Nicole Kang Ferraiolo: Hello, and welcome to season two of Material Memory. I’m your host, Nicole Kang Ferraiolo. This is the first episode of our new season, focused on “Climate Change and Cultural Memory.”

If you’re listening to this podcast, chances are you’re familiar with the impacts of the climate crisis:

- Since the industrial revolution, human carbon emissions have caused global temperatures to increase one degree, leading to a rise in catastrophic hurricanes, wildfires, and other disasters.
- We’re seeing more heat-related deaths, reduced air quality, threats to food sources, and fresh water deposits, and a rise in infectious diseases.
- and according to different estimates, between 150 to 300 million people could be displaced by climate change by the year 2050.

The climate crisis affects everything, and this includes cultural heritage. As someone who works in the library and information field and cares deeply about historical preservation, I must confess that I’ve struggled with the question: Why am I doing this? Why should we care about records, buildings, artifacts or even traditions when living, breathing people are suffering?

Over the course of this season, I spoke with several people who helped give me some perspective. Here’s Victoria Herrmann from the Arctic Institute.

Victoria Herrmann: I started a National Geographic-funded research and storytelling project back in 2016, where I interviewed just over 350 local leaders, from mayors to tribal elders to county officials, to see how climate change was impacting their coastal community. And when I started these interviews, I thought that people would speak about the damage to infrastructure, to their houses and bridges and roads. And people did talk about that, but they quickly moved past those damages to talk about climate change disrupting their identities, their culture, their heritage, their tradition. And I realized that climate change is ultimately about challenges to who we are, who we’ve been, who we can be, and the heritage that all of that is founded upon.

Nicole Kang Ferraiolo: What the various guests reminded me over and over throughout our conversations is that it isn’t a matter of choosing between helping people and helping cultural heritage. You preserve the heritage because it matters to people. Another guest from this season, Blessing Onyima of Nnamdi Azikiwe University, put it well:

Blessing Nonye Onyima: Preserving cultural heritage matters, seriously. First, because heritages speak a volume of a people: about their identity, about who they are, who they are, about their history, about their past. Culture is, you know, culture is, is sum total of the ways of life of your people. Culture spells out your identity. It talks about your historical identity, your cultural consciousness and a whole lot about yourself as an individual.
Nicole Kang Ferraiolo: "Cultural memory is about who we are...and it's also about who we will be." Here's my guest Crystal Felima from FEMA (the US Federal Emergency Management Agency).

Crystal Felima: Preserving cultural memory is, is for the next generation. It's for our children, our grandchildren, et cetera. I think it's important for us to always be connected to culture, always be connected to the human experience. And whether that is represented through art, through writing, through text, through literature. ... it is in the form of structures, architecture, et cetera. I mean it can be a variety of different ways. But it's for others to see the greatness of the human experience, to see the greatness of human genius and innovation.

I think about a couple of weeks ago, one of Haiti's cultural sites, a cathedral in Northern Haiti was completely devastated by a fire and it was so devastating for other Haitians, the Haitian diaspora, because we go to, to the Northern part of Haiti, we go to the Citadel, which is a huge cultural structure—historical structure—and we see that this cathedral. And now when people go to Haiti, they will not see that cathedral there. You know, people got married there, you know, weekly ceremonies and gatherings. So, you know, thinking about mitigation—how it impacts culture, the cultural consciousness of the people—it can be very disruptive and emotional and mentally taxing when people don't have those different symbols and cultural symbols that they can relate to.

Nicole Kang Ferraiolo: Heritage is important to our identities, our human connections, and our mental health. Could it be that in its own way heritage may also make us better equipped to respond to the climate crisis? Here’s Victoria Herrmann again.

Victoria Herrmann: Cultural heritage is so important to our resilience to climate change, but also to climate hope. Cultural heritage is a bridge between what we have experienced, what we're currently experiencing and what we can build for the future. And bridges are incredibly important to support, to elevate and to keep safe during those shock events, because without them, we don't have the building blocks to bounce back after that next extreme event that we are bound to face.

Nicole Kang Ferraiolo: There are many reasons why preserving culture matters. But how, specifically, does climate change pose a risk to cultural heritage? Let’s start with the obvious: climate-related disasters. Here’s Crystal Felima again:

Crystal Felima: Well, disasters can disrupt every aspect of our lives and whether that is our cultural institutions of libraries or museums, different historical sites, I mean, hurricanes can literally devastate our cultural sites, flooding can impact special collections. All these different natural hazards can impact our material culture.

Nicole Kang Ferraiolo: Digital resources aren't immune either.

Crystal Felima: It can also impact communications and how people have access to, you know, the data. It really disrupts, how, you know, people have access to digital humanities projects or ways of connecting with other people, disrupt how people can collaborate. So, disasters can not only disrupt and devastate, but can provide these really long-lasting issues for communities that may not have the
capacity and capabilities to, you know, prevent or mitigate issues that come with these different hazards.

Nicole Kang Ferraiolo: Part and parcel with many of these disasters is sea level rise.
- One study found over 95% of Mediterranean UNESCO World Heritage sites were at risk from coastal flooding and erosion. Archeological sites in particular are among the most at-risk.
- According to another study, 4,000 miles of land-based fiberoptic cable in the US and over 1,000 internet nodes, like data centers, may be underwater in 10 to 15 years.

In our next episode, we’ll be talking about the risk sea level rise poses to U.S. archives with Eira Tansey of University of Cincinnati Libraries and Ben Goldman of Penn State Libraries. I won’t spoil their findings here, other than to say, brace yourself.

Sometimes the problems climate change poses to collecting institutions are less visible than floods or fires. Here’s Ben Goldman.

Ben Goldman: The idea that you might have certain repositories who see a dramatic increase in temperatures is probably going to have a pretty serious impact on the costs of maintaining a climate-controlled storage environment.

Nicole Kang Ferraiolo: Archives and museums are often built for specific environments, and minor changes in temperature and humidity levels can lead to big issues in maintaining artifacts and records. For instance, slight increases in temperature can lead to bugs, such as silverfish, that eat books and paper, and whose populations may no longer be curbed by the winter seasons. And then there’s mold... HVACs and other climate control systems cost money, as do most measures for adapting to climate change. And some institutions are in a better position to make these changes than others. Here’s Eira Tansey.

Eira Tansey: I think one of the things that it's always important to remember when we're talking about the climate crisis is it's really hard to disentangle that from other things, like particularly we have a sense that the economies in which archives are—in which archives are located—may have a lot of difficulties over the next several years. So, the example I always think about is that if a hurricane hit a large, well-endowed private university with fancy archives in it, then that institution is likely to have a disaster response plan. It probably has resources in place already, but if there's a small neighborhood community archive that is dependent on volunteer labor, maybe it's run out of a rented community space or something like that—and if that archive is hit by a similar natural disaster, the recovery abilities for that are going to be really difficult. And that, to me, reflects that, um, you know, everyone is going to be affected by climate change, but people's ability to recover from or adapt to climate change is very determined by a lot of socioeconomic conditions that have existed for a very, very long time.

Nicole Kang Ferraiolo: The capacity of collecting institutions to prepare for disasters is also unequal. Disorganized collections can be more vulnerable in emergency situations. But processing and describing archival collections are time, labor, and generally cost intensive. Here’s another guest from the season, Itza Carbajal of the University of Washington.

Itza Carbajal: I can immediately think of, um, our own conversations in our archival field or in like LIS...
Nicole Kang Ferraiolo: LIS stands for library and information science

Itza Carbajal: ... around like trying to build collections of communities that have been underrepresented. Um, and having, you know, some perceived difficulty in like finding things or saying things don't exist. Um, and oftentimes like that's a result of like lack of resources or the inability for like people to keep track of where things were and where they end up. But when you add in the aspect of climate change, 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

Nicole Kang Ferraiolo: How do you save records that you can’t find? Or recover them if you don’t know what you’ve lost? And then there’s the issue of physical space.

Itza Carbajal: 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 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 in more detrimental condition.

Nicole Kang Ferraiolo: And in many disaster scenarios, it won’t just be the institution and its holdings that are at risk.

Itza Carbajal: If it's between your life or the life of your staff or whatever, your community, if you end up getting displaced, I remember traveling with a backpack. I cannot imagine traveling across place with boxes of stuff. And we're still talking about physical stuff, right? So digital stuff might be a completely different situation or maybe not. But 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.

Nicole Kang Ferraiolo: We’ll talk more with Itza later in the season about her own experience with displacement as a Hurricane Katrina evacuee and how it has influenced her approach to archiving marginalized communities and to climate activism.

Nicole Kang Ferraiolo: The climate crisis intersects with and intensifies existing inequalities. This is particularly destructive for the intangible cultural heritages that live within communities. Here’s Saiful Chowdhury of the University of Dhaka, talking about the impact of climate change on folk song traditions in Bangladesh:

Saiful Alam Chowdhury: The people who practice some folk songs, they are really poor, and you can say they are hand to mouth. They don't get any money or any subsidy. Climate change [is] also responsible because these people actually, they are victim of, uh, displacement inland, because they are living—most of the artists and folksong artists—they are living in a riverbank. So riverbank erosion is one of the primary causes of climate displacement inland, and there’s a data that 50% of those now living actually in Bangladesh urban slums, they are forced to flee their rural homes as a result of the riverbank erosion.
Nicole Kang Ferraiolo: Over the course of the season we’ll consider the various ways climate change can affect cultural heritages and the communities they’re based in.

- We’ll talk about the complexities of preserving disaster narratives and working with displaced communities
- And we’ll think about how the climate crisis will affect different types of records, artifacts, and traditions and how this plays out in different local contexts. We’ll hear stories from the US, Haiti, Brazil, Columbia, Germany, Nigeria, Bangladesh and more. And within these contexts, we’ll think about the politics of preservation work and the impact of historical legacies.
- We’ll discuss the responsibilities of memory workers, of various levels of professionalization, and share some models and words of caution.
- And we’ll think about what we—as people who care about culture and communities—can do in the face of the climate crisis.

But before we get into these topics, I think it’s important to say a note about timing. 2020 has been an eventful year, to say the least. We started interviewing people in May and COVID-19 was a specter that hung over every conversation this season. Here’s Victoria Herrmann:

Victoria Herrmann: COVID-19 and any pandemic is absolutely devastating. And like every climate scientist has said, there is no silver lining to a pandemic or to COVID-19. It is absolutely devastating, and it is something that fundamentally shifts how we live and how much we appreciate our loved ones and the places that matter to us. And it also creates a vision for what living in a “new normal” looks like. So in that sense, this pandemic has provided a glimpse into what climate affected communities have been living in over the past year, 10 years, 20 years, that this new normal we live in and how much it has disrupted our lives and disrupted our relationship to the places we love and the people we love is just peering behind the curtain of what the most climate affected communities across the world have already been living in.

Nicole Kang Ferraiolo: There are parallels and connections between climate change and COVID, and things each tragedy can teach us about the other. This includes how we preserve and collect stories and records in moments of crisis. Here’s Eira Tansey:

Eira Tansey: Fortunately, I don't know anyone, um, personally that I have lost from, from COVID that's close to me, but, you know, the, the pandemic has impacted my life and my ability to, you know, see elderly family members in ways that are traumatic. And so, for me, I think that there and this is where I think there is a parallel. How do you actually document people's trauma and convey how heavy this moment is in history while also respecting people's agency and not reactivating their trauma? I think that there are ways to collect this material, but I think it has to be done slowly and with a lot of care.

Nicole Kang Ferraiolo: And neither crisis can be separated from the sociopolitical and economic contexts they exist in. COVID has decimated many sectors; in the cultural heritage field we’re seeing waves of firings, furloughs, and institutional closures. Already vulnerable budgets have been hit hard, and in many places, there is little in the way of safety nets for institutions or the individuals that work there. Here’s Ben Goldman:
Ben Goldman: With the climate crisis just being sort of this manifestation of the deeper, you know, capitalist crisis, I mean, it honestly feels like we could lose more archives in the next 10 years, five years, from COVID than from climate change.

Nicole Kang Ferraiolo: While all of the interviews happened during the COVID-19 pandemic, there were other timing factors that influenced these conversations. Some of the interviews took place before and some after the onset of mass racial justice demonstrations, or the catastrophic wildfires in the western U.S., or the SARS protests against corrupt policing in Nigeria. It’s also worth noting that audio for all the episodes, including this one, was recorded before the 2020 U.S. election, so who knows where our heads will be by the time you’re listening to this? But I think that we can all agree that when it comes to climate change and cultural memory, the stakes are high.

In our next episode, we’ll be talking with Eira Tansey and Ben Goldman about how many archives may be at risk of climate change and what archivists can do to combat the climate crisis.

Material Memory is produced by CLIR, with the assistance of Kathlin Smith, Lizzi Albert, and our staff editorial team: Sharon Burney, Jodi Reeves Eyre, and Christa Williford. Our theme music is by Poddington Bear, and additional music is by Asher Fulero.

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Thanks for joining us. I’m your host, Nicole Kang Ferraiolo, and this is Material Memory.