

Teiger Foundation 2025 Hosting grants
Sustainable Practices for Touring Exhibitions
November 3 2025 1:00 pm EST

This edited transcript was posted on November 12, 2025.

Lauren Leving: I think that we are going to get started. So, hi everyone. Thank you for being here today. I'm Lauren Leving, a consultant for Teiger Foundation. I'm a white woman with olive skin and shoulder length, dark brown hair with a little, small bun at the top of my head. And, I'm wearing a cozy, off-white sweater and a green button-up shirt that is buttoned all the way because I like that. Behind me are blinds that are closed, and I'm sitting on a navy couch. So, today's workshop, which again is hosted by Teiger Foundation, Sustainable Practices for Touring Exhibitions is part of the foundation's suite of hosting programs. As the programs all do, we'll begin with a presentation of best practices and then that'll be followed by curatorial presentations and discussion. So, attendees will have the opportunity to pose questions in the chat, and then we'll address them in the Q&A following the presentations.

This is the second in our suite of programming. Last week we did Hosting 101: Logistics, and in January we'll do Hosting 102: Relationships. But, today, I'm really excited for this program that is thinking through sustainability in exhibitions. The presentations are available as an accessible PDF, so if you're interested in this document to follow along during the program just share your email in the chat and we can send that right over to you. If you are watching a recording of this program after this live session, because this program will be recorded and then posted onto your foundation's website, and would like a copy of the PDF, please email us at info@teigerfoundation.org. Now, I'm going to pass it over to Vic Brooks, who is my fellow program producer for the hosting series, to take us through what this program will look like.

Vic Brooks: Thanks so much, Lauren. Hi everyone, warm welcome to the session today, and we're really thrilled to have Alexa Steiner, Alex Klein, and Robert Chaney with us. I'm going to introduce them in a moment, but just to iterate, following on from Lauren, this workshop brings together Teiger's exhibition

[Hosting grant](#) program with the foundation's commitment to advancing climate action across the field. So today, we'll be really exploring key concepts and giving you practical tools for integrating sustainable practices into exhibition tools and into hosting exhibitions, whilst also hopefully providing a lot of insights as to how these ideas take shape in practice through the lens of a specific exhibition, Alex Klein's *Carl Cheng: Nature Never Loses* tour. We really hope that these discussions today will not only underscore the ways in which you might place sustainability at the heart of an exhibition that you're hosting, but also highlight how sustainable practices in exhibition-making more generally are themselves forms of creative work and crucially are really collaborative efforts across curatorial production and administrative teams alike.

A quick note here that the Teiger Foundation's [Climate Action for Curators](#) program initiative actually supports Teiger grantees rather than operating as a standalone, open call program. So, if you have specific questions about that program or about the foundation's Hosting grants, please feel free to email info@tegafoundation.org. Stephanie Koch (Program Officer) will also be looking at the chat, so if you have particular questions that she can answer along the way she will. As we go through the presentations today, please do feel free to put in your questions in real time. What we're going to do is have Alexa present, then Alex and Robert. Then, we'll have the three of them in conversation and followed by an open Q&A session. But, we'll be collating all of your questions as we go along, so we'll keep the things flowing.

So without further ado, I'm very excited to introduce our participants today properly. For our first presentation, which will be around fifteen minutes long and will give us a high level overview of these key sustainability concepts and approaches, we have Alexa Steiner - welcome Alexa - who is the founder and director of Rute Collaborative, a consultancy based in British Columbia, Canada that supports art organizations to realize and achieve their strategic goals for climate action and sustainability. Her and her colleague Dayna Obbema have been coaches for Teiger's Climate Action for Curators program since its inception in 2022. They also work with a number of other museums and institutions on institutional climate strategies and exhibition carbon studies, including the Met, the Whitney, and the Guggenheim Museum. So Alexa will start, then we'll move on to Alex, who was one of the foundation's participants in the [Climate Action pilot program](#). She's Head Curator and Director of Curatorial Affairs at The Contemporary Austin, where she works alongside the curatorial team to shape the exhibition program of the Jones Center and steward the sculpture park at Laguna Gloria. Her survey exhibition of Carl Cheng's genre defying practice that she'll be presenting today opened

in Austin in fall 2024. Then, it toured to the ICA Philadelphia (ICA) where Alex was actually Senior Curator for over a decade. Following the ICA stop, it traveled to Bonnefanten in Maastricht and is now in the midst of its international tour, with a stop at Museum Tinguely in Basel, and will then actually be back in the US at ICA LA next year. After that, Robert will join Alex. He actually worked very, very closely with Alex on the realization of the Carl Cheng exhibition at the ICA Philadelphia, where he's the Marc J. Leder Director of Curatorial Affairs. He works very closely with the ICA's Chief Curator to produce the institution's exhibitions, and also acts as a liaison between curatorial affairs and all of the other ICA departments. A few words about Robert, he's worked in the contemporary art museum field for more than 30 years, where he's accrued a varied set of experiences across areas such as project management, exhibition design, museum education, art installation, budgeting, and registrarial work. During his twenty-two-year tenure at ICA, he's also managed, of course, multiple traveling exhibitions and museum partnerships. So, we're really looking forward to having these three distinct perspectives for the session today. Without further ado, Alexa over to you, and we'll start the presentation.

Alexa Steiner: Hi everyone. Thank you so much, Vic. It's a pleasure to be here today. My name is Alexa Steiner, as Vic said. I am a white woman with dark brown hair. I have my AirPods in my ears. I am wearing a striped button down shirt with a button undone. I'm sitting in my tiny office, and I put some dried flowers behind me just in case you get sick of looking at my face. And without further ado, we'll get started.

[7:20 - 7:47 technical difficulties, presentation is in the process of being pulled up via Microsoft PowerPoint]

Alexa Steiner: I'll start talking, and I'll meet you on slide three, Lauren. So, what I'm going to do for you for the next fifteen minutes or so is a high-level introduction - I think someone might be unmuted here - to climate action in the arts sector. Then, we're going to get into some concepts and examples within touring exhibitions specifically, and then I'll hand it off to Alex and Robert to share more details about what they're doing at their amazing institutions and give you some more concrete examples. So this sector, the art sector, has a really unique opportunity to approach climate change, encourage audiences to think differently about their understanding of it, and also inspire new actions to work towards interesting solutions. I'm on slide three, Lauren, just so you know. [Slide 3: The Sector's Unique Opportunity] In

order to fulfill this opportunity and have that influence externally, we need to look internally at our own work and think about how we can work differently to mitigate our own impacts. Small efforts ladder into big change will have a big impact and can help you integrate sustainability considerations into your own work.

[9:11 - 11:34 technical difficulties, presentation is pulled up via PDF]

Alexa Steiner: [Slide 4: 3 Pillars of Sustainability] So, it's important to think about sustainability from different lenses and perspectives. It's not just about recycling properly, or even just reducing your greenhouse gas emissions. The three pillars of sustainability that we like to say are social, environmental, and economic. And, in order to lead an organization in a sustainable way, all of these things must be considered. [Slide 5: Almost everything we do creates emissions] Getting a little bit deeper into the environmental aspect for now, almost everything that we do creates submissions. The goal is not to eliminate all emissions but to know and understand where our biggest emitters are coming from. Learning how to manage them and mitigate them effectively, and include environmental impact as a consideration in some of our day-to-day choices, is a really, really good and effective way to start.

[Slide 6: Industry & Art World Emissions] This chart is from the EPA, and it shows emissions by industry, the largest emitters in the USA in 2021. We like to start all of our presentations with a grounding and a reminder that we are not the travel industry; we are not the oil and gas industry. There are no regulation standards for emissions or mandatory disclosure for the art world. So, any action that is taken is because of the incredible people that work in this industry, and the way that they care and want to make change happen. On this slide [leftmost graphic on slide], you can see that the art world is a fraction of emissions in relation to these larger industries generating approximately seventy million tons of carbon each year. This is not insignificant, though, as the amount is equivalent to more emissions than the entire country of Austria creates in a year [rightmost graphic on slide]. Our impact matters as an industry, and we can and must do our part to reduce to the extent that we can.

[Slide 7: Why Museums] Why museums? The American Alliance of Museums (AAM) conducted a survey in 2022 asking Americans if they felt that museums had a

role to play in climate change. The results were very clear about how the public felt on this issue. On the next slide, you can see that [Slide 8: Why Museums #2] 86% of respondents to the original survey said that all museums should address climate change, and a further 87% of respondents said specifically art museums should be working to reduce their footprint and impact through more sustainable measures.

[Slide 9: What can museums do?] So, what can museums do with those results in mind? What does sustainable action mean in museums, and what can museums do to reduce their impact? There are many examples of climate action efforts in museums that are happening globally. For example, the Field Museum in Chicago introduced a garden called the Edible Treasures Garden - you can see it up here [leftmost image on slide] - where they not only grow vegetables used in their restaurants, but they also use the space as a way to educate visitors and staff about growing food in urban areas. Being in a creative industry, I think, gives museums a big advantage when it comes to climate action and thinking outside the box about what can be done. We have to talk about how to start.

[Slide 10: How to start] Before beginning to integrate sustainability considerations into your operations or your touring exhibitions like today is about, you need to start by determining your sustainability values and your priorities more generally. So, what does sustainability mean to your organization? Identify ways that you might already engage in sustainability through operations, infrastructure, programs, and other practices. Most organizations are already doing something, so it's important to identify those things and start from there. Then, find mission alignment. Identify how your definition and prioritization of sustainability connects to your organization's larger core mission, vision, and values. It's really important in this work to seek input from different types of stakeholders. So, seek cross-departmental participation and input for feedback and support in your process of creating a holistic definition and your priorities. Ensuring that this all fits within staff capacity is important as well - that's something we'll talk about a little bit later on. Then, setting guiding principles. You'll hear this from Alex a little bit later. Create a set of guiding principles or best practices that help inform your decision making across your daily practices, embedding sustainability into your day-to-day work.

[Slide 11: Climate Action in Touring Exhibitions] So, what does this look like in touring exhibitions specifically? I'm going to go through a number of

examples here, and then when you hear from Alex and Robert [Slide 12: Policy & Engaging Partners] they'll give you even more in depth examples of how they did this in their organizations. Policy and engaging partners, there's many things that you can do. We suggest to add time to your meetings, your internal meetings, to discuss your sustainability goals for your exhibition and define the areas where you can have impact. Align with artists, so prioritize working with artists that share your focus and your values, and also take time to learn from their experiences and approaches as many of these artists have spent much of their careers thinking about these issues. Communicate with your partners, so sharing your sustainability values and priorities for the exhibition with your partner venues, and asking them if they align and if they have their own vision for what this could look like.

[Slide 13: Policy & Engaging Partners #2] If you'd like to, you can make a plan for data tracking. So, determining if tracking data from each stop is important to you, what data and who's going to track it, and informing your partners early to equip them with resources to make sure that the training is effective to effectively track the data and not have it feel like a big make work project. Then language, thinking about incorporating language and commitments into your exhibition and vendor contracts. The next slide [Slide 14: Example 1] is a really short example of how you can do that. In the resources that will be shared after the program, we have a whole multipage document with different examples of how you can copy this into your contracts and edit it slightly to be effective for your organization. [Slide 15: Example 2] Sorry, this is another example, but we'll go down to materials now.

[Slide 16: Materials] For materials, this is obviously what people think of when they think of sustainability right away, the things you can touch and feel. Thinking about a reuse plan: establishing a material reuse plan for your entire tour, working in partnership with the partner venues to think about that, communicating the desire to do it, and making sure that partners understand what's going to be expected of them. Next, planning ahead. This is possibly the most important thing in this materials category, thinking about what is going to happen to that material at the end of its life long before it reaches the end of its life. So: will it travel from partner, venue to partner, venue, what will happen with it when the material reaches the end of its life, etc. Understanding your impact of materials is a really helpful way (to plan ahead). Calculating emissions from travel and also of that material specifically will help you decide whether you're going to reuse exhibition materials versus build new ones from venue to venue.

[Slide 17: Crating & Shipping] Crating and shipping. Packing and crating design, thinking about lowering waste and emissions from shipping by reusing packing and creating materials for each stop on the tour, if that's possible. Maybe it is possible for a few of your pieces, and you have to redo and rebuild for the other few, but it's important to think about that in advance, Determining contents to ship, so thinking about if it's necessary to ship all artworks and materials to the next venue or if you can lower your impact by sending less. Prioritizing low emissions options, so understanding what shipping methods are available, planning with enough time to have that be something you can consider in addition to their impact. I like to say put it in the sky, emissions fly high, so air freight is the most emissions heavy. Sometimes it's necessary and you can't avoid it, but just thinking about that and having it be part of the decision factors that you consider is helpful.

[Slide 18: Travel] Travel. Think about potentially conducting virtual site visits. Opt for a virtual tour if the curator and the artist have already been to that venue before and have an understanding of the space. Consolidating staff and artist travel. This is where we see a lot of emissions reduction, when people actually start to plan ahead and think about reducing excess travel. So, if your partner venue is in Milan and you have to go to Venice within the next month or two, consolidate that trip to Italy. Don't go to Italy twice, go once. I know there's many other reasons, like budget, to do that too. Then, consider virtual couriers. This is something the industry is starting to slightly move towards. I know Alex can talk about this more specifically with Carl Cheng. But, this would involve thinking about when and if couriers will be needed, indicating your preferences for that with your partners, and making sure you're aligned with partner institutions, lenders, etc.

[Slide 19: Tracking Carbon Emissions] The next one is about tracking carbon emissions. This is a choice that some organizations will choose to make, and some will say, "this is not in our wheelhouse right now. We don't want to get into it." But, thinking about carbon tracking and using a carbon calculator is more than just about gathering data; it's a decision-making tool. It helps you weigh the benefits and think about carbon impact when you're thinking about it in relation to other aspects of decision making. Budget, we know, is always going to come first. How can you create a way, a lever, that sustainability, emissions, whatever else it might be, can fit into your decision making process? Thinking about the categories of the emissions that you track, so

making sure that you're focusing on the categories that you feel matter to you and align with what you want to understand. So, categories can include the energy that was used for your exhibition, travel, and shipping, etc. You can calculate emissions related to materials. Think about which categories you want to learn more about and have some data from, and focus on those. Next, supporting others, so if you're choosing to ask all your venues to track their emissions, and Alex will weigh in on this as well, consider what tools, resources, and supports their teams might benefit from that your team might be developing that you could share.

[Slide 20: Programming & Events] Finally, programming and events, so engage your audiences, thinking about highlighting your sustainability commitments from your touring exhibition in your messaging in your programs. Keep your internal audience, your staff, informed, and then also think about external audiences as well. Another thing with travel and programming is you can also encourage low emissions transportation. So, for example, think about encouraging and incentivizing visitors and staff to use bike share or public transportation to get to and from events; that's a really easy way to lower the overall impact of your events.

[Slide 21: Climate Impact Reports] Finally, once you're doing all of these things, how do you collect all of this and put it in one place to say: look at all of these efforts, look at all these goals, look at what we achieved, look what we're working towards, and we'll look at what we learned? That's called a Climate Impact Report¹, and you'll see many examples of these come up online. We'll share some out in our resources as well at the end. It's a way to track and measure your considerations, your sustainability considerations, for a touring exhibition throughout the whole process and for all of the locations. It creates a report that you can use to show examples for the industry at large. So, there's lots of Climate Impact Reports that have been done for single-location exhibitions. Alex, right now, is working on one that's going to be kind of a new and exciting thing for the industry as it's specifically around a touring exhibition with many stops. You can include a mix of quantitative and qualitative sections in your Climate Impact Report, so energy, travel, shipping, and materials, etc in the quantitative. Then, in the qualitative, you can talk about supporting workers, how your exhibition

¹ **Note from Teiger Foundation:** This section references the [Climate Impact Report framework](#), which was developed by Artists Commit in collaboration with Laura Lupton. The concept and model were launched publicly in 2021 to give artists, curators, and institutions "greater insight into the climate impact of the projects on which they work, to provide a framework for dialogue within the project team, and to promote a practice of transparency of climate impact within the sector."

advanced climate justice practices, how you worked i.e. collective action, and partnerships, how you worked together to advance narratives and education around climate.

[Slide 22: Putting it all together] So, putting it all together. Zooming back out, figuring out what sustainability means to your organization, how it aligns with your mission, and starting to prioritize the areas of focus that feel valuable to you. Then, you seek input from your departments, from partners, etc. You create the guidelines and the expectations, the goals, based on some of the categories that we talked about today. Then, you communicate those goals early and often, providing resources and tools for everyone to be able to do so effectively. And, I know you're going to say, "where are those resources and tools?" We're going to share some out, and we're always available. The next slide [Slide 23: Resources] has some examples of those, but you'll receive this in a different format after today. And, I just want to say thank you so much. Sorry for the mishap at the beginning, but thank you for listening today. I'm excited to be here. And, I'm excited to hear what Alex and Robert are going to share and to be back on your screens in a little while in the conversation period. Thank you all.

Vic Brooks: Thank you so much Alexa, and thanks to everyone. That was a really wonderful overview that gave us all of the key tools. As we move ahead into Alex's presentation which will talk about everything in practice, a note on the resources. Alexa mentioned that we're going to share those afterwards. They'll be on Teiger's website within two weeks along with this recording. We'll send an email out afterwards, but I'm just sharing this here so that you'll be able to check in on those afterwards. So Alex, over to you and Robert, and hopefully the presentation will work a little better this time.

Alex Klein: Thank you so much Vic. Well, thank you everyone. It's really such a pleasure to be here. [Slide 1: Intro] And, apologies in advance as my voice is a little hoarse; I lost it at the end of last week, and I'm still in recovery mode. So, my name's Alex Klein. I'm a white woman with shoulder-length, brown, curly hair. I'm wearing black. I've got glasses on, metal glasses, and am wearing headphones, and sitting in a room with a white wall. I'm going to speak for about twenty minutes. Some of what I'm going to say is going to overlap with what Alexa presented on, and hopefully also show how these resources and ideas are put into practice. To do that though, I'm going to talk a little bit more about the show *Carl Cheng: Nature Never Loses*. So, here [rightmost image on slide], you see Carl in his studio. He's

eighty-three-years-old, based in Santa Monica. The exhibition surveys about six decades of his practice working at the intersection of technology, ecology, and identity. It's quite a kind of unwieldy, multimedia practice that also took place in public spaces and with ephemeral material. So, a lot of the challenge of the exhibition was how to build a world around things that may no longer exist or only exist in kind of partial form. [Slide 2: Tour locations] The title *Nature Never Loses* could easily have been *Nature Always Wins* or *Nature Is Everything*. The show traveled to five venues, and I will get into that at the end. You'll see this slide again. But, just to put in everyone's minds, a lot of the sustainability planning was about understanding that we had an international tour in front of us. Again, I'll talk about where it went in a few minutes.

[Slide 3: Installation views of *Photography into Sculpture*, MoMA, 1970] To talk through sustainability, it's helpful to understand the arc of how this fits into Carl's world because it's also a piece of the topic of the exhibition itself. Carl is an artist who many people may have known more as a photographer, and he specifically is known for these molded plastic photographs that were included in an important exhibition at MoMA in 1970, *Photography into Sculpture*.

[Slide 4: Zoom call between Carl Cheng and Alex Klein. Detail of preliminary object identification spreadsheet] But, it turns out that his practice was again, much more expansive. There was really no consolidated place to go and find this information. This was a show that I began the process for around 2019 when I was still a curator at the ICA in Philadelphia. And in 2020 because of the pandemic, we (Carl and I) began meeting every week over Zoom and scanning materials weekly from his archive, basically going through his life year by year, and then we made kind of our own archive of his practice.

[Slide 5: Installation view of *Anthropocene Landscape 1* and *2* (2006) in *Carl Cheng: Nature Never Loses*, The Contemporary Austin, 2024] So, all to say that all of this kind of culminated then in this exhibition that has been touring around. What you see here is - I'm going to oscillate between actual objects and installation views. This [image on slide] is a view from The Contemporary Austin where the show opened in September of 2024. What you see in the foreground are two of Carl's *Anthropocene* landscapes, which really consolidate a lot of the topics in his work, where he takes these miniature and aerial views to talk about much broader issues such as climate change. These are aerial view landscapes, or what look like aerial view landscapes from 30,000

feet and 6,000 feet, that are made out of circuit boards with both older technology and newer technology. And, for Carl, this is a metaphor for how rigid we are in our thinking about progress, technological progress, and how it also then has these violent effects on the landscape, and this rigid thinking around how technology affects the way that we populate the land, etc.

[Slide 6: Carl Cheng, *Nature Laboratory* (1966 – 1990)] But, Carl also has these more open-ended durational projects. He had a rooftop laboratory where he would leave objects out and let them be affected by the weather, so wind, rain, etc, the sun. He would also embark on projects around growth, so you see here [images on the slide] is California Bonsai.

[Slide 7: Carl Cheng, John Doe Co. logos] This is a really quick, quick overview of Carl. In 1966, he starts working under the name John Doe Co., which is a speculative company under which he issues different products for a future yet to come, or perhaps a present that is quite urgent. And, John Doe Co. has a lot of different inflection points, which I won't get into here, but also points to his own identity and also the broader Vietnam War context and anonymity.

[Slide 8: Installation view of *Erosion Machines* (1969 – 2020) in Carl Cheng: *Nature Never Loses*] Here you see his erosion machines. And, what you see on the right [rightmost image on slide] is a detail of one of the erosion machines and on the left [leftmost image of slide] is how it was presented in the exhibition. I believe this actually might be a view from the ICA. The erosion machines are part of his nature machines where he would reproduce the effects of different atmospheric conditions or natural processes in [audio cuts out] that would resemble, like, a household appliance, so this was almost the size of a microwave. And, you have here on the left what he calls human rocks, which are different sedimented forms that he's created. Then, on the right, he puts them in a tank in which they get drilled or sprayed – the water has different functions to erode the objects. And, he says it could take anywhere from one year to 10,000 years or 1,000 years, so the objects are also pointing to these things that exceed the lifespan of a human being and are really talking about questions of the Anthropocene before there was a proper terminology for it. These objects state from 1969.

[Slide 9: Carl Cheng, *Emotional Tools* (1966 – 2024)] In the early seventies, he goes to Asia. It really changes his perspective on what art could be, who

it could be made for, where it would be presented. You're seeing here [both images on slide] some of his unspecified artifacts and emotional tools which we then had to bring together in exhibition format i.e. create a display for them.

[Slide 10: Carl Cheng, *Avocado Laboratory* (1998 – 2024) Installation view Institute of Contemporary Art, University of Pennsylvania] A striking installation in the show is the avocado laboratory. This is actually a greenhouse that traveled around, and Robert will talk a little bit more about this material you see on the wall, Photo Tex. But, this is an installation from the ICA in Philadelphia. We really thought through vinyl alternatives for some of these graphic moments in the exhibition.

[Slide 11: Carl Cheng, *Early Warning System* (1967–2024) Installation view The Contemporary Austin] Again, just thinking through some of the topics in the work. This is *Early Warning System* from 1967, one of his key John Doe Co. products, which is a device to alert you to oncoming weather disasters but also to the disasters caused by humanity. There's an internal projector that originally showed pictures of human development that were eventually replaced with images of human degradation of the landscape like oil spills, etc. And, there's a live radio feed of maritime weather. So, it's kind of modified over time. But, in the exhibition, we have it installed in front of what it originally would've looked like and the original product card because he was also proposing it be an object that would have use. Quickly to say, this is also a loan from SFMOMA. So, this is one of the considerations that one has to take into account when you have an exhibition that is partially coming out of the artist studio, but then also major museums; you're trying to think through standards with regard to shipping and all the kinds of best practices around registrars, etc. Those are some of the complications one has to consider.

[Slide 12: Carl Cheng, *Alternative TV* (1979 – 2016)] And we'll actually go really fast here, just the *Alternative TVs* to say that he's engaged with media. [Slide 13: Carl Cheng, *Natural Museum of Modern Art* (1978–80)] *Natural Museum of Modern Art*, going out into public space and really starting to develop an idea around this idea of the art tool. So, making devices that actually would make ephemeral artwork.

[Slide 14: Carl Cheng, *Santa Monica Art Tool and Walk on LA* (1983–88)] This is one of his major public art projects, the *Santa Monica Art Tool*. He made a

roller that would imprint the image of Los Angeles on the beach, and he considers the roller the art tool and the print on the sand the artwork. This becomes a kind of metaphor for the precarity of the built environment.

[Slide 15: *Carl Cheng Nature Never Loses* Installation view The Contemporary Austin, 2024] This shows you how we presented it (*Santa Monica Art Tool*) in the exhibition. This is from The Contemporary Austin. So, there's a kind of a graphic world [wall graphics pictured in image on slide] that was reproduced and modified in different installations. You have models, sketches, and then also video documentation and drawings.

[Slide 16: Carl Cheng, *Human Landscapes* Installation views The Contemporary Austin and REDCAT] Finally, this is one of the major installations that we had to figure out how to reproduce in all of the different venues. This is his art tool sand rake. There's the big yellow machinic element in the back. If you advance it (the slideshow), a video should play that can show you how the sand drawings are made. [Video is unable to play] [Slide 17: Carl Cheng, *Human Landscapes* (2025) Installation views Institute of Contemporary Art, University of Pennsylvania and Bonnefanten] There's a video that shows how the tool blows sand and drops air and water, and he sits there, Carl, for up to two weeks with a joystick controlling the tool to basically layer sand and create a temporary landscape that then at the end of the installation gets washed away. So, what you saw on the first slide was The Contemporary Austin, and now you're seeing Bonnefanten and the Institute of Contemporary Art at the University of Pennsylvania in Philadelphia. I wanted to show all these different venues because there's an incredible amount of resource sharing that went into it. This art tool sand rake was the work that we collaboratively decided to restore across the different venues and originally even went in with REDCAT in Los Angeles.

[Slide 18: Teiger Foundation, Rute Collaborative, and Climate Action for Curators Pilot] So, I want to go to the next slide now and talk a little bit more about the practicalities of staging a really pretty complicated exhibition with a lot of different materials, and also material considerations that are organic and media-based in addition to traditional objects. But, resource sharing I think is really the key, and that is for both internal purposes and external purposes. So, we started working with Rute Collaborative, and we had the benefit of consulting with them for a year. We would meet every week. Really, it started first with myself meeting with the Rute Collaborative team and then bringing more of my team along. And that, I

can't emphasize that enough, was to make sure that it's not just a kind of a top-down directive; it's something there's collective investment in. Through the weekly meetings, we developed our goals, and for me it was really important that the goals of the immediate project at hand, *Carl Cheng: Nature Never Loses*, were synced up with the larger goals of the department. I oversee the curatorial department, but I also sit on the leadership team of the organization. So, it was kind of a strategic choice to make sure that this wasn't just a one-time thing, but but something that would actually lead towards some bigger changes both within our department and then also hopefully within the organization as a whole, connecting to our programmatic goals.

[Slide 19: Carl Cheng with The Contemporary Austin installation team] Here's a picture of The Contemporary Austin team that was involved in installing the exhibition with Carl in Austin. As I mentioned, after I began meeting with Rute Collaborative it soon became really clear that in order to make any kind of effective change it was really important to have the Registrar, Production Assistant, Head Preparer, Director of Exhibitions, and the other Curators, etc, involved in these discussions as well so that there were also a lot of other good ideas coming from other people. So, thinking through capacity and feasibility is a huge part of the conversation because sustainability needs to be both sustainable from an environmental perspective but also from a capacity perspective. In museums, you never have enough time, or money, or bandwidth, so we developed what we thought were realistic best practices that we could integrate into our daily workloads. Again, this was about thinking about the project but also thinking about this as an opportunity to test run things for the future. We have two members of our team that are kind of our Green Team, our Head of Production, Greg Valentine, and our Production Assistant and Registrar Assistant, Edith Copp. They are the people who also express personal interest in this work, so they bring this up in our meetings and help keep us in check. We developed, as Alexa mentioned, a carbon tracking budget for the exhibition that, for me, was part of a larger goal of having a carbon budget that we could use throughout our exhibition. The hope is that in the next two years we could be in a place where alongside our financial budgets we also have a carbon tracking budget. To do this, we also test drove Gallery Climate Coalition's (GCC) new Carbon Calculator and had some really specific feedback about what was realistic and what was really complicated. Working with Rute Collaborative helped us with being realistic about what we felt was feasible for us to track, so we really honed in on our building's emissions, shipping, and travel. I really have a lot of respect for organizations that are able to track things like emails and Zoom calls; it just wasn't feasible for us because even just tracking your travel is quite a lot. Also, we have an institutional goal to have GCC membership within the next year or so, which also requires that we have constant carbon data; we were already doing this.

So, I think some of what Alexa mentioned is that sometimes your sustainability goals also map onto good financial practices and things that you probably already do as an organization, but naming it is really key so that it also kind of keeps you on track. For example, reusing walls whenever possible. This is no surprise for small nonprofits - thinking about your layout holistically. So, thinking about each season rolling into the next and how you can get the most change with the least amount of build out is something we try to do. Another example is integrating sustainability clauses into our contracts with artists, so we're naming that this is something of importance to us and that we may ask certain things of them. Also, integrating more local artists into our program. This is something that we want to do for many reasons from a curatorial conceptual standpoint, collegial standpoint, and relevance, but also it helps with your carbon. So, we're really also being very thoughtful about making sure that there are local artists integrated into the program alongside all the incredible international artists that we're working with. Additionally, being thoughtful about travel policies. As with what Alexa mentioned, we're really trying to tack on as much as possible into any given trip, which is something I think you probably already do, but it's also good to name that and make that more intentional. Also, shipping considerations and registrar policies, so coming up with our own policies about really not having registrars travel unless absolutely necessary. We've really been working hard to develop the capacity for our Registrar to have the virtual tools that she needs. This also involves communicating when we have loans coming in from other museums that this is our internal policy, and asking might they reconsider if they've requested a registrar or a courier accompany a work; sometimes, this has been a really fruitful conversation to have. Then more broadly, we've been putting aside some money in our annual budget for material explorations because, if we're going to shift the kind of gloves we're using or paints that we're using, we also need to be able to test those out. That can be really minimal and have longer term payoffs

Cross-departmentally, it was also really important to bring other departments on board and show them how sustainability could work for them, also making sure everybody has their own foothold. I think it's really important, again, not to have this top-down approach, to make sure that everybody finds their own place in the conversations. For example, having your Development team see that there are fundraising possibilities. When Rute Collaborative came

through, we met with all the different departments, and people have kind of gone off on their own with these initiatives because they found their own foothold.

[Slide 19: Tour locations] We'll go quickly through these last three slides. Once this became an externally-facing project - just to say the show opened in Austin, went on to Philadelphia, then went on to the Bonnefanten in the Netherlands, is about to open at the Museum Tinguely in a couple of weeks, and then will conclude at the ICA LA - and to do a tour like that, it's also really important to build things in advance with the knowledge that things might travel. So, we were able to build the furniture, for example, with the materials that were of a certain grade that they could go internationally. Same with the crates, we don't have to build new crates in between tours, but, it meant a little bit more of an investment on the front end.

[Slide 20: Emissions tracking] As Alexa mentioned, we had carbon tracking as part of our contract with all the venues, so everybody agreed to submit their carbon data for shipping, travel, and emissions. With this, we also had to absorb some of that work. So, I will say it does cause extra administration on the organizing partner because while the other organizations are definitely pulling their weight, we were working with Rute Collaborative to set up the format and also create guidance; and, we have someone on our end who's actually pulling a lot of the labor. Here's an image [rightmost image] of when we opened the show and several of the tour partners met with us. We walked through how to do the carbon tracking together. We also had the sustainability clause in our contract across all five venues as part of the agreement to participate in the tour, really being clear upfront about delineating goals. We also provided trainings when possible and centered resource sharing. We also learned from our other partners. Robert will share a little bit about some of the things they've been doing at ICA, which were really helpful for us, and we shared the things that we had learned from Rute Collaborative.

[Slide 21: Members of The Contemporary Austin team in Carl Cheng's studio in Santa Monica, CA] We were being really thoughtful about the travel and pre-planning, but we also still had to do pre-planning. This [images on slide] is some of The Contemporary Austin production team meeting with Carl and his studio to try to figure out the best way to actually proceed with a more sustainable tour. Sometimes, again, investing in the front to have a greater impact on the offloading throughout the exhibition. This also allowed us to not have to travel the registrar across all four venues, so the registrar took

one trip to Los Angeles as opposed to having her tour to all four. Additionally, we created more thoughtful materials guidelines. We also have an exhibition booklet for the tour that we were able to print on newsprint. For the exhibition furniture, we did studies to see if it would have a greater impact to ship it rather than to rebuild it at every venue, and it was determined that it was better to ship it to all the venues. [Slide 23: Members of the ICA and Museum Tinguely teams in Carl Cheng's studio in Santa Monica, CA] And, these mutual discussions between the venues in which everyone agreed to not rebuild the furniture, to take the furniture, and to reuse all the bonnets. But, we had to do tests with each venue and have a lot of dialogue about it, and then bring everyone together for that conversation. Also, when time allowed, we agreed to do sea freight for the objects that were allowed to do that. We also did ground transportation when possible. So, those are just some of the things that we tried out. These [images on slide] are pictures of some of the Tinguely team and ICA team meeting in Carl's studio also in an effort to do some of this planning work together. So, I can pass the baton over to Robert.

Robert Chaney: Thanks Alex. Hi everyone. My name's Robert Chaney. [Slide 1: Institute of Contemporary Art University of Pennsylvania] I am a white male in his sixties with short, brown, curly hair. I'm in a light blue dress shirt, a slightly worn sweater, and sport coat in front of a white wall. I'm at ICA. My title is the Marc J. Leder Director of Curatorial Affairs. I work at the Institute of Contemporary Art in Philadelphia. We're a free, non-collecting museum, and we're part of the University of Pennsylvania. I wanted to highlight two specific platforms that we decided to refine, or expand for the Carl Cheng exhibition tour. Teiger, Rute Collaborative, and The Contemporary Austin all were very supportive and encouraging of this, and it seemed like the right moment to stretch it beyond a small core of ICA staff that were doing this sort of research.

[Slide 2: Freight train cars transporting poly-vinyl chloride] So, the first one. This is my nemesis, one of them. This [image on slide] is tank cars, railroad cars, that are transporting a chemical called poly-vinyl chloride which is also referred to as PVC. It's ubiquitous in the world, and it has many applications. I'm sure for some of the applications it's irreplaceable for some people. It's used extensively in the medical industry, but I believe that in the museum world it is unnecessary.

[Slide 3: Institute of Contemporary Art Canon Pro 4600 large-format printer]

We met with several local institutions, mostly historical museums by coincidence since we're in Philadelphia. We met with their graphic design teams because we were quite frustrated with the use of vinyl here at ICA for environmental reasons as well as cost and planning reasons. We found that several of these graphic design departments used large format printers, specifically large format printers that use water-based ink and use a particular material that Alex referred to called Photo Tex. It is a fabric-based substrate that has an adhesive back. It produces a smooth finish with rich colors just like using a vinyl, but it dramatically lowers our carbon footprint among other things.

[Slide 4: *Carl Cheng: Nature Never Loses* Installation view Institute of Contemporary Art, University of Pennsylvania] This [image on slide] is an example - Alex showed a similar slide - of it being used extensively in the exhibition. [Slide 5: *Carl Cheng: Nature Never Loses* Installation view Institute of Contemporary Art, University of Pennsylvania] This (images on slide) is another version of that application at ICA. You see the large graphics on one side. Five years ago, those would've been done with PVC. It would've cost us a lot of money, and we would've had to plan much further in advance. This gave us flexibility to have this printer. And, I want to forefront the image on the right [rightmost image on slide] which are blown-up Carl Cheng drawings; they have very thin lines on them. I don't know if everyone or anyone is familiar with the vinyl production process, but it is insane. To do something like this, the producers need a sheet of PVC that would be about thirteen feet high and ten feet wide. They would laser cut these line drawings, and then they would peel off about 99% of that vinyl and throw it in the trash immediately. The rest of it would come to ICA, and we would apply that vinyl which is also relatively labor intensive. Then, removing the vinyl would take probably ten times as long as removing these. With Photo-Tex, you can reposition it, and you can peel it off a wall even after a few months. So, we're working more and more to eliminate vinyl in interpretive text and supergraphics. I haven't made it to replacing supergraphics yet, but I would like to because I can guarantee you that your visitors are not going to know the difference. And to Alexa's point about the impact, the social impact of this sort of thing - I doubt any of us, or not many of us anyway, live near one of these plants. These are placed in lower income neighborhoods, and they are polluting the air, water, and soil in those neighborhoods.

Now, I want to switch to one more platform that I'm very proud of. For this one, instead of meeting with our people, we actually have a fantastic Exhibition Designer and Chief Preparator named Richard Harrod who developed

this, and as far as I know no other museum is using this. [Slide 5: ICA modular wall system as a finished structure. *Carl Cheng: Nature Never Loses* Installation view Institute of Contemporary Art, University of Pennsylvania] This [image on slide] is just an example - a simple installation shot, but these are beautiful, clean, white walls. They are with the system that I'm going to talk about, and they look no different than the old method that we do which I'll also talk about.

[Slide 6: Modular wall system Institute of Contemporary Art, University of Pennsylvania] This [image on slide] is a mockup of our crack install crew with their matching outfits installing this system. It's a modular system using plywood. The sheets of plywood are cut to the same size to build the wall. We can take these down, store them, and pull them back out to build a different wall at a different time. From our research, [Robert pauses to answer a chat question about Photo Tex] Repeat the name of the PVC vinyl alternative you use. Photo Tex. Just "photo" with a "PH" and then "TEX." I will say, thanks for that question, for the printer it was a relatively quick, low lift to institute that, whereas this (the walls) did take development, trial and error, and maybe some embarrassing moments at points when some of our methods failed. But, we did test it behind the scenes, not in galleries, and it does take a skillset for the art handlers to finish the seams on this wood.

[Slide 7: Modular wall system: step one, framing Institute of Contemporary Art, University of Pennsylvania] This is the framing of a temporary wall being built at ICA, I believe for the Carl Cheng show. You can see the regularity of these openings, and you can see the plywood behind them. [Slide 8: Modular wall system: step one, framing Institute of Contemporary Art, University of Pennsylvania #2] These are the art handlers finishing these. It does require a more specific, finished technique. You need a flexible material for the seams, to both fill them and tape them. Then, we cover the walls in that same material that we use to print those graphics, this Photo Tex which is fabric-based and adhesive-backed, and then we paint these walls.

[Slide 8: ICA modular wall system benefits: reduced carbon footprint, reduced costs, and increased rigidity.] This [data on slide for Plywood vs Drywall: 33.5 kg less CO₂ per 12' x 12' wall; 33% less framing lumber, easier to hang art; 75% less costly; 95% less waste] is what we have calculated, that's what we're looking at here. The plywood, we believe, has a positive impact on our carbon since it's dealing with wood, right off the bat. The old method is with drywall or sheet rock, which is a housing industry material which I believe

nearly every museum uses for temporary constructions. And that material, while it does have a carbon footprint, I think it is quite useful for the housing industry. It's got a very smooth surface right off the bat. It does not shrink and change size with environmental changes like plywood does, and it's relatively quick to put up. The fundamental problem is, in the housing industry, you're building a house that is good for seventy-five years, a hundred years, one hundred fifty years, so you can rationalize that impact of using that material. In an exhibition space, in ours anyway, it's typically three to six months, and that drywall is not removable or reusable. In the housing industry, they don't really need it to be. But in museums, we do need to reuse this sort of material that skins walls. And that drywall, we're taking a sledgehammer or whatever to destroy that, to get it off, to change our walls. That's what we were doing, and it was filling up forty-yard dumpsters with regularity in our loading dock. A typical show would fill up at least one forty-yard dumpster. For context, that's the equivalent to basically a tractor trailer on a semi that you would see. Now, we don't need a dumpster. For our construction phase, we're generating 90% less waste, 95% less waste than we did before. And, for both of these platforms, it's not just about generating less waste and reducing our carbon footprint. It's more cost efficient, and it's giving us more flexibility in the way we work.

[Robert receives a chat from Alex] "But, one of the main sustaining [audio unclear] of the tour is being able to pool resources..." Yes, Alex, good point. We did share, I think, both of these techniques with The Contemporary Austin, and I know they also used Photo Tex then in the printer. And, we continue to reach out to museums we work with, and when we're at conferences, to present these as options. As I said, the printer is a pretty quick and easy option to begin replacing that vinyl. This (the wall system) is a little more involved and I don't know if anybody we've spoken with has adopted this yet. But, just to talk about stakeholders, I've presented this to the board twice and they're very excited about it, not the printer so much but about this wood system. They're so excited that they want us to patent it, which is not really in the spirit I think of what we're trying to do here, but they are enlivened by this and so is the entire staff. It's something we're very proud of. It's part of our strategic visioning plan now, to continue to explore more options to reduce our carbon footprint. That may be my last slide, correct? Yes, thanks everyone.

Vic Brooks: Thank you so much Robert, and thank you Alex and Alexa. This was really a phenomenal set of presentations that are so integrated together, that really do kind of connect the creative, the conceptual, the practical, the institutional, and the collaborative altogether. So, thank you all. We're

running a little bit ahead of time, so we'll start the moderated discussion and then as we go, for all of you watching today, if you'd like just to start putting any questions you have in the chat we'll just start integrating those questions into the moderated discussion to keep us on time.

Maybe we'll just dive in if that's okay and start with a question, pulling back onto the organizational side of things. Alexa, perhaps you can start us off. Alex really took us through some of the challenges around the capacity of the team being so crucial in how you integrate best practices. So, perhaps you could start with saying, aside from defining sustainability in relation to your values as an organization and certainly also in relation to the specific exhibition as Alex did, do you have any recommendations for how to select focus areas for sustainability to prevent things becoming overwhelming? And, in relation to that, how do you recommend getting staff on board with new sustainability initiatives without it feeling like extra work?

Alexa Steiner: Yeah, I can give two cents, and then I'm sure Alex and Robert have really tangible examples to share. I would say start with understanding what your team's already doing and highlighting that. I think reframing some of the work that's already happening within this context helps people feel as though there's already progress, so start with that. Then, I would say if you're going to make some sort of selection of priorities, make sure that it's something that you want to learn from that will also have impact. So, you should weigh what's going to have impact in terms of reducing carbon emissions, like Robert talked about, and then also consider what's going to get staff excited, what your staff are going to be able to learn from, and what information you can gather to advance your practices rather than it just being a one-time thing. Make sure that what you move forward with is something that could potentially affect the way that you operate as a curatorial team or as an exhibitions team. That's a high-level suggestion. I'm happy to get into more examples, but I think Alex and Robert might have some to share.

[The question is repeated]

Alex Klein: I'll say on our end that it is very overwhelming to think about it, but it was very much about trying to think about what was realistic and what the goals were. I think I mentioned the idea of trying to get towards a carbon budget, that would be something that could be actionable but saying it's not going to happen today; and, as the head of the department, I'm not

expecting it's going to happen today, and I'm thinking about what is within everyone's capacity to do. So, the process really is just integrating it in more bite-sized pieces and then it accruing. Also, even just starting with a sustainability plan for the department and a timeline was really helpful for us. It made it really legible to name it and helped people to understand what the ultimate goals were, so it didn't just feel like something that was, overnight, an expectation of a massive amount of work. I would also say collective participation is key. For example if you're going to track your travel and there's one person in the department whose job it is to do that, everybody who's traveling should be submitting that information to that person so they're not combing through receipts and having to do that extra legwork, you know what I mean? So the collective participation, there's ways to make it more viable.

Robert Chaney: Yeah, I'd echo all those comments. I think Alexa has a good point about highlighting the things we're already doing because one of the first questions Alex had for us was, well, "Let's see the layout of the previous show." And, it seems like it's been a practice of ours for a decade or more to think about how we can repurpose part of that layout (from the exhibition preceding the next one). But, in the past it probably was more financial then. It didn't stretch beyond that, but it clearly does to reuse materials. To Alex's point about the display cases too, we have a show going to Los Angeles, and there was an extensive discussion about whether the cases are going to travel. We made sure to make them so they could. But, in terms of the staff in general, I think - if I can make a generalization - I feel like museum staffs in general are interested and passionate about making a difference in this way, but I also think they are often stretched quite thin in terms of capacity. I think from my experience with the walls, it was a big lift, but we had an exhibition designer that was dedicated to it and a team of art handlers that was definitely into it. So, we were able to make that happen and also leverage it, because we do let everyone know that we're saving money and it's giving us more options as we go along.

Vic Brooks: Both Alex and Robert, did you need to understand more about the emissions and impact before you made the decisions about the areas of sustainability to focus on?

Robert Chaney: I think a little of both. When we talk about air travel, it's obvious, right? So, we are looking at that, how much that impacts our carbon footprint. With the printer, to be honest I don't know how large the carbon

impact is, but there were so many other considerations as well. Whether it's spending \$10,000 on cut vinyl; going to Chester, PA and seeing an entire community rising up against a chemical plant that makes poly-vinyl chloride. There were so many other reasons as well to do that.

Alex Klein: Yeah, I'd piggyback and just say it was a combination of what are the biggest emitters with also what was within capacity. I mean, getting our energy bills and being able to track shipments and travel was not easy, but it was a more manageable thing to take on than some of the other subsets of tracking because you can drive yourself a little crazy with all the details.

Robert Chaney: If I could piggyback on that too to say it was a lift for ICA too to do the carbon tracking, and Alexa emphasized during the presentation that it's an option that can be helpful. We haven't continued to do it because, I don't know, we just kind of dropped it when we were so busy. Part of it is tracking. A lot of the tracking is while we're installing shows or taking down shows, so it becomes a pinch. But I think to all of your points, to do that enables us to evaluate what's most effective, and then it also gives us that report-out tool when we talk to the board, talk to stakeholders, or apply for grants like Teiger Foundation. I'm sure it's more attractive to them to have someone applying for funding that is working towards this goal. [Note from Teiger Foundation: For the Foundation, climate action work and initiatives at the project and/or organizational level do not make grant applications more competitive.]

Alexa Steiner: Just one more thing to add. I think just on your question, Vic, tracking is a really helpful tool; and once you track, you start to recognize patterns, and those patterns help inform decisions. So, you don't have to track every little decision forever. There's also case studies out there if you don't have the capacity to track yourselves. Alex and Robert are participating right now in something that's going to be available in some way to understand and to digest for the industry. And, to recognize those and be able to say, okay, this is helpful for me to be able to make decisions; and then it just becomes a part of the way that you make decisions; and that's how you take this from short-term - feels like a lot of work, to long-term - just a part of the way that we do things. It might feel like an overwhelming thing right now, but eventually it just becomes a part of the way that you work.

Alex Klein: Yeah, I know we have other questions to get to, but I'll just say

part of this for us is to have also a baseline of what a group show looks like, what an international show looks like, what a monographic, international show looks like, etc. We have different, almost, formats for shows; so, we're trying to get a sense of what that looks like so that we can better understand our choices and make better decisions in the same way that we would financially in the future.

Vic Brooks: Was there a decision or consideration that you felt had the biggest impact on reducing the carbon impact of the exhibition, or is there anything you'd do differently?

Alex Klein: Well, there's a few things. I mean we're still in the process of it, so I think being able to reuse all the furniture and the vitrines - that's a big thing. But, also I think the crate recycling that we're going to be doing at the end of the show. That's something I kind of put in a note I forgot to mention - having a touring show really allows you to pull resources together. So, as the organizing partner we were able to structure the contract in a way that included in the participation requirements, along with creating the carbon document, being able to say we would actually do a more expensive end of life for the crates than we would normally be able to afford on our own because we're pooling our resources together. So, the 'not to exceed' clause in the contract specifies that we're going to have more sustainable options for those things because they usually do cost more. We also built the crates from the ground up with the intention of traveling. We built the furniture from the ground. There were some, again, higher costs other places, but they evened out because we had five partners.

Robert Chaney: I'd also emphasize something that Alex said earlier, and that's air travel and freight. As I understand, it is such a huge consideration. We look to work virtually now too when it comes to overseeing an installation. Also, the ocean freight, I think, and that goes back to the advanced planning that was mentioned by Alex and Alexa earlier. If you can do that, then you can use ocean freight, or you can use a fine art shuttle that is shipping with other museums as well - those sorts of things.

Vic Brooks: Robert, could you talk a little bit more about that in terms of how you determine what to ship versus what to build in an exhibition tour?

Robert Chaney: Yes. So, for instance, the sand you saw, that massive field of sand. I can't even remember how many conversations we had at ICA and with The Contemporary Austin about what is going to be a bigger carbon footprint here; are we going to ship this sand from Austin, Texas, or are we going to buy our own sand? We decided to buy our own sand. But, then we made sure to repurpose that, so that sand now has made patios and construction projects throughout Philadelphia. We do reach out at the end if it's a material that we look to avoid and that we don't see a future use for at ICA. If it is, we have a pretty strong community here, including a group called Recycled Artist in Residency (RAIR) that we partner with for repurposing materials whether it's an old AV, or construction materials, or whatever. Carpeting's the one that drives me nuts because we can't get anybody to take it; Habitat for Humanity, etc doesn't take it. I think it probably has to do with the sanitary factor, but it's beautiful, thick pile carpeting that will fill a dumpster. It's at a couple galleries right now, sections of it, but the bulk of it just has to be discarded. But I may have lost sight of the question. Did I answer that at all?

Vic Brooks: That was great.

Alex: Klein: And you know, Robert and I worked together for over a decade too, so it's really nice having this kind of ongoing conversation now across organizations. I'll also say, everybody, you all make decisions every day and how you allocate your resources. So, an example is that we had the opportunity to have an intern through University of Texas this summer, and we decided that that intern would be specifically working on inputting carbon with our Production Registrar Assistant to free them up a little bit of time; but, we could have put that person on any number of projects. Or again, putting materials testing into the budget. Or, making a decision that now our intro texts are always going to be Photo Tex, because we have a rule now that only fine-cut typography is vinyl and everything else is Photo Tex. So, we've retrofitted our formats, too. You can make small decisions that have bigger implications with best practices, but also just resource allocations that seem minimal in the beginning can have a bigger impact in terms of capacity, etc.

Vic Brooks: We have a question in the chat. A few questions are on the budgetary side of things, so maybe we can dig in a little bit there. Of course, there's the budget question that we just discussed of shipping versus

building. Are there any other tools to help estimate budget implications that you've come across in terms of exhibition making and touring? And then the second part of that question is: could you speak a little bit about advocating for a more sustainable choice when it's the more expensive option? That's from Becky.

Robert Chaney: The two things I presented are less expensive, so it's easy. Air travel for research or for oversight also is just simply more expensive. There is an outline in cost though as that printer was \$5,000, so we had to justify that. But, we did enough research, and we were confident that it was going to be an effective tool. So, I mean it was kind of easy though because we paid \$10,000 for vinyl before that each go-round and that's three times a year. I think to rationalize a higher expense is something that you do have to have buy-in with other people that are involved in the budget. That, here, would be every Director, Director of Finance, and the curators too, because - this is sort of talking as somebody overseeing exhibitions - if you spend more in that area, it means you have to spend less some place else. So, I think we do have buy-in from those three groups, but there'll always be a question of priorities. If it prevented us from producing a catalogue, I don't know if I could sell that. But, if it means we have to borrow one less work or there's one less research trip or something, I think that I could get buy-in. So, it's kind of a matter of scale, too.

Alexa Steiner: Robert implied this, but I would say when you're thinking about budget there's always going to be things in the realm of sustainability that save you money. And, there are always going to be things in the short term that cost more money. So, if you can put those narratively into something that's visual, I've always seen that be effective with leadership and with boards. Showing them here's where we're saving, here's where we're spending, and here's the long-term return on investment on the spending that's going to happen over time. Like Robert mentioned, they probably invested, maybe not a lot of money, but a lot of time into their new wall system. But, look at how much it's saving them over time, over X amount of years of exhibition building. Or this printer, this cost right now leads to X savings over time.

And then in terms of tools, just really quickly, there are some tools available online now to show what we just talked about. Also, Teiger has some [resources](#) (sustainability line items in sample budgets) available that we developed together, specifically examples around touring exhibitions and where things might cost money if you're implementing sustainability goals beside

those typical budget items. I know, Vic, you're going to direct people there. But, I would say have a look at those; I think you might be able to find some answers that are not necessarily an exact dollar amount, but they might help you in understanding what it might cost. Another thing is that it never hurts to get multiple quotes. We're constantly reaching out to get numbers from different folks. And, this resource sharing and sharing across the industry, I think, can help people have a better understanding of what the costs are.

Alex Klein: I'll just add that it is always really complicated with these larger financial commitments. Obviously, cashflow is always something that nonprofits are thinking about, and it's really hard to justify a really big expense upfront if it's substantially different than another option that you could get cheaper. So, I think doing that kind of shorter/longer term thinking is really, really helpful. I'm not saying you're always going to get the big win. But, in our case we've had a strategic plan that we've been in the middle of; and, we're able to integrate sustainability into some of that as an overlay so that we're also articulating what the value sets are in relationship to the bigger institutional spending decisions with regard to building, vehicles, and other things that may be coming our way. Being able to illustrate, and Robert mentioned this earlier, that for other departments where these kinds of things might actually increase financials is important as well. If you can demonstrate a certain level of sustainability, maybe you can go after certain kinds of grants you wouldn't be able to otherwise. Maybe it opens up other kinds of funding streams. So, it's definitely a balance, and I think to Alexa's point, being able to visualize the short-term impact and long-term benefits is really, really helpful. It's also helpful to be able to articulate how there are other opportunities and empower other people in the organization to take those up because that's really the only way it's viable. But, there's no one simple trick.

Vic Brooks: Thanks Alex. I just wanted to surface because Melissa from ICA Boston had asked a specific question about what tools do you use to make those determinations to ship versus build new, or buy new, to assess which has a lower carbon footprint. Are there any such tools?

Alex Klein: The GCC Carbon Calculator is great. You can go on there, and you can put things in and run tests for yourself of what the different scenarios are. That's been very, very helpful. Working with Rute Collaborative, we were able to create a set of sustainability checks and balances for our department, so our default is certain things that we've determined are the more

sustainable options. But in some cases you hit a roadblock, right? For example, a loan says no, it has to travel by air, or you don't have enough time to ship by sea freight, or whatever it is. So, we have a sort of checklist that we go through whenever we make certain decisions; it goes through a path like, can we do the more sustainable option and if not, why, can we compromise? Using what we knew and the decision chart, it's the case for instance for the Cheng shipment a couple things may have to go by air and the rest would go by sea with all the furniture, things like that. I think first having those determinations, having that kind of "what do you do in different scenarios" so that it's really clear and it's not an arbitrary "what if" situation, is really helpful.

Vic Brooks: Thanks Alex. So unfortunately we're a little over time, but I just wanted to finish with one other broader question from Alexa because I know this question gets asked. Could you explain a little more about the difference between something like a carbon emissions report that you get from a calculator and a Climate Impact Report, and what are the benefits of the Climate Impact Report?

Alexa Steiner: Sure. Carbon emissions report is what it sounds like. It's really specific. It's about the emissions that are generated and tracked from your exhibition. Whatever you put into the calculator, it spits out a number for you. You would be reporting on things like energy, travel, shipping, potentially materials - those kinds of really quantitative categories. Like I said in my presentation, a Climate Impact Report allows you to share more of a narrative. You can include carbon and those quantitative sections within a Climate Impact Report, but it involves thinking about questions like, for the supporting workers section, how did my staff work on this, how did the institution benefit from it; for climate justice, how did the programming for this specific exhibition advance our efforts in climate justice; for collective action and partnerships, how did we partner, who did we partner with, did we make new partnerships - like Robert mentioned RAIR, which is a great organization in Pennsylvania. There's organizations that you might begin to partner with and begin to explore relationships with through this work that you could highlight in a very narrative kind of way - what programming, what events did we put on, what were those about, what was the content, what were our efforts in terms of reducing waste - because waste is a category that you could track emissions on, but it's actually more interesting to talk about what are the decisions we made around waste reduction and end of life; it's less interesting to think about the number that it's reduced by. So, a Climate Impact Report is more of a narrative in which you share learnings, which I think this industry really cares about. It's not just concrete numbers like in

a carbon emissions report. It's sharing, learning, and advancing narratives within the industry. And, I know it's something that Alex's team is working towards being able to do with the partner venues for this Carl Cheng exhibition. So, that'll be a really exciting resource for the industry because there's lots of Climate Impact Reports for single exhibitions, but there aren't really any right now that demonstrate a touring exhibition at this scale that I know of - correct me if I'm wrong.

Vic Brooks: Thanks Alexa, this is fantastic. Alex, we're looking forward to reading your Climate Impact Report. And most of all, thank you to all three of you. This has been a really fantastic session, and I've learned a lot. Thanks to all of you that have attended as well today. We'll have a toolkit of some of the resources and some of those links that have been talked about on the Teiger website within around two weeks along with this recording, and we'll also have a feedback form if you all so you can tell us how we can improve these sessions. Just a reminder, the next deadline for Teiger Foundation's Hosting grant is on December 10th. I hope you'll join us at another one of these workshops in a couple of months time, Hosting 102, which is on relationships. Thank you so much to everyone.

Robert Chaney: Can I say one thing real quickly? First of all, thank you to the three of you, Teiger, Rute Collaborative, and The Contemporary Austin, for bringing this to the forefront. It feels great to have this partnership. Also, if anyone would like to speak with me directly about the two systems I talked about or any other initiative like that, my email address is on the ICA website (rchaney@ica.upenn.edu). Please reach out, and we can schedule a Zoom meeting.

Alex Klein: I just want to add my thanks to you all. Also, just because we have a group of colleagues here, I want to say that I think collaboration and resource sharing is really the key to so much of this. And, the study is hopefully for the greater good, but also it's to hopefully move the needle a little bit. So, it's also just to share information that's not really built into the way the art world works. But, we've learned so much from each other in this process of organizing this tour, and Rute Collaborative has just been so incredible. Just keeping the information flowing and supporting your colleagues, I think, is one of the best ways we can do this.

Alexa Steiner: I'm going to put my email in the chat

(alexa@rutecollaborative.com). Feel free to shoot us an email. I'm also going to do a shameless plug right now. Teiger Foundation is amazing, and the other foundation that's working towards climate work in the art sector is the Helen Frankenthaler Foundation. Their Frankenthaler Climate Initiative grant cycle opens in January, and they're doing an info session. I think it's this week, November 5th. So, if you want to send that to your development folks or if you want to attend, it's worth learning about what you might be eligible for to get some extra money. I just wanted to share that, and thank you. Thank you, Vic, for organizing. Thank you Stephanie and Lauren, and Robert and Alex, always great to learn from both of you.

Robert Chaney: Thanks everyone.

Alex Klein: Thank you.