

**S2 E8**  
**What We've Learned and What We Can Do**  
Transcript

**Nicole Kang Ferraiolo:** Hello and welcome to Material Memory, I'm your host, Nicole Kang Ferraiolo. So, we made it, friends! This is the final episode of our season: "Cultural Memory and the Climate Crisis." If you're joining us for the first time today, you're welcome to jump in here or go back and listen to some of our earlier episodes.

So, when people find out we're working on a podcast about climate change and cultural heritage, they usually ask us two questions. The first is, "What did you learn?" and then, "What should we do about it?" So, we thought we'd end the season by trying our best to answer them.

To help us think through this, I want to introduce one of the producers of our show, the amazing Lizzi Albert, who has been a core member of our writing team and has put together all the show notes and the supplemental materials for the season. Hi Lizzi!

**Lizzi Albert:** Hi Nikki!

**Nicole Kang Ferraiolo:** So how does it feel to be behind the mic?

**Lizzi Albert:** I feel VERY famous right now.

**Nicole Kang Ferraiolo:** If only... But thank you for joining us. So what are some things that struck you about the season?

**Lizzi Albert:** Well as someone who hadn't worked on climate issues before this season, I guess the first thing worth saying is just how bad the climate crisis is! Looking over the transcripts for this season, some of the statistics are staggering. [Between 150 and 300 million people](#) could be displaced by climate change by the year 2050. As you mentioned, even on the low end that's equivalent to almost half the US population; at the high end, it's equivalent to 90%.

**Nicole Kang Ferraiolo:** Yeah, and there have been over [one million](#) disaster-related displacements in the US each year since 2016.

**Lizzi Albert:** There are also more than a million species at risk of extinction. And then there are threats to food and fresh water, heat related deaths, poor air quality, and a rise in infectious diseases.

**Nicole Kang Ferraiolo:** Yeah. The thing that keeps me up at night is knowing that we are on track for climate change to be irreversible in less than ten years. If we want to live in a world with "just" 1.5 degrees Celsius of warming—which is a world that has *far more* natural hazards

than we are seeing even now!—If we want to keep it at 1.5 degrees, we'd have to cut global emissions *in half* before 2030.

I am not exactly optimistic that we'll make these targets and if we miss it, we'll likely see irreversible losses of ice sheets in Antarctica and Greenland, which could result in [multimeter rises in sea level](#) over the next several hundred years. And if we miss 1.5 degrees, the next target is to stay under 2 degrees celsius, which one [study](#) described as the [difference](#) “between events at the upper limit of present-day natural variability and a new climate regime.” And there's no cap to how much temperatures can rise. We might be looking at a 3 or 4 degree rise or more, which would be *catastrophic*.

**Lizzi Albert:** It's absolutely terrifying. Another thing that surprised me was the scale of the impact on cultural heritage. It was so much worse than I expected. The statistic I keep coming back to is the findings of our guests Ben Goldman and Eira Tansey that [98.8% of archives](#) in the US will face a climate change risk factor by the year 2100. I really struggled with the scale of the potential loss.

**Nicole Kang Ferraiolo:** Yeah. I think the heaviness of this topic was something that we were aware of from the beginning, and we tried to make space to respect and process the grief and anger that comes with climate change. One reason I wanted to run the episode with Ben and Eira early in the season was because they addressed the subject of climate grief head on, which I felt was important to acknowledge before getting into issues like disasters and displacement. I have a clip here that we weren't able to include this in the original episode for space reasons, but I wanted to play it.

**Ben Goldman:** Yeah. On the topic of climate grief, in 2017 there was the Libraries and Archives in the Anthropocene Colloquium. It was very small, maybe 50 people. We started off that two-day symposium with a talk that just kind of put climate grief front and center. And it felt like we all kind of came with this desire to talk about our work and sort of ended up talking about the climate crisis and maybe sort of touched on our work at times. Definitely one of the most surprising and emotional conference events I've been to.

**Lizzi Albert:** I remember in the episode, Ben talking about how he deals with his own climate grief.

**Ben Goldman:** One thing I've learned from Eira and from some of my other friends who I'm active in these issues with is that it's just so much better to do it together, to do it with other people, because there are issues of grief and I struggle, you know, mentally myself, on an almost daily basis, with my own grief and worry over these issues, so it just always feels better. And I mean, I think, having Eira to work on a lot of these projects with has just really kind of kept me going too. So, I guess that would be my advice, is just, find people to do this work with you and work together.

**Nicole Kang Ferraiolo:** But we were also careful to make sure that grief and tragedy weren't the whole story we were telling. One of my main takeaways from our episode with Crystal Felima is that you can't just tell a singular narrative when talking about disasters.

**Lizzi Albert:** Yes. One of my favorite anecdotes from the season was when Crystal spoke about the woman in Haiti who responded to hurricanes by effectively throwing a party! I think we have a clip of it.

And just a reminder that Crystal is speaking in her capacity as an individual and her views do not represent her employer FEMA, or the US government.

**Crystal Felima:** I was collecting disaster narratives and one specific participant, she said that yes, you know, a lot of people here, you know, they don't have money, they don't have medicine if it floods and they might need to take some antibiotics, et cetera. But you know, when it floods, she said, when it floods my neighbors, they'll come to my house because I have a two-story house and I tell them to bring their food and we go through the second floor and we cook, and everybody eats. [laugh] You know, it was just, you know, thinking about, thinking about social networks and why social networks are so important. You know, you have the community that is so important for people's survival, right? And so, people are the first responders, you know, that they're not relying on the Haitian government. They're not relying on organizations; they're relying on themselves. And so, you know, I thought that was like, that was one of the stories that stuck with me. She was just like, yes, we're going to eat. It's going to be okay. You know? And it was just great. It was great.

**Nicole Kang Ferraiolo:** I love that. Throughout that episode, Crystal reminded us how destructive it can be to only show narratives of people suffering, particularly in a place like Haiti, that has less access to resources and a history of confronting oppression. She made the point that you also have to have narratives of people "striving and surviving." And I think it also matters who tells these stories. Crystal, who's Haitian American, is going to bring that perspective to her work on disaster narratives about Haiti.

**Lizzi Albert:** That speaks to what I see as another key theme from this season, which is how we collect stories of climate trauma.

**Nicole Kang Ferraiolo:** Yes, this came up most heavily in the interviews with Eira and Ben, and with Itza Carbajal. I'm typically a big fan of oral histories and other documentation projects, but listening to Itza's experience of having people collect her story after she was evacuated from her home in Hurricane Katrina made me really question whether it's worth it. Here's Itza:

**Itza Carbajal:** I'm not sure I'm in the place to advocate for collecting after a disaster. Cause there's so many more immediate and pressing issues than saying, Hey, can I do an oral history with you? It just like really ticks me off to think about some things that happened after Hurricane Katrina and, you know, how people were struggling financially, physically, emotionally, and then to have not even just cultural heritage institutions, but like even the government, saying like,

“Hey, let's like collect all these stories about how we just survived this natural disaster and like let's celebrate our own resilience and blah, blah, blah.” And it was just, Hey, people need a roof. People need food, people need their medicine. We all have mad PTSD. I don't want you to keep taking more stuff from me and making me process these things for your, like, history gathering projects. It was terrible. It was just absolutely terrible.

**Nicole Kang Ferraiolo:** This was such an important point, and one that complicates how I think the field should respond to the climate crisis. I don't think that our speakers are saying don't collect climate narratives, but rather they are asking people to be thoughtful and deliberate about which stories to collect and how. Itza made a point about how, maybe instead of waiting until after people have experienced trauma, we focus on collecting their stories before they are forced to leave. Stories of joy are important too!

And if we must collect after disaster, we should perhaps follow Eira's advice, which was to do it slowly, and with a lot of care. Maybe these stories are best collected by people within the communities themselves. I think, at least I hope, there's a way to preserve these stories, because I do think there's value to them.

**Lizzi Albert:** I agree. This comes out strongly in the episode with Victoria Herrmann, when she reflects on the preservation of her grandfather's story. He survived the Holocaust and migrated from Germany to the US, and engaging with this legacy influences how Victoria thinks about climate and culture.

**Victoria Herrmann:** Hearing these stories growing up of displacement, of forced relocation, of this migration to a new homeland, it made me value the concept of a cultural community, of social cohesion, but also of this idea that you can pass down from one generation to the next your traditions, your histories, your heritage, even in the face of forced displacement, and how important those things are to resilience—to bouncing back after shock events happen in your new home. We, over the course of the past 75 years, have seen lots of shock events in New York, in New Jersey where my family settled, and in every one of those extreme events, like Hurricane Sandy, we were able to bounce back because of those close-knit bonds, because of the traditions that brought our community together.

**Lizzi Albert:** Victoria also talked about the importance of the documentation of this heritage.

**Victoria Herrmann:** The documentation of that heritage means that the memory of that historic site, that tradition, is not lost and you can pass it down. And there, I think about my own family's history too. How my grandfather's story was documented in the Shoah, an audio and visual history of the Holocaust. And I can go online today to YouTube and watch three hours of him talking about his cultural community, of my family's life in Germany. That documentation is so important for me to understand where I and my family came from and what I'm building upon.

**Nicole Kang Ferraiolo:** This makes me think of Saiful Alam Chowdury's call to preserve intangible cultural heritage in Bangladesh, in particular Baul Gaan, the folk song tradition. My

big takeaway from this episode is that you can't protect culture if you don't protect the people that produce it. Here's a clip from that episode:

**Saiful Alam Chowdhury:** Poverty is one of the biggest problems, because the people who are practicing, like, some folk songs, they are really poor, and you can say they are hand to mouth. But the problem is that they don't get any money or any subsidy or any facility from the government, and not from any other organizations. Poverty forces many artists, musicians, craftsmen, and others to give up their long-practiced arts, from not only Baul Gaan, but puppetry, or other artistic abilities that they learned from their ancestors.

**Nicole Kang Ferraiolo:** As you would imagine, there's a connection between poverty in Bangladesh and climate change. Saiful mentioned in the episode that currently [50% of the people living in the urban slums in Bangladesh](#) were there because of environmental displacement.

**Lizzi Albert:** Wow. In that episode, he also shared the story of muslin as a warning of what could happen to other elements of intangible cultural heritage in Bangladesh. Similar ideas came up in our most recent episode with Blessing Nonye Onyima, which focused on cultural heritage in Nigeria and the ties between colonialism and climate change.

**Nicole Kang Ferraiolo:** Yeah, I think frequently about the example Saiful gave of the British soldiers cutting off the hands of the people who wove the muslin fabric, which meant that they could not pass down the knowledge of their craft to subsequent generations. I also keep thinking about when Blessing spoke about the massacre of Benin City and the pillaging of the Benin Bronzes, which STILL haven't been returned to Nigeria.

**Lizzi Albert:** One of the things Blessing did so beautifully was to talk about what that loss meant and why it's so important to preserve cultural heritage.

**Blessing Nonye Onyima:** Preserving cultural heritage matters, seriously. First, because heritages speak a volume of a people: about their identity, about who they are, about their history, about their past. Culture is, you know, culture is a sum total of the ways of life of your people.

**Nicole Kang Ferraiolo:** Yes, we dedicated most of our first episode to why we should care about cultural heritage, and the links between culture and identity, because this isn't always immediately evident.

**Lizzi Albert:** I found the first episode to be really useful in setting the stage for what we're dealing with. Most of the episode focused on bigger questions like why it matters to preserve cultural heritage when faced with the devastating impacts of the climate crisis and the staggering scale of the problem, but I also appreciated the way you laid out some of the more mundane threats of climate change to cultural heritage. For instance, you talked about how

even small increases in temperature could lead to more bugs and mold, and cause institutions to have to spend money on expensive climate control systems.

**Nicole Kang Ferraiolo:** Yeah. Budgets are going to be a challenge. We didn't even get into rising insurance prices and what that will mean for museums in particular. Another thing we discussed was the impact on digital collections. One of the studies we mentioned found that [4,000 miles of land-based fiber optic cable](#) in the US and over 1,000 internet nodes, like data centers, may be underwater in 10 to 15 years.

**Lizzi Albert:** Data centers also came up in the episode with Itza, when you two pointed out that the digital is physical somewhere.

**Nicole Kang Ferraiolo:** Yeah, data centers are vulnerable to flooding, spikes in heat, power outages—like we saw in Texas this year—and also require ongoing maintenance. Digital collections have advantages in the climate crisis, for instance when physical holdings are threatened, because of the ability to store multiple copies in different locations. But it's definitely not a perfect solution. There's also issues of the digital divide, which came up in Crystal's episode, when thinking about who has access to digital collections related to Haiti.

**Lizzi Albert:** That makes me think of another theme that came up a *lot*: that climate change doesn't affect everyone equally.

**Nicole Kang Ferraiolo:** Yes! I think nearly every guest said this in one form or another this season.

**Lizzi Albert:** I want to play a clip of Itza talking about what this inequality actually looks like when faced with a climate disaster.

**Itza Carbajal:** If you don't have the resources to get things out of an institution, you don't have the resources to rebuild a building after, like say a hurricane. If you have a structure where your archives were already, like in kind of a bit of a difficult situation, right? Like you might not have proper insulation. So you have bugs, you have humidity, you have all these things, boom, here comes a hurricane, it might flood, it might not, but you lose electricity. So you can't have, like, a dehumidifier. You can't even have controlled climate. What if your structure gets immense damage and you don't have the money to repair it. And so, these materials are just like in more detrimental condition, and if it's between your life or the life of your staff, marginalized communities or underrepresented communities, it's going to be that much harder to get their stuff if we don't provide the support for them.

**Lizzi Albert:** You used the phrase “threat multiplier” in one episode to talk about how climate change intersects with and amplifies other forms of inequality. We found it was essentially impossible to talk about the impacts of climate change without delving into other aspects of a community's history.

**Nicole Kang Ferraiolo:** Yes. When talking about inequality, much of the conversation was specifically centered on environmental racism and climate justice—both the impact on communities and on artifacts. Climate change poses risks to cultural heritage all over the world, but disproportionately it is the history and culture of Black and Brown communities that are most at risk of being lost. This is one of many reasons why it’s so important to center BIPOC and marginalized voices in climate conversations.

**Lizzi Albert:** I’m so glad you brought that up. It also reminds me of the point that Crystal made about how the outcomes of extreme weather are determined in part by power structures both within and external to the affected areas.

**Crystal Felima:** I do not use the term *natural disaster*. You know, the earthquake in Haiti a couple of years back, that killed over a hundred thousand people—that was a natural occurrence. If that happened in California, the death toll would be dramatically different. This pandemic is not a natural disaster because if we look at our cases versus, you know, New Zealand, thinking about how politics can structure, you know, preparedness and action and response, the outcome can be very different.

**Nicole Kang Ferraiolo:** It’s so true ... Well, we could go on for hours about additional themes that came up this season, but before we run out of time, I want to turn our attention to the question I personally was most interested in when we started this season: What can we do about it?

[Music]

**Nicole Kang Ferraiolo:** During the interviews, we made a point of asking each guest for ideas of what listeners, particularly those in the information field, can do about the climate crisis and its impact on heritage. And our guests had so many ideas! One of the things that stuck out to me is that several guests effectively said: everyone has a role to play in the climate crisis, and our job is to find our role.

**Lizzi Albert:** Yes! And that led to many conversations about the unique skills librarians and other information workers can offer in the climate crisis.

**Nicole Kang Ferraiolo:** This came up initially in the episode with Eira and Ben, who had some reservations about the way I asked the question, which was what information workers can do as individuals.

**Lizzi Albert:** I remember Eira shared that great quote by Bill McKibben that “the most important thing an individual can do is be less of an individual.”

**Nicole Kang Ferraiolo:** And there is good reason to not over emphasize individual action. After all, [100 companies are responsible for 71% of global emissions](#). It gets at Eira and Ben's bigger point that individuals have the most to contribute when they're part of a movement.

**Lizzi Albert:** I loved Eira's story about going to the town hall with the Ohio River Sanitation Commission and reading back old records that she knew how to find because she was a librarian, and her point about how as information workers we should care about information outside of our institutions. Here's Eira.

**Eira Tansey:** So, one of the things I'm thinking about is that there are all sorts of deregulatory measures right now, in terms of the kind of, you know—environmental racism often manifests itself as disproportionate pollution or waste siting in neighborhoods of color or working class, poorer communities. And a lot of the records and the data on that are not anything that's going to end up in a prestige research library. And so I think archivists sometimes our vision of what our professional ethics and responsibilities are, oftentimes I don't think are broad enough because we should be the people who are filing Amicus briefs on any time there's a deregulatory effort to try to reduce the amount of data being collected on things, because we're information workers. We should care about information wherever it exists, even if it's not within our institutions.

**Nicole Kang Ferraiolo:** Another thing guests pointed out was that the information field is particularly well suited for helping people understand the climate crisis and its impacts. This includes offering educational resources *and* ensuring access to the information needed to address the climate crisis and its many symptoms.

**Lizzi Albert:** We saw some great examples of this in the season. I loved that Project ARCC's contributions to the global climate strikes were teach-ins. Itza co-organized these with Ted Lee, and it's like, of course archivists are also creating educational resources as part of their protest.

**Nicole Kang Ferraiolo:** Yes, there are so many amazing projects out there trying to make critical climate data accessible. Several of our speakers sung the praise of Data Refuge, which is a community-driven project to preserve public climate and environmental data. This project was launched in 2016, when it became clear that federal climate data was under threat. Another example of a project doing great work in this area is Old Weather, which is a crowdsourced project to transcribe weather observations recorded in 19th and early 20th century ship logs for use by today's climate scientists.

**Lizzi Albert:** There were so many projects and individuals mentioned in the interviews that we couldn't squeeze into our episodes, but we've tried to round up a more complete list of these names in the show notes for this episode. (That's one of my jobs!) Anyone listening should definitely check out the list on our [episode page](#) for more people doing important work in this area.

**Nicole Kang Ferraiolo:** Another thing speakers brought up that the information field can do is create inventories of existing cultural heritage and records. We talked about the Repo Data Project, which identifies, standardizes, and makes accessible the location data for archival repositories in the US. Ben and Eira, who co-created this, did so with climate research in mind, since you can't study which archives are at risk without knowing which ones exist.

**Lizzi Albert:** Saiful also called for an inventory of Bangladesh's intangible cultural heritage as a necessary step in safeguarding it.

**Nicole Kang Ferraiolo:** When thinking about what libraries and cultural organizations can do in response to climate change, an obvious answer is also to consume less and reduce their carbon footprints. While this isn't going to solve the climate crisis, greener infrastructure and less wasteful practices are good things. Itza pointed out that some institutions won't even let you repair or recycle broken equipment.

**Lizzi Albert:** And Eira pointed out how much our field flies and the carbon output of conferences, which is something I know I've personally been bad about in the past.

**Nicole Kang Ferraiolo:** Oh, my goodness—don't get me started on my personal flight shame... Ben also made the interesting point that perhaps we need to stop collecting so much. This, of course, makes sense given the emissions of data storage. In that episode we cited findings that the world's data centers currently account for 2% of global emissions and are on track to account for 14% by 2040. And for reference, 14% of global emissions is about the equivalent of the emissions from the US right now.

So, there are a number of things institutions can do to address this. They can try to work with data centers that emit less. The Greenpeace report, "[Clicking Clean Virginia](#)," has some good resources on this. They can also become more aware of where their energy is coming from and advocate for switching to green energy. But, of course, the big thing is the point Ben made about just using less data.

**Lizzi Albert:** I really appreciated his point about rethinking this idea that we need to be constantly growing our collections, challenging the capitalist dogma of constant growth.

**Nicole Kang Ferraiolo:** Yes. Itza and Eira similarly talked about the problems with having an extractivist mentality, which has led to the depletion of the planet's resources and been a driving force for the climate crisis. Both gave examples of how we can see this extractivist mentality in both how we collect people's stories and how power dynamics, particularly around labor, play out at our institutions. I would love to see more archives looking to models that try to avoid extractive tendencies, such as post-custodial archiving.

**Lizzi Albert:** This reminds me of the discussion from Crystal's episode about the Digital Library of the Caribbean's attention to equitable partnerships and being aware of power dynamics when

working transnationally. Collaboration is a powerful tool for resource-sharing, but it's complicated.

**Nicole Kang Ferraiolo:** I want to shift gears and talk a little about emergency plans, which Crystal identified as one of the most important things libraries can do in the climate crisis. And I think it's important to mention that emergency plans for libraries often involve much more than making sure your collections are safe. Crystal pointed out that libraries can be important resources for the local communities. When disasters strike, they can offer places where communities can come together in times of crisis and heal. Sometimes it's as simple as having a place to charge your phone when the power goes out. Though often it's more than that: during heat waves or cold snaps libraries have been shown to save lives. Even after the fact, they can help people figure out how to collect insurance or relief funds.

**Lizzi Albert:** This gets at the point that Crystal and Victoria made about why it's so important to plan ahead rather than react after the damage has been done and the cultural items have already been lost.

**Nicole Kang Ferraiolo:** There are people who are advocating for this on a broader scale for the field. Last fall, I heard one of the co-founders of Project ARCC, Casey Davis Kaufman, give a [talk](#) where she called for the equivalent of the Paris Accords for archives. It made me think of something Eira said during our interview.

**Eira Tansey:** I've talked before about how we need a green new deal for archives.

**Ben Goldman:** That's true. You've been saying that a long time.

**Eira Tansey:** Yeah. I've been saying that for anyone who will listen to me. During the Depression, we paid people to document environmental catastrophes. With the farm security administration, the United States government hired some of the most talented photographers that have ever worked behind a camera. And so, when we think about Dorothea Lange's Migrant Mother portrait, she was hired to document the like, I mean, in many ways it was like environmental justice before we had the phrase, right. Because this was that famous portrait. What I always think of as the Mona Lisa of the United States was like a portrait of a mother who could not feed her children because of an environmental catastrophe. And so, we have a precedent in this country where we have hired people and paid them to document the human catastrophes related to environmental catastrophe. So, we did it before, we can do it again. It's going to be an uphill battle, but you know, we, we have our own history to draw on for what we can do to solve this. And it's called a green new deal for archives.

**Lizzi Albert:** "The Mona Lisa of the United States"—I love that. It makes me think of our episode with Victoria, when we talked about the role culture should have in policymaking. I was surprised and delighted by Victoria's contention that culture shouldn't be an afterthought—it should be at the forefront of policy discussions, because centering culture means centering people and communities.

**Victoria Herrmann:** No matter what you are talking about in climate policy, cultural heritage is not only a part of the solution, but it should be leading the solutions and invested in that way. We know that cultural heritage in all its forms—indigenous and traditional knowledges, archaeological knowledges, right, our family understandings of what makes us resilient as cultural communities—is all critical to understanding how we can best document loss and damage, how we can best adapt our communities to an increasingly warmer world, and also how we can mitigate, reduce our greenhouse gases.

**Lizzi Albert:** I remember when you asked Victoria what her advice was for cultural heritage practitioners. She responded that they should listen to the communities they're working with, who know their own needs better than anyone else.

**Nicole Kang Ferraiolo:** And this gets at something that we didn't necessarily state directly in the season, but increasingly stuck out to me: We need to expand our definition of who a climate expert is. For a very long time, the climate change field felt like it was narrowly defined as environmental science, green energy, and associated sectors. And for a long time, climate change spaces—at least the ones getting media attention—were *very White* (which is especially problematic since climate change disproportionately affects people of color). This is changing as people are talking more about climate justice and especially recognizing the unique contributions of indigenous communities. It's an encouraging trend, but we still have a ways to go. In many cases, the people who are best equipped to make informed decisions about how we adapt are the people with deep community knowledge.

**Lizzi Albert:** How do you think that might change the way we approach climate adaptation policy?

**Nicole Kang Ferraiolo:** The indirect effects of climate change are so far-reaching. We talked about the staggering displacement of people due to climate change, but there are also ripple effects of this displacement. When 13 million people in the US are forced to relocate from the coastlines, they have to go somewhere. So, what happens to those neighborhoods receiving them? When we talk about climate displacement, we usually don't talk about gentrification, for instance, but that is something we absolutely need to be prepared for. And when planning climate adaptation policy, we need to listen to the activists and community experts who have been working on these issues for a long time.

**Lizzi Albert:** So, what will this mean in terms of cultural heritage?

**Nicole Kang Ferraiolo:** I co-wrote a [piece](#) a couple of years ago with our colleague Jodi Reeves Eyre, who's also on the staff editorial board for this podcast, and we talked about how we'd love to see more community-based archivists included in climate conversations in the library and information field, and more tribal organizations too. When putting together the podcast lineup, we tried to emphasize local knowledge, but if I could have done the season over

again, I would have done this to an even greater extent. At this point, I honestly don't even think people need to have ever said the word "climate" to have the critical expertise needed to adapt to the crisis.

**Lizzi Albert:** I get what you mean. The ripple effects include so many things that aren't always associated with climate change. There are the public health impacts, including greater susceptibility to respiratory viruses like COVID-19. There's the impact on jobs and what it will mean for families when so many industries undergo massive upheavals; it's a cliché now, but I'm thinking of coal mining towns, or communities that depend on fishing.

**Nicole Kang Ferraiolo:** But it's more than just those sectors, right? As we've seen, even fields like libraries, archives and museums are deeply affected. What other fields aren't we hearing about?

**Nicole Kang Ferraiolo:** When libraries and other cultural organizations respond to climate change, it isn't just about having green buildings, making environmental data accessible, or giving people the tools to talk about climate change--as important as all those things are. It's also about providing access to mental health resources, helping people transition industries, navigate insurance claims, get resources on affordable housing and health care. It's about finding ways to support research and activism in all those areas, and help people plan for the future.

**Lizzi Albert:** You know, what strikes me is that so many things on that list are things that libraries, especially public libraries, are already doing.

**Nicole Kang Ferraiolo:** Yes! And that's the thing! For so many librarians and memory workers, our work is *already* climate work. And when we realize that, we are better able to proactively adapt and plan for our new normal, so that we can better support human beings in times of crisis and preserve the memories and heritage that matter most to communities.

**Lizzi Albert:** Well, that was quite the list of things we can do.

**Nicole Kang Ferraiolo:** And we've only scratched the surface here, but I have great faith in our listeners' abilities to find their roles. After all, we're in the *information* sector, surrounded by people who know more about where to look for answers than perhaps any other field.

**Lizzi Albert:** In case it's helpful as a starting point, we've condensed this "what can I do" conversation into a list on the show notes page for this episode and have started to compile resources to help you take concrete steps towards some of these recommendations.

**Nicole Kang Ferraiolo:** It's also worth saying that you don't need to do everything yourself, and honestly, you probably shouldn't! That's what networks and movements are for. But we all need to take it seriously and do something. I want to leave you with some advice of one of my favorite climate writers, Mary Anaise Heglar, which is, simply, to "[Do what you're good at. And do your best.](#)"

[Music]

**Lizzi Albert:** It occurs to me that one thing we never talked about this season was why we picked our cover image. For listeners who haven't visited our website, the main image for the season is a cluster of redwood trees, one of them a little hollowed out, reaching up to the sky. Nikki, you found the image. Why did you think it was right for this season?

**Nicole Kang Ferraiolo:** Yeah, I suggested the image back in fall 2020, at a moment when redwoods were on my mind. I live on the East Coast now, but as you know, I grew up in Northern California, which was at that time, in the midst of its most devastating wildfire season on record. I watched from afar as my social media feeds turned a deep orange as friends back in California posted photos of the views outside their windows. The fires that season spread across more than [4 million acres, and over 10,000 houses and buildings](#) were damaged or destroyed. One of the places devastated by the fire was Big Basin State Park near Santa Cruz, known for its giant redwoods. It also happens to be the place I used to go camping as a kid.

The loss of Big Basin hit me a lot harder than I ever would have imagined, but one point of solace was that experts believed, and continue to believe, that most of the oldest trees are going to survive, like they have, in some cases, for over two thousand years. It seemed like there was a metaphor there about memory and resilience.

**Lizzi Albert:** You actually wrote a [blog post](#) about this—is it okay if I read a little bit from it?

**Nicole Kang Ferraiolo:** Sure.

**Lizzi Albert:** “The redwoods were also fitting for the podcast because they form communities that support each other. New trees grow out of the roots of old trees, and they grow in ‘fairy rings’ that put the trees in conversation with each other across the generations.” And, so, in a sense, trees are their own archive, their own living historical document of themselves. You also mentioned that redwoods are climate all-stars that [suck a ridiculous amount of carbon out of the atmosphere](#). Talk about finding your role! They are actively fighting climate change just by existing.

**Nicole Kang Ferraiolo:** Redwoods are pretty amazing. I like to pretend I knew all that when I proposed the image, but mostly I thought of it because, at that moment, it was how the climate crisis affected me personally. Did I ever tell you that I almost moved back to California last year?

**Lizzi Albert:** No, you didn't!

**Nicole Kang Ferraiolo:** Yeah, it was one of those COVID-inspired life re-evaluations. Back in spring 2020, my partner and I were seriously considering moving to the Santa Cruz mountains and if you look at our emails from that time, it's full of links to homes that likely no longer exist. I often think about the people who lived there. Over the past several years, I've had a number of

friends in the West be evacuated for wildfires and one of them even lost their childhood home—one that their parents built themselves.... You know, despite living away for so long, I never did stop thinking of California as my home and it was always my intention to move back one day...but at this point, I honestly don't know if I ever will.

**Lizzi Albert:** I'm so sorry.

**Nicole Kang Ferraiolo:** Thanks, Lizzi. I mean, nothing actually happened to me, but I still feel a sense of loss, you know? And I grieve for the people who've lost so much more. Climate change can often feel broad and impersonal, until it doesn't, and then I'm not sure there's anything that feels more personal.

**Lizzi Albert:** It reminds me of when Victoria talked about how devastating it is to lose your homeland, because you aren't just losing a place, you also risk losing your traditions, the social cohesion of your community, and perhaps eventually, your culture.

**Nicole Kang Ferraiolo:** Yes, and the loss of culture and community identity are some of the biggest reasons why the climate crisis is so devastating on an individual level, *even* if you're one of the lucky ones. But, as several speakers mentioned, our culture and records may also be some of our greatest assets in fighting the climate crisis and adapting to it. Access to environmental data is going to be critical, as is traditional knowledge of how we steward the earth. Our culture also sustains community cohesion and strengthens resilience across generations. And it helps us remember who we are and that we are worth saving.

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Thank you to our guest co-host this episode, the fabulous Lizzi Albert. And a huge thank you once again to all of our guests this season! If this is your first time listening to Material Memory, go back and listen to any of our previous episodes, where you can spend more time with our speakers. I promise you, you're in for a treat!

As we mentioned, we've included a list of action items from this episode along with some preliminary resources in the show notes page. Most of our guests went above and beyond to cite their inspirations and amplify the work of others. We weren't able to include all of these references in our episode, but we've tried our best to add them to the resource list. Go to [material-memory.clir.org](http://material-memory.clir.org) for our show notes, episodes, speaker information and more.

This may be the last episode of our climate crisis season, but Material Memory isn't going anywhere. Stay tuned for our next season, which will be an HBCU Library Alliance Tour (that's Historically Black Colleges and Universities), hosted by my colleague Sharon Burney and coming out later this year. While you wait, you can check out our podcast's first season on Indigenous language recordings, hosted by our colleague, Joy Banks.

Material Memory is available on Apple Podcasts, Spotify, or wherever you get your podcasts. Follow to be sure you never miss an episode, rate us, and leave us a review. Our theme music is by Poddington Bear with additional music by Mike Meehan.

Material Memory is produced by CLIR. Thank you so much to our producer, Lizzi Albert, who in many ways makes this show possible. Kathlin Smith oversees the whole operation and makes magic happen in the editing room. We have the most incredible editorial team. Huge thanks Sharon Burney, Jodi Reeves Eyre, and Christa Williford. And, of course, thanks to you for joining us this season and for caring about cultural memory and the climate crisis.

I'm your host, Nicole Kang Ferraiolo, and this is Material Memory.