Environmental Justice & Community Advocacy: A Case Study of Los Sures as Characterized by Community Nonprofit El Puente

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Abstract

In South Williamsburg, referred to by residents as Los Sures, the nonprofit organization El Puente has a 40-year history of organizing around community issues. For much of that history, El Puente's staff and volunteers have identified environmental justice matters, particularly those surrounding air quality, as a major concern. Recent research indicates that air quality is a factor influencing increased COVID-19 morbidity and mortality. While the environmental justice literature is large, there is limited analysis of how such groups operationalize their environmental health work during a health crisis, particularly in communities where air quality is already a central issue. In order to understand how Los Sures residents contextualize their health as a function of place, especially during COVID-19, this master's thesis will explore the work of El Puente both prior to and during the pandemic. Through primary source research on newspaper/web articles, gray literature, and organizational documentation, this paper will explore El Puente's campaigns for clean air. The research will be supported by qualitative interviews with key staff and community members to understand how organizational work was and continues to be affected.

Background & Significance

What is Environmental Justice?

In order to fully understand the importance of El Puente's community-centered activism, as well as to situate air quality advocacy within a broader trend of grassroots movements, it is necessary to at least briefly touch on the field of environmental justice. Environmental justice activism heralded a shift in the way many thought of the environment as an issue that merited consideration. In the mid-1970s, some activists had begun to think of environmentalism from a "people and communities" perspective, rather than a land and conservation one. Put more simply, environmentalism was reframed as a health problem. While the "term 'environmental justice' does not explicitly call out health," since the 1980s, "the movement has focused [almost entirely] on the threats that pollution poses to community health and well-being." (Smith Kormacher, 2019, p. 7)

Today, environmental justice is one of the main frameworks used by community groups because of its people-driven approach. An important tenet of environmental justice is 'we speak for ourselves,' an imperative "which privileges the voices, experiences, and expertise of those directly confronted with issues of environmental injustice. . . related to the idea that the community members experiencing the realities of environmental injustice should be the leaders of movements to liberate and heal their own communities." (Coolsaet, 2020, p. 9) In particular, El Puente itself enacts this by "flip[ping] the disempowerment of gentrification and put[ting] the power of transformation in the hands of [Los Sures] residents and stakeholders." (El Puente, 2022) For El Puente, and many groups like it, environmental justice is part of a larger story of community wellness, resiliency, and power.

Like all movements, environmental justice is difficult to trace back to a single moment in time. However, many scholars agree that "the 1982 demonstrations by Black community members in Warren County, North Carolina against the siting of a PCB landfill [were a] critical event." (Coolsaet, 2020, p. 7; see also Bullard, 1990 and Spears 2019) In the same decade, the United Church of Christ Commission for Racial Justice began gathering data for the landmark Toxic Wastes and Race in the United States report (1987), which found that race was the most significant factor associated with the location of commercial waste facilities (Commission for Racial Justice, United Church of Christ, 1987, p. 7-8). It was this racial justice lens, formalized by Black scholars and activists between 1982-1990, that became the underpinnings of the new environmentalism. In particular, studies of this activism primarily center grassroots approaches and community organizing, as well as a disconnect between lived experience and scientific expertise.

Literature Review

In any tracing of environmental justice, the work of Robert Bullard is a key source; he is widely credited as the "father of environmental justice" for his work on the siting of toxic waste facilities, which culminated in the publication of 1990's *Dumping in Dixie* (for just one example of this designation – see Bullard, 2019). Along with 1987's Toxic Wastes and Race Report, Bullard's research clarified for the first time in a scholarly context that across the American South, poor Black communities were unjustly bearing the burdens of environmental harms.

Bullard's work also helped to establish the uniquely "spatial element to environmental activism and research." (Thomas, 2020, p. 3-4) Environmental issues were no longer about the wilderness – they were at home and in communities. It was "one thing to talk about 'saving trees' and a whole different story when one talked about 'saving low income housing' for the poor." (Bullard, 1990, p. 32) The redefinition of the environmental movement to a people-first approach is a hallmark of environmental justice.

For an overall understanding of the US environmental movement, Ellen Spears' *Rethinking the American Environmental Movement post-1945 (*2019) is a thorough examination of environmentalism as a grouping of ideas, concepts, and movements, rather than a singular monolith. In particular, she explores discrete concepts of environmentalism at different periods in time in addition to their concurrent existence. Broadly, *Rethinking* traces a policy arc of the environmental movement, from conservationist roots to more overt social justice concerns, especially around poor and minority people.

Finally, two major monographs have featured El Puente's work as a case study of activism, and are particularly helpful in situating it within a larger environmental justice context. Jason Corburn's *Street Science* (2005) focuses primarily on citizen science as a component of environmental health. *Street Science* takes up the work theorized by sociologists of science, as it addresses the concept of science as a field that speaks truth to environmental issues. It illustrates how community groups and organizers engage with both scientific and political practice in order to 'manage up' the environmental concerns that they experience on the ground. However, because it was written in 2005, it predates El Puente's most recent air quality and green space campaigns; therefore, this thesis will fill a gap in the literature by focusing on the last fifteen years of work, thus exploring how the field has changed, particularly over the last two years.

As in Corburn's work, Julie Sze's *Noxious New York* also features El Puente. Echoing the findings of *Street Science*, she writes that "local community programs like El Puente and WE ACT have transformed their activism around environmental justice and clean air issues into research programs that emphasize community empowerment in study design and data collection." (Sze, 2006, 184) However, the crucial difference here is the scope of her work. Sze takes aim at the construct of environmental justice in New York City more broadly, and she does so with a series of case studies primarily focused around physical space and pollution (at one point, she lists the city's issues of "garbage, sewage, sludge, and energy" (Sze, 2006, p.208)).

In *Noxious New York,* citizen science is an important component of environmental justice, but more than that, environmental problems are framed in terms of the questions they ask. “Environmental justice activism in New York City does not, on the face of it, answer or solve the crucial issues that face the city. . . But this activism enables better questions to be asked than those that predominate where there is no environmental justice activism.” (Sze, 2006, 207-208) Like Bullard, Sze sees environmental justice as a people-driven mechanism for highlighting injustices which might be otherwise ignored.

Although El Puente is well-studied, particularly for a nonprofit of its size in a city full of larger nonprofits, the COVID-19 pandemic has limited recent scholarship. In particular, coverage of the organization’s most recent environmental campaigns (the Green Light District and Our Air! / ¡Nuestro Aire!) has been severely delayed or limited. This research begins to address these developments. In addition, it will fit in to an existing body of research that has begun to explore the connections between COVID-19 and the environmental justice movement, namely Powers et al.’s “COVID as Eco-Pandemic Injustice: Opportunities for Collective and Antiracist Approaches to Environmental Health” (2021). The authors define moments of eco-pandemic injustice as extending “beyond disproportional environmental and health burdens to also recognize the links between environmental injustices and social inequities, including a lack of access to basic human needs, social recognition, and political and participatory rights.” (Powers et al., 2021) The concept of such injustice will prove particularly helpful in exploring how El Puente’s work shifted (and did not shift) during the current pandemic. Additional works that provide important context about COVID-19 and environmental justice include Wilson et al.’s “Roundtable on the Pandemics of Racism, Environmental Injustice, and COVID-19 in America” (2020) and Cole et al.’s “The COVID-19 pandemic: power and privilege, gentrification, and urban environmental justice in the global north” (2020).

In addition, works in the field of public health practice, such as Michener et al.’s (2020) “Engaging With Communities — Lessons (Re)Learned From COVID-19” include useful insight about how social justice intersects more broadly with the COVID-19 pandemic. In particular, it is important to note that COVID risk is compounded for people with underlying health conditions and those who are members of marginalized communities. In order to counter these inequities, “engagement with communities early on and throughout is critical, especially communities of color and other marginalized groups that require a public health response that is

not channeled through discriminatory systems and structures and does not perpetuate inequities in the midst of crisis." (Michener et al., 2020) Ultimately, through this study, I will utilize the lens presented by recent COVID-19 scholarship, and by environmental justice more broadly, in order to situate El Puente's work within the time period and social context.

COVID-19 & Air Quality

Research suggests that exposure to air pollutants increases risk of severe COVID-19 and death, particularly fine particulate matter (PM 2.5), which is the most harmful of the common US air pollutants. As early as April 2020, researchers from Harvard found that an "increase of only 1 μg/m3 in PM2.5 is associated with an 8% increase in the COVID-19 death rate" (Wu et. al, 2020). This cross-sectional nationwide study found that "higher historical PM 2.5 exposures are positively associated with higher county-level COVID-19 mortality rates after accounting for many area-level confounders." (Wu et al., 2020) In addition, a 2021 study similarly found that a "1 μg/m3 increase in 10-year annual average PM 2.5 was associated with 18% higher hospitalization." (Mendy et al., 2021) These studies do not stand alone; further research continues to confirm the relationship between COVID-19 mortality and a variety of outdoor air pollutants, including PM 2.5 (see review by Marquès & Domingo, 2022).

Particularly troubling from a health equity perspective is the evidence that impacts of PM 2.5 pollution are not borne equally. A long-term study of air exposures in the United States found that Black and Hispanic people were exposed to PM 2.5 at higher rates than their non-Hispanic white and Asian counterparts (Bell and Ebisu, 2012). In fact, Black and Hispanic people bear what is called a "pollution burden" of PM 2.5 consumption, wherein they experience more than 50% excess exposure of these particulates relative to their consumption of PM 2.5-producing goods and services (Tessum et al., 2019). Coupled with a respiratory pandemic, the effects of this inequity are striking.

In New York City and beyond, minority populations experience a wide range of health disparities. In the case of North Brooklyn and El Puente, the compounding impacts of racism, socioeconomic disadvantage, and gentrification create health problems for residents of all ages. Yet in Los Sures, there is also a striking community resiliency, empowerment, and drive. Community power is at the heart of El Puente's work, and their conceptions of justice and injustice alike are heavily rooted in the physical landscape – working with it and against it.

Los Sures

Brooklyn Community Board 1, which represents the Greenpoint / Williamsburg neighborhoods, comprises a 4.7 square mile area of North Brooklyn home to more than 170,000 residents. It is bounded on the north & east by Newtown Creek, on the south by Flushing Avenue, and the west by the waterfront (NYC Planning, 2021). Since the nineteenth century, immigrants from across the globe have moved to the neighborhood seeking manufacturing and industrial jobs in a variety of industries, including “breweries, oil refineries, sugar refineries, and apparel manufacturing” (Curran, 2007, p.1431). The neighborhood, like many 19th century cities, developed mixed-use buildings so that employees of refineries and factors could move into housing units clustered around their places of work (Anderson , Hanhardt and Pasher, p. 35).

Today, the industrial heritage of the neighborhood remains evident. Community District 1 has long housed the largest proportion of industrial land use of any of New York City’s 59 community districts (Corburn, 2005). The neighborhood is primarily zoned as M, or industrial. Despite a “citywide trend to rezone land from 'M' to non 'M' classifications due to a general decline in manufacturing. . . zone concentration has proved useful to city planners and public works builders because it has allowed them to continue to site these facilities in the area.” (Anderson, Handardt and Pasher, p. 37) This is a crucial factor in shaping neighborhood capacity. Author Winifred Curran points out that “the lack of appropriate industrial space [elsewhere in New York] severely constrains manufacturers' choices. Virtually no new industrial space has been developed in New York City in decades.” (Curran, 2007, p. 1433). Thus, the high prevalence of industrial land in Greenpoint / Williamsburg remains crucial to industry, and is largely unlikely to be altered, even as parts of the neighborhood gentrify at a rapid pace. Rezoning of certain parts of the waterfront in 2005, 2009, and 2014 has allowed for the development of skyscrapers and luxury residential and commercial buildings. However, this zoning pattern continues to ‘hold back’ sections of the neighborhood from achieving clean, sustainable growth, as parts of it remain slated for manufacturing even as the Williamsburg waterfront grows richer (Pratt Institute, 2019).

Since the post-World War II era the Greenpoint / Williamsburg neighborhood has been characterized primarily by its large population of Hasidic Jews and immigrants of the Latinx diaspora, primarily from Puerto Rico and Central America (Curran, 2007, p. 1431). While newer residents of certain sections of the neighborhood (northern Williamsburg, for example) tend to be

whiter and wealthier than the New York City average, Southside Williamsburg remains heavily Latinx and Black. The "luxury towers and million-dollar brownstones" of North Williamsburg are a stark contrast to the "public housing, modest apartment buildings, and multi-family homes" of the Southside ("NYCT El Puente Proposal", 2018). Within Community District 1, there is a "poverty corridor" of primarily low income Latino/immigrant and African-American families across the heavily gentrified North Brooklyn." Such gentrification has

> played out as a strategy for 'not place-making, but place-taking.' Beyond the physical and geographic displacement that has been caused, there is also an insidious cultural displacement in process. The result is a profound loss of cultural representation and artistic expression, the sense of community ownership and connectedness as well as the right to self-determination once felt by long-term community residents. (El Puente Draft Grant Proposal, 2018, personal correspondence)

It is this community, clustered around the Williamsburg Bridge and the Brooklyn-Queens Expressway, that makes up what residents call 'Los Sures' (Spanish for "the neighborhood). Los Sures' residents are, on average, younger, poorer, and less white than the rest of the Community District (Pratt Institute, 2019). They are also more likely to have familial and cultural ties to the neighborhood, dating back to the industrial history of the 20th century.

Los Sures is a "historic environmental justice community, facing multiple severe risks" (El Puente Draft Grant Proposal, 2018, personal correspondence). As early as 1987, a study by Hunter College "revealed that Williamsburg was home to the largest concentration of Toxic Release Inventory–reporting industries in New York City." (Corburn, 2005) In the same decade, El Puente's student-led environmental activist group, the Toxic Avengers, uncovered New York City's only hazardous chemical and nuclear storage facility, operating just a few short blocks from a local elementary school (Women's Leadership in Community Development, 2020).

By the late 1990s, Williamsburg continued to rank "first out of all community districts in New York City for housing the highest number of [toxic and industrial] facilities," leading to "elevated levels of localized hazardous air pollutants." (Corburn, 2005) Today, residents of Los Sures are still exposed to a variety of pollutants, as 62% of the population in Community District 1 lives "within ¼ mile of a major discharger of hazardous air pollutants or toxic waste," and blood lead levels in the district are the 2nd highest across NYC (Pratt Institute, March 2010, private report draft). Recent data produced by the NYC health department indicate that levels of PM 2.5 in the neighborhood are still as high as 9.6 micrograms per cubic meter, compared to an

average of just 7.5 mg per cubic meter citywide (NYC Health, Community Health Profiles 2018).

Air quality is a major environmental hazard in Los Sures, primarily because the consequences are felt tangibly by local residents. Likely as a direct result of transportation and industrial infrastructure in the neighborhood, "rates of asthma-related hospitalizations for children and adults in Williamsburg and Bushwick are double those of Brooklyn and New York City overall. Additionally, 6.3% of the population reported having asthma, 2.1 and 1.7 times higher than the rates for Brooklyn and New York City, respectively" (El Puente, 2022). Colloquially, many residents of Los Sures report experiencing high rates of asthma; it can feel like 'everyone knows someone' who struggles to breathe (Interview 03, March 15, 2022, personal communication). Within the community, there exists informal collective knowledge about air pollution, truck traffic, and asthma. El Puente, the nonprofit that represents Los Sures, is a particularly effective community coalition because it validates this knowledge, uplifts it in its own right, and serves as an organizer for intentional, formalized action towards a more just future.

El Puente

El Puente is the primary community-based organization working in Los Sures; their mission is to "inspire and nurture leaders for peace & justice" (El Puente, 2022). Through a variety of outreach mechanisms centered on youth leadership, the arts, and the environment, El Puente develops community power.

The organization was founded in 1982 as a response to gun violence in south Williamsburg. The founders, Los Sures residents themselves, came from a wide range of backgrounds in the arts, public health, and education, and were particularly interested in the Latin-American liberation theology movement of the 1970s, exemplified by prominent thinker Paulo Freire (Interview 04, March 16, 2022, personal communication). Freire's *Pedagogy of the Oppressed* is still considered a central work in critical pedagogy and education; in particular, it centers the experience of the oppressed as "initiating and participating in their own liberation." (Barmania, 2011) For El Puente, this meant that holistic community growth and empowerment were always at the center of their work. One of the founders, Frances Lucerna, explained in 2020 that "we were creating El Puente to defy that sort. . . 'clinicalization' of our people and the

notions of being less than that. . . [are] internalized by all of us through the school system or the social service system, particularly in communities like Los Sures." (Women's Leadership in Community Development, 2020)

It was through this community-centered practice that El Puente came to focus on environmental justice work. Lucerna explained that "the trigger to this whole environmental movement actually came out of a class that we had at El Puente at the time [in the 1980s]." (Women's Leadership In Community Development, 2020) Students enrolled in the class identified the presence of pollution in the community and self-formed themselves into a group of "Toxic Avengers" to combat the injustice they saw. From then on, there was a "string of events" that propelled El Puente to understand environmental issues and their impact on community residents. (Women's Leadership In Community Development, 2020)

Starting from the formation of the Toxic Avengers group in the late 1980s, El Puente's members increasingly began to identify environmental harms as major concerns (Fraser, 1993). Radiac, "a neighborhood low-level radioactive waste transfer and storage facility," was identified by students as a community issue, particularly due to its siting near an elementary school. Their discovery of what they perceived as a dangerous polluter in their community served as a catalyst for organizing the group to fight this and future community hazards. After Radiac came a battle against the siting of a new incinerator in Greenpoint, notable for the landmark alliance El Puente formed with the Hasidic community in Williamsburg (Grieder, 1993). In the same decade, members of El Puente also began advocating for safer lead paint abatement on the Williamsburg Bridge and limitations on polluting truck traffic through the neighborhood (Women's Leadership in Community Development, 2020).

In 1993, as El Puente's environmental activism ramped up, the New York City Department of Health released a study that found there were few "statistically elevated rates of asthma hospitalizations in the neighborhood" (Corburn, 2005, p. 112). To community members, this seemed to invalidate their lived experience; it felt like "nearly every student either had asthma or had a family member with the disease." (Corburn, 2005, p. 112) A closer examination of the data quickly revealed what was going on – the study had looked at Woodhull hospital, which had a 'bad reputation' locally. Community members would do everything they could to avoid it.

To many, the 1993 study only served to reinforce existing beliefs in the inability of mainstream science to capture their own experiences. According to a 1999 journal article reflecting on El Puente's work and partnerships, the principles of community learning upon which the organization was founded grew to include "explicit rejection of paternalistic social research or social assistance approaches that imply that outside experts know what is best for the community." (Ledogar et al., 1999) In large part due to the disappointing outcome of the 1993 study, as well as beliefs that "science should be used as an instrument for collective self-help rather than as a commodity that serves the interests of the powerful," El Puente began to develop academic and professional research partnerships that would yield publications in peer-reviewed journals (Ledogar et al., 1999).

In 1999, the staff conducted their own asthma study, relying largely on survey data collected by community members and had it published in the *American Journal of Public Health*. Community members were "well aware of air quality and asthma issues," but through El Puente chose to "assess asthma in their neighborhood and implement their own health initiatives." (Ramírez et al., 2019) By taking action to situate themselves within the realm of academic research, El Puente was legitimizing its community concerns while also remaining firmly within the organizational practice of liberation theology. Parallels can clearly be drawn between this early publication and Frances Lucerna's comments about professionalization when founding the El Puente academy, a DOE school, in the 1990s. In a 2020 interview, she remarked that it was particularly "incredible" that El Puente remained active in creating the school from their perspective as community organizers. The thought process of leadership was that an El Puente school needed to create "a model that defies a system that has been totally and completely bankrupt, in terms of systemic racism, oppression and everything else," and that "it's got to be led by El Puente people." (Women's Leadership in Community Development, 2020) In order to maintain this model, Lucerna explained, "what we did was to basically, myself included, go ahead and professionalize ourselves. I went back and got a Masters in Educational Leadership. . . everyone got State certified. Our credentials just gave us the legitimacy to be able to be in positions to do what we needed to do, and that's what we did." (Women's Leadership in Community Development, 2020)

El Puente's practice is firmly centered first and foremost in community empowerment and liberation. Even when engagement with systemic oppressors is necessary, community

members have done their best to participate in a way that is empowering. Furthermore, the engagement with such systems is depicted by the organization as an accomplishment when necessary. For example, text from a sample grant application describes "achievements like co-founding the New York City Environmental Justice Alliance, publishing a peer-reviewed scientific article in the American Journal of Public Health, and leading a recent pilot study of air contamination in Southside playgrounds." (El Puente Draft Grant Application, 2018, personal correspondence)

As in all of the organization's other work, community-forward values are evident in El Puente's current environmental campaigns. In 2009, concurrent with Obama administration environmental policy changes, talk of a community wellness plan for Los Sures began at El Puente (R. Garden-Lucerna, 16 December 2019, personal correspondence). Draft material produced in 2010 by El Puente's academic partners at the Pratt Institute indicated that the new program would identify what they called the "green in wellness," meaning that "having a healthy, secure, socially rich life and individual well-being is not possible without the supporting services provided by ecosystems" (Pratt Institute, March 2010, private report draft).

El Puente formalized this program, called the Green Light District, as a ten-year initiative to "transform Los Sures from one of the most environmentally and economically challenged neighborhoods in New York City to an equitable, sustainable, culturally rich, and civically engaged community." (*Green Light District Strategic Plan, November 2013 - April 2015*, 2015) The Green Light District (GLD) initiative is a multi-pronged community campaign focusing on "affordable living, arts & culture, education, green spaces & environmental justice, and health & wellness." (El Puente, 2022) Like El Puente's other work, GLD is a community empowerment program first and foremost. It seeks to "build equity and sustainability by connecting residents to each other, socially and culturally; sharing knowledge, providing access to public resources and building capacity by developing partnerships." (El Puente, 2022)

Although all facets of the GLD touch on the environment, especially through the connections between physical space and community building, the environmental justice tenet of the program is particularly notable. It is under this 'umbrella' category that El Puente has established its ambitious air quality improvement plan: Our Air! / ¡Nuestro Aire!. Launched in 2017, Our Air! / ¡Nuestro Aire! (OA/NA) is "a grassroots campaign with a 5-point action platform that engages youth organizers, community members, elected leaders, academic partners,

local organizations, artists, and schools to address the environmental crisis of toxic air quality." (El Puente, 2022) Critically, the campaign calls for "citizen science air quality monitoring studies" through which community members can measure for themselves the polluted air and collectivize their data in order to create actionable next steps. Phase 1 of the project, which lasted from 2017 – 2020, involved data collection with student and community groups as well as with academic partners at The New School and the Pratt Institute. Participants also worked together on analyses of the built landscape in Los Sures and policy recommendations for next steps (El Puente, 2020b).

The OA/NA Phase 1 Report, released in summer 2020, reflected on the community data gathering and planning that had been done both prior to and at the start of the pandemic. Acknowledging that the data collection, while important, often feels distinct and separate from community practice, El Puente partnered with local artists to produce "art for social justice" to raise awareness. This included air-quality themed murals and plays. Innovatively, when the community artists were forced to rapidly transition to online platforms at the start of the COVID-19 outbreak, they created a digital play, "'Window Talks,' Hosted on Zoom" in order "to mimic neighbors speaking to each other through their windows, a talented team of artists developed and recorded a performance that discussed and advocated for our 5-point policy platform, which was developed to address air quality issues and respiratory health. . . 'Window Talks' connected these policies to everyday life, explaining each, and making them relatable." (El Puente, 2020b) In this and other community initiatives, El Puente expanded upon its work as an initiator for community activation, rather than just a creator of data. Instead of engaging with restrictive scientific practices, they brought scientific expertise to the community, both by recording their own data and by expanding their work with said data to include community conversations through arts and culture.

The plan for Phase 2 was originally to expand the advisory committee in order to implement and advocate for solutions as identified in Phase 1 (El Puente, 2020). However, it is not immediately evident how the COVID-19 pandemic will affect these goals. On the current web landing page for OA/NA, there is a link to a change.org petition called "COVID-19: OUR AIR EMERGENCY CALL TO ACTION." (El Puente, 2022) The petition calls for elected officials to "take action to reduce the air pollution in our parks and open spaces TODAY so that we do not continue to suffer from the most dangerous effects of pandemics like COVID-19." (El

Puente, 2020a) It explains that residents of Los Sures are particularly susceptible to COVID because it is a respiratory virus, and the air in the community is polluted, a fact which has "been known for decades through studies conducted by community organizations like El Puente." (El Puente, 2020a) In closing, the petition lays blame on policymakers for the current crisis: "COVID-19 has now exposed the deadly results of the lack of prompt action, resources, and policies ensuring clean air for our families and neighbors. This is a man-made, not natural disaster. Our people have the right to live safe and healthy lives! The recognition of inequity needs to transform into policy and action. This is a moral imperative!" (El Puente, 2020a) Here, in explicit terms, the COVID-19 pandemic is centered, and there is a strong focus on the impacts of environmental racism and the man-made consequences.

Because there is not yet much formal coverage of OA / NA Phase 2, either on the El Puente website or elsewhere, it will be interesting to see if the plans for air quality mitigation work are addressed by participants in the interview process. Stated next steps for this campaign will also be worth noting, although it is possible they may not diverge much from the planned work of "mobilizing. . . to enact change in Phase 2. This will involve organizing and raising awareness through events like community forums, direct action, and working with CADRE, our group of local artists, to create art that will inform and activate our community." (El Puente, 2022)

Methodologies

In conducting a study of El Puente, I believe that is extremely important to honor the organization's longstanding practice of community advocacy and citizen science. For this reason, I have chosen not just to review El Puente's literature, but also to complete a series of short interviews with staff members, volunteers, and community residents. It is not enough just to understand what makes up written campaigns and initiatives; I will also study perceptions, specific actions, and lived experiences/storytelling in regards to air quality reduction during the first two years of the COVID-19 pandemic.

Specific Aims

This research explores place-based air quality issues as functions of inequity and analyzes how community and group members position and strategize to achieve a desired outcome. In doing this research, I hope to add to an existing body of literature that explores environmental

justice in Los Sures, as well as more broadly during the COVID-19 pandemic. In particular, this research identifies three key themes collected from a series of interviews with El Puente staff and community members: 1) the role of physical infrastructure, 2) lived experience and quantifiable data, and 3) disinvestment and community need.

Recruitment & Data Collection

This study involves original research into primary sources like news articles, gray literature, organizational documents, and interviews with El Puente staff and volunteers. Recruitment was undertaken over the course of several months, from October 2021 to March 2022. During the recruitment process, I collaborated with the Environmental Justice Coordinator at El Puente to access organizational documentation and schedule interviews. In addition, I used social networking websites (Facebook, LinkedIn) to identify organizational volunteers who might be interested in participating in interviews. One of these volunteers was able to connect me to several others, creating a snowball effect of contacts.

The interview portion of this research draws influence from Howlett's 2021 review of Zoom interviewing, which provides useful insight into conducting qualitative social sciences research through the use of Zoom and similar technologies. In addition, a narrative literature review by Hall, Garved, and Sargent "relating to how participatory approaches have been used within the context of the COVID-19 pandemic" confirmed the value and high quality of digital approaches (2021). These reviews provide useful frameworks for conducting thoughtful digital interviews, both in their praise of video methodologies and also in their thoughtful recommendations to researchers to be particularly wary of the limitations to interviewer-interviewee relationship-building, both those inherent to digital methods and those caused by overburdening and burnout during the pandemic.

Data Analysis & Measures

The human subjects portion of this research was approved by the Columbia University Institutional Review Board (Protocol Number: AAAT9852). Signed informed consent was obtained for all participants. Interviews lasted between 30 and 60 minutes, and were digitally recorded and transcribed using Descript, a transcription and sound editing application. Prior to transcription, interview participants were assigned pseudonyms.

Qualitative interview methodology is "particularly useful in providing rigorous descriptions of practice and the organizational contexts in which it occurs . . [as well as] examining the routine, everyday, and taken-for-granted aspects of the settings [under] study." (Murphy & Dingwall, 2016, p. 35) In this case, I examined transcripts for 'on-the-ground' descriptions of work at El Puente, highlighting any repeated themes or moments of commonality among subjects. I asked each participant the same basic interview questions, and followed up on specific topics as appropriate.

It is important to note that while qualitative interviewing is a helpful modality in many ways, it also has flaws and potential limitations. In particular, when interviews are used to "elicit accounts of informants' internal realities, then analysis needs to be sensitive to the interactional and political contexts in which the data were generated." (Murphy & Dingwall, 2016, p. 101) It is crucial to be aware of the possibility for bias in both data gathering and analysis in order to mitigate potential bias in conclusions. In addition, qualitative interviewing can generate a greater depth of understanding of the experiences of a limited number of individuals; however, the selection of individuals to interview and the smaller number of participants as compared to other types of research studies may influence results.

Results

Following are the results from a series of 6 qualitative interviews with El Puente staff, volunteers, and community members. Involvement with the organization covered a wide variety of roles, including formal employment (present and former), volunteer status (present and former), and student participation (former only). In addition, the participants in this study had a range of depth of experience with El Puente; one of the informants was one of the organization's co-founders, while others had been employed for a year or less.

Three major constructs emerged as key factors contributing to the shaping of El Puente's environmental justice work, particularly as it pertains to air quality: 1) physical infrastructure & community siting, 2) lived experience as it both contrasts and complements the development of quantitative data, and 3) disinvestment and community need. Each construct is described in detail in the sections below.

Physical Infrastructure & Community Siting

Although a focus on physical space is perhaps to be expected in a study of environmental concerns, it is nonetheless important to reflect on the primary role it clearly plays in El Puente's environmental justice work. Central to the organizational definition of community is the location of said community within Los Sures, an approximate area of 1 square mile. Membership in the community is defined not just by demographic traits but also physical ones – individuals who live in Los Sures, or even those with family ties to the area, are considered part of the in-group. For example, one interviewee, who has since moved to a different major city, still identified as a resident and community member of Los Sures because they had experienced growing up there. Another, who is still involved as a sometimes-volunteer sometimes-facilitator, moved there as a young teenager and became deeply involved with El Puente's school-based programming.

Physical space was also perceived as a major factor of environmental injustice. In particular, individuals who reflected on the history of El Puente mentioned that the neighborhood used to be in more "disarray" and "disrepair," particularly in terms of building maintenance, greenery, and access to parks. One of the organization's co-founders mentioned that "we had no trees in Los Sures in the eighties and a good part of the nineties. We had no open spaces, no green spaces." (Interview 04, March 16, 2022) Similarly, one former youth participant turned volunteer, when asked to reflect on the organization's history of environmental justice, explained that

> We think about the environment, like you can sometimes think about climate change, but environment is also your lived experience, like geography, like what is it that you experience in a day– do you see trees, do you see greenery? That was something that like wasn't here. There were no trees. There was rubble and abandoned buildings everywhere. So I think very early on, this idea that environment isn't just like climate justice; environment is also community justice for your community in a physical sense, like how people experience that space. (Interview 03, March 15, 2022)

The lack of green spaces is also a thread that multiple participants picked up on as running through to El Puente's more recent work. Informants documented the daily perceptions of trees, greenery, and built environment as a major issue of concern for El Puente and Los Sures residents. For instance, a former volunteer expressed a belief in "the importance of community gardens and having open spaces in Williamsburg, instead of a bunch of bars." (Interview 06, March 18, 2022) The emphasis on shared gardens and green spaces was also echoed by staff members, who flagged that this was particularly important in the post-COVID context. "That

[COVID] actually has facilitated for us to like start pushing for open spaces; I would say open spaces was the biggest thing. . . a lot of our community members found out that we didn't have enough parks, enough of open spaces, enough green spaces." (Interview 01, January 19, 2022)

Of major concern to all of the individuals I spoke to was the proximity of the Brooklyn-Queens Expressway (BQE), a large highway passing through Los Sures which is a major source of emissions from truck traffic. Several participants identified the BQE as a source of literal disconnect between Los Sures and the relatively wealthier sections of northern Williamsburg.

> A staff member working on environmental justice at El Puente: "The Brooklyn Queens expressway just cuts right through the community." (Interview 01, January 19, 2022)

> A volunteer / former intern / youth participant: "Back when the construction of the BQE started, I mean, it like literally like ripped through the community. Like it's split in half, it displaced a bunch of freaking people." (Interview 03, March 15, 2022)

> A former volunteer / organizer: "The BQE [is] on that sort of geographic front; you can see the divide when it comes to the up and coming brownstones and high rises and how the private developers are able to come into these communities and uproot people of their history and their knowledge" (Interview 06, March 18, 2022)

In addition to creating a physical divide between northern and southern Williamsburg, the BQE seems to create a metaphorical one; it is a determining factor in the self-identification of Los Sures residents as an environmental justice community. For instance, a former staff member remarked that "connecting to the built environment is important . . . just being like, we're surrounded by freeways in this community and there's a bus depot here, there's basically just traffic flying through every day." (Interview 05, March 18, 2022) A current staff member also confirmed that "one of the biggest risks, environmentally, that we face is poor air quality, because of the whole transportation infrastructure that we have around here." (Interview 01, January 19, 2022) Finally, the organization's founder, reflecting on the turn to environmental justices, pointed out that "environmentalism first and foremost was the physical, the infrastructure, the transportation infrastructure of this community. This is a community that has the BQE, a major highway. It is intersected by the Williamsburg bridge." (Interview 04, March 16, 2022) It is clear that the physical presence of highway infrastructure is a major factor of determination in El Puente's approach to studying air quality.

The emphasis on the literal siting of environmental harms is consistent with the trajectory of the environmental justice movement at large. The origins of the movement, often situated within 1982 demonstrations by Black residents of Warren County, North Carolina, grew from a counter-protest about the health impacts of locally disposed toxic waste. Similarly, El Puente's early environmental justice work with the Toxic Avengers stemmed from a sense of injustice that the "building, that these young people had come upon, which was in our community, a block away from an elementary school was Radiac. It was the only hazardous chemical waste and nuclear waste storage facility in New York. And it was in our community and nobody knew about it." (Interview 04, March 16, 2022) The echoes of these origins are clear in the ways in which advocates talk about air quality and environmental justice today – in terms of physical presence or physical absence of certain types of places.

Particularly important in a post-COVID context is this idea of absence, which is sorely felt in the context of 'missing' parks, open spaces, and community gardens, as described above. One volunteer, who wrote about El Puente for a college program, remarked that "I did a project for my policy class on open-space inequity and COVID-19, and how that has a direct impact on community mortality." (Interview 03, March 15, 2022) This idea was also echoed by staff members and volunteers, who discussed experiencing more acutely the lack of open spaces, either in their work or in their personal lives. The parks that are located in Los Sures are seen as inferior because of their proximity to the BQE or other producers of pollution; a staff member explained "You don't really want to hang out there. You're running away from a respiratory virus and you go to that part, to free your mental state or whatever, and once you're there, you're just exposing yourself to PM 2.5 and black carbon and all these different pollutants." (Interview 01, January 19, 2022) Although air quality, to a certain extent, is not an issue that is physically grounded in space, it is clear that locating the structures either related to or producing air quality issues within the community is a useful framework through which El Puente shapes their advocacy work.

Lived Experience & Data Collection

Another major construct that came up during the interview process was the relationship between lived experience and formal data, which varies between one of tension and one of collaboration. El Puente, like many successful community organizations, places great value on

the importance of lived experience as defined by community members; it is a major part of their community-led ethos. This was evident in the ways in which participants described their experiences of air quality issues; consider the stories of three different individuals (below).

> "I was born and raised in Los Sures . . I've never had asthma, but most of my other friends who I grew up with, you know, within the same residency and neighborhood, unfortunately had breathing problems." (Interview 06, March 18, 2022)

> "So there's the personal aspect, I think, where it's like everybody recognizing that like the air quality is bad or they're struggling to breathe. And then also looking out, seeing how many kids in our community had asthma and kids in our program who had asthma, that being a big thing. I think also just living and experiencing the air here, like everybody knows that the air quality is bad for the most part. It's like you're around a bunch of trucks and cars. So, I think part of it, Nuestro Aire was honing in on that knowledge of understanding, okay, the air quality is bad. How does that affect us and what are we going to do about it?" (Interview 03, March 15, 2022)

> "I think for us, it's just kind of like common sense. We were saying it before the studies were coming out and there was officially a link. So then when they did come out, I was like, okay, this is great, now we can [reference] data." (Interview 05, March 18, 2022)

For many, their personal experiences of air quality were also closely connected to their work with El Puente, likely due to both their long-term involvement and also the context of this interview. Several participants mentioned the frustrations of needing data to vindicate their own lived experience. A former staff member expressed that "I think that's a kind of big tension in EJ [environmental justice] and science in general. Because the lived experience part is very valuable to me, and I think that's just as valid as a scientific article substantiating it, but EJ orgs and affected communities have to do all this work to prove that something's actually happening so that people take them seriously." (Interview 05, March 18, 2022) Similarly, other participants reiterated a sense of preexisting awareness ("we knew that already") in response to formal research quantifying patterns of harmful particulates or asthma prevalence.

However, there were also instances when quantifiable data was perceived as helpful, rather than as an object of stress or oppression. For example, staff members identified the importance of data as a tool for education, particularly on the impacts of COVID-19 and air quality. The participant who was the environmental justice coordinator in the spring of 2020 remarked that

> Our Air became even more relevant in a way, because COVID is a respiratory disease. And we were kind of putting together these pieces of like, our community is more at risk

> because people have respiratory disease here, and because we live in a polluted neighborhood, and then there were early studies coming out making the link between air pollution and rates of COVID. And so we were trying to really like work that into our advocacy . . in the kind of way that we were talking about Our Air and promoting it. (Interview 05, March 18, 2022)

The staff environmental justice coordinator in 2021 corroborated this sentiment, explaining that COVID was, in a way, "an opportunity to even, to be even louder around the issues when it comes to air quality. . . we wanted to make sure that people understood that the risk for us was double because we were even more vulnerable than the rest of the city." (Interview 01, January 19, 2022) Data could also be used internally to lobby government partners and bolster stakeholder understanding of local risk. One staff member explained that they would use El Puente-produced data to cross-check and verify official numbers for asthma rates in the city in order to hold policymakers accountable. (Interview 01, January 19, 2022)

The perception of the role of quantifiable data clearly shifts. In some cases, it is seen as an agent of oppression, as a way of minimizing lived experiences. In other cases, data is used to convince outsiders that the experiences of Los Sures residents are grounded in some kind of objective reality. This duality is reminiscent of El Puente's 1999 intentional engagement with the realm of professional research, as well as what Frances Lucerna called the "professionalization of ourselves." (Women's Leadership in Community Development, 2020) In order to navigate these tensions, El Puente relies on community members to produce both a narrative of lived experience as well as numeric data which then can be reported out.

For Our Air! / ¡Nuestro Aire!, a coalition of high school students at the El Puente Academy for Peace and Justice undertook the air quality measurements which comprise the raw data for the campaign. A former student and current volunteer, reflecting on his high school experience, explained that

> We were tracking how many trucks passing by on streets because of the importance of environment, air pollution, which are concerns in this neighborhood for people with asthma and other heart or other health problems, particularly people of color. . . We used headphones and these black little monitors to go by different areas by streets to count how many trucks pass by. . . And if it's way high, that means that is not good. (Interview 02, March 7, 2022)

One of the former staff members who participated was primarily in charge of overseeing this student group, and she commented that including students as citizen scientists is particularly important because they

> are living in the community that they're actually studying. . . the people who are actually being affected by an issue are involved in decision making and data collection. And a lot of times scientists or academics just come into the neighborhood and they're like, 'Oh, we're doing all this stuff here'. It's like, 'no one knows who you are. And you didn't talk to anyone who actually is living what you're studying and looking at.' So citizen science to me is very democratic and revolutionary. And I feel like El Puente was part of this wave of early EJ organizations that were doing this work. And that was very radical then. And it still is. . . I feel like El Puente was always on the forefront of identifying that. (Interview 05, March 18, 2022)

In addition, this practice aligns very closely with El Puente's core mission of nurturing future leaders. The OA/NA campaign is situated within the larger pattern of El Puente's holistic, community-driven work; it is created based on lived experience and led by the people with that experience, who are then creating the formalized data to quantify that experience.

Because of OA/NA's strong connection to quantitative data, it was fairly easily shifted to a platform for COVID advocacy. A former staff member commented that the "citizen science aspect of actually collecting data" was at times seen as separate from other part of El Puente's work, particularly the arts programs. Within the organization and the broader community, "a lot of people kind of acted like, oh, 'this is so nerdy, and so technical and scientific.' And I felt like it's really not; it's good to have that connection [to the data]." (Interview 05, March 18, 2022) Similarly, other participants stressed the fact that data, once collected, must be made available in a way that is understandable. In particularly, one interviewee explained that "we're all about like data transparency. . . we want to show the community the numbers. . . making data digestible and accessible is like a big part of it." (Interview 03, March 15, 2022)

When the COVID-19 pandemic hit, staff members kept abreast of research developments, particularly those surrounding air quality, and tried to intentionally work it into OA/NA campaigning whenever possible. This is particularly reflected in the change.org petition, cited earlier in this paper, which references a Harvard-backed nationwide study (Wu et al., 2020) that found COVID mortality rates were higher in patients from areas of high air pollution. The petition goes on to intentionally tie this in to El Puente's history of citizen science – "These facts have been known for decades through studies conducted by community organizations like El

Puente" – thus claiming an organizational stake in data production (El Puente, 2020a). However, it is unclear whether or not this approach to education was effective. The former environmental justice coordinator reflected on the role of air quality advocacy during the early days of the pandemic:

> Yeah, there's just a lot to do. Um, and I think in general, like there's kind of this perception [from community members] that the environment is important, but we need to focus on education or crime, because that's seen as being more tangible or something that affects people's lives every day in a really real way, [even though] the environment does too. . . Throughout my work, a lot of what I was trying to do was kind of counter that and make people realize that this is a part of your life every single day, and it is affecting you. You might not be able to see it, or maybe it's like more amorphous or like long term, but this is just as important as anything else. (Interview 05, March 18, 2022)

It's likely that air quality advocacy was deprioritized due to a number of other factors, including socioeconomic concerns that were perceived as more pressing. This concept will be discussed in greater detail in the following section of this paper on community need and disinvestment. However, by producing data organizationally (in-house "owned data"), El Puente attempted to rectify this minimization and increase community member identification with the issue of air quality.

Finally, it's important to note that several informants identified the OA/NA campaign as part of a larger trend within El Puente's work of documenting air quality issues in attempts to mitigate health concerns. In particular, participants drew clear connections between the 1999 asthma study and the current citizen science initiative. A staff member explained that "it's just building on other campaigns and other research El Puente has done before, like the study El Puente did on asthma back in the nineties. . . so the Our Air! / ¡Nuestro Aire! was just like putting together all of these little projects that we had." (Interview 01, January 19, 2022) The OA/NA campaign was identified as the culmination of "all the previous work that we had done around public health and environmental justice in this community, and just like putting all that info together and making sure that we had like a structure, a well-planned campaign." (Interview 01, January 19, 2022) Both in conceptualization and in practice, the gathering and interpretation of quantitative data is seen as part of tradition of community-led activism. In particular, El Puente members emphasized the use of data to make a difference. One interviewee expressed that "Our health [in Los Sures] was something nobody was talking about. . .we were living it, and it was a lived experience. But [no one was doing anything] until we at El Puente started to

really do the research, and started to use that data to really start to form a community education campaign about it." (Interview 04, March 16, 2022) Turning data into actionable community education through tabling, arts, theater, and organizing is an important part of El Puente's practice of connecting information back to the lived experience of the community.

Disinvestment, Wealth, & Community Need

The final major theme that came up during the interview process was the role that community identity (especially race and social class) plays in El Puente's organizing and community work. Los Sures is sometimes called a 'Latinx Corridor', and many of the residents are from Puerto Rico, the Dominican Republic, and other parts of Central and South America (Interview 03, March 15, 2022). A significant number of residents primarily or only speak Spanish. Because of the racial and socioeconomic makeup of the neighborhood, there has been a long-term disinvestment and disfranchisement of community infrastructure, a concern which was identified by multiple informants.

> "There's definitely like a lackadaisical effort when it comes to this type of communities, like communities of color. There's not the same investment when it comes to that. . . . That is a challenge when it comes to a community like ours, there's never a priority. That's something that we deal with on the regular. We have to be louder and we need to involve the people and everyone has to be out there." (Interview 01, January 19, 2022)

> "I think the two [issues of environment and race] are often very intertwined, right. Because the people that have been throwing down for this have mostly been Black and brown and Latinx and like mostly Puerto Rican folks, within like this movement specifically. . . through those initiatives, there's definitely a tie to who represents the community. . . [we have to be] able to continue the conversation, push on the conversation towards resource and action outside of like accountability . . . making sure elected officials are allocating cost towards better programs that help keep our community sustainable." (Interview 06, March 18, 2022)

Long-term government disinvestment, in Los Sures and other communities of color, creates deep-seated feelings of mistrust in official interventions. One interviewee commented that they observed mistrust and vaccine skepticism in the community, because "communities of color have no reason to trust the government." (Interview 05, March 18, 2022)

Adding to the issues of government mistrust is the fact that a percentage of community members are undocumented, meaning they lack legal status to reside in the United States. This was particularly important during the pandemic, as these individuals were unable to access aid

through traditional mechanisms, such as unemployment. Providing for these families through the shutdown was a major concern for El Puente. One step staff members took was obtaining "money to get groceries for our undocumented and food insecure families, then we went and delivered to those families. It was 50 families that were identified food insecure or who were undocumented and couldn't get federal aid." (Interview 03, March 15, 2022) Providing community for these families was a major priority for El Puente staff; 'within the community' support is also in line with organizational self-definitions as a community-driven nonprofit.

Los Sures community members also identify themselves in opposition to the more gentrified North Williamsburg – not just in terms of the physical space occupied, but also the disadvantages and community losses experienced. For example, one volunteer remarked that although there has been an influx of new residents in Williamsburg over the past few years, it seems like only the long-term residents are concerned about or even aware of the implications of poor air quality. Several interviewees also commented on the sense of gentrified Williamsburg as an entirely different community, with different needs, like the prevalence of bars mentioned by one former volunteer. The same participant also brought up the "synthetic grass" at the newly redeveloped Domino Park on the Williamsburg waterfront as an example of open space that does not feel like it was designed for Los Sures residents. (Interview 06, March 18, 2022) This is particularly interesting because it is a illustrative of the movement of the Los Sures community away from any open spaces – historically, the Williamsburg waterfront was an industrial site home to the Domino Sugar Factory, but today, it is firmly considered gentrified and inaccessible. For Los Sures residents, they are physically and metaphorically being pushed away from healthier, greener areas.

Another major community concern, particularly during COVID-19, was the role of wealth and social mobility. When asked to reflect on major shifts to organizational work during the pandemic, multiple interviewees identified themselves or an immediate family member as essential workers who had to take great risks to remain employed during the initial months of the shutdown.

> "I got to honor my mom as an essential worker. . . uplifting the people that have held it down, despite not getting the hazard pay they deserve, despite not fully getting the recognition. [And being told] that we had to return back to normal and that delusional state that that has imposed upon our communities." (Interview 06, March 18, 2022)

> "Nonprofits, community organizations are frontline workers period. Our staff was constantly putting themselves at risk to make sure that we had – we had these things called learning labs, where basically youth who were doing remote school and couldn't at home because they didn't have a parent to take care of them because the parent had to go to work there; they would be at our sites on computers doing school there." (Interview 03, March 15, 2022)

During the pandemic, being a frontline worker meant a severe limitation of choices; individuals in these jobs did not have the option to work remotely in order to lessen their risk of contracting COVID. In addition to increasing exposure, high percentages of frontline worker status in Los Sures also shaped community responses to the pandemic. Based on survey data, staff identified exposure risk as the element of most major concern to El Puente community members, even nearly two years into the pandemic (Interview 01, January 19, 2022). Although for some staff members it felt like intellectually, air quality and OA/NA became more important (Interview 05, March 18, 2022), organizationally, professionally, and personally, people were focusing on day-to-day surviving and staying as safe as possible. In line with El Puente's positioning as a community-led organization, they shifted and responded to Los Sures' stated need.

The organization defines itself over and over again in its written documentation and the statements of volunteers and staff as a space for community power, not an external force. Per one interviewee's perspective, El Puente is "a catalyst, not an oasis. . . [it] isn't just a project, it's a movement. . . It's not just an organization, it's the way that we affect our community. And then in turn how that affects their lives. And then it kind of just ripples." (Interview 03, March 15, 2022) Most important to El Puente, above all else, is the flexibility to respond to community need – a flexibility which was displayed in practice when the organization began to work on environmental justice, and which is displayed again in organizational shifts to provide essential services during COVID.

> El Puente's co-founder, reflecting: "I think having a real understanding of the root causes of our lived experiences gives us also an opportunity to change [our experiences]. And that has always been fundamental to all of our work . . . really emphasizing that we have the power to create a people's movement that can put the pressure on the government to do that. But that first has to come with our own understanding of the issue. And that's where I think this has been important." (Interview 04, March 16, 2022)

Discussion

The findings of these interviews clearly affirm the importance of El Puente's environmental justice work and community advocacy; they also reveal useful insight into the role COVID did (and did not) play in framing of air quality issues. One question I asked all of the interviewees was how OA/NA changed or did not change due to the pandemic. I was expecting them to reflect on the issue of long-term air quality exposure, or comment on increased attention to air pollutants. However, the response I got was much more pragmatic – basic needs were not being met. For the most part, El Puente, like so many other organizations, was doing what it could to make sure community members stayed alive. One interviewee expressed this issue particularly clearly when they pointed out that

> The correlation of environmental racism, air quality, asthma; I can literally draw an arrow in my head right now, ending at higher predisposition for COVID mortality. And we were talking about it, but I don't know how much was absorbed because it's one of those things where it's like, yeah, we put stuff out, you know, we raise awareness, but people are just trying to like get by and survive. . . It's not like you can only do so much in terms of like educating and informing. But sometimes if you're like just struggling to feed your family and stuff like those nitty-gritty details don't matter. Like, I wouldn't give a shit. If someone was like, if I have like three kids to raise and I have to pay rent, I [wouldn't] think about that stuff. (Interview 03, March 15, 2022)

Although the issue of air quality affected COVID mortality rates, it was naturally deprioritized when basic needs were not met.

This result does not mean that environmental justice does not matter during a pandemic. However, public health practitioners and researchers like myself would do well to consider environmental justice movements in a broader context. In particular, these findings reflect the concept of eco-pandemic justice, aligning new forms of "social movement activism. . . anchored in the varied, intersectional lived experience of the health, social, and economic impacts of illness (Powers et al., 2021) In addition to reinforcing the concept of eco-pandemic injustice, these results also further reify the inextricable nature of social and environmental inequity, and illuminate the need for an intersectional understanding of environmental movements. In particular, it is clear that El Puente conceptualizes identity-based oppressions, particularly racism and classism as root causes of poor health, and it is imperative that healthcare providers understand these effects and consider them in any attempts to treat population health, even at the neighborhood level.

Conclusion

After exploring El Puente's air quality work, both prior to and during the current pandemic, I have contributed to the literature by providing a case study of hyperlocal community advocacy and self-determination. I have also explored El Puente's work through the lens of eco-pandemic injustice, and concluded it is important for its intersectional approach to what is considered environmental justice related and how that work gets done on the ground in communities. Finally, I've expanded upon existing case studies of citizen science at El Puente, particularly as illustrated in *Street Science* (2005), in order to understand how grassroots organizations engage with and produce quantitative scientific data.

Phase 2 of El Puente's Our Air! / ¡Nuestro Aire! is designed to focus on mitigation, with specific recommendations for closure of "the ramp to the Williamsburg Bridge on Roebling" and improvements to "the quality of toxic air in La Guardia Playground and across the street, Continental Park" which is described as "where all of our children, all of our seniors, all of our families congregate. . . Right there at the Williamsburg Bridge." (Interview 04, March 16, 2022) These mitigation recommendations were described informally to me in an interview. As they are formalized and written down, they will undoubtedly go through a series of changes, becoming more responsive to community need – in fact, the inclusion of park air quality in the first place may already be shaped by post-COVID demand.

As in other case studies of environmental justice, El Puente pushes back against the idea that science is morally neutral, with a specific objective outcome, and instead sees data as another tool in a larger toolset of ways to interpret experiences. This is particularly interesting in the ways in which their air quality campaigns engage with the co-production of lived experience and artistic narrative as well as quantifiable data. In Los Sures, it is clear that environmental health, perceived through the lens of access to clean air, is a changeable concept deeply influenced by shifting narratives of place, identity, and pandemic.

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