Creating an Environmentally Sustainable Future for Your Orchestra and Community

Conference 2025

RICH COBURN: So my name is Rich Coburn. I am a freelance pianist, music director. I do a lot of work with repertoire diversity in Canada, but my relationship to this session is that, while I was working at Canada's National Center for — the National Art Center, I started doing the first sustainability work for the orchestra there, and was leading on measuring carbon footprints and strategies to start reducing that. And you know, it's been a topic that's fascinating for me for a long time.

One thing that I wanted to ask each of the panelists to share was just, in a sentence or two, our relationship to sustainability and how we came to it. Because I think that when we talk about environmental sustainability, a lot of people are at different places. They have different thoughts. They have different relationships to it. So for me, I grew up in British Columbia. So 2003 was the first year that there were a lot of wildfires in British Columbia, and the house that I grew up in came very close to being burned down in 2014. Every time I go home and visit my parents, you can see the forest fire that stopped a couple hundred yards away.

And so this is something that I have been living within a very, like, firsthand way for maybe about 20 years now, and something I've been very passionate about in my personal life and as much as possible in my professional life. So maybe we could go down the table and just introduce ourselves, our role. Oh, my pronouns are he/him. Our pronouns. And a sentence or two about how we came to this work or our relationship with it.

ANNIE AGLE: Hi, I'm Annie Agle. My pronouns are she/her. I sort of tripped and fell and aimed my fall in the direction of sustainability, and now I have the pleasure of being the vice president of sustainability at Cotopaxi, a local outdoor brand, and I also do some consulting on the side. Lifelong ballet, opera, and violin lover. So happy to be here today. And I would say my biggest reason for being in sustainability was growing up here. So Utah is actually home to the largest living organism called pando. It is the largest aspen grove in the world. 40,000 tree trunks, one root network. So it's a pretty interesting organism to study. It is unfortunately dying off courtesy of climate change, so that's one of the things that I keep at the center of my work.

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MATT CASTILLO: Hello. Oh, there we go. There's no light, but good morning everyone. My name is Matt Castillo. I'm the Division Director for Salt Lake County Arts and Culture, so I am local here. And our organization, Salt Lake County Arts and Culture, we're responsible for operating the county's arts venues downtown, which includes Abravanel Hall and a number of other arts centers. We also run a number of public art programs and community engagement programs, and so certainly work to incorporate a lot of sustainability into building operations, but also some of the community partnerships and so forth that we support.

I grew up here, actually, just south of here in Utah County. And so I think one of my — in terms of my relationship to sustainability is also kind of very locally based. You know, our namesake, the Great Salt Lake. Growing up, I knew it as this kind of very inhospitable place, right? It's a water full of — a lake full of salt, but have really learned to love it and see what a special place it is. And especially now it's very topical, because, as many of you may know, we're looking at some real environmental crises related to the lake, including potentially having the lake dry up here in the next five to 10 years, even, if pretty significant action isn't taken. So it's a very important issue here, as well as all the other important sustainable issues that you're aware of.

STEVE BROSVIK: Good morning, everyone. I'm Steve Brosvik. I'm president and CEO of Utah Symphony, Utah Opera, and I'm going to slide this over just a little bit more. I forgot that I'm not [UNINTEL]. I think I've become much more connected to sustainability living here in Utah. I grew up in Minnesota, and I've lived all over the country, and even though we asked all of you to fly here for the conference, Utah is an incredible place that is very connected to our environment and the nature around us. I think our connection and the way that we communicate with our audience and our local communities, through the music that we program, through the way that we behave as an institution, and the way that we also invite our audience members to behave with us can make a difference.

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Everything from commissioning a piece for our '27, '28 season, which will be specifically about our environment around us and the Great Salt Lake, to our statewide tours, where, before we begin the concert, we ask everyone who is attending the performance near a national park to make sure that they are leaving the environment with them exactly as they found it, and hike out your trash. Very simple things about — just reminders about how we behave in the nature around us and how we can affect that, that we are trying to communicate through our relationship with our audiences, with our community, and through the music that we portray on stage.

LUCAS RICHMOND: Thank you. Good morning. I'm Lucas, Richmond. I'm the music director for the Bangor Symphony Orchestra in Maine. I'm also a composer and I'll be speaking about an orchestra's role in trying to be green and all that. But more to the side of how the music that we play can be used

for awareness. Before I say anything else, I want to take a straw poll. How many of you think that the ozone layer is in bad shape? And how many of you think that the ozone layer is in good shape?

Well, I consider myself a reasonably intelligent and informed person. But before I began the journey on writing a piece called “The Warming Sea,” which I'll talk about in a little bit, I did not know that the ozone layer is 75 percent healed after the 1987 Montreal Protocol where 151 nations all signed on to get rid of fluorocarbons from the atmosphere. And the reason I mentioned that is because the way that we discuss climate change is so often from the doom and gloom side, and we just think it's bad and it's irreversible, there’s nothing we can do about it. But in fact, hearing and working with the scientists on this project, the message of, oh, we can actually do something good and come together and affect change, that's actually more inspiring in a way. So I'll be talking about the climate change from a cultural, you know, venue.

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RICH: All right, thank you for all those introductions. And actually, we'll come back to that, that idea Lucas a little bit when we speak about the role that art has and can play in culture and in addressing climate change. So really briefly, today, we want to structure the session first of all by talking about basically emissions reductions. This is something that every organization, arts or otherwise, can and should be doing their best to address. And then we want, in the second part, to be talking about culture, which includes the way that art can play into awareness or the conception of climate crisis.

And we want to make sure that we leave you at the end, there will be a QR code on the screen, where you'll be able to get links to all of the resources that we've talked about. So you'll leave with some concrete steps, a, at the high level of sort of looking at the most impactful things you can do, and if you wanted to build a long term plan how you would start to think about that. And also some very immediate things you can do, but that will still have meaningful results. So with that, I think I'll turn it over to you, Annie, to begin speaking about — well, giving an overview of the emissions and of the Theater Green Book approach.

ANNIE: Hi. Thanks, Rich. So some of you may know and some of you may not know, I thought I'd give a little bit of context on the history of net zero and just some of the definitions that we'll be talking about. And so the concept of net zero was established by the United Nations at one of the most historic climate conferences of our lifetimes, called COP21, and there was an agreement that was reached between all nations called the Paris Agreement, which basically aligned countries and major corporations to this concept that we want to keep global warming potential within 1.5 degrees celsius, which is basically all the earth can tolerate before systems really start to collapse.

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And so how businesses and countries do that is by measuring their emissions. So what is their carbon footprint? So all of their greenhouse gas emissions using the GHG Protocol, the Greenhouse Gas Protocol. So you guys have probably heard of vocabulary terms like emissions and things like scope one, scope two, scope three. So how businesses like you can measure that is really looking at what are referred to as your three scopes of operations and emissions. So scope one is really what's in your control. So as a company, you know, any diesel that you have to buy, to say, bring in music stands from a warehouse, that would be scope one.

Scope two is a lot of your purchased electricity, which is a big one for theaters, orchestras, operas. How much electricity you're purchasing, is it from renewables? What does the grid look like? Do you have any on site solar panel to offset any coal based or fossil fuel based electricity? And then scope three is sort of what's out of your control. So you're sort of thinking about maybe where the food at your concession stands is coming from, what materials are going into things like your music stands or any production, and thinking broadly about what your sort of supply chain looks like, and supply chain dependency.

And from a theater perspective, based on a really great tool that we've shared with you, there's a really amazing set of guides that have been produced by a whole bunch of sort of EU theaters that came together to try to produce a guide about how orchestras and operas and theaters can come together to reduce emissions. The three really big bucket areas are your building, and then your operations, and then your production. And so obviously, I think orchestra's productions a little bit lower. You're not having to think about set design nearly as much as an opera would, but that's certainly something to consider if you are bringing in theater or stage elements, is trying to use sustainable materials, and thinking about that.

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Buildings, obviously, really big one for theaters is heating and cooling. And so really thinking about, you know, what is our HVAC system and our lighting systems look like. Making that transition to LED lamps. Trying to go after those quick wins is something I always recommend. After you've sort of done that measurement, you've worked with a consultant like myself, or someone in the sustainability space who can help your theater go through those emissions and then really start to prioritize what those big bucket areas are. What would a five year transition look like? How are you going to go after, you know, what matters most first? That's always what I recommend is, typically, there's three to five things you can identify as a business, regardless of what your operating or your sector, is that you can go after pretty quickly, and going after those wins.

And then the other sort of interesting scope, and I think one that will be mentioned in terms of how theaters can develop a kind of conversation with audiences around sustainability, is really around commuting, which is in scope three, the particular scope is 3.7, and really trying to engage with audiences about using public transportation, using human power, whether that be biking or walking to attend the theater, attend the orchestra, and really start having those conversations. So I'll pause there, but happy to — we were happy to kind of find this resource and share it with all of you, in terms of using the Theater Green Guide, and happy to have any sort of email conversation for those of you who are starting the process of measurement. I know it can be quite daunting.

And so, again, I my sort of broad based recommendation is just start with measuring, try to understand where your biggest impacts are, and then start to, you know, have a little bit of a priority and a transition list for the next three to five years in terms of where you are today and where you want to be in the future to get yourself net zero aligned.

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RICH: So thank you for that, Annie. And I mean, I just want to add a couple of contextual things here. For example, you were talking about buildings. If you own the building, then that's under your control, and that might be a scope two. If you are a renter in the building, then that might fall into a scope three, where you don't have discussion — where you don't have sort of control over LED lighting, HVAC, all that sort of stuff. So, you know, it really depends.

A lot of this stuff is highly dependent on your situation. You know, also for depending on the type of orchestra that you are under operations, a pretty large chunk of that might be flights. You know, if — and I just wanted to say this explicitly, since you know, if you're flying in conductors and soloists every week, you know, if you have a smaller budget orchestra and it's local musicians and the music director is there for most of the season, then you're going to have a totally different profile than if you've got a, you know, 45 week season and are flying in people from Europe and all over the continent every week.

So with that, I wanted to open this sort of up to the panel, and I know that we — one of the things that I love about this panel is the panelists represent really different types of organizations and geographically sized objectives, all that sort of stuff. And I want to ask you, what you have — you know, within this conversation of reducing emissions, what has come up in your organizations? And this could be things that you have — projects you've completed, it could be projects that you have spoken about but haven't been able to accomplish yet. And I'm really curious what the conversation has been about, why the conversations have been about those particular things, and what sort of

positive impacts of those conversations, even if the project hasn't been completed, you've been able to observe so far?

MATT: Yeah, I'll take a start there. So again, I mentioned we operate a number of art centers, including Abravanel Hall, Capital Theater, which is a historic opera and ballet house actually just about a block away from here. And so, kind of a huge range of buildings. Some built in the '70s, some built in the 1910s, I believe, and some built as recently as a few years ago. And so the discussions we have about sustainability and building operations are very different across those portfolios. Of course, one example I'll kind of share because you mentioned that HVAC is one of the biggest challenges and one of the biggest sources of emissions for building operations, and so that's something we spend a lot of time talking about.

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It's also one of the biggest costs, right? From a building operators perspective, our utilities is one of our largest line items. And so we spend a lot of time looking at how to upgrade HVAC systems. And one thing I find that's very frequently missing from the conversation, and this applies not only to HVAC systems, but any sort of kind of building renovation or building construction project, is including in your cost benefit analysis what the long term impact of decisions are in terms of energy efficiency. And so that's something we've worked really hard to make sure that, whenever we put a scope out for hiring a contractor or an architect or an engineer to help us with these, is we always make sure that there is a component to that project that includes looking at what the actual operational cost differential is between choosing one system over another.

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Of course, a lot of times these decisions come down to just dollars, right? And so if you're looking at just the construction cost, you might pick one particular option, but to use as an example. So Abravanel Hall was built in the late '70s, and the HVAC system is actually part of a larger plant system with the convention center and then the Utah Museum of Contemporary Arts. That system is still original to the building, and we're — as some of you might know, there's lots of conversations about changes to these buildings, which is very exciting. But one specific example is when we looked at modernizing that system, we actually ended up choosing a path that had a higher upfront cost, but actually resulted in significant savings over the life of the project, or, excuse me, over the life of the system, because of that.

And so that's just one thing, again, I'm surprised that that's often missing from that conversation, is looking at that ongoing cost. And I think that's one kind of common sense thing that you can just

really easily build that can change that dollars and cents conversation, which is oftentimes one of the biggest barriers to enacting some of these sustainability things.

ANNIE: Yeah, just in terms of percentages, generally, if you look at a LEED certified building process or even a more sustainable HVAC, there's almost always at least a 12 percent increase or a decrease in over time costs. So always we're sort of looking at overall improved sustainability and efficiency. Sustainability is really all about driving efficiency. So what is more efficient in terms of operations is almost always resulting in cost savings.

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STEVE: Yeah, I think one of the really interesting conversations that we've been having around the hall and the HVAC, staying on that for just another moment, is older buildings were typically designed with kind of supplying very cold air at the top of the building, letting it slowly kind of fall down toward the audience, and change temperature as it moved past the lighting and it moved past the audience members. And so you end up really cooling and drying out the air, and then you end up kind of heating it on the way past through the system, and then getting it to fall down and land on the audience and on the stage, and often kind of also blows music around, things like that.

So it's a much older system. It was, I think, pretty standard for large scale buildings for a long time. And the other element that we've been looking at is. if we can, reversing the air flow in the building, because newer concert halls are being built with what's called low supply, where you supply the air next to the people, like at your feet, you deliver the air at the temperature and humidity that you want, and as the air rises through the building, it doesn't really matter what happens to it. You don't have to control it. And then as it heats and it rises, as it heats and it rises, then you take it out of the top of the building and run it through the system again. And they're also more efficient and easier to control for the climate of the audience and for the orchestra, and you have fewer drafts on stage because there isn't air falling by and blowing music stands around if you suddenly need to cool the building quickly.

RICH: I'm actually curious, of those of you who are here today, how many of you at your organizations have a sustainability plan of any kind, just by show of hands? Okay, there's some. A couple waved hands. One raised hand. So I'm curious in this context, Annie, you know, we — you will get the chance to see this Theater Green Guide afterwards. And there's another resource which will be published later this summer that you'll also have a link to, which is, Orchestras Canada is producing a green guide and charter where they have taken a lot of the work of Julie's Bicycle, which is a fantastic organization focusing on sustainability in the arts and — but it's based in the UK.

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So they've applied this to the Canadian context, where, you know, for example, we can't say we're just never flying anymore, which is the way that they reduce a lot of emissions in Europe. So this will be published later in the summer, and you'll also have a link to get notified when that comes out. But before you've had a chance to look through all of those things, and if you had to give a little bit of advice as to people who are really at the first step of this process, and you know, there's a lot it can it — you know, it's going to take a long time to get done what you might want to get done. You don't really know necessarily, what the costs are going to be, what the time implication is going to be. How would you sort of recommend the first steps that people get going?

ANNIE: Sure, I always think that's a great question. I think the first one is to maintain a sense of playfulness and sort of creativity around this space. I think sustainability, like many of the panelists have mentioned, can feel heavy. It can feel really daunting and super technical. I'd say try to bring a good group of people to the table, establish a committee, and really commit. Start with a commitment that, by the end of the year, you want to have measured your emissions, and at least have some sort of action plan for the next five years around this space. Just start with that.

Start with a commitment, and start with an intention of developing a plan within a 12 month calendar. And then I would definitely say you will need a consultant for this, but have someone walk you through your GHG measurements. That's really step one, is you can't really attack or address what you don't understand. So start measuring what your footprint is. Understanding, you know, are you leasing? Are you owning? Who needs to be at the table? If you are leasing, right? The vast majority of businesses lease spaces. And so, you know, when it comes to that scope to work of purchased electricity, you know, you probably want your building manager there. Who are you leasing the property for? How can you bring them on board? How could you think about potentially cost sharing? Any sort of efforts around that space.

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And then I think making sure that marketing is invited to that table, and communications. and audience engagement, and artists, and composers, so that there's a sense of everyone who kind of wants a seat at a table, who has some passion to bring to that endeavor, can come to that table, and that there's this sense of sustainability being democratized. I think that's where you can actually really use it as a kind of cultural force as well, where people feel really engaged around something that feels important and kind of the moment. So that's what I would say, is commit, committee, get your collaborators on board, and then sort of create that plan of action that feels prioritized so you're not trying to go after everything all at once, right? Understanding what are your big bucket items, and what's your kind of laundry list of priorities.

MATT: So one other thing I'll add to that, because kind of interestingly, we have — when we talk about the building operators and then the building users, we have kind of both of those sites here represented today for the symphony and Abravanel Hall. You know, you talk a lot about having to kind of start small and build and a lot of these changes take quite a bit of time to incorporate. And so I think that kind of taking it one step at a time is really great advice. One other thing that I would add in terms of looking at how to start to make improvements, and looking at a long term view is actually looking at your processes for procuring and managing contracts, I think can be really helpful.

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And so there's lots of standard language out there about including in procurement clauses, like sustainability requirements or sustainability preferences, that then can be converted into your contract, and that can be for things like construction, your concessionaire, anyone that's regularly delivering goods, printing programs, all of those types of things. But that's kind of a very nuts and bolts type of thing that is not, at least in my experience, very standard yet in terms of a lot of like government and kind of large institutional procurement and contracting processes, but actually there's a lot of great resources to just add those in there. And I think that's a very early thing that you can do that really will help you in the future to manage these types of things. And so we've started to incorporate that a lot into the county. And then that also is, I think, a very clear open sign in terms of changing culture and priorities, is just building, building things like that into what you're doing. Because, again, that just really helps with managing those relationships and setting expectations and standards up front.

LUCAS: With the Bangor symphony, I think we kind of represent what a lot of orchestras have our hands tied in a lot of these efforts. Because we rent our hall when we produce a concert, our musicians come from away. We would not have concerts if they did not come in by car or — because there aren't trains that can come to Bangor. Our audience can't take a subway to our hall. So a lot of the elements that we, you know, would like to make a big impact immediately, can't. But there are certain feel good things that we do as an organization, and we we talk about eliminating paper.

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So just on that level there, we endeavor to do many more things just digitally. And the board meetings are, you know, not with paper at the board meetings, and it creates a sense of awareness. But the other thing I want to mention is that in programming, if you can't do things, if these — some of these things are unattainable. Engaging community partners in the discussion means that when you go away from the concerts, you're thinking about how you can apply it in your own home and with

your own businesses. So that's the impact that we can have on a cultural level. If we can't really do it with the actual product that we produce, it can filter out into the community.

MATT: And we're doing some easy things with this. Orchestra is on the road a fair amount on any given Thursday. If we have performances at Providence Hall on Friday and Saturday nights, on any given Thursday, we could be up in Logan, we could be in Ogden, we can be in Orem or Provo or down in St. George. And as much as we can, we're trying to get the musicians and the orchestra and the crew to really focus on letting us know, are you taking the bus? Are you driving on your own? So that we are renting the appropriate number of busses that will fit the right amount of people. So we're not taking two busses if the second bus has four people on it, or if we — and also just encouraging people to travel together instead of driving separately.

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And I think we have an odd element in our CBA that I think has given us a little bit of benefit that maybe nobody would have originally thought of, is in our CBA, if you're driving to a performance that we would be providing transportation to, you can also get mileage, but I don't believe that that mileage is restricted to the driver. So we actually have some musicians who are carpooling, because they can get the mileage, but not actually spend the gas. So the odd result is that people are carpooling, because it's actually benefiting them, but it's also benefiting the fact that we don't have four cars on the road, there might only be one. And hopefully more and more people will continue to take the bus.

And we're also in conversation, because we do have some public transportation that people can use to get to a Abravanel Hall. We're also in discussions with Utah Transit Authority, UTA, to talk about some concepts about your ticket is your ride. You can use your concert ticket as payment for the light rail or for the commuter train, or maybe we can have a dramatic discount that we're sharing the cost of to help encourage public transportation. And there are two more tracks lines being built our light rail system between now and when the next Olympics are here, and it's going to be a great opportunity for us, in the meantime, to be promoting public transportation and the amount of people coming downtown, and parking, and all of those things.

RICH: I don't know if you're doing this deliberately, but you're actually making a perfect segue into our next session, our next topic, because, you know, we need to look at this, I think, from many perspectives. There's this perspective of, where are my biggest emission buckets, and what can I do to address those? There also is the the perspective of, what can I do now? You know, maybe public transit is not an option. So that's a huge bucket. We're going to have to leave that alone.

And then there's also this bucket, sort of second part of conversation of, how are we influencing culture? So this is internal culture. How are we — you know, if we reduce our use of paper, is that taking a huge bite out of our overall emissions? Probably not. But does it have other benefits? Yes. You know, if we are saying to the people that we're working with, we're thinking about this, this is something that's on our minds, that's also worth something.

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And a big piece of this also is the art that we put on stage. You know, everybody has the opportunity and the obligation to reduce emissions, but as performing arts organizations, we have a much less common opportunity to speak to the people that come and engage with us and who we engage with. You know, even people who have — people who have differing views about any sort of subject might argue about it if they talk about side, but people don't stand up and abut the stage generally. If you're in a performance, then we have an actual captive audience here. So now I wanted Lucas to take a moment and speak specifically about the project, “The Warming Sea” that you have created, where that came from, how it was built, what you found some of the impact was, and also feel free to speak more broadly about how that work has been incorporated at the Bangor Symphony and what that's looked like.

LUCAS: Excellent, thank you. So the Maine Science Festival is run at the Maine Discovery Museum in Bangor, and for a number of years, the director there, Kate Dickerson, had been talking with me about, how can we collaborate, how can we bring science and music together? And we thought, well, we have — maybe we need to do this about climate change. And with that, the Maine Science Festival commissioned me to write a work that examined the effects the climate change is having on the Gulf of Maine, which is the fastest warming body of water in the world. And that climate, that warming of the Gulf of Maine, is affecting the acidification of the water, the cod, the various life, the lobsters, the shell of the lobsters, the plankton, the right whales. I mean, it affects every ecological system and changes the complexion of what Maine — people who live in Maine do.

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So immediately in deciding to do this, she set up a series of meetings with me, with scientists up and down the eastern seaboard. And so you can go to the next slide. So the leading organizations in this, the Bangor Symphony and the Maine Science Festival. And then I had meetings with all these different organizations, the Gulf of Maine Research Institute, Bigelow Laboratories. These are leading organizations, gems of organizations that deal with oceanography and the science of the ocean. The Maine State Climatologist is nationally revered because of what the work that he has done in creating a global map of where the warming is. And you can go into the website, the University of Maine.

Through all of this, there was the realization that scientists are really good at what they do, but they suck at marketing. And how can we get the word out? Now, I mentioned the Montreal Protocol and the ozone layer earlier, because as a good — something that came out of these collaborations, let's pump up the positive message. What can we do? So in addition to meeting with all the scientists, I met with middle school classes. I think we can go to the next slide. And talked about the fact that I was writing this piece, and I would ask them at the end, “What would your takeaway be? What would you like a takeaway from this to be?”

And invariably, the kids all said, “Hope.” And it felt very powerful to me to then let the voices of the children, because this is the planet we're leaving for them to be heard. And so the final anthem of the piece is called “Hope Begins With Truth.” And the kids address the adults in the room, and they say, “Have you told them? Have you told your children the truth? Things are changing. They need to know. Give them hope and give them life.” And that as an anthem is very effective.

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We flash forward, so we were able to bring in — have all these different partners and the media and all that, because people became very aware of this, and just the consciousness of it starts, as I mentioned, filtering into how people live their lives. And at the performance itself, we had a series of panel discussions, and then a panel discussion after the performance, there was such an amazing amount of education that went on in just being able to present the piece, and the orchestra as well. The members of the orchestra participating wanted to know. There’s a portion in the piece that's 200 measures long, and the Maine Climatologist gave me the temperatures of the Gulf of Maine from 1820 to 2020, and each of those bars represent a different temperature as things are warming up. And even just a degree of change in the Gulf of Maine is catastrophic.

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So the piece actually was scheduled to be premiered in March of 2020, and it was the first thing that was canceled. So during the pandemic, we were able to bring people to — the members of the orchestra together to record the final anthem and do one of those videos of "Hope Begins With Truth.” So that was what we put out there. And then in March of 2022, the piece was premiered, and we've had interest from organizations around the world. How can we bring this to the conference that we're holding in other parts of the world? It's scored for regular, large orchestra, but not anything too crazy, women's chorus and children's chorus. And I have also one sheets with more information about the piece and the recording the performance and all that. So I'd be happy to give that to you at the end of the presentation. Thank you.

RICH: And I think you raise a really important point there Lucas, that this quite — this focus on hope. You know, I think, well, there's some really interesting research that's happening right now at Canada's National Art Center, and with the Metcalf foundation in Toronto, and it's focused mostly on theater, but it is touching on music too, and it's called Irresistible Worlds. And the question, is, how do we train artists to write effective climate to create effective climate art? You know, this is not something that they have been — I'm sure that you didn't get training in school to do this.

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And one of the things, one of the main premises of this project, is exactly what you said, that you know, when we think about science fiction or stories about the future, we often have utopian visions, or we have dystopian visions, but we don't tend to have visions which actually reflect what our world might look like in three years or five years or 15 years. And when you are able to create art which gives people hope for a better future, but a realistic future, not everything's going to be clean, everything's going to be fixed, everything's going to happen, going to be happy, but something that we can actually project ourselves into, it gives people a way of imagining what they're working towards. And it sounds like this is something that — you know, I don't know if you're aware of this research or not, but that you were doing sort of intuitively and through your conversations.

LUCAS: Well, no, it's actually, you know, at first I thought, okay, I'll write this very angular piece that is full of data, and then I realized, that's not going to tell the story. That's not — no one's going to want that story. There's an evolution of the piece in several ways. The women's chorus actually begins as sirens, the old Greek tale of the sirens singing and wooing the sailors to the rocks. But in this case, they are climate change deniers, and if you listen to their song, you die. Being a Greek legend, I wrote a poem and had it translated to Greek, and so the women sing in Greek, this song, as climate change deniers. But then as the peace evolves, they become the mothers to the children who are singing on stage. And there's that hopeful element and the nurturing, and let's provide a better world for you going forth.

[0:41:00.7]

RICH: So if we take this conversation about hope and about culture, and we bring it, you know, away from the — well, we could stay in the art world if you also have stories you want to share. But I'm also interested for all of the panelists here, when you are thinking about influencing culture, internal culture, or the culture of the people who are using your product or your service or your offerings, I'm curious where those conversations have started for you. You know, where was the first place that

you started seeing momentum that started being sustainable? And I'm also curious if you've got feedback from internal or external stakeholders about the effects that has had on them.

MATT: I think I'll go back a little bit to what Annie was saying about, you know, that oftentimes these conversations can seem very daunting, and even any one of these tasks can feel huge, right? But I think that's where a lot of the conversation started for us internally, is like, how do we even — you know, we've talked about all sorts of things, you know, from doing long term energy analysis, to incorporating clauses into contracts, to, you know, changing who provides different things. That sounds really big, right?

[0:42:32.3]

But I'll take the contract language as an example, which, again, like, I'm not a climate scientist, I'm not a lawyer, you know? I don't know, but you just kind of start somewhere, right? When we just took some very basic language and put that in there, and then over a couple years, we've been able to refine that, and it just has become just a part of continuous improvement. Another thing, and I won't — it's not all about government processes, I promise, for me, I'll talk about a few other things as well, but process is important, right? And how we do our work and how we operate things.

And another thing that we've recently implemented is, and we do this, it came through our work for public art, so installing large scale public artworks and even doing kind of smaller, temporary types of installations. But the same process can apply to really any type of project that you're taking on, whether it's a new commission or doing a site specific performance, things like that. But we call it the Living Principles of Public Art. But again, this can be applied to just about anything. But it's this really great framework and tool for how to kind of embed ideas of sustainability, but also cultural accessibility into building out a project.

[0:43:50.1]

And I think the first time you do it, it's really daunting and difficult, but then the second time you do it, and the third time you do it, it kind of quickly just becomes a part of your process, and then all of a sudden you identify all these ways to do it a little bit better, or again, it just becomes second nature. So I would say that's been one of the conversations, is, you know, as leaders of your organizations, you're naturally going to meet some resistance, and you know, all the forms of resistance that you see with any sort of change, but you kind of just push past that hump. And then I think a lot of times, at least for us, we've seen our organization embrace some of those things. And so then it's on to kind of the next change. So it's kind of, you know, having the faith to get through that process has been a

big, big part, and we've already seen some of that change be embraced through some of these things we've done.

RICH: So what I'm hearing in that is to not let perfection be the enemy of progress to start.

MATT: Yes, exactly.

RICH: I mean, and then not let the start be enough, but just to start.

MATT: Exactly, exactly.

STEVE: And I'll add, don't let fear get in the way too. We certainly were living in a fairly polarized world at the moment, and there's a lot of questions on the table and a lot of opinions, but we've thought, you know, how hard do we lean into the language in this commission that we're talking about for '27, '28? We had a season all about nature two seasons ago, and connecting a number of pieces across the masterworks season to the environment directly around us. And even in the parks tours, where we're talking directly from the stage to the audience about how they're treating the land around them. There's a little bit of trepidation, where we don't know who's in the audience. We don't know what side of the aisle that they might be sitting on in any particular conversation. And we all know that even within one person, depending on the topic, aisle isn't really a definition. It's just, what do you believe?

And we're organizations that rely on people to purchase our tickets and to write checks out of the goodness of their heart, to just help us keep going and be sustainable and do the work that we do. So these can be limiting factors on how we push ourselves to be honest and genuine and speak what we believe is our role at that moment. And I will say here, even though we have a very blue city and a very red state, and depending on where we go, whether it's rural or it's urban and it's a smaller town, you're going to encounter people everywhere. And the wonderful thing here is that I've really noticed is that when we have those conversations with people.

Even if they may disagree a little bit with us or might not want it to be so direct, people are actually grateful that we're having the conversation and we're bringing up these these concepts, and we're encouraging people to think about the work that we're doing and how we impact the community and everything around us. I do think people actually appreciate it if we're having that conversation through art. I think I have had only one person in one of our most challenging works where we really push the audience during the pandemic coming — our first public performance in September of '21 after the big shutdown, and I only had one person who walked up to me and very directly told me that

that is not what art is supposed to be. And it opened up a conversation to say, “No, this is exactly what art is supposed to be, because it can push us to have these conversations and hopefully move back together.”

[0:47:21.1]

RICH: And to that point, Steve, about people appreciating the conversation. I saw a report recently that showed that globally, between 80 and 89 percent of people want their governments to be doing more about climate change. But what the interesting thing about the report was that when they asked, how many other people do you think this is important to what percentage of the population? It was about 46 percent. So people thought that they were in the minority when they were actually in the overwhelming majority.

So, you know, we here have people who have been working on sustainability in a variety of different ways. You know, some is like some small parts of your project, and some is, you know, a huge part of the ethos of the company, in your case, Annie. But it's really interesting to see that people connect. You know, we don’t — I don't have the stats at the top of my fingers, but, you know, if we look at climate anxiety, you know, particularly in younger generations, who are the exact people that we're trying to attract to the concert hall. You know, I don't know if you have those numbers, Annie, at the top of your head?

ANNIE: Climate anxiety is sort of — that’s new, but that generation, it's like 93 percent consider it to be a leading issue. And I would say in terms of really thinking and starting somewhere, think critically about where you sit as an organization. And I'd say being in the art space, right? You really sit at this really important intersection of culture, creativity, and audience, right? And so thinking about, what's going to be your business's role in this space? How can you pull on some of the levers that we've gotten to and understand that creativity? What you guys are already really good at, for me, is at the core of the solution to this issue. And how do you develop more of a relationship with that solution than you do with the problem?

And I think that's something I always encourage businesses to say, is, you can really be at the forefront of this change, and whatever set of actions you can take, there's a way of communicating that in a non partisan way. And so there's actually a really great communication tool kit that came out recently of, how do you communicate climate in a more conservative time, and you actually find that attitudes like slower living, more traditional living, right? You can swap out sort of — be more inclusive in your language, and instead of just talking about sort of minimalism, you can talk about tradition.

[0:49:58.3]

There's a sense of, you know, if you're making food instead of just going through a fast food restaurant, even depicting that on stage. How do you — you can think about that in productions. More meaningful connection and person connection. So just thinking about your organizational strengths and understanding that you already have strengths as an organization that are very needed in the climate space. And I feel very strongly, we don't need more climate experts in climate, what we actually need is people who aren't experts, but who are experts in other things, thinking about, how do they leverage their unique skills, their unique human potential, to ensure that future generations have access to a healthy habitat?

RICH: And maybe, as one last question for this section, you know, you touched on something interesting, Annie, there. You're talking about how your organization is positioning itself. And obviously, to anybody who's familiar with Cotopaxi, you know, sustainability is a core and central value of what the company is and does. For orchestras, orchestras were not founded to be sustainability champions. I mean, maybe there are a couple of exceptions, but for probably everybody in this room, and almost everybody at this conference, that's true. When we think about building momentum, I'm curious for you, panelists at that end of the table, you know, it takes a certain amount of time and resources to work on the projects that you've worked on, and I'm curious what you would have to share about getting broader buy in.

You know, it's something that we haven't touched on really yet. But you know, whether you are in a leadership role, or whether, you know, even if you're in a leadership role, you still have to talk to your board. You have — you know, there are various stakeholders that have to get behind the work that you want to do, because it's not fast work. And I'm curious if you have anything that you'd want to share about what people have responded to, or the value that some of the stakeholders found, or you know, what wins and process you went through to get to that point of being able to actually do the work.

LUCAS: Just a quick point. The evolution of "The Warming Sea" took place over several years, and when it first started, the conversations we were having in 2018 were, what do we do about the audience members that are offended that we're doing a piece about climate change? And we were really very concerned about that. And by the time, just four years later, the piece actually was premiered, I brought that up and maybe in the — unfortunately, everything's progressed so much that there was like, no, not a single person is going to give any flack about this.

[0:53:02.4]

STEVE: I think there's kind of one of our ongoing conundrums as — conundru as orchestras in trying to fund what we want to do, trying to be creative. It takes a lot of listening to your audience and your potential funders to find out just who in your audience, or who on your board, who in your community, the corporations around you, what are their interests? What are the paths that you might be able to steward that relationship, to attract them to projects, new commissions? Taking a position on a certain piece, thinking about a new way to communicate it, a different way to stage a piece. Those can all be very expensive financially. They can be expensive with your human resources. Or how are we allocating time? Because that project is going to take X amount of time to execute and do it well.

[0:54:00.6]

And what else are we leaving behind? Because we're all understaffed, we're all lean organizations. I don't know know a single orchestra that has too many staff members or too many musicians sitting around. So we have to be really careful with that time. And at least I've been noticing lately, especially with foundations, even more than individuals, foundations, we're getting a little bit more of a response of, you know, when we present an idea, we would love to do this project, but in order to do it, we need your help. And that has been kind of a standard ask and a standard path into that conversation.

And we're starting to get more push to the side of, well, we want to know you're committed to the project, and that it's going to happen anyway, and we'll consider whether we can help you with it. So it's really requiring us to be more adventurous and push our finance committees and ourselves and our artistic missions and our boards to be okay with taking these risks. Because we do not have research and development budgets. Most of us don't have an endowment for artistic commissioning and new artistic endeavors, and one project that's really expensive that doesn't sell or doesn't get a sponsor can tank our budget for the year.

So I think the risk with that is that it kind of forces us to be much more conservative and risk averse in our programming, and I'm really hoping that over time, that we can keep pushing this and open up these doors that will allow us to continue to create works like “The Warming Sea.” “Beyond Ocean.” There's some really wonderful projects that have been commissioned and created, but they're expensive, and we need the help. So we've got to be able to find that path on how we talk to people that are aligned with that mission or the vision, or maybe not, but we can encourage that conversation to get them more to a place where they can be supportive.

LUCAS: It’s education.

STEVE: It's education, yes.

[0:56:07.0]

MATT: You know, I'm still thinking about the statistic you shared, Rich, about how 80 to 90 percent of people see this as a key issue, but most of us assume that it's a much lower percentage. And I'm even just thinking, you know, here in Salt Lake City and in Utah, Salt Lake City is a very blue place in a very red state, right? But even in the conversations I've been in, I think everyone — you know, I've never encountered anyone that really pushes back on, "Oh, like, this would be a good thing to incorporate sustainable practices." What it often comes down to, I think, is just all of the noise that we deal with in every day of like. You know, every one of us has a much larger list than we could ever tackle.

And so finding a way to incorporate that through things like tone at the top, making sure, again, that you're including it in, you know, kind of foundational processes. One other thing that I'll mention, though, is that I think trying to bring it more local, I think, is a really important thing. You know, we can talk about climate change, and that is, like, a huge thing, right? And it's like, how could any one organization really affect climate change, right? But, you know, I would imagine that every one of us here in our local communities has some very real impact that they're seeing from climate change. For us, it's the Great Salt Lake and our air quality. You mentioned the Gulf of Maine. And I think that's where conversations become really powerful, because it turns it into a very real thing, from something very abstract into something very real. And that's where I think I've seen the most like, "Oh yes, we really need to work on this." Or like, "Yes, this makes sense to incorporate this into a certain program."

[0:58:00.4]

For instance, one really cool thing that's happening right now, and this is a pitch if you all want to come back in two weekends, where we're actually in collaboration with the Utah Museum of Contemporary Arts, which is just on the other end of this block. So I definitely recommend stopping by there if you have a little bit of time. But they are participating in a much larger project called Wake the Great Salt Lake, which is being managed by the Salt Lake City Arts Council, but they're commissioning projects all across Salt Lake City around bringing attention to the Great Salt Lake. And there's one of those particular pieces, is a site specific art installation by the Utah Museum of Contemporary Arts on the plaza of Abravanel Hall that's all about bringing awareness to Great Salt Lake.

And so that's a really great example of how we've taken these conversations through a very kind of immediate local lens, which I think has been really powerful. So just one thought, you know, again,

talking about global warming as a big scary thing. For me, I just tend to shut down. But when it's like, let's figure out how to bring awareness to the Great Salt Lake, you're doing the same thing, but it feels much more immediate, right?

LUCAS: Thank you. Just to add to that, Matt, the fact is that we should not do these things in isolation. We can't try to do — save the world in isolation. And it must be that we figure out those community partners and forge those relationships. That is the key to it all, because then we're all thinking about it and not trying to, you know, build a new car or a new train. Sorry.

RICH: So I want to — yeah, there's a question here.

[OFF-MIC QUESTION]

RICH: How symphonies can be forward leaning into decreasing the use of plastic water bottles. Well, I mean, I'll say, really, I'll let you answer in a second, but I can say really quickly, I've just been playing around. So I live in Montreal. I've been playing a bunch of shows around Quebec, and it's very interesting to see a bunch of theaters that have just, I mean, really simply said, “We don't do this anymore.” They said, “Here's a Brita filter.” One I saw said, “We clean, change the filter every however often, so, you know, it's not bad. Here's some glasses of water.” And it's, you know, at the National Arts Center where I was working, they were installing water fountains backstage, or as an old building, and they didn't have any. So, I mean, I think in practical terms, it's relatively simple, but there are — I know that it's not something which is actually always done as much. I don't know what you have to say about that, Annie.

[1:00:57.3]

ANNIE: Yeah, I think that approach is the right one. Just, you can absolutely create a new culture that's plastic free. I think procurement is really important, those scope three emissions. And I will say food has an enormous emissions profile, and packaging is part of food as well. And so thinking about procurement, saying we want to be as plastic free as possible, and when it comes to water, when it comes to beverage, we will only work with, you know, providers that are using 100 percent recyclable glass or paper alternatives, right? But it's definitely an issue. Plastic’s definitely an issue, so thinking about that is definitely important. But I do think you can simply get rid of that. And make sure you have a replacement. That's always the suggestion that we make in the sustainability space, is, what are you moving towards? Not just what are you moving away from, but what are you moving towards?

[1:01:51.1]

Moving towards something that is of greater benefit, not just to health of planet, but also health of humans too. I think also, one of the things that's being discussed a lot about in sustainability is, how do we relate this back to human health, which we know is one of the strongest motivating deciders for lifestyle changes? So plastic is obviously — you really don't want to be drinking anything out of plastic. I say this with a plastic, you know, but it's not good for human health. So I think making that be part of, hey, this isn't just taking care of planets, it's taking care of you.

RICH: So we have about 10 minutes left, and I want to end this with what should be the most fun part, by which I mean to say we've been talking about some big ideas, some things are going to take a while to achieve, and some things that are really important. I wanted really to make sure that we left you with also some quick wins, some things. You know, when I think about change, one of the lenses that I often use is, if I had one afternoon to do something, if I had four hours, could I do something that would be meaningful?

And so we want to walk you through and all of these things. If you scan this QR code here, it's going to take you to a Google Doc that has links to all of these things we'll talk about and a few more things, including all of our email addresses if you have questions that we didn't get to address today. Annie, do you want to start by talking about LEED? You mentioned it earlier, but do you want to say a little bit more about LEED?

ANNIE: So I think one thing, one quick win, is just having a LEED associate or AP certified professional. Walk through whatever space you're renting in, and oftentimes, you can connect with universities or even LEED programs, and students or professors would be willing to take a class for free. So I would try to say there's probably ways in which you can do this in a very budgetary, friendly way, and in relations, which I love the collaboration that you had with the University of Maine, right?

[1:04:06.5]

I think that's something I would recommend to any orchestra, is sort of, what is your local educational sort of bastion? How can you develop relationships with the sustainability department? I guarantee you there are a lot of very eager climate and sustainability students who are looking for projects for their — as part of their studies and working in collaboration with an arts provider, an arts nonprofit, would be a very compelling project for them. Having someone with that kind of background walk through your building, try to kind of do a back of napkin assessment on, you know, what they're seeing, what kind of lighting, what are your energy bills looking like? And starting to develop that sort of top of napkin laundry list for quick things that could be changed in a building. And a lot of times,

there's some really — to Rich's point, there's some very cost effective quick wins that make pretty significant changes to your bottom line in terms of both emissions reductions and in terms of utility costs. So that's one thing I would recommend.

RICH: Thank you for that. Another thing that we can talk about is banking. And to be honest, this is something that I've learned about more recently, and I was really shocked when I learned about the impact that banking can have. So obviously, you have your money in a bank, and then the bank goes and invests that money somewhere. Over the last eight years, the 60 largest banks in the world have have invested $6.9 trillion in fossil fuel companies and fossil fuel exploration and fossil fuel projects.

[1:05:44.9]

So I saw another study that suggested that, or that showed that having $8,000 invested in one of the worst banks for a year, that would be responsible for the same amount of emissions as driving a car for half a year. And I hope that all of your organizations have more than $8,000 invested in the bank at any given time. So you know, this could — you know, changing banking does not have to take a really long time, but it could have a very, very large impact, and once you do it once. So on that list, there's a resource which assesses by region. So I think the link goes directly to banks in the States. And you can just look up banks in your area which — and this organization has graded all of these banks, and you can just look and see what's available there. Annie, did you want to talk about green retirement and theater insurance?

ANNIE: Yeah, so similar to banking as part of sort of climate finance, which is a branch, there's also green retirement options. So how 401(k) investment opportunities are happening, both for your core team and potentially for your orchestra. There are a lot of very safe retirement funds that still meet sort of the security, but who are divested from fossil fuels or major contributors to climate. And there's also a really amazing organization called Green Premiums, which is, you know, very traditional insurance. It's actually more cost effective than a lot of traditional corporate insurance. And they offer the exact same coverage, but it's climate aligned. So there are definitely some services and those resources are provided there.

RICH: And the last one that we wanted to share with you, I mean, this is probably the least impact, but you can do it in literally five minutes. There's a search engine called Ecosia, and some of you may be familiar with it, and they invest all of their profits in sustainability efforts. So it's a not for profit. And so instead of giving your money to Google when you see ads, you could be giving it to something which is, you know, investing in a whole pile of projects. Just supporting biodiversity, supporting reforestation, supporting all sorts of things which are helpful.

[1:08:00.5]

And again, on the QR code, there's a link. They have a page. If you have a central an in house IT team, there's a page for how to set that as your default search browser for your company. If you're a small company, you can do it yourself. There's another link to that. And so, as I say, smallest probably impact here, but it takes five minutes. I know that we're very close to the end of our time, and we haven't really left very much time for questions. I wonder if there's any questions that you have before we have to wrap up.

[OFF-MIC QUESTION]

[1:09:50.7]

STEVE: This is a good question. Thoughts on printed programs and posters. It's interesting. Some of it comes down to, I think it's even less about what are people used to, to the variety of ways that people engage with the music that they're taking in. We, as an organization, we went all digital with our program during COVID, during the pandemic, because we wanted one less thing that people were going to be handling. Because we always ask for programs back and recycle them, and try to use whatever we can for the rest of the month or the quarter. But then we lost our opportunity to stay digital as soon as we went back to having fully occupied concerts. And some of that came from people who didn't want to deal with the small screen. And then we tried to reduce the size of our program by having partial program notes and a QR code to read the rest.

But then we also realized that, one, our venues, it's hard to have great wi-fi because the venues are built to keep everything out so that you have this amazing environment on the inside. So depending on people's phone service, etcetera, either they have access to the program or they don't. So I think it was — it really came down to more of a customer service question with the audience, how would they engage with the music in a different way? You can see it on the app. You can also have the printed program. And also during a concert, depending what the music is, we kind of decided we actually didn't want to have half of the audience with their screens up. It's also distracting, and we're trying to get people away from their devices and to just focus on what's happening in the room with us live.

LUCAS: And the likelihood of phones ringing because they're on.

STEVE: Well, yes, there is that as well. If people are using their phone, they're less likely to make sure that it's off. So that has driven us back to the printed program. We provide both, but we're still doing it. And at least we are trying to put as much effort as we can into on the back end on recycling.

[1:12:03.0]

ANNIE: Yeah, I would say, I guarantee you, that's not going to be a significant source of emissions. The most important thing, and I would just work with your local printing to say, "Hey, we would like soy based or water based ink instead of oil based ink." That makes a really big difference. And also just making sure that whatever program, whatever paper combination you're using, just check that that's curbside recyclable. That's really the most important thing. If it is curbside recyclable. Generally, paper is one of the most circular materials out there. So once it's been produced, as long as it's recyclable, that's not going to be a huge mover.

RICH: And I think this really good point that you made, Steve, is that, you know, it's really important. One of the reasons, one of the great reasons to actually measure your emissions and understand this whole piece is to know, you know, you can be having fights with patrons who want this, and you want this for other reasons, and then you actually find out it's not that impactful. I mean, I'm not saying it has no value, you know, and it might have value for other reasons, but it's maybe not the hill that you want to die on.

We are at time, and so we have to wrap this up. But I want to thank you for being with us this morning. I want to thank all of the panelists. And also, I think all of our emails, as I said, are available on that link that you can get to the QR code. So if you have further questions right now, afterwards, or in the future, then we're more than happy to talk to you.

LUCAS: Is this link available on the League website after this session, or is it only available just right now?

RICH: It's not at the moment. It might be later. Yeah, yeah. So thank you to the panelists and thank you.

[APPLAUSE]