



# RisingEMOTIONS: Integrating Technology & Art to Visualize Climate Change

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CULTURAL/  
ARTS



Provided by SME Consultant

Civic Space Collaborative

Location

East Boston Branch of the Boston Public Library



Origin	<p><b>Lead Artist:</b> Carolina Aragón, Asst. Prof. of Landscape Architecture &amp; Regional Planning UMass Amherst's College of Social and Behavioral Sciences  <b>Research + Support:</b> Narges Mahyar, Asst. Prof. at UMass Amherst's College of Information and Computer Sciences; <b>Students</b> for design and installation  <b>Project Management + Community Engagement:</b> Michelle Moon, Civic Space Collaborative</p>
Budget	 <p><b>Low</b> (\$12,000): Reused installation materials, sourced inexpensive materials and volunteer labor</p>
Timeframe	 <p><b>Short Term</b> (6 months: August 2019 - January 2020)</p>
Risk	 <p><b>Low Risk:</b> Temporary installation requiring no major construction, engaging citizens in meaningful but difficult conversations about climate change</p>
Key Performance Indicators	<p>Digital Bilingual Survey: 150 responses; Community members engaged in art creation and community event, including 50 adults and 30 youth</p>
Partners & Resources	<p>Funded was provided by a grant from the Barr Foundation to the Friends of the Mary Ellen Welch Greenway. Collaborators and partners included the Boston Society of Landscape Architects, Excel Academy, the East Boston Branch of the Boston Public Library and East Boston residents.</p>
Diagnostic	<p>RisingEMOTIONS was used as inspiration for The Trustees' One Waterfront Ambassadors youth employment program and Climate Change Visualization workshop, where students created their own mini art installations that visualized coastal flooding or urban heat island statistics for their neighborhoods.</p> <p>Although the art installation was removed one month before the COVID-19 global pandemic was declared, the installation was outdoors, and people were spaced out in a manner compliant with protocol for social distancing. If reinstalled, materials could be prepared in kits by volunteers in their homes. A bilingual survey was posted online, and events were held virtually.</p> <p>In addition, there have been many conversations about the how to plan for the next pandemic or big disruption to daily life, and there have been many comparisons drawn to the existential crisis of climate change. In the next few decades, East Boston will experience sea level rise and coastal flooding from an increase in extreme storm events. The City of Boston has led many planning processes and studies, including <i>Climate Ready East Boston</i> and <i>Plan East Boston</i>. Located in a prominent location adjacent public buildings, parks, a school, and Logan Airport, RisingEMOTIONS provided onlookers with a visual reference for the real impacts of climate change.</p>
Action Item	<p>The project was coordinated to expand the awareness and outreach of local planning efforts by the <b>City of Boston Planning &amp; Development Agency</b>, the <b>City of Boston Environment Department</b>, as well as local grassroots efforts by organizations <b>Harborkeepers</b> and <b>GreenRoots</b>, related to climate change.</p> <p>Survey participants were given the opportunity to provide their contact information to get connected with these organizations, as well as inviting participants to come help install the artwork.</p> <p>RisingEMOTIONS was used as inspiration for The Trustees' One Waterfront Ambassadors youth employment program Climate Change Visualization workshop, which was led by Lead Artist Carolina Aragón and Consultant Claudia LaFontaine. The workshop was held in August 2020, making it an entirely remote project due to pandemic closures. They met virtually with Boston-area high school students in The Trustees youth employment program and discussed the effects of climate change in Boston. Students were guided in creating their own mini art installations, where they chose between visualizing coastal flooding or urban heat island statistics that were provided for their neighborhoods.</p>

**Planning + Design**

- **Concept Development (August):** University of Massachusetts Amherst Assistant Professor Carolina Aragón and PhD student Mahmood Jasim brainstormed “visual emotions”, that rise to flood levels on a napkin sketch. UMass Boston Sustainable Solutions Lab provided local data for the 1% annual chance flood for the Library site.
- **Design (September):** Using recycled materials from a previous installation, Carolina Aragón and students designed a metal frame to rise to the height of 1% annual chance flooding at 3.8 feet. The bands of color coordinated to survey responses travel over the frame, across the patio, and up the building windows. The height reflected on the frame and on the building were meant to make viewers think about how high 3 feet from flooding is.
- **Online Bilingual Survey (October):** PhD Student Mahmood Jasim created an online bilingual survey to collect East Boston residents’ feelings about climate change. The Friends of the Mary Ellen Welch Greenway (FoMEWG) and other East Boston nonprofits distributed the survey by email and on social media. On the printed flyers and business cards there were QR codes. Over 150 East Boston residents responded, and responses were color coded based on varying levels of sentiment towards climate change.
- **Site + Site Visits (October):** Project collaborators conducted an on-site visit to City of Boston property in front of the East Boston Library by Bremen Street Park. The site is located near Logan Airport, the MBTA Airport Blue Line Station, and commercial areas in East Boston. The artist and student team did several site visits to take measurements, test materials, and do community outreach by engaging library patrons and Excel Academy students.
- **Approval Process (October - November):** This art installation was located on City of Boston property and therefore required the approval of the Boston Art Commission. The artists submitted the project to the Art Commission with the required information, including project description, a list of team members, rendering, scale site map, insurance information, and resume. A City staff member the Mayor’s Office of Arts and Culture reviewed the application to ensure that the application package was complete. The project team attended a monthly Art Commission meeting to answer any additional questions and were granted approval for the project with the condition that the project team would provide some additional information about the removal of the project materials (duct tape).

**Creating + Installing RisingEMOTIONS**

- **Community Making Sessions (November):** Community members and East Boston Library patrons, who were mostly youth, transcribed survey comments on to each ribbon in one session and helped assemble the final installation as well. For the installation day, adults volunteered to hammer staples into ribbons, and people of all ages helped extend the bands of color with duct tape onto the pavers. Instructions were provided on site.
- **Installation (November):** Carolina Aragón and the UMass Amherst students prepared the ribbons before site installation, which required cutting the ribbons and sewing loops to attach them to the frame. Robert Gilmore and his crew assisted on site with leveling the ground and assembling the framework, and community members participated intermittently with tasks such as transcribing onto ribbons, sliding ribbons into place, securing ribbons to the ground with staples, and taping the patio.
- **Community Event (December):** Funding partners and community members attended a presentation about the installation and conducted a press statement, where the artist and city officials spoke about the significant impact of climate change.
- **Removal (January):** The project team removed the art installation in half a day.

Survey + Responses

Tell us your feelings about climate change in your neighborhood  
 Cuéntanos qué sientes acerca del cambio climático en tu barrio

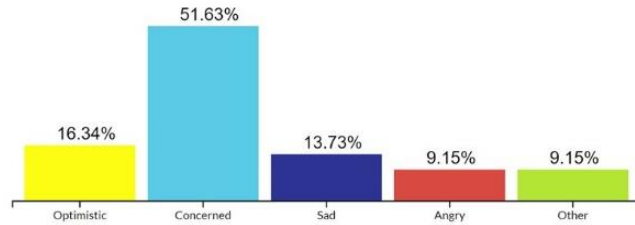
Write your thoughts...

Remaining characters: 200

You mostly feel  
 Te sientes mayormente

CONCERNED  
 OPTIMISTIC  
 SAD  
 ANGRY  
 OTHER

Survey questions and color coded responses.



Survey responses summary. (December, 2019)

Survey question, color coding, and response categories

I am worried that the neighborhood will be wiped out We are just hurting the world and that is only going to effect us in the future

Climate change needs serious attention. But I believe programs like these could help in making a change Its sad to see this is happening

I'm frustrated that policy makers and politicians still don't recognize this as an urgent problem Its getting cold

It is very disappointing and very disgusting I spend more time online I see many videos on climate change and how it is effecting us

This is very worrying since we live on an area in which is near to a sea land, and a flooding could destroy the whole city

I feel despair that so many people refuse to think about the consequences of their actions and how their inaction will harm the next generation

I have been moved what I have seen in the past few months. I believe in climate change and we should take action I feel pretty terrified

It's going to bring regret to people and it will be to late Its saddening and people don't take it so serious bc humanity is being wiped out

I believe that there is not much action that people are taking ... it isn't their biggest priority I feel like climate change is getting worse

It is weird because it was so warm I feel like it's ignored way to much when people should be talking about it

Everyone is littering everywhere and it changes the climate change. Also nobody is doing nothing about it which is very unfortunate and very sad

I hate climate change The corporations should also come forward. We can't just leave everything to the government or personal practices

It makes me worried since I've never moved in my life, and don't know where I am going to end up in the future

I don't really know about climate change but I know it's bad I just hope it won't be too late before we start taking actions

Examples of East Boston resident responses to the survey questions



Making Sessions at UMass Amherst and at the East Boston Library



RisingEMOTIONS Installation



Volunteers installing RisingEMOTIONS (Photo: Civic Space Collaborative)



View of RisingEMOTIONS from the Library patio (Photo Credit: Matt Conti)



The RisingEMOTIONS Project Team and volunteers at the Library (Photo Credit: Matt Conti)



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