

INTRODUCTION AND METHODOLOGY



In U.S cities and regions, low-income Latine populations often reside in communities sensitive to extreme climate events, such as droughts, floods, and intense heat (Adger, 2006). This is partly because planning policy poorly addresses marginalized communities' housing and social needs, forcing families to live in precarious and polluted communities with inadequate access to resilient infrastructure, services, and opportunities. Chicago is no exception. However, even though climate change impoverishes and marginalizes Latine communities, there is limited literature within Latino Studies on the experiences of communities that are confronting environmental harms including the aftermath of climate related events that disproportionately threaten their health and safety.

The Chicago Latine Voices on Environmental & Climate Change Racism study aims to better understand how Latine communities experience, cope, and contest the disparate impacts of pollution and extreme climate change events. We focused on the Chicago context and included some of its surrounding suburban area. The study is one of three University of Illinois Chicago (UIC) research studies under the Climate and Environmental Justice Crossing Latinidades project and in collaboration with the University of California at Irvine and University of Texas at Arlington. This collaborative research is under the Crossing Latinidades Humanities Research Initiative.

Our study has disclosed a series of residents' concerns, attitudes, and assets that served to organize the findings into three main themes for deeper analysis:

- 1. Recognizing the critical intersection of environmental and social justice
- 2. Underscoring who the real polluters are and demanding accountability
- 3. Placekeeping and activating cultural assets

We used a mixed method approach including visual ethnography, participant observation, and a demographic survey to obtain data. There were a total of 7 research sessions, each took approximately 90 minutes for participants to complete a demographic survey and create their personal maps/artworks with written descriptive stories. The demographic survey was used to understand the relationship between key variables in order to reveal patterns and correlations. The variables considered are: age of participants, residence (in Chicago, sacrifice zones/near sacrifice zones, or Chicago outer suburbs), born in the USA or immigrant (See Figure 1). We collected 63 sets of personal maps/artworks and written stories from Latine participants. Out of 63 participants, 45 live in Chicago (28 in sacrifice zones or near) and 18 in suburban areas as indicated in Figure 2.

Each research session was co-facilitated by a researcher on the project team and a local community artist or facilitated by a researcher who had an art background when an artist was not available. First, participants (referred hereafter as storytellers) were introduced to the project and asked to complete a consent form and demographic survey. Then, they were asked to write about their experiences with climate change and environmental issues in their neighborhoods through the use of a zine. This creative exercise facilitated the process of thinking through climate and environmental issues before they embarked on writing their stories and creating their maps/artworks. During the zine activity, storytellers were asked the following: to write three words that come to mind when they thought of climate and environmental issues; sketch symbols inspired by their own stories and experiences with climate change/environmental justice or injustice; write their stories/ experiences and use these to create their personal maps/artworks; and circle the issue(s) addressed in their maps/ artworks and stories. Options included: extreme heat, flooding, polluted air, water, land and "other." The researchers also used a series of prompt questions during the creation of the personal maps/artworks and written stories.

Overall Demographics of Latine Research Participants Within the Chicago Area			
Total Participants	Residence	Age	Immigrant or Born in the U.S.
		(20) Participants were between the ages 18-25 (8) Participants were between the ages 26-35 (7) Participants were between the ages 36-45 (7) Participants were between the ages 46-55 (2) Participants were older than 56 of Latine Research Participants Area (Outer Suburbs	
Total Participants	Residence	Age	Immigrant or Born in the U.S.
18	(18) Participants lived in outer suburbs	(15) Participants were between the ages 18-25(2) Participants were between the ages 26-35(1) Participant was older than 56	(4) Participants were immigrants (14) Participants were born in the U.S.

Figure 1: Overall demographics of participants within and outside the Chicago area.

These activities provoked conversations among the storytellers and generated field notes taken by the project researcher facilitator and or a second researcher who attended the sessions. Some field notes are used throughout the themes sections.

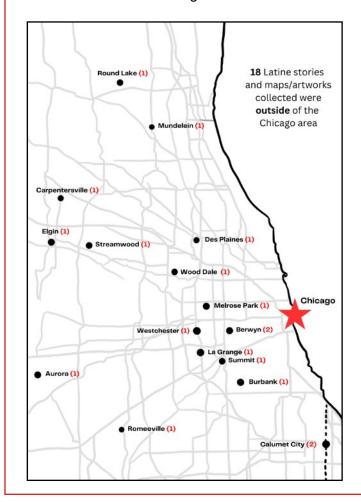
The research was collaborative with the UIC Rafael Cintrón Ortiz Latino Cultural Center (LCC) and community partners Alianza Americas, Centro San Bonifacio, Enlace Chicago, Little Village Environmental Justice Organization (LVEJO), and Neighbors for Environmental Justice (N4EJ). Their participation focused on recruiting storytellers and providing space for the research sessions. While the study focused on Latine, some of the research sessions with UIC students and residents in McKinley Park associated with N4EJ allowed non-Latine to participate in the art making and storytelling process. However, the materials generated by non-Latines were not included in the analysis and therefore, does not inform in any way the findings in the study.

... it is important that people in our city know about how polluted certain neighborhoods are and universities can help share our stories.

Numbers in red represent the amount of stories collected from that particular area.

Neighborhoods shaded in **orange** are considered **Chicago Sacrifice Zones**.

45 Latine stories and maps/artworks were collected within the Chicago area.



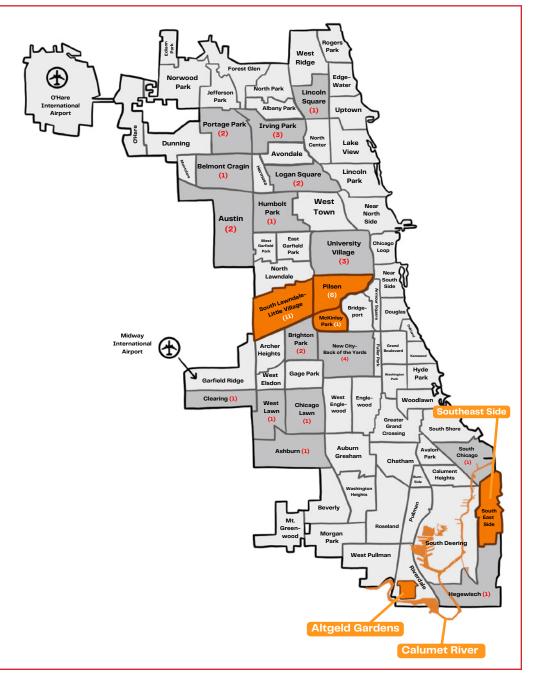


Figure 2: Maps with areas that generated stories and maps/artworks.

THE LEGACY OF ENVIRONMENTAL RACISM IN THE CITY OF CHICAGO

In Chicago, Black and Latine residents are more likely to live near industrial pollution and in an area impacted by the city's legacy of environmental racism (Mulvihill, 2020) where climate change threats are exacerbated by air, water, and land pollution. Chicago's Black and Latine neighborhoods are the most heavily affected by environmental pollution. These areas, referred to as "sacrifice zones," denote Bullard's (2011) assertion that a key indicator of an individual's health is one's ZIP code. Bullard provides a definition for environmental racism as "any policy, practice, or directive that differentially affects or disadvantages (where intended or unintended) individuals, groups, or communities based on race."

In the city, six neighborhood areas have been recognized by the City of Chicago in a recent Cumulative Impact Assessment Report as sacrifice zones including Little Village, Pilsen, McKinley Park, Altgeld Gardens, the Southeast Side and the region along the Calumet River. All of which consist of low-income, working class Black and Latine communities on the southwest and far south sides of Chicago. The concept of sacrifice zones is no surprise to those living in these areas where for decades community members have been organizing to improve environmental conditions that have been a result of decades of neglect and environmental racism.

Scholars (Schlosberg and Collins, 2014) argue that the concerns and principles of climate justice is most clear and consistent in the grassroot articulation of the environmental justice (EJ) movement, "where climate justice focuses on local impacts and experience, inequitable vulnerabilities, the importance of community voice, and demands for community sovereignty and functioning." Within the EJ movement the term "environmental racism" is used to describe environmental injustices that take place within a racialized context both in practice and policy. It is widely recognized that environmental risks disproportionately affect people of color and low-income earners making it very difficult to recover from climate disasters, like wildfires, hurricanes, droughts, and floods. A 2020 "City of Chicago Air Quality and Health" report highlights that

"structural racism and economic hardship" are significant factors influencing how Black and Latine families end up living in heavily polluted neighborhoods. In Chicago, sacrifice zones are residential neighborhoods located in highly polluted communities near industrial areas/corridors. Industrial corridors are areas identified by the city as optimal for manufacturing, trucking, waterways, and railroads. There are 24 industrial corridors in Chicago leading to higher rates of pollution in these areas. (See Figure 3: Chicago's Industrial Corridors & Sacrifice Zones).

Some community members have lived in these neighborhoods for generations having been drawn in by the Steel Mill industries, some sacrifice zones serve as the first stop for new immigrants entering the city while other zones were initially created by the city as designated housing projects for low-income communities. All of this contributes to the systematic legacy of environmental racism that continues to exacerbate the accumulation of environmental hazards and climate impacts year after year upon residents who are mostly low-income, working-class, Black and Latine.

While in recent years the city has been more proactive in attempting to rectify the harms of environmental racism, including publishing the 2023 Chicago Cumulative Impact Assessment Report, community members have been organizing for more just environmental communities for decades. In the early 1980s, Altgeld Gardens resident and founder of People for Community Recovery (PCR) Hazel Johnson coined the term, "toxic donut" to describe how Altgeld Gardens was not only knowingly built on top of a former industrial waste site but was located directly in the center of, "a 14-square-mile ring of pollution stretching from Chicago's Southeast Side to Northwest Indiana, housing more than 50 landfills, a chemical incinerator, a water and sewage treatment facility, steel mills, paint factories, scrap yards and abandoned industrial dump sites" (People for Community Recovery 2023). This intentional placement of Altgeld Gardens left the community vulnerable to numerous health hazards including high rates of

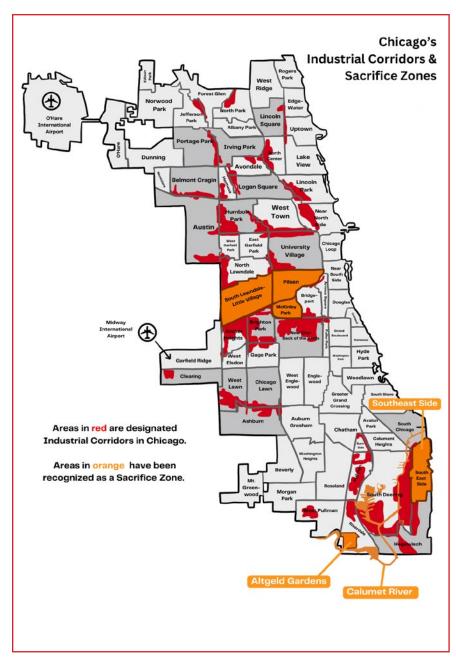


Figure 3: Chicago's Industrial Corridors & Sacrifice Zones. Chicago Sustainable Industries, 2023.

cancer, asthma, skin issues and more. Johnson was not the only community member to make these connections between the health of residents and the negative environmental impacts that communities of color face.

Systematic pollution burdens and vulnerability to its effects exacerbated during the COVID-19 pandemic. The Little Village neighborhood was the victim of a botched coal plant demolition, which led to nearly the entire neighborhood to be covered in dust from the explosion. Despite warnings that the demolition could lead to "cataclysmic harm" (Chase, 2022), the choice to demolish the 100-year coal plant was followed through to build a warehouse. Both actions were kept under wraps by city officials to evade blame for the hazardous environmental and health impacts; these actions directly contributed to already environmentally burdened communities (Chase, 2023). In 2020 residents in another part of the city - the Southeast Side - took the fight against General Iron, a metal scrapper retired from an affluent mostly white neighborhood in the northside intending to relocate to the Southeast Side. Their protest culminated in a month-long hunger strike that forced former Mayor Lori Lightfoot to delay the permit process relocation, throwing it into a series of court decisions and appeals that are ongoing. Calling the city to be held accountable for its role in the historical use of racialized zoning leading to further negative health impacts on communities of color is exemplified in a statement by an EJ leader on the following page.

While communities of color in Chicago have been historically burdened by environmental injustices for decades, residents of those neighborhoods have also historically resisted and are actively working to correct the unjust outcomes of that history. Across the United States the Environmental Justice movement has been spearheaded by those which environmental racism and climate change impacts the most and for Chicago this means that our local EJ movement is often spearheaded by residents living in or near sacrifice zones. Chicago's local EJ movement heavily relies on the cross collaboration and coalition building efforts between

historically-segregated neighborhoods in Chicago and dozens of EJ organizations. Out of this need to bridge together environmental justice organizations across various neighborhoods in Chicago, a number of alliances/coalitions have emerged including the Chicago Environmental Justice Network (CEJN) and Climate Justice Alliance (CJA) to name a few. These EJ entities played a key role in the 2023 Chicago Cumulative Impact Assessment Report, which established a process between the city, EJ organizations, and community residents "...to identify and address the causes of environmental and climate injustice through policy changes and better enforcement of existing laws, ordinances, and regulations..." in the city. See Figure 4 showing the greatest pollution burdens (darkest color) primarily located on the South and West Sides of the city.

that pollution belongs in certain neighborhoods, these vibrant communities where we live and work and play and go to school are where the city puts warehouses, metal shredders and factories.

- **Alfredo Romo**, Executive Director of Neighbors for Environmental Justice (NE4J) in McKinley Park, Chicago Sun-Times.

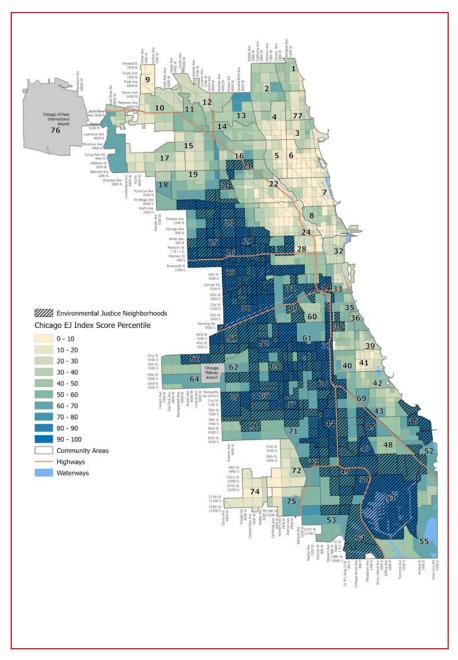


Figure 4: Chicago Cumulative Impact Assessment Report, 2023.

CORE AWARENESS FACTORS

Racial disparities

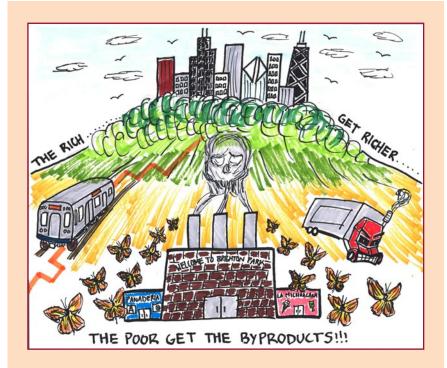
Climate change

To better understand how Latine communities in Chicago and surrounding suburban areas have endured, confronted and/ or adapted to systematic environmental and climate injustices, we begin by underscoring two key awareness factors that are evident throughout the subsequent central themes laid out in the next section of the report: the first is the storytellers' perceptions about environmental racism and the second is their familiarity with environmental challenges including climate change.

Racial disparities

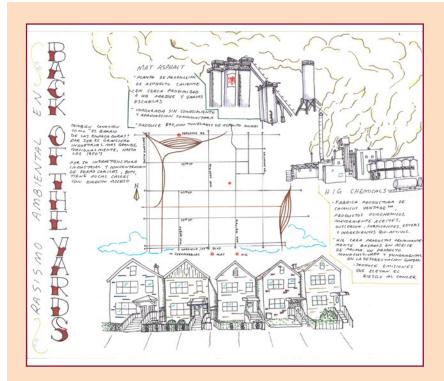
Taking into consideration the roots and unresolved concentration of environmental pollution in Latine and Black neighborhoods located on the South and West Sides of the city with the greatest cumulative impacts¹, it is not surprising that an underlying awareness observed across the stories is about racial disparities. It is broadly understood that environmental racism disproportionately exposes Black, Brown, and Indigenous communities to inequitable living conditions crammed with dangerous pollution and the worst effects of climate change.

The storytellers in this study, repeatedly expressed concerns and frustrations with bearing the brunt of environmental harms in the city and the scarcity of resources available in their communities to buffer and recover from harmful impacts. Some illustrated this disparity by contrasting their neighborhood areas with affluent areas in the city and affirming the deep residential segregation that keeps Latine Chicagoans as one of the most isolated groups.



"To me the downtown area and my neighborhood are completely different worlds, which is the juxtaposition I wanted to show through my visual map. I view the downtown area as a city in the clouds with beautiful "greenery" and fresh clean air. Meanwhile, my neighborhood is filled with factories and warehouses, which has led to poor air quality, less greenery, and more health risks, all because companies want to make more money."

Age: 18-25; Chicago; USA Born.



"...es un barrio segregado con calles amputadas y de alta contaminación, por la area industrial...Tambien conocido como "el barrio de las empacadoras" por ser el granjero industrial mas grande..."

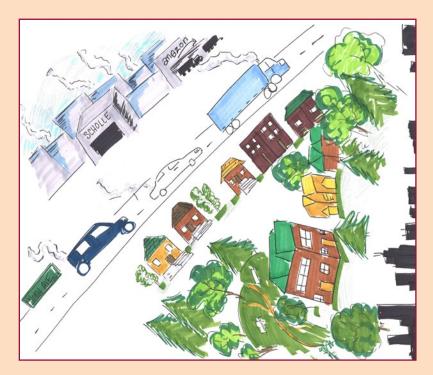
Age: 26-35; Chicago-Near Sacrifice Zone; USA Born.

Translation: "...it is a segregated neighborhood with amputated streets and high pollution, due to the industrial area...Also known as "the packinghouse neighborhood" for being the largest industrial farmer..."



"The wall in the center is symbolic of how Chicago's neighborhoods are so separated. The other side is full of flowers. The dark side is areas of Chicago that are full of companies that create pollution."

Age: 18-25; Chicago; USA Born.



"My story is about the difference between the neighborhoods I grew up to. I grew up in Melrose Park, where we need a car to go everywhere. Moreover, the town next over, North Lake, is where my father works, a factory that makes plastic. Northlake is an industrial town, and is full of pollution. Moreover, last year they added an Amazon warehouse in Melrose, adding to the capitalist agenda in the towns that are Latinx and Black. Now, I live in Oak Park, which is affluent and there is a lot of parks, greens, and a walkable town. The difference between the neighboring towns is striking to me."

Age: 26-35; Chicago; Immigrant.



"...what was surprising was that downtown had the cleanest and lead-free water while black and brown neighborhoods had the worst water. It made me think about how climate change affects people differently."

The concerns shared in the stories and artworks were expanded by a group of storytellers made up of college students who shared their experience when crossing neighborhood boundaries in the city. From field notes:

Student storytellers shared how the UIC campus air is so much cleaner than Little Village and Pilsen and how they can notice this when they ride their bicycles from one place to another and feel their lungs compressing because they have to breathe deeply to catch the air. They contrasted trees around UIC making the air cleaner and trucks in their neighborhoods polluting the air. There was also a conversation about street flooding after a recent downpour and how challenging it was to ride their bikes because the water had nowhere to go and they were skeptical that this was a citywide problem but rather happening more in their neighborhoods.

Key takeaway points

- Storytellers expressed a fairly broad awareness of the persistence of racial disparities within residential segregation that concentrates environmental hazards predominantly in Black and Latine neighborhoods.
- They recognized the city's legacy of industrial pollution, and the pollutants contaminating the air, water, and soil.
- They understand that environmental hazards and climate change impacts individuals differently depending on their residential location.
- We saw a more blunt articulation of racial disparities in the city from storytellers who were young adults between the ages of 18-25 and 26-35 years old.

I view the downtown area as a city in the clouds with beautiful "greenery" and fresh clean air. Meanwhile, my neighborhood is filled with factories and warehouses, which has led to poor air quality, less greenery, and more health risks, all because companies want to make more money.

Climate change

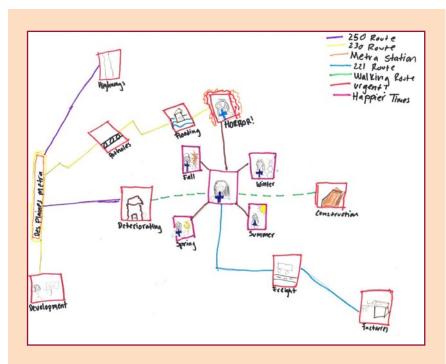
It is noteworthy that while nation-wide studies have shown that climate change remains a lower priority for some Americans (Funk, 2021), the storytellers in our research think this is a significant global issue creating uncertainty about the future. A Pew study indicated that most Latines in the United States say global climate change and other environmental issues impact their local communities (Mora and Lopez, 2021).

Storytellers saw and felt the impacts of climate change in their everyday lives with weather and seasons changing, and the instability they saw in nature. They mentioned events such as floods, crops failing, and extreme heat more broadly happening as the result of climate change. Storytellers who grew up outside the USA acknowledged climate change's global impact from their own transnational experiences when they visited their homelands and saw drastic changes in the landscapes.

Now, a normal day is around 28C and we have months without rain, very dry. This affected in many ways like the crops. I remember a year that we had "sequia" because of this.



"She exited her home and like many others in her community, the weather had her perplexed. Was it snowing, was it sunny? Were the leaves falling or were the flowers growing. She had to get used to a world of uncertainty; where snow could fall on a hot, sunny day..."

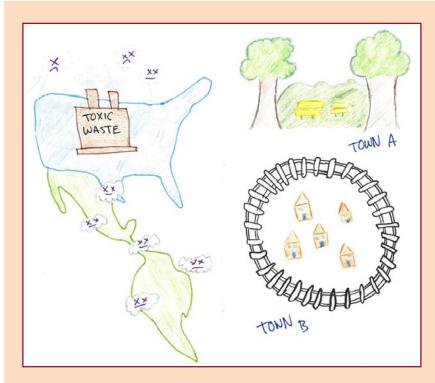


"I moved to Des Plaines when I was 3 years old. I always noticed the weather changes/temp. during when seasons are changing...Also, older houses in extreme heat are getting moldy/flooded. frequently and also highways."

Age: 18-25; Suburb; USA Born.



"Weather is too warm in places it shouldn't be such as places w/ ice and polar bears. I have come across many videos of ice floors breaking/ melting and separating families - polar bear families."

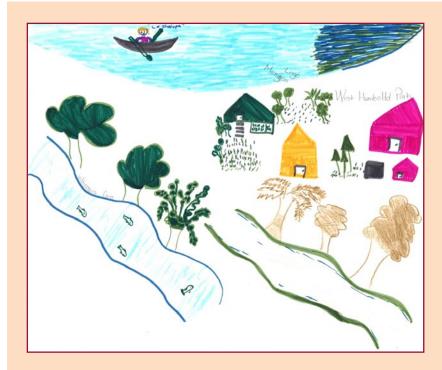


"The houses near the river are a flood risk while wealthier houses stand above. There is also a dumpsite on fire and quarry near a park. Also three bridges are meant to represent lead pipes in various states of disrepair. West side: weird build is our community college. All around are industrial sites that threaten the community (mall and apartments). Failing crops and more intense weather are also present. All roads lead to the hospital over dangerous factories."

Age: 26-35; Suburb; Immigrant.



"I wanted to share about the home I've been in for the longest time. It was a home I never enjoyed being in, except when I was younger. The local businesses around my home made it more valuable as well as the garden space we had in the back, where my dad would plant cucumbers, peppers, and tomatoes. The summit park was also one of my favorite places. It's my favorite park. However, it is housed next to a company that would increase traffic in the park and next to a police station as well. This activity [research session] allowed me to look back at all the places I used to visit and shop from so often, that I once neglected or didn't value and I feel like that's how a lot of us treat the land and climate change. It shouldn't be this way."



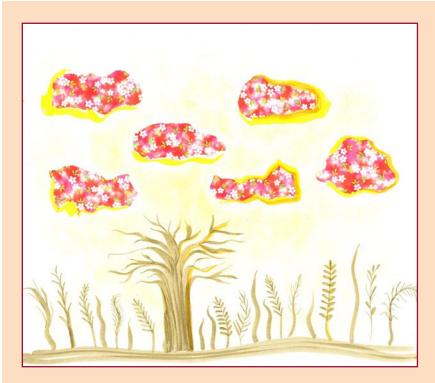
"Vivo en una zona con muchos árboles a mi alrededor, así que crecí visitando un pueblo con un río que se ha secado por la contaminación. Aún vivo en una zona con árboles en West Humboldt Park en Chicago. Me da miedo que el lago Michigan un día comience a secarse por la "contaminación".

Age: 46-55; Chicago; Immigrant.

Translation: "I live in a place where there are a lot of trees all around, I grew up visiting a pueblo with a river that is now dried up due to the contamination. I live in an area surrounded by trees in West Humboldt Park in Chicago. I'm scared Lake Michigan will one day dry up due to pollution."

Some storytellers made references of climate change and environmental pollution in relation to their homeland, often remembering a different kind of landscape and natural world than what they see now.

... and I am always thinking about the harm that climate change is doing to the animals and plants and what will happen when food and water will become more scarce like in my country... but in this country [USA] we don't take this seriously. Que lástima! (what a pity!).



"Weather in El Salvador, the country I grew up in, changed drastically in the last couple of years. The country used to be a little bit "cold" (~18C) but it took a drastic change in 2010's and the temperature raised. Now, a normal day is around 28C and we have months without rain, very dry. This affected in many ways like the crops. I remember a year that we had "sequia" because of this."

Age: 18-25; Chicago-Sacrifice Zone; Immigrant.

The same group of storytellers who shared their transnational experiences with climate change expressed nostalgic memories about growing up with nature in their homeland and wanting to teach their children to care for the environment. They saw environmental pollution tightly linked to climate change as this

was causing more detrimental changes in nature. From field notes:

Two storytellers from Venezuela and Mexico (adults in their 40's and 50's) were showing each other their artworks and pointing out how they remembered their family's *huertas* (kitchen or edible gardens) and *rios* (rivers), which provided their family with fresh food and fish but how difficult it was for them in Chicago to feed their families healthy food. Even life back home was very different now because the landscape had changed so much with more buildings and roads polluting and less open and clean land to grow at least some of the food. They felt that they had the responsibility to teach their children to take care of nature because we were taking too much from it, and making it dirtier, and this was changing the balance between "los humanos y la naturaleza" (humans and nature).

Key takeaway points

- Storytellers expressed general awareness about climate change, which they recognized typically by observing extreme changes in weather, seasons, and nature while mentioning catastrophic impacts like heat, drought, flooding, and crop failings in a broader setting.
- They typically saw climate change in relation to environmental pollution and how the latter was exacerbating climate change.
- Storytellers especially those with recent immigrant backgrounds – understand the impacts of climate change through their transnational connections (e.g., Latin American countries and Chicago).
- Storytellers with recent immigrant backgrounds expressed a strong sense of responsibility toward the environment.

CENTRAL THEMES

Recognizing the critical intersection of environmental and social justice.

Underscoring who the real polluters are and demanding accountability.

Placekeeping and activating cultural assets.

Three central themes organize the recurring concerns, attitudes, and assets shared by storytellers in their written stories and personal maps/artworks. However, it is important to note that many of the stories and/or personal maps/artworks can not be neatly compartmentalized within a theme since their content traverses several of the themes. As a result, stories with their corresponding artwork might appear complete or in fragments under different themes.

- 1. Recognizing the critical intersection of environmental and social justice
- 2. Underscoring who the real polluters are and demanding accountability
- 3. Placekeeping and activating cultural assets

1. Recognizing the critical intersection of environmental and social justice

Environmental Justice leaders and advocates are increasingly making explicit that environmental issues, including climate change, are causing a myriad of harmful social, cultural, economic, health and other impacts on vulnerable communities. Many of which consist of communities who have contributed the least to climate change but are bearing the brunt of the climate crisis. The Just Transition² framework used by EJ organizations helps connect EJ and social issues as it acknowledges that the global environmental and climate crisis is intertwined with the crisis of social and economic inequality. The Climate Justice Alliance states that this framework seeks a just transition of communities and workers from unsafe workplaces and environments to healthy, viable communities with a sustainable economy.

Many of the stories provided insights on how environmental problems including climate change are connected across multiple social issues. The most prominent issues mentioned in the stories were health threats and the fear of further expansion of polluters in their neighborhoods discussed under the Placekeeping theme. Health risks were repeatedly associated with pollutants poisoning the air, water, and land including their negative impact on mental health and concerns about community safety. The link between health and environmental pollution including climate change has been robustly studied establishing how metal exposures exacerbated the symptoms of childhood asthma (Madrigal et al., 2021) and the severe health outcomes of COVID-19 in predominantly Black and Latine low-income communities (Brandt et al., 2020).

A. The smell, taste, and noise of pollution

One of the most cited concerns was neighborhood pollution where contaminated air, water, and land have a clear and distressing effect on the health of residents and their quality of life. Storytellers shared challenges with breathing due to polluted air, the contamination of water, land, and food, and the noise of airplanes polluting the air and disrupting their daily activities.

"

Much of my life's special interactions were at the mercy of any planes who muted me.



"My neighborhood has discussed building a factory in the middle of a town where the town's high school used to stand. Our town would be polluted - it would make it so hard to breathe."

Age: 18-25; Suburb; USA Born.

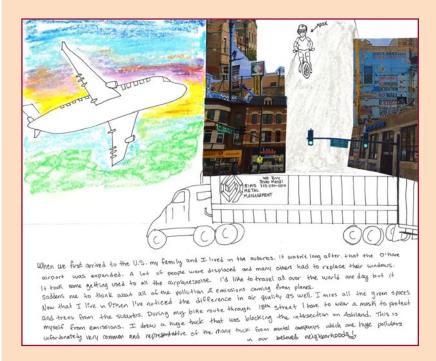


"My map is about water pollution in Chicago. I recently found out that most water in Chicago is contaminated with lead. Lead has a horrible effect on brain function. What was surprising was that downtown had the cleanest and lead-free water while black and brown neighborhoods had the worst water. It made me think about how climate change affects people differently."



"I spent most of my life in West Lawn, the neighborhood of planes. My house was between the airport and a Nabisco and Tootsie Roll factory. The smell of pollution was often masked by the smell of chocolate and sugar. Much of my life's special interactions were at the mercy of any planes who muted me."

Age: 18-25; Chicago; USA Born.



"When we first arrived to the U.S. my family and I lived in the suburbs. It wasn't long after that, the O'hare airport was expanded. A lot of people were displaced and many others had to replace their windows. It took some getting used to all the airplane noise. I'd like to travel all over the world one day but it saddens me to think about all of the pollution and emissions coming from planes. Now that I live in Pilsen I've noticed the difference in air quality as well. I miss all the green spaces and trees from the suburbs. During my bike route through 18th street I have to wear a mask to protect myself from emissions. I drew a huge truck that was blocking the intersection. This represents the many trucks that go through and also the metal company that's also a huge polluter in the neighborhood."

Age: 25-35; Chicago-Sacrifice Zone; Immigrant.

Storytellers noted several obstacles that exacerbated or did not help manage health problems in the community including the lack of clean green spaces and land to grow their own food. From field notes:

This group of mothers were sharing their frustration with the lack of green spaces in their neighborhoods saying that they wished their children had clean spaces to play outside because eating dinner and not exercising was a bad thing but breathing contaminated air was even worse. They showed skepticism about growing food themselves and not knowing if the soil was contaminated, and this "pues seria peor que comer de lata" (would be worse than eating canned food).

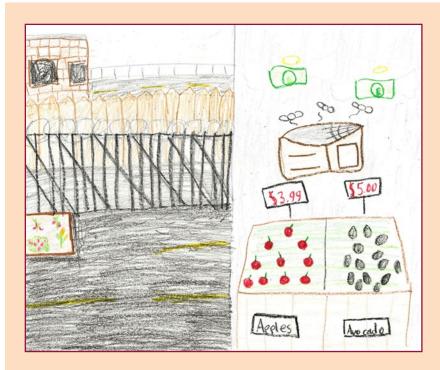
During my bike route through 18th street I have to wear a mask to protect myself from emissions.



"Cuando llevé a mi hijo pequeño al parque me di cuenta que al lado hay una fábrica de metal y me preocupé porque todos los niños que van a jugar respiran el metal molido que sale de esa fábrica. Eso es muy preocupante para la salúd de nuestra comunidad en general."

Age: 36-45; Chicago; Immigrant.

Translation: "When I take my young son to the local park, I notice right next to the park there is a metal shredding factory and I worry that the children that come to play at the park breathe in the shredded metal that comes from the factory. It makes me worry about the overall health of my community."



"In my Uptown apartment as a kid I'd face out into a parking lot of gray, barbed wire fence, asphalt in the parking lot and worn down buildings. My grandfather started a garden in a small dirt patch so we could grow our own food, as prices continued rising. Even then, food grown in the city may be contaminated by pollution."

Age: 18-25; Chicago; USA Born.

I worry that the children that come to play at the park breathe in the shredded metal that comes from the factory. It makes me worry about the overall health of my community.

B. Living my life in fear

Some of the storytellers experience the burden of pollution in their neighborhoods and climate change events with heightened feelings of worry affecting their mental health and well-being. The specific issue of climate anxiety³ especially among youth is surging according to a 2020 national YouGov poll commissioned by climate campaign group Friends of the Earth, which indicated that 70 percent of 18-24 year olds are more worried about climate change than they were a year prior. Concurrently, emerging research has examined the impact of industrial activity on individual well-being and concluded that living near industrial facilities in environmentally hazardous neighborhoods has a negative impact on mental health (Downey and Willigen, 2005).

Many of the storytellers expressed feelings of powerlessness, depression, anxiety, uncertainty, and fear that are driven by their experiences dealing with multi-hazard stressors including local industrial pollution and climate change events, lack of safe and clean public spaces, and the loss of appreciation for nature that are impacting their families and communities.

Create more awareness of climate change.
This way our planet will have happier and healthier beings.



"...y cómo afecta el ambiente Climático en nuestra comunidad/ es la violencia las drogas, el ambiente Climático y la depresión y la ansiedad y las Enfermedades a causa del Clima las alergias y la falta de amor en la familia, los valores, etc."

Age: 36-45; Chicago-Sacrifice Zone; Immigrant.

Translation: "The ways climate change affects my community is violence, drugs, climate change, depression, anxiety, seasonal allergies and the loss of love and values in families."



"Visual presentation of hopelessness and depletion of energy from middle school to college. The change in mindset. From heroic optimism and joy for change to the lack of strength and pessimism from seeing the effects of industrialization/ greed. I'm still working hard of course! But I'm no longer as bright eyed as I used to be."

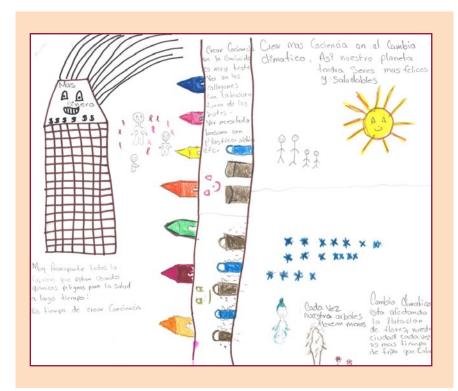
Age: 18-25; Chicago-Sacrifice Zone; USA Born.



"I feel like I always live my life in fear, especially in my community. Why is there so much trash everywhere? Will the world end soon? Will my future family have a place to live healthy and long lives?"

A group of storytellers expressed further concerns about the loss of biodiversity and felt that they needed to teach their children more about respecting nature. From field notes:

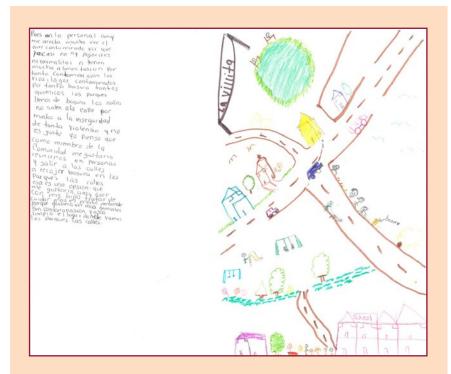
The discussion on how birds and certain flowers were not visible to them kept coming back between three women who were mothers or caregivers. They lamented how their children were not having the same relationship they had growing up in Mexico and Venezuela with *animalitos* (little animals) playing outdoors, and running under the rain. They believe this was going to affect their children's mental health and hurt the planet more, which was already suffering from climate change. They were eager to teach their children about taking care of the *naturaleza* (nature) by creating *conciencia y agradecimiento* (consciousness and gratitude).



"Crear conciencia en cada ser humano especialmente sobre las autoridades. ¿Cómo será nuestro planeta a largo tiempo? Familias con más enfermedades, familias tristes! ¿A dónde está el bienestar ambiental? Hagamos conciencia, queremos ser humanos sanos y felices. Muy preocupante todas las fábricas que están usando químicos peligrosos para la salud a largo tiempo: Es tiempo de crear conciencia. Crear conciencia en la comunidad. Es muy triste ver en los callejones la basura fuera de los botes. Ver mezclada basura con plástico, vidrio, etc. Crear más conciencia en el cambio climático. Así nuestro planeta tendrá seres más felices y saludables. Cada vez. Nuestros árboles florecen menos. El cambio climático está afectando la plantación de flores..."

Age: 36-45; Chicago-Sacrifice Zone; Immigrant.

Translation: "Create awareness in every human being, especially about the authorities. What will our planet be like in the long term? Families with more illnesses, sad families! Where is environmental well-being? Let's raise awareness, we want to be healthy and happy humans. All the factories that are using chemicals that are dangerous to health for a long time are very worrying: It is time to raise awareness. Raise awareness in the community. It is very sad to see the garbage outside of the cans in the alleys. See garbage mixed with plastic, glass, etc. Create more awareness of climate change. This way our planet will have happier and healthier beings. Every time. Our trees bloom less. Climate change is affecting flower planting..."



"Pues en lo personal a mi me afecta mucho ver el aire contaminado ver que ya casi no hay pájaros ni animalitos no tienen mucha alimentación por tanta contaminación los ríos, lagos contaminados por tanta basura tantos químico, los parques llenos de basura, los niños no salen a la calle por miedos a la seguridad de tanta violencia y no es justo yo pienso..."

Age: 26-35; Chicago-Sacrifice Zone; Immigrant.

Translation: "Personally, I am very affected by air pollution. I notice that there are barely any birds or animals, there's not enough food for them because of how polluted the rivers are, chemical dumping in the lake, parks are filled with trash, kids can't play outside because of the violence, to me this isn't right..."

Key takeaway points

- The issue of health surfaced as a significant concern and mostly linked to environmental pollution.
- Storytellers described with precision the pollutants they witnessed in their communities and how these were impacting the health of their families.
- They also highlighted the detrimental effects on their mental health describing feelings of anxiety, hopelessness and fear about the future.
- The loss of gratitude and connection with nature surfaced as a prominent concern among immigrant storytellers making them determined to teach their children about respecting nature.

The ways climate change affects my community is violence, drugs, climate change, depression, anxiety, seasonal allergies and the loss of love and values in families.

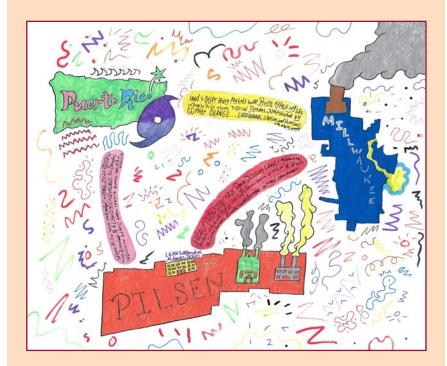
2. Underscoring who the real polluters are and demanding accountability

Storytellers, especially those living in Chicago's sacrifice zones or adjacent to these areas, were well aware of the sources of pollution in their neighborhoods that were emitted by factories, warehouses, highways, trucks, big businesses, and corporations. They named capitalism and these entities as the real polluters and community destroyers, who were allowed to continue their harm for the sake of profits. Their assertion aligns with author and climate justice scholar Naomi Klein (2014) who had long argued that the economic and ideological model of free-market capitalism with its profit-driven industries - fossil fuel companies among the most harmful - and their endless exploitation of natural resources continue to propel us into a climate catastrophe and deepening inequality.

A. "...masked by the smell of chocolate and sugar"

Storytellers cited polluters by name and noted the vast industrial concentration that plagues their neighborhoods with specific kinds of pollutants. They remembered specific incidents that prompted rampant pollution in their neighborhoods and the aftermath of these events.

Will my future family have a place to live healthy and long lives?



"For generations, the residents of the Pilsen neighborhood have been subjugated to heavy metals in the air, water, and homes due to industries that are nearby. As of recently the descordion of the Hilco smoke stack releasing harmful pollutants is an example of this ongoing problem. However there have been huge efforts of resilience and movement to help stop this effort."

Age: 26-35; Chicago-Sacrifice Zone; USA Born.



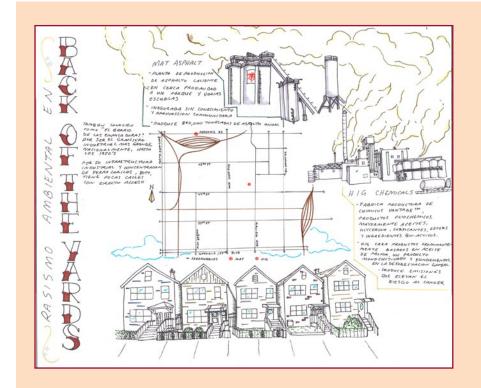
"MAT Asphalt is owned by Micheal Tadin Jr., a city contractor whose father Micheal Tadin Sr. was part of the Hired Truck Scandal. In 2018 MAT Asphalt began construction of their plant in our neighborhood across from our breathing space and gorgeous park in McKinley... I worry about how the pollution is affecting our children and the nearby neighbors."

Age: X; Chicago-Sacrifice Zone; USA Born.



"I live in Hegewisch and there are a lot of factories there. Since there are a lot of factories. There is pollution everywhere. These factories also want to expand and start slowly destroying the community."

Age: 18-25; Chicago-Near Sacrifice Zone; USA Born.



"Mi barrio de nacimiento es Back of the Yards, una comunidad mayormente obradora y latinx. Históricamente BOTY ha sido una comunidad migrante por la industria de procesamiento de carne. Por la misma razón es un barrio segregado con calles amputadas y de alta contaminación, por la área industrial... También conocido como "el barrio de las empacadoras" por ser el granjero industrial más grande, nacionalmente, hasta los 1950s. Por su infrastructure industrial y concentración de ferrocarriles, BOTY, tiene pocas calles con directo acceso."

Age: 26-34; Chicago-Near Sacrifice Zone; USA Born.

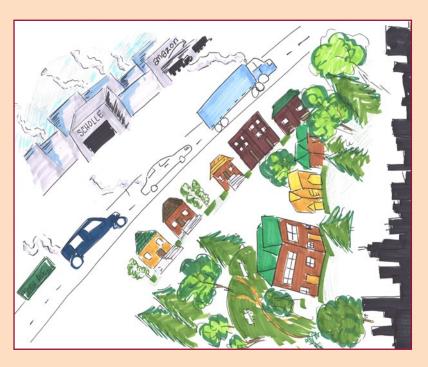
Translation: "My neighborhood of birth is Back of the Yards, a largely working-class and Latinx community. BOTY has historically been a migrant community due to the meat processing industry. For the same reason it is a segregated neighborhood with amputated streets and high pollution, due to the industrial area... Also known as "the packinghouse neighborhood" for being the largest industrial farmer, nationally, until the 1950s. Due to its industrial infrastructure and concentration of railways, BOTY has few streets with direct access."

In 2018 MAT Asphalt began construction of their plant in our neighborhood across from our breathing space and gorgeous park in McKinley . . . I worry about how the pollution is affecting our children and the nearby neighbors.



"I spent most of my life in West Lawn, the neighborhood of planes. My house was between the airport and a Nabisco and Tootsie Roll factory. The smell of pollution was often masked by the smell of chocolate and sugar. Much of my life's special interactions were at the mercy of any planes who muted me."

Age: 18-25; Chicago; USA Born.



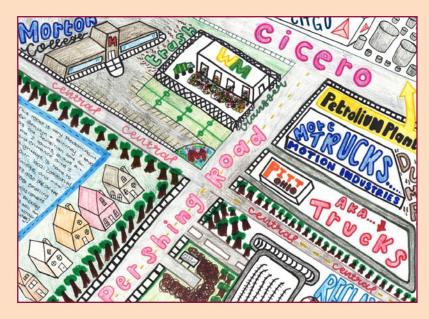
"...North Lake is where my father works, a factory that makes plastic. Northlake is an industrial town, and is full of pollution. Moreover, last year they added an Amazon warehouse in Melrose, adding to the capitalist agenda in the towns that are Latinx and Black..."

Age: 26-35; Suburb; Immigrant.



"My area, which used to be all corn fields and open air, is slowly turning into a warehouse stripmall collections. What used to be open grass fields now is blocked by new ugly gray buildings. Even the trees I have always seen, now have been cut down to accommodate."

Age: 18-25; Suburb; USA Born.



"This road is very predominant for Berwyn and Stickney. It serves as the transition zone for 2 towns, allows exit and entrance onto 2 highways home to our local community college, and more! It's also one of the worst smelling areas/streets in Stickney as well. Hmmm, I wonder why? My map highlights some of the negative environmental factors located (or more so clustered) on a major street. From water reclamation to Garbage transfers and petroleum, it's obvious these all sit next to each other b/c they don't want to be seen everywhere. These sit inside and adjacent to primarily latin communities."

Storytellers' acute awareness about current and future polluters in their neighborhoods and their everyday coexistence with these entities also came across in field notes:

Two UIC students from Little Village said that Hilco and Amazon were conspiring to make people believe that the jobs this warehouse was going to bring were all for people in the neighborhood but that in reality it was going to be for low wage positions only. They believed that the managerial positions were going to be filled by people outside the community and even the city. They said that they had enough trying to coexist with the Hellman's factory and the trucks rumbling in and out disregarding their neighbor Zapata Elementary.

B. "... Pero ellos tienen que oírnos si no - de qué sirven?" "... But they need to listen to us, if not - what are they good for ?."

The storytellers' clarity on who the real polluters are and their frustration with city officials who put the interests of businesses over the wellbeing of the residents is also captured in our field notes from a research session held at the local Chicago Public Library in McKinley Park:

Storytellers described their experiences with rising tensions between local environmental activism and the city's response to those efforts. Many of them were closely associated with N4EJ, a McKinley Park-based environmental organization. Conversation emerged around what storytellers identified as a major area of concern for residents in the neighborhood: the continued development of MAT Asphalt and the demolition of the Damen Silos4 owned by the same owner. At least three of the storytellers attended an in-person community meeting held on August 22nd, 2023 at the Arturo Velasquez Institute where the demolition of the Damen Silos was discussed. Storytellers said that in this meeting hosted by city officials and MAT Asphalt/Damen Silos team,

community attendees voiced their concerns about the demolition, especially after the fiasco of the Crawford Plant demolition in 2020 in Little Village, and instead want the Damen Silos to be preserved as a historical site.

Despite the meeting being advertised as a community-input meeting, they said they were censored when it came to voicing their concerns. An example shared was when during the Q & A portion of the meeting the microphone was shut off if a community member's behavior wasn't deemed "appropriate." A follow up email was sent to attendees that was supposed to answer the unanswered questions but instead, they felt that the loosely thrown together email with different font types and sizes was showing disrespect for community members' input and voices.

The frustration of the storytellers at the McKinley Park session was echoed by storytellers from Centro San Bonifacio on the North side of the city. Here, the storytellers considered that their own good environmental practices were limited in helping the climate crisis. They believed that the blame lies squarely with the industries and businesses that care about profits and the elected officials who want to keep their jobs. From field notes the statement of a storyteller:

"Es muy poco lo que nosotras podemos hacer, pues tratar de no comprar mucho y reciclar y usar cosas que ya son usadas pero los industriales avariciosos son los culpables y los políticos que 'dicen' nos representan pero solo les interesan sus puestos. Pero ellos tienen que oírnos si no - de qué sirven?

Translation: "There is very little that we can do, like not to buy too much, recycle and reuse, but the greedy industries are to blame as well as our politicians who 'claim' that they represent us but only care about their jobs. But they need to listen to us, if not- what are they good for?."

Key takeaway points

- Storytellers who live in environmentally burdened areas are keenly aware of who the polluters in their neighborhoods are, the kind of pollution they release, and how this affects their health and quality of life.
- They are rejecting individual blame for the climate crisis and blaming the industries in their neighborhoods for polluting and exacerbating climate change.
- They offset the harmful environmental conditions in their neighborhoods with the positive things that residents are doing or wish to do.
- They expressed frustration with the lack of respect they received from these polluters and blamed city officials for being on the side of polluters and disregarding the community input and voices.

My house was between the airport and a Nabisco and Tootsie Roll factory. The smell of pollution was often masked by the smell of chocolate and sugar.

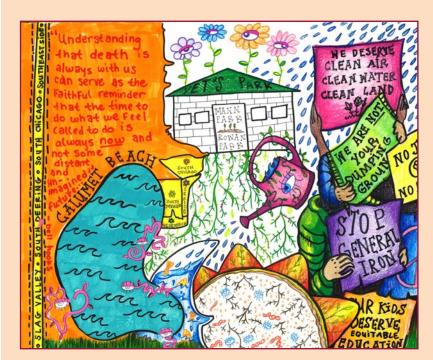
3. Placekeeping and activating cultural assets

A sense of place is a central dimension of personal and collective meaning and relationships, and communities rely on the cultural memories associated with places like a neighborhood to preserve the places they call home and sustain a sense of belonging. Advocates of placekeeping - an alternative to placemaking, which can propel gentrification and racism - "hope that placekeeping efforts will help to create and preserve equitable, self-determined places" (Calumet Heritage Conference, 2021).

There is a growing recognition that placekeeping is an effective strategy for environmental justice as in its core practice it aims "to preserve a place's existing community and cultural assets while working to improve its condition" (Project for Public Spaces as cited in Welch 2018). Also at the core of environmental justice is the recognition that solutions need to be relevant to the people and places they call home.

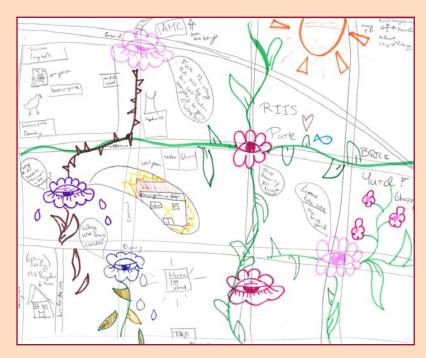
A. Sustaining a sense of place amidst dire environmental harms

The fear of community loss and displacement due to further environmental polluters expanding or coming into the neighborhoods are recognizable threats shared in the stories, artworks, and conversations that took place among storytellers. Importantly, storytellers disrupted the existing environmental dire conditions in their neighborhoods with a sense of hope, pride, and determination to improve community life. Naming the neighborhoods and their geographical location as well as highlighting their natural, cultural, and social assets was a common exercise that we saw in many of the stories and artworks as a way to sustain a sense of place and resist further environmental damage in their neighborhoods. A sense of place is considered to emerge out of attachment to a place and the symbolic meaning that people give to the place (Hintz, Solin and D'Amore, 2016). Thus, nourishing and maintaining a sense of place is a dynamic exercise in placekeeping.



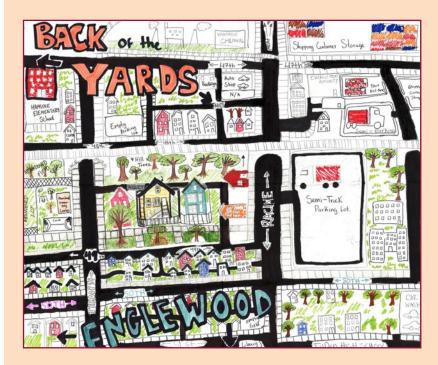
"A "map" of the community I grew up in, where my family still lives and continues to live in South Chicago- heavily impacted by the fall of the Steel Mill industry, factories, environmental impacts - despite all this, South Chicago is where new generations are being blossomed and grown. Our neighborhood has changed, there's more work to be done, but as a community we are creating changes and making efforts to secure HEALTHY, equitable and liberated futures for all of us!"

Age: 18-25; Chicago-Near Sacrifice Zone; USA Born.



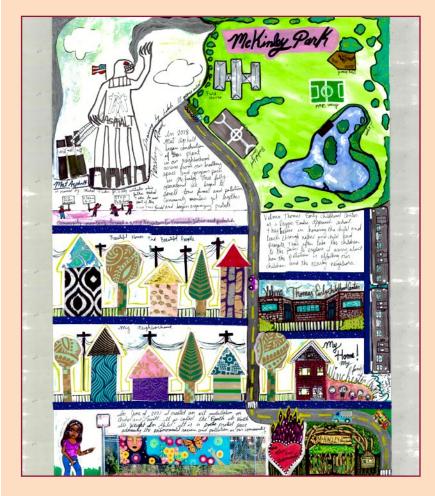
"I did my map of Belmont Cragin, which is a neighborhood I lived the longest at - so 7 years, 5th grade until the end of freshman year of college. I draw from memory because I haven't been there in years. I drew the schools and locations I remember. What I drew were flowers watching the neighborhood and speaking their mind about the environment or at least, the lack of their presence."

Age: 18-25; Chicago; USA Born.



"My map is somewhat geographically accurate. There are more trees in real life but there are also more abandoned homes, the industrial spaces are getting bigger and there is a lot more traffic."

Age: 18-25; Chicago; USA Born.



"...I worry about how the pollution is affecting our children and the nearby neighbors. In June of 2021 I created an art installation on Archer and Leavitt. It is called the "Earth Is Worth It's Weight In Gold!" It is a poetic protest piece addressing the environmental racism and pollution in our community."

Age: X; Chicago-Sacrifice Zone; USA Born.



"...the garden space we had in the back, where my dad would plant cucumbers, peppers, and tomatoes. They were the best. Always so green and full of life despite the dry clayiness of the land. The summit park was also one of my favorite places. It's my favorite park. However, it is housed next to a company that would increase traffic in the park and next to a police station as well. This activity allowed me to look back at all the places, I used to visit and shop from so often, that I once neglected or didn't value and I feel like that's how a lot of us treat the land and climate change. It shouldn't be this way. I connected it all to colorful scribble, illustrating growth, change, lessons, and grief, as I continue to live and learn and better the communities I'm a part of."

Age: 18-25; Suburb; USA Born.



"What I instantly thought of was my dad and I sitting in front of the skyline. He always says, "Imagine all the stars we could see if light pollution wasn't an issue." As a native Chicagoan, I've always treasured the skyline. It hurts to see something so beautiful be so harmful. This made me think of the possibilities throughout the rest of the world."

Age: 18-25; Chicago; USA Born.

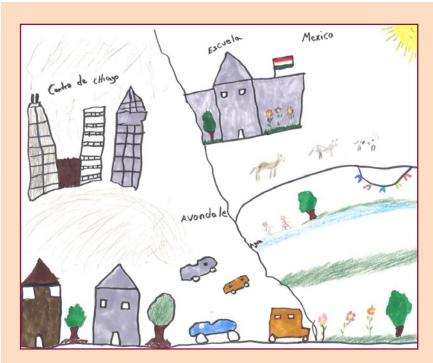
B. Community Assets: Heritage traditions and practices

We found that storytellers' cultural practices, traditions, and values plus their life situation in Chicago and abroad shape the way they perceive issues affecting them and the actions they take to manage environmental pollution and more broadly climate impacts. Their cultural assets⁵ whether tangible or intangible are often highlighted in their stories, artworks and the conversations we heard. From field notes:

In a session conducted with immigrant mothers, there were many connections made between environmental toxins. gang violence and the environmental knowledge they brought from their homelands. The storytellers, all of whom identified as caregivers and predominantly resided in Little Village, addressed the fear of going outside but knowing it's important for mental health. For example, using nature to recenter themselves amidst environmental and societal harms while being limited in their access to local green spaces. They emphasized the importance of community gardens in a neighborhood that is deprived of green space and impacted by heavy levels of industry and truck traffic. They discussed community wellness as caring for the physical environment, each other, and having equitable access to education and food. They illustrated maps with a focus on how knowledge is power and access to education is an environmental justice issue by questioning why a predominantly working class immigrant Latine neighborhood, Little Village, has a high rate of violence, hyper-policing, underfunded schools, a sacrifice zone with major pollution, and limited access to healthy food. They emphasized that despite all of these factors, their communities have resisted all of these harms by working with community organizations like Enlace, LVEJO, and local schools and community churches.

Some storytellers remembered and drew upon values and traditions from their community of origin that are environmentally friendly, others organized creative efforts to bring awareness and take action, and significantly they shared a sense of responsibility toward the environment to improve the well-being of their communities.

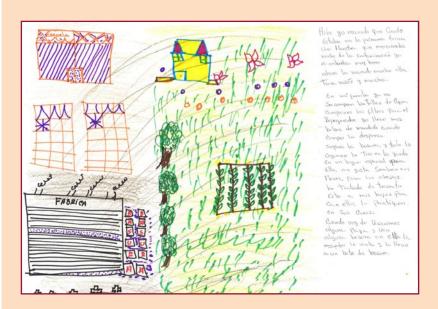
... the [Damen] Silos is part of this neighborhood identity past and present, and the new owner and city officials ignore what this means for the community. We have a lot of artists in this community that can help with the restoration and make it beautiful again.



"Mi historia es sobre la contaminación que hay ahora cuando yo estaba en mi pais que es méxico era muy bonito y sano sin contaminación porque se lavaba la ropa en el río y se secaba la ropa con el sol. No había muchos carros y ahora en Chicago hay muchos carros, mucha contaminación en el aire con tantos carros."

Age: 46-55; Chicago; Immigrant.

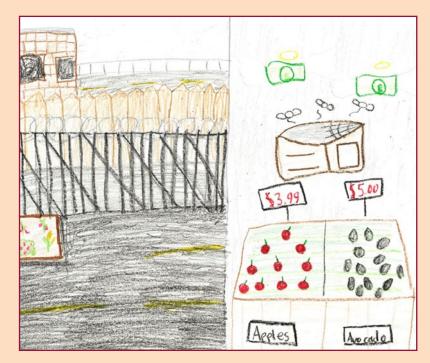
Translation: "My story is about the pollution that now burdens my country. Mexico was beautiful and without pollution, we washed our clothes in the river and dried them in the sun. There weren't a lot of cars, and now here in Chicago there's a lot of cars and contamination in the air from those cars."



"En mi familia ya no se compran botellas de agua compramos los filtros para el refrigerador. Yo llevo mis bolsas de mandado cuando compro la despensa. Separo la basura, y todo lo organico lo tiro en la yarda en un lugar especial. Para ello, me gusta sembrar mis flores, para las abejas. He tratado de transmitir esto a mis hijos para que ellos los practiquen en sus casas. Cuando voy de vacaciones alguna playa y veo alguna basura en ella la levanto y la llevo a un bote de basura."

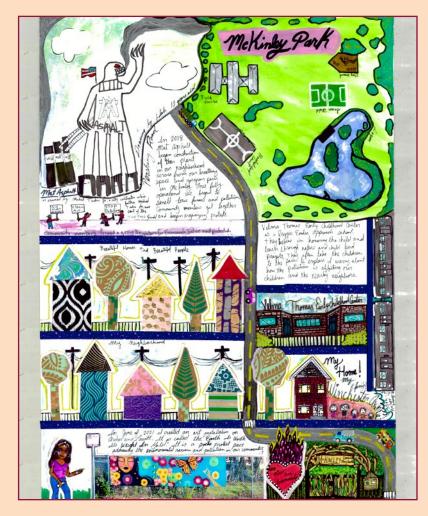
Age: 56 or older; Chicago; Immigrant.

Translation: "In my family we no longer buy water bottles, we buy filters for the refrigerator. I carry my grocery bags when I shop for groceries. I separate the trash, and I throw everything organic in the yard in a special place. For this, I like to plant my flowers, for the bees. I have tried to pass this on to my children so that they can practice them at home. When I go on vacation to a beach and I see some trash on it, I pick it up and take it to a trash can."



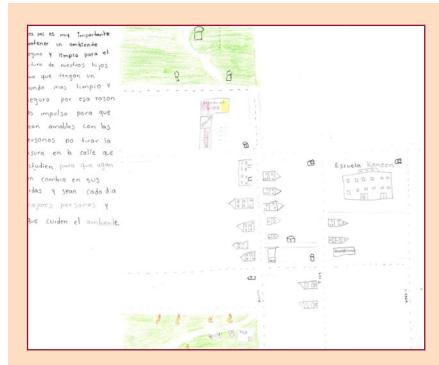
"In my Uptown apartment as a kid I'd face out into a parking lot of gray, barbed wire fence, asphalt in the parking lot and worn down buildings. My grandfather started a garden in a small dirt patch so we could grow our own food, as prices continued rising. Even then, food grown in the city may be contaminated by pollution."

Age: 18-25; Chicago; USA Born.



"...in June of 2021 I created an art installation on Archer and Leavitt. It is called the "Earth Is Worth Its Weight In Gold!" It is a poetic protest piece addressing the environmental racism and pollution in our community."

Age: X; Chicago-Sacrifice Zone; USA Born.



"...como miembro de la comunidad me gustaría reunirnos en personas y salir a las calles a recojer basura en los parques las calles esa es una opción que me gustaría a mi hacer con mis hijas tratar de cuidar mas el medio ambiente porque quisiera ver mas animales sin contaminacion y mas limpio el lugar donde vivimos como los parques y las calles."

Age: 26-35; Chicago; Immigrant.

Translation: "...as a member of the community I would like to get together as people and go out to the streets to pick up trash in the parks, the streets, that is an option that I would like to do with my daughters, try to take better care of the environment because I would like to see more animals without pollution, and cleaner places where we live like the parks and streets."



"...como consecuencia [de cortar arboles] esto trajo que haga mas calor en el verano y en época de lluvia se inunda la calle ya que no hay suficiente superficie donde el agua pueda ser absorbida. Pienso que es fundamental crear campañas de reforestación, ya que no solo ayuda a evitar inundaciones sino que purifican el ambiente y refrescan el aire."

Age: 36-45; Chicago; Immigrant.

Translation: "...as a consequence [of cutting down trees] this made it hotter in the summer and in the rainy season the street floods since there is not enough surface area where the water can be absorbed. I think it is essential to create reforestation campaigns, since it not only helps prevent floods but also purifies the environment and refreshes the air."



"When MAT is gross it makes me sad, the garden makes me happy again. It's the heart of my environmental journey. I love compost and its smell. In the map the delicious smell [of compost] is taking over the asphalt smell. There's some days that my dog doesn't even want to walk cuz it smells so bad."

Age: 18-25; Chicago; USA Born.



"...también decirles [a mis hijos] lo importante que es sembrar árboles, de no tirar la basura en la calle, de mantener las calles limpias porque todo esto es malo para nosotros y vecinos."

Age: 46-55; Chicago-Sacrifice Zone; Immigrant.

Translation: "...also I tell [my children] how important it is to plant trees, not to throw garbage in the street, to keep the streets clean because all this is bad for us and neighbors."

Conversations among storytellers that centered on the significance of cultural assets such as historical buildings and nature-based built spaces like parks took place in various groups. These conversations alluded to the role of these community assets symbolizing the identity and heritage of a neighborhood and the residents' efforts to protect these assets. From field notes:

Three UIC students brought up the Riot Fest at Douglass Park saying how outsiders come into the neighborhood and destroy the park that for many days neighborhood children and their families can not use because the city takes too much time to clean up. For them, this was a "shame" and a form of destabilizing their neighborhood, with more trash, noise, and a lot of traffic. Two of them said that they attended a meeting where the permit for the park was discussed and some residents opposed it but some businesses in the community saw it as an economic opportunity.

In another group made up of storytellers from McKinley Park, the concerns residents were voicing about the demolition of the Damen Silos (previously highlighted) centered around a few concerns: the implosion of the silos intensifying air pollution; mistrust about the new owner who was an established polluter in the neighborhood; desire to preserve the silos as a historical site since it represents a particular identity of the area; and acknowledging its current usage as a site of artistic expression by artists and youth from the area.

Key takeaway points

- Storytellers expressed significant concerns about community loss or displacement due to the ongoing expansion of polluters in their neighborhood aggravating further harms to the community.
- They recognized that their cultural assets and nature-based heritage will suffer both direct and indirect impacts as a result of environmental injustices and more broadly climate injustices.
- They deployed a wide range of cultural assets to resist further environmental damage in their neighborhoods that include sustaining a sense of place/belonging (placekeeping); revitalizing environmentally friendly practices from their home land, which was significant among immigrant storytellers; getting involved in local EJ advocacy; and embracing a holistic community wellness approach that took care of people and the environment.

CONCLUDING DISCUSSION Credit: Rosa M. Cabrera

The purpose of our study was to gain a better understanding of how Latine communities in Chicago and surrounding suburbs experience, cope, and contest the disparate impacts of pollution and extreme climate change events.

Conceptions and framing of climate change

This study has found that generally the storytellers recognized climate change through their experiences with extreme changes in weather and seasons with an occasional mention of floods and heat waves. Storytellers with recent immigrant backgrounds reported memories of a different landscape in their homeland that had drastically changed due to climate events such as heat and droughts. Storytellers had a lot to say about environmental pollution and occasionally paired it with climate change to imply that pollution exacerbates climate events. Their framing of climate change within environmental pollution is not surprising since the issue of pollution has been at the forefront of the EJ movement focused on local impacts experiences while the climate change movement for a long time was understood in terms of global warming and the imperative to retire fossil fuels. In the last two decades, the climate change movement has aligned more with the EJ movement by acknowledging that the climate crisis affects the most disadvantaged communities making it very challenging to recover from climate disasters. One of the stories in this study declared that "climate change is an environmental justice issue" and this is a guiding statement that helps us see how people who have been historically exposed to environmental harms generally frame and recognize climate change. It is not coincidental that storytellers living in the city and particularly residing in sacrifice zones or near these areas recognized the association of residential racial segregation and concentration of environmental hazards in predominantly Black and Latine neighborhoods.



Climate change is an environmental justice issue.

Climate change exacerbating current inequities in Latine communities in Chicago

Mental health: The issue of environmental related health hazards, which has been significantly tracked and reported in studies looking at Black and Latine communities, was raised as a top concern in our study. However, what surfaced as a significant companion was the harm on mental health that environmental issues including the climate crisis was causing on them. Climate events degrade the social and environmental health determinants of physical and mental health including clear air and water, sufficient food, secure shelter, and safe working conditions. Considering that Latines are among the top groups being harmed disproportionately by climate change since they have higher rates of health risks and receive lowerquality health care (Colon-Rivera and Plata, 2021) coupled with the growing climate related displacement that is forcing people from Latin American countries⁶ to find refuge across the USA border, the inequities in Latine communities are poised to worsen.

Community displacement: Urban development efforts with promises of community reinvestment are painfully familiar to low-income Chicago residents as they are commonly forced out of their neighborhoods by increased rents and property taxes. In our study, a different kind of community displacement concerned the residents. They were worried about current polluters expanding or new ones setting shop in their neighborhoods and further disrupting their lives.

In recent years massive warehouses sprouted across the Chicago metro according to a Chicago Tribune report (2023) as online orders increased since the COVID pandemic and many retailers shifted to online-first. This aligns with a new study where medium to large trucks driving through 17 Chicago neighborhoods were counted, showing a disproportionate number of trucks passing through Black and Latine neighborhoods (Chicago Truck Count Data Portal, 2023). These increasing pollutants and the unsettling feelings of future displacement that residents are experiencing are serious environmental stressors that are elevating inequities in Latine communities in Chicago.

Community and household coping strategies

Placekeeping, heritage-based assets, and holistic wellness: Latine neighborhoods exist as tangible physical spaces that residents give meaning through their cultural knowledge and creative practices. Latines in Chicago are deploying a wide range of cultural and community assets to resist further environmental damage in their neighborhoods that include sustaining a sense of place/belonging (placekeeping); revitalizing environmentally friendly practices from their homeland, which was significant among immigrant storytellers; getting involved in local EJ activism; and embracing a holistic community wellness approach that take care of people and the environment through forms of mutual aid, art-making, and advocacy.

Harnessing hope, elevating pride, and nourishing determination to improve community life and sustain a sense of place is a major coping strategy that Latines are employing to disrupt the existing environmental dire conditions that affect their families, communities, and the place they call home.

installation on Archer and Leavitt. It is called the "Earth Is Worth Its Weight In Gold!" It is a poetic protest piece addressing the environmental racism and pollution in our community.

NOTES

- 1. The 2023 Chicago Cumulative Impact Assessment report states that cumulative impacts refers to aggregated pollution of air, water, and land over time and how the accumulation of these pollutants, coupled with social determinants of health and other stressors affects individuals and communities.
- 2. "Just Transition" is a principle, a process and practice. The principle of just transition is that a healthy economy and a clean environment can and should co-exist. The process for achieving this vision should be a fair one that should not cost workers or community residents their health, environment, jobs, or economic assets. Any losses should be fairly compensated. And the practice of just transition means that the people who are most affected by pollution the frontline workers and fenceline communities should be in the leadership of crafting policy solutions." Just Transition Alliance Climate Justice Alliance https://climatejusticealliance.org/just-transition/
- 3. Climate change anxiety also referred to as eco-anxiety, climate doom and eco-grief is explained as "fundamentally distress about climate change and its impacts on the landscape and human existence [which] can manifest as intrusive thoughts or feelings of distress about future disasters or the long-term future of human existence and the world, including one's own descendants." (Sustainability Yale, https://sustainability.yale.edu/explainers/yale-experts-explain-climate-anxiety).
- 4. The Damen Silos, originally built in 1906 is a reminder of Chicago's role in the grain industry. While it has not been in "working" use since 1977, the Damen Silos now represents a cultural symbol for Chicago's role in the industry especially for those on the Southwest Side and McKinley Park in

- particular. Additionally, the Damen Silos have been used as a site of artistic expression including street artists, video and filmmaking, activism and even underground raves. In 2022, the Silos were bought out by MAT Asphlat's owner, Michael Tadin Jr. for \$6.52 million dollars. Without any community involvement, the Silos were sold to what is now considered (by community standards) McKinley Park's biggest polluter.
- 5. "Cultural Assets" refers to the legacy of physical artifacts (cultural property) and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. Cultural assets include tangible culture such as buildings, monuments, landscapes, books, works of art, and artifacts, intangible culture such as folklore, traditions, language, and knowledge), and natural or nature-based heritage, including culturally significant landscapes and biodiversity. Borrowed from the Cultural Assets & Climate Change Literature Review and Research Synthesis by Susan McIntyre-Tamwoy & Alice Buhrich. The Cairns Institute, James Cook University, Cairns Qld. August 2012.) https://researchonline.jcu.edu.au/23611/
- The World Bank predicts that more than 216 million people could be displaced by climate change by 2050 with 17 million of those coming from Latin America putting pressure on migration, food supplies and housing.

REFERENCES

- Adger, W.N. 2006. Vulnerability. Global Environmental Change, 16, 268-281. http://dx.doi.org/10.1016/j.gloenvcha.2006.02.006
- Brandt E.B., A.F. Beck, and T.B. Mersha. Air pollution, racial disparities, and COVID-19 mortality. J Allergy Clin Immunol. 2020 Jul;146(1):61-63. doi: 10.1016/j.jaci.2020.04.035. Epub 2020 May 7. PMID: 32389591; PMCID: PMC7204717.
- Browne, A. 2023. Explainer: What Is Climate Anxiety?. Earth.org: https://earth.org/what-is-climate-anxiety.
- Bullard, R. D. 2011. Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States. Environmental Health Perspectives.
- Chase, B. 2022. Seven months before smokestack's botched implosion smothered Little Village in dust, Chicago city inspector issued dire warning. Chicago Sun-Times: https://chicago.suntimes.com/2022/8/5/23292152/hilco-crawford-coal-plant-implosion-warning-john-kryl-dust-cloud-little-village.
- Chase, B. 2023. South and West Siders plead for law to end pollution 'sacrifice zones. Chicago Sun-Times: https://chicago.suntimes.com/2023/10/3/23902125/hud-environmental-justice-brandon-johnson-general-iron.
- Chicago Truck Count Data Portal. 2023. Little Village Environmental Justice Organization (LVEJO), Fish Transportation Group, Inc and CNT. https://chicagotruckcounts.cnt.org/#reports.

- Chicago Sustainable Industries. Resources: Industrial Corridors: www.chicago.gov/dam/city/depts/zlup/Sustainable_Development/Publications/Chicago_Sustainable_Industries/CSI_3.pdf.
- Colon-Rivera, H.A. and G. Plata. 2021. The Effects of Climate Change on Hispanic and Latinx Communities. https://www.psychiatrictimes.com/view/the-effects-of-climate-change-on-hispanic-and-latinx-communities.
- Downey, L. and M. Willigen. 2005. Environmental stressors: The mental health impacts of living near industrial activity. Journal of Health and Social Behavior, 46(3), 289-305. https://doi.org/10.1177/002214650504600306
- Funk, C. 2021. Key findings: How Americans' attitudes about climate change differ bygeneration, party and other factors. Pew Research Center: https://www.pewresearch.org/short-reads/2021/05/26/key-findings-how-americans-attitudes-about-climate-change-differ-by-generation-party-and-other-factors/ Accessed on May 26, 2021.
- Hintz, C., J. Solin, and C. D'Amore. 2016. Sense of Place Matters:
 Community of Practice Resources for Conservation: https://www.communityecologyinstitute.org/uploads/1/2/3/0/123096770/placematterscommunityofpracticeresourcesforconservation_formatted.pdf
- Klein, N. 2014. This changes everything: capitalism vs. the climate. New York: Simon & Schuster.
- Madrigal, J.M., V. Persky, B.P Jackson, et al. 2021. Assessment of Metal Concentrations and Associations with Pulmonary Function among Children with Asthma in Chicago, Illinois. Int. J. Environ. Res. Public Health 2021, 18, 7279. https://www.mdpi.com/1660-4601/18/14/7279

Mora L. and M.H. Lopez. 2021. Most U.S. Latinos say global climate change and other environmental issues impact their local communities. Pew Research Center: https://www.pewresearch.org/short-reads/2021/10/04/most-u-s-latinos-say-global-climate-change-and-other-environmental-issues-impact-their-local-communities/.

Mulvihill, K. 2020. Environmental Justice in Chicago: It's Been One Battle After Another. NRDC: https://www.nrdc.org/stories/environmental-justice-chicago-its-been-one-battle-after-another.

People for Community Recovery. Hazel M. Johnson Legacy. https://www.peopleforcommunityrecovery.org/our-story/legacy.

Place in the Calumet: A Resource Guide. 2021. 22nd Annual Calumet Heritage Conference. https://calumetheritage.org/wp-content/uploads/2021/10/placekeeping in the calumet 2021 cal her conf.pdf.

Rogal, B.J. 2023. Chicago region saw record-breaking warehouse development in 2023. Chicago Tribune: https://www.chicagotribune.com/2024/02/20/chicago-region-saw-record-breaking-warehouse-development-in-2023/

Schlosberg D. and L.B. From environmental to climate justice: climate change and the discourse of environmental justice. (WIREs Clim Change 2014). doi: 10.1002/wcc.275

Welch, A. 2018. Project for Public Spaces cited in Abé Levine: Placekeeping as a Strategy for Environmental Justice. Minnesota Libraries Publishing Project. https://mlpp.pressbooks.pub/ environmentaljustice/chapter/abe-levine-and-placekeeping-as-astrategy-for-environmental-justice/).

ENVIRONMENTAL AND CLIMATE JUSTICE ALLIANCES AND MEMBER ORGANIZATIONS IN CHICAGO AND THE MIDWEST

CHICAGO ENVIRONMENTAL JUSTICE NETWORK (CEJN)

Blacks in Green (BIG), <u>blacksingreen.org</u>
Just Transition Northwest Indiana, <u>jtnwi.org</u>

Little Village Environmental Justice Organization (LVEJO), <u>Ivejo.org</u> People for Community Recovery (PCR).

peopleforcommunityrecovery.org

Pilsen Environmental Rights and Reform Organization (PERRO), pilsenperro.org

Neighbors for Environmental Justice (N4EJ), <u>n4ej.org</u> Southeast Environmental Task Force (SETF), <u>setaskforce.org</u>

CLIMATE JUSTICE ALLIANCE (MIDWEST)

Detroit Black Community Food and Security Network, dbcfsn.org
East Michigan Environmental Action Council, emeac.org
Environmental Transformation Movement of Flint, etmflint.org
Little Village Environmental Justice Organization (LVEJO), lvejo.org
Michigan Environmental Justice Coalition, michiganej.org
Soulardarity, soulardarity.com

MIDWEST ENVIRONMENTAL JUSTICE NETWORK (MWEJN)

Center for Earth, Energy and Democracy in Minneapolis, <u>ceed.org</u>
East Michigan Environmental Action Council, <u>emeac.org</u>
Little Village Environmental Justice Organization (LVEJO), <u>Ivejo.org</u>

ADDITIONAL ORGANIZATIONS AND ALLIES

Alliance for the Great Lakes, <u>greatlakes.org</u>
BlueGreen Alliance, <u>bluegreenalliance.org</u>
Bridges Puentes, <u>www.bridgespuentes.com</u>
Chicago Muslims Green Team, <u>chicagomuslimsgreenteam.org</u>
Chicago Asian Americans for Environmental Justice, <u>caaej.org</u>

Clean Power Lake County, cleanpowerlakecounty.org Grassroots Collaborative, grassrootscollaborative.org Great Cities Institute, greatcities.uic.edu GreenLatinos, greenlatinos.org Green New Deal Network, greennewdealnetwork.org Friends of the Forest Preserves, fotfp.org The Freshwater Lab, freshwaterlab.org Illinois Clean Jobs Initiative, ilcleanjobs.org Illinois Green New Deal, ilgreennewdeal.org Illinois Riverwatch Network, ngrrec.org Openlands, openlands.org ONE Northside, onenorthside.org Rafael Cintron Ortiz Latino Cultural Center, latinocultural.uic.edu Sierra Club, sierraclub.org Southeast Youth Alliance (SYA), southeastyouthalliance.org Sunrise Movement, sunrisemovement.org Young Cultural Stewards, @youngculturalstewards

This list only represents a portion of the organizations engaged in environmental justice work in Chicago and the Midwest.

The Chicago Latine Voices on Environmental & Climate Change Racism is one of three University of Illinois Chicago (UIC) research studies under the Climate and Environmental Justice Crossing Latinidades project and in collaboration with the University of California at Irvine and University of Texas at Arlington. This collaborative research is under the Crossing Latinidades Humanities Research Initiative, which ignites cross-institutional and cross-regional comparative research, training of doctoral students, and new scholarship in emerging areas of inquiry about Latina/os. Funded by a grant from the Andrew W. Mellon Foundation, the initiative serves as the anchor of the Alliance of Hispanic Serving Research Universities, a consortium of R1 Hispanic Serving Institutions.

To access this report, go to

latinocultural.uic.edu/programs/gbp/crossing/

To access the various research reports under the Climate and Environmental Justice Crossing Latinidades project go to greatcities.uic.edu/research/crossing-latinidades/

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