

# Walking the Edge of the Earth

*Eve Mosher's art project HighWaterLine takes climate science to the streets.*

Leila Christine Nadir

In 2007, environmental artist Eve Mosher read a report by Vivien Gornitz of Columbia University's Center for Climate Systems Research and learned that parts of her home city of New York are increasingly likely to be inundated by seawater in coming decades. According to the report, areas along New York's coast will experience what scientists call a "100-year flood" much more frequently than the name suggests. As climate change accelerates, these neighborhoods can expect 100-year floods every 40 years by the 2020s, every 20 years by the 2050s, and every 4 years by the 2080s.

Mosher wanted to know what these numbers mean for the people and places closest to her. What exactly is in the flood zone? What will be the impact of warming oceans and melting glaciers for specific communities? Frustrated that the report did not answer her questions, and worried about the absence of climate change from public debate, she decided to find a way to make the data feel more real. She wanted to connect climate science with the places where we live, work, and play.

For Mosher, art provides the crucial link: "Artists can create visceral and emotional connections that can make change possible in ways that data and reports cannot," she says. In summer 2007, she set out on foot, equipped only with blue chalk and a chalk dispenser called a "Heavy Hitter," and drew a line marking an elevation of 10 feet above sea level—the elevation

of the 100-year floodplain—through more than 70 miles of Manhattan's and Brooklyn's waterfronts.

Mosher's blue line wove through the neighborhoods of Chinatown, Coney Island, Tribeca, Dumbo, the East Village, and beyond. It outlined schools, churches, and hospitals. It wound around playgrounds and apartment buildings. Her public art performance, titled *HighWaterLine*, drew crowds of art lovers, activists



For her project *HighWaterLine*, artist Eve Mosher walked 70 miles through Manhattan and Brooklyn (dotted line), marking the areas that would be inundated if the sea level around New York City were to rise 10 feet.

concerned about climate change, and curious bystanders wherever she went. The project gave tangible meaning to the climate data, prying them free from academic reports and embedding them directly into the landscape.

## Making a Modern Ritual

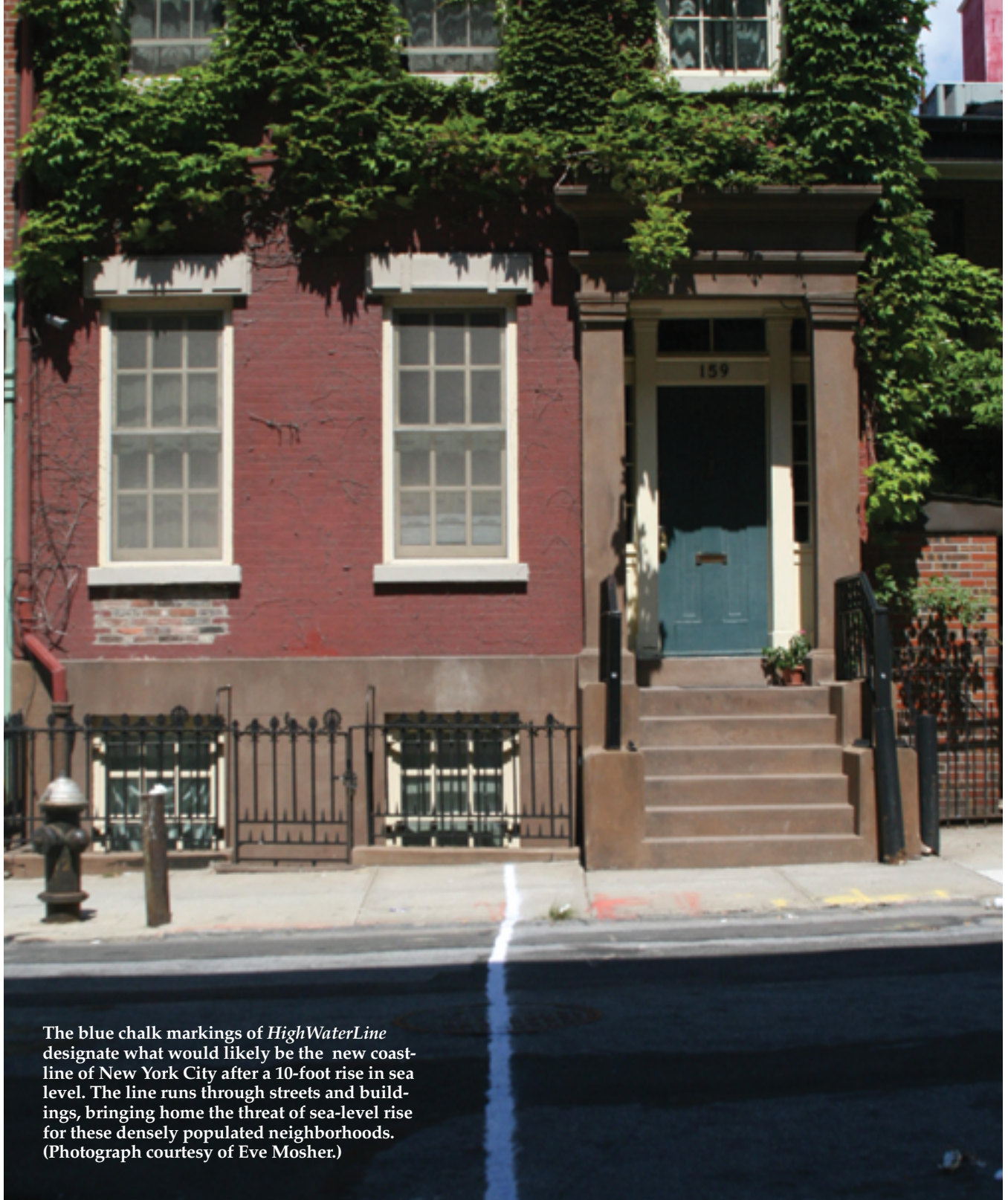
Taking a walk to think and to learn is a common ritual in the Western philosophical tradition. In her cultural history of walking, *Wanderlust*, author Rebecca Solnit traces centuries of writers' accounts describing how an outdoor stroll clears the mind, reshapes

perceptions, and triggers intellectual epiphanies. Our feet seem to ground our imaginations, clarifying and solidifying new ideas. In recent decades, artists such as Hamish Fulton and Richard Long have approached walking as their primary medium, documenting their insights and interactions along their treks and leaving behind traces of their journey. Solnit writes about the artistic aspect of such performances: "One person's act can be an invitation to another's imagination; the way every gesture can be imagined as a brief and invisible sculpture, the way walking reshapes the world by mapping it; treading paths into it, encountering it; the way each act reflects and reinvents the culture in which it takes place."

Likewise, Mosher's *HighWaterLine*—both her journey through New York City and the trace of blue chalk she left behind—invites residents and passersby to reimagine the places they inhabit and to rethink the relationship of climate to culture. As Mosher walked, discovering exactly which areas would be flooded by seawater and storm surges, she snapped photos and documented her route online. (Readers can follow her journey on the *HighWaterLine NYC website*.) She also fielded questions from the public, handing out flyers when asked for more information. Such welcoming of unpredictable social encounters is a common feature of conceptual art. Mosher's intention, she says, was "to set up a space for dialogue about how climate change affects us as individuals and as communities"—precisely what is so often missing from media and scientific reports.

Some of the people experiencing *HighWaterLine* were inspired to share stories about bizarre patterns, such as the tornado that had whipped through Brooklyn earlier that summer. Visitors

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The blue chalk markings of *HighWaterLine* designate what would likely be the new coastline of New York City after a 10-foot rise in sea level. The line runs through streets and buildings, bringing home the threat of sea-level rise for these densely populated neighborhoods. (Photograph courtesy of Eve Mosher.)

and immigrants to New York talked about the climate politics in their home countries and about the discussions taking place or not taking place within their governments. A few homeowners disclosed that they'd recently been denied flood insurance without explanation; the blue line snaking down their streets suddenly helped them understand why. "Walking through places and neighborhoods," Mosher says,

"you get a very different understanding of climate change."

That understanding is why Mosher was not shocked when, in 2012, Superstorm Sandy flooded New York City's waterfront and cost the metropolitan area more than \$42 billion. Five years earlier, *HighWaterLine* had forecast the dimensions of Sandy's storm surge with frightening accuracy. Two days after the surge, Mosher wrote on her blog, "I

have seen images of water up to (and past, in many cases) where I drew the line. I keep hearing about incidents that, sadly, don't surprise me at all."

After performing *HighWaterLine* in New York City, Mosher received invitations to replicate the project in other locales, but the prospect of traveling to cities she didn't live in, researching, mapping, and walking the flood zones, and then leaving



At times, the performance of *HighWaterLine* was recorded by television crews (left). Mosher used a rolling chalk marker to show the estimated future coastline. Where she could not mark this line in chalk, such as in Battery Park (top right), she set a line of illuminated beacons instead. To curious spectators (bottom right), she offered more information. (Images on this page courtesy of Eve Mosher; left and bottom right images by Hose Cedeno.)

the community behind didn't make sense to her. "There would be all this momentum, all this work to raise awareness, but no embedded process of working toward change," she said. Instead of continuing as a solo artist-driven performance, *HighWaterLine* evolved into more of a community-based project through collaboration with Heidi Quante, director of the San Francisco-based nonprofit agency Creative Catalyst. Quante proposed a grassroots redesign of *HighWaterLine* for two other cities known to be seriously vulnerable to sea level rises: Miami and the English port city of Bristol.

#### A Performance Becomes a Movement

Quante's vision for *HighWaterLine* called for interactive workshops that unfolded over months, with local citizens conducting their own research, mapping the elevation of their neighborhoods, and learning which areas, buildings, homes, institutions, and local cultures would be destroyed by

rising water. Students, housing rights activists, environmentalists, and local residents collaborated to trace the blue chalk line on streets and sidewalks they already knew intimately. They developed organizing skills and emergency preparedness plans for their communities. Together, they transformed data into experience, and the knowledge they gained stayed home, where it was needed most. "Scientists provide the data, and art brings it to life," Quante says. "The community members are the experts of their own neighborhoods. This method of working breaks down the impasses and accelerates action and solutions."

Quante regards art as a catalyst for behavioral change, including learning on one's "daily migratory path." Studies show that education is most effective when we encounter something new within a familiar setting. As neurobiologists Daniela Schenker and Hartmut Schütze wrote in a recent *Scientific American* article, "Learning by

Surprise," this kind of combined experience stimulates the hippocampus, sometimes called the brain's novelty detector. A moment of novelty that occurs where we are most at home can generate thought-provoking surprise, a displacement, that can renew our consciousness of surroundings we normally take for granted. In her cultural history of walking, Solnit gives a similar account of a walk's effects on the mind: "The random, the unscreened, allows you to find what you don't know you are looking for, and you don't know a place until it surprises you."

Unexpected realizations on a stroll are often pleasant, mind-expanding experiences, chances to get to know your environment better. But in the case of climate change, the experience can be downright disturbing—even for experts acquainted with the data. Marta Viciedo, a Miami resident with a master's degree in urban planning who had studied sea level rise as a research fellow at Florida Atlantic University's Visual Planning and Technology Lab, nevertheless considered her involvement in *HighWaterLine* | Miami to be a wake-up call:

Until my participation with *HighWaterLine*, I had not fully



Replicas of *HighWaterLine* in other cities have drawn public attention and community involvement. In Philadelphia (top left), students took part in a workshop; the nearby Schuylkill River flooded a few days later (bottom left). In Miami (top right), residents helped push the chalk marker, and in Bristol, England (bottom middle and right), marker and maps invited hands-on learning. (Top photographs courtesy of Eve Mosher; bottom left courtesy of Fairmont Water Works; bottom middle courtesy of Richard Clutterbuck; bottom right courtesy of *HighWaterLine* and Pete Bedwell.)

internalized what it meant for South Florida to be considered “Ground Zero” for climate change. Sea level rise was something I studied, or more specifically assisted in researching, but the intricacies of how a rising tide, potentially within my lifetime, could overcome much of the island I spent my summers on with my grandmother (Miami Beach) had never fully cemented itself in my head. Ditto for the city of Miami, where I now live with my own children. Researching, discussing, mapping, or even rendering possible scenarios resonates quite differently than standing on the street corner you have walked past hundreds of times and visualizing what it would be like to do so in water that is knee deep ALL. THE. TIME.

It is difficult to make a definitive statement about the impact of *High-*

*WaterLine* because, like all good art, it does not have just a single meaning. It invests climate data with local stories and real lives. It creates a platform for new dialogues. And it is an effective organizing tool. Two community-based groups that participated in the Miami workshops, Resilient Miami and Catalyst Miami, were awarded a planning grant from the Kresge Foundation to help their neighborhoods become more resilient against major storms. In the United Kingdom, *HighWaterLine* | Bristol received a grant from the Environment Agency to share best practices and create a community guide for coping with rising sea levels.

At the same time, *HighWaterLine* is also a historical document of a moment of impending change. When Mosher originally performed the project in 2007, there was plenty of time when she walked silently, and nobody stopped her to ask what she was do-

ing. In those moments, she was the only witness to her project, an experience she is still pondering: “What does it mean for me to have bodily walked 70 miles of vulnerable coastal area, passing through these spaces with the knowledge I have, and as I walked, taking in more knowledge, recognizing, witnessing? I didn’t do in-depth studies of coastline, but I know where the horse stables are in Coney Island. I know about the landfill that is in South Brooklyn. I know the families that play on the Red Hook soccer field.”

*HighWaterLine* is an invitation to understand, to act, and to prepare. But if political solutions to climate change don’t materialize soon, it may also be an invitation to come to terms with loss.

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