examples of climate-conscious PST ART projects undertaken by participating organizations were implementation of broader environmental parameters that support conservation and reduce energy use, the adoption of consolidated ground shipment combining artwork from local art fairs as well as PST ART exhibitions, the prioritization of local artist residencies to reduce transit needs, and the use of green materials for building exhibition displays.

The Getty will extend the impact of this program by partnering with the Gallery Climate Coalition[3] to organize a conference on the environmental responsibility of heritage institutions and the broader arts community, and report on the outcomes of climate actions taken by partner institutions for PST ART: *Art & Science Collide*.

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1. PST ART: *Art & Science Collide*, "Climate Impact Program (2024). https://pst.art/en/climate
2. Birch Aquarium, "PST ART Climate Impact Report: Embodied Pacific. Ocean Unseen at Birch Aquarium" (February 25, 2025). https://aquarium.ucsd.edu/news-room/climate-impact-embodied-pacific-ocean-unseen
3. Gallery Climate Coalition. https://galleryclimatecoalition.org/

Impacts of Music and Transport on Museum Collections,[12] the author and two colleagues from the survey's research group—JP Brown, Regenstein senior conservator of Pacific Anthropology at the Field Museum, and Mark Ryan, assistant director for collections and exhibitions at the Mildred Lane Kemper Art Museum—began the planning process. Wanting to include a range of voices and expertise on the organizing committee, we enlisted Dale Kronkright (head of conservation at the Georgia O'Keeffe Museum), Cayetana Castillo (associate vice president of collection and loans at the Art Institute of Chicago, and one of the participants in this issue's Roundtable), Kevin Marshall (PACCIN Advisory Committee member and former head of JPGM preparations), and Kaitlyn Sturgis-Jensen (registrar for exhibitions at the San Diego Museum of Art).

The goal was to initiate an interdisciplinary conversation for those concerned with the transit and loans of museum collections. Beginning with the conservation community at AIC, the hope was that this would then extend to other professional meetings and, in collaboration with groups focused on transit, foster a global and diverse network of colleagues without the complication and expense of a single-issue meeting.

Conducted in person and virtually before the 2024 AIC conference in Salt Lake City, Utah, the Towards Art in Transit 2.0 symposium consisted of a morning session on packing and crate performance and an afternoon session focused on logistics, with each followed by a panel discussion and Q&A; demonstrations of vibration instrumentation and data interpretation were also presented. In addition to the speakers and panelists who represented all of the intersecting disciplines involved in loans and transportation, the organizers were grateful for the participation of Merv Richard, former Chief of Conservation at the National Gallery of Art, a speaker at the 1991 Art in Transit conference, and coeditor of its handbook publication. With sustainability a through line for the day, discussion topics included crate design and soft packing, alternative packing materials, object and environmental monitoring, insurance considerations, virtual and bookend couriers, and sea freight. Attendees expressed appreciation for the practical information about transit and the varied perspectives shared during the day but were also in agreement that follow-up events and updated resources to support the field were needed.

Responding in part to this feedback, the organizing committee, led by JP Brown, Dale Kronkright, and Mark Wamaling (PACCIN Board Chair), began development of a workshop focused on the theory and practice of crating museum collections for transport. Organized jointly by PACCIN and AIC, the Crating 101 workshop included both online and in-person components. Two online sessions—conducted in April and May 2025—discussed vibration and shock during transit, their mitigation by calculating and designing appropriate padding, and probable risks and practical approaches to packing and crating. The in-person sessions—held prior to the 2025 AIC conference in Minneapolis, Minnesota—focused on the hands-on packing of a facsimile 3D object and painting and testing during crate handling.

Seizing on the momentum of the Towards Art in Transit 2.0 symposium and Crating 101 workshop, we will bring this conversation to different audiences focused on collection care. Potential venues include the November 2025 ARCS conference in St. Louis, Missouri, and the April/May 2026 joint meeting of AIC and the Canadian Association for Conservation of Cultural Property (CAC-ACCR) in Montreal, Canada. Preliminary discussions have also been held on the organization of a transit-focused symposium adjacent to the September 2026 ICOM-CC triennial conference in Oslo, Norway.

BUILDING COMMUNITY

The activities described in the preceding sections represent only part of the field's efforts on the topic of packing and crating objects, which also include the work described in the other articles in this issue and its Resources section. Additional recent examples include:

- Vibration in Collections and in Transport Workshop organized by the Cultural Heritage Agency of the Netherlands (RCE) and conservation scientist Dr. W. (Bill) Wei (Vibmech.nl and formerly of RCE) in November 2023;[13]

A crate in transit. Inside the crate is a painting by Giorgio de Chirico from the collection of the Art Institute of Chicago, on its way to the Hamburger Kunsthalle, in Hamburg, Germany, for the exhibition *De Chirico: Magical Reality*, in 2021. Photo: Courtesy of the Art Institute of Chicago.

A pallet of crates loaded into the nose cargo door of a Boeing 747-8F purpose-built freight aircraft. The nose door allows for cargo that might be too large or long to fit through the side cargo door. It also facilitates easier access to front-loaded pallets on transit flights. Photo: Judy Chiba Smith, courtesy of the Georgia O'Keeffe Museum.

- The 2024 Preparators Conference organized by PACCIN, held at the Nelson-Atkins Museum of Art in Kansas City, Missouri, in May 2024;[14]
- Vibration and Conservation Symposium organized by the Vibration and Conservation Consortium, held at the Institut national du patrimoine (INP) in Paris in November 2024;[15]
- In Sacks and Bags!? Aspects of Collection Care II—Packaging of Art and Cultural Assets conference organized by the Verband der Restauratoren (VDR), to be held at HTW Berlin in September 2025.[16]

As we develop this community of collection care professionals involved in art in transit, it is important to ensure that we work together, share existing and new resources, and close the gap between research and practice. Invitations might extend to commercial galleries, whose volume of transit far exceeds that of heritage institutions and who may employ alternative packing techniques that raise the level of risk but prove more cost-effective and sustainable. We should also take advantage of virtual platforms to offer practical and accessible training on packing and crating to underserved regions of the world, including Africa, Asia, Oceania, and Central and South America. Finally, learning from our mistakes must be embedded in practice. Despite our best efforts at preservation during transport, the occurrence of damage is unavoidable, but "a failure shared is not a failure"—taking inspiration from the "Mistakes" session reprised annually at the AIC conference since 2018.[17] These actions will ensure that we nurture the growth of a global network of colleagues and continue to "adapt, innovate, and pioneer change"[18] in sustainable packing, crating, and loans practices for the cultural heritage field.

Vincent Laudato Beltran is a scientist at the Getty Conservation Institute.

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1. National Museum of American History, Loan Program (2024). https://americanhistory.si.edu/about/departments/registration-services/loan-program
2. Department for Culture, Media, and Sport, *Understanding the National Museums' Partnership Activities in 2020/21* (February 17, 2023). https://www.gov.uk/government/publications/understanding-the-national-museums-partnership-activities-in-202021
3. Risk Strategies, *State of the Insurance Market: 2025 Initial Outlook and 2024 Wrap-Up; Fine Art Insurance Report* (2024). https://www.risk-strategies.com/state-of-the-insurance-market-report-2024-fine-art
4. International Institute for Conservation of Historic and Artistic Works, "IIC, ICCROM, and ICOM-CC Agree: Joint Commitment for Climate Action in Cultural Heritage" (2021/25). https://www.iiconservation.org/iic-iccrom-and-icom-cc-agree-joint-commitment-climate-action-cultural-heritage
5. Danny Chivers, "Environmental Considerations of Sea and Road vs. Air Freight," Gallery Climate Coalition (2022). https://galleryclimatecoalition.org/ssc/environmental-considerations/
6. Marion F. Mecklenburg, editor, *Art in Transit: Studies in the Transport of Paintings* (Washington, DC: National Gallery of Art, 1991). https://repository.si.edu/handle/10088/8128
7. Mervin Richard, Marion F. Mecklenburg, and Ross M. Merrill, editors, *Art in Transit: Handbook for Packing and Transporting Paintings* (Washington, DC: National Gallery of Art, 1991). https://repository.si.edu/handle/10088/8127
8. PACCIN. https://www.paccin.org/
9. ARCS. https://www.arcsinfo.org/
10. Bizot Group, *Bizot Green Protocol* (refreshed September 2023). https://www.nationalmuseums.org.uk/what-we-do/climate-crisis/bizot-green-protocol
11. ARCSChat, "Loan Contracts, Part 2: Environmental Standards" (April 2020). https://www.youtube.com/watch?v=wKt7aQTikRc
12. WJE, "Research: Vibratory Impacts of Music and Transport on Museum Collections" (2022/23). https://www.wje.com/news/detail/research-vibratory-impacts-of-music-and-transport-on-museum-collections
13. RCE, "Workshop: Vibrations in Collections and in Transport" (November 30, 2023). https://channel.royalcast.com/cultureelerfgoed/#!/cultureelerfgoed/20231130_1
14. PACCIN, "2024 Preparators Conference Videos" (January 27, 2025). https://www.paccin.org/content.php?451-2024-Preparators-Conference-Videos
15. INP, Vibration and Conservation Consortium (2024). https://www.inp.fr/en/agenda/vibration-and-conservation
16. VDR, In Sacks and Bags!? Aspects of Collection Care II—Packaging of Art and Cultural Assets (to be held September 18–20, 2025). https://www.restauratoren.de/termin/fachtagung-in-sack-und-tueten-aspekte-der-sammlungspflege-teil-2-2024/
17. AIC, "2021 AIC Mistakes Session" (2021). https://www.youtube.com/watch?v=er2fKSzpnCU
18. International Institute for Conservation of Historic and Artistic Works, "IIC, ICCROM, and ICOM-CC Agree: Joint Commitment for Climate Action in Cultural Heritage" (2021/25). https://www.iiconservation.org/iic-iccrom-and-icom-cc-agree-joint-commitment-climate-action-cultural-heritage

CLIMATE COLONIALISM IN INTERNATIONAL LOANS

BY MARGARITA C. VILLANUEVA, ADRIANA I. PÁEZ CURE, AGNES W. BROKERHOF, AND BART ANKERSMIT

THE JOINT DECLARATION ON ENVIRONMENTAL guidelines by the International Institute for Conservation of Historic and Artistic Works (IIC) and the International Council of Museums—Committee for Conservation (ICOM-CC) drawn up in 2014,[1] and the *Bizot Green Protocol*, also dating from 2014 and refreshed in 2023,[2] originally intended to encourage sustainable practices and facilitate loans between organizations within the same temperate climate zone. However, loans between institutions in different climate zones still require negotiations between lender and borrower about the climate at the exhibition location and the object's requirements, and perceived risks and the acceptance of risk. Within the negotiation process, imbalances pervade. For objects that are created, kept, and used in hot, humid, or dry conditions without damage, temperate climate requirements and the associated guidelines nevertheless tend to overrule in what can be perceived as "climate colonialism." Margarita Villanueva and Adriana Páez Cure presented their strategies to tackle this climate balancing act in the Philippines and Colombia at the ICOM-CC conference in Valencia in 2023.[3] In this article we take a closer look at the factors that influence decisions about who adapts to whom and how.

OPTIONS FOR LOANS BETWEEN DIFFERENT CLIMATE ZONES

For loans of objects between organizations in tropical and temperate climates there tend to be four main strategies:

1. Acclimatize the object to the borrower's climate; risks and costs are for the lender.
2. Pack the object as is and adjust the borrower's climate to meet the historical climate of the object, whether at room or object level; risks and costs are for the borrower.
3. Seal the object in its own microclimate (frame or case) so that it is not exposed to the borrower's climate; risks are mitigated, costs negotiated.
4. Select objects that are robust enough to withstand expected climate changes; selection is negotiated.

STRATEGY 1: ACCLIMATIZING THE OBJECT TO BORROWER'S CONDITIONS

When acclimatizing objects to the borrower's conditions, the risk of damage borne by the lender can be significant. In the example of a painting going on loan from the Lopez Museum and Library in Manila classified as extremely hot and humid ASHRAE Climate Zone 0A, to a museum in cold and humid Zone 6A,[4] the change in relative humidity (RH) was substantial. During

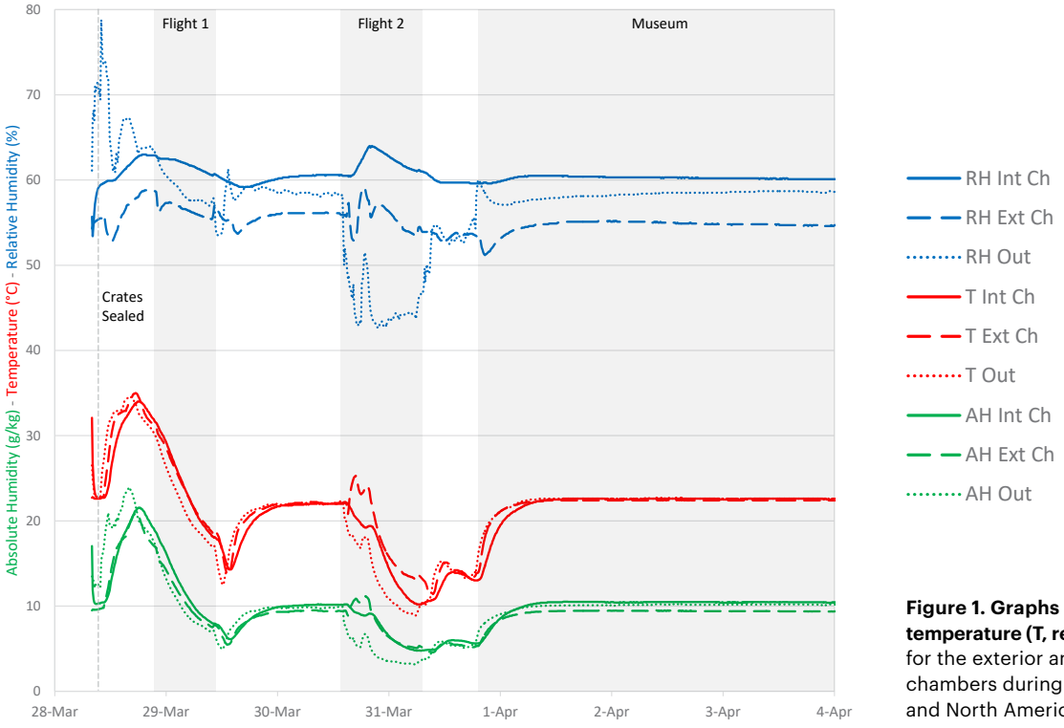


Figure 1. Graphs for relative humidity (RH, blue), temperature (T, red), and absolute humidity (AH, green) for the exterior and within the exterior and interior chambers during transport between the Philippines and North America.

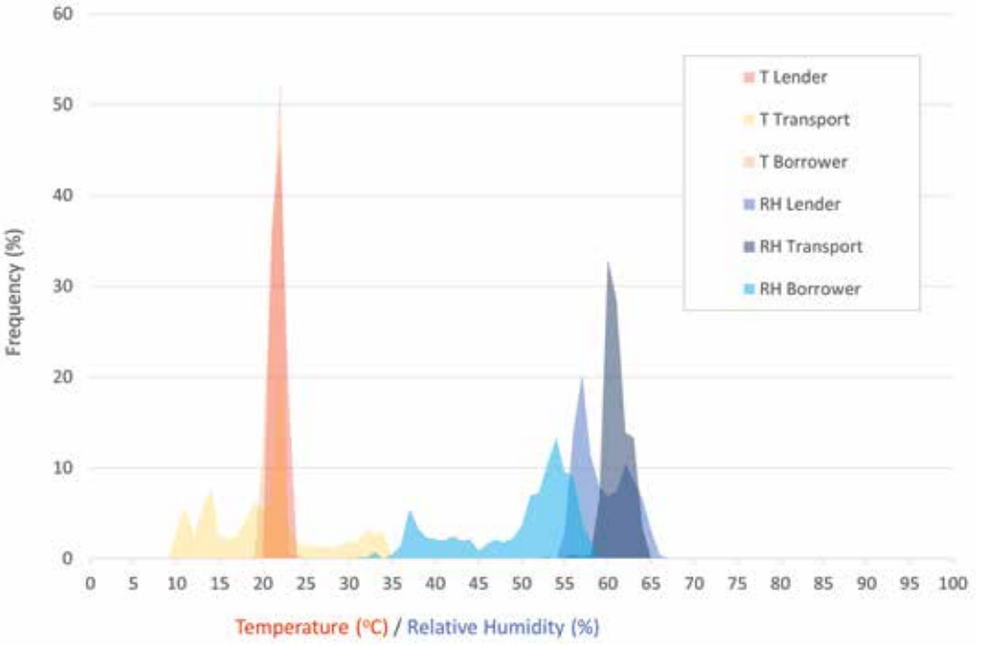


Figure 2. Frequency distribution of relative humidity (RH, blue) and temperature (T, red) at the lender's storage, during climatized transport, and during exhibition at a borrower's venue that claimed to maintain 15–25°C and 40–50% RH.

transit the logger mounted outside the crate registered a high of 79% RH upon departure and a low of 43% RH upon arrival, a difference of 36% RH (see figure 1), well exceeding the 20% RH threshold for high risk of mechanical damage,[5] underscoring the importance of controlling climate during transit. Apart from designing the crate to insulate the artwork from drastic changes in the outside environment, an important consideration is the interior environment of the crate, particularly if there is an absolute difference between the historic RH of the artwork and RH of the exhibition venue.

For the artwork in figure 1, the historic RH was 72±3% prior to 2020 and 60–70% after the institution's 2020 environmental guideline adjustment,[6] and the RH of the exhibition venue was 45±5% according to the facility report. Though lowering guidelines brought conditions closer to a temperate climate, the difference of 20±5% RH still presented moderate to high risk of mechanical damage[7]. While many museums would consider declining the loan, the Lopez Museum and Library felt strongly for the quality of the exhibition, which was a well-researched presentation providing a range of new perspectives into the practice and culture of an important Filipino artist. Participating was an opportunity to provide access to a unique representation of the artist's work and encourage curiosity in the Lopez Museum and Library collection, particularly at an esteemed museum with many visitors.

With adjustments to the borrower's gallery not negotiable, the risk was managed as follows: the artwork and crate were pre-acclimatized to an environment of low to moderate risk by being transferred to drier conditions at 50–60% RH for two weeks, and the crate was insulated through a double chamber design (figure 3). The data from the interior chamber where the artwork was located show that moisture tightness held during transit, maintaining between 53 and 64% RH (figure 1). Data from the five-month run of the exhibition, however, show that sometimes there can be more risk than anticipated. The RH was largely maintained between 51 and 56% RH but reached a range of 30–60% RH (figure 2), 10% lower than the anticipated minimum of 40% RH, resulting in a 30% change from the historic RH of the artwork. Changes to the support and paint occurred, which were stabilized and conserved upon return.

STRATEGY 2: ADJUSTING BORROWER'S CONDITION TO OBJECT

A strategy to mitigate significant risk to the lender's object is to adjust the exhibition venue of the borrower. In practice, however, even in the event of an exchange between institutions in temperate climates and tropical climates, the needs of the former tend to prevail. For a traveling exhibition, for example between Manila in

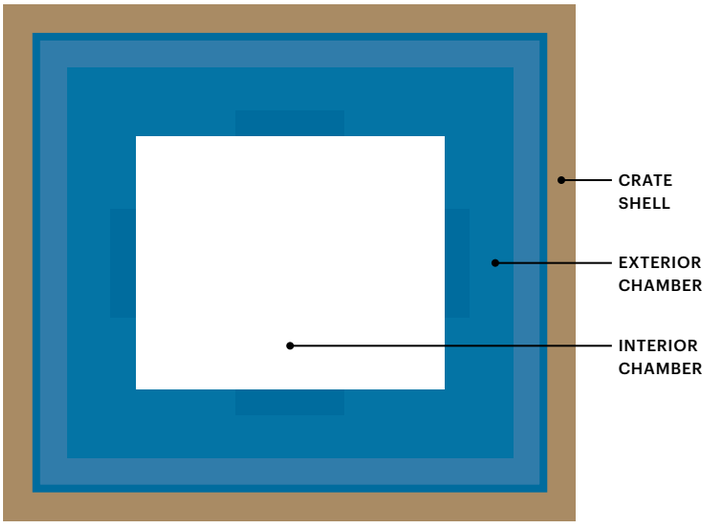


Figure 3. Rendering of a double chamber crate with (1) crate shell, comprising wood treated with moisture sealant and latex paint; (2) exterior chamber, comprising polyurethane and styrene foam; and (3) interior chamber, comprising the artwork wrapped in glassine, Kraft paper, foam board, polyurethane foam, and a cardboard box sealed in foil.

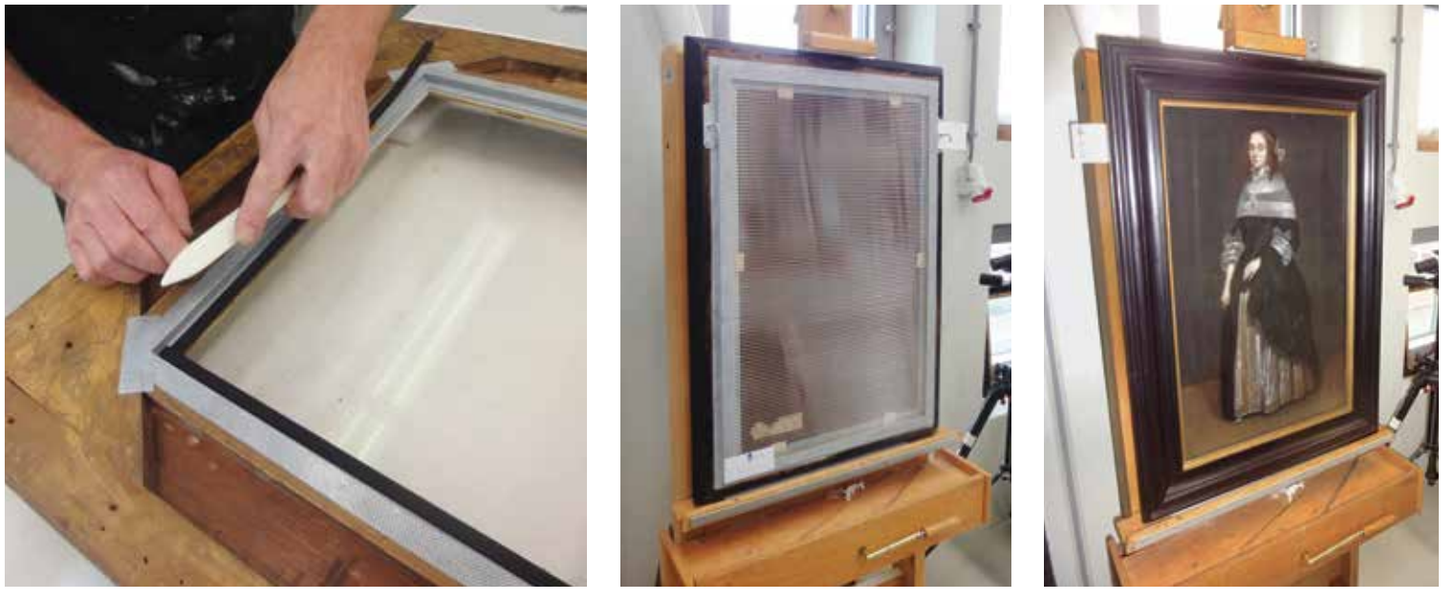


Figure 4. Constructing a microclimate frame: sealing glass in frame; attaching airtight backboard; invisible from the front. Photos: Bart Ankersmit/RCE.

Zone 0A and Europe in Zone 4A, the European borrower declined to adjust the exhibition venue, as in the case in Strategy 1, passing the burden of risk to the Philippine lenders. When the exhibition then traveled to Manila, the European borrower-turned-lender required the Philippine venue to adjust its exhibition environment to the European climate. The venue invested in a new air-conditioning system to do so, again passing risk to the Philippine lenders, not to mention driving up the carbon footprint, yet the majority of the loans from the European institution were declined. Perhaps the European institution could have avoided unnecessary risk and energy demands by considering Strategy 3.

STRATEGY 3: MAKE THE OBJECT CLIMATE PROOF

An alternative to the two strategies is to make the object climate proof by sealing it in a microclimate frame (figure 4).[8] This can be an airtight frame with hygroscopic material inside that acts as a moisture buffer so that it can dampen exterior changes in RH and, to a lesser extent, temperature. The Cultural Heritage Agency of the Netherlands (RCE) often does this for vulnerable objects that go on loan to non-museum locations or to locations where they will be exposed to non-moderate circumstances, such as exhibitions in Suriname and the Netherlands Antilles in the Caribbean, both in Climate Zone 0A. Experience shows that this works very well for two-dimensional objects. Since RCE has the goal of reaching new audiences by making its collection as accessible as possible, and of using the State collection to bridge gaps between cultures, it is willing to invest in constructing these relatively low-cost microclimate solutions that allow objects to travel almost anywhere.[9]

STRATEGY 4: SELECT ROBUST OBJECTS

The Banco de la República in Bogotá participated in representing Colombia at the Biennale in Venice with three of the best Colombian modern artworks from its collection. Those works are exhibited at moderate climate conditions in the Bogotá Museum (RH average 57%, minimum 46%, maximum 69%), very different from the humid and less stable conditions at the Biennale's Central Pavilion, where the works were located (RH average 72%, minimum 34%, maximum 86%) (figure 5). The facility report at the Biennale noted the presence of some air-conditioning, but only for the comfort of the visitors. There was no possibility to acclimatize the venue to moderate conditions (Strategy 2), and acclimatizing the objects to the destination RH was unpredictable, as the facility report of the venue was not sufficiently specific regarding RH details, and the effort would probably have been overly time-consuming.

Still, it was very important to contribute the requested works to the exhibition, representing the selected Colombian artists and showing their relevance in this international context. The curatorial program celebrated how modernity was reimagined in the Global South. Thus the curator requested artworks from more than a dozen established contemporary Colombian artists.[10] Acceptance by the Banco de la República is often seen as a precedent for other institutions to proceed with granting their respective loans.

A first consideration was to choose Strategy 3 and frame the paintings in their own microclimates. However, time constraints in the preparation of the paintings precluded that option. Close examination of the artworks led to the conclusion that they were robust and technically well executed oil-on-canvas paintings. Based on Colombian experiences of circulating art within the country, from the moderate climate in the mountains to the hot and humid venues in the lowlands, a fourth strategy was chosen: to let the artworks adjust to the Venetian climate while traveling and to accept the risk. The Biennale took place from April to November, when the RH in Venice is slightly lower than it is in winter, but it turned out to be higher than expected. Upon the return of the artworks to Bogotá, they were acclimatized for two weeks to gradually expose them to their accustomed lower RH levels. The result was minimal changes in the paint layer of just one painting, which was then stabilized and conserved. This translated into a negligible loss of cultural value,

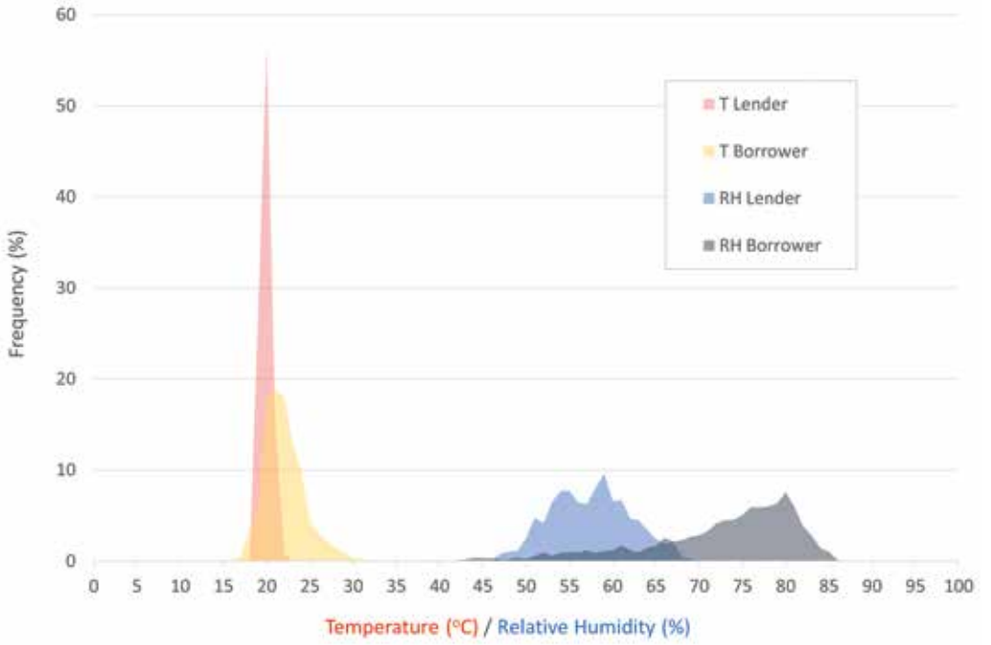


Figure 5. Frequency distribution of relative humidity (RH, blue) and temperature (T, red) at the lender's exhibition room in Bogotá and at the exhibition room of the borrowing institution.

which was far outweighed by the gains of visibility, enhanced social values of the artworks, and the promotion of Colombian culture.

CONCLUSIONS

The four strategies show that the willingness to accept risk or invest in mitigation of the risk is borne by the partner that has the most to gain from the loan. Often, this is the institution with lower status or reputation, seeking to enhance its prestige, the visibility of its collection, and even the eminence of its country's culture by allowing an outgoing loan or enabling an incoming loan.

The efforts are unnecessarily increased by misleading facility reports that do not match the actual conditions. This leads to excessive demands on the borrower's venue, specifying very strict conditions that may differ substantially from those at the lender's location, or an adjustment of conditions that do not even exist at the borrower's venue. These strict conditions may not be needed for appropriate object preservation. A further complication comes with traveling exhibitions going through multiple transits. Can all the individual specifications from participating venues and their required adjustments be catered to? Especially when they diverge from the original planning and loan agreements?

Currently, it seems that for objects on loan from a tropical climate zone to a temperate zone, Strategy 1 is predominant: tropical objects adjust to temperate conditions. For objects going from a temperate zone to a tropical climate, Strategy 2 is often demanded: the tropics turn into a temperate oasis. Strategy 3 comes into play for highly sensitive objects and when there is a strong desire to have objects on display in different climate conditions. If the benefit from exhibition is large while investment in Strategy 1, 2, or 3 is too costly, selection of robust works with acceptance of the risk is a final strategy, 4, more often chosen by lower rather than higher status institutions.

These observations and conclusions expose a troubling reality: while many institutions are working toward decolonizing their historical practices, colonial frameworks quietly persist and continue to shape cultural exchanges in ways that can disproportionately burden institutions and cultures that are already at a disadvantage.

Margarita C. Villanueva is manager of conservation at the Lopez Museum and Library, Manila, Philippines. Adriana I. Páez Cure is the head of conservation and collections management at the Banco de la República, Bogotá, Colombia. Agnes W. Brokerhof is senior scientist and Bart Ankersmit is senior researcher, both at the Cultural Heritage Agency of the Netherlands.

1. Julian Bickersteth, "IIC and ICOM-CC 2014 Declaration on Environmental Guidelines," *Studies in Conservation* 61, issue sup1 (August 2016), 12–15. https://www.tandfonline.com/doi/full/10.1080/00393630.2016.1166018; https://www.icom-cc.org/en/environmental-guidelines-icom-cc-and-iic-declaration
2. Bizot Group, *Bizot Green Protocol* (refreshed September 2023). https://www.cimam.org/documents/238/Bizot_Green_Protocol_-_2023_refresh_-_Sept_2023.pdf
3. Margarita C. Villanueva, Adriana I. Páez Cure, and Agnes W. Brokerhof, "A Climate Balancing Act: Negotiating Environmental Conditions for Loans Between Different Climate Zones," in *Working Towards a Sustainable Past: ICOM-CC 20th Triennial Conference Preprints, Valencia, 18–22 September 2023*, edited by Janet Bridgland (Paris: International Council of Museums, 2023). https://www.icom-cc-publications-online.org/5599/A-climate-balancing-act--Negotiating-environmental-conditions-for-loans-between-different-climate-zones
4. ASHRAE, *ANSI/ASHRAE Addendum a to ANSI/ASHRAE Standard 169-2013, Climatic Data for Building Design Standards* (ASHRAE, 2020). https://xp20.ashrae.org/standard169/169_2013_a_20201012.pdf
5. Margarita C. Villanueva, "Developing Sustainable Environmental Guidelines for Collections in the Tropics: A Philippine Case Study," in *Scientific Culture* 11, no. 1 (2025), 63–72. https://sci-cult.com/developing-sustainable-environmental-guidelines-for-collections-in-the-tropics-a-philippine-case-study/
6. Villanueva 2025.
7. Shin Maekawa, Vincent L. Beltran, and Michael C. Henry, *Environmental Management for Collections: Alternative Preservation Strategies for Hot and Humid Climates* (Los Angeles: Getty Conservation Institute, 2015). https://shop.getty.edu/products/environmental-management-for-collections-alternative-conservation-strategies-for-hot-and-humid-climates-978-1606064344?srsltid=AfmBOorrbbHQ4OgjfyZghl56AWX-HoUsjAElU2BnIWGLxmCtc6rzEATbK
8. Cultural Heritage Agency of the Netherlands, "Microklimaatdoos" (in Dutch, 2022). https://kennis.cultureelerfgoed.nl/index.php/Microklimaatdoos
9. Agnes W. Brokerhof, Daphne Nieuwenhuijse, Nathalie Menke, Hester Lensink, Marja Peek, Simone Vermaat, and Renate van Leijen, "Loans to Non-Museum Organisations: Concepts for Crossing Boundaries," in *Transcending Boundaries: Integrated Approaches to Conservation, ICOM-CC 19th Triennial Conference Preprints, Beijing, 17–21 May 2021*, edited by Janet Bridgland (Paris: International Council of Museums, 2021). https://www.icom-cc-publications-online.org/4418/Loans-to-non-museum-organisations%E2%80%93Concepts-for-crossing-boundaries
10. https://www.latamarte.com/en/news/mUzp/

HOKI MAI

Return Home

BY KARARAINA TE IRA

AS A YOUNG CHILD GROWING UP IN AOTEAROA—New Zealand—I distinctly remember posters of *Te Hokinga Mai* prominently placed in whānau homes and Māori health services. *Te Hokinga Mai—The Return Home* was an exhibition in the late 1980s of returned taonga Māori that had been on display at The Metropolitan Museum of Art in New York. Although the return of taonga was fleeting in some cases, the impact lasted right through the 1990s, sparking hope and efforts that these taonga could be repatriated more permanently to iwi, hapū, and whānau.

I was raised in the Bay of Plenty, Taupō District, where it was common to have family members who were weavers and carvers. Living primarily with my grandparents, in our rural papakāinga, meant that we didn't have to go far to see the carvings and painted designs on our meeting houses and the gatherings of relatives creating yards of whāriki and tukutuku. But I didn't realize that this experience was uncommon in our wider collective—the reality for most Māori was far removed from the somewhat idyllic one I experienced as a child.

WITNESSING LOSS AT AN EARLY AGE

When my parents enrolled me in school in the city, I quickly saw the disproportionate parallels between my life with my grandparents and that of the city. The school I was placed in was, as my father put it, "where much of my people were." It was the poorest in the city, surrounded by poverty of all kinds—economic, educational, health related, social, and, finally, cultural. The expected outcome of our government's urbanization and pepper-potting[1] regimes was assimilating the Māori into the lower socioeconomic classes. Regardless of this reality, the children were recognized as the heart and refuge of the suburb, just as in the papakāinga I came from.

I remember being bundled up with my schoolmates in a van and driven to our local museum. We loved that museum. None of us appreciated the colonial school reenactment, however; we weren't the target audience. We did enjoy spending time in the science exhibits, and we felt at ease once in the taonga Māori gallery. I would watch my classmates enter that gallery, find their favorite spot (usually beside a carving that represented their ancestor), and sit closely next to it. This action was not prompted by the teachers or supervising family members.

I also remember looking at the adults as they followed the lead of the children, sitting patiently with us, with the taonga. In particular, a kuia, a relative of mine from a papakāinga three miles north of my father's papakāinga, had an expression I will never forget. It was gentle but riddled with concern as she watched us connect with our cultural heritage in a colonial institution that controlled our taonga and disconnected them further from our papakāinga. She held herself in that moment the same way my koro's posture changed when my kuia died—it was a physical expression of heartbreak. Years later, as an adult, I understood why she expressed this: of all the elements of poverty felt by my people, the most painful to witness is cultural disconnection.

The author and her father standing at the gateway of her father's marae, September 2024. Behind them is the mountain range (Tararua Range) that was traversed on the journey to return the toki pounamu to its original home. Photo: courtesy of the author.

BECOMING A CONSERVATOR

I was born to an optimistic father, who worked as a Māori social worker, and a passionate mother, who still works as a teacher. Our home was a strategic and solutions-focused one. I was purposefully raised by my mother's parents and elderly relatives to equip me with the strategies to address the growing reality of cultural disconnection plaguing our collective.

Our kaumātua taught me as a toddler that everything—whether animate or inanimate—has a mauri. Therefore, everything

Map showing the driving route for the repatriation of the toki pounamu, which began in Ngā Motu (New Plymouth) and ended at the Huruni-o-Rangi marae in Gladstone, 20 km (12.4 miles) south of Masterton.

was to be cared for and respected. Our specific practices of care and karakia were a constant experience. By the time I was seven, this understanding was firmly established, and it was in that year that my whānau encouraged me to follow the path of becoming a conservator. I was to be trained in Māori preservation practices and Western cultural materials conservation.

The memory of *Te Hokinga Mai* remains ever present for those Māori who work in the cultural heritage sector. Much of this collective is known as Kāhui Kaitiaki, a group of Māori cultural heritage professionals who work with institutions to ensure the best care of taonga and their source communities. After social work in the late 1990s, my father turned to a career in Māori cultural heritage. He was a Kāhui Kaitiaki, and I joined him in 2012 to pursue the advocacy work of caring for and reconnecting Māori cultural heritage to Māori.

When I was little and visiting my parents during the holidays, my father was often traveling with me to different kaupapa at local and distant marae. The topic of taonga was always a constant, especially the moemoeā of their return to the papakāinga. My father worked with these marae to help retrieve the found bones of their ancestors and have their cultural heritage sites recognized and protected from the grasp of either the New Zealand government or private ownership.

REPATRIATING A TOKI POUNAMU

In the late 2000s repatriation discussions were held about carvings from my father's hapū. They were housed in the museum I visited with my school as a child. For over twenty years, my father and his relatives were in discussions with the museum about the return of the carvings. An opportunity arose when the museum decided to do a massive refresh of their taonga Māori gallery, seeing the carvings as surplus. When they were taken off display, our whānau traveled to the museum and performed a karakia to "put them to sleep." They were kept company by my whānau members as much as the museum would allow until they were finally returned to us. Upon their return, karakia were once again performed as they were reintroduced home. Waiata and mōteatea were sung, and we celebrated together with kai to lift the tapu of the process.

When it came time for me to lead taonga reconnection work and repatriations, I had been working as a conservator and curator. In 2016 I moved to work in the Taranaki region. The first taonga I repatriated was a toki pounamu that had been in the regional museum for quite some time. The toki belonged to another papakāinga on the other side of the country. At that time, the regional museum's Kaumātua Advisory Committee was invested in that taonga's return. For many of them, the repatriation was tika—culturally the right thing to do. At this time, very few museums in New Zealand were returning taonga of their own accord, and if they were engaged in repatriation, it was led by legislative acts and post–Iwi Treaty settlement claims.

A MĀORI LENS TO REPATRIATION

The day the repatriation was confirmed by the Kaumātua Advisory Committee, they gathered in the museum around my desk. Everyone was silent or speaking in hushed tones; then, organically, a series of karakia were performed over the taonga and the collection store. I was instructed that, until the travel day, I should begin performing the care practices to prepare the taonga. Typically, most museums would simply fill out the necessary deaccessioning forms, make changes to the collections management system (CMS), and package the item in archival-grade packing ready for transport, but this was not all the committee expected. Instead, I was to approach the preparation both physically and spiritually, according to a Māori perspective.

The taonga had been in that collection store for a long time and had naturally become a part of the collective taonga in that space. The distinct way we treat taonga, as described above, is as entities unto themselves, therefore holding their own memories and experiences. In effect, I was to continue performing karakia to prepare the taonga for separation from the other taonga it had become accustomed to, and to ready it for its journey home. Nesting the taonga in its travel box was not a mechanical task alone; I had to consider forms of wrapping and placement that were respectful to the taonga. It was also important to settle the entire collection store through karakia, placing all the taonga at ease with the disruption caused by the museum staff moving the toki around.

PRACTICING CARE WITH CONVICTION

When the travel day arrived, the committee came into the collection area and placed the taonga under another karakia as we began the journey to the Wairarapa. For some reason, I was designated as

the main driver of the hired van—a terrifying prospect, given that I was now responsible for both the taonga and the kaumātua in the vehicle. The journey would take five hours if we drove straight through, but we planned to make an overnight stop.

On the way, I was instructed to stop at a certain boundary as we exited Taranaki. I learned on that trip that this place, where a church was later built, was where tūpuna would stop if they were leaving the region. The site was particularly important to enlisted Māori soldiers during World War II; unfortunately, many never returned. We stopped, brought the toki outside with us, and performed another set of karakia before returning to the van. As we continued, we shared stories about the places we traveled through, the people there, and the connections between Taranaki and the Wairarapa. Waiata were sung, and the toki was touched by those in the van with the purpose of calming it.

We arrived at a marae in Masterton, where we stayed until the next morning, when we would continue the journey to the toki's final destination. As we prepared for sleep, we placed the toki between two of the senior kuia in our ope. With the taonga nestled between them, I slept at its base. This circling position of our beds is often seen when tūpāpaku rest on the marae, with the immediate family sleeping around them. This type of initiative is special and offers more than security; it offers comfort to what is being surrounded. The same practice was performed later that year with a taonga that returned temporarily to Parihaka.[2]

On the following day, we approached the final marae. There was a sigh of relief, as the toki had made it home. After the pōwhiri, the committee handed over the taonga. To the people of that marae, its return was seen as fortuitous, since it had just been announced that the marae was a recipient of funding to rebuild their papakāinga. We all left that day knowing that our efforts were tika.

Unexpectedly, earlier this year, one of the iwi representatives from that marae approached my father and me at an event. He spoke about how significant the return of the toki was and how it continued to have an impact on his people, especially those reconnecting with their cultural identity. I like to think that this, as well as many other repatriations of taonga Māori since, would have eased the concern of the kuia in the museum that day when I was a child.

Kararaina Te Ira is director of Penapena Taonga, a specialist consultancy dedicated to preserving cultural heritage through cultural material conservation, curatorial services, art acquisition, and strategic planning.

1. Pepper-potting was the unofficial name of the New Zealand government housing policy initiated during the 1950s and '60s, whereby Māori were encouraged to live in urban Pākēhā populations.
2. On June 6, 2017, a significant taonga, the parau, was temporarily returned to Parihaka for the June 7, 2017, signing of the deed of reconciliation between Parihaka and the New Zealand government. At night the parau was encircled by the sleeping mats of the Māori Wardens, who had come to offer their humanitarian services for Parihaka at the reconciliation. The parau is a significant taonga for Parihaka, as it was used by local iwi to demonstrate peaceful resistance against the New Zealand government, by plowing the land around the papakāinga. In 1878 the government had sent surveyors to identify land they wanted to confiscate. By plowing the land and removing surveyor pegs they peacefully symbolized that the land was occupied by local iwi. The memory of these demonstrations has endured as an example of peaceful resistance and was referenced by Mahatma Gandhi and his family, sharing that Parihaka had a profound influence on his teachings.

Te Reo Māori Glossary

The definitions provided for each term are not complete, and their meanings may vary, depending on the context of discussion. Usage can evolve over time, and interpretations may differ across subject matter and perspectives. This information is intended for general reference only.

hapū—kinship group; subtribe—section of a large kinship group (iwi) in Māori society

iwi—tribe; nation; often refers to a large group of people descended from a common ancestor and associated with a distinct territory

Kāhui Kaitiaki—a group of Māori cultural heritage professionals who work with institutions to ensure the best care of taonga and their source communities

kai—food; meal

karakia—spiritual incantations

kaumātua—elders

kaupapa—events

koro—male elder; grandfather; great uncle

kuia—female elder; grandmother; great aunt

marae—cultural and heritage sites and complexes; typically used to describe an open area in front of a wharenui or complex of buildings

mauri—life force

moemoeā—dream

mōteatea—laments; traditional chant; sung poetry

ope—traveling party; group of people moving together

Pākēhā—foreigner; a New Zealander of European descent

papakāinga—original home; home base; village; communal Māori land

parau—plow

pōwhiri—rituals of encounter; welcome ceremony

taonga Māori—Māori cultural material

tapu—spiritual restriction and prohibition

tika—culturally right or just

toki pounamu—jade adze

tukutuku—decorative latticework

tūpāpaku—deceased person

tūpuna—ancestors

waiata—song; chant

whānau—family groups and extended family

wharenui—ancestral meeting house

whāriki—woven mats

NETWORKS OF TRUST

A Conversation About Art in Transit

CAYETANA CASTILLO is associate vice president of collections and loans at the Art Institute of Chicago.

T. ASHLEY MCGREW is preparator at the Cantor Arts Center at Stanford University.

MARY PONTILLO is senior vice president and national fine art product leader at Risk Strategies, New York.

They spoke with **VINCENT LAUDATO BELTRAN**, GCI scientist, and **PATRICK PARDO**, editor of *Conservation Perspectives, The GCI Newsletter*.

VINCENT LAUDATO BELTRAN The practice of art in transit is by definition a collective effort, and all of you represent different aspects of the process. Can you each describe the roles you play in this context?

CAYETANA CASTILLO I like to say that my team touches everything, every aspect of when the art gets in motion. And I think it's a very graphic way of seeing it, the art in motion and everything that it triggers. We are constantly assessing the risk of the areas which we are part of and we are responsible for. And that really informs how we do things.

MARY PONTILLO From an insurance perspective, I correspond with someone like Cayetana to understand what their transit needs are. So, that starts from when we put together a policy to understand what kind of transit limits would serve them for the bulk of their entire policy period. There may be some exceptions, but we try to structure the policy accordingly. And then when those limits are ever exceeded, we have to get into the nitty-gritty of what is happening with a particular transit.

T. ASHLEY MCGREW When I was at the Getty Museum, I ran installation crews—two different crews—and now I do installation at the Cantor, but I've also done crating within a museum setting and then also commercially. So, when you do that, you get exposed to just about any kind of material you could imagine.

PATRICK PARDO How did each of you find your way into your respective careers? What kind of training or prior work experience prepared you for the work that you do now?

MCGREW Like most preps I did not think about doing it for a living. I went to art school, at Arizona State University. After that, I started volunteering at a university museum, and the person I was working under quit to go off and do art therapy, so someone told me, "You know they're going to hire someone, you're qualified." And I just fell into it. I have a pretty broad range of skills, and that's typical for preparators.

PONTILLO I started my career as an elementary art teacher, where I learned the fine skill of explaining things very simply, which comes in handy in my career in interpreting insurance language to art world people. I have a master's degree in art history, and then I tried to get that all-elusive museum job and just hit a bunch of dead ends and ended up working for a fine-art claims adjuster. Then I became a broker and obtained my property and casualty broker's license. Really throughout, I realized a lot of underwriters would say something like, "Please confirm that this has been crated in a museum-quality crate." And then as I got to learn more from my packer-shipper clients, I knew that that really meant nothing, that it's not a technical term, "museum-quality crate." And so I actually started holding educational events for underwriters in the New York City area around 2008, '09, '10, all the way up until the pandemic.

CASTILLO I'm a historian by training, but I think that early on, I realized I was not interested in content creation, but in the operations and the strategy of the operations. So I started organizing exhibitions very early, in what could be called now an incubator of young artists, and I loved it. And from then on, I've worked in different museums. I learned on the job, basically. However, I think that my background helped me because you understand the mentality of people and how everything works. My team always has to be very attuned to a curator or a donor. We can't create rigid rules that apply to everyone the same. You've got to be able to be flexible. The subtleties and the nuances of the relationships are what the human perspective brings.

BELTRAN Hearing Mary talk about training other underwriters brings up an interesting point. What role do professional groups play in your respective fields?

MCGREW It's very much connected with Art in Transit in ways that people don't realize predate that publication and that

Photo: Courtesy of Cayetana Castillo.

The registrars and the packers and handlers ... are the ones who confront reality and make risk assessments.

CAYETANA CASTILLO

conference, including just me personally. I'd been in a very small museum, a six-person museum that was fully accredited, and I had to build all our crates, and I had to learn from somewhere. Most of us did not have real resources to learn from. And so, after the Art in Transit conference was held in 1991, the following year I was able to actually attend one of the resulting regional workshops in Dallas. It's worth mentioning that some of the people in PACCIN, the Preparation, Art Handling, Collections Care Information Network, including the current chair, Mark Wamaling, used to work in the DC office of Artex. Artex worked regularly for the National Gallery, and so Mark knew and worked with Mervin Richard long before the conference was put together. And in the actual presentation the authors acknowledged that their interaction with Artex changed the design of the crates the National Gallery uses. So, there has always been a give-and-take.

CASTILLO I think that likewise, with ARCS, the Association of Registrars and Collection Specialists, for example, and the similar bodies in Europe and other countries, this is really fundamental and has helped create not only a sense of community and people you can reach out to but also to standardize all of the things that we all know how to do. And for when we have a question, it's the place you can go and look for answers.

PONTILLO In the insurance world, a lot of us also attend the ARCS and the ERC, European Registrars Conference programming, because there is no real educational forum for what we do. And then there is something called the IMUA, the Inland Marine Underwriters Association. Inland Marine is all the insurance where things move, other than ships. Inland movement and art fall under that. And they have an arts and letters committee, and I'm a part of that. Again, there's no formal real education for what we do. So we're always trying to make sure we tap into other people as well.

BELTRAN Because Art in Transit involves so many different disciplines, can you speak in more detail about the different intersections with curatorial, registration, conservation, object preparation, and even other groups that haven't been mentioned?

CASTILLO That is the perpetual tension, but I think that everyone, each of those teams, shares the common care of the art, but each has their own role. I would argue that a curator wants the object to be exhibited as much as possible. A conservator will want to keep the object safe and in storage for as long as possible. It's better for the life of the object. And the registrars and the packers and handlers, we just need to make it happen. So, we are in the middle. We are the ones who confront reality and make risk assessments. And I think that these parts need to trust each other. That's important. Depending on the organizations, these responsibilities are assigned differently. Sometimes the line can get blurry too. But in general, I think that everyone wants to do their best. And I think that when the time comes, everyone delivers. And I think that one of the things that we try to do here is to not reinvent the wheel every time.

MCGREW I think it's very important for us to know what the major issues are with our related professional team and other people we come across. And I was lucky, even though I was in the middle of Oklahoma. AAM, the American Alliance of Museums, used to have cassette recordings of all the concurrent sessions of their conferences. And at my museum, I got to hear the issues that were being discussed by each of those groups. And you just learn to think a little bit more like the registrars. And the more interaction we have between professional organizations, the better.

Photo: Courtesy of T. Ashley McGrew.

> A saying for people like me is, "A good crate is the best insurance," because the only way your real insurance pays off is if there's damage.
>
> T. ASHLEY MCGREW

PONTILLO And I would say that we mostly just work with registrars. The only times we end up working with conservators are usually during a claim. So, we're counting on the registrars. And underwriters also really rely on the quality of care that registrars are putting forth. They are counting on the professionalism of the registrar to ensure that things are packed and shipped correctly.

BELTRAN It seems like the common thread is trust. We have so many different people, they're all serving a common goal, and we have to rely on each other to get things done.

MCGREW It's worth noting that the organization PACCIN came from AAM and the registrars committee originally as a task force. It was created to be supportive of this important aspect of the work. And one unique thing is that it has always involved both museum people and commercial people in the organization—the only organization within AAM where that was true. And so, yes, there's a built-in tie between registrars and preparators, obviously.

BELTRAN With the impact of climate change, many institutions, including the Getty, are trying to integrate sustainability into our work. Can you each talk about how sustainability manifests itself in your own areas of practice?

PONTILLO We end up becoming affected more by climate change through losses rather than by trying to offset it through transit. The biggest thing is, again, trusting that the choices that a registrar and reputable packers and shippers are making are the correct choices to protect the art. And if that ends up being reusable crates, that's great. And we go back to wanting to know that the partners we're working with are doing the right thing for the art.

CASTILLO At the Art Institute of Chicago, we have been very committed. There still is not a super-centralized operation from which all the effort is equally distributed among all departments. But since shipping is indeed, after energy saving, one of the most impactful on the atmosphere, there are three actions that we've taken. One is the virtual courier. The second is the introduction of modular crates. And then the third thing is we recently hired a manager of art shipping, who's going to rethink the strategy of the shipping that we do. She's someone with a strong background in supply chain operations and who comes from Amazon. I didn't know how that would transfer to the nuances that we have in our world. But the transition has been wonderful. She grasped the job very quickly and has been looking into drafting a sustainable shipping policy by assessing our shipping activities—incoming, outgoing, local, domestic, and international—as a whole, and is identifying opportunities for combined and more efficient shipping.

MCGREW It's a big issue in everything, obviously. We did a workshop associated with the annual meeting of AIC, the American Institute for Conservation, in 2014 titled Packing Systems: Recycling and Re-Purposing. It addressed just this kind of thing, sustainability, and it included both new developments in the field and existing systems that were around prior to my starting work in the field. One of them was a specific crate that featured a system of interchangeable inner boxes that were standardized to where they could be used by a museum or a company or whatever, and then they would go back to the warehouse where they were easily reusable. They had the same footprint, but different depths of boxes. So, anyway, things like that should be coming back into play.

PARDO Insuring art and objects is an essential part of preparing for art in transit. Can each of you describe the factors that influence the insurance process and decision-making about transit?

PONTILLO When we first sit down and talk to a client, we assess what their maximum transit requirements will probably be for the term. So, there's a formula of people getting 25% of their premises limit for a transit limit. But for larger institutions, we can sometimes say, "Hey, let's look at your exhibition schedule for the year. You might be an institution that has single items that are incredibly high valued, so we want to be able to let you at least transport one object that might be incredibly valuable." And so those transit limits on the policy are a big function of how much we know or don't know about individual transits. One of the things that I have seen is when we do need the information about the transits, it used to just be, you could say, "We're using Masterpiece or Dietl," and that would be fine. But now, especially since the pandemic, where there was a real lack of labor in Europe and here on the ground, underwriters have dug in a little bit deeper, and they really want to know, who are Dietl and Masterpiece subcontracting out to? They want the name of the actual shipper on the ground. Occasionally someone will say, "This is a huge shipment, do you want to have a courier?" A lot of underwriters leave that up to the registrar to decide if they want to use one.

CASTILLO So, the way we normally organize our policies is we look ahead to the exhibition schedule and any loans that we're going to get, and in essence, we make projections. Based on those, I go to the insurance broker and say, "We are going to need this amount for the year." Then the actual values start coming in, and when the loan agreement is returned, suddenly an object that you had estimated to one is maybe ten. And then we go back to the broker and say, "Look, actually this is the confirmed value," and then we can get a rider to cover the excess. We are a little more heads-up when it's a private collector or a commercial gallery, because if something doesn't go as planned, at the end of the day, the goal of a commercial gallery is to sell the object. With not-for-profit organizations, we can be a little more relaxed because we are among peers who all have the same goal. So, there's a little bit of that discretion that comes with knowing the job and being able to apply your experience. But in general, once we have the blanket policy in place, then we inform the broker when we have something that goes over and above, or as Mary was saying, a transit that exceeds the limit.

MCGREW In my case, I have little direct involvement. When I was doing commercial work, a minor way I was involved was just value-related decisions that I made, because one of the trends back then was to do crating where you put multiple objects together; it's actually way greener and it's way more efficient. And then you put together truckloads centrally. So, you're puzzling these things, and obviously you would have limits in terms of the maximum amount of value you can have in any conveyance. So, that would have to affect part of your design, but that's not a big deal.

The other thing that's noteworthy in terms of packing and crating is that galleries typically don't put as much money into their packing. It cuts down on how much money they make. They're willing to roll the dice. We have a different set of built-in values in a museum. And so, a saying for people like me is, "A good crate is the best insurance," because the only way your real insurance pays off is if there's damage.

BELTRAN Obviously we hope no damage happens, but inevitably it will occur. In these instances, how does the work shift? And more importantly, what kind of lessons can we learn and apply going forward?

CASTILLO It is a rare occurrence, but it happens. And in fact, we all should expect it, right? I usually say that when you're a doctor, some patients die. When you're dealing with art, some of your art breaks. That's what it is. I think that the most important thing is to have a protocol in place where everyone knows what needs to happen next and who knows what. And that's internal communications. And then it's not always necessary every time you have an incident to make an insurance claim. If our own team of conservators or handlers or preps can fix it, and obviously if it is part of our collection, and we all agree, that's fine.

If it's a lender, it could be the same procedure, right? The lender could feel very comfortable with our team of experts fixing it, in which case that's something that is absorbed within our regular day-to-day operations, and we don't make a claim. Making a claim is also one of those instances that we would like to do strategically, because it could end up damaging our portfolio when we go out and negotiate the next policy. For us, the lessons learned are the most important part. What do we do to avoid that? And those could be broken down into what type of issue we had, if it was a communication issue, if it was the truck breakdown, if it was a handling problem, if it was all of it, and then try to put a remedy for that not to happen again.

PONTILLO A big thing that we discuss with our clients right at the beginning of the claim is, "How would you like this claim to go?" So, if it's somebody's owned objects, obviously they can make a decision about that on their own. If it's somebody else's object, then that's a different story. You have to get the owner involved. If it's a collector who really loves the object, then they might be totally happy with conservation. They might not even seek a loss in value. If it's a collector who's a lot more investment minded about their collection, then they are probably going to want the absolute most they can get out of the claims process. And for a commercial gallery, it would likely be similar where they're going to look at the transaction as more of a commercial situation.

So, all those things need to be contemplated, and some people have incentives for not putting in X amount of claims over the years. When insurance underwriters look at losses, they look at frequency and severity. So, if you have one freak claim, it's just the way it is, right? But if you have one enormous claim where your account is no longer profitable because the insurance company

could never charge enough premium ever again, or you're having the same kind of claims over and over, that's where people's premiums and their ability to be covered get affected. Because everybody's like, "Oh, I'm going to have one claim and I'm going to get canceled, or my premium is going to go up." It's not like auto insurance. It's a lot different than that. A lot more nuanced.

And the other thing to think about is VARA, the Visual Artists Rights Act, which has a huge impact on claims involving artwork by living artists. So a living artist can determine that they could just fix an artwork or reprint it or conserve it themselves, and it's not a problem. But they also might be like, "Eh, that's not mine anymore." Living artists can make it really easy or really difficult.

MCGREW In terms of the actual damaging of artwork, so much of it has to do with training and oversight in the field. And that's something that is a little tough. Frankly there's not a bachelor's degree in being a prep. It's very much an individual thing and mostly has to do with who you work with. But when things get lax and there's not clear communication, that's a challenge in terms of handling and crating in that the vast majority of things are damaged by handling, not sitting in the vehicle traveling down the road.

It's the transfer points. Basically, every study that deals with shock and vibration is going to tell you that when you start monitoring, that's where it's going to be: when the art gets transferred to the plane from the truck and all this other stuff. But I think even statistically, a greater risk is actually when the art's being handled and put into or taken out of a crate. And crate design affects that a whole lot. You can break an object by trying to put it in the wrong way, and you can put a brace in the wrong place.

BELTRAN I assume another difference is the scale of claims for private galleries versus museums, which might show a big disparity.

PONTILLO There is a difference. Just anecdotally, museums may have larger claims, but even then, we see far fewer claims in museums. And if it's a museum-to-museum loan or if it's a museum's owned object, they're generally just looking to make sure they can continue to keep that artwork in their collection, if possible. Most museums, unless the piece is destroyed to smithereens, they're going to want to keep the piece in the collection and get it conserved. And obviously, because commercial galleries have so much more activity, and quick activity, we do tend to see more transit damage with them than with museums.

PARDO I would think with the frequency of art fairs, there are more transportation needs.

PONTILLO Yes, but even just transactions, like you sell an artwork and it needs to get somewhere in two days; then you have an artist who just finished ten paintings and those all have to be moved into the gallery or the gallery storage. There's a lot of moving around when you think about all those different elements. So, especially if it's a primary-market gallery, they're getting that inventory in from artists. They're moving it around within their own building, storage facilities, and so forth. Maybe sending it to a client's home on approval or another gallery on consignment, bringing it back. There's a lot more to-ing and fro-ing.

BELTRAN What have you seen as the biggest change in the practice of Art in Transit over the course of your careers?

MCGREW I think there's a big change that's happening right now. I mean, there's been a decline in quality of crating in general, but there's a whole other issue, which is that there's only one really large company left that was designed from the get-go to move art. And that's U.S.Art. Most of the other art service companies across the country have been purchased by larger corporate entities. Every company I've worked for has been bought out. And so that's concerning to me and the people I deal with. It's like, do you really know who you're dealing with? You're used to having people who really care about what they're doing. Most of them are artists. They're motivated. They care deeply about the art and hopefully are well trained. And I don't know that now.

CASTILLO I was actually having a similar conversation with a Spanish shipping provider I've known forever. And he was saying the same thing in terms of what the shipping companies are bringing in Europe. They're not specialized, or initially the headquarters are not specialized, and they just have this art division. And he was saying that they're replacing everyone with Amazon types. And that was meant as a criticism. However, I want to bring a little light to all of this. As you said, Ashley, you don't have an MBA in preparation, but you're able to do your work well. I think that there is hope in making sure that talented people like you and others in registration bring that level of ingenuity and creativity and want to push things forward.

For me, I think that one of the biggest changes in our field is the introduction of technology. And people are very afraid of technology because it means that suddenly maybe they're not going to have a job or we're going to have the Amazon type who only cares about the bottom line. And so it's about change management. How do we figure that balance between knowing the craft, caring for the art, understanding where we come from and what are the things that make us unique, but at the same time maintaining our relevance by getting ahead of all these changes that, like it or not, are going to end up affecting us? We might as well get ahead of them, so we can prepare. To me, that's been the biggest change, how to convey the message that introducing technology is not here to get rid of jobs; it makes the tedious part of our job easier so we can hone the skills of the areas that require that human touch that we bring with this experience.

PONTILLO I think establishing really good interpersonal relationships with the people you're dealing with is so important, and getting back to the idea of trust that Vincent talked about. And that only comes from human interaction and really knowing

Photo: Courtesy of Mary Pontillo.

The biggest thing is … trusting that the choices that a registrar and reputable packers and shippers are making are the correct choices to protect the art.

MARY PONTILLO

and even enjoying these people. In a more boring answer to this question, the things that I've seen change the most are values of artwork and transit rates. When I started in the industry in 2002, transit rates were double or triple what they are today. And fine art insurance has been such a competitive and profitable part of insurance that the rates have continued to go down. For the most part, insurance rates have decreased while the values have increased dramatically since I started in the industry.

We end up with a lot of people coming into the fine-art insurance realm, but it's actually diluting the talent pool a little bit because, as we talked about, there's nowhere to go to get trained to do this. You have to train someone from the ground up. So, we get people in mid-career who would love to make a switch, like a registrar or someone like that, but it's, "Well, you'd have to start as our assistant," which is a real bummer because I'd love to have someone's talent like that, but you have to still know all the little fiddly questions to ask in the insurance world. So, I do think that maintaining a high level of talent, and especially in our part of the industry, is a big challenge for us right now.

PARDO Where do you envision the field going in the next ten years?

MCGREW Well, believe it or not, I'm actually encouraged, because I do think there is a real desire for different areas and organizations to work together. AIC and PACCIN is one example; we've been actively sought out. I work in the Materials Working Group at AIC and specifically in the project that focuses on conservation and exhibits. But there are other important aspects of object care that have to do with policies and the people who write and maintain those policies. And so that's where hopefully I anticipate us being more involved with ARCS in the future.

PONTILLO There's going to need to be a real push to get more people interested in this field earlier in their careers. At our firm, Risk Strategies, we have a rigorous internship program. It gets people while they're in college and then straight out of college and really trains them from the ground up to be interested in insurance as a career. I've learned that technology can be used in a creative way to further all of our end goals, and specifically, the insurance industry incorporating that technology to have an analytical approach to underwriting could be beneficial. And I think that those sorts of data-driven approaches will be greater, but also that the human element is still really important to be able to establish those relationships.

CASTILLO I concur with both Ashley and Mary. I think that some of these groups that are working together—Art in Transit 2.0 is one, a multidisciplinary group revisiting the classic handbook through a more sustainable lens—are going to play an important role. I think that the new generation is used to a different way of working. I would like for some of the myths that we've inherited over the years to be debunked, mostly because the data and analytics tell us otherwise, and now not doing anything is suddenly a liability. So, I think that all those things are going to be important, and hopefully we still can do as many exhibitions as we still do but with better sense. I think that the sustainability aspect hasn't really caught up with everyone. I think that there's still further to go, but hopefully those new generations that come and work for museums will demand that we do things differently.

RESOURCES | **ART IN TRANSIT**

Kevin Marshall, former head of preparations at the Getty Museum, using crossbars to secure a crate in a box truck. Photo: Gina Eichmüller.

BOOKS, JOURNALS & CONFERENCES

"Agent of Deterioration: Physical Forces" by Paul Marcon, Canadian Conservation Institute (2018). https://www.canada.ca/en/conservation-institute/services/agents-deterioration/physical-forces.html

Art in Transit: Handbook for Packing and Transporting Paintings, edited by Mervin Richard, Marion F. Mecklenburg, and Ross M. Merrill (1991). Washington, DC: National Gallery of Art. https://repository.si.edu/handle/10088/8127

Art in Transit: Studies in the Transport of Paintings, edited by Marion F. Mecklenburg (1991). Washington, DC: National Gallery of Art. https://repository.si.edu/handle/10088/8128

"Baseline Limits for Allowable Vibration for Objects" by William Wei, Leila Sauvage, and Jenny Wölk, in *ICOM Committee for Conservation 17th Triennial Meeting, Melbourne, Australia 19–23 September 2014* (2014). Paris: ICOM. https://www.icom-cc-publications-online.org/1325/Baseline-limits-for-allowable-vibrations-for-objects

"The Carbon Footprint of Museum Loans: A Pilot Study at Amgueddfa Cymru—National Museum Wales" by Simon Lambert and Jane Henderson, in *Museum Management and Curatorship* 26, no. 3 (2011), 209–35. https://doi.org/10.1080/09647775.2011.568169

Conservation of Cultural Property—Packing Principles for Transport by British Standards Institution, BS EN 15946 (2011). https://knowledge.bsigroup.com/products/conservation-of-cultural-property-packing-principles-for-transport

"Features of Effective Packaging and Transport for Artwork—Technical Bulletin 34" by Paul Marcon, Canadian Conservation Institute (2021). https://www.canada.ca/en/conservation-institute/services/conservation-preservation-publications/technical-bulletins/effective-packaging-transport-artwork.html

Fundamentals of Packaging Dynamics by Richard K. Brandenburg and Julian June-Ling Lee (2001). Skaneateles, NY: L.A.B. Equipment, Inc.

"Life Cycle Assessment of Museum Loans and Exhibitions" by Sustainability Tools in Cultural Heritage (STiCH) (2022). https://stich.culturalheritage.org/life-cycle-assessment-of-museum-loans-and-exhibitions/

Procedures and Conservation Standards for Museum Collections in Transit and on Exhibition by Nathan Stolow (1981). Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000046862

"Risk Assessment During Art Loan and Transportation at the Byzantine and Christian Museum of Athens" by Maria Papadimitriou and Elpida Vamvakari, in *Studies in Conservation* 53, sup1 (2008), 69–75. https://doi.org/10.1179/sic.2008.53.Supplement-1.69

Risk Assessment for Object Conservation by Jonathan Ashley-Smith (1999). London: Routledge, chapter 14: "Travelling Shows."

"The Transport and Display of Icons from Saint Catherine's Monastery" by Tiarna Doherty, Bruce Metro, and Rita Gomez, in *Studies in Conservation* 53, sup1 (2008), 50–55. https://doi.org/10.1179/sic.2008.53.Supplement-1.50

Vibratory Impacts of Music and Transport on Museum Collections by Arne Johnson, Mohamed ElBatanouny, Catherine Higgitt, Bill Wei, Peter Henson, Tomasz Galikowski, Mark Ryan, and JP Brown (October 2022). Research Questionnaire Findings, ARCS, AIC, IIC, ICON, and ICOM-CC. https://online.flippingbook.com/view/1044278564/

ONLINE RESOURCES, ORGANIZATIONS & NETWORKS

American Institute for Conservation (AIC). AIC Wiki: Materials Working Group. https://www.conservation-wiki.com/wiki/Materials_Working_Group

American Institute for Conservation (AIC). AIC Wiki: Virtual Couriering. https://www.conservation-wiki.com/wiki/Virtual_Couriering

Association of Registrars and Collections Specialists (ARCS). Courier Resources. https://www.arcsinfo.org/community/resources/courier-resources

Association of Tribal Archives, Libraries, and Museums. Going Home Fund. https://www.atalm.org/programs/current-programs/going-home-returning-material-culture-to-native-communities/

International Convention of Exhibition and Fine Art Transporters (ICEFAT). Blog. https://icefat.org/blog/

Museum of New Zealand Te Papa Tongarewa. Repatriation. https://www.tepapa.govt.nz/learn/for-museums-and-galleries/how-guides/collection-management/collection-management-repatriatio-5

Preparation, Art Handling, Collections Care Information Network (PACCIN). https://www.paccin.org/content.php

Risk Strategies. Fine Art Insurance Blog. https://www.risk-strategies.com/blog/tag/fine-art

For more information on issues related to art in transit, search AATA Online at aata.getty.edu

GCI News

Project Updates

ARCHES PROJECT COMMUNITY GOVERNANCE AND A DEDICATED FUND

The Arches Project—an open-source data management project originated and sponsored primarily by the GCI since 2012—finalized a new Governance Framework in February 2025. It creates governance membership opportunities for Arches stakeholder institutions across the globe. Member representatives serve on committees providing recommendations to the GCI about Arches-related priorities that will range from software development to community infrastructure needs. Arches governance committees held initial meetings in April.

The J. Paul Getty Trust also recently created the Arches Dedicated Fund; the income it generates will support Arches and its open-source community. Establishment of community governance and long-term funding is intended to provide for the sustainability of Arches and continued support for effective cultural heritage data management internationally.

To learn more about the new Arches Governance Framework, visit www.archesproject.org/archesgovernance/.

Initial Arches Project governance member institutions.

A panel discussion from the Mechanical Insights symposium, led by GCI scientist Michal Lukomski (at far left), November 14, 2024. Photo: Cassia Davis. © J. Paul Getty Trust.

Recent Events

MECHANICAL INSIGHTS SYMPOSIUM

From November 12 to 15, 2024, the GCI's Managing Collection Environments (MCE) Initiative held the Mechanical Insights: Shaping the Future of Museum Collection Preservation symposium at the Getty Center. Led by GCI scientist Michal Lukomski and former GCI scientist Alexandra Bridarolli, this four-day event brought together an international group of experts in the mechanical characterization of historic and artists' materials to discuss current and future trends in the study and preservation of museum collections.

The first day's theme was Mechanical Testing, followed by Modeling/Predictive Tools on day 2 and Monitoring/Validation/Synergy on day 3. Talks and presentations covered laboratory testing of historical and mock-up samples, risk analysis of objects under external loads and unstable climates, and validation of predictive models. The event also featured panel discussions, flash poster presentations, and tours of our recently renovated labs. On the last day of the program, participants could take part in tours of the Getty Museum's conservation labs, LACMA's Conservation Center, the Academy Museum of Motion Pictures conservation studio, the labs at the Aerospace Corporation, and the labs at the California NanoSystems Institute at UCLA.

MICROFADING TESTER DISCUSSION GROUP LAUNCH

In January 2025 the Microfading Tester International Discussion Group (MFT-IDG) was officially launched with the American Institute for Conservation (AIC) and its Preventive Care Network (PCN). This discussion group represents the continuation of GCI efforts to support microfading tester (MFT) practice, which included the convening of MFT experts in 2018, the organization of MFT training workshops in 2019, and the 2021 publication of MFT guidelines.

The MFT was introduced in the mid-1990s by conservation scientist Paul Whitmore as a method for directly assessing the light sensitivity of an object. The technique exposes each color on an object's surface to a very intense and minute spot of light, while measuring color change with a spectrometer. It also safeguards the object from damage by stopping each test before color change is visible. The MFT has become an important preventive conservation tool, supporting the development of data-based lighting policies that balance preservation and access.

Led by Chair Vincent Laudato Beltran (GCI), Vice Chair JP Brown (Field Museum),

Closing group photo of Old Cities, New Challenges workshop participants and instructors, Kuala Lumpur, Malaysia, February 2025. Photo: Courtesy of Think City.

and Secretary Rio Lopez (Academy Museum of Motion Pictures), the MFT-IDG aims to connect the global community of MFT users and advance MFT practice. The audience includes prospective, emerging, and expert MFT users, as well as allied colleagues interested in how MFT data can impact collections care. The MFT-IDG has an online community with a discussion board and resource library, including a needs assessment survey and directory of both institutions with MFT and MFT users. Guided by Information Repository Officer Kirsten Dunne (National Galleries of Scotland) and Programming Officer Cindy Connelly Ryan (Library of Congress), the group is committed to developing online resources, such as the AIC Wiki, and in-person and virtual opportunities for professional exchange.

MODERN ARCHITECTURE CONSERVATION IN INDIA COURSE

The GCI's Conserving Modern Architecture Initiative (CMAI) in partnership with the Indian National Trust for Art and Cultural Heritage (INTACH) delivered the introductory hybrid training course, Modern Architecture Conservation in India, January 8–February 21, 2025. Twenty-three mid-career professionals working in the fields of architecture, engineering, architectural conservation, and site management participated in the program.

In India and other former British colonies, modernism carried special meaning as the architecture of a new postindependence country. The course proposed different approaches to interpreting the built legacy of the post-independence period and introduced participants to a broad range of issues related to its conservation, with an emphasis on case studies to offer practical and technical skills.

The course consisted of four weeks of online instruction from January 8 to February 5, and a week of in-person teaching from February 17 to 21 at CEPT University in Ahmedabad, India. The immersive learning experience included lectures and insights from local and international experts in the field of twentieth-century architecture and heritage, a class exercise on a case study building, site visits to significant modern heritage sites in Ahmedabad, and hands-on demonstrations.

To mark the beginning of the in-person component of the course, on February 16 CEPT University hosted a public event, Modern Architecture as Heritage, featuring talks by Susan Macdonald (head of GCI's Buildings and Sites), Kartikeya Sarabhai (Director, Centre for Environment Education), and Professor Miki Desai (formerly of the faculty, CEPT University), as well as a panel discussion moderated by Kiran Joshi (ICOMOS India).

INTERNATIONAL COURSE ON THE CONSERVATION OF EARTHEN ARCHITECTURE

On January 25, 2025, twenty mid-career professionals from the Middle Eastern, North African, and South Asian regions embarked on the monthlong International Course on the Conservation of Earthen Architecture (EAC) in Al Ain, the United Arab Emirates.

Co-organized by the GCI's Earthen Architecture Initiative and the Department of Culture and Tourism—Abu Dhabi, the course covered a variety of topics including conservation theory and principles, mechanisms of decay, conservation interventions, materials testing, site management, and heritage planning. Building on the success of its previous editions in 2018 and 2022, the third edition of the course included a new module related to climate change and disaster risk management.

In the last week of the course, participants traveled to Nizwa, Oman, to examine the challenges and opportunities related to urban conservation in historic earthen settlements using the Historic Urban Landscape (HUL) approach. With the support of Oman's Ministry of Heritage and Tourism, the program focused on Nizwa's historic center, where participants engaged with its urban fabric and intangible heritage. Through hands-on analysis, they developed proposals for a sustainable future for the site.

OLD CITIES, NEW CHALLENGES 2025 WORKSHOP

In February 2025 the GCI delivered an in-person workshop in Malaysia for architects, urban planners, and other heritage practitioners working in Southeast Asia who had previously completed the online urban conservation course, Old Cities, New Challenges (OCNC), in 2021 or 2024. The online courses, offered in partnership with Think City Institute (TCI) of Malaysia and with an international teaching team, examined methodologies, practical tools, and techniques for conserving urban areas. The courses taught participants how to manage challenges such as population growth, urbanization trends, intensifying tourism, and economic and infrastructure development, through the Historic Urban Landscape (HUL) approach, a holistic and interdisciplinary framework for urban conservation.

Jointly hosted by GCI and TCI, the four-day workshop, Old Cities, New Challenges Unplugged, reinforced the learnings of the online course by applying the HUL approach to a shared study site in the Jalan Sultan area of Kuala Lumpur's Chinatown. Working in three teams, participants mapped tangible and intangible heritage in the study site area; assessed significance; identified constraints, opportunities, and vulnerabilities while considering heritage economics; and developed preliminary conservation policies and recommendations to protect the area's heritage values, manage change, and provide opportunities for sustainable development.

Additionally, the workshop provided participants with the opportunity for in-person networking with other urban conservation professionals in the region.

PAPERBASE WORKSHOP

The GCI and Lens Media Lab (LML) at Yale University's Institute for the Preservation of Cultural Heritage (Yale IPCH) conducted a Paperbase workshop at the Getty Center, February 18–19, 2025.

Paperbase is an interactive web application that allows users to explore the key physical and visual attributes of gelatin silver photographic papers. It can be used to analyze material characteristics of photographic papers and can add a new level of context to traditional museum metadata. The tool is the first of its kind to offer a wide-spanning, digitized reference collection that can then be used to compare data from other print collections.

Five instructors from the GCI and LML guided a group of nineteen curators, conservators, and researchers in the workshop, which demonstrated Paperbase's unique features and capabilities, covering the scope of the LML reference collection of more than seven thousand photographic papers and their origins.

ARCHAEOLOGY AND CLIMATE CHANGE MEETING

Climate change poses a catastrophic threat to the world's archaeological heritage, exacerbating typical causes of damage and loss, such as unnecessary excavations, insufficient conservation, uncontained development, exposure to weather, and uncontrolled tourism. While efforts to forecast the impact of climate change on heritage sites have begun, the full scope of climate change–induced hazards to archaeological heritage remains largely uncharted.

To respond to these challenges, Getty partnered with Italy's Consiglio Nazionale delle Ricerche (CNR) to hold the experts meeting, Archaeological Heritage in a Changing Climate: Confronting Threats, Sustaining Futures, in Rome, March 18–21, 2025. On the first day of the meeting, Getty President and CEO Dr. Katherine E. Fleming gave the opening remarks, and Irina Bokova, former UNESCO Director General, delivered the keynote address. Over the next four days, heritage specialists and climate-change scientists from Europe, the Americas, China, the Middle East, and Africa joined specialists from Getty and CNR to present case studies on such topics as Climate Science, Risk Assessments, and Monitoring Change. These presentations were followed by breakout sessions, in which participants outlined next steps for collective action, including strategic collaborations and how best to address the needs of the field. Participants also made site visits to the Colosseum, Roman Forum, and Ostia Antica, an ancient Roman port city.

In conjunction with the meeting, a panel discussion, A Heritage Under Threat—Climate Change and Archaeological Sites, was held the evening of March 19 at the American Academy in Rome. Moderated by Susan Macdonald, head of GCI's Buildings and Sites, the public event featured Tiziana D'Angelo, director of the Archaeological Park of Paestum and Velia; Mairi H. Davies, climate change policy manager at Historic Environment Scotland; and Patrick Gonzalez, climate change scientist and adjunct professor at the University of California, Berkeley. The lively conversation centered on the effects of climate change on archaeological sites and identifying potential responses to dealing with this crisis.

Getty CEO Dr. Katherine E. Fleming and former UNESCO Director General Irina Bokova at the archaeology and climate change experts meeting held at the Consiglio Nazionale delle Ricerche in Rome, March 2025. Dr. Fleming gave the opening remarks, and Irina Bokova delivered the keynote address. Photo: Daniele Molajoli. © J. Paul Getty Trust.

INTERNATIONAL COURSE ON THE CONSERVATION OF MODERN HERITAGE

Participants in the GCI's second International Course on the Conservation of Modern Heritage (MAC) logged onto the course learning system on March 20 to begin the hybrid program dedicated to the conservation of modern architecture and heritage. Twenty-five international mid-career professionals make up this cohort.

During the online component, participants met weekly with course organizers and instructors to explore key topics in modern heritage conservation, such as Broadening an Understanding of Modern Heritage, Values-Based Approaches in Practice, Upgrading and Adapting Modern Heritage, Resilience and Sustainability, Modern Materials Conservation, Modern Landscapes and Settings, and Advocacy for Modern Heritage.

The online portion will conclude on June 19; participants will travel to Los Angeles in late July and reconvene for two weeks of immersive, in-person learning. There they will deepen their understanding through lectures, site visits, discussions, and a group project focused on applying conservation principles to a modern Los Angeles site.

MANAGING COLLECTION ENVIRONMENTS SYMPOSIA IN THE PHILIPPINES

Two symposia under the GCI's Managing Collection Environments (MCE) Initiative umbrella were recently held in the Philippines, building on the GCI's work on collection preservation strategies for hot and humid climates. The first was held on April 8 at the National Museum of Anthropology in Manila, and the second took place on April 11 at the Kabilin Center in Cebu City.

Event organizers included the National Museum of the Philippines (NMP), the Lopez Museum and Library (LML), the Central Visayas Association of Museums, the Cebu City Government, the Ramon Aboitiz Foundation, and the Casa Gorordo Museum.

Led by GCI scientist Vincent Laudato Beltran and co-instructors Mariah Camille Calanno (Museum Researcher at the NMP) and Margarita Villanueva (Manager of Conservation at the LML), each symposium began with a public morning session that examined current thinking about the museum environment, particularly with respect to balancing preventive conservation needs with sustainability, and presented two environmental case studies in Philippine institutions. Afternoon study sessions were then convened for small groups of colleagues from regional institutions, where discussion topics included environmental monitoring, data collection and analysis, and the potential impact of this vital information on supporting sustainable museum practice.

These symposia extend the MCE Initiative's educational outreach in Asia, including prior and current projects in India, Singapore, and Beijing, and meetings for the International Council of Museums in Seoul, South Korea.

Participants in the Managing Collection Environments symposium engaged in an exercise to consider the risks to objects and how they might monitor the gallery environment at the National Museum of Anthropology, Manila, April 8, 2025. Photo: PPSD-National Museum of the Philippines.

PST ART: *ART & SCIENCE COLLIDE* EXHIBITIONS

Two GCI exhibitions organized in conjunction with the PST ART: *Art & Science Collide* initiative, *Alta* and *Wired for Wonder*, recently opened to the public.

Alta / a Human Atlas of a City of Angels

Alta / a Human Atlas of a City of Angels is a social-impact art project that showcases one hundred extraordinary individuals creating positive change across Los Angeles County. Each participant is represented through photographic portraits, ancestral DNA, and interviews that reveal how their lives intersect with the region—past, present, and future.

The project comprises a limited-edition two-volume book; a mobile app and website; a weekly podcast, "Intersections: Los Angeles"; and an exhibition.

On October 18, 2024, the GCI hosted a reception at the Getty Center for all the featured participants, along with key partners and collaborators, to celebrate the launch and release of the *Alta* publication. On January 12, 2025, in the midst of the devastating fires around Los Angeles and with the encouragement from the project participants and the Los Angeles Central Library, the exhibition opened, as planned, at the Central Library downtown, where it was on view until April 27.

Wired for Wonder: A Multisensory Maze

Organized by the GCI and Kidspace Children's Museum, *Wired for Wonder: A Multisensory Maze* features interactive experiments and immersive artworks by four Southern California artists—Alison Saar, d. Sabela grimes, Suchitra Mattai, and Miguel Osuna—whose work demonstrates how art can be a tool for interrogating and shifting sensory experience.

On February 8, 2025, Kidspace and the GCI invited key stakeholders to interact with the multisensory maze and to see, touch, smell, hear, and feel their way through the installation. *Wired for Wonder* will be up until September 1, 2025, and young and old alike are invited to visit and become both scientist and subject, exploring the building blocks of meaning-making and perception.

A visitor to Kidspace Children's Museum's *Wired for Wonder* immersive, multisensory maze interacts with the relief sculpture *reverie*, created by Alison Saar with Kyle Leeser. Photo: Jamie Pham, courtesy Kidspace Museum, Pasadena.

Upcoming Events

CLEANING OF GILDED WOOD WORKSHOP IN BRAZIL

Offered for the first time in Brazil, the Cleaning of Gilded Wood Workshop will introduce participants to a range of cleaning systems to remove dirt as well as overpaint on water-sensitive gilded surfaces. It will also provide participants a guide into the assessment of surfaces, from their nature to their condition, allowing them to decide what cleaning options can be considered and implemented.

The five-day workshop will be held August 25–29 at the Centro de Conservação e Restauração de Bens Culturais Movéis (CECOR) at the Universidade Federal de Minas Gerais in Belo Horizonte and at the Igreja Matriz de Nossa Senhora da Conceição in Catas Altas, Minas Gerais.

The first two and a half days will be spent in CECOR's laboratories, discussing, preparing, and testing a variety of cleaning systems, including polysaccharide gels and PVOH-borax gels.

Participants will travel to Catas Altas, where the remaining two days will be spent on-site in the Igreja Matriz de Nossa Senhora da Conceição. There, participants will be guided through the interpretation and assessment of the various surfaces found in the church. Cleaning tests will be performed on selected objects from the church. A final session will be dedicated to advocacy for the preservation of gilded decorative surfaces through tailored treatment strategies and by engaging with the various stakeholders involved in the decision-making process, such as priests, community members, and organizations evaluating treatment proposals.

SYNCHROTRON RADIATION AND NEUTRONS IN ART AND ARCHAEOLOGY INTERNATIONAL CONFERENCE

The 2025 edition of the Synchrotron Radiation and Neutrons in Art and Archaeology International Conference (SR2A, for short) will be held October 6–10 at the Getty Center. Hosted by Stanford Synchrotron Radiation Lightsource (SSRL) and the GCI, the SR2A conference will provide a platform for archaeologists, conservation and materials scientists, conservators, researchers, curators, cultural heritage managers, art historians, and potential users of synchrotrons to explore recent advances and applications of synchrotron radiation in the field of cultural heritage studies.

A presession Emerging Professionals seminar on October 6 will lead off the event, followed by the three-day conference, which will offer keynotes and lectures on technical advances in instrumentation and analysis as well as recent applications to cultural heritage materials. A post-session all-day data analysis workshop will take place on October 10. Tours of the GCI Science labs and the Getty Museum conservation studios, in addition to site visits to local institutions, will also be offered. Registration and additional information can be found at the conference website: sr2a2025.org.

Staff Updates

MARTHA DEMAS RETIRES

After a long and distinguished career—with the majority spent at the Getty Conservation Institute—Martha Demas, a senior project specialist in the Buildings and Sites department and a respected practitioner in the preservation of archaeological sites, retired in February 2025.

Originally from Massachusetts, Martha studied for two years in Athens, Greece, before obtaining her BA in History from the University of New Hampshire. She went on to acquire three graduate degrees: an MA in Classics from Duquesne University, a PhD in archaeology from the University of Cincinnati, and an MA in Historic Preservation Planning from Cornell University. For her doctoral work, Martha specialized in Aegean archaeology of the Late Bronze Age and conducted most of her field work in Cyprus.

After pursuing her degree in Historic Preservation to address issues of archaeological site preservation, Martha joined the GCI in 1990 as a Fellow in the Training Program, where she was involved with developing the Institute's first courses focused on conservation of archaeological sites (The Conservation of Archaeological Sites: New Approaches and Techniques) held at Paphos, Cyprus. In 1992 she began fieldwork with GCI Special Projects, where she participated in conservation projects at Chaco Canyon (New Mexico); the Xunantunich Archaeologic Site (Belize); and the Hominid Trackway at Laetoli (Tanzania).

In 1996 as a project specialist in the Field Projects department (now Buildings and Sites), Martha became involved with the GCI's projects in China, collaborating with the State Administration of Cultural Heritage and China ICOMOS in the development and application of national guidelines for the conservation and management of cultural heritage sites—formally known as the Principles for the Conservation of Heritage Sites in China. In 2010 she received the Friendship Award of the State Council of the People's Republic of China in acknowledgment of her work in heritage conservation there.

Martha contributed to regional training courses to build capacity for the stewardship of in situ mosaics in the southern and eastern Mediterranean region. In Egypt she was instrumental in developing a comprehensive plan for conservation and management of the Valley of the Queens, part of the World Heritage Site of Ancient Thebes.

She has contributed richly to research and numerous publications and conferences on conservation and management of archaeological sites, and was coeditor of *Strategies for Sustainable Tourism at the Mogao Grottoes of Dunhuang, China* (2015) and *Guidelines for Conservation and Management of Grotto Sites in Gansu Province* (2024).

In her three decades at the GCI, Martha championed a holistic approach to managing archeological sites, in addition to advancing specific preventative conservation solutions such as reburial and sheltering. Many staff, interns, and colleagues from all over the world have benefited from her keen intellect, extensive knowledge, and thoughtful dedication to the field. It is fitting that one of the last projects Martha worked on was the creation of a conservation and management plan for the site of Nea Paphos, in Cyprus, the very island where her career began. We wish her all the best in her retirement.

Photo: Courtesy of Martha Demas.

Print & Online Publications

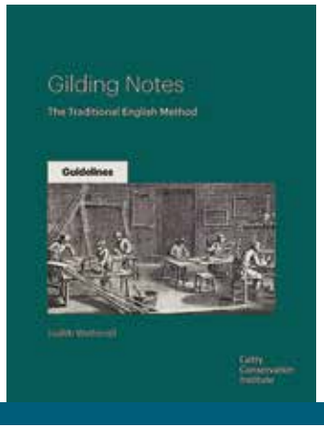
Print publications are available for purchase at shop.getty.edu. Online publications are available free at getty.edu/search/publications.

ONLINE

Conserving Concrete Heritage: An Annotated Bibliography **(second edition)**
Edited by Ana Paula Arato Gonçalves, Stefania Landi, Alice Custance-Baker, Gina Crevello, Susan Macdonald, and Kyle Normandin

Concrete was one of the twentieth century's most widely used building materials. Its innovative use is a hallmark of modern engineering and architectural design, and a growing number of concrete structures are now being recognized for their heritage significance. Like most modern building materials, concrete poses specific conservation challenges, and there is much work to be done to secure good conservation outcomes.

Conserving Concrete Heritage: An Annotated Bibliography (second edition) is intended to assist those interested in the conservation of concrete by identifying and describing specific resources on the subject. It will also promote understanding of the current state of knowledge, which may assist with identification of gaps in the existing literature. Focused on English-language literature, the bibliography covers mass, reinforced, cast-in-place, post-tensioned prestressed, and precast concrete. The references are organized into five chapters, which reflect the usual steps in the conservation process, including history; characteristics, deterioration, and damage; evaluation; conservation approach; and repair and treatments. To facilitate navigation of the listed references, a selected number of key resources are highlighted at the beginning of each chapter.



The first edition of this bibliography, published in 2015, was an outgrowth of *Conserving Twentieth-Century Built Heritage: A Bibliography* (second edition). This edition revises and significantly expands the first edition's reference list, which the editors reanalyzed for relevance, scope, and obsolescence, resulting in a few references being removed or placed in different chapters. New additions focus on filling any gaps in the first edition and in adding references published between 2015 and 2023.

ONLINE

Gilding Notes: The Traditional English Method

Judith Wetherall

With *Gilding Notes: The Traditional English Method*, master gilder Judith Wetherall shares her extensive knowledge of gilded wooden objects with the field at large. These are her practical notes, originally devised for her students and continually revised over her forty years of experience as a conservator, instructor, and gilder. As she explains in the introduction, "gilding is a vast and exciting subject, the intricacies of which cannot be encompassed in a written document such as this." Nevertheless, these notes form an invaluable resource for students learning gilding techniques, practicing gilders, and conservators needing to better understand how the surfaces they treat were created and how they may have aged.

Wetherall writes that, with this book, her "intention is to make the craft of gilding accessible, exciting, and richly rewarding." Readers will enjoy her enthusiasm as they navigate various aspects of the manufacture and conservation of wooden gilded objects. She guides the reader through the various steps of gilding wood, describes materials and tools, and outlines different techniques, including valuable tips and tricks for use in the gilder's workshop or the conservation lab. Treatment aspects like toning and distressing are also discussed, including alternatives to traditional methods and materials. Though focused on English techniques, *Gilding Notes* brings a broad perspective to gilding, and she informs, inspires, and equips the reader to better understand, appreciate, and practice the precious art and science of gilding.

CONSERVATION PERSPECTIVES
THE GCI NEWSLETTER

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The J. Paul Getty Trust
Katherine E. Fleming, *President and Chief Executive Officer*

The Getty Conservation Institute
Timothy P. Whalen, *John E. and Louise Bryson Director*
Kathleen Gaines, *Associate Director, Administration*
Stavroula Golfomitsou, *Head of Collections*
Tom Learner, *Head of Science*
Susan Macdonald, *Head of Buildings and Sites*

Conservation Perspectives, The GCI Newsletter
Patrick Pardo, *Editor*
Picnic Design, *Design*
Paul Tidwell, *Copy Editor*
Katelyn Ramirez, *Production Assistant*
Lithographix, *Printer*

Vincent Laudato Beltran, Cecilia Winter, Tom Learner, *Guest Coeditors, Spring 2025*

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.

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We would like to acknowledge that the land Getty inhabits today was once known as Tovaangar, the home of the Gabrieleño/Tongva people. We show our respects to the Gabrieleño/Tongva people, as well as all First People, past, present, and future, and honor their labor as original caretakers of this land. Getty commits to building relationships with the Gabrieleño/Tongva community. We invite you to acknowledge the history of this land and join us in caring for it.

Getty Conservation Institute
1200 Getty Center Drive, Suite 700
Los Angeles, CA 90049-1684
Tel 310-440-7325 | Fax 310-440-7702
gciweb@getty.edu
getty.edu/conservation

CONSERVATION PERSPECTIVES

THE GCI NEWSLETTER

A "ULD" pallet of crates ready to be lifted to the rear cargo door of a Boeing 777-300ER. "ULD" stands for Unit Load Device; ULD pallets are reinforced aluminum sheets engineered to hold multiple items and allow weight-balanced loading of the aircraft for both flight safety and fuel efficiency. Securing multiple art crates together into a solid mass on the ULD significantly reduces shock and vibration damage during tarmac handling, takeoffs, flights, and landings. Photo: Courtesy of the Georgia O'Keeffe Museum.

Conservation
Research
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