Cool it with Art

A How-To Guide for Tackling Rising Temperatures with Art in Our Communities

MAPC
METROPOLITAN AREA PLANNING COUNCIL

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Thank you to our interview participants, whose insights and experience advancing creative climate resilience projects helped shape this guide.

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Introduction

As cities across the country experience more frequent and intense weather events due to climate change, the arts offer opportunities to support cities' climate resilience efforts. With concerns ranging from flooding, hurricanes to extreme heat, collaborations with artists and creatives can enhance resilience by transforming infrastructure into art, increasing community awareness of preparedness practices, and enhancing local knowledge of climate risk.

Cool It with Art: A How-To Guide for Tackling Rising Temperatures with Art in Our Communities is a guide for local governments, community-based organizations, and artists interested in working together to promote creative approaches to address climate-driven extreme heat impacts and to promote healthy, climate resilient communities. The Guide contains information, resources, and practical guidance to increase awareness of heat risks and precedents for creative heat resilience interventions and to help support implementation of these types of projects.

How to Use This Guide

Types of Interventions

Precedents of creative heat communications, engagement, and cooling infrastructure.

Heat Risks 101

Overview of risks and impacts of climate-driven heat to inform creative interventions.

Why Use Art and Artists to Tackle Rising Temperatures?

The role of art and artists in tackling rising temperatures.

Project Implementation

Principles for creative resilience efforts and guidance for project scoping, contracting, procurement, stewardship, funding, and evaluation.

The Metropolitan Area Planning Council is eager to support artistic collaborations for heat resilience. Please contact our Arts & Culture Department if you need support in using this guide or want to see your creative resilience project featured among the provided examples.

Types of Interventions

Based on recent conversations and our own experiences in creative engagement, climate change, and public health planning around the region, we observe that artistic collaborations for heat resilience fall into three categories:

Creative Communications:

Artists and creatives are key collaborators in developing messaging that promotes awareness of climate risks and preparedness measures in the community.

Creative Engagement:

Artists and creatives are leaders and collaborators in developing effective public participation and cultural programming that promotes climate preparedness and resilience.

Creative Cooling Infrastructure:

Artists and creatives develop creative interventions that provide shade and other cooling opportunities in the public realm.

Cool it with Art
How artists and organizations are tackling rising temperatures with art

Looking for project examples? Check out our slide deck!

We compiled a selection of creative heat resilience project examples from across the country and internationally in an accompanying slide deck on our Cool It with Art webpage. The slide deck features brief descriptions, photos, and video on each project example to inspire users of this guide to pursue your own creative resilience interventions.

Download the slide deck at www.mapc.org/cool-with-art

Heat Risks 101

As climate change continues to warm our planet, our neighborhoods can expect hotter summers and more frequent and severe heat waves. Heat is already among the deadliest weather hazards and represents a growing threat for the health of our communities.[1] During heat waves, heat-related deaths spike and hospitalizations for a range of heat-sensitive health conditions rise. Warmer summers also affect our environment and quality of life in ways that can worsen health and wellbeing over the long term.

These impacts are not felt equally. Older adults, young children, and birthing people are more sensitive to heat impacts. The same inequities that contribute to health disparities affect who lives in the hottest neighborhoods and homes as well as who has access to trees and other cooling refuge.[2]

 More record-breaking summers are expected in the future, but we can prepare our communities and cut greenhouse gas emissions to prevent even greater temperature increases. The information and resources in this section are meant to provide artists, community groups, and municipalities with a foundation on heat risks and health impacts to inform projects related to heat risk communication and heat preparedness.

Health Impacts of Rising Temperatures

Spectrum of Heat Related Illnesses[3,4,5]

Heat illness includes heat stroke, heat exhaustion, heat cramps, and heat rash. It often occurs when a person is exercising, working, or engaging in an activity when temperatures and humidity. Under these conditions, sweat cannot evaporate from the skin (the body's natural cooling system), and the body's temperature begins to rise. If left untreated, a heat illness can lead to serious complications, even death. If detected and treated early, however, most serious problems can be avoided.

1   Samuels, M. (2020).

2   Brad Plumer, Nadja Popvich, and Brian Palmer. (2020).

3   National Institute for Occupational Safety and Health (2018). Heat Stress – Heat Related Illness: Types of Heat-related Illnesses. Centers for Disease Control and Prevention.

4   Centers for Disease Control and Prevention (2017). Warning Signs and Symptoms of Heat-Related Illness.

5   Cleveland Clinic (2017). Heat Illness.

Listed in order of decreasing severity.

| Type of Heat Illness	Description	Symptoms	First Aid
Heat Stroke	Can cause death or permanent disability if emergency treatment is not given. Occurs when the body becomes unable to control its temperature. The body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes.	Confusion, altered mental status, slurred speech. Throbbing headache. Nausea. Loss of consciousness. Red, hot, dry, or damp skin. Fast, strong pulse. Seizures. Very high body temperature. Fatal if treatment delayed.	Seek medical care. Move the person to a shaded, cool area and remove outer clothing. Quickly help lower the person's temperature with cold, wet cloths or an ice bath. Place cloths or ice on the head, neck, armpits, and groin, or soak the person's clothing with cold water. Do not give the person anything to drink. This could create a choking hazard.
Heat Exhaustion	The body's response to an excessive loss of the water and salt, usually through excessive sweating. People most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.	Heavy sweating. Muscle cramps. Cool. pale, or clammy skin. Fast, weak pulse. Headache. Nausea. Dizziness or fainting. Weakness. Thirst. Irritability	Move to a cool, shaded area and take frequent, small sips of cool water. Remove unnecessary clothing, including shoes and socks. Cool head, face, and neck with ice, cold cloths, or cold water; or take a cool bath. When symptoms improve, go to a clinic or emergency room to be seen by a doctor or nurse. Seek medical care right away if symptoms get wor or persist for more than one hour or if you experience vomiting.

The health burden of heat tends to be underestimated and underreported, because most public health systems only capture a small subset of heat-related illnesses. Studies have shown that heat contributes to higher emergency room visits and hospitalizations for a range of different health conditions. Heat can worsen symptoms and outcomes across several areas:[6]

Renal Health. Heat stress and dehydration can worsen renal disease and has been linked to epidemics of chronic kidney disease among outdoor workers in hot, humid climates.

Cardiovascular Health. Warmer weather requires the heart to work harder to cool the body down, so people with heart disease cannot adapt as easily. Additionally, certain heart medications increase risks of dehydration and make it more difficult for the body to regulate its temperature.

Respiratory Health. Hot, humid air can worsen respiratory health conditions like asthma and Chronic Obstructive Pulmonary Disease (COPD). Additionally, heat is associated with increased ground-level ozone, an air pollutant that is especially harmful to people with respiratory illnesses.

Mental Health. Heat impacts mental health by worsening feeling of anxiety, irritability, and aggression, which can result in higher rates of interpersonal violence. Heat also affects sleep and cognition functions, such as memory, focus, and learning. Certain mental health conditions and medications also affect the body's ability to regulate temperature.[7]

Maternal and Infant Health. Extreme heat exposure increases the risk of pregnancy-related complications and hospitalizations. Different studies have found associations between extreme heat exposure and pre-term births and stillbirths.[8]

6   Renee N. Salas and Caren G. Solomon. (2020). The Climate Crisis – Health and Care Delivery Interactive Perspective. New England Journal of Medicine.

7   Robin Cooper (2019). The Impacts of Extreme Heat on Mental Health. Psychiatric Times.

8   Lindsey Konkel (2019). Taking the Heat: Potential Fetal Health Effects of Hot Temperatures. Environmental Health Perspectives.

Rising temperatures also affect a range of environmental conditions with associated health impacts:

Longer and more severe allergy seasons. Earlier onset of spring and higher spring temperatures lengthens the growing season, supporting longer pollen allergy seasons and more overall pollen production. The growing season has expanded by nearly two weeks since the beginning of the 20th century.[9]

Poor air quality. Warmer temperatures increase ground-level ozone, which is emitted from vehicles and emissions producing factories. This pollution can worsen respiratory conditions, including asthma, COPD, chronic bronchitis, and emphysema. Children, especially, may risk long term effects as their respiratory system is still developing.

Poor water quality. In combination with extreme rainfall events, warmer temperatures promote the growth of harmful algae and bacteria in streams, ponds, and reservoirs.

Increase in number and range of pests. Diseases transmitted through the bites of insects, such as ticks and mosquitoes, are becoming more common. Warmer year-round temperatures provide these pests with a longer breeding season and allow them to expand their geographic range. Cases of mosquito-borne infectious diseases that have historically been limited to more southern parts of the country, are now emerging further north.

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9   Climate Central (2021). Spring Package.

Groups at Greatest Risk of Heat-Related Health Impacts

Heat affects us all, but some of us are at greater risk. Different people react differently to heat based on their age, health, and living conditions. Most of us have at least one friend or family member who falls into one of the following categories.[10]

Infants and young children are more susceptible to heat stress because they are less able to regulate their body temperature compared to adults. They are also more dependent on caregivers for access to water, shade, and cool spaces.

Older adults are likewise less able to regulate their body temperatures compared to younger adults. Certain medications, including many that are commonly taken for heart conditions, also make it harder to cool down and stay hydrated.

People who are pregnant are more sensitive to heat because their bodies are already at an elevated temperature and heart rate. They are also more prone to dehydration, which can trigger pregnancy complications.

People with pre-existing health conditions, such as heart, respiratory, kidney, and mental and behavioral health conditions. Many medications also interfere with the body's ability to stay hydrated and cool down.

Socially isolated individuals. Social, cultural, and linguistic isolation are all risk factors for heat illness because they limit access to information, resources, and social and emotional support systems.

People who work in hot environments and athletes. Dangerous heat exposure can occur in both outdoor and indoor environments. Heavy physical activity, lack of acclimatization, and heat-trapping uniforms or clothing can increase risks of heat illness.[11, 12]

People who primarily take public transit. Those who may be walking or waiting in line outside for transit, work, or essential services.

People without air conditioning or with high housing cost burdens.
Few New England homes have central air conditioning and low-income households are less likely to have air conditioning. Landlords are not required to guarantee access to cooling in the same way that the law requires them to provide access to heat in the winter. There are also few financial supports available to help people absorb higher summer cooling costs.

People who live in urban heat islands.
Structures such as buildings, roads, and parking lots absorb and release the sun's heat more than natural landscapes like forests and water bodies. The concentration of these heat emitting surfaces and in urban areas combined with less green spaces contributes to the urban heat island effect.

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10 Union of Concerned Scientists (2019). Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days.

11 OSHA (2020). Safety and Health Topics: Heat.

12 National Institute for Occupational Safety and Health (2018). Heat Stress – Heat Related Illness: Types of Heat-related Illnesses. Centers for Disease Control and Prevention.

People's experiences of heat largely depend on where they live. Low-income residents and Black, Indigenous, and People of Color and experience the greatest heat burdens resulting from historic and ongoing disinvestment and discrimination.

Neighborhoods that are poorer and have more residents of color can be several degrees warmer than wealthier, whiter neighborhoods in the same city.[13] A long history of disinvestment in communities primarily home to Black, Indigenous, and People of Color (BIPOC) has resulted in poor access to green spaces and fewer trees to shade homes and sidewalks. Instead, roads, parking lots, and industrial and warehouse facilities are disproportionately located in these communities. The roofs and large areas of pavement that comes with these facilities absorb and slowly re-emit heat, contributing to the heat island effect.

BIPOC individuals are also disproportionately represented among several of the groups listed above. They are more likely to depend on public transit and occupy poor-quality housing. They are more likely to have pre-existing health conditions, poor access to healthcare, and experience discrimination by healthcare providers. For example, Black women are three to four times more likely to die from pregnancy-related complications compared to white women. If unabated, climate-driven heat will widen these already large health disparities.[14]

These inequities are not accidental. They are the outcomes of disinvestment and discrimination that continues to influence disparities in heat impacts today. Discriminatory policies and practices that are designed to ensure public spaces are easier to surveil and maintain, meet the aesthetic preferences of white residents, and discourage loitering among people experiencing homelessness are barriers to equitable access to trees, water, shade, and other cooling infrastructure.[15]

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13 Brad Plumer, Nadja Popvich, and Brian Palmer. (2020). How Decades of Racist Housing Policy Left Neighborhoods Sweltering. New York Times.

14 Human Rights Watch (2020). US: Heat Emergency Plans Missing Pregnancy, Racial Justice.

15 Sam Bloch. (2019) Shade. Places Journal.

Why Art & Artists to Tackle Rising Temperatures?

Artists began working to address climate change during the environmental art movement. Artists and creatives worked to respond to the natural conditions of sites, used the landscape and surroundings as a medium, and incorporated the natural environment as an integral part of the creative process. More recently, environmental science has become more open to new ideas and collaborations that help address ongoing challenges related to climate change. While scientific evidence is becoming more readily available, there are still concepts and data that can be difficult to comprehend by the general population and artists have the skills to help us understand them.[16] Artists are trained to approach situations through a critical-thinking lens and bring a new perspective to traditional municipal work.

Artists can work with local government and community organizations in different ways (see the online Municipal Artists Partnerships guide.)[17] In this field, artists can increase and enhance participation in heat preparedness strategies, promote support for cooling infrastructure (*My Park, My Pool, My City*), and elevate

**Project Highlight:
My Park, My Pool, My City**

My Park, My Pool, My City was a three-year artistic residency led by Forklift Danceworks in partnership with the City of Austin Parks & Recreation Department's Aquatics Division and several East Austin neighborhoods. Using collaborative art making, My Park, My Pool, My City activated and amplified civic engagement around the future of Austin's city pools.

Photo courtesy of Forklift Danceworks. Photo by Jonica Moore.

See more examples at www.mapc.org/cool-with-art

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16   Helicon Collaborative. (2018). Farther, Faster, Together: How Arts and Culture Can Accelerate Environmental Progress. Art Place America.

17   Cohen-Cruz, J. and Korza, P. Municipal Artist Partnership Guide. A Blade of Grass. Retrieved from https://municipal-artist.org/nuts-and-bolts/laying-the-groundwork/why-municipalities-and-artists-partner/

Chapter Photo: HG57 (Human Generator 57) by Latai Taumoepeau. Part of Refuge 2017 by Arts House in Melbourne, Australia. Photo by Bryony Jackson courtesy of Arts House.

frontline communities and their stories of experiencing heat and related health inequities.

As climate change continues to warm our planet, our neighborhoods can expect hotter summers and more frequent and severe heat waves. Heat is already among the deadliest weather hazards and represents a growing threat for the health of our communities.[18] These impacts are not felt equally. People's experiences of heat largely depend on where they live. Neighborhoods that are poorer and have more residents of color can be several degrees warmer than wealthier, whiter neighborhoods in the same city.[19] Low-Income residents and Black, Indigenous, and People of Color (BIPOC) experience the greatest heat burdens resulting from historic and ongoing disinvestment and discrimination. A long history of discriminatory planning policies directed to communities primarily home to BIPOC individuals has resulted in poor access to green spaces and fewer trees to shade homes and sidewalks. Instead, roads, parking lots, and industrial and warehouse facilities are disproportionately located in these communities. These impervious surfaces and infrastructure absorb and reflect heat into the surrounding neighborhood, fueling what is known as the heat island effect.

Efforts, like those reflected in the City of Phoenix's Public Art Program, to embed artists in capital projects that mitigate extreme heat bring greater awareness to heat impacts and help reverse some of the long-lasting effects of public disinvestment. Because BIPOC individuals are more likely to depend on public transit and to live in isolated areas, the City's Public Art Program integrates artwork into bus shelters, transit stations, and uses native landscape design to enhance unsightly infrastructure that often contributes to the urban heat island effect.

At MAPC, we believe a multidisciplinary approach, drawing on artistic innovation and collaboration, is needed to create heat resilient, livable communities in the region. Engaging artists to integrate art in heat mitigation and adaptation is a strategy that has multiple benefits. Artists can create cooling infrastructure responsive to the community and the site, lead creative engagement to improve social cohesion and cultural resilience, or design culturally resonant communications that promote safe behaviors. However, only an inclusive and

18   Samuels, M. (2020). Heat May Kill More People in the US than Previously Reported. Boston University School of Public Health.

19   Plumer, B., Popvich, N., and Palmer, B. (2020). How Decades of Racist Housing Policy Left Neighborhoods Sweltering. New York Times.

equitable creative process can deliver outcomes that spur change, advance equitable solutions, and reinforce sustainable thinking.

On Artists and Their Work

Artists and creative teams can help engage community by connecting with local culture and historical trauma, amplify messaging and represent complex concepts.[20] As Anthony Leiserowitz, founder of the Yale Program on Climate Change Communication said, "the arts are particularly great at connecting with the deeper parts of ourselves, and one of the most effective ways of engaging us emotionally."[21]

Artist Eve Mosher creates work that uses the public realm as a medium to disrupt the status quo and to communicate the impact of climate change in a relatable manner. The use of the public realm as a venue and medium is relevant as discriminatory policies that are designed to ensure public spaces are easier to surveil and maintain, abide to aesthetic preferences of white residents, and discourage loitering among people experiencing homelessness have been barriers to equitable access to trees, water, shade, and other cooling infrastructure.[22] Projects like Mosher's High Water Line create a spectacle, by drawing a chalk line across the city, that sparks conversations around climate change and engages spectators that

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20 Americans for the Arts. Arts + Social Impact Explorer. https://www.americansforthearts.org/socialimpact

21 Helicon Collaborative. (2018).

22 Sam Bloch. (2019) Shade. Places Journal.

Eve Mosher's High Water Line project. Photos by Jayme Gershen via HighWaterLine | Miami. CC-BY-NC-SA 2.0

would otherwise not be involved in climate change adaptation.[23] In her Creative Engagement guide,[24] Mosher reminds us that conversations around the personal impact of climate change can put community members in vulnerable and uncomfortable situations where they realize their home and daily rituals are directly threatened. When planning creative engagement around heat resilience, artists and their work can create safe humane spaces and facilitate delicate conversations.

For other artists, like Carolina Aragon, the use of art in heat mitigation and adaption is an opportunity to experiment with new technologies and approaches. By doing so, artists can shift perceptions of formulaic solutions and local government and experts have time and space to understand the long-term implications of innovative installations. To support this experimentation, flexible and larger funding sources are needed. Artist Eve Mosher's work in partnership with the Trust for Public Land was funded by the Pew Center for Arts and Heritage6 and provides support primarily for a creative engagement process without a predetermined outcome. MAPC staff spoke with Eve, Carolina, and several other arts and climate resilience practitioners to inform the development of this guide.
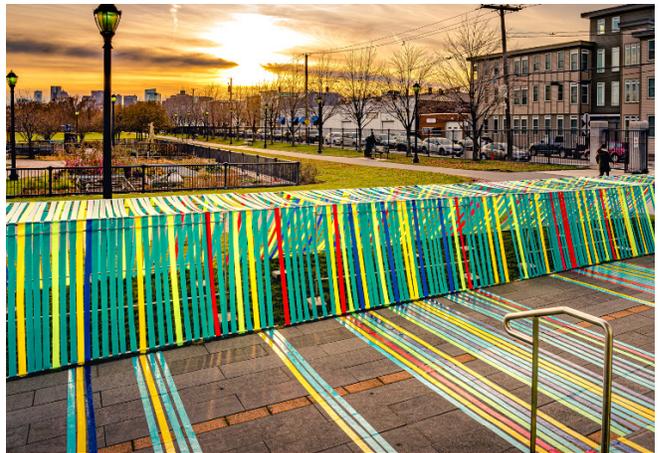
Project Highlight: RisingEMOTIONS

RisingEMOTIONS is a collaborative art project that pilots the integration of digital technologies and public art to visualize the public's emotions on sea level rise-related flooding.

Artist Carolina Aragon surveyed residents of East Boston and visualized their responses using bands of color to represent future flooding levels.

Photo courtesy of Carolina Aragon.

See more examples at www.mapc.org/cool-with-art

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23   https://highwaterline.org/

24   http://www.guide.highwaterline.org/

Guiding Principles

As you use this guide to inform your creative heat mitigation strategy, we urge you to adopt guiding principles to direct how programs are led and what projects are funded. Below, we share the principles that drove us to develop this guide and hope that they can inform your project development:

One. Acknowledge how historic disinvestment and racial injustice has exacerbated the impact of climate change and rising temperatures and how these guides with whom, for whom, and where to intervene.

Two. Engage and honor partners and artists from communities of color that understand the history of disinvestment and experiences of living under oppressive systems to move towards collective action to curb the impacts of climate change.

Three. Support artists and creatives in their process, give room for exploration and experimentation, and allow flexibility for authentic engagement.

Four. Hire and onboard artists equitably through just compensation and inclusive project management practices.

Five. While temporary projects can be easier to support and implement, long-term commitment from municipalities is needed to address environmental justice.

Six. Seek and foster local knowledge rooted in community's existing resilience and adaptive capacity.

Seven. Uplift cultural assets as the foundation for our resilience[25] and social cohesion.

Eight. Measure impact based on the definition of success of your community and share stories about the work you are doing using qualitative and quantitative evaluation methods.

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25   Christmas-Rouse, C., Jones, B., Venable-Thomas, M. (2020) Building to Heal: A Framework for Holistic Community Development. Enterprise Community Partners, Inc.

Project Development

As you begin to plan for your project, we recommend the following approach:

Scope and Site Selection

Funding

Partners

Artist Selection
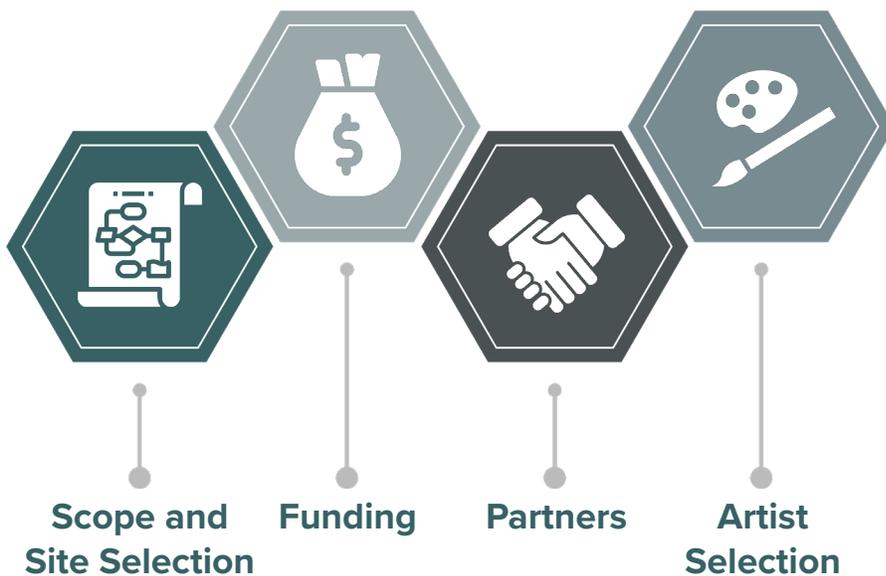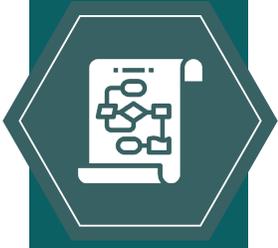
Draft a scope and select your project site.

Project Scope Elements

- Overview of the project's goals and the proposed project's relationship to the local effort to address heat mitigation and adaptation;

- Description of the specific type of project being proposed (e.g. percent-for-art in capital improvement project, community art exhibition, artist residency in another Town department or community-based organization);

- Description of the project's "theory of change," which outlines how the project activities will contribute to achieving the intended outcomes and goals and the proposed evaluation questions and overall approach;

- Description of the project's location including topography, environmental considerations, infrastructure, proximity to rights-of-way, documentation of land ownership and easements, and other information regarding the proposed siting;

- Intended duration (e.g. permanent, semi-permanent, or temporary);

- Confirmed and potential partners and stakeholders;

- Potential composition of the ad-hoc Art Selection Panel;

- Budget and proposed funding sources;

- Timeline, including an overview of the project timeline in relation to the capital improvement project timeline, if applicable;

- Artist selection method and selection criteria.
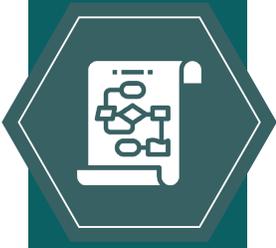
Site Selection

Site selection criteria will vary according to the specific type of project being proposed, but some general considerations should apply.

- Sites in consideration should prioritize communities or neighborhoods that have experienced disinvestment and are at greatest risk to rising temperatures.
- Proposed site presents an opportunity to integrate public arts and culture with existing or proposed heat mitigation priorities, initiatives, and/or projects.
- Proposed site is part of the Town's cooling infrastructure or has potential to create a safe cooling space.
- Proposed site is a place of gathering, activity, and/or social and cultural life.
- Proposed site promotes connections to nature or environmental sustainability.
- Proposed site functions as a resting site in a commercial district, or neighborhood.
- Proposed site has been identified by community members as socially, culturally, and/or historically significant or meaningful.

Identify and secure funding.

Public arts programs typically draw on an array of funding sources, including municipal construction budgets, as well as contributions from private developers, grants from private foundations, corporate giving and sponsorship programs, and in-kind donations from local businesses. As important as the capital funding for creating public art, projects must also plan for the operational costs of maintenance, administration, conservation, and community engagement, and the staff that are essential to carrying them out.

Jump to "Funding Sources"

to learn more about potential ways to fund your project

Align Partners.

When developing the Project Scope, staff should consider the range of potential partners who may be involved in the project's conceptualization, development, and implementation, depending on the project's alignment with the three core program areas: Creative Communications, Creative Cooling Infrastructure, and Creative Engagement.

Select and Recruit Artist(s).

For each project, Staff should convene an ad-hoc Art Selection Panel tasked with reviewing artist qualifications and proposals and recommending a project finalist to the Arts Advisory Committee for review. Staff should outline the desired composition of the Art Selection Panel in their initial Project Scope. Art Selection Panels should be independent of the political influence of the Arts Advisory Committee and elected officials. All Art Selection Panels should be supported by staff with public arts knowledge.

Selection Panel Roles and Responsibilities

• Serve in an advisory role to the Arts Advisory Committee.

• Review artist qualifications and project proposals and recommend a project finalist to the project-related for review.

Selection Panel Membership

Five to seven members including:

• One member of any applicable board, commission, or department;

• Local artists or arts professionals and culture workers, especially those with expertise and experience that is relevant to the project theme or site;

• Community members with relevant experience with and/or expertise related to heat mitigation or creative engagement. Such members may include but are not limited to residents of nearby neighborhoods, representatives of nearby business districts, and those with relationships with the community that the project proposes to engage.

• A representative of the local arts council or public art committee that will serve as a standing, non-voting panel member.

Artist and Artistic Concept Selection

The proposed selection processes outlined below have been developed in accordance with the Commonwealth of Massachusetts's Public Procurement Act, Chapter 30B. Within Chapter 30B, Section 2 defines a Grant Agreement as "an agreement between a governmental body and an individual or nonprofit entity the purpose of which is to carry out a public purpose or stimulation instead of procuring supplies or services for the benefit or use of the governmental body." (Emphasis added). Despite the use of the word "Grant", a Grant Agreement pursuant to MGL c. 30B §2 is clearly a public contract. Public engagement with an artist's vision representing a locality's culture, history and values carries out a "public purpose of support or stimulation" within the purview of MGL. C. 30B §2.

Grant agreements allow for stipends to support concept development and for greater public engagement in public art selection processes. To maintain clarity in the process, the language of 30B should be avoided and the term "grant agreement" should be used instead.

CALL FOR ARTISTS / ARTIST SELECTION PROCESS

In this process, artists are chosen based on their past and current art and achievements. In lieu of requesting a detailed proposal, the Call may ask artists to provide a brief comment on their approach to the project. Each Call and accompanying selection criteria should be tailored to the project in question. Selection criteria should ensure that emerging artists are not at a disadvantage relative to their more established peers.

1. Working with the local arts council or public arts committee, municipal staff develops and releases a Call for Artists, including project scope and selection criteria, and artists submit qualifications. These should include a cover letter, examples of previous work, a resume or CV, and references.

2. Artist Selection Panel screens submissions according to selection criteria (as outlined in the Call).

3. Artist Selection Panel makes the final selection based on past work and conformance with selection criteria and submits the recommendation to the Arts Advisory Committee for approval

4. Arts Advisory Committee submits recommendation to the local municipal authorities responsible for final approval.

5. The contracted artist(s) develop(s) an full proposal, including a maintenance plan and budget.

6. Proposals may be presented for public review and comment; final review and approval is completed by the Arts Advisory Committee, and relevant municipal approval processes.

CALLS FOR ART

For projects where it is necessary to develop a detailed proposal for the site (e.g. a permanent installation as part of a capital improvement project), a grant agreement for professional services may be provided to one or more artists identified through the procedures outlined in 1a through 1c above. The grant agreement process requires that the granting entity engage in sound business practices when selecting professional services, which would require the funds expended for proposal development grant agreements total less than $10,000.

1. Municipal staff (working in consultation with the capital project manager, if applicable) works with the Arts Advisory Committee and other relevant stakeholders to identify the selection criteria relevant to the project.

2. The Arts Advisory Committee uses those criteria to select artists from a database of pre-qualified artists who have met certain minimum requirements for working with the municipality. In the absence of such a database the Arts Advisory Committee should issue a Call for Artists to identify qualified artists.

3. Each candidate enters a grant agreement with the municipality such that the total funds expended on grant agreements to develop project-specific proposals across all qualified candidates is less than $10,000.

4. Each candidate submits a full proposal including a maintenance plan and budget.

5. (Optional) The Arts Advisory Committee Chair and/or Municipal Staff coordinates opportunities for public input into proposal selection.

6. The designated Art Selection panel reviews proposal and public input if solicited, makes a final selection and submits their recommended finalist to the Arts Advisory Committee for review and approval.

7. Arts Advisory Committee submits its recommendation to the Town Manager and Town Council for final approval.

Although selection criteria will vary depending on the project or opportunity in question, the following considerations and guidelines should apply in the selection of artists and/or artistic proposals:

- Commissioning entities and partners should establish artist selection criteria at the outset of each project. At minimum, this should include geographic eligibility (for example, if there is a preference for local or regional artists), as well as any skills or expertise that the artist must possess (e.g. community engagement experience, fabrication and installation experience, etc.). These criteria should reflect the project's goals and intended stakeholders, as outlined in the Project Scope.

- For projects where an artwork will be integrated with construction, conduct artist selection as early as possible in the process to ensure coordination among the artist, design and engineering teams, relevant Town departments, and other project partners.

- For stand-alone permanent public art installations, installation must be completed by the municipality or a contractor procured by the municipality pursuant to MGL c. 30, 39M.

See an example of a call for creative communications here.

See an example of a call for public artists here.

Procurement, or Purchasing Equipment

Material procurement is an important of the planning and implementation process for placemaking projects. In any case that there is a public purchase of materials or services from a vendor, municipal governments must go through a procurement process for which there are strict purchase limits and requirements at the state level under Chapter 30B. There is also varying requirements on a town-to-town basis.

Recently there was an opportunity to learn about how municipalities approach the complexities of the procurement process at the peer exchange event hosted for participants in the [MassDOT Shared Streets and Spaces grant program](). The event invited all communities who had received a grant in Summer/Fall 2020 to build shared streets projects which ranged from outdoor dining setups to safe bike and pedestrian infrastructure and share what lessons they had learned from planning through implementation. The following are lessons learned specifically to public procurement that could be applied to municipalities interested in embarking on heat resilient placemaking projects. In addition to notes from the peer exchange, there is additional resources produced by MAPC including a public and private vendor guide which outlines both state approved vendors and private vendors who supply placemaking materials. Included in the private guide is not only ready-made materials but services related to fabrication, which would be a custom process.

30B Procurement Guidance

Procurement lessons from implementing shared streets grant awards

- Procuring materials on time for implementation and getting vendors to answer calls was a challenge. We encourage communities who are interested in procurement of materials for placemaking to start the conversation early both internally of what materials are needed and from where and get acquainted with your municipality and state's procurement practices.

- It was difficult to access public procurement platforms by the state to get equipment (CommBUYS). We recommend contacting the Operational Services Division directly to gather clarity on user guides.

- Timing could be an issue working with independent vendors and recommended communicating expectations and a follow-up for contracting with individuals.

- Some communities worked with local nonprofits to procure materials. This could make the procurement process smoother as they could work outside of public procurement limitations.

- Some communities felt that equitable procurement was challenging given the compressed timeline.

- Some communities found that having existing service contracts helped with an aggressive schedule and deadlines they needed to meet.

- There were recommendations to future applicants to start the procurement process before receiving the grant award for their project.

Vendor Guides

State Vendor Guide: List of state approved vendor contracts that can be used to facilitate shared streets and placemaking service and equipment purchases.

Private Vendor Guide: List of vendors that offer materials for shared streets and spaces programs. The listed vendors may or may not be under a Massachusetts Statewide Contract administered by the Operational Services Division. Neither the Metropolitan Area Planning Council (MAPC) nor the Massachusetts Department of Transportation (MassDOT) endorse any vendor. This list is provided as a convenience and it is not represented to be a complete of all vendors that provide the materials.

MAPC's Collective Purchasing Program: A variety of collective purchasing contracts that can serve your infrastructure needs. Participants may need to join the either Fire Chiefs Association of Massachusetts (FCAM) or Greater Boston Police Council (GBPC) for certain contracts.

- FCAM Collective Purchasing Program
- GBPC Collective Purchasing Program
- Public Works Services
- Bicycle Parking Program
- Parking Payment Systems
- Automatic Vehicle Location Systems
- School Food

Project Stewardship

Project Stewardship plays an important aspect of placemaking projects. After a project has been built, it will need to be maintained and cared for. Complexities that come into play are how much upkeep components of the project need and who has the capacity and funds to maintain it. Often these questions are influenced by whether the project is on public or privately funded and whether it is housed on public or private land.

Recently there was an opportunity to learn about how municipalities approach the complexities of the project stewardship at the peer exchange event hosted for participants in the MassDOT Shared Streets Spaces grant program. The event invited all communities who had received a grant in Summer/Fall 2020 to build shared streets projects which ranged from outdoor dining setups to safe bike and pedestrian infrastructure to share what lessons they had learned from planning through implementation. The following are lessons learned specifically to project stewardship that could be applied to municipalities interested in embarking on heat resilient placemaking projects.

In addition to lessons learned from the peer exchange, there are additional resources from tactical public realm and parklet guides from A Better City and the City of San Francisco that provide a closer look by project type. The Trust for Public Land's Field Guide goes beyond materials and asks larger questions around who from the community should be entrusted with stewardship.

Stewardship lessons from shared streets

For the Shared Streets and Spaces grant program, project maintenance was a recurring topic at the Jan 2021 peer exchange. Given that these were all public projects, getting the right departments on board such as DPW to help upkeep maintenance after installation could be challenging.

- Some communities addressed the challenges related to maintenance early on and purposefully installed "easy to maintain" projects as they felt that would be meaningful and benefit the most number of people

- Some communities had to navigate the complexities of project storage, especially as winter months approached. One community moved materials from a private parcel to an indoor community facility where it could still be used,

A Better City: Tactical Public Realm Guidelines

These guidelines break down maintenance by project category type and actor. For all projects, the long-term success is based on community partners. Successful projects are embraced by those who use them and are supported by community partners that provide "eyes on the street" and have a true sense of ownership.

Plaza projects:

Plaza partner (community partners that own the project)

- Regular Maintenance: Cleaning, trash removal, furniture maintenance, and plant watering are the responsibility of the Plaza Partner

- Day-to-Day Management: Daily setup and breakdown of any items that cannot be left out overnight, such as games, are the responsibility of the Plaza Partner.

- Selection of plaza furnishings should take into consideration the level of daily management required

- Winter Maintenance: Leaving the plaza snowed in acceptable as long as it does not inhibit access through the intersection for all users. Furniture may be removed, and shoveling is the responsibility of the Plaza Partner

City

- The City is responsible for maintaining the temporary curb.

- The City is responsible for any necessary replanting or repair/ replacement of furniture, perimeter, and bollards/ planters.

- Maintenance of the pavement in the case of utility work or pavement repairs will be the responsibility of the City via its contractor. Coordination with paving schedules will take place during the design process.

- Trash pick-up locations at the outside edge of the plaza will be determined as part of the design process.

Parklets

Parklet partner:

- Regular Maintenance: Cleaning, trash removal, and plant watering are the responsibility of the Parklet Partner.

- Day-to-Day Management: Daily setup and breakdown of any items that cannot be left out overnight are the responsibility of the Parklet Partner.

- Selection of parklet furnishings should take into consideration the level of daily management required.

City:

- The City is responsible for dismantling the Parklet and storing it during the winter.

- The City is responsible for maintaining wheel stops and bollards.

- The City is responsible for reinstallation.

City of San Francisco: Parklet Manual

The manual indicates you are required to keep your parklet well maintained and in good repair under the conditions of approval of your permit. Parklet sponsors are required to develop and submit a maintenance plan for keeping the parklet safe, free of debris, grime, and graffiti, and to keep all plants in good health.

- Parklet sponsors are required to sweep the area surrounding the parklet and keep it litter-free as City street sweepers are unable to reach the curb-line immediately adjacent to your parklet.

- You must rinse out and clean debris from the area under the parklet at least once a week. The Department of Public Health may require you to provide pest abatement beneath the parklet platform.

- Parklets that have been installed for several years will likely require renovations from time to time due to wear and tear from daily use and prolonged exposure to the elements.

The Trust of Public Land: Field Guide

The Trust for Public Land's Field Guide outlines the importance of sharing the responsibility or project stewardship not as a burden but as continued empowerment for the community involved in the design.

In the Avalon Green Alleys project in Los Angeles the project team pursued an arts-based strategy that looked to ultimately provide ownership of the space to the community. The engagement used to create these cultural elements was then transferred into a long-term community organization to steward these spaces and to organize the neighborhood.

Funding Sources

Public arts programs typically draw on an array of funding sources, including municipal construction budgets, as well as contributions from private developers, grants from private foundations, corporate giving and sponsorship programs, and in-kind donations from local businesses. As important as the capital funding for creating public art, projects must also plan for the operational costs of maintenance, administration, conservation, and community engagement, and the staff that are essential to carrying them out. Failing to budget comprehensively for public art increases the likelihood that projects are maintained insufficiently; without support for marketing and outreach, public art programs may also struggle to demonstrate their importance to the larger community, leading to limited political support and perpetuating inadequate funding. A diversified funding strategy provides greater financial stability and can better support a multi-faceted programming strategy with the potential to fulfill a variety of strategic goals to reach diverse public audiences. The following section outlines mechanisms for comprehensively funding public art, providing examples where these approaches have been applied. It also summarizes information on funding programs from Massachusetts and National sources.

Percent-for-Art

Percent-for-art is a public art funding mechanism in which a minimum percent (generally 0.5 to 2 %) of a jurisdiction's capital construction or renovation budget is set aside for the commissioning of public art. Percent-for-art programs are one of the most common strategies for securing stable, recurring funding for public art. Of the more than 400 public art programs in the U.S., the majority are funded by some form of percent-for-art strategy.[26] While program guidelines vary from jurisdiction to jurisdiction, these funding mechanisms are usually established by bylaw or ordinance.

Percent-for-art funding may be pooled and set aside to support a general public art fund or used to develop artworks that are responsive to and integrated with specific capital projects. The former strategy is preferable, as it gives the public art authority greater flexibility to commission projects aligned with the public art program's vision

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26   City of Salem Public Art Master Plan (2013), p. 15.

and objectives. That said, percent-for-art funding is often restricted by use and timeframe. For example, Arlington County, Virginia's public art master plan stipulates that public art funds only be used for permanent public art projects on County property or on costs related to developing such projects.[27] Cambridge, Massachusetts's public art ordinance stipulates that percent-for-art funds generated through capital construction and renovation budgets be used for the development and creation of arts in and upon the City's capital projects within three years of appropriation.[28] Although the program is not restricted to permanent art,[29] most of the funding has been allocated to brick-and- mortar projects due to constraints on public bonds.

Percent-for-art funding typically supports the integration of permanent artwork in a jurisdiction's public works projects, and thus provides an avenue for placing art on municipally owned or rented property. This approach enables artwork to be part of project planning from the beginning of the design phase. It also ensures adequate lead time for thoughtful consideration of a project's

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27 Arlington County, Virginia Public Art Master Plan (2004), p.33.

28 Cambridge, Massachusetts's Code of Ordinances, Chapter 2.114 - Public Development Arts Projects. https://library.municode.com/ma/cambridge/codes/code_of_ordinances?nodeId=TIT2ADPE_CH2.114PUDEARPR (accessed December 19, 2019).

29 Cambridge, Massachusetts's Code of Ordinances, Chapter 2.114 - Public Development Arts Projects. https://library.municode.com/ma/cambridge/codes/code_of_ordinances?nodeId=TIT2ADPE_CH2.114PUDEARPR (accessed December 19, 2019).

Percent-for-Art in Phoenix

Through its 1986 ordinance, the City of Phoenix established a percent-for-the-arts program that allocates one percent of the city's annual Capital Improvement Plan (CIP) to public art. This has funded the Phoenix Public Arts Program, which has become a national model for involving artists in designing and building public art. The Transit Shade Series was funded through this mechanism and seeks to counter climate heat impacts, as transit riders wait for the bus. Arizona artist Mary Lucking merged the community needs and history to create a series of elegant public art shade structures for three City of Phoenix Public Transit Park and Rides. With beauty and comfort in mind, Lucking designed vertical shade panels with seating to address the need to protect riders for the low-angle sun and heat. Rising 13 feet in height and stretching up to 46 feet along the curbside waiting areas, the steel arcades of shade double as community landmarks that celebrate the history and features of the surrounding communities.

conceptual, aesthetic, and practical elements, while creating opportunities for early public comment and review—a key factor in successful public art projects.[30]

The process of identifying and prioritizing capital projects for public art integration also creates pathways for interdepartmental collaboration and can infuse consideration for the arts into a jurisdiction's municipal processes. For example, in Arlington County, Virginia, public art program staff participate in a Capital Improvement Program Working Group to help identify and prioritize needs for the county's capital budget[31] These staff also serve on other interdepartmental committees to ensure that public art is integrated into capital projects.

1. **Percent of total capital budget.** This mechanism allocates a set percentage of a municipality's overall capital budget for public art. This means that capital expenditures unrelated to the construction or renovation of buildings and infrastructure—such as equipment purchases— are included in percent-for-art set-asides. This is typically structured as a line item in a municipality's capital budget for public art equivalent to 0.5 to 1 percent of the total capital budget.

2. **Percent of capital building and infrastructure budget.** Alternatively, percent-for-art can be structured so that it only applies to a jurisdiction's capital building and infrastructure budgets—for example, construction of a new school building or renovation of sidewalks. Under this mechanism, the funds generated may be restricted to public art projects for the construction project that generated the funding. As noted above, this strategy allows art to be integrated as early as possible in the project planning process.

3. **Percent on a case-by-case basis.** A third model generates percent-for-art funding only from selected capital projects. Under this model, a percentage of a project's construction cost is set aside in the project budget as a line item for public art. As in model 2 above, this strategy helps ensure that public art is planned for and budgeted at the onset of the capital project. However, it allows a jurisdiction to identify which capital projects should include public art. The greater flexibility of this approach also comes with a higher administrative cost, as it would require a robust internal process and criteria to identify which capital projects are eligible and suitable for public art. As in model 2, above, this model could restrict funds to the capital projects that generated the funding.

30 City of Ithaca Public Art Master Plan (2003), http://www.cityofithaca.org/DocumentCenter/View/205/Ithaca-Public-Art-Plan-2003?bidId=, p. 43.

31 Arlington County, Virginia, "Advisory Groups &Commissions," https://commissions.arlingtonva.us/capital-improvement-program-cip-working-group/ (accessed December18, 2019).

Other Public Funding Sources

Annual allocation in the Town budget.
The Town of Arlington, MA has used this approach. An annual allocation to the Arlington Commission of Arts and Culture from the Arlington municipal budget grew tenfold from 2014 to 2019 as Arlington Public Art, the Arlington Cultural Council and the Arlington Cultural District came under the Commission's umbrella. The allocation represents just under half of the Commission's annual budget and a portion of it supports a public art consultant for Arlington Public Art.

Parking meter revenue.
The Town of Maynard, MA has used this approach.

Local option tax revenue.
In 2010, Watertown exercised its local option for collecting meals and occupancy tax, which generated over $700,000 in FY20. The town has not exercised its local option for a marijuana tax. In 2017, New Bedford, Massachusetts, committed half of the revenues from its hotel tax to a fund dedicated to arts, culture, and tourism promotion.[32]

Funds through larger grants.
For example, MassDOT transportation funding for Complete Streets planning could be used to support the integration of public art into improvements to public transportation facilities. Funds allocated to recreation and historic preservation can, in some cases, support the incorporation or restoration of public arts components.

Other Potential Funding Sources

While percent-for-art policies can be effective vehicles for integrating artworks into the public realm, they have some shortcomings. Because of limitations placed on government bonds, artwork funded through public percent-for-art programs typically must be a permanent feature of a publicly funded construction project. The result? Public percent-for-art funds cannot fund ephemeral public art initiatives, such as temporary exhibitions, performances, municipal partnerships, and artist residencies. Below are some fundraising strategies that can be used in lieu of, or as a supplement to, percent-for-art funds to maximize the creative potential of new projects.

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32 Jennette Barnes. "New Bedford will put 50 percent of hotel tax into arts-only fund." South Coast Today, January 13, 2017. https://www.southcoasttoday.com/news/20170113/new-bedford-will-put-50-percent-of-hotel-tax-into-arts-only-fund

Partnerships with local arts organizations:

Benefits: Build local support for public arts by tapping into existing networks and audiences, and build goodwill by avoiding competition for limited funds.

Challenges: Difficult to sustain partnerships over time as organizational priorities and programming strategies shift.

Contributions from individual donors and private foundations:

Benefits: Can support more innovative and partnership-based initiatives.

Challenges: For grants, time-consuming application and reporting processes. For donors, time consuming relationship-building processes. Tends to privilege established and well-endowed organizations with staffing, resources, and networks to develop successful proposals and pitches.

Contributions from local businesses:

Ideal for high visibility projects, such as temporary exhibitions, performances, and programming. Contributions could also be solicited from through an annual or semi-annual campaigns for Public Art Fund.

Benefits: Cultivating a culture of giving among local businesses can provide a stable funding stream. Often fewer reporting requirements than other types of grants. Successful partnerships can be a long-lasting and reliable source of funding.

Challenges: If a company does not have an established philanthropy program, it may require more work to determine the company's priorities and develop a partnership. May require the coordination of special donor-only events.

Crowdfunding:

Benefits: Generates buzz, buy-in, and pride for a project.

Challenges: Must develop a strong, creative marketing strategy; time consuming to promote the project and manage rewards for donors.

Funds generated from festivals, fairs, and special events:

Benefits: Watertown already has an annual public event, Faire on the Square. A small portion of proceeds from this event could go toward public art.

Challenges: Event fees would potentially need to be raised to generate a meaningful contribution to a Public Art Fund.

Summary of Creative Grant Programs and Crowdsourcing Tools

The following table summarizes funding programs that support public art projects and creative projects for mitigating impacts of the climate crisis. It also shares two crowdfunding platforms that facilitate fundraising for creative projects. The first section summarizes sources within Massachusetts, and the second section summarizes national sources. Hyperlinked text brings you to the funding program website that offer more details.

Organization	Grant/ Funding	Summary
Massachusetts		
Metropolitan Area Planning Council on behalf of the Barr Foundation	Accelerating Climate Resiliency Grant Program	MAPC is working in partnership with the Barr Foundation to accelerate climate resilience in the region by helping municipalities advance strategies that protect people, places, and communities from the impacts of climate change. The intent is to fund actionable resilience interventions that facilitate long-term, innovative changes leading to greater readiness for climate change. In particular, MAPC seeks to elevate projects that will advance climate equity, regional coordination, and social cohesion.
Executive Office of Energy and Environmental Affairs	Municipal Vulnerability Preparedness Planning Grant and Action Grant	The Municipal Vulnerability Preparedness grant program (MVP) provides support for cities and towns in Massachusetts to begin the process of planning for climate change resiliency and implementing priority projects. The state awards communities with funding to complete vulnerability assessments and develop action-oriented resiliency plans. Communities who complete the MVP program become certified as an MVP community and are eligible for MVP Action Grant funding and other opportunities.

Organization	Grant/ Funding	Summary
New England Foundation of the Arts	Public Arts Grants program	New England Foundation for the Arts has a range of grant programs supporting public art initiatives **Collective Imagination for Spatial Justice** grants support teams of artists, creatives, culture bearers, cultural organizers, and/or community-based collaborators to do the important work of imagining public art that fosters and contributes to more just futures for our public spaces and public culture. **Public Art for Spatial Justice** grants support Massachusetts artists and artistic collaborations to create public art in Massachusetts that fosters public imagination and contributes to more just futures for our public spaces and public culture.
Mass Cultural Council	Cultural Facilities Fund	Managed in collaboration with MassDevelopment, the Cultural Facilities Fund provides major improvement grants to nonprofit cultural organizations, in recognition of their profound economic impact on communities across Massachusetts. Since 2006, the Fund has encouraged sound growth, supported important development projects, played a crucial role in the growth of local tourism, created thousands of jobs, and driven millions of dollars in private investment.
Mass Cultural Council	Local Cultural Council Program	The largest grassroots cultural funding network in the nation, the Local Cultural Council (LCC) Program enriches the cultural life of all cities and towns in Massachusetts. Led by municipally appointed volunteers, LCCs award over $4 million every year, supporting more than 6,000 cultural programs that include everything from field trips to lectures, festivals, and dance performances.
MassDevelopment	Commonwealth Places	MassDevelopment's "Commonwealth Places" is a competitive opportunity to advance locally driven placemaking in downtown and neighborhood commercial districts in eligible communities throughout Massachusetts. This year (2021), the aim of **Commonwealth Places COVID-19 Response: Resurgent Places** is to help community partners prepare public spaces and commercial districts to best serve their population during COVID-19 social distancing and the phased reopening of the economy.

Organization	Grant/ Funding	Summary
MassDevelopment	TDI Creative Catalyst Grant	MassDevelopment's TDI Creative Catalyst Grant program is a competitive opportunity for individuals, organizations, and project teams in current and graduated Transformative Development Initiative (TDI) districts to apply for grants of between $20,000 and $100,000 to support public-facing projects that enhance local arts and cultural infrastructure and contribute to economic revitalization.
MassDOT	Shared Streets and Spaces Grant program	The Shared Streets and Spaces Program provides grants from $5,000 to $300,000 to support municipalities and transit authorities to improve plazas, sidewalks, curbs, streets, bus stops, parking areas, and other public spaces in support of public health, safe mobility, and renewed commerce.
National		
National Endowment for the Arts	Our Town Grant	Our Town is the National Endowment for the Arts' creative placemaking grants program. Through project-based funding, it supports projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes. Successful Our Town projects ultimately lay the groundwork for systemic changes that sustain the integration of arts, culture, and design into local strategies for strengthening communities. These projects require a partnership between a local government entity and nonprofit organization, one of which must be a cultural organization; and should engage in partnership with other sectors (such as agriculture and food, economic development, education and youth, environment and energy, health, housing, public safety, transportation, and workforce development). Cost share/matching grants range from $25,000 to $150,000, with a minimum cost share/match equal to the grant amount.
Project for Public Spaces	Periodic placemaking grants	Project for Public Spaces partners with corporations and foundations that see the public space and placemaking as a key way to achieve impact. It helps design and administer grants selection processes, provides capacity building to local grantees, and helps implement on-the-ground placemaking projects that reflect the goals of the sponsor, the grantee, and their community.

Organization	Grant/Funding	Summary
Kresge Foundation	Arts & Culture; Environment; Health Grant Programs	Kresge funds work nationally, to improve systems and advance equitable policies nationwide. Kresge uses an array of flexible grantmaking and social investment tools, including general operating support, project grants, planning grants and impact investments. Its Arts & Culture, Environment, and Health grant programs support work aligned with advancing healthy, resilient and creative communities.
USDA	Rural Placemaking Innovation Challenge	The USDA Rural Placemaking Innovation Challenge provides planning support and technical assistance to foster placemaking activities in rural communities (50,000 residents or fewer). Funds help enhance capacity for broadband access; preserve cultural and historic structures; and support the development of transportation, housing, and recreational spaces.
ioby	Online crowd-sourcing program	ioby helps neighbors grow and implement great ideas one block at a time. Their "crowd-resourcing" (crowdfunding + resource organizing) platform connects leaders with funding and support to make neighborhoods safer, greener, more livable and more fun. ioby believes that it should be easy to make meaningful change "in our backyards" – the positive opposite of NIMBY. ioby's platform gives everyone the ability to organize all kinds of capital—cash, social networks, in-kind donations, volunteer time, advocacy—from within the neighborhood to make the neighborhood a better place to live.
Patronicity	Online crowd-sourcing platform	Patronicity empowers local placemaking projects through crowdfunding, access to matching grants and hands-on project coaching. With a 96 percent success rate and more than 6 years of experience, we can help you get the funding and support you need to turn your vision into reality and transform your community.

Evaluation

Climate change preparedness is an emerging field with many opportunities for learning for everyone involved. Taking a learning approach can widen people's awareness of the range of possible solutions to our climate crisis and shift power dynamics towards more holistic and equitable approaches.[33] As interest in artistic collaborations for climate resilience grows, we expect that interest in measuring and communicating the impact of this work will also grow among community members, municipal leaders, funders, and climate, health, and artistic practitioners.

Applying traditional evaluation practice to the arts is not always easy. First, it is important to acknowledge that institutional evaluation practices have historically reflected the value systems of people in power. Frontline communities have too often been the subject of study and evaluation, without regard for their own value systems or knowledge. Second, the arts enhance climate and community change efforts in ways that are difficult to track and measure – changing perspectives, fostering a sense of enjoyment, belonging, ownership, and empowerment, creating community connections – especially within the relatively short timeframe of a project.

Inclusive and participatory evaluation ensures that artists and frontline communities are involved in the framing of the goals of the project or intervention, the identification of evaluation metrics and methods, and their implementation. It does this by resourcing and building the capacity of community and artists to design and conduct evaluation activities.

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33 Gonzales, R. (2017). Community-Driven Climate Resilience Planning: A Framework. National Association of Climate Resilience Planners.

Evaluation Process

There are many methods and approaches that can be used to evaluate your creative heat preparedness projects and interventions. Better Evaluation's Rainbow Framework provides a way of understanding how to organize and implement an evaluation. It is important to understand that this is one framework among several, and it is ultimately up to you and your collaborators to identify what will work best for you all. The Rainbow Framework outlines several steps in the evaluation process:

Manage:
Decide how the evaluation process will be managed. Identify stakeholders, assign roles, define the decision-making approach, and ensure processes for these are transparent and well-managed.

Define:
Describe what is to be evaluated and how it is understood to work (i.e., how activities contribute to the intended outcomes and impacts).

Frame:
Set the boundaries of the evaluation. Identify the intended audience and purpose for conducting the evaluation. Identify some questions your evaluation is intended to answer and determine what a 'successful' evaluation looks like.

Describe:
Collect data to describe what has happened in terms of activities being evaluated, the various results these activities have had, and the context in which they have been implemented.

Understand Causes:
Collect and analyze data to understand the causes of outcomes and impacts that have been observed.

Synthesize:
Combine data to form a n overall assessment of the value of the intervention being evaluated or to summarize evidence across several evaluations.

Report & Support Use:
Develop and share findings in ways that are useful for the intended users of the evaluation and support them to make use of these findings.

Evaluation Tactics

Tactics and descriptions are adapted from the [Trust for Public Land and City Parks Alliance Field Guide for Parks and Creative Placemaking](). Evaluation tactics should be identified and implemented in partnership with members of the community impacted by both the intervention being evaluated and the evaluation process and findings. Evaluation tactics may include, but are not limited to:

Direct Observation

Sometimes referred to as windshield surveys or site visits or reconnaissance, this tactic allows you to collect information by viewing participants in an area where the intervention has taken place. Observational data collection can provide information about how characteristics of the intervention (e.g., shade, temperature) and usage change over a set period (e.g., hour, day, week). The four most common challenges with this methods are issues related to influencing people's behavior through their awareness of being observed, interpretation of the observations, and sampling. Using observations in combination with other evaluation tactics and employing multiple observers representing different perspectives can help overcome these challenges.

Tracking

Like direct observation, this tactic can provide information about usage and characteristics of the intervention. Tracking involves keeping track of metrics associated with the intervention, such as number of events and participants, frequency and type of communications about the intervention (e.g., media mentions), or associated health outcomes (e.g., ambulance calls, ER visits).

Surveys

This tactic involves asking participants questions associated with the intervention being evaluated. In the context of heat preparedness work, this can include questions about perceptions, awareness (of risks and resources), insights, attitudes, or experiences, and demographics. All surveys contribute to "survey fatigue," especially in marginalized communities that have been exhaustively studied. Attempt to keep surveys short and simple and involve local stakeholders in the survey design and deployment to promote accessibility and to improve response rates.

Interviews and Focus Groups

These tactics involve a facilitator or team of facilitators interviewing an individual or small group, usually with shared characteristics, to collect insights on a particular issue or feedback on an intervention. These tactics are more conducive to gaining a nuanced understanding of people's experiences and insights, and can help project leaders understand less quantitative outcomes, such as impact on social connectedness and feelings of safety, belonging, and empowerment.

Oral Histories

This tactic involves collecting stories or historical information from people who have personal knowledge of either past events or conditions.

Evaluation Questions & Metrics

The following sections identify potential metrics and indicators that could be used to understand an evaluate the impact of your creative heat resilience interventions. This is by no means an exhaustive list. Again, metrics should be identified in partnership with artists and frontline communities.

Measuring and Understanding Art's Unique Aesthetic Attributes

In 2014, Animating Democracy launched the Evaluation Learning Lab (ELL) to engage artists, evaluators, and allied funders to develop resources for evaluating socially engaged artwork. The Lab developed an [Aesthetic Perspectives framework](#), which defines a set of eleven attributes that are often observed in socially engaged artwork. The Lab's intention is that these attributes and the framework will help enhance understanding and evaluation of the unique ways in which art contributes to projects' impact and outcomes, rather than metrics by which to narrowly define the project's or art element's success or failure.

COMMITMENT
Creative processes and products embody conviction to the cause espoused through the work.

COMMUNAL MEANING
The creative work facilitates collective meaning that transcends individual perspective and experience.

DISRUPTION
Art challenges what is by exposing what has been hidden, posing new ways of being, and modeling new forms of action.

CULTURAL INTEGRITY
The creative work demonstrates integrity and ethical use of material with specific cultural origins and context.

OPENNESS
The creative work deepens impact by remaining open, fluid, transparent, subject to influence, and able to hold contradiction.

RESOURCEFULNESS
Imaginative use of available resources drives artistic innovation and demonstrates responsible social and environmental practice.

COHERENCE
Strong ideas expressed with clarity advance both artistic and social purposes.

STICKINESS
The creative work achieves sustained resonance, impact, or value.

EMOTIONAL EXPERIENCE
Arts for Change facilitates a productive movement between "heart space"— the emotional experience that art evokes—and the "head space" of civic or social issues.

SENSORY EXPERIENCE
Vivid sensations deepen the experience of the creative work and heighten the power of its messages and the potential for change.

RISK-TAKING
The creative work assumes risk by subverting dominant norms, values, narratives, standards, or aesthetics.

Measuring Impact to Heat Preparedness

An early step in the project development process consists of identifying your evaluation questions – essentially, what questions are you trying to answer through implementation of the project? The list below represents a sampling of questions that have been included in assessments, evaluations, and research related to extreme heat interventions.

PARTICIPATION
Who is affected by or involved in the work? What is their role and level of engagement (e.g., are they informed, consulted, collaborator, leader)?

AWARENESS
Did the work increase awareness of heat risks and symptoms, coping or preparedness measures, and related resources? In what way, if any, are these measures or resources culturally grounded or community-led?

Did the work increase awareness of root causes of heat vulnerability or barriers to coping or adapting to heat that are experienced by frontline communities?

ENVIRONMENTAL CHANGE
Did the work result in a measurable environmental change (e.g., ambient or surface temperature, humidity, availability of shade, indoor cooling, or canopy cover)? Over what period? How is this change spatially distributed?

ORGANIZATIONAL & SYSTEMS CHANGE
Have organizations involved in the work changed – or identified a need to change – their values, priorities, partnerships, staffing, or approaches because of this work?

Has the work resulted in policy changes (e.g., administrative, operational, legislative) to advance heat preparedness, including by addressing root causes of heat vulnerability?

BEHAVIOR CHANGE
Did the work result in greater adoption of heat coping or preparedness measures? In what way, if any, are these measures culturally grounded or community-led?

Did the work influence the user experience related to a cooling site or resource (e.g., greater accessibility, increased user satisfaction or thermal comfort, change in length or frequency of use)?

Did the work increase adoption of health behaviors that are influenced by and/or affected by heat (e.g., sleep, physical activity, social interaction, diet/nutrition)?

Did the work result in greater engagement in heat or climate preparedness and/or advocacy among target populations or groups? What is their role in these efforts?

HEALTH & WELLBEING
Did the project influence heat-sensitive health outcomes during and following heat event (e.g., self-reported health, emergency or health symptom surveillance data collected by a care provider or health agency)?

Did the work build social cohesion (e.g., impact on social interactions, availability of support networks, sense of trust and belonging)?

Understanding Who is Involved and Impacted by the Work

These sample indicators were selected among those included in MAPC's Climate Vulnerability Analysis tool, which MAPC developed to help communities assess who within their community might be most impacted by various climate hazards. These indicators can guide inclusion of demographic data in evaluation efforts of creative heat interventions.

- Age (under age 5, over age 65)

- Race/ethnicity

- Health conditions (pregnancy, prevalence or hospitalizations of cardiovascular disease, asthma, diabetes, mental illness)

- Disability prevalence

- Housing conditions (overcrowding, basement or attic unit, access to indoor cooling, such as air conditioning)

- Occupation (outdoor worker, restaurant worker, etc.)

- Income

- Tenancy (renter, owner)

- Vehicle access

- Linguistic isolation

- Healthcare coverage

Case Study: Zuni Youth Enrichment Project[34, 35]

The Zuni Youth Enrichment Project (ZYEP) is a Native-led organization that aims to improve the health and resilience of youth in the Zuni Pueblo of New Mexico. ZYEP's unique model takes a strengths-based approach to addressing health inequities. The Zuni Pueblo is one of the oldest continuously inhabited villages in North America, many residents still speak Zuni as their primary language, and the community is rich in cultural tradition, with much of the community working as artists. The organization offers year-round cultural, nutrition, athletic, and youth development programming grounded in cultural traditions and advised by a core group of Zuni community members. These advisors consist of Zuni religious and cultural leaders, youth, parents, and Zuni artists with whom the organization partnered to design the Ho'n A:wan Park ("belonging to all of us"). In 2019, the Notah Begay III (NB3) Foundation worked with ZYEP to create a new evaluation program centered on indigenous knowledge and values. ZYEP had conducted program evaluations in the past but capturing the full impact of the organization's work had been difficult. Community members were also reasonably skeptical of measures valued by Western evaluation practice, which are not reflective of indigenous context and values. Western evaluation practice has also been applied in ways that have undermined indigenous health and sovereignty. The new evaluation program adopts NB3 Foundation's Indigenous Health Model, which centers on the interconnections between individual health and health of the family, community, and all creation. The team adopted non-traditional evaluation metrics in consultation with community leaders, such as the use of Zuni words of encouragement by participants during the 2019 basketball season. Aligning metrics with the values of the community fosters trust in the evaluation process, while allowing communities to evaluate their work in ways that are more responsive to the community's vision of success.

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34 Bylander, J. (2020). For healthier Native Youth, Look to Their Strengths. Health Affairs, 39:6, 923-926.

35 Sturm, R. and Francis, L. (2016). Building an inclusive community-centered evaluation program. Responsive Philanthropy. https://www.ncrp.org/wp-content/uploads/2016/08/RP_Summer16-sturm-francis.pdf

Additional Resources

Heat Preparedness Resources

Ensuring our communities are safe in the heat requires a combination of individual and collective actions both in the immediate vicinity of a high heat day and over time. It is important to note that vulnerability to extreme heat is primarily driven by institutional and structural issues, rather than the actions of individuals. Equitable, long-term heat preparedness requires community-level solutions and systemic change.

Heat Communications & Social Media Toolkit
MAPC has compiled flyers, images, sample social media posts and messaging language that municipalities and community groups can use to spread awareness of heat preparedness actions for individuals and communities. The actions include steps people can take to prepare before a hot day and ways to stay safe during a hot day.

MAPC Extreme Heat Resources
The MAPC Extreme Heat resources page links to the Communications Toolkit and compiles information on other heat adaptation measures and resources, including recommendations for actions that can be taken by municipalities and organizations and information on utility assistance and weatherization programs.

Keep Cool Somerville Cooling Strategies Toolkit
The City of Somerville worked with MAPC to develop this toolkit of strategies for long-term summer heat preparedness focused on populations most likely to be impacted by heat. The strategies in this toolkit include interventions to promote cooling in people's homes and other community-serving buildings, strategies to enhance access to cooling in the public realm, ways to empower residents to mutually address each other's cooling needs.

EPA Heat Island Compendium of Strategies
This compendium describes the causes and impacts of summertime urban heat islands and promotes strategies for lowering temperatures in U.S. communities. It provides an overview of heat islands, how they form, and their impacts, and describes key urban heat island reduction strategies in depth. It also describes voluntary and

policy efforts undertaken by state and local governments to mitigate urban heat islands.

Heat Action Planning Guide: For Neighborhoods of Greater Phoenix
Nature's Cooling Systems Project: Documents a participatory Heat Action Planning process in the Edison-Eastlake Community, Mesa Care Neighborhood, and in Lindo Park-Roesley Park Neighborhood of Greater Phoenix to identify both mitigation and adaptation strategies to reduce heat directly and improve the ability of residents to deal with heat.

Heat Projections & Data Sources

Killer Heat Interactive Tool (Union of Concerned Scientists)
This tool shows the rapid increases in extreme heat projected to occur in locations across the US due to climate change. Results show the average number of days per year above a selected heat index, or "feels like" temperature, for three different time periods: historical, midcentury, and late century. Results are available for counties and major cities.

TYPE IN YOUR LOCATION (CITY OR COUNTY) ⓘ

🔍 Boston, MA

CHOOSE HOW HOT ⓘ

Above 90° ▾

GO

WHERE WE ARE NOW	WHERE WE ARE CURRENTLY HEADED ⓘ		WITH BOLD ACTION ⓘ
Historically 1971-2000 average	**Midcentury** 2036-2065 average	**Late Century** 2070-2099 average	**Extreme Heat Limited to**
11	**41**	**69**	**34**
DAYS PER YEAR	DAYS PER YEAR	DAYS PER YEAR	DAYS PER YEAR
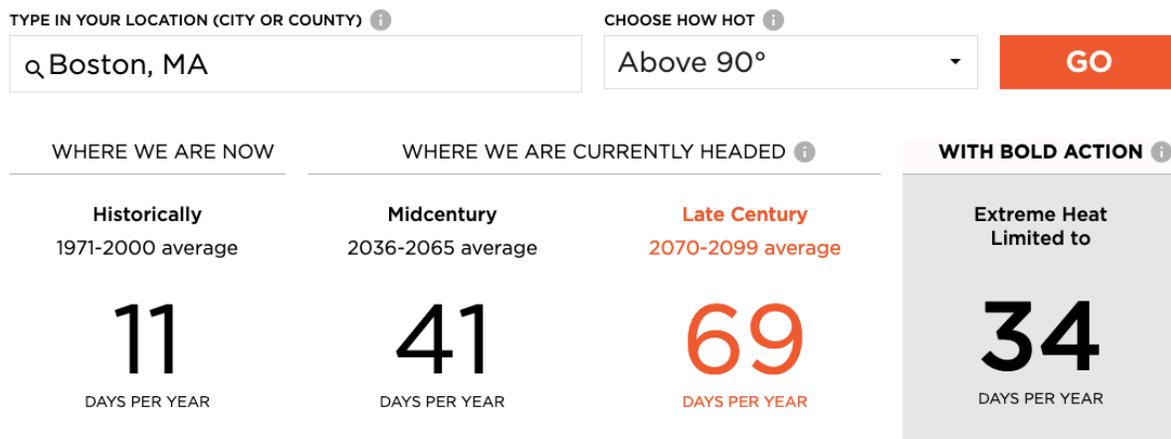
Trust for Public Plan Climate Smart Metro Mayors Map Gallery
The urban heat islands map highlights urban heat island hotspots in the 15 Metro Mayors Coalition communities, which are areas of the city with elevated land surface temperatures averaging at least 1.25 degrees above the mean daily temperature using satellite imagery during the daytime and nighttime.

The Future of Extreme Heat, by Congressional District (Union of Concerned Scientists)

This interactive map allows you to download district-specific fact sheets for all 433 Congressional districts in the contiguous United States. Fact sheets are also available in Spanish. The factsheets include current and future projections of annual days of extreme heat and actions to limit future extreme heat and make heat less harmful.

Climate Central

An organization of scientists and journalists dedicated to reporting on the science and impacts of climate change. Their website is full of frequently updated and easy to consume reports, data, and infographics that can be integrated into public communications and education materials.

MAPC Climate Vulnerability Analysis

In 2019, MAPC constructed a regional climate vulnerability index to show which neighborhoods in Metro Boston are more vulnerable to climate change-driven flooding and extreme heat relative to other neighborhoods. This mapping tool – which combines sociodemographic, public health, housing, and workforce data with climate exposure data – can be used to help identify which populations should be centered in climate preparedness and resiliency work.

Toolkits & Case Studies

Community-Driven Climate Resilience Planning: A Framework
National Association of Climate Resilience Planners

Outlines a framework to meaningfully engage vulnerable and impacted communities in defining and building climate resilience.

Made to Last: A Field Guide to Community Resilience
Enterprise Community Partners

Case studies of collaborative placemaking projects in and around affordable developments, intended to generate love and forgiveness.

Building to Heal: A Framework for Holistic Community Development
Enterprise Community Partners

Provides the context for why a healing-centered approach is essential to successful community development and defines core principles and strategies for centering healing.

Farther, Faster Together: How Arts and Culture Can Accelerate Environmental Progress
ArtPlace America

Literature review and project analysis of work currently happening at the intersection of the arts and environmental advocacy.

[Advancing One Water Through Arts and Culture: A Blueprint for Action](#)
US Water Alliance

A catalogue of partnerships that are utilizing arts and culture to advance sustainable, integrated and equitable water management. This report details the analysis and case studies.

[Guide to Creative Community Engagement](#)
HighWaterLine

Provides a roadmap on how to realize a HighWaterLine in your own community, as well as some ideas for building community resilience to climate change at the local and regional level.

[How to Do Creative Placemaking](#)
National Endowment for the Arts

Instructional and thought-provoking case studies and essays from today's leading thinkers in creative placemaking. It describes the diverse ways that arts organizations and artists can play an essential role in the success of communities across America.

[Field Guide for Creative Placemaking and Parks](#)
The Trust for Public Land and City Parks Alliance

A "how-to" guide for strategizing and implementing a park-based creative placemaking project and eleven case studies that demonstrate the breadth of this kind of community development.

[The Toolkit for Health, Arts, Parks, & Equity](#)
[Video Link](#)
Trust for Public Land and National Association of County & City Health Officials

Case studies, principles, and policy guidelines on using place-based arts and culture to achieve health equity.

[A Better City Conversations: Public Realm + COVID-19](#)
[Video Link](#)
A Better City

In 2020, many municipal and nonprofit leaders implemented rapid response and tactical placemaking projects because of the global pandemic. Through the video and slide deck, project leaders share overviews of their project's costs and funding, outreach to local businesses and stakeholders, permitting, and implementation.

[Tactical Public Realm Case Studies](#)
A Better City

Case study summaries of the planning, design, and implementation process for three projects managed by A Better City—Birch Street Plaza, Green Street Plaza, and Outdoor Seating in East Boston—as well as a fourth case study describing the six pop-up plazas implemented by the City of Boston Director of Public Realm.

Design Guidelines

Guidelines for Shade
New South Wales Cancer Council

Guidelines that can be used by individuals, organizations and local governments wanting to increase availability of quality shade in a range of settings, such as playgrounds, pools, sporting venues, beaches, parks, schools, childcare centers, and backyards.

Tactical Public Realm Guidelines
A Better City

In addition to major capital projects, there are opportunities for "tactical" interventions that can transform the public realm through lower-cost, rapid implementation. These guidelines serve to introduce new tools for tactical public realm improvements into the Boston's toolkit for public space development and management.

Tools for Community-led Recovery
Urban Design Forum

Designs, guidelines, and strategies to aid safe reopening and recovery from the COVID-19 pandemic that includes many templates for temporary shading, seating, landscaping, and general placemaking infrastructure.

San Francisco Parklet Manual
City of San Francisco

Comprehensive overview of the goals, policies, procedures, and guidelines for creating a parklet in San Francisco.

Appendices

Interview Summaries

Below is a summary of the interview notes that were captured during the artist interviews for the Cool It with Art Guide. Answers to the questions below are summarized and do not represent direct quotes from the interviewees. All interviewees have reviewed the information shared.

List of Interviewees:

- Eve Mosher, Cultural Change Entrepreneur
- Meghan Venable Thomas, Program Director, Cultural Resilience, Initiatives Enterprise Community Partners, Inc.
- Barry Sparkman, Public Art Manager, Phoenix Office of Arts and Culture
- Ed Lebow, Public Art Program Director, Phoenix Office of Arts and Culture
- Jennifer Vanos, Assistant Professor, Arizona State University
- Carolina Aragón, Artist and Assistant Professor, University of Massachusetts Amherst
- Michelle Moon, Urban Planner and Designer, Civic Space Collaborative
- Camille Barchers, Assistant Professor, University of Massachusetts Amherst

Major Interview Themes

Below is a summary of the major themes that have emerged from the conversations from the interviews. These themes have been integrated into the how-to guide.

GUIDING PRINCIPLES

- Communities affected by climate change are already resilient and will continue to be resilient. This still means that we have work to do.
- There are other challenges more oppressing that make climate change a more abstract concept to community members.
- We need to move from a trauma-informed approach to a healing-informed practice. Trauma happens in a collective way; healing should happen in same manner.

HEATING AND COOLING CONTENT FRAMING

- Understand the root causes of heat vulnerability and integrate that into heat resiliency art interventions.
- Cooling has to do with the infrastructure that a community has and personal cooling. The need to stay cool and safe is a need for everyone.
- Utility constraints are a barrier on where you can place shade. Think about that when you are planning capital improvements.

ARTIST INTERVENTION FRAMING

- Design a collaborative design with community members and stakeholders.
- Take time to mourn the past and the current situation of the world to engage authentically in the work.
- Artists in this process are conveners and consensus building practitioners.
- Empower participants through the participation and guidance of the arts interventions.
- Make interventions that are site specific. People need to see what will happen in spaces they frequent.
- Understand that having people participate in public interventions may put some people at risk. Ask questions and learn what people can and are willing to do.
- Develop a relatable spectacle with relatable materials.
- Develop dialogue in community through your artist interventions. That is a worthwhile goal.
- Use data as framing for your intervention.
- Partner with universities to support your evaluation process. Track impact such as degree changes in the project site.

PROJECT MANAGEMENT

- Develop and open-source guide to use by all for your arts intervention.
- Give yourself time to identify the partners you want to work with. You cannot rush that process. The partnership needs to be mutually beneficial.
- Artists need funding sources without predetermined outcomes.
- Expect an evolution to happen in your project. Stay flexible and nimble to the needs showing up with community members.
- Funding should be available for long-term evaluation and tracking.
- Do not be afraid to experiment in your work.
- Develop a list of artists that you can work with over many projects. This should not just be organizations. Individual artists can contribute significantly to this work.

IMPACT

- Community partners are more likely to be engaged in continuing this work if they are engaged in creative projects.

- When you elevate the lived experience through arts and culture interventions you get more engagement.

- Bringing in an artist stretches range of possibilities and helps organizations and communities problem solve.

Name of Interviewee: Eve Mosher

Title: Artist
Date Interviewed: February 22, 2021
Topics covered: The HighWaterLine and other environmental work projects/initiatives
Interviewees: Carolina Prieto, Claudia Zarazua

Can you describe the work occurring through the HWL and TPL initiative and your role in this work?

High Water Line was conceived in 2007, creating a spectacle to spark conversations around climate. After that, I collaborated with Heidy Puente in Miami for six months and then in Bristol UK for two years. The purpose was to confront the truth, time to process the grief of a changing world, and radical imagination. There is a duality of situation. We engaged other artists to process the knowledge of how the world is changing. We also emboldened people to speak up about shared vulnerability. We thought about adaptation and mitigation and how we can work together towards a stronger resilience.

In Miami, we had grant support and language assistance in Little Havana. The goal was to create an open-source guide for other communities to implement. In Stockholm and others, we were bringing together stakeholders to the table including those outside the climate field. For example, thinking about immigration as a climate issue. We created a shared activity to facilitate conversation. For example, at TPL an artist is organizing Zoom conversations, each person has a tea package with notepad. Another artist is knitting with plastic bags and having conversations about adaptation. Creativity is woven into everything.

In term of the TPL work, we were interested in creating awareness that green spaces are infrastructure for cooling. We used the web GIS tool, which we wanted to bring to the community along with the arts. As a team we developed a framework focused on extreme heat. We talked about historically redlined, and oppressive systems that have exacerbated heat islands. We talk about places that are culturally asset rich but funding poor. Artists embedded with teams in three different neighbors. Project has 3 phases included a creative community engagement process, collaborative design process, and intervention strategy. This could include anything from a food festival with cooling foods from the region, a shade structure from designs which children drew, or a pen pal program. A framework is created while also providing help in connecting the three communities and creating opportunities for other communities to see themselves in this process.

COVID has changed the engagement. One artist has relied on a chain of contacts. Another is talking to restaurants owners. In person activity in Grays's ferry: kids art pack and pen pal. Jenna Road developed a Mailbox in the park.

How did this work emerge? How was the opportunity/need assessed? How was the focus determined?

The full timeline in Miami was closer to two years. Heidi was there. In Bristol, we had a local organizer. During this time however we needed to grieve. The guide says 6-12 months in order to complete this type of work. We created an opportunity to share personal stories of impact.

Who else is involved in this work?

You need time needed to identify partners. For example, in Miami there is the million-person project. In Bristol, we worked with a with local historian and facilitator.

Are there specific funding sources or approaches that help to sustain these partnerships and this project/initiative?

This projected was funded almost entirely by community engagement in climate initiatives. Kresge and the Whitman Foundation were funders. In the UK it was entirely programmed by arts funding. For TPL we got funding from Pew Center for Arts & Heritage. Without specific outcomes is hard to fund but Pew is funding process not predetermined outcomes. That was helpful.

What is the target audience for this work?

The direct audience participants drawing the line were diverse with a wide geographical representation and thus diverse ethnicities and demographics. The goal was to provide a platform to use their voices and give resources and tools for audience to embolden them to draw attention. The goal was to connect communities since they shared vulnerability and don't typically engage. For example, three lines came together at one point and organized a party. The community came together that otherwise would not typically be coming together. The original intent evolved as the project moved forward. Conversations needed to happen at the site of the impact of climate change with the people that would be impacted.

Who has not been involved? Who is missing from this work? What are the barriers for those stakeholders to participate? Why do those barriers exist?

In Miami (historically Black) and Bristol (immigrant), communities felt that participating in the project publicly would put them at risk. In Philadelphia, a partner organization had established relationship with one community and not the other and did not try to outreach. Eve as an artist decided to draw the line along the Delaware River. The community that was not engaged had a lot of issues with the project.

What were some of the barriers that you experienced in implementing this project? How, if at all, have you overcome these barriers?

One barrier was working with communities to recognize their role in the project. Funding is always a challenge because the work was not perceived as art. Also, a lot is going every day. Partners can be overwhelmed and hard to build momentum and support.

At this point in the work, what is your vision for what the project/initiative can achieve? What do you think has been achieved already?

This project is fairly simple. It is drawing a line, but it is site specific. I wanted to see a relatable spectacle with relatable materials and approachable performance. Climate art is hard to get into. This is a big and scary and complex topic.

How are you tracking the impact of this project/initiative? What indicators are you looking at to track progress or show impact?

Engagement happens after the drawing of the line. Friendships are developed and we continued to stay in touch. Tracking was mostly informed by grant funding. In terms of impacts we are seeing a shift in perspectives. Bristol partners are continuing to do work in climate. Funding not available for long term tracking.

How do you see this work fitting in among other climate resilience or health initiatives? What do you see is the value of bringing arts and culture into this work?

The artist is not an expert. Kenny Braugh in Miami worked with GIS mapping. Look for local data on impact. Attempt to connect the community to local experts. There are other cultural institutions, local government, faith-based organizations, mom groups, etc. Team members are the experts. Artists can be advocates for community in emergency response. Find hyper-localized information.

Is there anything else you would like to share with us at this moment? Anything else you think we should know about this type of work?

The advice is available in the guide. Talk to as many people as possible. Maintain flexibility. There is always space for compromise. Our goal was to have conversations. When you elevate the lived experience, you get more engagement.

Artists bring a different approach and frame. Artists pull out different threads and weave it into something new. They sit in rooms with experts and provide new perspectives. They are trained to experiment and embrace failure. Look at a process and make it into an emotional experience. Artists "move the heart" while others move the brain. Art is more than a communicator. Look at the US water Alliance Case Studies on how art can show up in different ways like haling communities, facilitating through creativity, embodying data etc.

Name of Interviewee: Meghan Venable Thomas

Title: Program Director, Cultural Resilience, Initiatives Enterprise Community Partners, Inc.
Date Interviewed: March 2, 2021
Topics covered: centering Culture and Healing in Community Development in Enterprise Community.
Interviewees: Carolina Prieto, Claudia Zarazua

Can you describe the work occurring at Enterprise Community and Cultural Health Leaders and your role in this work?

We focus on healing in your work, what does that look like at Enterprise Community? Resilience is an instinct of our bodies, not only at the individual level but also at the community and systemic level. Do we have the tools we need to heal? Black communities and indigenous communities are alive and thriving. This is a testament of healing and resilience. The trauma of oppression and disinvestment and climate degradation are very present and acute inter-generational, responses should be multilevel multi-generational.

We have the climate and cultural resilience program at Enterprise. When we think about resilience we think about climate change, however communities are most likely to survive any disruption if they are socially connected (e.g., Chicago heatwave). How do we support and build social connection as a critical component in building resilience?

Funded five communities across the country to think about climate challenge and address them culturally grounded responses. Building social connection (Chinatown LA, American Indian Housing in Duluth MN, CDCs in Chicago, Atlanta, Coalfield DC in WV) require certain understanding of culture and place. There is a disconnection with climate change and impact.

There are other challenges more pressing that make climate change a more abstract concept. For example, overpoliced communities, undocumented relatives, health issues due to coal even though it is the main source of economic support.

A normalcy is trauma-informed care. We need to shift to a healing-centered approach. We are normalizing trauma. White supremacy does not happen in a vacuum. Trauma happens in a collective way, healing should happen in same manner. What are the collective responses? Healing in your own time as an individual needs to happen as well.

The Made to last guide has a cultural resilience assessment. There is a questionnaire on cultural resilience. It identifies opportunities and sees community as advisors to guide on valuable knowledge and culturally sensitive strategies.

How do we assess cultural resilience among community partners?

We need to think about social cohesion and civic infrastructure. There are so many problems to solve but it is also exciting there are so many opportunities to try out. Community stewardship, ownership-wealth building is important. We need to rethink stewardship. You must care, or you must be required to care.

Public health traditional evaluation methods leave out the social/collective. Some are grounded in biases and that come from an aggressive structure. We must acknowledge historical structures of white power. Look at Eco districts about civic engagement. Strategies for restoring for trauma: lifting cultural assets based on lived experience, power, hierarchy of power. Break down these structures start by looking at cultural backgrounds, better relationships, trust building. Artists can help us to think about things differently in a new way. Allow conversations to be deep and more vulnerable.

Name of Interviewees:

Barry Sparkman, Public Art Manager, Phoenix Office of Arts and Culture
Ed Lebow, Public Art Program Director, Phoenix Office of Arts and Culture
Jennifer Vanos, Assistant Professor, Arizona State University (ASU)

Date Interviewed: April 2, 2021
Topics covered: SUNBLOCK Project
Interviewees: Jeanette Pantoja, Carolina Prieto, Claudia Zarazua

Can you describe the work occurring through the sunBLOCK initiative and your role in this work?

This is a continuation of a lot of the heat/shade work that we have been doing: tree lined trails, shade structures (can send info/images later), ASU work assessing dangers of heat, increasingly have hotter nights, urbanization increasing heat.

SunBLOCK brings together ASU's work (data/research), Art Program's work to make public spaces more habitable in the summer (through shade). COVID slightly changed our planning.

We have three components:

- Looking at bus shelters and areas around bus shelters. We are working with artists to design shade panels, shade structures. We are working with graduate students at ASU doing qualitative research on experiences with heat/aesthetic experience.

- We can make these areas more beautiful, but we can also improve areas quantitatively. This means that we can bring down heat around shelters as well.

- We are also developing heat awareness booklets in English and Spanish. We will print and put on the web to make people aware of dangers of heat health and how they can cool down themselves and areas around their home/neighborhood.

In terms of personal shade, we are working with 14 artists on personal shade designs. (Dermatologists say that problem is worse in East/Northeast where there's limited awareness of risks). We hope to raise awareness of risks although we are still trying to figure out the rollout. The Bloomberg grant to become a "heat ready city" was the catalyst for sunBLOCK proposal.

We are finding creative ways to integrate this work across the city. We are using creative techniques to understand root causes of heat vulnerability (inequities). There is a lot of research going into finding right mix of solutions; a lot of wrong trees planted in wrong places – easily available, but do not do job of providing shade.

Who else is involved in this work? Who are your partners and how did those partnerships emerge? Are there specific funding sources or approaches that help to sustain these partnerships and this project/initiative?

ASU and City of Phoenix (Bloomberg funded partnership) is involved in this work. There are a lot of additional community-based connections, other municipalities to create connections and understand risks. Jenny works a lot with schools. We have some other projects working with local artists. We need to really need to map out these partnerships. There are so many and we don't have a list.

Office of Heat and Mitigation (if it's approved in this year's budget) would help us consolidate all of the disparate but overlapping efforts. Public art is doing a lot of things that affect policy, but we are often left out of discussions because of cliched views about the work.

Having a % of art program allows us to have a hand in all capital projects of city. We get holistic view of what all departments are building or thinking of building. GIS map all these projects to help us understand overlap and opportunities; that's an intro to all the community partnerships that are there.

You don't have to go back far to find artists involved in urban design in all kinds of ways. Can't replace other strategies, but arts can bring value to an experience of place; in our highly formulaic approach to urban design, there are a lot of questions that don't get asked. Bringing in an artist does crack the door to asking different questions and stretching range of possibilities.

What is the role of artist in community engagement process?

They help support livable communities and they are a part of the community. Artist are required to do community engagement with our typical projects; working with our water department, focus on abandoned well sites; have just fenced sites, vacant sites; have funding to work with artists to make them more aesthetically pleasing spaces (so that we're better neighbors). We must work with artists to get neighbors on board. They listen to neighbors and come up with a design with that in mind. Project Example: Little canyon Trail – Dirt is about as hot as you can get, comparable to pavement (can get to 160s on warm day). Artist and community worked to convert it into a tree-lined corridor.

At the community well sites in neighborhoods, artists and landscape artists work together. They not only work on beautifying, but they also seek to expand and alter the function of spaces in our community. One project worked with group of moms on this. Often artists that get involved are studio artists that don't have this background. The water department will hire a landscape artist. Artists will lead the community engagement piece. A lot depends on artists' curiosity in an issue. The better artists will dive deep on all aspects affecting a site and leverage data resources available through ASU.

What is your advice for city without an Arts & Culture department?

It takes a willingness on part of organization to go there. Many municipalities hire consultants and not every city has robust capital programs to support this work. It takes a willingness and curiosity to include artists with other thinkers to create this work. In some places there are public-private partnerships. In terms of the university led partnerships, artists are helping more with booklet and working with graphic designer. There are other faculty here that do work with artists. Every project is extremely different in how it originates.

What were some of the barriers that you experienced in implementing this project? How, if at all, have you overcome these barriers?

Funding sources are a challenge. Capital improvements (siting restrictions) operating budgets are needed. Bloomberg grant wants us to become a heat ready city with $50,000.

What are your next steps?

We are creating the booklet and then we will have umbrellas cover the next two to six months. The bus shelter effort will take place in next fiscal year. The bus shelter will continue. We have been doing well with partnerships and funding with the transit program (% for art program).

We are also interested in cool corridor areas including through trees and mechanical shade structures. There are areas in streetscape (like crossing corners where you can't have trees and need structural shade). Utility constraints are a barrier on where you can place shade.

ASU has done interesting studies on where hottest areas are. It underscores equity issues. There are a lot of older areas of the city, including where people don't have a lot of access to personal vehicles. The older areas are barren. We use GIS to visualize city, figuring out how to combine funding sources. Not a lot of public art programs are as data driven.

How, if at all, are you tracking the impact of this project/initiative? What indicators are you looking at to track progress or show impact?

We think about this all the time. This is the reason why we brought in ASU (mostly qualitative) in to work with us. They can help to focus on improving the experience. In the future we are looking at projects measuring temperature differences. Our pavement projects may get measured in the future.

We have done these community heat walks where residents will be part of a group. The do measurements and ask questions (I.e., What do you want to see? How they use

those sites?). They are doing pre- and post-analysis. They do qualitative assessments around bus stops and parks. We need to have grants that will fund you to evaluate 5, 10 years later is not hard. We should develop a standardized protocol at ASU. For example, use bus counts. We want to know where people are walking from. We could also do evaluation of thermal environment.

How do you measure how are people using and enjoying the space? We think a lot about usability. Public art and its magnitude have the power to call attention social issues.

What do you see the long-term impact of this initiative?

Temporary installations can be easier to achieve, when we ask for long term commitment, how does that look like for your program? Studio artists not particularly experienced in public art. Part of a technical design team is to do community engagement to come up with a feasible design.

Name of Interviewees:

Carolina Aragón, Artist and Assistant Professor, University of Massachusetts Amherst
Michelle Moon, Urban Planner and Designer, Civic Space Collaborative
Camille Barchers, Assistant Professor, University of Massachusetts Amherst

Date Interviewed: April 2, 2021
Topics covered: Urban Heat Tree project and other climate art projects
Interview Team: Jeanette Pantoja, Claudia Zarazua, Jenn Kaplan

Can you describe the work occurring through the Urban Heat Tree project and your role in this work?

We started by asking questions about how to address heat island on Fairmount Corridor. We were looking for creativity. I found a grant with Harvard Chan school of public health for $30k to do design and concept. We are looking for more funding to put trees on the greenway. Research and development (R&D) funding was crucial because usually public art funding is just for implementation. The R&D provides funding to make it a "kit". This includes modular pieces that people can install themselves.

We are working with research lab in New Hampshire for the leaves. Leaves will open up at a certain temperature to indicate increasing heat. They also create shared. Public art as having utility is ideal. The process will be important. We are holding community meetings to inform people of the process and have data collection process. Understand what you are looking to measure. We wanted to ask how this installation changed how people use this space. For example, installing something beautiful in a vacant lot. We hired undergrads to do pre- and post-observation research.

How does the presence change how people think about urban heat?

Is there a process that is better than public meeting structure? Maybe a survey instead. This is short-term. Long-term would be great to track how people interacting "heat trees" would they be wanting to be more involved in civic engagement, more public meetings, planning efforts, climate.

Was there an evaluations process?

There was not a formal evaluation process [for Rising Emotions] because the project moved very fast and had a small budget. We had an online survey that was on a website. Shared information about sea level rise in Eastie and then people shared their feelings. It was hard to get grassroots people involved but it was hard to engage them. We worked with local high schools to ask what we could do. It's hard to address the solutions.

What are the challenges?

The funding piece is hard because nobody wants to fund art for how much it costs. They also think that art fixes everything, but it does not. But one superpower of art is that it does allow you to communicate hard things in public and different groups: civic orgs, schools, and politicians. It allows you to work with other people. There is usually a lot of interest and good will. It could do a lot more.

What are the groups you typically work with on these projects?

We work with nonprofits or coalitions of nonprofits and schools. We need additional funding so we can build more partnerships with foundations that focus on STEM like National Science Foundation for civic innovation. There are several other smaller grant programs that would fund this kind of work however they are largely academic.

What are some ways that projects have been funded or permitted?

High Tide was funded by a request for proposal through Rose Kennedy Greenway. Future Waters in East Boston 2018 BSLA, Friends of the East Boston Greenway. Other academic grants for funding R&D. One outcome of this was that people had more accurate information about flooding because they literally stood next to it. It was a parks property, so we reached out directly to Chris Cook. We had to go through Boston Parks Commission. Public Art insurance was expensive. It does not exist anymore. We learned that is better if you do not have to dig in order to install the work. It gets too expensive! CODA has webinar around public art insurance. In East Boston it was $800 for one month of insurance. City requires a $1M rider.

For Rising Emotions, it was an independent study. We had some academic grants. The Boston Art Commission was a very long process (they only meet once a month and don't tell you when they meet). There is no liaison with the city. For Future Shoreline we had three University of Massachusetts research grants and FPAC, and it was being subsidized by collaborating groups.

How can we make the process easier for artists to work with municipalities?

Tension between desire to support emerging artists and local artists. Muni's need to be clear about what kind of applicant they want and what they are asking for. Example is scaled drawings require CAD or insurance requiring money. So are you working with community group vs. New artist who requires more support vs. Seasoned artist who knows that already. FPAC – Fort Point. Very political voices and that facilitated lot more like being able to drop an anchor. If you work through an organization then it is easier vs. being alone. Organizations might be able to also purchase insurance for a lot cheaper.

What were some of the barriers that you experienced in implementing this project? How, if at all, have you overcome these barriers? How has it been working with municipal staff?

I reached out very early on to BPDA for Rising Emotions. We had multiple meetings. We reached out to tell them that they want this work to be supportive of their planning efforts. We had surveys and ongoing research projects and we ran these questions by them. We wanted to be helpful. They were also helpful in framing. They have been very receptive, but it may be different because we had funding and we were not asking money and we were going to give credit to the city.

For Heat Tree we made sure to write into the Harvard grant about the city's urban canopy project. It would be great to think about the street tree projects or complete streets project. We should involve them also in public art. This is just one example.

All these initiatives are not institutionalized so reaching back out to those who are involved in institutionalized processes to see how projects can be an additive, but it also can be a difficult question. You must ask yourself – what's the scale of engagement you can handle?

When thinking about the Art + Public Engagement Lab we were increasing capacity by doing projects that have public art, longitudinal studies to be a resource for how to use art to bring attention to planning issues.

Is there anything else you would like to share with us at this moment? Anything else you think we should know about this type of work?

Allow space and funding for experimentation, away from predetermined outcomes.

Glossary

Extreme Heat is defined as summertime temperatures that are much hotter and/or humid than average. Because some places are hotter than others, this depends on what's considered average for a particular location at that time of year.

Heat Wave is an extended period of extreme heat, or period of three or more days above 90 degrees Fahrenheit.

The Urban Heat Island (UHI) effect is when urban areas are hotter than the surrounding non-urban areas. This urban heat occurs because of human-made heat and from the physical landscapes of cities.

Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature (the "feels like" temperature).

Frontline Communities are those that experience "first and worst" the consequences of climate change. These are communities of color and low-income, whose neighborhoods often lack basic infrastructure to support them and who will be increasingly vulnerable as our climate deteriorates. These are Native communities, whose resources have been exploited, and laborers whose daily work or living environments are polluted or toxic.

Climate Vulnerability the propensity or predisposition to be adversely affected by the impacts of climate change. Vulnerability encompasses a variety of concepts including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Climate Mitigation is the work to reduce the amount of green house gas emissions in order to slow down and mitigate the impacts of climate change.

Climate Adaptation is the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities.

Climate Resilience is the ability of a community to address the needs of its built, social, and natural environment in order to anticipate, cope with, and rebound stronger from events and trends related to climate change hazards, including temperature changes, extreme weather, sea level rise, coastal and inland flooding, changes in precipitation, and other impacts.

Citations

Arlington County, Virginia, "Advisory Groups & Commissions," https://commissions.arlingtonva.us/capital-improvement-program-cip-working-group/ (accessed December18, 2019).

Arlington County, Virginia Public Art Master Plan (2004), p.33.

Barnes, J. "New Bedford will put 50 percent of hotel tax into arts-only fund." South Coast Today, January 13, 2017. https://www.southcoasttoday.com/news/20170113/new-bedford-will-put-50-percent-of-hotel-tax-into-arts-only-fund

Bloch, S. (2019) Shade. Places Journal. https://placesjournal.org/article/shade-an-urban-design-mandate/

Bylander, J. (2020). For healthier Native Youth, Look to Their Strengths. Health Affairs, 39:6, 923-926.

Cambridge, Massachusetts's Code of Ordinances, Chapter 2.114 - Public Development Arts Projects. https://library.municode.com/ma/cambridge/codes/code_of_ordinances?nodeId=TIT2ADPE_CH2.114PUDEARPR (accessed December 19, 2019).

Centers for Disease Control and Prevention (2017). Warning Signs and Symptoms of Heat-Related Illness. https://www.cdc.gov/disasters/extremeheat/warning.html

City of Ithaca Public Art Master Plan (2003), http://www.cityofithaca.org/DocumentCenter/View/205/Ithaca-Public-Art-Plan-2003?bidId=, p. 43.

City of Salem Public Art Master Plan (2013), p. 15.

Cleveland Clinic (2017). Heat Illness. https://my.clevelandclinic.org/health/diseases/16425-heat-illness

Climate Central (2021). Spring Package. https://medialibrary.climatecentral.org/resources/2021-spring-package

Cohen-Cruz, J. and Korza, P. Municipal Artist Partnership Guide. A Blade of Grass. Retrieved from https://municipal-artist.org/nuts-and-bolts/laying-the-groundwork/why-municipalities-and-artists-partner/

Cooper, R. (2019). The Impacts of Extreme Heat on Mental Health. Psychiatric Times. https://www.psychiatrictimes.com/view/impacts-extreme-heat-mental-health

Gonzales, R. (2017). Community-Driven Climate Resilience Planning: A Framework. National Association of Climate Resilience Planners.

Helicon Collaborative. (2018). Farther, Faster, Together: How Arts and Culture Can Accelerate Environmental Progress. Art Place America.

Human Rights Watch (2020). US: Heat Emergency Plans Missing Pregnancy, Racial Justice. https://www.hrw.org/news/2020/10/23/us-heat-emergency-plans-missing-pregnancy-racial-justice Lindsey Konkel (2019). Taking the Heat: Potential Fetal Health Effects of Hot Temperatures. Environmental Health Perspectives. https://ehp.niehs.nih.gov/doi/full/10.1289/EHP6221

National Institute for Occupational Safety and Health (2018). Heat Stress – Heat Related Illness: Types of Heat-related Illnesses. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html

OSHA (2020). Safety and Health Topics: Heat. https://www.osha.gov/heat-exposure

Plumer, B., Popvich, N., and Palmer, B. (2020). How Decades of Racist Housing Policy Left Neighborhoods Sweltering. New York Times. https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html

Salas, R.N., and Solomon, C.G. (2020). The Climate Crisis – Health and Care Delivery Interactive Perspective. New England Journal of Medicine. https://www.nejm.org/doi/full/10.1056/NEJMp1906035

Samuels, M. (2020). Heat May Kill More People in the US than Previously Reported. Boston University School of Public Health. https://www.bu.edu/sph/news/articles/2020/heat-may-kill-more-people-in-the-us-than-previously-reported/

Sturm, R. and Francis, L. (2016). Building an inclusive community-centered evaluation program. Responsive Philanthropy. https://www.ncrp.org/wp-content/uploads/2016/08/RP_Summer16-sturm-francis.pdf

Union of Concerned Scientists (2019). Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days. https://www.ucsusa.org/sites/default/files/2020-12/UCS_extreme_heat_report_190712b_low-res_corrected12-20.pdf