



Getty

Executive Summary

PST ART Climate Impact Program Report



Foreword



Installation view of *Color in Motion: Chromatic Explorations of Cinema* at the Academy Museum. © Academy Museum Foundation, Photo by: Joshua White/JWPictures

The PST ART Climate Impact Program is a classic example of a big journey starting with a single step. In the early stages of PST ART: *Art & Science Collide* I met with artist, curator, educator, and creative strategist Debra Scacco. As founding director of AIR and its four-year collaboration with the Los Angeles Cleantech Incubator, and co-curator of a PST ART project at California State University Dominguez Hills, she planted the seed that this iteration of PST ART—a regional collaboration of thematically-linked art exhibitions and public programs made possible with Getty support—should embrace climate action.

The Getty Foundation was primed to act when climate change and environmental justice emerged as key themes in many of the PST ART projects that received research funding starting in 2020. When Debra suggested we dedicate a portion of our first in-person convening for all the PST ART partners to sustainability, we gladly agreed. Laura Lupton, co-founder of Artists Commit, led a panel to share information about climate-focused, community-led work happening in the arts sector, and the response was electric. Partners organized a peer-to-peer working group, and it quickly became apparent that this burgeoning community had great potential to reform carbon intensive exhibition-making practices. But they needed a formal structure and dedicated support to take their interest from talk to action.

Getty formalized the PST ART Climate Impact Program (CIP) by bringing Lupton and Scacco on board as founding codirectors through LHL Consulting to develop and deliver the program for the PST ART partner institutions. Recognizing that organizations were already under tremendous pressure reopening in the wake of pandemic, we agreed that the program should be opt-in. All PST ART partners were invited to attend informational webinars and peer-to-peer working sessions, and access 1:1 meetings with

LHL to strategize on how they could incorporate climate-conscious decisions into their exhibition planning.

The response was overwhelming, with every PST ART organization attending at least one educational event and 69% completing a Climate Impact Report for their exhibition projects. This level of participation is a testament to key PST ART team members' commitment to climate action, support from their leadership, and the inspirational guidance offered by LHL Consulting.

According to the Yale Climate Opinion Maps 2024, 71% of Californians are worried about global warming. This number is almost certain to increase in the coming years as we continue to experience extreme weather and climate uncertainty, as highlighted by the cataclysmic Palisades and Eaton fires that struck during the final weeks of PST ART: *Art & Science Collide*. Just as that moment brought our communities closer, so too can the PST ART collaboration unify our sector in collective action. Climate work requires teamwork, and I'm confident that we can continue to develop solutions together within the large-scale collaboration that is PST ART.



Joan Weinstein
Director
Getty Foundation

Executive Summary



Generosity I, Beatriz Cortez, 2019. Steel, plastic, seeds (corn, beans, amaranth, quinoa, sorghum, gourd); 63 × 24 × 24 in. Pictured at the Bowtie, Rio de Los Angeles State Park, 2019. Photo: Tatiana Guerrero, courtesy of the artist and Commonwealth and Council, Los Angeles and Mexico City

Climate action in the arts is on the rise among museums, galleries, artists, and other non-profit professionals. Among the areas of focus is exhibition-making, which like many other types of human activity, produces emissions and waste. Reducing these environmental pollutants hinges on measurement: you can't manage what you don't measure.

Presently there is little standardized measurement of the climate impact of exhibition practices. So, Getty and its local arts partners wondered: what if we engage the collective efforts of the Southern California arts community to start measuring climate impact and embed climate action more deeply in our approach to exhibitions? The latest version of Getty's landmark art event PST ART provided just such an opportunity.

“We're all a part of dreaming a healthy climate future.”

—ARMORY CENTER FOR THE ARTS

Getty's PST ART unites cultural institutions across Southern California to present thematically linked exhibitions and public programs. For the most recent edition of *PST ART, Art & Science Collide* (October 2024–February 2025), which included 67 exhibitions across the region, we inaugurated the PST ART Climate Impact Program (CIP) to address the carbon impact of exhibition-making. Working with dozens of partners and the climate strategy firm LHL Consulting, the PST ART CIP was the first-of-its-kind collaboration to integrate climate strategy and cross-sector support into a multi-partner

art exhibition series. Together we developed shared goals that foregrounded learning and data-gathering in order to help organizations increase climate action on an ongoing basis.

Our Objectives

Build climate knowledge, confidence, and capacity for staff at PST ART participating organizations

Measure the climate impact of individual PST ART exhibitions

Create a community of climate action across a large, dispersed network of partners

Generate aggregated baseline data for PST ART to make recommendations for the future

Participation

Each edition of PST ART includes at least fifty partner organizations, and for this inaugural CIP, all partners were invited—not required—to participate. Getty and LHL Consulting encouraged organizations to do what they could, prioritizing inclusivity and flexibility to meet participants where they were since 80% of them were reporting on climate impact for the first time. Every partner venue participated in the program in some way, with forty individual Climate Impact Reports eventually created for PST ART exhibitions. Together these reports form the largest dataset of exhibition-making emissions to date.

Partner Participation Rates for the PST ART Climate Impact Program



Data Highlights

Art museums have the highest average energy consumption of all cultural institutions in the United States according to the 2023 [Culture Over Carbon](#) report, with building energy, business travel, and art shipping as the three largest areas of emissions. Data collected on PST ART exhibitions through Climate Impact Reports affirms the same areas of high emissions that could be targeted for future reduction.

Flights had the highest emissions of the required reporting categories, followed by air freight. Business class flights for couriers to transport loaned artworks were the highest type of flight emissions, despite only a few projects reporting these.

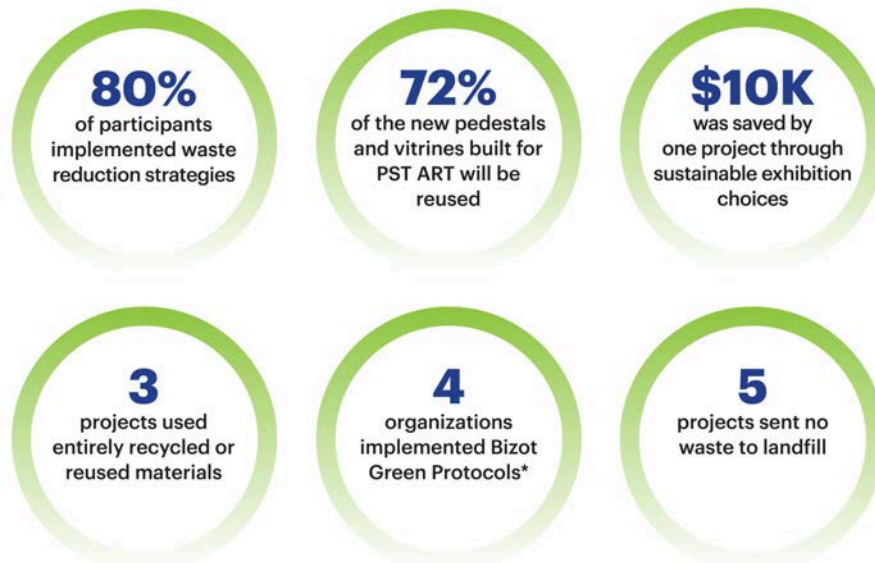
33 air freight shipments travelled across domestic routes that presumably could have travelled via road freight, which would have prevented 63.55 tCO₂e in emissions. For overseas freight, switching from air to sea transport would have saved 387.98 tCO₂e and reduced the total PST ART emissions by nearly 18%.

Building energy was beyond the scope of required reporting but was often a top emission area if reported.

The total carbon emissions with just over half of all PST ART projects reporting is **2167 tCO₂e** (metric tons of carbon dioxide equivalent, a standard unit for counting greenhouse gas emissions). For context, this amount of carbon dioxide would:



The CIP became a catalyst for institutional change as participants prepared their exhibitions, even though it was not an explicit goal to reduce PST ART's carbon footprint. Along the way partners made more climate-aware decisions, including:



* Guidelines for sustainable practices in museums issued by the Bizot Group, an international network of art museum directors from major institutions

“We chose to extend the length of our exhibition, which reduced the overall carbon footprint of museum operations through less travel, shipments, materials, and waste.”

—LACMA

Conditions for Success

There was no existing model for the PST ART CIP, but it is clear from participant reporting and feedback that several characteristics contributed greatly to its success.

Getty and LHL Consulting emphasized **process over perfection**, recognizing that people want to do this work but don't always have the tools or capacity.

The CIP incorporated **community-based leadership** which was essential in gaining trust.

Centralized funder support was an effective strategy to amplify climate action and build communities of practice.

Program Impact

Overall, the CIP achieved these outcomes:

- ✓ The PST ART community collectively improved the climate impact of their exhibitions.
- ✓ Their work initiated a lasting ripple of climate action across Southern California art spaces, ushering in greener operations ranging from extending exhibition duration and recycling exhibition components to choosing more sustainable materials.
- ✓ The reach of the Climate Impact Program expanded beyond partner institutions to engage their extended communities and networks.
- ✓ Getty and the PST ART cohort created the largest dataset to date of exhibition-based Climate Impact Reports for comparative analysis.

“The highlight of the experience was the collaboration and discussions.”

—SELF HELP GRAPHICS & ART

Looking Ahead

2030 is an important year for climate action advocacy. It is also when PST ART will return to Southern California. *PST ART: Art & Science Collide* generated critical climate impact data and benchmarks through the inaugural Climate Impact Program, while simultaneously highlighting community-created solutions for sustainable exhibition-making across institutions of varying type and size.

There are also clear areas of improvement that are within museums’ grasp. For example, using virtual courier technologies such as location trackers and video streaming software would reduce courier emissions—PST ART’s highest emissions area—to zero. Going forward the cultural sector is well-positioned to contribute to climate solutions within and beyond our own doors, and Getty will continue to support this work with its PST ART partners into the future.

Introduction



Participants of *Sembrando Humedad*, an educational gathering in Mexico City organized by Carolina Caycedo and Ruta del Castor in collaboration with the Vincent Price Art Museum. This program was presented as part of the exhibition *We Place Life at the Center*. Photograph by Andrés Jurado and Eduardo Velazco. Courtesy of Ruta del Castor, 2024

PST ART: Art & Science Collide (October 2024–February 2025) was the third edition of Getty's landmark art event, with more than 70 thematically-linked exhibitions and hundreds of programs throughout Southern California. Previously known as Pacific Standard Time, this regionwide collaboration of cultural institutions large and small is the largest art event in the United States and is made possible by grants from the Getty Foundation.¹

This was the first edition of PST ART to include a dedicated Climate Impact Program (CIP). Led by [LHL Consulting](#), in partnership with Getty Foundation staff and dedicated collaborators,² the CIP provided participating organizations with the education, resources, and tools to understand the impact of exhibition-making on the climate as well as a framework for completing climate impact reports related to PST ART exhibitions.

THE GOALS OF THE CIP WERE TO:

Build climate action fluency and capacity of PST ART project teams

LHL Consulting developed educational programs and resources to help participants (1) understand the major drivers of climate impact in exhibition-making; (2) learn about strategies to address these key areas; and (3) gain tools and knowledge needed to quantify and report climate impact.

Measure the climate impact of individual PST ART exhibitions

A mantra of LHL Consulting is you can't manage what you don't measure. To help partners with this work, LHL offered 1:1 consultations to all participating PST ART

partners, produced educational webinars and workshops on different climate impact reduction tactics, updated existing emissions tracking tools for partner use, and provided technical support to all partners to complete Climate Impact Reports.

Create a community of arts professionals committed to climate action

PST ART provided a unique opportunity for collaboration among dozens of Southern California's cultural institutions. In the end, we hoped the program would create a sense of collective effort to implement ongoing climate impact mitigation strategies across the visual arts.

Generate aggregated baseline data for the PST ART initiative

Baseline data would make it possible for Getty and its partners to establish climate impact targets for the next installment of PST ART opening in fall 2030 and onboard new partners that join each edition of the initiative.

The CIP unfolded over two years with LHL offering educational events, individual or small group support, resources, and reporting tools at all stages. The program's guiding principles were flexibility and process over perfection, since this was the first time undertaking climate tracking for 80% of the partners. Although participation in the CIP was self-directed and voluntary, all PST ART partner venues participated at some level, with the majority of organizations opting to complete climate impact reporting.

Partner Participation Rates for the PST ART Climate Impact Program



This report summarizes the structure of the Climate Impact Program, outcomes of the work, and data from participating PST ART partners about the climate impact of their exhibitions. It represents **the largest single dataset of climate impact from exhibition-making to date** and details the steps that participating organizations took to lower their carbon emissions and material waste for PST ART and that many are now adopting as part of their regular operations.

Notes

1. Prior editions of PST ART included Pacific Standard Time: LA/LA (September 2017–January 2018), which presented a paradigm-shifting examination of Latin American and Latinx art, and Pacific Standard Time: Art in L.A. 1945–1980 (October 2011–March 2012), which rewrote the history of the birth and impact of the Los Angeles art scene. More information is available at <http://www.pst.art>.
2. Complete lists of the Climate Impact Program advisors circle, participating organizations, and sector colleagues are included as appendices in this report.

Our Approach To Data



Two visitors viewing the exhibition *Blue Gold: The Art and Science of Indigo*. Exhibition by Mingei International Museum, San Diego. Installation of Kimono from the Museum's permanent collection. Photo by Ron Kerner

What does it mean to track emissions for museum activities and where do you begin?

Since the PST ART Climate Impact Program was opt-in, Getty invited participants to consider what they *could* do, rather than provide restrictive guidance or regulations on what they *should* do. This required some extra data cleanup to systematize results. However, Getty and LHL agreed this was worthwhile to encourage participation and provide statistically relevant data for the overall climate impact of PST ART.

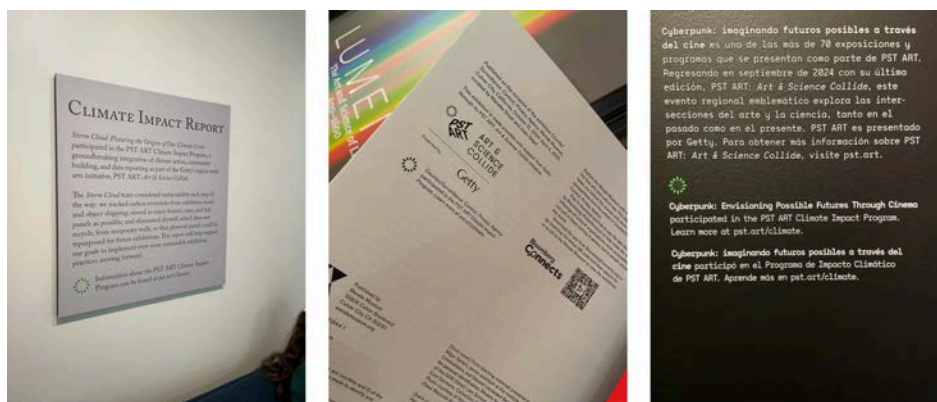
Deciding What to Measure and Tools to Use

One of the first steps was to identify data collection methods. We decided our primary source for quantitative data would be the Climate Impact Report (CIR), an assessment and report used internationally in the art world to measure key areas of climate impact related to a specific project or exhibition. CIRs provide consistent data across different institutions and projects, help institutions understand the climate impact of their decision-making, and build transparency among staff and with the public. For PST ART, we adapted a template initially developed by LHL Consulting for Artists Commit. Examples of CIRs can be found in the Artists Commit Climate Impact Report database at artistscommit.com/reports.

CIRs included a project questionnaire on basic reporting metrics; comprehensive line-item reporting on travel, shipping, material use, and more; and narrative reflections about key outcomes. The reports were as simple or extensive as each team's capacity allowed, often focusing on a specific area that the project team was most excited to explore. This flexible approach differentiated the PST ART CIP from a strictly data-driven climate action program. We understood that the smallest institutions were often the most stretched for capacity, while the largest often had complex processes to approve

participation in the program, especially if it had required public reporting. In the end, many that didn't expect to participate found the process more approachable than they initially anticipated.

LHL also deployed two other data-collecting efforts during the program: preliminary reports and praxis interviews. Preliminary reports gathered information on institutional policies and climate action history, providing information on each institution's existing state of engagement in this work. The praxis interviews collected qualitative data on what project teams were most excited about for the CIP, stakeholder ideas for action, and key challenges and priorities. One critical outcome from this "pre-program" data collection was partners' desire to elevate the visibility of their climate impact work. In response, we created a section of the PST ART website describing the CIP, issued a press release that generated media coverage,¹ and designed a green sundial based on the PST ART logo that partners could use in their exhibition materials (online, in-print, and in galleries) to raise awareness.



The PST ART Climate Impact Program participation sundial, as applied by various participating PST ART partner venues. Photos courtesy of LHL Consulting

Calculating and Standardizing Data

Although Getty grants for PST ART exhibitions occurred in two phases, the primary focus for data collection was on the implementation phase when organizations saw the highest volume of travel, shipping, and material waste for the build out, installation, and deinstallation of their exhibitions. LHL advised CIP participants to include all travel, shipping, or material waste that was part of their PST ART project, regardless of whether it was paid for by Getty grants to reflect the full climate impact of the project. Most teams completed the data tracking to the best of their ability for the required emission data categories: flights, airfreight, sea freight, and long-haul road freight. Information on publications and research travel was optional.

Once organizations had compiled all the emission data, they needed to run carbon footprint calculations. To reduce error and encourage data standardization, LHL

suggested that partners use the GCC Carbon Calculator developed by the Gallery Climate Coalition.² Some institutions reported emissions that were provided directly by a vendor or other online tool. LHL verified all emissions data submitted by partners and used the GCC Carbon Calculator to standardize data calculated by alternative tools.

Notes

1. Read press release here: <https://www.getty.edu/news/getty-inaugurates-pst-art-climate-impact-program/>
2. In fall 2024, the GCC Carbon Calculator was revamped. Some PST ART projects had already started working with the earlier version, so GCC made both versions of the Carbon Calculator available to PST ART projects for reporting. To provide more direct comparisons for analysis, LHL recalculated and verified all data using one version for each emissions category. LHL used the GCC Carbon Calculator 1.0 for long-haul freight, local freight, and publications; they used the GCC Carbon Calculator 2.0 for flights, airfreight, and sea freight.

Program Outcomes



Transformative Currents: Art and Action in the Pacific Ocean, curated by Cassandra Coblentz, installed at Oceanside Museum of Art. Image courtesy of Oceanside Museum of Art

The Climate Impact Program (CIP) was a catalyst for change in participating organizations. While quantitative information is detailed in the [Data Insights & Analysis portion of the report](#), this section highlights key impact areas with more qualitative summaries from partners' Climate Impact Reports (CIRs).

1 Participating partners reduced the climate impact of PST ART exhibitions

The CIP inspired partners to rethink strategies from the ground up. Participants reported greater awareness of the climate repercussions of all the decisions that go into planning and implementing exhibitions, which in turn deepened their sustainability commitments. At the Wende Museum, the team shared that “the CIP has actually improved the efficiency in how our exhibition builds operate. Consolidating shipments, reusing previous walls from older exhibitions, reusing vitrines in storage, and creating a new reusable object label design actually made our PST ART exhibition cost less than previous exhibitions.”

Across the program, **teams made intentional choices to pursue alternative methods of exhibition-making** to improve the climate impact of their work. LACMA (Los Angeles County Museum of Art) chose to extend exhibition length, “reducing the overall carbon footprint of the museum operations through less travel, shipments, materials, and waste.” At Getty, direct actions ranged from taking the train instead of flying during research travel and negotiating fewer people traveling from lending institutions, to reusing exhibition seating and presenting an in-gallery film through a QR code rather than buying a new video monitor to play the clip in the gallery. Other decisions made by teams included borrowing works from fewer geographic regions and lending institutions

to facilitate bundled shipping, negotiating virtual versus physical couriers for loans, and serving plant-based food at receptions.

Multiple partners reported that **participation in the CIP drove shipping decisions**, resulting in key works being shipped via sea freight instead of the more emissions-intensive method of airfreight. Teams also **invested time into finding innovative solutions to common pain points, including wall vinyl**. “Using conventional materials like PVC vinyl would have been quicker, but we deliberately made time to explore better options,” said the team at University of California, San Diego and the Birch Aquarium at Scripps. “In doing so, we scaled up our knowledge, tools, and team, adding new expertise and fostering flexibility.”

“We scrapped the use of all vinyl materials and switched to paper didactics; we saved over \$10,000. Although, experimenting with mounting methods was a new, time-consuming challenge, it will be worth it in the long run.”

—CRAFT CONTEMPORARY

SPOTLIGHT: Wall Vinyl Alternatives



Material Acts: Architecture and Design installation view, 2024-2025. Photo courtesy of Craft Contemporary, Los Angeles. Exhibition Installation Image: Marc Walker

PST ART Projects studied and implemented alternative solutions to wall vinyl. Craft Contemporary switched to paper didactics. They attempt to adhere them with an eco-friendly paste but were unsuccessful. Instead, they used double-sided tape along the perimeter of the paper pages to adhere them. After the show, the double-sided tape areas were discarded, and the remaining images and didactics were rolled up and saved for school visits to use as collage material. Compared to previous vinyl use, they saved approximately \$10,000.

Birch Aquarium at UCSD experimented with alternative methods of transitioning away from using PVC-based adhesive graphics. Instead they sourced sustainable, non-PVC wall coverings (DreamScape Printable Non-PVC Wall Covering), which were applied using cornstarch-based wallpaper paste. Other exhibition graphics were hand-painted directly onto surfaces or projected digitally, reducing the reliance on printed material. These alternatives helped the team build new skills, such as using new projector software and CNC machines.



Signage in *Embodied Pacific: Ocean Unseen* at Birch Aquarium was produced using a printable PVC-free wallcovering material designed for commercial grade applications to avoid plastics within the exhibition. Birch Aquarium, Jordann Tomasek

The Huntington used existing gatorboard for section-text panels and covered these with eco-cloth instead of vinyl. They printed labels in-house on colored paper. These strategies greatly reduced the overall amount of wall vinyl used in their exhibition.



Installation shot from *Storm Cloud: Picturing the Origins of Our Climate Crisis* at The Huntington, showing *Hot Springs of Gardiner's River, Yellowstone* by Thomas Moran in the collection of National Gallery of Art. Photo: The Huntington

Climate-conscious material choices became an essential part of the exhibition experience for multiple partners. For example, Craft Contemporary chose to display all the shipping crates and other materials accumulated during their exhibition in the museum entryway, making visitors directly aware of the packaging used in exhibition preparation. **Teams also put in active effort to responsibly distribute exhibition materials such as mount materials, plywood, and sand after their shows closed.** The Armory Center for the Arts donated to neighbors, community organizations, and other people in their network after deinstallation. “Our team learned that waste is an abundance of materials that can be easily shared, especially with the use of technology and community.”

“The ‘skeleton’ design of [our exhibition] plinths, made entirely from reclaimed materials, eliminated the need for plywood. We estimate that this choice saved approximately 160 square feet of virgin plywood, plus the additional

framing wood typically required. Though the initial expense was significantly higher, the long-term reusability of these plinths provides better value.”

—CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

PST ART projects became a mechanism for partners to contribute positively to real-world climate solutions beyond their institutions. The exhibition *Sinks: Places We Call Home* at Self Help Graphics & Art explored the environmental contamination of soil in two Los Angeles County neighborhoods located along a historic toxic corridor that is home to predominantly low-income communities of color. Artworks by Beatriz H. Jaramillo and Maru García and the related, collaborative partnerships that extended beyond the gallery walls presented alternative solutions for healing the soil and moving towards a more sustainable future. Artist Carolina Caycedo with the team at the Vincent Price Art Museum provided funding to several organizations as part of an ‘ecological balancing’ process. This choice reflects their belief in supporting the work of Indigenous communities and environmental justice organizations instead of “economic-driven carbon offset initiatives such as buying carbon credits in the market.”

SPOTLIGHT: Empty Dumpsters



Demolition shot from *Storm Cloud: Picturing the Origins of Our Climate Crisis* at The Huntington. Photo: The Huntington



After deinstallation of LACE's (Los Angeles Contemporary Exhibition) PST exhibition, *Beatriz da Costa: (un)disciplinary tactics*, hosted at LA Municipal Art Gallery, January 2025. Courtesy of LACE, photo by Sarah Russin

Choosing alternative materials and recycling exhibition components resulted in dramatic waste reduction at several institutions. At LACE, the team embraced the environmental activism of the artist featured in their exhibition, Beatriz da Costa, to limit the use of new materials and recycle as much as possible. The Huntington team replaced drywall with reusable plywood panels for exhibition walls. They also repurposed frames and exhibition cases. "Because we reused so much of the buildout material, this was all the waste we had," reported the Huntington referring to the empty dumpster photograph above left. "Typically a dumpster of this size would be filled to the brim after deinstall, so this is delightfully bare."

Altogether, these decisions added up, resulting in less waste, less carbon, more positive contributions to local communities, and inspiration among the PST ART teams. As the Los Angeles Public Library team remarked, "the organized effort, shared resources, and thorough training allowed us to think about our actions with greater intention, and to communicate these priorities with lenders, artists, and other project partners."

2 The program initiated a ripple of lasting climate action across Southern California art spaces

By virtue of PST ART's regionwide scale, **participating organizations were engaged in a cross-institutional conversation about climate impact**. LHL facilitated the sharing of anecdotal accomplishments among partners through drop-in consultation sessions, webinars, and a Show & Tell program that brought participating organizations together to talk about their exhibitions. Multiple teams reported that everyone involved with the exhibition—and everyone on staff in smaller organizations—was involved in the climate work in some way.

Participation in the program resulted in **ongoing dedicated conversations within teams that served to build trust and collaboration**. This ranged from holding weekly check-ins on climate action to coordinating decision-making across all museum departments to surface high-impact ways to minimize emissions. The resounding response was that **people appreciated this collective effort** since it “kept our team conscious of our decisions,” observed the UCLA Film & Television Archive.

Partners also reported that **the CIP helped institutional partners expand the impact of existing sustainability initiatives**. For example, participation in the program at ArtCenter College of Art and Design “galvanized efforts of the College’s sustainability director, who was able to engage her colleagues in the field to visit our exhibition for the purposes of discussing sustainability issues.”

Collective participation in the CIP coincided with **four PST ART partners adopting the new Bizot Green Protocols endorsed by the international museum community to lower in-gallery energy use**. The protocols recommend expanding the standard climate settings for exhibitions spaces from approximately 72°F ±2°F and 50% relative humidity ±5%, to a broader range of ±6°F and ±10% relative humidity, respectively. Getty, the Hammer Museum, MOCA (the Museum of Contemporary Art), and the Academy Museum implemented the revised protocols for the first time with their PST ART exhibitions.

“MOCA’s energy consumption at the Geffen fell by the equivalent of nearly 7 homes’ average energy consumption footprint in the United States since adopting the Bizot Green protocols, saving at least \$8,000 so far.”

—MUSEUM OF CONTEMPORARY ART

Major institutions adopting the Bizot Green Protocol had an influence across the sector on extended collaborators of PST ART. The Hammer Museum shared that their exhibition “introduced lenders, artists, and other museums to the international Bizot Green Guidelines. When the exhibition travels to Houston and Davis, both institutions will [also] adopt these standards for the first time.”

Teams reported that **practices established during the CIP are now becoming a regular part of exhibition planning**, including at The Huntington, Natural History Museum of Los Angeles County, San Diego Museum of Art, and the Wende Museum. Participants are also **exploring continued sustainability data tracking** going forward. LACE (Los Angeles Contemporary Exhibitions) shared that staff intend to use CIP data collection templates for each exhibition or major project going forward.

Several institutions that participated in the CIP launched permanent employee programs for climate action. For example, ICA LA (the Institute of Contemporary Art, Los Angeles) “formed an internal Green Team and participated in monthly meetings with a cohort of institutions from Southern California.” The Huntington team shared that the museum’s human resources department is launching an employee resource group for sustainability at their request.

The CIP network also built new collaboration among PST ART partner venues. Organizers identified and convened representatives from a dozen institutions with some form of existing sustainability initiatives. This informal network is currently known as the **Climate Collective of Los Angeles Area Museums** and includes representatives from the Academy Museum, the Armory, Birch Aquarium, Getty, Hammer, the Huntington, ICA LA, LACMA, MOCA, and more. The group met regularly during PST ART and plans to continue with an open invitation to other LA area institutions to join them.

3 The impact of the CIP expanded beyond partner institutions to their extended communities and networks

Participating organizations **increased the influence of their work by including vendors and fabricators in the CIP.** Fulcrum Arts invited their fabricator, Studio Sereno, to lead their sustainability work. Studio Sereno shared that the effort was “enriching, educational, inspirational, and door opening because it broke down all the components of construction, travel, installation, and materials repurposing in a way that was new to us.” The firm reported that they are continuing to apply the work to other professional projects. At the Fowler Museum, the PST ART lead project manager created “an email signature that staff could include in emails to signal to vendors and other partners that we are an institution that places importance on sustainability.”

SPOTLIGHT: Vendor Collaboration



ear(th) by artist Steve Roden. Documentation of Energy Fields installation. Image courtesy of Studio Sereno

Studio Sereno fabricated two major pieces included in Fulcrum Arts exhibition *Energy Fields: Vibrations of the Pacific*. Fulcrum invited Studio Sereno to participate in the Climate Impact Program with them, resulting in a reconsideration of production methodology.

Studio Sereno used the vetted material list provided to CIP participants by LHL Consulting to identify plywood alternative solutions and more eco-friendly sheep wool insulation. When that eco-friendly insulation proved to be more expensive, they successfully applied for an Artists Commit material

stipend to cover the added cost of the more sustainable option. By implementing intentional design strategies, like planning ahead and using hardware attachments instead of adhesives, they were able to fully disassemble and donate all components parts to be reused by other community members after the exhibition closed. The project transformed Studio Sereno's approach to fabrication for the future.



Telepathy by artists David Haines and Joyce Hinterding.
Documentation of *Energy Fields* installation. Image courtesy of Studio Sereno

PST ART teams found that involving vendors in the conversations spurred new approaches to common practices, such as **more sustainable catalogue production**. For example, as a result of discussing sustainability concerns with their catalogue designers (Polymode), Oceanside Museum of Art “decided to partner with Conti Tipocolor as our printer because of their shared commitment to sustainable practices in the printing industry.”

Teams reached out to community stakeholders in their neighborhoods, on their campuses, and in their wider networks. At the Armory, the team “connected with external communities by sharing resources locally, programming with local collectives,

organizers, and groups, and developing an internal informal green team.” Self Help Graphics also partnered with grassroots organizations focused on environmental and food sustainability. At California State University Dominguez Hills, the team observed that “what stood out most was the collaboration with both the campus community and neighboring communities, which brought diverse perspectives and solutions to the table.”

Exhibition audiences were brought into the conversation as well, with green sundials appearing on title walls, catalogs, and didactics. The Huntington’s exhibition *Storm Cloud: Picturing the Origins of Our Climate Crisis* included wall text about the CIP and created “a Storm Cloud Library in the same space with books about the natural world, the planetary crisis, and mitigation efforts, which have been recommended to us by consulting climate activists, scientists, and scholars.” The ArtCenter team also included a discussion of the green sundial logo in its curatorial tours with students, board members, and visitors from other colleges and universities.

Participants also shared examples of audience engagement that made real-world difference. An artist workshop at Oceanside Museum of Art focused on debate around the decommissioning of oil rigs off the Santa Barbara Coast resulted in ongoing dialogue and the active engagement of local lawmakers.

SPOTLIGHT: Effective Messaging



Reframing Dioramas: The Art of Preserving Wilderness highlights the role dioramas played in America's early conservation movement. Elon Schoenholz, 2024. © Natural History Museum of Los Angeles County

At the Natural History Museum of Los Angeles County (NHM), *Reframing Dioramas* presented a display demonstrating how habitat loss threatens various species. Through a timelapse of satellite images, the Gran Chaco forest of South America is replaced by animal

agriculture, revealing that dietary choices have real-world impacts. While visitors often ask how they can help

the endangered species shown in dioramas, research shows that direct messages like “Eat less meat!” can backfire, increasing resistance and climate skepticism. *Reframing Dioramas* instead presented clear data and artistic, emotional displays without making demands on viewer behavior.



This impactful display of habitat loss in the Gran Chaco causes visitors to reflect on how their own diets impact biodiversity. Elon Schoenholz, 2024. © Natural History Museum of Los Angeles County

Using the Dimensions of Visitor Experience (DoVE) checklist¹, NHM was able to assess how this strategy impacted visitors to the exhibition. Compared to traditional diorama halls, visitors leaving *Reframing Dioramas* were twice as likely to report being worried about the state of the world. More surprisingly, they were also twice as likely to report that they “felt moved to take action” and “wanted to do something to help.” Visitors wrote comments like, “the back wall display of disappearing forest gave me chills and a consideration to eat less meat” and “the livestock mass data and satellite images compel me to turn vegan.”

1. Packer, J. [in press] Issues in measuring visitor experiences: Refining the DoVE adjective checklist. Visitor Studies DOI – 10.1080/10645578.2025.2480497

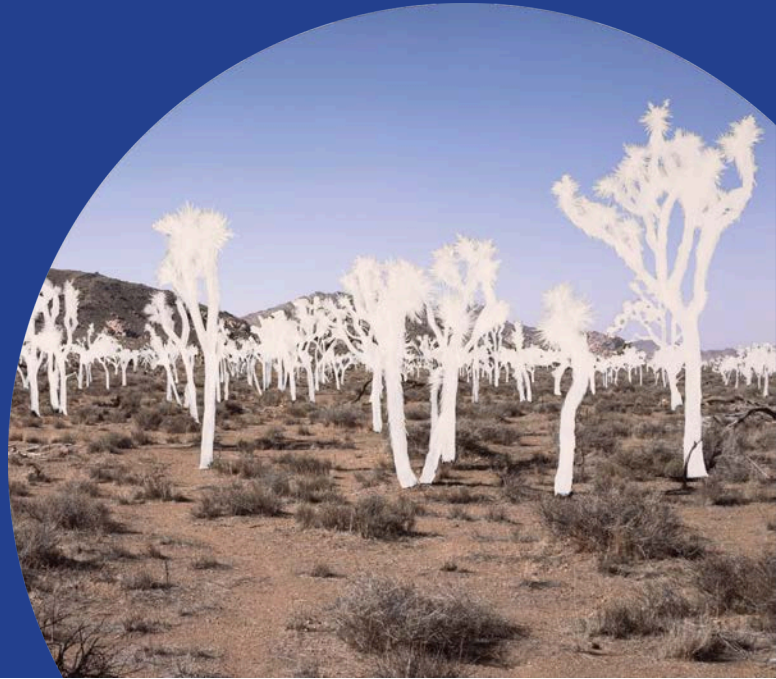
With Getty’s support, partners created the largest dataset of exhibition-based Climate Impact Reports for comparative analysis to date.

Forty PST ART projects completed a CIR, sharing key data on their travel, shipping, waste, engagement, and climate action decisions. These projects all followed a consistent reporting framework that allows for direct comparative analysis. Never before has there been such a comprehensive dataset of exhibition CIRs for a single art exhibition series.



This dataset has enabled the creation of intensity metrics and key performance indicators that will allow Getty and its partners to establish benchmarks and set emissions targets for themselves and for future editions of PST ART. All the details are included in the [Data Insights & Analysis](#) section of this report.

Case Studies



Ghosts, 2022, Michelle Robinson. Acrylic paint on archival pigment print. Image credit: Michelle Robinson. ©2022-2023 Michelle Robinson

Due to the diverse nature of the forty reporting PST ART projects, a range of approaches were taken when engaging in the CIP. These case studies have been included to demonstrate the variety of ways in which project teams made the CIP their own. Each case study is based on presentations from a Show & Tell community event in October 2024 for all PST ART partners hosted by Hauser & Wirth gallery. The full Climate Impact Report completed by each of these Case Study organizations is available as a downloadable PDF in the [Appendices section](#) of this report.

1 Climate Engagement Driven by Community Collaboration



Amaranth Cooking Workshop with *Malaqatetl Ija*, *Semillas Viajeras*, *Seed Travels* at Altadena Community Garden, 2024. Photo: Armory Center for the Arts



Soil transportation for *From the Ground Up: Nurturing Diversity in Hostile Environments*, 2024. Photo: Armory Center for the Arts

“The Armory’s exhibition team realized an organic alignment between the Climate Impact Program, departmental operations, and organizational values. The program also ignited opportunities to rally our community through programming and production to be more aligned with environmental and climate justice.”

Exhibition: *From the Ground Up: Nurturing Diversity in Hostile Environments*

PST ART Partner: Armory Center for the Arts

Presented by Danielle Hill, exhibitions manager

At the Armory Center for the Arts in Pasadena, the Climate Impact Program offered an opportunity to expand on existing commitments to sustainability and deepen community engagement. The exhibition *From the Ground Up: Nurturing Diversity in*

Hostile Environments explored the intersection of environmental consciousness, collective action, and cultural programming. Recognizing a strong alignment between the program's goals and the Armory's longstanding practices as a midsize community arts center, staff focused on amplifying their environmental efforts through community collaboration. Already known for resourcefulness and material reuse, the Armory used the Climate Impact Program to further activate their community through hands-on projects and collaborative partnerships.

The exhibition was inspired by seeds that sprout after a fire season to explore questions of community resilience, and one standout example of this involved a front yard amaranth garden planted by the collective Seed Travels. This living installation was transformed into an interactive experience where local residents were invited to harvest the crop. The Armory then partnered with Altadena Community Garden to host a cooking event featuring the harvested amaranth—highlighting themes of food sovereignty, sustainability, and shared stewardship of land and resources.

Other public programming for the exhibition highlighted climate justice activists, local organizations, and scientists to share their expertise. One example of this was a film screening spotlighting Black environmental justice coalitions in the US, supported by the Climate Justice Alliance Black Caucus. The event featured directors discussing grassroots environmental initiatives, offering the public insight into climate justice through a localized lens.

Exhibition production also embraced sustainable practices through collaboration. The exhibition production team met with exhibiting artists to decide how to display work with low waste impact, finding solutions like reusing furniture and sourcing material locally. Some of the resulting solutions included trash bins used to store soil in the exhibition that were later donated to El Sereno Community Garden, and surplus soil shared with a local resident to support a backyard garden. The team used community networks and resources, like “Buy Nothing,” to source exhibition materials from local communities, as well as donating material after use. This encouraged relationships, supported community stakeholders and minimized material transit. The project noted that these efforts to reduce waste also saved money.

Through the Climate Impact Program, the Armory team reaffirmed their commitment to climate justice in a way that felt authentic to their mission—centering community engagement, resource sharing, and inclusive environmental education.

Additional Participation Highlights:

- Exhibition was initially inspired after a series of fires in the foothills of the Angeles National Forest impacting 230,000 people and raising questions about community resiliency after disaster.

- Reused furniture and display material from past exhibitions.
- Identified local community shops to source soil, wood, and plants.
- Hosted a DIY air filter workshop led by the USC Environmental Justice Research Lab.
- Received donated cardboard from Merge Frames to build artwork shipping boxes, diverting the material away from landfill in the process.
- Added climate justice to the institution's Cultural Equity and Inclusion plan.

2 Bizot Green Protocol Pilot



stored in a jar: monsoon, drowning fish, color of water, and the floating world, Tiffany Chung, 2010-2011. Mixed media installation. 236 1/4 x 118 1/8 in. (600 x 300 cm). Photo courtesy of the artist



Over Your Head & Under the Weather, Lan Tuazon, 2024. WaterBricks, metal, plexiglass, shredded plastics, Precious Plastics shredder. 96 x 234 x 279 in. (243.8 x 594.4 x 708.7 cm). Collection of the artist. Installation view, *Breath(e): Toward Climate and Social Justice*, Hammer Museum, Los Angeles, September 14, 2024–January 5, 2025. Photo: Jeff McLane

“Breath(e) provided a valuable forum to discuss the environmental impact of our exhibitions program and led to meaningful changes at the Hammer, most notably the decision to apply the BIZOT Green Protocol gallery climate standards for our exhibitions going forward.”

Exhibition: *Breath(e): Toward Climate and Social Justice*

Partner: Hammer Museum

Presented by Michael Nock, director of exhibitions and publications management

The Hammer Museum team prioritized making intentional decisions aimed at reducing the environmental impact of the exhibition early in the planning process. As a result, it became apparent that the gallery's climate control settings were likely the most significant contributor to the show's carbon footprint. In consultation with the facilities team, it was determined that it would be theoretically feasible to expand the typical climate parameters maintained in the galleries—specifically the allowable ranges for temperature and relative humidity. Consequently, when issuing loan agreements, the team was able to add a clause requesting approval from lenders to adopt these expanded conditions. In seeking an appropriate benchmark for this shift, the team referred to the Bizot Green Protocols.

All lenders, including major institutions and fellow CIP participants such as The Huntington, agreed to these expanded parameters despite the deviation from traditional standards. As a result, all galleries at the Hammer operated under these revised conditions for the duration of PST ART.

The precise energy savings from this adjustment were not yet known at the time of publication, but the team is optimistic about the outcomes. Notably, this process demonstrated the feasibility of adopting expanded climate parameters. Based on this success, the Hammer committed to applying the Bizot Green Protocols to all future exhibitions and to its own collection moving forward. As a result of incorporating these standards into the initial loan agreements, both future touring venues for the exhibition will be able to implement Bizot Green Protocol conditions at their institutions as well.

Additional Participation Highlights:

- The Hammer made sustainable catalog production choices in collaboration with the graphic design studio Polymode.
- They engaged artists and climate justice advocates throughout the project.
- The team wove climate action into all aspects of the exhibition, including workshops, lectures, screenings, and other programmatic engagement.
- They extended CIP work to vendor engagement with art transporters, caterers, and catalog printers, among others.

3 Community Engagement as a Core Sustainability Practice



Installation view of “Boiling Rocks” series, Artist Maru Garcia; photographed by Gina Clyne



Installation view of “In Between Time and in Nature,” Artist Beatriz Jaramillo; photographed by Gina Clyne

“The highlight of the experience was the collaboration and discussions among team members, which allowed us to reflect on how Self Help Graphics’s programming practices align with the organization’s values and to explore ways to implement meaningful changes.”

Exhibition: *Sinks: Places We Call Home*

Partner: Self Help Graphics & Art

Presented by Marvella Muro, Former Director of Artistic, Curatorial and Education Programs, and Nanci Ochoa, Facility and Operations Manager

Sustainable choices have long been a core practice at Self Help Graphics & Art, driven in large part by the organization’s limited financial resources. This constraint has fostered a culture of resourcefulness and circularity. Much of the material used in Self Help Graphics’s community workshops is sourced through upcycling and community donations. The organization frequently evaluates what is possible based on the materials available at hand, often requiring negotiation and adaptability. This longstanding practice reflects a deep-rooted commitment to maximizing available resources and giving back to the community. When donations exceed the organization’s needs, materials are redistributed to community members, artists, and organizations, fostering a reciprocal relationship rooted in mutual support and sustainability.

For the Climate Impact Program, Self Help Graphics decided to document the carbon footprint of their community engagement work. This involved tracking car travel to and from community partners sites in Willowbrook and Southeast LA to gather mineral

zeolites on the border of California and Nevada. As the community engagement element of this program required consistently showing up over three years, it necessitated a certain carbon and material impact that the team wanted to better understand. Despite limited staff capacity, they were able to host weekly check-ins to stay on track, and the gathered data will enable them to better illustrate the necessary and demanding work that community engagement requires.

The physical installation presented in the exhibition involved collaboration with independent, community-based businesses. One of the exhibition's central features is a set of three large-scale pillars composed of natural materials such as soil, zeolites, and mulch, which reflect a commitment to ecological integration. After the exhibition, these pillars were installed on a nearby park site with contaminated soil, where the natural materials used in the installation will engage organically with the environment. Each pillar carries a word—"Home," "Madre," and "Life"—and will serve as a permanent public art installation at its new location.

Additional Participation Highlights:

- Self Help Graphics worked with a sustainable tree farm that supplied wood for cabinets and vitrines. Additional materials, such as stools and a prominent wooden branch, were borrowed from Angel City Lumber, an organization that repurposes fallen trees from across Los Angeles County and maintains a database documenting the origin and history of each piece.
- Additional vitrines were donated by partner organizations, and fabricated walls were repurposed from a previous exhibition at the Luckman Fine Arts Complex.
- Curators initially envisioned a different layout, but they adapted plans just weeks before the opening to reuse an existing wall structure.

4 Reimagining Standard Exhibition Practices



"Storm Cloud: Picturing the Origins of Our Climate Crisis" (installation view). Photo: Ibarionex Perello. The Huntington



"Storm Cloud: Picturing the Origins of Our Climate Crisis" (installation view). Photo: Ibarionex Perello. The Huntington.

“The Climate Impact Program was the reason we started to look at the Huntington’s sustainability in temporary exhibitions, and moving forward, we’re going to be using a lot of what we learned in this exhibition for temporary exhibitions in the larger gallery space.”

Exhibition: *Storm Cloud: Picturing the Origins of Our Climate Crisis*

Partner: The Huntington Library, Art Museum, and Botanical Gardens

Presented by Kristen Anthony, Assistant Curator

The Huntington’s participation in the CIP served as a catalyst for reexamining the institution’s sustainability practices in relation to temporary exhibitions. Their newly adopted institutional strategic plan had recently incorporated environmentally conscious exhibitions as a key endeavor. As this exhibition’s subject matter dealt directly with the climate crisis, the curatorial and design team were primed to embrace the challenge to develop the exhibition in alignment with environmentally responsible practices with enthusiasm and collaboration. The CIP provided a framework and support system that allowed the team to meaningfully identify, implement, and assess a variety of sustainable strategies, many of which are now being considered for adoption as institutional standards.

A core recommendation made at the first CIP educational webinar was to assemble a “green team”—a cross-departmental group that included representatives from exhibitions, marketing, education, visitor services, and membership. In response, each department working on the exhibition appointed at least one staff member to participate in meetings dedicated to assessing the sustainability of temporary exhibitions. This collaborative effort led to a number of impactful changes. As a lasting outcome of this work, The Huntington has established an internal green team, which now operates as a sustainability-focused employee resource group. This group will serve as a platform for interdepartmental knowledge sharing and coordination, with the goal of embedding sustainable practices across all aspects of institutional operations.

Key Changes:

- For the first time, The Huntington opted to eliminate the use of drywall in favor of reusable plywood panels for temporary walls. The exclusion of drywall means walls are now reusable, preventing the need to send materials to landfill post-exhibition. The plywood walls have already been reused for at least five shows and are now a new temporary wall consideration for the institution. While these walls were more

expensive for the first show, the overall cost per use has proven to be significantly lower.

- In order to minimize air travel emissions, the curatorial team did not request loans from institutions with rigid courier requirements. Additionally, registrars streamlined shipping by narrowing the geographic scope of loan requests and bundling loans accordingly.
- A broader institutional reflection emerged around the idea of recalibrating expectations for perfection. Teams questioned whether reprinting materials for minor imperfections was necessary and embraced a more forgiving, resource-conscious mindset. These adjustments often went unnoticed by audiences, and responses were overwhelmingly positive when they were explicitly pointed out.
- Exhibition cases and frames from past shows were repurposed to fit current display needs. This included adapting existing display cases that were purpose-built to house entirely different objects, creating a mindset of flexible reuse.
- The education department reallocated funding typically reserved for printed materials to support a browsing library with literature on climate change and mitigation strategies. The library also featured a prominent statement on the institution's participation in the Climate Impact Program, and has remained on-site as a staff resource after the exhibition closed.

5 Sustainable Exhibition Build Choices



The western entrance to *Embodied Pacific: Ocean Unseen* draws guests into the underwater world of seaweed research and Indigenous Ways of Knowing, including a traditional tule boat. Birch Aquarium, Jordann Tomasek



Guests experience immersive exhibition *Superradiance. Embodying Earth*, as part of *Embodied Pacific: Ocean Unseen* at Birch Aquarium. Birch Aquarium, Jordann Tomasek

“Ultimately, the Climate Impact Program taught us that prioritizing sustainability isn’t just about materials—it’s about changing mindsets,

fostering flexibility, and embracing innovation to make meaningful, lasting impact.”

Exhibition: *Embodied Pacific*

Partner: University of California, San Diego and Birch Aquarium at Scripps
Presented by Megan Dickerson, Curator, and Tina Mau, Manager of Exhibit Development

Embodied Pacific incorporated a range of sustainable practices, reflecting the institution’s long-standing commitment to environmental responsibility in exhibition design and production. The curator and manager of exhibition development collaborated closely to question and reimagine many of their standard exhibition build practices. As a result, the team transitioned away from using PVC-based adhesive graphics. Instead, they sourced non-PVC sustainable wall coverings, which were applied using cornstarch-based wallpaper paste—a more environmentally friendly alternative. Exhibit headers were hand-painted directly onto surfaces by staff artists. Curatorial text was printed on thick paper, mounted to the wall with screwed in furring strips that can be recycled or reused. Other wall graphics were projected digitally, reducing reliance on printed materials.

The team reported that this process taught them valuable new skills. For example, they learned new projector software and worked with CNC machines used for high precision cutting, drilling, milling, and shaping materials. They recognized that sustainability challenged them to think creatively, breaking from “how it’s always been done” to explore innovative solutions. Collaborating with artists also brought fresh perspectives.

Additional Participation Highlights:

- About 75% of the exhibition production utilized existing inventory, including a modular wall system originally purchased over 20 years ago that allows for a completely new layout with minimal additional materials. Another wall was entirely rebuilt from material saved from a previous exhibition, and lumber from other previously demolished walls were used to build new plinths.
- Designs were made to be modular and either easily disassembled or intended to be permanent, like reusable benches and headset mounts.
- 12 out of 16 artists in the show lived locally in San Diego, reducing the need for long distance travel and artwork shipping.
- As a result, costs were significantly reduced.
- A distinctive aspect of the program was its student engagement. The majority of the exhibition production and installation staff were undergraduate students, typically

from diverse academic backgrounds including theater, visual arts, and biology. Their involvement not only supported professional development but also strengthened the institution's capacity for innovation around environmentally conscious practices.

6 Student Engagement to Build Sustainable Networks



Installation view of *Brackish Water LA* at California State University, Dominguez Hills. Photo: CCUSD

“Brackish Water Los Angeles developed through a collaborative process guided by two extraordinary student cohorts. It asked questions rather than offered answers, connecting history, the natural world, and the possibilities of a collective future.”

Exhibition: *Brackish Water Los Angeles*

Partner: California State University, Dominguez Hills

Presented by Michelle Santos, Project Manager

Student engagement was a central pillar of *Brackish Water Los Angeles* from its inception, so students also participated in all of the project activities related to climate action and sustainability. Over two semesters, the project codirectors led an interdisciplinary undergraduate course in tandem with exhibition research and development. This process engaged multiple campus schools and integrated students into the project as co-researchers and local experts. These efforts broke down departmental silos, involving a broad range of campus units and fostering collaboration across disciplines. Outreach was conducted through grassroots methods, with faculty

personally visiting departments to invite participation—an approach that resulted in enthusiastic involvement from a wide spectrum of academic areas.

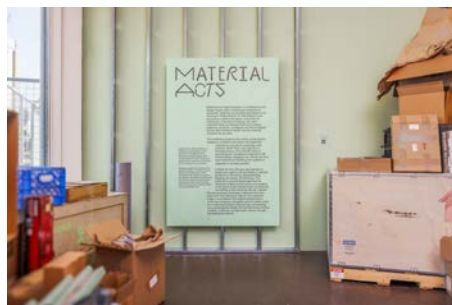
The exhibition team offered educational tours to diverse student groups, ranging from high school students to graduate cohorts from institutions such as the University of Utah and California State University, Fullerton. These tours included classes focused on science, women’s studies, education, and first-year experience programs, significantly expanding the reach of the project beyond the gallery space.

The team engaged local community partners, such as East Yard Communities for Environmental Justice and Sacred Places Institute, in both advisory and participatory roles. A Community Day event, supported by LA Promise Fund, featured free transportation and lunch for local attendees and included a VIP tour for local environmental justice groups, a workshop led by CSUDH’s biochar research group, and a film screening by local Indigenous filmmakers.

Additional Participation Highlights:

- The project team applied for and received a materials stipend microgrant of \$1500 from Artists Commit to create plinths using reclaimed wood purchased from Angel City Lumber. While this wood sourced from already fallen trees was more expensive, it also led to a “skeleton plinth” design that avoided plywood, reduced overall material use, and became a standout of the exhibition.
- Plastic innertubes used in exhibition were distributed to artists for material reuse.
- Approximately 6,500 pounds of sand used in the installation was repurposed for the university’s Child Development Center, supporting early education environments—an embodiment of the guiding principle that “students deserve nice things.”

7 Curatorial Choices Informing Sustainable Exhibition Design



Material Acts: Architecture and Design installation view, 2024-2025. Photo courtesy of Craft Contemporary, Los Angeles. Exhibition Installation Image: Marc Walker



Material Acts: Architecture and Design installation view, 2024-2025. Photo courtesy of Craft Contemporary, Los Angeles. Exhibition Installation Image: Marc Walker

“Tracking everything is impossible, but doing what you can makes a difference. And when we all do a little bit, it adds up to a lot.”

Exhibition: *Material Acts: Experimentation in Architecture and Design*

Partner: Craft Contemporary

Presented by Kate Yeh Chiu, Guest Curator

Many of the curatorial decisions behind the exhibition supported sustainable exhibition design. The lobby entrance to the exhibition became a space to reflect on exhibition-making as a material act by displaying all exhibition-related packages, shipping crates, and other ephemera that often gets discarded or hidden. Curators opted for off-the-shelf, reusable or recycled materials whenever possible.

The team used stud walls throughout, allowing the exhibition space to be divided into smaller zones while maintaining visual porosity. Didactics were printed on paper which was then taped to plywood, making everything fully reusable or recyclable. Plywood use was limited to only full or half sheets to support easy reuse as future building material. They also decided that all exhibition plinths could be reused from existing inventory. When possible, they chose reproducing and rebuilding works on-site over shipping, which also built production skills within the museum team. Lastly, they created a materials library sourced from an open call to practitioners across Southern California. This feature facilitated hands-on engagement and built community networks early on.

Additional Participation Highlights:

- This was the institution's second Climate Impact Report. They had previously completed one for Alicia Piller's 2023 solo exhibition *Within* with the support of [Artists Commit.](#)
- Hosted a weekend-long symposium for artists, architects, and designers to share their thoughts on sustainability and their practices and research.
- Many collaborators hand-carried objects to the site rather than having to ship separately.
- This was the institution's first exhibition that exclusively involved artists, architects, and designers who have a dedicated history of environmental consciousness.
- Staff restructured the work schedule to enable preparators to work fewer days (thereby reducing travel emissions) while still earning the same gross pay.
- They developed new painting and packing techniques to minimize tape waste.

- They set a goal to become entirely zero-waste over the next five years. As a result of introducing new approaches to exhibition design, waste from the next exhibition was limited to a single Solo cup of leftover material.
- Craft Contemporary is now working with LHL to expand their PST ART exhibition CIR into a full year Greenhouse Gas Report for the institution.

Data Insights & Analysis: Overview



"Last Whispers, Immersive Oratorio," 2022, Amanda Tasse and Lena Herzog. Still frame image screen capture from a frontal projection of 360 video. Courtesy of artists. © LAST WHISPERS

Data collection was one of the primary objectives of the CIP. This short overview section provides the overall Key Performance Indicators (KPIs) for PST ART. Information for all of the Data Analysis sections was gathered through two sources: preliminary reporting surveys and Climate Impact Reports. Preliminary reports were submitted in July 2024 before PST ART officially opened with an opportunity to update responses after exhibitions opened in December 2024. 40 Climate Impact Reports were submitted in December 2024,¹ representing 69% of all partner venues.

KPIs presented below reflect all PST ART partner venues and projects, not just those submitting Climate Impact Reports. KPIs indicating PST ART partners or partner venues are based on 51 eligible partner venues. KPIs indicating PST ART Projects are based on 66 eligible PST ART projects.

Key Performance Indicators

ISSUE		GOAL	KPIs	2024/5
Climate Action Engagement	E1	CIR Participation	Percentage of PST ART partners submitting a CIR	69%
	E2	Education Participation	Percentage of partner venues participating in CIR educational events	100%
	E3	Partner Venue Climate Policies	Percentage of PST ART partner venues indicating climate policy	17.6%
	E4	Bizot Adoption	Percentage of partners adopting Bizot conditions	7.8%
	E5	Workers/Team Engagement	Percentage of PST ART projects engaging each internal stakeholder type in CIR	Exhibition: 50% Curatorial: 43.9% Leadership: 31.8% Development: 21.2% Communications: 19.7%
	E6	Industry Collaborators Engagement	Percentage of PST ART projects engaging industry stakeholders in CIR	Fabricators: 25.8% Artists: 22.7% Vendors: 16.7% Lenders: 16.7%
Carbon Emissions	C1	Emission Reporting	Percentage of PST ART projects reporting emission data	53%
	C2	Travel Emissions	Average flight emissions per project	17.8 tCO2e
	C3	Long-Haul Freight Emissions	Average tCO2e per ton of weight transported (LHF/Ton)	1.78 tCO2e/ton
	C4	Project Related Carbon Emissions	Average Project Related Carbon emission per week the project was open (PRC/Wk)	1.28 tCO2e/wk
Waste	W1	Material Circularity	Percentage of projects reporting zero new material used	4.5%

ISSUE	GOAL	KPIs	2024/5
	W2 Waste to Landfill	Percentage of projects reporting no material to landfill	7.6%
	W3 Reduction Strategies	Percentage of projects reporting waste reduction strategies	42.4%

PRC Project Related Carbon, the average of which is based only on reporting projects, not all PST ART projects.

Notes

1. This report submission deadline fell before some of the partners' exhibitions closed, meaning that categories such as return shipping and deinstallation waste calculations were projections and not actual data. LHL instructed participants to indicate actual or projected in their listed data and include the total projected scope of each priority reporting area.

Data Insights & Analysis

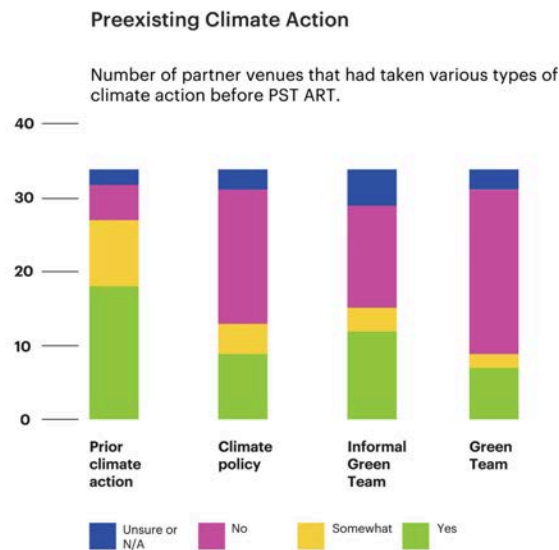
Climate Action Engagement



Artists Porfirio Gutiérrez and Tanya Aguiñiga hold their weavings in front of their faces on a hill near Guiterrez' hometown in Teotitlan del Valle, Oaxaca. Photo Credit: Javier Lazo Gutiérrez

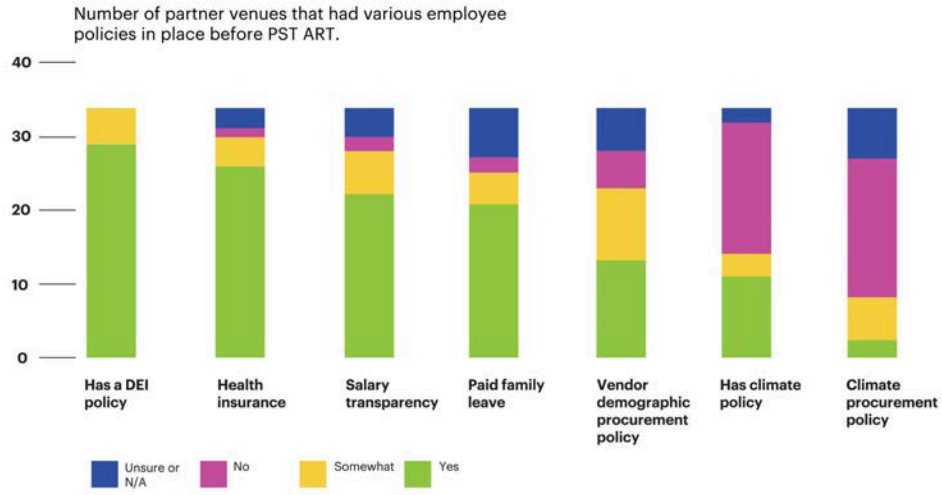
Understanding the state of climate engagement before the PST ART CIP was a priority.

The charts in this section give a baseline of existing climate work. Data indicated that many venues had taken some prior climate action, but it was primarily informal and without a clear policy.



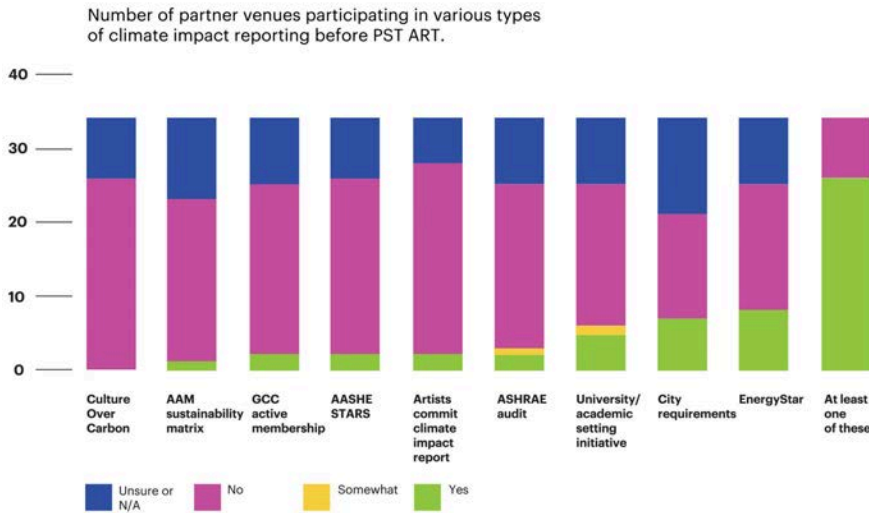
While practices like health insurance and DEI policies were often standard at partner organizations, climate policies were less common. **Many venues had demographic procurement policies, but climate-related procurement policies were rare.**

Preexisting Staff Policies



While many partner venues were participating in some form of climate impact reporting, there was little consistency of approach. Project teams also didn't always have transparency into how or if their institution participates in reporting initiatives.

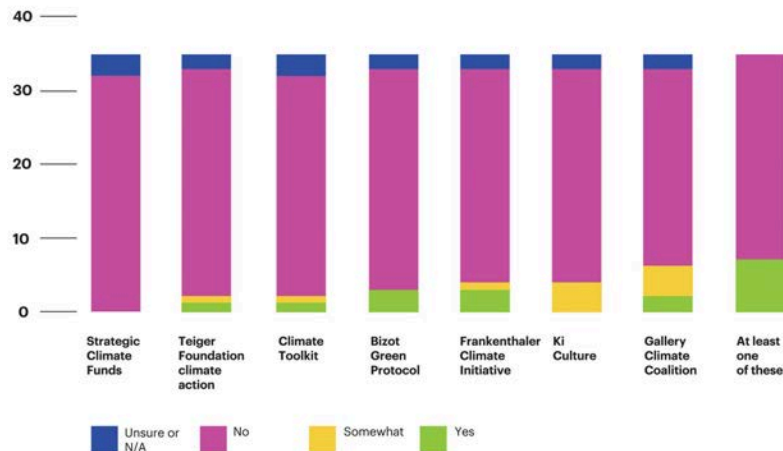
Preexisting Climate Reporting Initiatives



Few partner venues were participants in leading climate initiatives in the art world, including Bizot, The Climate Toolkit, and the Gallery Climate Coalition. The ones that did participate in these initiatives usually took part in only one.

Preexisting Climate Initiative Participation

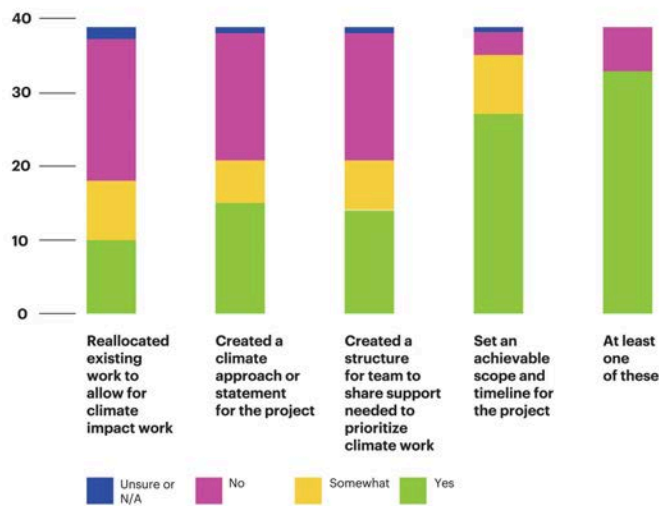
Number of partner venues participating in various types of arts sector climate initiatives before PST ART.



As a result of participating in the Climate Impact Report, almost all reporting projects implemented some kind of climate action. About half of the project teams created project-specific climate policies or structures. The majority of teams made sure to set an achievable scope.

New Climate Action

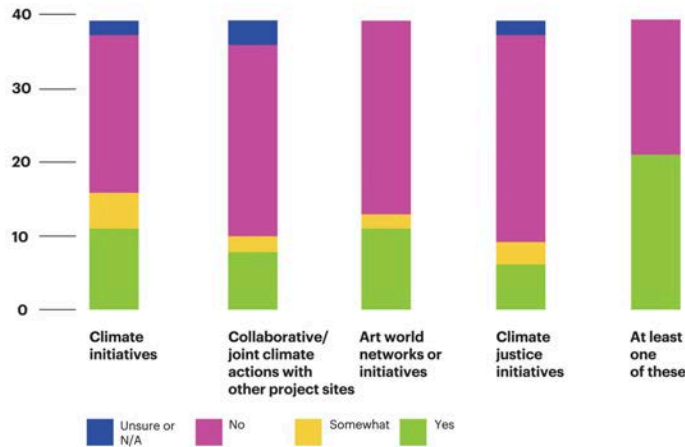
Number of PST ART partners that took various types of climate action as a result of the Climate Impact Program



While specific participation varied widely, 54% of projects participated in or collaborated with an external climate initiative.

External Initiatives Participation

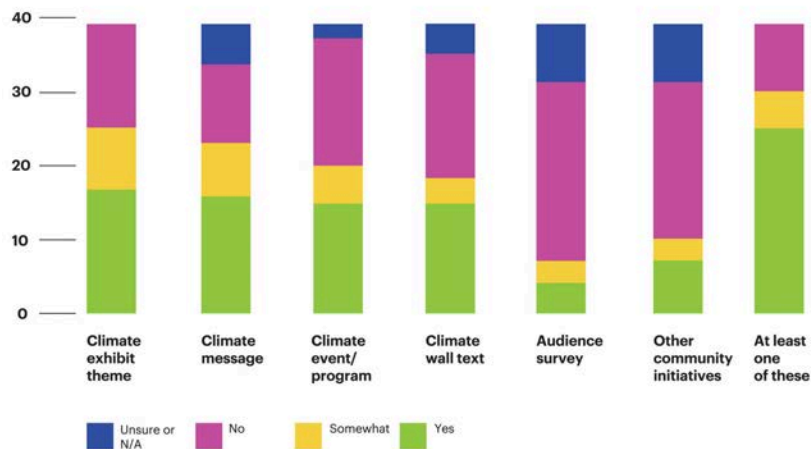
Number of PST ART partners participating in various climate initiatives outside of their organizations.



PST ART, and the support provided by Getty, created an opportunity for deeper engagement. Of the participating projects, 86% said that they engaged their audiences in climate conversations for PST ART. This included about half of reporting projects engaging climate in their thematic exhibition content, as well as messaging, wall text, and events.

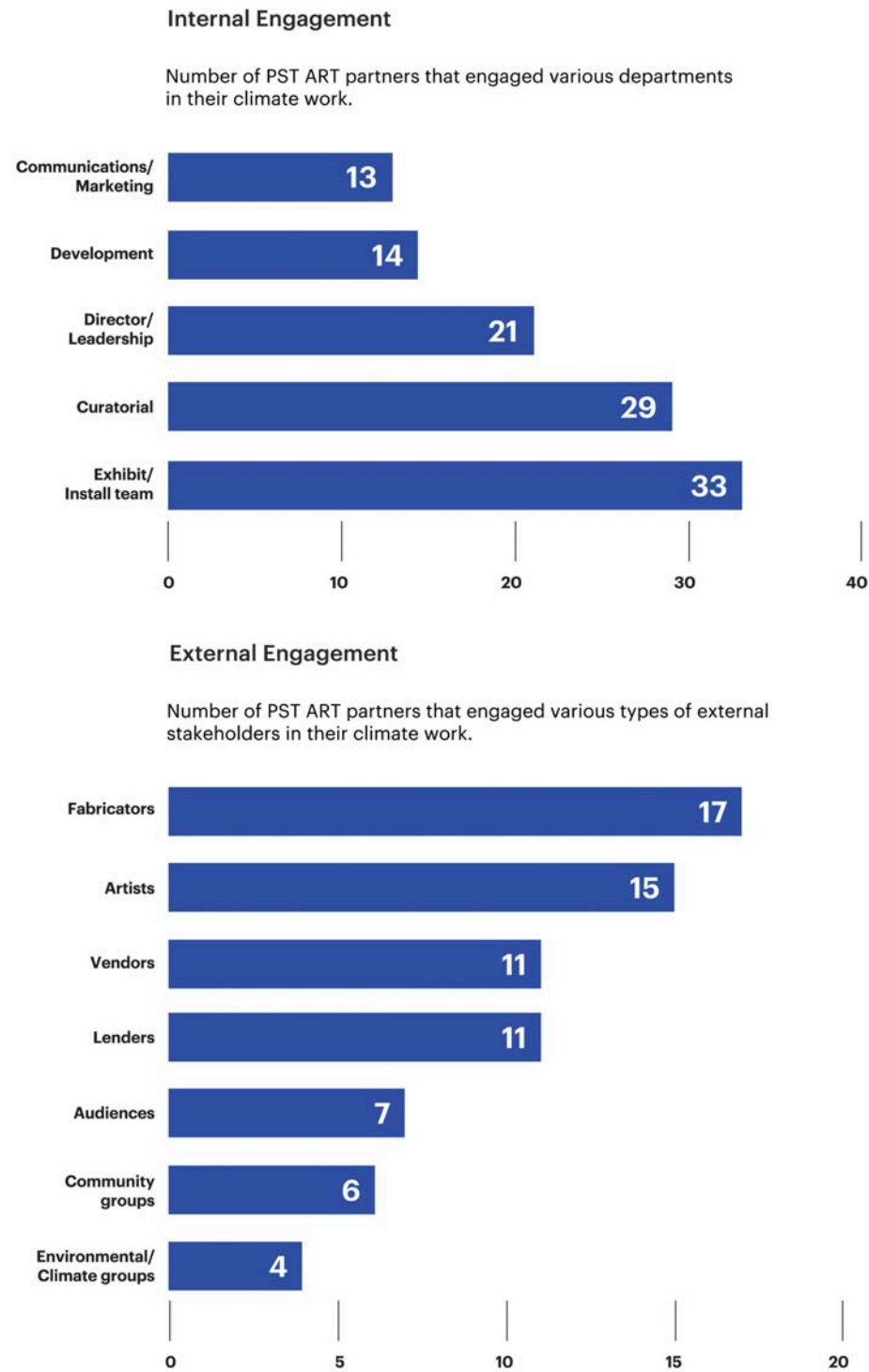
Audience Engagement

Number of PST ART partners that used various types of interaction to engage audiences in their climate action work.



Internally, **exhibition and install teams were almost always involved in the CIR, followed by curatorial departments.** Leadership was engaged in 60% of CIRs, suggesting this is a priority for other organizations looking to embed climate work in their operations. External stakeholders were also asked to engage in PST ART CIRs. **Nearly half of**

reporting projects indicated that they included their fabricator in the CIR process in some way, and 43% of reporting projects involved their artists.



Data Insights & Analysis

Emissions



Clockwise: Cina Hazegh, Kevin Ponto, Beatriz da Costa, and Bob Matusyama hold four pigeons wearing air pollution monitor backpacks as part of PigeonBlog (2006–08). Courtesy of the Beatriz da Costa Estate

Emissions are listed in tCO₂e, which stands for tonnes of carbon dioxide equivalent. “Tonne” is another way of writing metric ton, or 2,200 pounds. “Carbon dioxide equivalent” is a standard unit for counting greenhouse gas (GHG) emissions regardless of whether they’re from carbon dioxide or another gas, such as methane. This is the unit generated by the GCC Carbon Calculator, the preferred tool used by project teams to calculate their emissions. For data that is broken down by institution type, we used the following categories: Major Institutions; Small-Midsize Institutions; Community/Experimental Spaces; and University Affiliated. Please see the [“Participant List”](#) appendix for a list of participating organizations in each category.

The Total Reported Emissions section (1) includes data from all 36 reporting projects. The dataset for the remaining sections (2 through 5) excludes the two projects that reported the highest and lowest emissions for Major Institutions. These outliers were removed to avoid skewing data averages in the comparative emission analysis graphs and intensity metric calculations.

1 Total Reported Emissions

Projects reported over 2,167 tCO₂e emitted for PST ART exhibitions. This amount of carbon dioxide would:

- Fill the LA Coliseum Stadium playing field with carbon dioxide gas more than two and a half times over.¹
- Power the electricity of 452 US homes over one year.²
- Burn twelve railcars worth of coal.

- Require 2,174 acres of US forest to sequester back into the ground, about the size of one half of Griffith Park.³

This is not the total carbon footprint of PST ART, but the total calculated emissions by reporting participants. Since emissions data categories were limited and data was reported for half of all PST ART exhibitions, it is not unreasonable to assume that the equivalencies above might be doubled for the initiative as a whole.

Travel (required reporting area)

Total reported emissions from travel.

Source	Emissions	Operational Unit*
International Flights	886.4 tCO ₂ e	428 trips
Domestic Flights	160.4 tCO ₂ e	374 trips
All Flights	1046.85 tCO₂e	802 trips

* Trip refers to one way travel leg

Freight (required reporting area)

Total reported emissions from freight.

Source	Emissions	Operational Unit
Air Freight	458.6 tCO ₂ e	38 tons
Long-Haul Road Freight	64.2 tCO ₂ e	160 tons
Sea Freight	6.8 tCO ₂ e	29 tons
Local Freight (itemized)*	2.8 tCO ₂ e	47+ tons
Local Freight (not itemized)†	1.1 tCO ₂ e	Unknown
All Freight	558.9 tCO₂e	274 tons

* Optional reporting category

† Optional reporting category. Emission calculations reported by projects but not verified by LHL Consulting

Printing (optional reporting area)

Total reported emissions from printing. 74% of reporting projects with catalogs opted to report on printing emissions.

Source	Emissions	Operational Unit
Publications	89 tCO₂e	20 catalogs

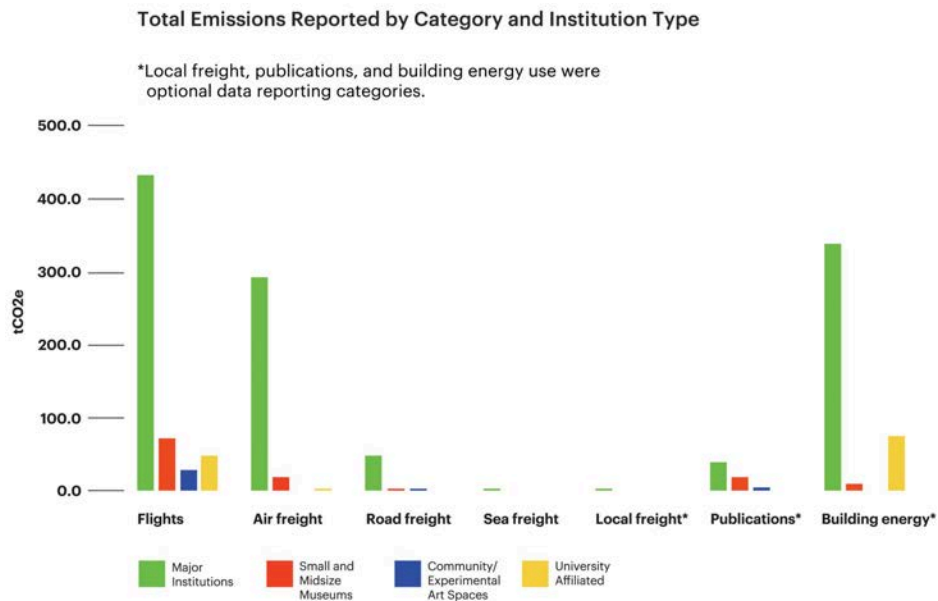
Building Energy (optional reporting area)

Total reported emissions from building energy. Fourteen projects opted in to report building energy, representing 39% of reporting projects.

Source	Emissions	Operational Unit
Building Energy	473.1 tCO2e	150k sq ft of exhibition space

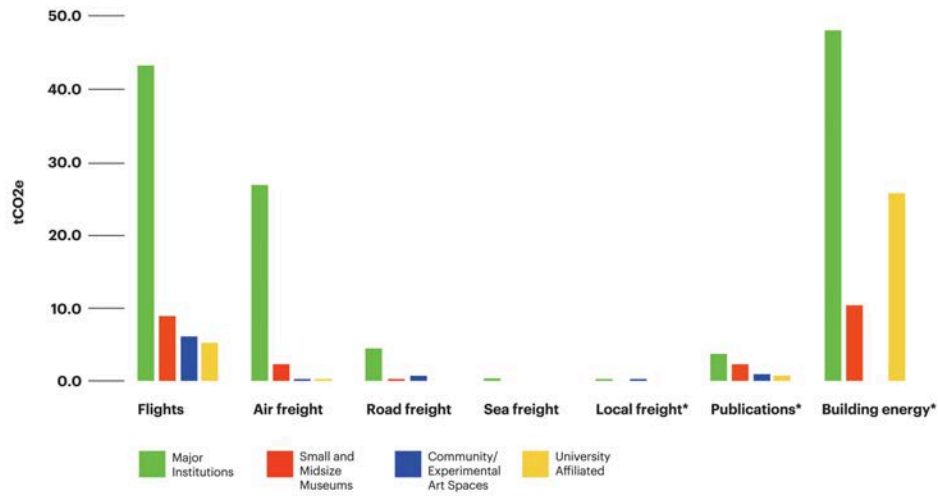
2 Emissions Sources Breakdown

When we look at data grouped by emission type, major institutions reported the highest emissions levels in all categories. Among the required reporting categories, **flights were almost always the highest sources of emissions** for projects that required air travel, followed by air freight. Building energy use was an optional category, since this data was often inaccessible to PST ART project teams.



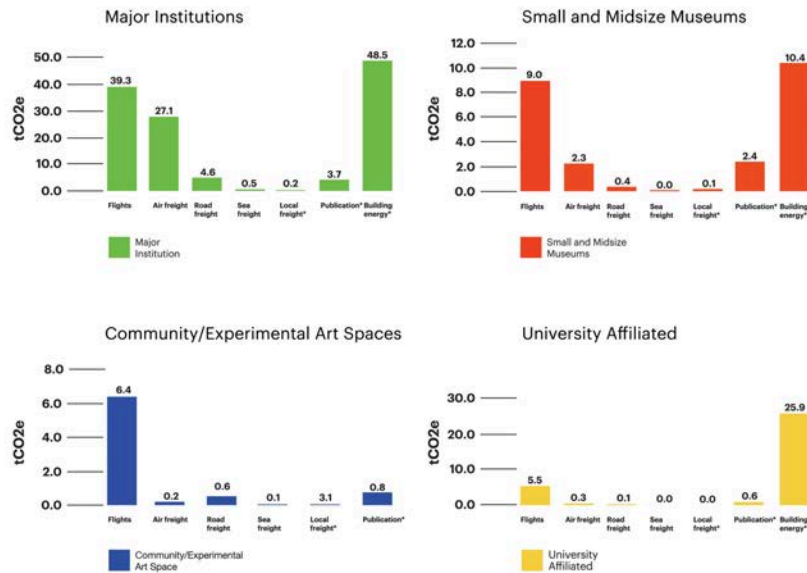
Average Emissions Reported by Category and Institution Type

*Local freight, publications, and building energy use were optional data reporting categories.



When we look at emissions sources by institutional type, building energy was almost always the highest source of emissions for organizations reporting this category. While specific approaches varied, projects that opted to report on building energy were instructed to approximate the energy use specifically attributed to the PST ART exhibition by using this methodology: [Total kWh from power bills for entire space] x [% of space allocated to exhibition] x [# of days from first day of install to last day of dismantle]. For the emissions categories that were limited to PST ART projects, flights were generally the highest sources of emissions. For non-major institutions, publications were often a comparable source of emissions to their total exhibition freight.

Average Emissions by Category at Each Institution Type



3 Emissions Intensity Metrics

A variety of intensity metrics are provided with the intention of being able to use them to set future reduction targets and allow for comparative metrics with other reporting initiatives/datasets. The table below provides information on the Project Related Carbon (PRC), defined as long haul travel and freight emissions related to the project. The chosen intensity metrics breakdown carbon emissions by exhibition size, implementation grant dollars awarded, and exhibition duration.

Overall Emissions Intensity Metrics

Percent of total freight weight by freight type across different types of institutions.

Institution Type	Total PRC reported	Average PRC	Intensity Metric 1: PRC/SqFt	Intensity Metric 2: >PRC/\$\$	Intensity Metric 3: PRC/Wk
Major Institutions (11)	787.20 tCO2e	71.56 tCO2e	7.5 tCO2e/sq ft	2.40 tCO2e/\$\$	2.47 tCO2e/wk
Small/Midsized (8)	91.46 tCO2e	11.43 tCO2e	1.12 tCO2e/sq ft	0.56 tCO2e/\$\$	.46 tCO2e/wk
Community/ Experimental (5)	35.63 >tCO2e	7.13 tCO2e	2.1 tCO2e/sq ft	0.35 tCO2e/\$\$	.31 tCO2e/wk
University-Affiliated (9)	53.14 tCO2e	5.90 tCO2e	1.89 tCO2e/sq ft	0.39 tCO2e/\$\$	.27 tCO2e/wk
All Projects (33)	967.42 tCO2e	29.32 tCO2e	4.2 tCO2e/sq ft	1.32 tCO2e/\$\$	1.28 tCO2e/wk

PRC Project Related Carbon: long-haul travel and freight emissions (flights, air freight, sea freight, long-haul road freight), measured in tonnes of carbon dioxide equivalent emissions (tCO2e)

PRC/SqFt Average PRC per 1000 square feet of exhibition space

PRC/\$\$ Average PRC per \$10,000 of implementation grant dollars

PRC/Wk Average PRC per week the project was open

Travel intensity metrics were calculated based on flight information provided by all reporting organizations. As detailed in the table below, major institutions had the highest number of flights, translating into the highest total emissions and average per flight.

Travel Intensity Metrics

Travel emissions from flights across different types of institutions.

Institution Type	Total Flight Emissions	Average Flight Emissions	Number of One Way Flights	Intensity Metric 1: Emissions/Trips
Major Institutions	432.4 tCO ₂ e	39.3 tCO ₂ e	389	1.11 tCO ₂ e/trip
Small/Midsized	72.0 tCO ₂ e	9.0 tCO ₂ e	127	.57 tCO ₂ e/trip
Community/Experimental	32.1 tCO ₂ e	6.4 tCO ₂ e	71	.45 tCO ₂ e/trip
University Affiliated	49.7 tCO ₂ e	5.5 tCO ₂ e	64	.78 tCO ₂ e/trip
All Projects	586.2 tCO₂e	17.8 tCO₂e	651	.9 tCO₂e/trip

Emissions/Trips Average flight emissions per trip, counted as one way leg

Long Haul Freight (LHF) emissions data was used to establish intensity metrics for shipping. The table below provides information on total and average LHF emissions, with intensity metrics that breakdown shipping emissions by journey and by weight transported. Initially, the intensity metric LHF/Ton was a surprise as it indicated that small and midsized museums had the highest intensity and that university-affiliated projects were only slightly behind major institutions.

Shipping Intensity Metrics

Long Haul Freight (LHF) intensity metrics across different types of institutions and total shipping intensity metrics.

Institution Type	Total LHF	Average LHF	Intensity Metric 1: LHF/Journey (See Table: # of freight journeys across different types of institutions)	Intensity Metric 2: LHF/Ton (See Table: Percent of total freight weight by freight type across different types of institutions)
Major Institutions	354.79 tCO ₂ e	32.25 tCO ₂ e	1.65 tCO ₂ e/Journey	1.83 tCO ₂ e/Ton
Small/Midsized	19.426 tCO ₂ e	2.43 tCO ₂ e	.22 tCO ₂ e/Journey	3.86 tCO ₂ e/Ton
Community/Experimental	3.57 tCO ₂ e	.71 tCO ₂ e	.13 tCO ₂ e/Journey	.26 tCO ₂ e/Ton
University-Affiliated	3.41 tCO ₂ e	.38 tCO ₂ e	.09 tCO ₂ e/Journey	1.71 tCO ₂ e/Ton
All Projects	381.73 tCO₂e	11.57 tCO₂e	1.03 tCO₂e/Journey	1.78 tCO₂e/Ton

LHF Freight emissions due to air freight, sea freight, and long-haul road freight measured in tCO₂e, with verified emissions only

LHF/Journey Average LHF emissions per freight shipment journey, counted as one way legs

LHF/Ton Average LHF emissions per ton of weight transported

Additional calculations in the two tables below for weight transported and journeys taken by shipping method and institution type help explain the LHF/Ton intensity metrics. While major institutions had overall higher emissions and higher numbers of total freight journeys, they were also much more likely to transport heavy material by sea freight, resulting in a lower LHF/Ton.

It was surprising to see that university-affiliated projects had the highest percentage of weight transported by sea freight.

Breakdown of Weight Transported by Shipping Method and Institution Type

Percent of total freight weight by freight type across different types of institutions.

Institution Type	Weight Transported Air Freight	Weight Transported Sea Freight	Weight Transported Long Haul Road Freight	Total Weight Transported
Major Institutions	27.23 tons 14.1% of weight transported by major institutions	26.76 tons 13.8% of weight transported by major institutions	139.72 tons 72.1% of weight transported by major institutions	193.71 tons 90.32 % of weight transported for all reporting PST ART projects
Small/ Midsized	1.74 tons 34.6%	.07 tons 1.5%	3.21 tons 63.9%	5.03 tons 2.34% of all weight
Community/ Experimental	.08 tons .6%	1.12 tons 8.2%	12.53 tons 91.2%	13.74 tons 6.41% of all weight
University-Affiliated	.55 tons 27.7%	.41 tons 20.4%	1.03 tons 51.9%	1.99 tons .93% of all weight
All Projects	29.61 tons 13.8%	.28.36 tons 13.2%	156.5 tons 73%	214.47 tons

Breakdown of Number of Journeys by Shipping Method and Institution Type

Percentage of journeys by freight type across different types of institutions.

Institution Type	Airfreight Journeys* (one-way legs)	Sea Freight Journeys	Long Haul Road Freight Journeys	Total # of Freight Journeys Reported
Major Institutions	70 Journeys 32.6% of major institution freight journeys	44 Journeys 20.5% of major institution freight journeys	101 Journeys 47% of major institution freight journeys	215 Journeys 58% of all reported freight journeys
Small/ Midsized	27 Journeys 30%	1 Journey 1.11%	62 Journeys 68.9%	90 Journeys 24.3%
Community/ Experimental	7 Journeys 25.9%	1 Journey 3.7%	19 Journeys 70.4%	27 Journeys 7.3%
University-Affiliated	17 Journeys 43.6%	2 Journeys 5.1%	20 Journeys 51.3%	39 Journeys 10.5%
All Projects	121 Journeys 32.6%	48 Journeys 12.9%	202 Journeys 54.4%	371 Journeys

The table below provides information on average shipping emissions based on the method of freight used. While it is already well established that air freight is the most carbon intensive method of shipping artwork, these numbers provide intensity metrics per one way journey and per ton of weight transported, which can be used to help projects perform ballpark estimates of expected carbon output when planning for exhibition shipping.

Average Freight Emissions Per Journey by Shipping Method

Freight emissions by type of freight.

Freight Type	Total Emissions	Emissions per Journey (See Table: # of freight journeys across different types of institutions.)	Emissions per Ton (See Table: Percent of total freight weight by freight type across different types of institutions.)
Air Freight	319.80 tCO ₂ e	2.64 tCO ₂ e/journey	10.80 tCO ₂ e/Ton
Sea Freight	6.47 tCO ₂ e	.13 tCO ₂ e/journey	.23 tCO ₂ e/Ton
Long-Haul Road Freight	55.46 tCO ₂ e	.28 tCO ₂ e/journey	.35 tCO ₂ e/Ton
All Freight	381.73 tCO₂e	1.03 tCO₂e/journey	1.78 tCO₂e/Ton

Publication reporting was option, but the majority of projects that produced publications as part of their exhibition (74%) provided emissions data. Some, but not all, projects separately included publication shipping with their freight reporting. The following table shows total emissions and average emissions per publication across all institutions types, calculated using the GCC Carbon Calculator.

Publications Intensity Metrics (Optional Reporting Category)

Total and average tCO₂e of catalogs across different types of institutions calculated with GCC Carbon Calculator. Publication reporting was optional, but the majority of projects with publications (74%) provided emissions data. Some, but not all, projects separately included publication shipping with their freight reporting.

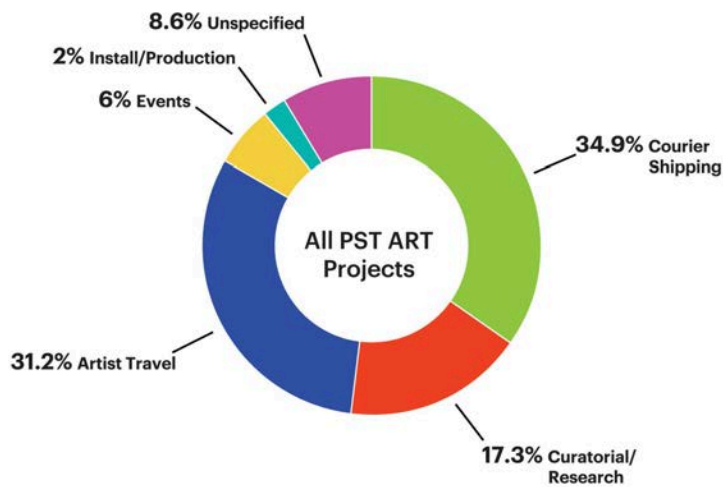
Institution Type	Total Publication tCO ₂ e	Average Publication tCO ₂ e
Major Institutions (7 publications reported)	60.75 tCO ₂ e	8.68 tCO ₂ e
Small/Midsized (5)	19.18 tCO ₂ e	3.84 tCO ₂ e
Community/Experimental (4)	3.9 tCO ₂ e	.98 tCO ₂ e
University-Affiliated (4)	5.2 tCO ₂ e	1.3 tCO ₂ e
All Projects (20)	89.03 tCO₂e	4.45 tCO₂e

4 Flight Emissions Breakdown

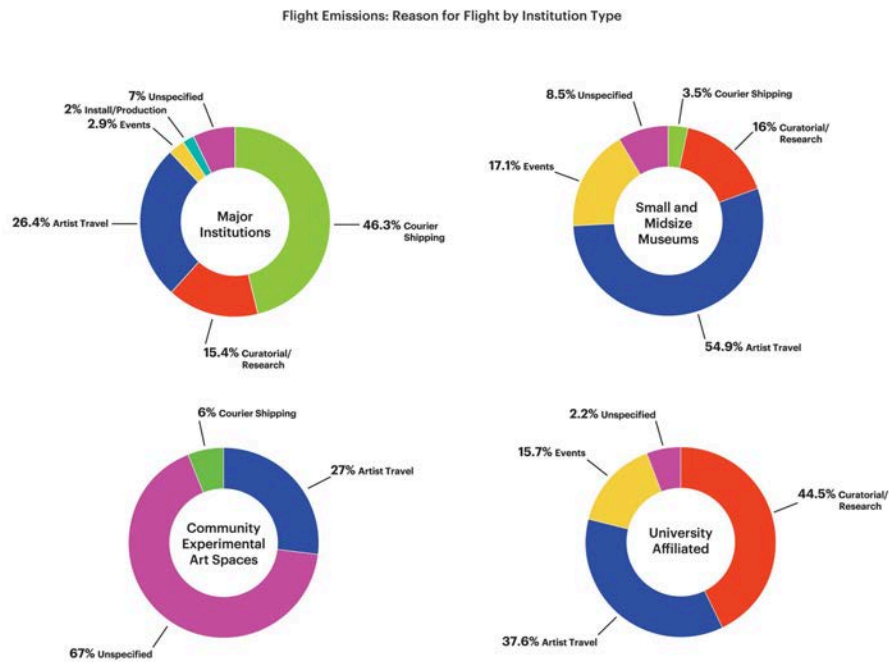
On average across all PST ART projects, courier or shipping-related travel and artist travel were the most common sources of flight emissions, followed by curatorial and research travel.

Flight Emissions: Reason for Flight

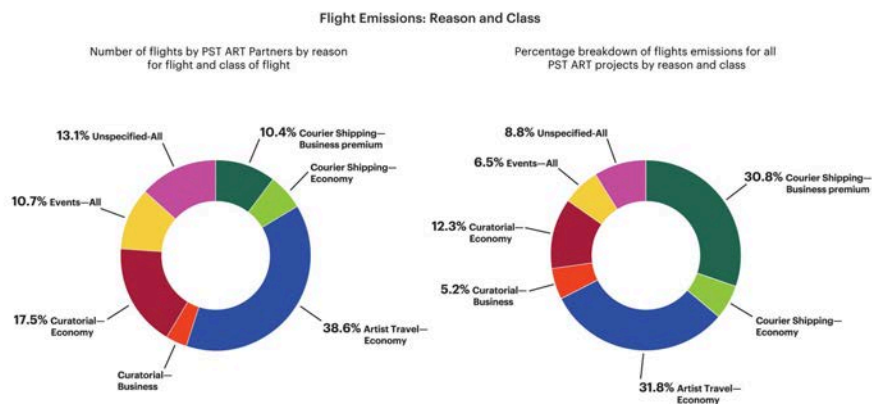
Flights emissions for all PST ART projects by reason for flight



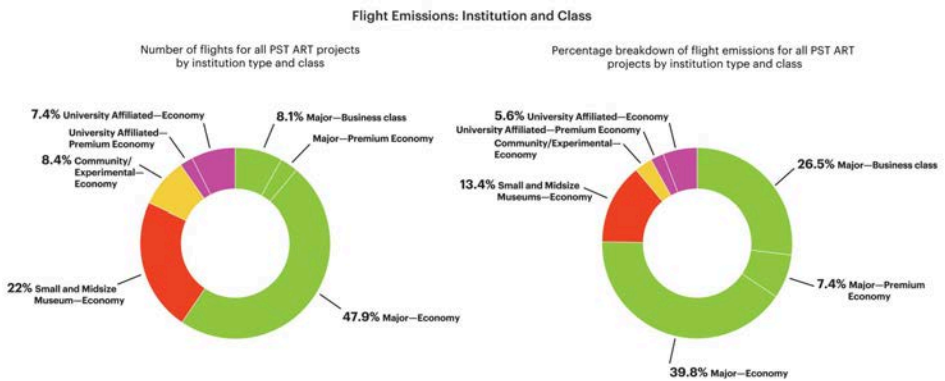
However, the primary reason for flight emissions was significantly different across various institution types. Major institutions were more likely to have courier flight emissions. Small or midsize museums were most likely to have artist flight emissions. University affiliated spaces were most likely to have curatorial and research related flight emissions. Community and experimental spaces were most likely to have provided limited data about the reasons for their flight emissions.



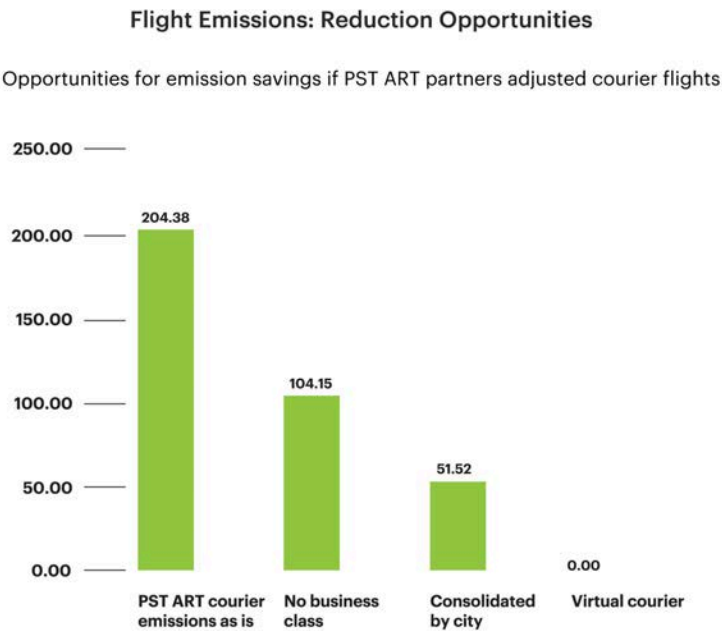
Breaking down flight emissions further by flight class and reason, it was evident that courier flights had an outsized impact on overall flight emissions, accounting for 16% of the flights taken but 35% of the reported flight emissions. This is mostly due to business class courier flights, which accounted for 10% of total flights taken but 30% of the reported flight emissions. Almost all non-economy flights taken for PST ART were for courier travel, as well as a small number of long-haul curatorial research trips.



When examining this further by institution type, all business class flights taken for PST ART project were reported by major institutions, and almost all were for courier trips. Business flights accounted for only 8.1% of the total number of flights taken for PST ART but resulted in 26.5% of reported flight emissions.



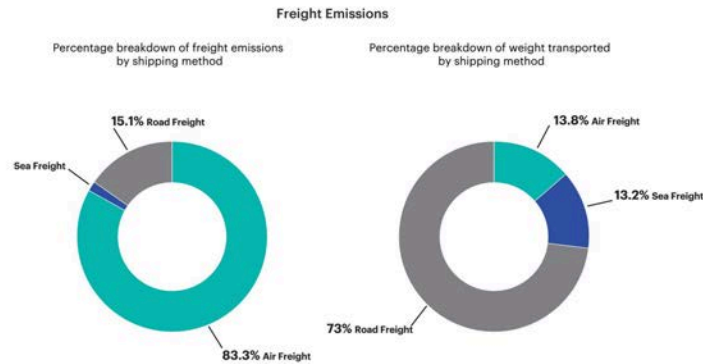
Avoiding business class flights for couriers would have saved half of reported courier emissions. Consolidating all individual courier trips from the same location to a single, shared trip would have saved 75% of courier emissions. Using virtual couriers could reduce courier emissions to zero.



5 Freight Emissions Breakdown

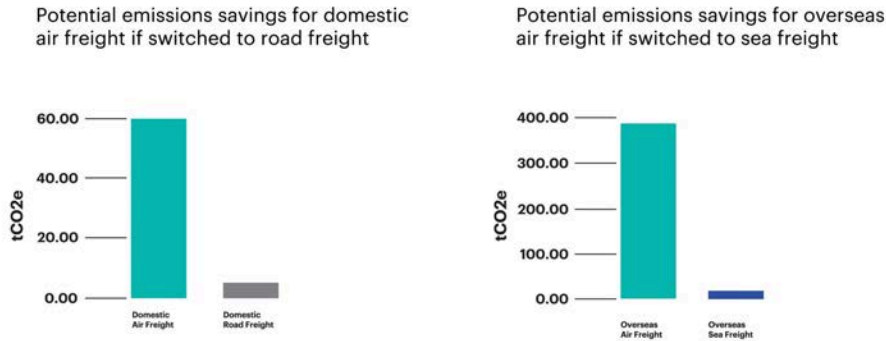
When it came to freight emissions, shipping by air freight had an outsized impact on emissions. Almost all (86.6%) of freight emissions resulted from air freight, although less

than 17% of material by weight was transported by air freight. A majority of air freight shipments (115 out of 157) were for overseas destinations, meaning sea freight was the only possible alternative. For domestic routes, 33 shipments traveled as air freight. Presumably all of these could have travelled via road freight.



63.55 tCO₂e could have been prevented by shipping domestic via road freight. For overseas air freight, 387.98 tCO₂e could have been prevented if shipped by sea freight. While sea freight isn't always a viable option, the drastic reduction in emissions should make it a larger part of the conversation if international shipping is deemed necessary.

Freight Emissions: Reduction Opportunities



Notes

1. Calculation based on an approach by Real World Visuals. At standard pressure and 59 °F a metric ton of carbon dioxide gas would fill a sphere 33 feet across (density of CO₂ = 1.87 kg/m³). Source. LA Coliseum playing field is 135,837 SF / Height of Playing Field to top of stadium is 115' 8" / Source. Solving for cubic volume of the LA Coliseum playing field to the top of the stadium is ~15.8M cubic feet. Solving for cubic volume of a tCO₂e would be approximately 18,816 cubic feet per tCO₂e. 2167 tCO₂e x 18816 cubic feet = 40.7M cubic feet of tCO₂e. 40.7/15.8 = 2.6 x.
2. Emission equivalencies from: "Greenhouse Gas Equivalencies Calculator," Environmental Protection Agency, November 2024,
3. Griffith Park is 4210 acres. Source: <https://griffithobservatory.org/>.

Data Insights & Analysis

Waste



Sholeh Asgary, video still, "Sholeh Asgary + the Ad Hoc Collective for Improvising Mourning Technologies for Future Grievs," 2021, single channel video and stereo sound, 2:43 minutes. Credit: Sholeh Asgary

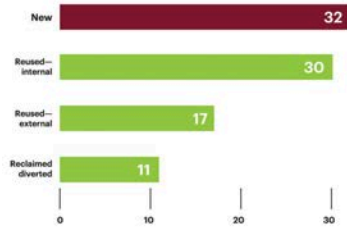
This waste dataset includes information from 35 PST ART projects, with 80% of reporting projects indicating that some form of waste-reduction strategy was implemented for their project. One project was excluded from comparative analysis since it used an alternative reporting that focused on a limited number of major fabricated works instead of the exhibition as a whole.

1 Material Sources & Destinations

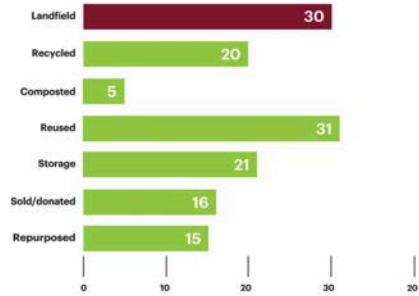
Over 90% of projects sourced new material for their PST show, and 86% of projects sent material to landfill. However, reuse of material from already existing inventory and keeping material afterwards for future reuse was common. No projects reported a "zero-waste" exhibition, but five of the thirty-five projects did not report any material going to landfill. Each of those projects selected other waste destinations, including reusing, selling, donating, storing, and/or recycling. This indicates a need for defining clear criteria for a zero-waste exhibition specifically as no material from the listed reporting categories (and/or otherwise bulky waste) going to landfill directly after the project close.

Material Sources and Destinations

Number of PST ART projects that used material from various sources



Number of PST ART projects that chose various destinations for exhibition materials



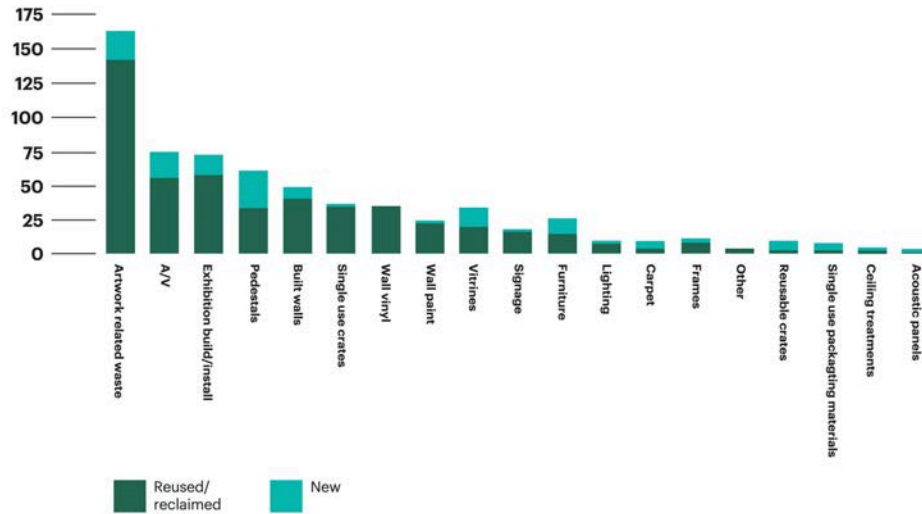
Material Sources & Destinations - Itemized

Itemized data was collected on material sourcing and destinations from participating projects. This included reporting for any material that was purchased with exhibition funds and encouraged reporting for other material within set categories of common exhibition material used in the project. The next graphs represent the number of individual line items reported for each category, but not necessarily the bulk of material by quantity or size. These graphs are useful to indicate which material categories were reported, and what was most likely to be sourced as new or reused after use, but they do not represent material quantities.

Most projects sourced new material for their projects, but certain items, including pedestals, vitrines, furniture, and AV, often came from the partner's existing inventory. Some material was actually reclaimed or diverted from landfill.

Materials Used by Source

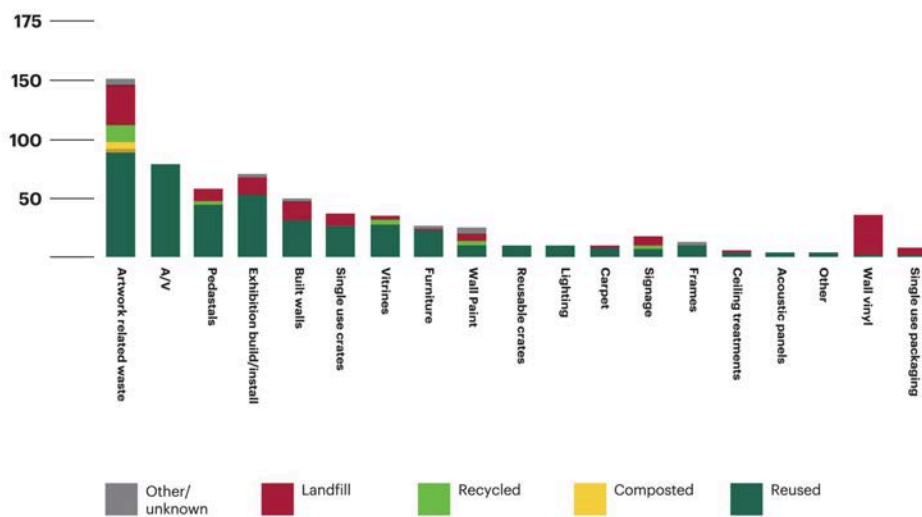
Breakdown of new versus reclaimed/reused materials across all PST ART projects



While materials like wall vinyl and single-use packaging almost always go to landfill, and artwork related waste can pose a challenge, projects generally found ways to keep, reuse, sell, or donate material after initial use.

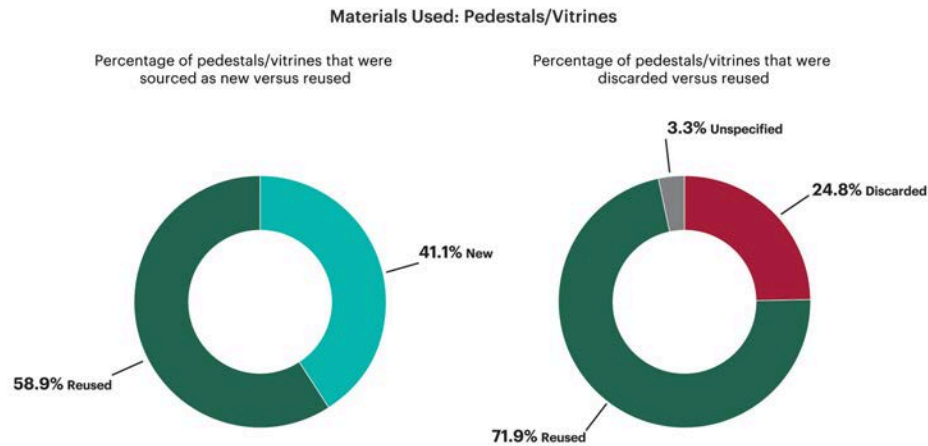
Materials Used by Destination

Breakdown of various destinations of materials used across all PST ART projects



2 Pedestals/Vitrines

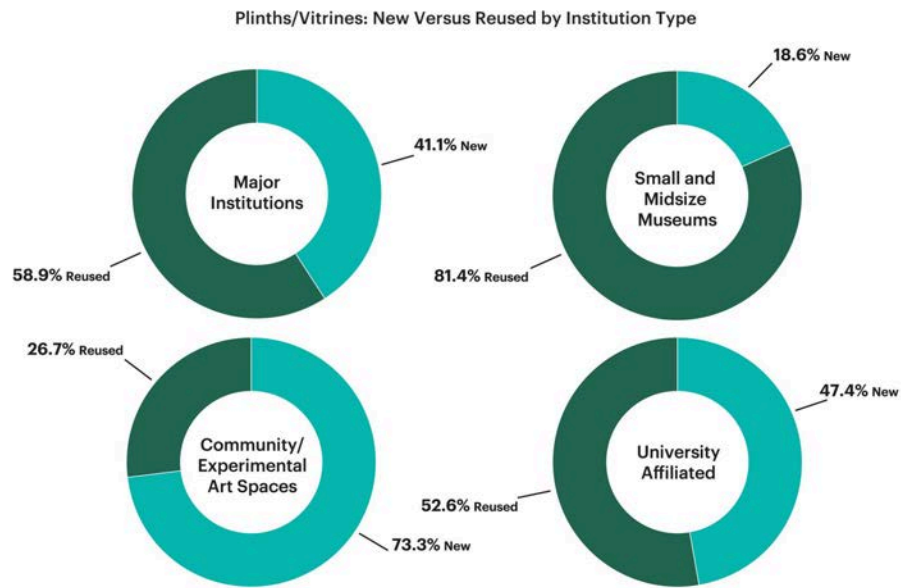
Information was collected on over 600 pedestals and vitrines used for PST ART projects. In general, most projects reported that at least some of the pedestals and vitrines included in their exhibition were reused, usually from existing inventory. There were two projects that used “reclaimed” pedestals created from material that was diverted from waste, and one project that said they borrowed pedestals from an external source. While many pedestals and vitrines were newly built, a majority were existing.



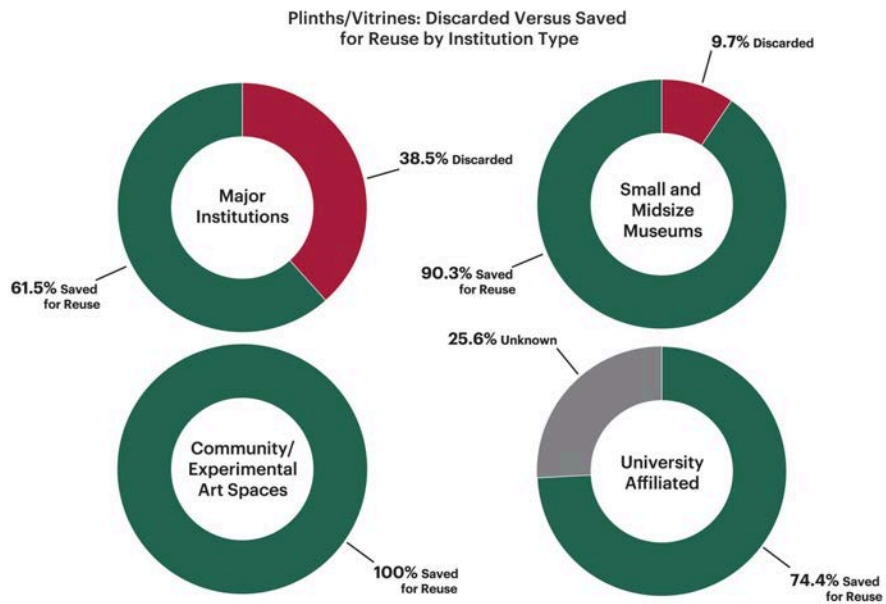
After PST ART, 72% of reported pedestals and vitrines were saved for reuse, primarily by going into storage for future use by the institution. Only a handful of pedestals and vitrines were reported sold or donated, despite being one of the most commonly requested items on the art material exchange platform [Border](#).

Ninety nine percent (all but one) of reported pedestals and vitrines that went to landfill had been newly fabricated for PST ART.

Only forty percent of newly fabricated pedestals and vitrines were saved for reuse after PST, while 99.7% of reused pedestals and vitrines continued to be reused after the exhibition.



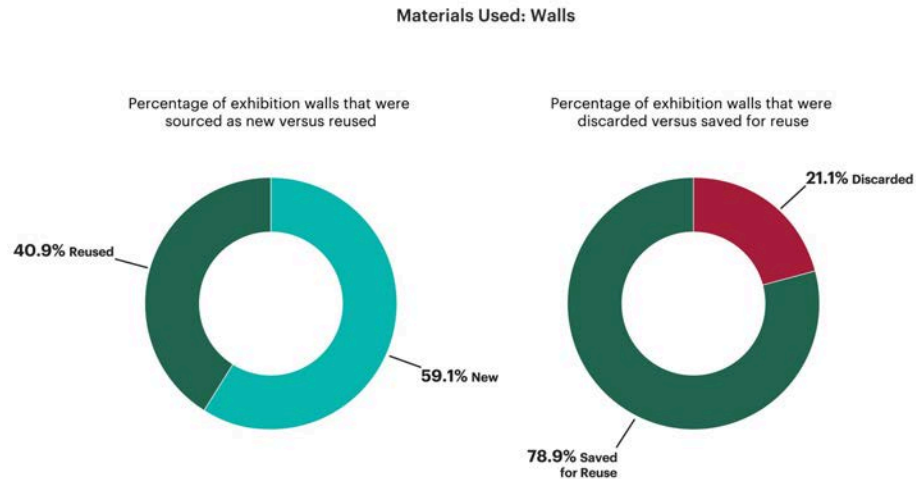
Community and experimental spaces were the most likely to fabricate new pedestals for their PST ART show. This may be because they are less likely to have an existing inventory of pedestals in storage.



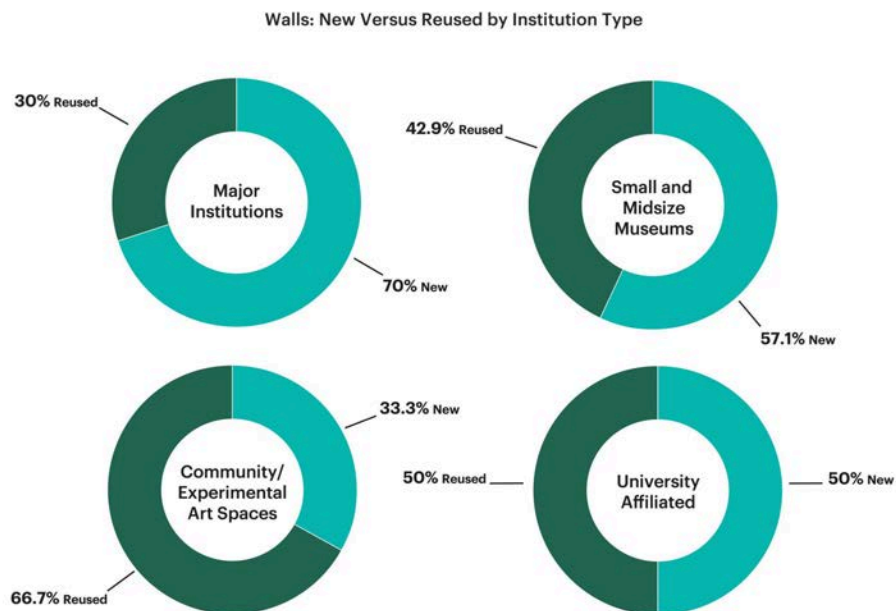
Despite being the most likely to fabricate new pedestals/plinths for PST ART, community and experimental art spaces also reported that all pedestals/plinths were reused after the exhibition, indicating that PST ART funds may help to support some partner venues to add permanent resources to their inventory.

3 Built Walls

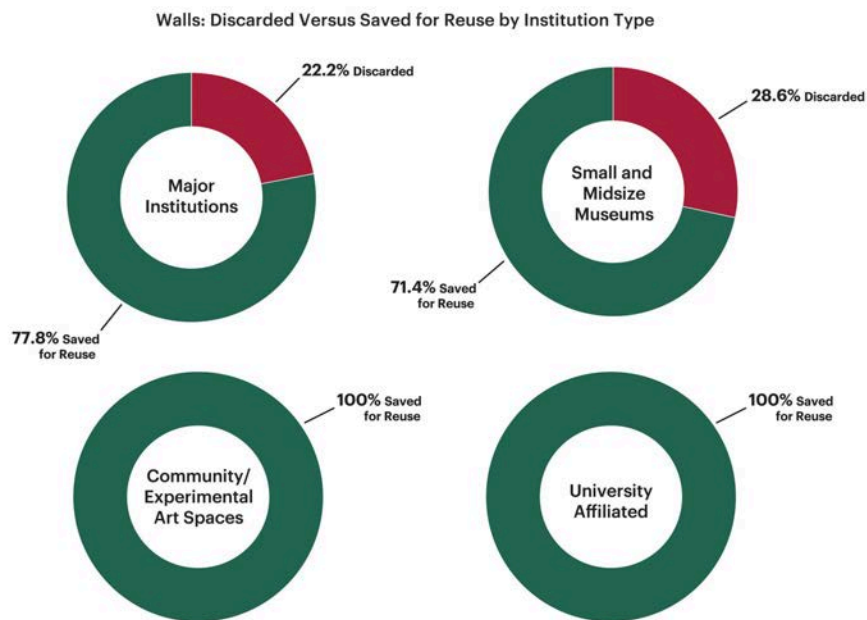
Eighteen of thirty-five projects in the dataset reported using built walls for their PST ART project.



While thirteen of the projects that reported using built walls sourced new walls for their show, all but four projects either used reusable wall systems or planned to continue to use the built wall after the PST ART project. Overall, only five projects that built walls planned to demolish and send them to landfill after the exhibition.



We noted that many of the built walls reported as “new” appeared to be additions to an institution’s existing modular wall system.



Overall, only four projects indicated sourcing new walls that then went to landfill.

Data Insights:

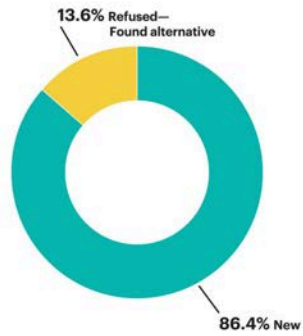
- For items such as pedestals and built walls, smaller institutions can use PST ART funds to add important resources to their lasting infrastructure and inventory that will be used well beyond PST.
- Overall, there were a limited number of built walls and pedestals that were newly fabricated for PST and then sent to landfill afterwards.

4 Wall Vinyl

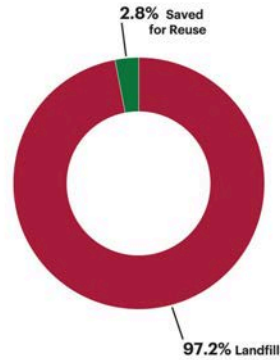
Half of the reporting PST ART projects indicated using wall vinyl, and this material was often cited in reports as a common pain point that lacks good alternative solutions.

Materials Used: Wall Vinyl

Percentage of projects that used new wall vinyl versus those that used an alternative material



Percentage of projects that saved wall vinyl for reuse versus those that sent it to landfill



Three projects that would have otherwise used wall vinyl found alternative solutions, indicated here as “Refused - Found Alternative.” And one project reported that their wall vinyl would be able to be reused (see [Spotlight: Wall Vinyl Alternatives in Program Outcomes](#)). Otherwise, all wall vinyl was sourced as new and went to landfill after use.

Conclusion



Moon Ribas, Seismic Percussion, 2017. Courtesy of the artist

Making change is a process, and the PST ART community in this inaugural Climate Impact Program (CIP) put this process in motion with financial support from Getty and technical support from LHL Consulting. Integrating the CIP as an ongoing part of PST ART will create the conditions for a new, sustainable standard for exhibition making that is modeled by institutions in Southern California. Not only did the PST ART CIP change sustainability practices within participating partner venues, the program also demonstrated that collaborative climate action is possible, that the sector is engaged, and that the desire to continue this work is strong.

Accomplishments

Working together Getty, LHL, and the PST ART partners made progress towards each of the following CIP goals:

Increase the climate fluency of PST ART participants

More than 400 individuals involved with PST ART attended at least one educational event where they gained access to strategies, tools, and resources to support effective climate action for PST ART projects. Partners generated over 40 Climate Impact Reports (CIRs), and for 80% of those partner venues it was the first such report issued. Perhaps most importantly, the CIP leaves a lasting legacy of art workers across Southern California who have a familiarity with climate impact work related to exhibition-making, with over 140 individuals actively contributing to the CIRs for PST ART.

Improve climate impact of PST ART exhibitions

The PST ART Climate Impact Program initiated a ripple of climate action within project teams that continuously informed decision-making. While there wasn't a prior benchmark of exhibition-making data for comparison, ample evidence shared by PST ART teams confirms that they implemented novel climate impact mitigation strategies through the CIP, such as reducing shipping and travel, finding alternatives to wall vinyl, and reducing—and in some cases completely eliminating—exhibition waste. Thanks to this report, there are now benchmarks for PST ART emissions, material source and destination decisions, and climate engagement.

Build a community for climate action {checkmark}

Working with the LHL consulting team, Getty created a trusted space for participants to share successes, challenges, and knowledge across their institutions. Beyond the CIP reporting requirements, PST ART participants shared details about their climate impact work during consultant office hours, educational webinars and other programming events, and an in-person Show & Tell event. As a result of the program, several institutions reported forming green teams both within their immediate team and across larger institutional departments. In addition, more than a dozen CIP participants that were leading sustainability work at their institutions formed the Climate Collective of Los Angeles Museums. The group convened regularly throughout PST ART and at the American Alliance of Museums conference in May 2025, with plans to continue regular meetings.

Create data-backed recommendations for climate action

The PST ART CIP has created one of the most comprehensive data sets to date on exhibition-making climate impact. In addition to extensive qualitative data from interviews, case studies, and narrative reporting, the program provided the first benchmarks for travel and shipping emissions, waste output, and engagement for PST ART. This qualitative and quantitative data will help guide continued action by Getty and the PST ART partners and can also be used across the sector to set new, data-backed targets.

Conditions for Success

There was no existing model for the PST ART Climate Impact Program, but participant reporting and feedback suggest several characteristics contributed to its success. First, Getty and LHL emphasized process over perfection. By acting as guides instead of experts, the LHL consulting team allowed projects the flexibility to adapt to a suggested framework as they saw fit rather than insisting on a rigid, one-size-fits-all approach. LHL often began partner conversations by emphasizing that no one could do everything and

that whatever participants could do was enough, creating a safe space to learn from both successes and failures.

Second, community-based leadership was essential in gaining trust. One of the co-leads for the CIP is a local artist and co-curator for a PST ART project. This deepened the project consultancy's understanding and empathy for the PST ART community's shared activities, challenges, and priorities.

Lastly, centralized funder support was an effective strategy to amplify climate action and community-building. Through project reporting and meetings with the LHL consulting team, PST ART partners affirmed that Getty's full support of the CIP gave teams the necessary permission to take action. Getty's backing provided leverage to prioritize climate work to leadership; write sustainability clauses into contracts; have climate action conversations with artists and vendors; and make space to think critically about the need to change the status quo.

The large-scale collaboration that defines PST ART offered a built-in community network among grantees, created a cohesive approach to reporting, and gave program participants the sense that their actions were contributing to something bigger than just their own project. While PST ART is somewhat unique in its structure, other grantmaking foundations that fund multiple projects as well as other multi-partner art events such as biennials have a similar opportunity to leverage support for climate action with an expansive community impact.

Looking Ahead

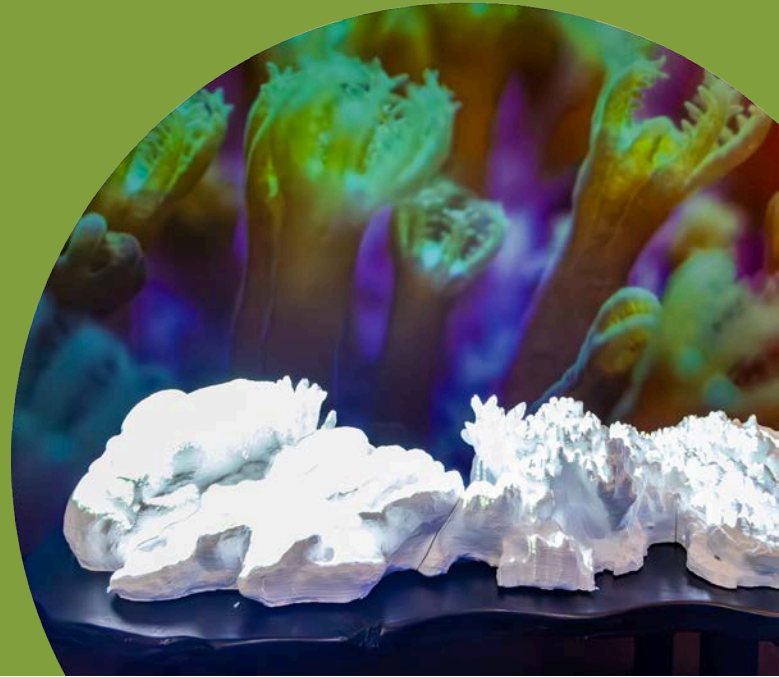
It is clear that arts professionals want to engage in climate action work, but they can be limited by capacity and structural support. Less than a quarter of PST ART partners opted out of the CIP, and the main reason given for non-participation was lack of staff capacity/availability. Financial support is one way to address this challenge, and Getty is committed to continued support for climate action through PST ART and other initiatives, from the Getty Global Art and Sustainability Fellowship Program to the Managing Collection Environments Initiative led by the Getty Conservation Institute.

It is equally clear that climate impact work is a collective endeavor. The relationships developed both within project teams and between PST ART partner venues through the CIP promise to shape climate action in Southern California's cultural institutions in profound and lasting ways. Getty and its collaborators have also laid the groundwork through PST ART for the cultural sector to be a meaningful contributor to the regionwide climate conversations by inviting the participation of artists, audiences, vendors, and broader circles of community stakeholders.

2030 is an important year for climate action advocacy. It is also when PST ART will return to Southern California. PST ART: *Art & Science Collide* provided critical climate impact data and benchmarks through the inaugural Climate Impact Program, while

simultaneously highlighting community generated solutions for sustainable exhibition making across institutions of varying type and size. Going forward, the cultural sector is well-positioned to contribute to climate solutions within and beyond our own doors, and Getty will continue to support this work with its PST ART partners into the future.

Acknowledgements



The *Unbleached* installation for Embodied Pacific at the Birch Aquarium was created by Scott McAvoy in collaboration with the Sandin and Smith Labs, archaeologist Dominique Rissolo and the 100 Island Challenge: a Scripps Oceanography collaboration which involves the digitization and visualization of key coral reef environments over time. Photo courtesy of Birch Aquarium at Scripps, Jordann Tomasek

The PST ART Climate Impact Program (CIP) is indebted to the leadership of LHL Consulting and the unflagging commitment of founding codirectors Laura Lupton and Debra Scacco, who authored the comprehensive research findings on which this impact report is based. Their vision made the CIP a reality, and Getty and its partners remain forever grateful for their thoughtful guidance, creativity, and resolve.

A number of Getty staff were crucial to the CIP's success: Heather MacDonald, Senior Program Officer, Getty Foundation; Zach Kaplan, Public Programming, Getty PST ART; Camille Kirk, Head of Sustainability, J. Paul Getty Trust; Lu Spriggs, PST ART, Communications, J. Paul Getty Trust; and Tina Lee, PST ART Project Manager. The team at Polskin Arts, especially Meagan Jones and Maura Klosterman-Vu, also provided invaluable support.

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Getty and LHL also want to acknowledge the community of like-minded organizations and individuals in the sector that has fostered this work. Thanks in particular to all of the member organizations of PACT: Art into Acres, Art + Climate Action, Art/Switch Foundation, Artists Commit, Creative Migration, Galleries Commit, Gallery Climate Coalition, and Ki Culture.

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CIP events featured numerous guest speakers who generously shared their time and expertise, helping to build what we hope to be lasting relationships. This list includes: Alicia Pillar (Artist); Haley Mellin (Artist / Founder, Art Into Acres / Co-Founder, MOCA Environmental Council); Cecilia Winter (Getty Conservation Institute); Vincent Beltran, (Getty Conservation Institute); Sarah Nunberg (Principal Investigator, Sustainability Tools in Cultural Heritage-STiCH); Rita Kampalath (Chief Sustainability Officer, Los Angeles County); Eugene Shirley (Founding President and CEO, Pando Populus); Julian Dautremont (Co-Founder, Association for the Advancement of Sustainability in Higher Education); Whitney McGuire (Associate Director of Sustainability, Guggenheim); Lilian Liu (Sustainability & Climate Strategist, formerly the UN, Futerra, and Braze); Noam Freshman (Sustainability Communications Strategist, Futerra); Kim Conaty, (Nancy and Steve Crown Family Chief Curator, Whitney Museum of American Art); sage donahue (Exhibition Coordinator, Whitney Museum of American Art); Roxanne Smith (Senior Curatorial Assistant, Whitney Museum of American Art); Jeff Kleeman and Natalie Ferguson (Studio Sereno); and Elizabeth Norwood (Coordinator, Gallery Climate Coalition Carbon Calculator).

In closing, this report is dedicated to the partners who took a chance and opted into the first-ever Climate Impact Program for PST ART. Getty and LHL deeply appreciate and admire your ingenuity and dedication to making exhibition practices more sustainable. Thank you, and here's to continued climate action for PST ART 2030.

Appendices



Uncredited still from "Neptune Frost" 2021, by Saul Williams and Anisia Uzeyman. Ngabo Elvis in Neptune Frost. Courtesy of Kino Lorber

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Climate Impact Reports from Case Study Organizations

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Craft Contemporary

CSU Dominguez Hills University Art Gallery

Hammer Museum

The Huntington

Self Help Graphics & Art

UCSD Visual Arts + Birch Aquarium