AIC "Towards Art in Transit 2.0" Symposium: Description, Schedule, Abstracts
Pre-Conference Symposium: May 21, 845am-5pm (Room 255 BC, Salt Palace)
Conference Session: May 23, 2-330pm (Room 355 EF, Salt Palace)

Symposium Description
Art in Transit (ed. Mecklenburg, 1991, Studies in the Transport of Paintings and Handbook for Packing and Transporting Paintings) is a classic conservation publication, but it was focused solely on paintings, and it has aged. The results of the recent international survey, Vibratory Impacts of Music and Transport (2022), indicate a noticeable variation in knowledge of vibration and shock issues and the practices for mitigating them across institutions. With increasing international focus on combating climate change, institutions also need to understand the carbon footprint of traveling collections, and how to address sustainability.

We intend this session to be a starting point for updating practice at this important intersection of museum specialisms, and to expand the discussion to collection items beyond paintings. We invite papers on loan agreements, risk assessment for travel, estimating and reducing the environmental footprint of travel, designing and predicting the performance of crates, assessments of existing packing methods, descriptions of failure modes, new approaches to monitoring and couriering, and on-site recovery from shipping damage.

This symposium will be live-streamed, so both in-person and virtual attendees may register. In addition, the presentations and panels will be recorded; these will be made available after the AIC meeting.

Organizing Committee
- Vincent Laudato Beltran, Scientist, Getty Conservation Institute, vbeltran@getty.edu
- JP Brown, Regenstein Senior Conservator of Pacific Anthropology, Field Museum, jpbrown@fieldmuseum.org
- Cayetana Castillo, Associate Vice President of Collections and Loans, The Art Institute of Chicago, ccastillo@artic.edu
- Dale Kronkright, Head of Conservation, Georgia O'Keeffe Museum, dkronkright@okeeffemuseum.org
- Kevin Marshall, Advisory Committee Member, PACCIN, kmarshallxgetty@gmail.com
- Mark Ryan, Associate Director for Collections and Exhibitions, Mildred Lane Kemper Art Museum, mark.a.ryan@wustl.edu
- Kaitlyn Sturgis-Jensen, Associate Registrar for Exhibitions, The San Diego Museum of Art, ksturgisjensen@sdmart.org

May 21 Pre-Conference Symposium Schedule (Room 255 BC, Salt Palace)
- 8:45-9am
  - Opening Remarks by JP Brown
- 9-9:40am
  - *Title*: Vibration Risks to Art in Transit: What is vibration? How does transit-induced vibration impact the deterioration of moveable heritage materials? How can vibration be measured and characterized? How can the risks of vibration-induced deterioration be addressed? / Transport Container Design to Address Damage from Vibration, Collision and Falls

    - *Authors*: Dale Kronkright, Robert White, Vikrant Palan
    - *Contact*: dkronkright@okeeffemuseum.org
- 9:40-10:10am
    - *Title*: On the Road Again: Crate Design by the J. Paul Getty Museum and Summary Findings of Their Environmental Performance
    - *Authors*: Vincent Laudato Beltran, Andrew Gavenda, Rita Gomez, Christina O'Connell, Gina Eichmueller
    - *Contact*: vbeltran@getty.edu
- 10:10-10:40am
    - *Title*: UK Museums & Heritage Sustainable Packing Group: Exploring sustainable strategies for 'soft wrapping' paintings
    - *Authors*: Kim Kraczon, Rebecca Hellen, Alice Tate-Harte, Rebecca Ellison, Alex Gent
    - *Contact*: kkraczon@gmail.com
- 10:40-11:10am
    - Coffee & Demo
    - Demo (all breaks)
        - *Title*: A demonstration of laser Doppler vibrometry, tethered laboratory accelerometers and stand-alone vibration, shock and environmental data loggers to measure and understand vibration impulses and vibration responses in heritage objects and materials
        - *Authors*: Dale Kronkright, Vikrant Palan, Robert White
        - *Abstract*: This presentation will be a hands-on demonstration of the uses of vibration measuring instrumentation and their interpretation to characterize the vibration impulses of transport and exhibit environments and to better understand the resonant frequencies and vibration response behaviors of heritage objects and materials. The equipment provided by the authors will include non-contact laser Doppler vibrometers, impulse modal hammers, tethered, contact accelerometers, multi-channel data acquisition systems, stand-alone vibration, shock and environmental data loggers. The demonstration will also include data interpretation from time-domain acquired data into frequency-domain data and power spectral distribution curves.
        - *Contact*: dkronkright@okeeffemuseum.org
- 11:10-11:40am
    - *Title*: Performance Testing of Typical and Alternate Packing Materials
    - *Authors*: Julia Latané, Laura Maccarelli, Mike Held, Zach Trow
    - Contacts
        - jlatane@lacma.org
        - lmaccarelli@lacma.org
- 11:40am-12:30pm
    - Panel on "Crate Performance and Sustainability"
    - Dale Kronkright (moderator), Kim Kraczon, Julia Latane, Ashley McGrew, Merv Richard
    - Contacts
        - dkronkright@okeeffemuseum.org
        - kkraczon@gmail.com
        - jlatane@lacma.org
        - t.ashleymcgrew@gmail.com
        - mricharddc@gmail.com

- 12:30-1:30pm
  - Lunch & Demo
- 1:30-2pm
  - *Title*: Assessing risk in transit: Applying standardization and data analytics
  - *Author*: Cayetana Castillo
  - *Contact*: ccastillo@artic.edu
- 2-2:30pm
  - *Title*: Framework for Sustainable Courier Practices: Developing a Bookend Courier Workshop and Network
  - *Authors*: Samantha Springer, Lauren Fly
  - Contacts
    - lauren@flyartsinitiative.com
    - samantha@artsolutionslab.com
- 2:30-3pm
  - *Title*: Interrogating the Preservation Performance and Sustainability of Sealed Frame Packages for Transit: Assessing the Thermal Insulation and Moisture Buffering Capabilities of Different SFP Designs and Materials Through Exposure to Simulated Environments
  - *Authors*: Marvin Cummings, Jae Gutierrez, Meredith Noyes, Emma Richardson
  - *Contact*: ejrpph@rit.edu (Emma)
- 3-3:40pm
  - Coffee & Demo
- 3:40-4:10pm
  - *Title*: Level Up! More Economic, Social, and Environmentally Sustainable Transports
  - *Authors*: Lisa Swedberg, Cecilia Isaksson, Elisabeth Geijer
  - *Contact*: lisa.swedberg@sfmv.se
- 4:10-4:55pm
  - Panel on "Transit Logistics"
  - Cayetana Castillo (moderator), Lauren Fly, Mary Pontillo, Scott Pustai, Cecilia Winter
  - Contacts
    - ccastillo@artic.edu
    - lauren@flyartsinitiative.com
    - mpontillo@risk-strategies.com
    - scott@total-transportation.com
    - ccwinter@getty.edu
- 4:55-5pm
  - Closing Remarks by Vincent Laudato Beltran

May 23 Conference Session Schedule (Room 355 EF, Salt Palace)

- 2-230pm
  - *Title*: Vibratory Impacts of Music and Transport on Museum Collections / Summary of "Towards Art in Transit 2.0" pre-session symposium
  - *Authors*: JP Brown, Arne Johnson, Mark Ryan, Bill Wei

    - Contacts:
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        - ajohnson@wje.com
        - info@vibmech.nl (Bill)
- 230-3pm
    - Panel on "Crate Performance and Sustainability"
    - Dale Kronkright (moderator), Julia Latane, Merv Richard, Bill Wei
    - Contacts
        - dkronkright@okeeffemuseum.org
        - jlatane@lacma.org
        - mricharddc@gmail.com
        - info@vibmech.nl (Bill)
- 3-330pm
    - Panel on "Transit Logistics"
    - Cayetana Castillo (moderator), Lauren Fly, Scott Pustai, Lisa Swedberg
    - Contacts:
        - ccastillo@artic.edu
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        - scott@total-transportation.com
        - lisa.swedberg@sfmv.se

Abstracts
May 21, 9-9:40am
Title: Vibration Risks to Art in Transit: What is vibration? How does transit-induced vibration impact the deterioration of moveable heritage materials? How can vibration be measured and characterized? How can the risks of vibration-induced deterioration be addressed? / Transport Container Design to Address Damage from Vibration, Collision and Falls
Authors: Dale Kronkright, Robert White, Vikrant Palan

Heritage materials and structures commonly vibrate in complex but definable ways in response to movement and mechanical impulses commonly encountered in road and air transport environments. The presentation will define and illustrate vibration mechanics and key concepts for understanding vibration's contribution to damage and deterioration including:

* Types of excitations and how they contribute to fatigue failures in heritage materials.
* Tension, compression, torsion, and shear forces during vibration.
* Importance of identifying excitation frequencies and their relationship to natural frequencies of moveable heritage objects.
* Measuring vibration: frequency, amplitude, acceleration, velocity, and displacement.
* Vibrational response data as time-domain, frequency domain and power spectral density (PSD)
* Transmission, attenuation, damping.
* Maximum vibration target levels as a function of frequency.
Transport containers for all moveable heritage materials share fundamental design requirements. Obviously, they must protect the object from damaging environmental conditions, facilitate proper and safe lifting and movement, deter theft and vandalism, and be easily secured within transport vehicles.

But damage in transit can also be caused by vibrations, collisions and falls. When a contained object is moved in handling or during road and air transit, each bump, vibration and change in velocity or direction applies a force that changes the momentum of the container. The container will then transfer the force to the heritage object inside the transport case which will likewise experience a change in momentum. Without proper bracing and securing systems, the container and the payload can move in different directions and at different rates, resulting in unwanted movement and shifts of the heritage object within the case. The bracing and suspension systems inside containers have several mechanical functions:

* They must securely hold the object and transmit the force created by accelerations to carefully defined areas of restraint on the heritage object that can exert an equal and opposite force, without shifting or breaking or deflecting.
* Since the force applied is a function of the acceleration over time, the second task of the bracing and suspension for heritage objects is to lower the force by extending the period that the force is applied, using cushions or suspension systems that can deflect and distort to slow the rate of acceleration.
* The bracing and suspension systems of transport containers must also prevent the transmission of road and air transport vibration frequencies which approach the resonant frequencies of the heritage object inside.

This presentation will define and demonstrate each of these mechanical requirements and how well they are addressed in existing and developing transport containers and suspension systems.

May 21, 9:40-10:10am
Title: On the Road Again: Crate Design by the J. Paul Getty Museum and Summary Findings of Their Environmental Performance
Authors: Vincent Laudato Beltran, Andrew Gavenda, Rita Gomez, Christina O'Connell, Gina Eichmueller

The Getty Conservation Institute's (GCI) Managing Collection Environments (MCE) Initiative and the J. Paul Getty Museum's (JPGM) Preparations Department have collaborated to monitor the environment to which objects and their packing crates are exposed during transit. This partnership was motivated by an interest in characterizing the transit environment, which is an extension of an object's display and storage environments and represents a period when objects may be subject to variations in temperature, relative humidity, shock, and vibration. The JPGM Preparations Department, long renown for the quality of their packing crates, was also keen to verify the performance of their crates during shipment.

An example of this collaboration was the development of a packing crate and implementation of environmental monitoring for the 2022 loan of Thomas Gainsborough's A Portrait of a Young Gentleman (also known as The Blue Boy) from the Huntington Library, Art Museum, and Botanical Gardens in San Marino, California, USA to the National Gallery in London, UK. The significance of this painting's return to its country of origin prompted the Huntington to call upon the expertise of the JPGM Preparations Department and the GCI's MCE Initiative to support the safe transit of The Blue Boy.

The packing crate for The Blue Boy employed a double crate design/system. Shock and vibration were mitigated by the positioning of viscous elastic material (VEM) rings produced by Sorbothane on all six sides between the inner and outer crates; the choice of shape and durometer (hardness or resistance to deformation) of the VEM, and the number of rings to employ was informed by the use of an online

Design Guide Calculator by Sorbothane. Within the inner crate, the painting was cushioned with two densities of polyethylene extrusions and cushion curve analysis was used to maximize performance. A "hybrid skid system" used VEM sheets in the wooden skids at the base of the crate.

The transit environment for The Blue Boy was monitored with a HOBO MX1101 datalogger to assess temperature and relative humidity near the object and Lansmont Saver 3X90 and 9X30 dataloggers (containing internal triaxial accelerometers) and external triaxial accelerometers (Dytran 3443C units connected to a Saver 9X30) to measure shock and vibration. Accelerometers were attached to the truck floor and at different heights on the outer crate, inner crate, and non-historic areas on the painting frame to gauge how external shock and vibration are transmitted to the interior.

This general monitoring protocol has been used to assess the environmental conditions of over 30 object transits largely housed in JPGM-designed packing crates. This presentation will close by summarizing the findings of this long-term transit study, including temperature and relative humidity profiles during shipment, temperature recovery following arrival at the receiving institution, the characterization of shock events during various segments of travel (i.e., museum handling, truck, airport, airplane), and an examination of vibration profiles at different locations and orientations in the crate and on the truck floor.

May 21, 10:10-10:40am
Title: UK Museums & Heritage Sustainable Packing Group: Exploring sustainable strategies for 'soft wrapping' paintings
Authors: Kim Kraczon, Rebecca Hellen, Alice Tate-Harte, Rebecca Ellison, Alex Gent

Purpose and Scope: This paper builds on the findings of Art in Transit conference 1991 by exploring the sustainability of soft wrapping artworks. In 2022 a network of conservators, conservation scientists, art handlers and registrars from major UK heritage organisations and museums, formed the UK Museums & Heritage Sustainable Packing Group to investigate sustainable methods and materials for packing artworks. Divided into sub-groups; 1) 'soft wrapping'- protecting framed and unframed paintings without hard cases; 2) insulated crates and transit frames for long-term use and long-haul transport. The network actively pool resources and expertise across institutions, working with external partners [e.g., Ki Culture, Gallery and Climate Coalition and Manchester Sustainability Hub]. Future outcomes for the UK Museums & Heritage Sustainable Packing Group are recommendations for materials safe to use with different types of collections.

This paper focuses on the work of the group dedicated to 'soft wrapping'. The research aims to find materials and methods that reduce environmental burdens while complying with conservation standards for 'soft wrapping' two-dimensional artworks for short journeys between display, storage locations and conservators' studios. Current materials and approaches are being analysed, and alternatives considered to identify cost-effective, socially sustainable solutions to reduce waste, lower carbon footprint, and enable reuse.

The project investigates the physical qualities of recycled content polyethylene, bioplastics and paper-based alternatives and assesses materials currently used - virgin polyethylene sheet and bubble-wrap - to form comparative datasets. Each material's environmental impact, potential for reuse, interaction with artworks and ability to maintain adequate buffering against environmental changes during transport have been researched. Alternatives to PVC tape, methods to reduce the quantity of tape and

promote reversibility and reuse, are additionally explored.

Methodology: Practice-based research evaluates the desirable physical characteristics of materials, assessed via questionnaires completed at workshops delivered both hybrid-virtual and in-person. Buffering capabilities of current and alternative wrapping systems and materials are determined using RH and temperature dataloggers. Environmental impacts were assessed by a specialist research institute.

Outcomes and Impacts: New standards and protocols for packing and transporting framed and unframed paintings will be established, supporting sustainable practice for loans, exhibitions and collection movements that can be internationally disseminated. General standards as well as multiple bespoke systems and solutions (low to high risk) will be created, building resilience into the process. Methods and protocols for maximising reuse of materials will be established.

Conclusions: Early indicators suggest moisture sensitivity, permeability and short shelf-life of bioplastics may limit their application as viable alternatives to polyethene and bubble-wrap. Polyethene film with 30-50% recycled content is a promising alternative, as it reduces the carbon footprint of the material. Reuse of recycled content and virgin materials is the most important factor in reducing their environmental impact and is prioritized in proposing materials and methods. Choosing tapes or tape alternatives with easy removal from substrates minimizes damage and increases the likelihood of material reuse. Further research on the suitability of proposed alternatives for more reactive collections and for long-term storage needs to be established.

May 21, 11:10-11:40am
Title: Performance Testing of Typical and Alternate Packing Materials
Authors: Julia Latané, Laura Maccarelli, Mike Held, Zach Trow

In 2022, LACMA's Art Preparation & Installation department received funds from the Schmidt Family Foundation for a pilot program to research and test sustainable alternatives to packing materials. After consulting with colleagues who have been doing research on similar topics, so as not to replicate research already done, it was decided to test the vibration and shock performance of LACMA's standard crating systems, that use MDO, EPS, and polyethylene foam, and to compare it to more sustainable materials. For this project ten packing systems using different cushioning materials were picked to be tested, e.g. ethafoam, plant-based foam, expanded paper packing, excelsior, wire rope springs, and a reusable RokBox crate. Three surrogate objects were placed inside the designed crates - a stretched canvas, a ceramic vase, and a cast concrete sculpture to mimic a real case scenario of art shipping conditions. Each crate underwent vibration and shock testing at a package testing lab and was evaluated with a Life Cycle Analysis. This presentation will take viewers through the crate design, fabrication, and testing process, and share key takeaways and the next steps of this research project. The aim of this paper is to also stress the importance of using cushioning curve calculators to determine the appropriate amount of foam cushioning to use as a way to reduce the amount of foam in packing and better protect objects.

May 21, 1:30-2pm
Title: Assessing risk in transit: applying standardization and data analytics
Author: Cayetana Castillo

In August 2020, the Art Institute of Chicago shipped a painting by Vasily Kandinsky "Landscape with Two Poplars" 1912, from the Museo Picasso in Málaga, Spain to Chicago without a physical courier. Everyone involved in the highly choreographed operation had a step-by-step itinerary with checklist, was communicating via a private Slack channel and could follow the location of the painting in real time via the geolocation feature of the crate's "smart" sensor, including the readings of the temperatures of Madrid high-summer on the airport tarmac.

We were in the middle of the covid-19 pandemic and the return shipment of the Kandinsky served as the first test for virtual supervision in the US and the soft launch of a novel protocol for art in transit applied to the Art Institute of Chicago's collection called "virtual courier".

The work to develop the procedures that gave light to this protocol revealed that anecdotal experience and individual recollection have played a major part in the risk assessment of art-in-transit. Despite being a widely used practice, there seemed to be a lack of real data to support the hypothesis of substantive, quantifiable risk mitigation due to the presence of a museum courier accompanying the objects.

Since then, the Art Institute of Chicago has standardized procedures to ship collection objects and has gathered almost four years worth of the data from collection shipments.

This session will provide an overview of recent case studies where the Art Institute of Chicago has applied a standard methodology and data analysis to make key observations regarding risk management in transit including:

* An understanding of steps in the shipping and receiving process that may present risks.
* A basic insight into sensor technology and its importance in modern logistics.
* Simple ways to integrate digital communication into traditional museum workflows.
* Importance of archiving information and impact of this methodology on fine arts insurance.
* Opportunities for museums of all sizes to continue lending and borrowing while reducing environmental and budgetary impacts.

May 21, 2-2:30pm
Title: Framework for Sustainable Courier Practices: Developing a Bookend Courier Workshop and Network
Authors: Samantha Springer, Lauren Fly

Couriers are a vital part of the cultural heritage ecosystem, ensuring the safe movement and installation of artworks across multiple locations. The Bookend Courier Model is an alternative couriering option that reduces the environmental impact of loans and mitigates the drawbacks of remote couriers. The use of bookend couriers, a form of contract or third-party couriers, has traditionally been limited due to the practice of using in-house staff to accompany loans and difficulty in finding trusted contract couriers. In this talk, the authors call for a greater use of bookend couriers and provide solutions to overcome the

most significant barriers to their use through the development of a Contract Courier Workshop and Collections Courier Network.

One of the most significant limitations for more widespread use of bookend couriers is the difficulty in finding a trusted person to serve in that role, as identified in Beth Edelstein's 2021 survey of courier travel on behalf of AIC. Another limiting factor is the increased use of remote or virtual couriering, which became the go-to alternative model resulting from increased comfort in using video calls to overcome travel, budget, and staffing restrictions during the COVID-19 pandemic. While many institutions have since reverted to traditional courier models, these trips remain a significant staffing concern for the lender, financial burden for the borrower, and contributor to the global climate crisis. Bookend couriering offers a more sustainable alternative to the traditional models beyond just environmental concerns, as they reduce the number of trips required to transport an object and offer a number of other benefits over remote couriers, such as increased security and reliability.
As one of the primary reasons for the relatively limited use of booked couriers is the difficulty lenders have in finding a suitably trained and reliable contractor, the authors propose the formation of a Collections Courier Network. At the same time, the authors have developed a workshop aimed at training conservators in private practice on performing courier duties and successfully preparing for contract work to address the scarcity of training opportunities for private practice conservators. The workshop is based on the framework developed by the UK Registrars Group, Nordic Registrars Group and Nederlandse Registrars Group intended to standardize courier training across the globe and has been successfully taught by the Association of Registrars and Collection Specialists (ARCS).

May 21, 2:30-3pm
Title: Interrogating the Preservation Performance and Sustainability of Sealed Frame Packages for Transit: Assessing the Thermal Insulation and Moisture Buffering Capabilities of Different SFP Designs and Materials Through Exposure to Simulated Environments
Authors: Marvin Cummings, Jae Gutierrez, Meredith Noyes, Emma Richardson

The Image Permanence Institute (IPI) at Rochester Institute of Technology (RIT), Rochester, NY is currently undertaking a three-year research project funded by the Institute of Museum and Library Services National Leadership Grant for Museums to understand the preservation performance and sustainability of materials used in the transit and display of paper-based objects.

Collecting institutions have a mandate to both preserve and enable access to collections. Public display of museum collections is the dominant form of access experienced by the general public either in an institution's own spaces or via loans to other institutions. As such, exhibition is an essential activity for many museums to achieve their missions and to ensure current and future generations learn from and appreciate our shared cultural heritage. Display often involves travel, and both exhibition and travel introduce challenges for preservation, as it is during these key time periods when objects are most at risk and susceptible to irreparable damage. While vast numbers of museum objects travel annually for exhibition or other purposes, objects that are sensitive to changes in relative humidity, such as manuscripts, documents, works of art on paper, and photographic prints – referred to collectively as paper-based objects – are of particular concern as environmental fluctuations experienced during transit or display can lead to irreversible damage, such as cockling, warping, or cracking.

Through a combination of environmental monitoring in the field and laboratory experiments, our research aims to address the question: What are the most cost-efficient and environmentally responsible

methods of preparing paper-based collection objects for transit and display while maintaining preservation standards?

To help address this question, IPI constructed 21 different sealed frame package designs based on the most commonly used materials in the field and their effectiveness at buffering against external changes in temperature and RH investigated in the laboratory. Following initial conditioning of the paper-based objects and enclosure materials, small dataloggers were placed inside each sealed frame package and exposed to a range of simulated environment test profiles. The thermal insulation and moisture buffering performance of the materials and designs were quantitatively assessed, alongside a qualitative assessment of the reusability of the materials and their relative cost. This was aimed at identfying packages that minimize waste and help collections care professionals assess preservation performance alongside material sustainability. During this presentation we will report on our findings from the laboratory analysis.

May 21, 3:40-4:10pm
Title: Level Up! More Economic, Social, and Environmentally Sustainable Transports
Authors: Lisa Swedberg, Cecilia Isaksson, Elisabeth Geijer

In 2021 a Working Group was initiated within the IIC-Nordic Group Sweden to work toward a more environmentally sustainable and professional preservation practice for art and cultural heritage items and collections throughout the country.

In line with Sweden's ambitious climate goals of reaching net zero greenhouse gas emissions by 2045, there is a nationwide drive to reduce emission across all sectors of the economy, especially in transportation. The Working Group initially investigated the possibility of moving cultural heritage items and collections via the Swedish railways but found that this was not a viable alternative to road transport, not least due to the displacement of heavier industrial consignments which are more environmentally costly to transport by road.[1]

Moreover, there is a challenge of matching supply and demand for art logistics in Sweden. Art logistics companies in Sweden typically offer different transport options based on three variables: value of the shipment, time sensitivity and the client's budget. Cultural heritage institutions and collections, on the other hand, are obliged to follow recognised standards, such as Spectrum 5, and conditions stipulated in insurance policies, at the same time as meeting their own environmental goals. The challenge of matching the needs of the shipper with available logistics services can lead to high costs, which can often result in an item, collection, or exhibition not being put on display. The question the Working Group is now asking its members is whether we can compose a framework for the transport of cultural heritage items and collections which is more economically, socially, and environmentally sustainable? A framework where different levels of transport can be offered/demanded without compromising the standard we desire for transporting often sensitive items? Or, is it time to challenge the prevailing standards to ensure they are fit for purpose and not obstructing public access to the nation's cultural heritage?

In December 2023 the Working Group will hold a workshop within the framework of the Swedish National Heritage Board and their Collections Forum, an annual conference on collection management. We investigate different levels of transportation versus the relevant standards that participants need to abide by. We would like to present our results in the Towards Art in Transit 2.0. Symposium.

[1] "Would you, could you, on a train", in News in Conservation, Issue 96, June-July 2023, pp 12-18

Speaker & Panelist Biographies (in order of participation)

- **Dale Kronkright** is Head of conservation at the Georgia O'Keefe Museum and has been measuring shock and climate data for the museum's traveling collections since 2011. He has co-authored three vibration attenuation and damping patents related to art in transit.
- **Bob White** has a doctorate and is a noise vibration harshness engineer. He was senior NVH test engineer for the John Deere Company for 31 years where he authored six patents, and currently owns White Noise LLC, an NVH and dynamics testing service in Waterloo, Iowa.
- **Vikrant Palan** has a doctorate specializing in vibro-acoustics. His official title is "Aanya's Dad," but he is also the business manager at Polytec - a company that makes laser vibrometers.
- **Vincent Laudato Beltran** is a Scientist at the Getty Conservation Institute (GCI) – active in the GCI's Preventive Conservation Research Group and Managing Collection Environments Initiative. In addition to evaluations of packing crate performance, his research and teaching efforts include the advancement of microfading tester practice, the development of tools for the analysis of collection environments, and environmental management in hot and humid climates.
- **Kim Kraczon** is a conservator of modern materials and contemporary art specializing in sustainable practices in the visual art sector. She is an advisor to Gallery Climate Coalition – an international group of arts organizations working to reduce the sector's environmental impacts, and also works at Ki Culture where she is a materials specialist at the helm of the Materials Ki Book, an online sustainability guide for practitioners in cultural heritage, and provides training and guidance in the Ki Futures program.
- **Julia Latané** is the Assistant Director of Art Preparation at the Los Angeles County Museum of Art (LACMA).
- **Laura Maccarelli** is the Andrew W Mellon Head Scientist within the scientific research group at LACMA.
- **Ashley McGrew** is the Preparator at the Cantor Arts Center at Stanford University and a consultant on the design of integrated packing systems. He also oversaw the collections move for the National Museum of the American Indian.
- **Merv Richard** retired as Chief of Conservation at the National Gallery of Art in Washington DC, having worked there since 1984. He is the first editor of the Handbook for Packing and Transporting Paintings from Art in Transit 1.0, and has served as co-chair of the ICOM-CC Working groups for Preventive Conservation and Works of Art In Transit.
- **Cayetana Castillo** is the Associate Vice President of Collections and Loans at the Art Institute of Chicago. In her role, Cayetana oversees the management of the collection and loaned objects, defining processes that ensure compliance with the museum's policies and legal obligations to borrowers, lenders, donors, and sellers. In four distinct areas—collections, loans and exhibitions, art preparation and logistics, and collections systems—Cayetana's team implements policies that govern the day-to-day application of museum best practices through strategic and innovative applications of data and new technologies.
- **Samantha Springer** owns and operates Art Solutions Lab in the Portland, Oregon area. She has presented and published articles on various conservation topics, developed the Materials Testing Results Tables on the AIC-Wiki, and currently serves as AIC Board Director of Committees and Networks.
- **Lauren Fly** is a paintings conservator and collections manager based in Brooklyn, NY. Her private practice, The Fly Arts Initiative, works with museums, private collectors, galleries, corporate

collections, and other stewards of cultural heritage to preserve and protect their objects. She is passionate about promoting and demystifying conservation for the wider public, and loves talking about little things that can make a big difference.

- **Marvin Cummings** is a Research Scientist at Image Permanence Institute (IPI), with research experience across the physical sciences, engineering and archaeometry. He joined IPI in 2022 and is responsible for developing advanced data science initiatives that will address a range of problems across cultural heritage in preservation science.
- **Lisa Swedberg** is a Conservator and Head of the Department for Paper Conservation at the Kiruna Centre for Conservation of Cultural Property, in Sweden. Since 2021 she has been the contact person for the IIC-Nordic Group Sweden´s Working Group on Transport, and she is currently the chair of the IIC-Nordic Group Sweden.
- **Cecilia Isaksson** is a Paper Conservator and Acting Head of Paper Conservation at the National Library of Sweden. She has over 15 years of experience within the field, with both preventive and active conservation. Since 2021 she also has been part of the IIC Nordic Group Sweden's Working Group on Transport.
- **Mary Pontillo** has over twenty years of insurance experience and, in her current position as Senior Vice President and National Fine Art Product Leader at Risk Strategies, handles and produces Fine Art accounts including Fine Art dealers, private collectors, museums, and artist foundations. In addition, she taught art in Norfolk, VA, for two years and served as a docent at the Smithsonian Institute's Hirshhorn Museum and Sculpture Garden in Washington, D.C.
- **Scott Pustai** is the founding President & CEO of TOTAL Transportation Solutions Inc., which operates Canada's largest climate controlled fine art truck fleet. He is also a graduate of the Ontario Museum Associations, Certificate in Museum Studies, a 9 course training program that covers various topics such as Care of Collections and Collections Management. Combining his decades of experience in specialized transportation with his knowledge of fine arts, Scott is happy to discuss topics such as building a better truck, safe handling practices, security in transit and courier on board from a driver's point of view.
- **Cecilia Winter** is a Project Specialist at the Getty Conservation Institute (GCI) and active in the GCI's Managing Collection Environments Initiative. She previously worked as a registrar and a conservator in Brazil and France since 2004, focusing on preventive conservation and collection care, documentation, exhibitions, and loans. Before joining the GCI in 2022, she was head of the collection and conservation department at the Museum of Art of São Paulo, and a preventive conservation instructor in the collection management MBA at Associação Brasileira de Gestão de Cultural and Candido Mendes University in Rio de Janeiro.