

HUNTER URBAN REVIEW Spring 2025 Resilience

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Letter from the Editor

City life shouldn't be this hard. For decades, justice-minded planners and policymakers have elevated and celebrated urban heroes who refuse to give up. We've venerated lifelong city residents who stood firm as developers tried to bulldoze their neighborhoods, seeking to preserve a flourishing urban existence for their children. These stories remind us that we, too, can find the strength to resist powerful, unjust forces that allow a handful to dictate daily life for the rest of us. Successful urban planning and policy, however, should take that load off their shoulders.

Cities are created over generations, and many past legacies have not yielded urbanism built to overcome twenty-first century challenges. From the housing shortage to transportation congestion to climate change, efforts to enact more just and sustainable urban systems are more critical than ever. The stories that make up this issue explore the people and projects fostering social and physical resilience in increasingly unequal and ecologically threatened places.

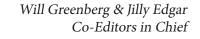
This issue's theme, "Resilience," includes some of the unimpeachable characters we must continue to praise. We're interested in the imaginative vision that drives these efforts, the processes to realize them, and the lives behind them-both the planners and communities who believed in their city's potential.

We need to celebrate path-paving figures like David Wojnarowicz, as Rocco Praderio does in his inspiring retrospective, and recognize their willingness to take bold risks. There are also plenty of quieter, unsung heroes of our urban space, like the neighbors cleaning trash from their streets in Rebecca Odell's joyful piece, or locals quite literally paving a new path shown in Sebastian Sopek's entrepreneurial essay. We also must rethink how we live within our tangled web of urban connections, from our relationship to the tourist economy, as seen in EJ Katz's urgent

piece on Barcelona, to restoring long-lost ecosystems, seen firsthand by Megan Diebboll in her compelling oyster update, to future-proofing one of the city's most precious resources, its buildings, as Noah Wharton's feature thoughtexplores.

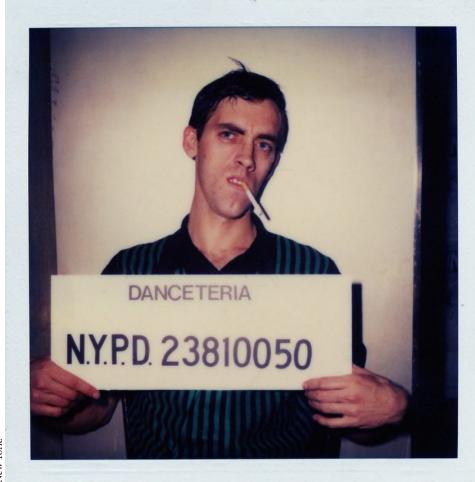
People across diverse contexts are working to reconcile our economic and built environment with our ecological one, as recounted in Dana Debari's richly-reported story on the New Jersey buyout program and Marley Kinser's harrowing coverage of the Eaton wildfires, so that all present and future generations have the opportunity to fall in love with cities. Doing so requires balancing an electric, imaginative vision with the pragmatism and patience to navigate the complexities of the incumbent system, like skaters in Taylor Richards' eye-catching photo essay did to express themselves in their home city, and working across disparate interests to achieve something greater, as coalition members were able to do in Jilly Edgar's forward-looking piece on thermal energy networks. Through it all, we must reject the nihilism of our time's existential challenges, as Isabella Geeding captivatingly urges us to do in her painting.

Our peers are entering a job market and life in cities that are hostile to a happy future. So what's encouraging is how these pieces explore a new vision for our lives; one where we don't have to fight back all the time. It would warm our hearts to see nothing but a city of softies, not hardened by their circumstances but happily embraced by urban spaces built just for them.





** LOOKING BACK



LESSONS ON RESILIENCE FROM DAVID WOJNAROWICZ

By Rocco Praderio

David Wojnarowicz had enough to worry about. One year earlier he had tested positive for HIV and was subsequently diagnosed with AIDS. The new antiretroviral treatment that he had been taking made his mind race and caused frequent spells of nausea and vomiting. On top of that, Wojnarowicz was still grieving the loss of his mentor, the photographer Peter Hujar, whom he had tirelessly cared for as the same novel virus quickly extinguished Hujar's life.

Wojnarowicz (pronounced voy-nəh-ROH-vitch) had also been deflecting nervous phone calls from Susan Wyatt,

n the fall of 1989, thirty-five- the executive director of Artists Space, year-old visual artist and writer a small nonprofit gallery tucked away on Cortlandt Alley in lower Manhattan. Artists Space was preparing to open an exhibition called Witnesses: Against Our Vanishing, curated by the photographer Nan Goldin, who wanted to highlight the devastating effects of the ongoing AIDS crisis on the arts community. Goldin asked Wojnarowicz to participate in the show and he agreed, submitting both a handful of photographs as well as an essay for the exhibition catalogue titled Post Cards from America: X-Rays from Hell. Like all Wojnarowicz's work, his essay was biting and incisive, criticizing the lackluster and often homophobic responses

to the AIDS crisis from the government and religious establishment.

"At least in my ungoverned imagination I can fuck somebody without a rubber or I can, in the privacy of my own skull, douse Helms with a bucket of gasoline and set his putrid ass on fire or throw Rep. William Dannemeyer off the Empire State Building. These fantasies give me distance from my outrage for a few seconds." It was this deadpan daydream of violence against Senator Jesse Helms of North Carolina and House of Representatives Member William Dannemeyer of California, included in his essay, that landed Wojnarowicz in hot water with Wyatt and the board of Artists Space. He insisted on calling out Helms and Dannemeyer in his essay for two reasons: not only had these politicians led national campaigns against gay rights and AIDS crisis relief, but they also continuously attacked the National Endowment for the Arts (NEA) for funding projects they found personally objectionable. The text also singled out the Catholic Archbishop of New York, Cardinal John O'Connor, describing him as a "fat cannibal from that house of walking swastikas up on fifth avenue," for the Cardinal's superficial commitment to AIDS crisis relief as the church refused to endorse condom use and fought against safe sex education and abortion access. Despite Wyatt's anxious requests to tone down his essay, Wojnarowicz refused.

On the morning of November 8th, 1989, Wojnarowicz left his loft in the East Village to buy a copy of the New York Daily News. He was expecting the paper to be dominated by coverage of the landmark election of David Dinkins as the first Black mayor of New York City, which had occurred the night before. However, he was shocked to see the headline "CLASH OVER AIDS EXHIBIT: SoHo gallery fears Fed backlash" on the front page—and to read that his catalogue essay was the primary reason why the National Endowment for the Arts would be rescinding



its grant to Artists Space to support the exhibition.

It is rare that matters of cultural policy make front-page news in the U.S., but Wojnarowicz's work had become a lightning rod overnight in the burgeon-

1980s and early 1990s. By this point, Wojnarowicz was already known for his unabashedly visceral artistic practice, but the controversy over Witnesses: Against Our Vanishing—and his resilience in responding to bad-faith ing American culture wars of the late attempts to misrepresent and censor

his work—would define his place in art history as a radical social visionary and reluctant public policy critic.

To understand Wojnarowicz and his perspective is to understand him as an organic product of the urban cultural environment. His long relationship with New York is well documented by Cynthia Carr, a contemporary and friend of Wojnarowicz who eventually wrote his biography, Fire in the Belly.1 He grew up in Hell's Kitchen, mostly left to his own devices during his teenage years, and like many itinerant young people, he discovered sex work as one of the quickest ways to make a decent wage. This would prime Wojnarowicz to discover his own queer sexuality as well as his place in the larger social power structures of the city. Fearing rejection, he was careful to keep his sex work and emerging gay identity secret from his family, which required sleeping elsewhere frequently. Because of this, he experienced significant periods of homelessness as a highschooler,



TOP: David Wojnarowicz, Untitled, 1990. Three-color lithograph. | BOTTOM: David Wojnarwoicz, Arthur Rimbaud in New York, 1978-79. Gelatin silver print

barely graduating from the now-defunct High School of Music & Art on the City College campus in Harlem.

But it was through day jobs—not prestigious university degree programs, fellowships, or residencies—that Wojnarowicz built his social network of working-class artists who would become his friends, roommates, and co-conspirators. He relied on self-training and the feedback of his peers to develop his artistic voice—taking full advantage of New York's booming informal cultural ecosystem in the 1970s and 1980s. Wojnarowicz's network would expand exponentially through free workshops at the St. Mark's Poetry Project, chance encounters with beat poets at a laundromat on Atlantic Avenue, spray painting in abandoned warehouses on the Hudson River piers, drinking at legendary gay bars like Julius' in the West Village, and countless day jobs at bookstores, furniture outlets, and nightclubs.

Helms and Dannemeyer began their mission to smear the NEA earlier in 1989 by fabricating two controversies surrounding grants the agency made to support the work of artists Robert Mapplethrope and Andres Serrano. Mapplethorpe offended the larger conservative movement by depicting nudity, homoeroticism, and sadomasochism in his photography, while Serrano had upset the Christian Right with a photograph of a crucifix submerged in a plexiglass container of his own urine. Helms and Dannemeyer whipped up outrage in Congress and crafted a public scandal, managing to pass an amendment to an appropriations bill that prohibited using federal funds to promote, disseminate or produce "anything the NEA thought obscene, 'including but not limited to depictions of sadomasochism, homoeroticism, the sexual exploitation of children, or individuals engaged in sex acts which do not have serious literary, artistic, political, or scientific value."2

This so-called "decency clause"



forced the NEA to threaten revoking the \$10,000 grant that Artists Space had received to support Witnesses: Against Our Vanishing. This put the small nonprofit gallery in a terrible position: Wyatt knew that Wojnarowicz's explicit essay would violate the clause and endanger their grant. On one hand it would be a betrayal to ask an artist to censor themselves for a funder but, on the other hand, disrupting Artists Space's relationship with the NEA could cause a ripple effect in which private funders deem the organization too politically risky to support. Beyond this, publicly violating the decency clause could inspire additional attacks on the NEA and jeopardize public arts funding nationwide. But this predicament was Helms and Dannemeyer's intended outcome. Carr explains it well, writing, "the far right saw a uniquely exploitable world: skilled professionals making highly charged imagery they could take out of context. The right wing frothers soon learned that, yes, nuance could be

crushed, intimidation would work, and facts did not matter. Right wing media would get the lies out unchallenged."3

Wyatt and the Artists Space board encouraged Wojnarowicz to remove the names of Helms, Dannemeyer, and O'Connor from his essay, which he refused. The board then proposed a liability waiver to insulate Artists Space from the consequences of Wojnarowicz's words, which he signed after consulting the Center for Constitutional Rights, a nonprofit that agreed to defend him pro bono should any of the named individuals take legal action. As the exhibition opening drew closer, the chairman of the NEA even asked Artists Space to voluntarily relinquish the grant, but Wyatt and the board refused. Not much later, the NEA announced the cancellation of the grant, asserting that "in reviewing the material now to be exhibited that a large portion of the content is political rather than artistic in nature."

When Cardinal O'Connor learned of

his involvement in the controversy, he released a statement condemning the NEA's cancellation and defending freedom of expression. In response, Wojnarowicz said, "I find his benevolence questionable, if he would completely reverse the church's repression of safer-sex information and back off from abortion clinics, I would extend my appreciation to this man. But I think it's a political tactic and I won't be fooled."4 Wojnarowicz also had the chance to directly address the NEA Chairman at Artists Space ahead of the exhibition opening. Characteristically fearless, Wojnarowicz declaimed, "[w]hat is going on here is not just an issue that concerns the 'art world'; it is not just about a bunch of words or images in the 'art world' context—it is about the legalized and systematic murder of homosexuals and their legislated silence."

Ultimately, the NEA Chairman reinstated the grant, with the stipulation that NEA funds could not be used for the catalogue—and Artists Space agreed. Witnesses: Against Our Vanishing opened on November 16th, 1989 to an estimated crowd of 1,500 swarming the diminutive gallery. Wojnarowicz took little time to celebrate, immediately expressing his disappointment to the Artists Space board over its agreement



David Wojnarowicz, Untitled (Burning House), 1982. Spray paint on paper.

grant. Unfortunately, this would not be the last time public funding of Woinarowicz's work would come under attack. Less than a year later he would be targeted by the Christian extremist American Family Association, spurring a now-famous legal battle under the New York Artists Authorship Rights Act that would mercifully end in Wojnarowicz's favor.

Wojnarowicz's uncompromising defense of freedom of expression, refusal to comply in advance with censorship, and critique of unjust policy provide a playbook of resilience for the cultural to exclude the catalogue costs from the sector and beyond. In the same essay,

he is quick to indict the art world itself, writing that the behavior of the federal government "only follow[s] standards that have been formed and implemented by the 'arts' community itself. The major museums in New York, not to mention museums around the country, are just as guilty of this kind of selective cultural support and denial." This assertion would prove to be prophetic—even after his death in 1992 Wojnarowicz's work would continue to disturb viewers, as evidenced by the Smithsonian's decision to censor his short film A Fire in My Belly in 2010.

Unlike the navel-gazing stereotypes often cast upon artists, Wojnarowicz was always looking outward and drawing connections between parallel struggles for justice. He implored his audience to understand that the same prejudice targeting his art was letting thousands die from AIDS and restricting access to safe abortion—it was all interwoven, all springing from the same source. As current federal policy attempts to capriciously cancel grants and dismantle public social institutions across all fields of knowledge, including the NEA, the National Endowment for the Humanities, and the Institute of Museum and Library Services, Wojnarowicz's irrepressible disposition and fixation on the networked nature of power is instructive.

Post Cards from America: X-Rays from Hell also depicts a sobering scene at Wojnarowicz's own kitchen table, between himself and a friend who is also coping with the existential crisis of an advanced AIDS diagnosis. Wojnarowicz asks his friend:

"If tomorrow you could take a pill that would let you die quickly and quietly, would you do it?"

His friend replies, "No, not yet," to which Wojnarowicz agrees and responds,

"There's too much work to do." UR

Rocco Praderio is a Brooklyn-based arts administrator who is currently pursuing a Master of Science in Urban Policy at CUNY Hunter College.



David Wojnarowicz, Wind (For Peter Hujar), 1987. Acrylic and collaged paper on masonite. Copyright Estate of David Wojnarowicz.



CAN CITIES SURVIVE MASS TOURISM?

By EJ Katz

n the post-pandemic era, the demand to get away and travel to a faraway city is stronger than ever. After a brief lull in travel during COVID-19's peak, travelers are seeking to make up for lost time, and they are facilitated by cheap flights and encouraged by the rise of social media. The impacts have been extreme and sudden—with the word "overtourism" quickly becoming a buzzword in just the past few years.5

felt more acutely than in Europe. According to the latest UN Tourism report, Europe saw 747 million tourist arrivals in 2024, miles ahead of the next highest region, Asia and the Pacif-

ic, which hosted 316 million arrivals.6 Although intra-European travel is the predominant source of tourism in Europe, Americans play a significant role. Twenty-two million Americans visited Europe in 2024, a figure that has more than doubled since 2010.7 These arrivals are globally unevenly distributed, and further unevenly distributed within Europe. France and Spain received the most visitors in 2023, with 100 million and eighty-five million respective-Nowhere is this influx of travellers ly—with most of these tourists concentrated in just a handful of cities such as Paris, Madrid, and Barcelona.8 How are cities handling this massive influx of visitors? Can cities' physical and social fabrics remain resilient in the face of

such immense pressure?

Barcelona

Barcelona is the prime example of a city suffering from overtourism, dating back to its revitalization prior to the 1992 Olympics.9 With its industrial capacity, particularly in textiles, declining due to new technologies, competition from global markets, and strain from the 1973 Oil Crisis, the city used the Olympics as an opportunity to revitalize formerly industrial areas, creating public spaces and waterfront access. 10 These efforts greatly improved the quality of life for many in Barcelona and they also attracted tourists. Flash forward to to-

day, and the Barcelona region receives more than twenty six million tourists a year with a metro area population of just 5.7 million.¹¹

The problems and implications of overtourism encompass all areas of urban planning, especially housing. The rise of AirBnB has led to international example, in popular tourist neighborhoods like Barcelona's Eix-

ample, there is one tourist apartment for every fifty-seven residents.12 The housing crunch is especially acute in Barcelona and Spain as a whole compared to other European countries facing similar overtourism. Part of this can be explained by the difference in public housing stock. Heavily-touristed countries like France and the Netherlands have 14% and

34% public housing stock, respectively, compared to Spain's meager 2.5%.¹³ In Barcelona, these circumstances have led to a 68% increase in rent over the past decade.14

Barcelona's previous mayoral administration under Ada Colau responded to these conditions by instituting measures such as a new hotel ban and a tourist tax.15 The current administration, under Mayor Jaume Collboni, has pledged not to renew short-term lease licenses which end in 2028, and to close cruise terminals by 2030.16 The city council also recently had a bus route removed from Google Maps, as it had been previously so packed with tourists that it was unusable for locals.¹⁷

Many have a hard time believing that the short-term lease and cruise terminal closures will come to pass. Daniel Pardo Rivacoba is a member of the Neighborhood Assembly for Tourism Degrowth (ABDT), an organization formed in 2015 in response to the housing and overtourism crises. "Both of them are just promises," he said regarding the above policies. In regards to short-term rentals, the 2028 date

the next mayor. Even if these promises were kept, Rivacoba said that these apartments would remain out of reach of the average Barcelona resident unless the move was paired with policies that ensured the apartments return to ples worth following. For example, affordability. He also doesn't have much investors snatching up properties. For faith in the cruise ship license ban in

> "The North American vacationer since been realized as the who insists on American fast-food agreed to allow 475,000 hamburgers, coffee with his meals, ly - down from the initial hot running water in his bedroom efforts mirror ABDT and and the use of the English language is a familiar image."

> > er interests that won't agree," he said. Confirming his suspicions, Barcelona opened a new cruise port this year, likely locking in cruise traffic for the foreseeable future.18

Europe that Rivacoba thinks are managing tourism well, the answer was a resounding "no." No city as of yet is seriously pursuing a degrowth agenda in regards to tourism, he said. What ABDT would like to see is a commitment to fewer tourists, not just better management of an ever-increasing been proposed: tourist taxes, limiting numbers of visitors. In his view, even

would put this decision in the hands of an equitable redistribution of revenue from tourism would not eliminate the other negative impacts from tourism, like overcrowding, lack of housing, and loss of neighborhood functions.

Yet he thinks there are some exam-Amsterdam's Schiphol Airport is slowly reducing the number of flights it will al-2030. "The city council only has one low. Rivacoba feared even this meager

> effort would face immense backlash, a fear which has Dutch government has to 480,000 flights annual-460,000 goal.19 Schiphol's other local organizations' successful efforts to fight the expansion of Barcelona's El Prat airport in 2018, an effort Rivacoba recalls fondly while recogniz-

seat at the table...there's so many othing that the fight is not over.²⁰ He also pointed to a Green Party proposal in Germany which went as far as suggesting limitations on the number of flights individuals could take per year, or at a minimum taxing short-haul flights When asked if there are any cities in highly to encourage train journeys instead. The idea of limiting flights that individuals can take, although highly unlikely, would be "the only way to make tourism degrowth not classist," Rivacoba said, highlighting a major conundrum when it comes to managing overtourism. The central tools that have short-term rentals, promoting longer

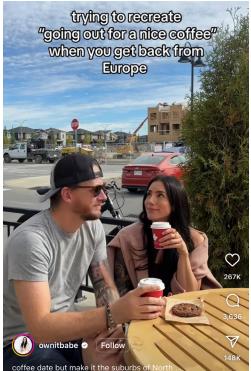


stays in destinations—all make tourism less accessible to those with less money.

The current relative accessibility of tourism is partially a result of hidden costs. Rivacoba points to the fact that jet fuel is heavily subsidized for European travel. Public dollars also go towards promotion for tourism, an effort that, if ended, he believes would be very symbolic of the Barcelona or Catalan government taking tourism degrowth seriously. Is the goal simply to make tourism more expensive, leading to a decrease in visitors? Where does the tourist factor into this?

The Tourist's Side

When asked for his thoughts on reaching tourists, and potentially changing their behavior, Rivacoba seemed doubtful. "What we need to change is the tourism production and not the tourism consumption," he argued, but questions remain surrounding why tourists choose to travel and what they're seeking when they travel. Americans visiting Europe are travelling thousands of miles and spending their disposable income to experience walkable neighborhoods. Travelers often claim to be seeking authenticity in other cities, something that can not





quite be defined, but they are convinced does not exist in their own cities.

This realization is neither unique nor new. An essay in Hosts and Guests: The Anthropology of Tourism, a pioneering 1989 work studying the new phenomenon of mass-tourism, came to this similar conclusion: The middle class tourists' "thirst for cultural authenticity seems at once a recognition of the supposed cultural impoverishment that has accompanied economic success..." and the experience of tourism provides

"an opportunity for a limited self-criticism...a kind of pseudo-tragedy in which the affluence that makes touring possible is the very cause of the loss of cultural authenticity."21

The imperialistic nature of tourism has long been noted, as host countries bend to the desires and demands of foreign tourists. To quote again from Hosts and Guests, "the North American vacationer who insists on American fast-food hamburgers, coffee with his meals, hot running water in his bedroom and the use of the English language is a familiar image." In this view, the tourists' perspective needs to be considered, as their demands directly impact conditions in the host country. At a certain point the tourists' desires become privileged over the residents' needs. Therefore, ABDT's goal of tourism degrowth is understand-

able. Barcelona has likely surpassed its tourism carrying capacity. Is the answer ultimately no tourism? Probably not. But maybe a solution exists back in the

Americans deserve more "authentic" cities at home. It's noted in Hosts and Guests that travelling is socially sanctioned, even valorized, while staying at home during one's time off is seen as "doing nothing."22 Anthropologist Denish Nash asks, "Is it possible that the principal psychological consequence of tourism for the metropolitan side is an awakening or heightening of discontent? (They'll never get me to go back to Indianapolis!)".23 There's a common theme on social media where Americans, upon returning from Europe, try sitting outside at their local cafe to recreate their experience abroad, only to find themselves on a noisy, busy street or in a parking lot. Should Americans accept that their cities will be permanently lackluster and "inauthentic"? Maybe if they were not Americans would not be compelled to fly thousands of miles to experience something that instead was just down the block. UR

EJ Katz is a Master of Urban Planning student at Hunter College. He is interested in all things transportation and resiliency planning.

PAINTING





RISING TIDES

By Isabella Geeding

ow should we live in a world that regards climate disaster as a foregone conclusion? Contemporary life is a series of climate events, whether in the form of oneoff disasters or the constant threat of new ones on the horizon. Some events shake the world, like Hurricanes Katrina and Sandy, while omnipresent

issues like global warming and sea level rise rarely make the headlines even as they transform the world as we know it. Surely you have been told at some point, "Visit Venice while you still can!" or "Well, one day New York will be underwater, so enjoy it for now," or some version of this global story about "rising

(continued on page 42)

mericans on social media reliving their Euro visit



OH OYSTERS! AN OYSTER'S ROLE IN RESILIENCY PLANNING

By Megan Diebboll

nimals hold a critical yet often overlooked role in urban planning, embodying resilience in ecosystems shaped and reshaped by human hands. Among them, oysters have demonstrated a remarkable capacity to endure, forever shapeshifting with the relentless tide of urban change. Until the twenty-first century, oysters flourished in New York Harbor—in fact, New York City was once celebrated as the Oyster Capital of the World. For centuries, oysters were not only a culinary staple but also a cultural symbol

of abundance and prosperity. In 1609, approximately 350 square miles of oyster reefs stretched across the harbor, with some oysters growing as large as ten inches in diameter. To early New Yorkers, oysters were more than just food; they embodied the richness of the harbor and the sense of possibility that defined the city.

NYC's streets are quite literally paved and created by oysters; they could be considered the first urban planners or landscapers of the city. Pearl Street in the Financial District is named for a massive oyster midden that once stood

there before the Dutch built the street on top of it. New York's oysters didn't make pearls, but the crushed shells shimmered with a pearly sheen, scattered across the ground like a quiet reminder of the city's once-rich waters. Additionally, stone buildings like the iconic Trinity Church at Wall Street and Broadway are still held together with mortar made from oyster shells, ground into a strong, chalky paste.

As with so many things in New York City, waste played a key role in the downfall of the oyster dominance. Despite containing half of the world's

oysters in the seventeenth century, the lower Hudson estuary's oyster industry was ultimately wiped out by pollution and overharvesting. But they weren't gone for good. In the early 2000s, oysters reemerged through ecological restoration; by the 2010s, they were woven into urban design and policy. Today, they're part of New York City's living infrastructure.

Oysters as Infrastructure: Marine Ecosystem Health and Shore Mitigation Efforts

Oysters are undeniably resilient and ecologically essential creatures, deeply woven into the history and infrastructure of New York City. Oysters provide critical environmental services that strengthen urban coastlines against climate threats through marine ecosystem health and shoreline mitigation efforts.

Oysters are powerful contributors to water filtration and overall ecosystem health. A single oyster (average size of three inches) has the ability to filter up to fifty gallons of water per day, effectively removing pollutants, excess nitrogen, and regulating algae growth to prevent harmful algal blooms. This natural filtration process improves water clarity, supports the growth of underwater vegetation, and promotes marine biodiversity by creating healthier aquatic environments.

Beyond water filtration, oysters play a crucial role in supporting marine biodiversity. By reducing nutrient overloads, they prevent harmful algal blooms, which can otherwise damage marine life. Oyster reefs themselves act as complex structures that provide essential habitats for a wide range of marine organisms. These reefs also serve as nursery grounds for juvenile fish and other marine creatures, supporting the food web by offering a valuable food source for larger species like fish and crabs.

Inspired by efforts like these, New York City takes its cues from the Chesapeake Bay model, integrating oysters into its own coastal restoration and water quality strategies. Led by Dr. Su-



TOP: Oysters pulled from the East River. (Megan Diebboll) | BOTTOM: Oyster Research Station with bucket to wash the oysters. (Megan Diebboll)

zanne Bricker of NOAA's National Centers for Coastal Ocean Science, oyster farmers, and state environmental agency officials, the Chesapeake Bay Restoration focuses on revitalizing oyster populations to enhance water quality and sustain local fisheries. to expand oyster aquaculture in the Chesapeake Bay region. This initiative aims to boost the local economy while improving water quality in the bay. By filtering algae, oysters help remove harmful elements like nitrogen and phosphorus, improving water quality. For example, in Chesapeake Bay, adding one million three-inch oysters can eliminate nearly 200 pounds of nitrogen and twenty-two

pounds of phosphorus, a fact that led to the inclusion of oyster tissue in nutrient management plans.

In New York, the Billion Oyster Project is a nonprofit organization dedicated to restoring oyster populations in New York Harbor to improve water quality and coastal resilience. Its restoration of oyster reefs throughout the harbor directly supports shoreline resilience. By installing reef structures in strategic intertidal and subtidal zones, the project enhances both ecological function and physical shoreline protection. These efforts integrate nature-based solutions into urban coastal defense systems, complementing gray infrastructure and



advancing climate adaptation goals.

One of the oyster's most important roles is creating a natural breakwater, reducing wave energy and mitigating storm surge damage. By stabilizing shorelines, oysters help prevent erosion and protect cities from flooding. Oyster reefs function as living infrastructure that significantly reduces coastal vulnerability. Their three-dimensional structures attenuate wave energy by increasing bottom roughness and disrupting wave momentum, which dewaves before they reach the shoreline. This natural breakwater effect lowers the risk of storm surge damage during extreme weather events.

Additionally, by fostering sediment deposition and stabilizing substrates (underlying surfaces like sand or rock), oyster reefs combat coastal erosion. They slow water flow, allow-

ing suspended sediments to settle and accumulate, which can lead to vertical accretion over time. This process is vital for adapting to sea-level rise as it promotes the elevation gain needed to keep pace with rising waters.

During the month of May, I volunteered with the Billion Oyster Project on Mondays for their public Oyster Research Station (ORS) monitoring sessions. Our crew met at Brooklyn Bridge Park's Pier 5, where small-scale oyster habitats hum with life. These stations creases the height and force of incoming function like underwater apartment complexes, containing oysters and attracting a vibrant community of marine organisms, including crabs, shrimp, sea squirts, and biofouling species. One of the staff members even reported spotting seahorses during a recent session, a promising indicator of increasing biodiversity.

Each week, we conducted field mon-

itoring using standard ecological protocols: measuring oyster shell height as a proxy for growth, recording mortality rates, and documenting associated invertebrate species. This data helps track the health of restored reef sites and contributes to long-term urban estuary science. Oysters, as keystone species and natural water filters, play a critical role in improving water quality and supporting marine food webs. The work I did supports the Billion Oyster Project's goal of restoring 100 billion oysters to New York Harbor by the end of 2035, contributing valuable data toward assessing reef viability and ecological impact.

The return of oysters to New York Harbor is less a story of reinvention than one of reconnection, of catching up to a past in which nature and city once thrived together. As we face rising seas and environmental uncertainty, these resilient creatures offer a model for how urban planning can align with ecological wisdom. It was heartening to see such a wide range of people involved; kids, seniors, couples, and scientists all drawn together by a shared curiosity and care for the harbor. Clipboards in hand, surrounded by the salty breeze and the sound of lapping water, we became part of the slow, steady pulse of resilience, one oyster at a time. UR

Megan Diebboll is an urban planner, social worker, and artist working to create and sustain liberating environments in green and public spaces across NYC.





FOGO DE LONGHORN OLIVE QUEENS BOULEVARD 200 ft WOODHAVEN BLVD M **LEGEND** Planned Walkway Sidewalks Parking Lot Area MTA Subway Line

THE ROAD BEST TRAVELED

Exploring Desire Paths in Queens

By Sebastian Sopek

three Queens neighborhoods (Elmhurst, Corona and Rego Park) lies Queens Center Mall. This shopping destination attracts many from around the borough, city and from outside the city. The mall is, in theory, very accessible: it is right off the M and R trains at Woodhaven Blvd Station and is an easy drive via the Long Island Expressway. Modernist improvements in the 1950s carved out the pre-existing street grid, with extra space adjacent to the expressway used for ramps and parking lots. Facilitated through de-mapping 60th Avenue between 92nd and 94th Streets in 1954, the direct route leading straight down to Queens Blvd was blocked by a slope with cars swerving on top and a vacant lot for their storage. People could use the sidewalk to access Queens Blvd and

the subway station there by walking on

ocated at the intersection of 59th Avenue to the north, but, hoping to avoid a long and indirect route, they have created their own path through the lot over time.

Ease of pedestrian mobility should take into account the natural order of how humans move about a space, with efficiency valued highly. Desire paths are unplanned, physical manifestations of ideal mobility: a path is visibly present and worn from foot traffic, but deviates away from the pre-established path meant for such travel. Desire paths are often strewn throughout college campuses where there are large, grassy open spaces and students tend to move from building to building in a repetitive pattern. Desire paths are not always in a straight line, they are the product of how the environment influences an individual. They are "instances wherein individual interests and desires collectively, but independently, make

imprints on the social landscape over

Subway Station Entrance

Some desire paths are simple, like the one above: people cut the corner across the grass instead of taking the longer route along the built sidewalks. People are willing to muddy their shoes or risk an uneven walking surface in favor of the faster route. Others are more complicated, like the one leading from the western end of the Queens Center Mall parking lot as you walk inward, depicted on the next page. The nearby twenty-story office building attracts hundreds of commuters each morning heading from the train as the building serves as office space for the New York City Police Department (NYPD), New York City Department of Environmental Protection (DEP) and ConEdison, among others. Adhering to official routes, the sidewalk means people would have to walk an additional two



blocks more than is needed and, understandably, the majority choose not to, turning instead to walk through the parking lot. This means passing by dead rats, spillage from restaurant waste, turned-off lights, and the dan-

ger of sharing a road meant only for cars and commercial trucks delivering goods. On the weekends, the lot is jammed with cars of people visiting the restaurants and the pileup can resemble people walking through a maze of moving metal. Among those issues, drivers looking to make a shortcut may drive through the lot from end to end, and oftentimes, I have observed many cars moving at speeds higher than the city limit. To prevent this, a gate

has been installed on one end

as well as in the center but that gate has made traversing through on foot even more of an inconvenience.

A variety of neighborhood uses lie beyond the parking lot. Co-op buildings line one side of Junction Blvd, with the larger LeFrak City apartments on the other, in addition to a post office, a supermarket, and several local food establishments. The ground floors of the co-ops contain medical, dental and pharmacy services. The parking lot stands out as a rather unusual feature, zoned as C8-1, which is what many gas stations and transportation storage and maintenance facilities fall under, while the surrounding blocks are that of higher residential densities R6 to R8.

16

Prior to 2013, the parking lot was closed off fully as it was used for mall parking with no restaurants at all. There was, however, a dedicated space for people to walk between the fence and parked cars from one end to the other. Upon the reconstruction of the lot with three new restaurants—Olive Garden, Longhorn Steak-

house and Fogo de Chao—the space was absorbed as part of the new parking lot and now people must walk within the roadway. Some years back, an improvised garden path was created on the end by the subway, dubbed the El-



limit. To prevent this, a gate Pedestrians forced to walk along edge of the parking lot. (Sebastian Sopek)

mhurst Sculpture Park. It featured miniature sculpture replicas and alternative art along with a few benches that lined the desire path trampled into the grass.

I seemed to be the only person looking to create a kind of formal walkway here, although I suspected I may find some allies. Last year, I created a flyer with a code to scan for people passing in the vicinity of the parking lot to fill out a brief survey

on how they feel about the idea. This effort yielded sixty-one responses over about a week and a half, with 92% either supporting or strongly supporting the idea. One survey respondent found it difficult to cross the lot with a stroller when the gates are down; others noted that the cars have to maneuver around pedestrians, and that weathering combined with rats and trash make for an unpleasant walk.

I brought the plan along with the survey responses to the office of Queens Community Board manager Christian Cassagnol, who was delighted to support the idea and he recommended I get in contact with the restaurant owners as well as the mall property manager in order to highlight the walkway's benefits. I got in touch with the mall man-

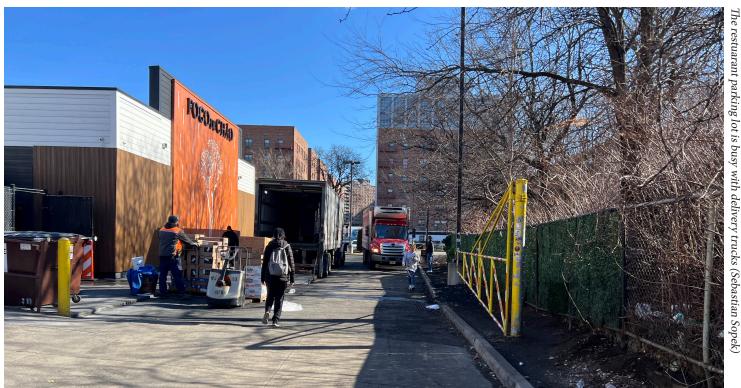
ager who felt it was a good idea, but provided me with a phone number for the owners of the restaurants and oarking lot. I emailed Mark Lucaj who was a decision maker within the real estate firm, Mattone Investors LLC. He replied with some follow up questions about who would ultimately be responsible for the walkway but stated that "as long as it does not affect our property or increase our maintenance obligations, I do not see a

problem with your idea."

To build a better connection with the community, I set out with a table set up on one end of the lot to talk with people



The created desire path within Elmhurst Sculpture Park (Sebastian Sopek)



that were walking through and asked them to write down their opinion on a post-it note. Many seemed to resonate with the idea and the majority of comments referenced their safety because of close contact with moving vehicles. The second-most popular comment was the plea for a more clean and aesthetically pleasant green space through restoring the vegetation along the walkway. A few employees coming from the DEP office were helpful enough to offer their own feedback and leave contact information. I got to speak with David Jonathas from the Green Infrastructure unit, Emile Bensedrine who is an NYC Urban Fellow, Kate Edden who is a Project Manager, Alan Cohn who is the senior policy and science advisor for the Bureau of Sustainability, as well as one that I had already connected with on LinkedIn, Andrea Bianco, an urban planner and city research scientist. The DEP employees as well as some residents said they have been walking here for years and they felt surprised that the city has taken no action to fix this. A big concern noted by the employees on one afternoon was the presence of the pickup tow trucks that circle the lot for hours, with Alan Cohn despising the "tow truck company prowling the yard

driving aggressively." Seen below are examples of the input that was written down by passersby.

passersby. I looked into the next steps of making this new walkway a reality. I found that the ownership of the land falls under New York State Department of Transportation (DOT) and any vegetation obstructing the path can be cleared without as much scrutiny. Drainage and engineering challenges may arise as the narrowest point is on a slope, as well as the need to install new lamps for the path. Upon a visit to the DEP office a stone's throw away, I spoke with an engineer from the Green Infrastructure unit who sternly said that it may require a reconfiguration at the (continued on page 42)

Walkway catch basin used for fogo trash. Restaurants close off paths/gates for cars. Sometimes dead animals.

Concerns w/ safety, cars passing, litter. No walkable spaces, no green clean space A lot of dead rats too. Need walkway.

- Victoria

A walking path
would be great for
commuter safety
and to avoid walking
on private property
of nearby businesses.

night and the area is a bit of an eyesore/waste as a parking lot. Having a nice trail/path would benefit the neighborhood greatly.

– Josie H.

This area is poorly lit at

I want to have an easier

route to the subway

without having to go

around and waste tim

and to make it more

This has been a

pedestrians for

decades and is

needlessly dangerous

We can do better.

walkway for

station or bus stop

- Josie I

I support this as lots of pedestrians cross this path! I've worked at DEP almost 16 years and have thought we've needed this the whole time.

- Alan

Feedback for a possible new walking path. (Sebastian Sopek)



WHAT'S NEXT FOR L.A.?



Looking Forward from the Eaton Fires

By Marley Kinser

7th, fires erupted in the undeveloped mountains that cradled the town of Altadena and swept down, to the south and west. Over the next few days, firefighters fought that blaze along with one on the other side of Los Angeles County in the Pacific Palisades. Ultimately, the town of Altadena would be

where my mother lives, the spectre of natural disaster lurked in the back of

n the evening of January the Los Angeles National Forest, the wildland-urban interface as amenity for the bohemians and cowboys that populate the town. We'd wind through mountain roads running errands and I couldn't help but imagine how easy it would be to be trapped by fire or leveled in a mudslide. The City Skylines approach to a place like this, pure urbanist rationality, is to not rebuild, or at the very least, to cluster civilization in Whenever I would visit Altadena, a hyper-densified core of the burnedout bit. What is the justification for putting the same structures up in the my mind. It's a town pressed up against same places, and hoping that a warm-

ing planet, with more extreme weather, does not ignite here again?

To begin to talk about the future of Altadena requires an explanation of Los Angeles County. The County, where Altadena is located, is home to nearly ten million people, largely living in communities that range from ten to twenty thousand. Some of these communities are incorporated as their own cities, with their own city councils and mayors and rules around land use, some are folded into the City of Los Angeles, and some are unincorporated areas governed by the county. There are eighty-

eight cities within Los Angeles County, and over a hundred unincorporated areas; the incorporated cities range in size from the City of Los Angeles—the second-largest city in the United States, home to nearly four million people—to places like Vernon and Industry, areas exclusively zoned for manufacturing with populations in the low two hundreds (Vernon is the second-to-least populous city in the state of California, beaten only by Amador City, a gold rush town in the Sierra Nevadas that occupies 0.3 square miles).

The legal boundaries of the City of Los Angeles contain most of the valley in the Northwest, the downtown core, and very little of the east or south, save for a strip to connect to the Port of Long Beach. From this, there are also chunks randomly missing, Beverly Hills and some similar communities forming literal enclaves. It's a shape so absurd it's hard to come up with abstractions so clean as Italy's boot, or even the salamander that would inspire the term "gerrymandering." If it were a Rorschach test, it's hard to imagine what a popular, prosocial answer could possibly be. The specific contours are less important than knowing: 1) strong municipal governance in general is hobbled by this and 2) Altadena is unincorporated and therefore has no mayor, no city council, and no police, receiving its services directly from the county.

Because of the bizarre absentee governance, what does responsiveness look like? Who makes the rules? What government actors are working on this and do people know that? There is an Altadena Town Council, but they have little power. All they do is make recommendations to the county supervisor (worth mentioning that this relationship seems quite positive and free of the jurisdictional fights that are more familiar here). The county supervisor basically functions as the mayor, and while they have a large team of support staff, Altadena's county supervisor is also responsible for sixty-three other unincorporated communities.

Rebuilding is a given—the land be-

neath the char is simply too valuable. But it remains to be seen if that rebuilding will be done by a conscientious old guard that wants to shepherd from dilapidated, abandoned ruin over Altadena, or done by industry looking to extract. It also remains to be seen in what ways the potential for further fire damage will be regulated, what role will be played by building code, legislation, and the market vis-a-vis insurance rates. What might urban planning look like, essentially building from scratch a town that until very recently existed, with a strong history and a deeply invested community?

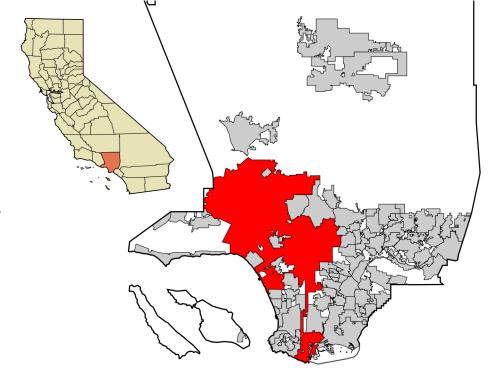
residents. For many, they were actively drawn to the area for its diversity and affordability. Its relative lack of oversight has historically been a large part of why Altadena has thrived—it was a home for middle class Black Californians through the mid-twentieth century when the neighboring city of Pasadena passed racist segregationist laws. It also has become home to a thriving artist community, similarly enjoying being unencumbered by rules-y municipal government.

I spoke with one Altadena resident, an artist named Molly Tierney. She had claimed squatter's rights fifteen years ago and successfully adverse-pos-

sessed the home which she lost in the fire. While she had rebuilt the house, a gorgeous 1930s mission style home, many years, I was surprised to hear her say she was ultimately more attached to the land. She described "it's still really green, my old oak trees are fine, and I have my plants that I planted fifteen years ago."

The property had been lush, the large yard filled with agave and jade plants grown to resemble small trees. I asked if she felt she had any unique insight into the building process, having rehabbed The answer could come down to the her house so thoroughly before. Ultimately, she said, she knew how to find things cheaply, affordably, relying on reuse and more circular methods. She didn't need or expect much guidance from the powers-that-be moving forward, she assumed that she'd be turning once again to YouTube for instruction.

> Tierney emphasized, too, that her ideal vision for what gets rebuilt would not necessarily be a single-family home on the lot. Prior to squatting her house, she had lived in John Joyce University (JJU), a communal living compound for artists in a former mansion-turned-orphanage. She pointed to this arrangement, as well as to the nearby Zorthian Ranch (a former sum-



Map of municipalities in Los Angeles County, the City of Los Angeles in red. (Wikipedia)



mer camp and ranch which now houses scores of artists), as examples of what could be. The ranch she described as "a weird Oasis where it wasn't even properly permitted" with little bungalows tucked around the property for everyone, deeply affordable. She also mentioned that her current rental, about 300 square feet, had also prompted her to rethink how much space was really needed. She didn't want to see developers come in and exploit the character of the town, but she also argued that people opposed to the kind of density present at JJU or the ranch didn't comprehend the climate crisis.

I tried to probe Tierney on the matter of governance: who was she hearing from? Was there guidance, what kind of response would be ideal? She pointed to building codes (more sprinklers) and more resilient infrastructure for utilities (moving wires that can spark underground) for future fires, but at present, what she mainly expected was loans to aid in rebuilding, and what she mainly wanted was greater freedom to rebuild how she wanted, again citing the Zorthian riff on bungalow courts (themselves an invention of the nearby Pasadena).

She had great faith in the Altadena community preserving mutual aid and fundraising, fostering a strong community spirit to resist predatory development; though she did acknowledge the difficulties of rebuilding for older residents and for families. I caught her as she was wrapping up a day of cleaning up at her property, she told me she felt a real urgency around getting it ready and cleaned up not just for herself but for her neighbors, a sort of post-apocalyptic version of keeping the lawn mowed and weed-free.

After our conversation, I spent some time poking around Altadena on Zillow. A mix of empty lots and still-standing structures were listed. The sunny real estate copy was jarring next to the photos it accompanied:

Rare Opportunity: Rebuild Your Dream Home in the Foothills of Alta-



na's coveted foothill community, this prime lot offers a blank canvas in one of the most sought-after neighborhoods in Los Angeles County. While the original structure was lost in the January 2025 California fires, the spirit of possibility remains strong this is your chance to create a custom retreat tailored to your vision. Located on a quiet, tree-lined street surrounded by mountain views, mature oaks, and historic character homes, this property sits on a generous parcel with utilities in place and driveway access intact. Whether you're an end-user looking to build your forever home or a developer seeking a high-potential investment, this parcel combines location, infrastructure, and community charm. Just minutes from Eaton Canyon hiking trails, the Altadena Country Club, and eclectic shops and cafés along Lake Ave-

dena! Situated in the heart of Altade-

Neither the aforementioned Altadena Country Club nor hardly any of the eclectic shops and cafes along Lake Avenue still exist. What could make this

04/27/25)

nue, this lot offers both tranquility

and convenience! (Zillow, accessed

place a sought-after neighborhood still? It's challenging to look at the detritus of a family's life so thoroughly upset next to the phrase "high-potential investment" and feel anything other than a blistering, impotent rage, wondering how and why we've organized a society that allows for such rapacity.

Over the phone, Tierney emphasized that she understood people selling their lots and leaving, especially those without insurance, or older residents that may not want to deal with rebuilding. What's alarming is less the sellers than then the buyers: a recent report from Strategic Actions for a Just Economy found that of the ninety-four parcels sold from February 11th to April 30th, 2025, forty-five of those sales were to corporate landlords, versus five out of ninety-five sales in the same time period in 2024.

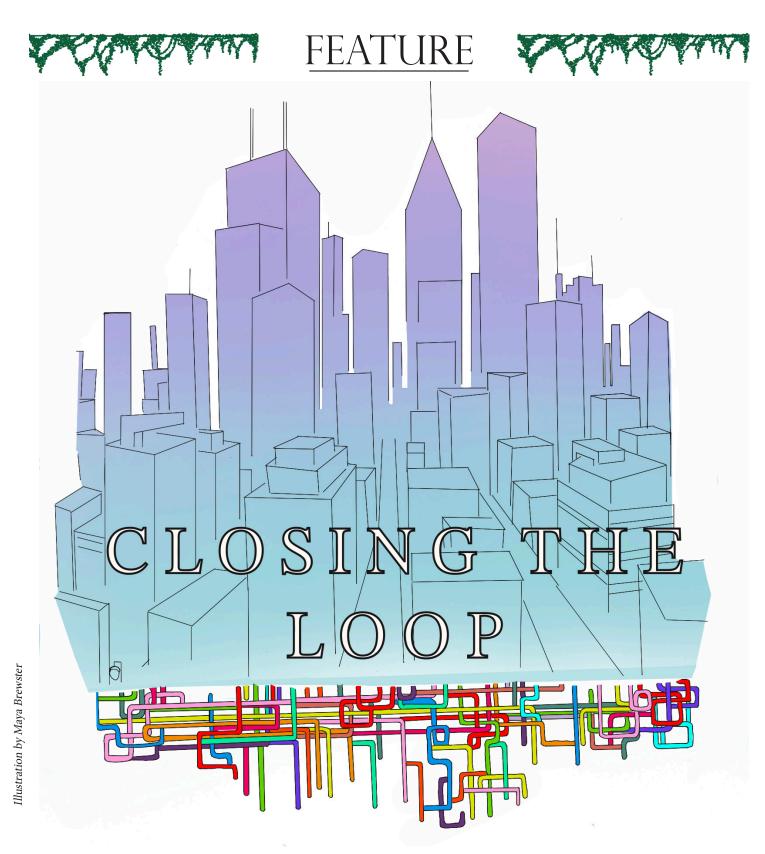
Tierney had more optimistic things to point to: her own experience with the artist's mutual aid network, providing not just food and clothes and shelter, but also help with life administration and people to grieve with. She also pointed to the group My Tribe Rise, which was doing similar outreach with the Black community in West Altadena. In my own digging, I found articles on

place a sought-after neighborhood still? budding community land trusts, and It's challenging to look at the detritus of a family's life so thoroughly upset next to the phrase "high-potential invest-" ist typologies for collective houses.

Ultimately though, I am a bit of a pessimist, and I'm skeptical that the DIY ethos will be able to fend off predatory capital to the degree that it needs to. Then again, it doesn't seem like there's a municipal government in this nation that's been able to effectively stay affordable for long-term residents in the face of seemingly sudden discovery and desirability, so it seems unlikely that incorporation or anything less DIY/more official would be of use. I don't know what the solution is, but I hold a gentle awe for the residents that stay and insist on defending a community, a neighborhood, even in the face of its utter obliteration. One looks at the rubble and realizes that the only possible thing left to stay put for are the neighbors themselves. UR

Marley Kinser is a recent graduate of the Master of Urban Planning (MUP) program at Hunter College, currently working in zoning and land use for the City of New York.

Molly Tierney's home before the fires. (Courtesy of Tierney)



Why Thermal Energy Networks Are Critical for a Just Transition

By Jilly Edgar

n a cold and misty morning in March 2024, more than two hundred people gathered in a nondescript conference room in Albany to discuss the future of New York State's energy system. It is rare for a group this diverse—filled with labor unions, state agencies and legislators, utilities, climate justice advocates, and technology executives—to coalesce in the United States, as their relationships have historically been rife with conflicts of interest. In New York, however, a critical yet little-known clean energy solution has forged enthusiastic shared ground between them and served as the theme of the gathering: thermal energy networks.

Allison Considine, the Senior Campaigns and Communications Manager at the nonprofit Building Decarbonization Coalition (BDC), which co-hosted New York's first Thermal Energy Networks Summit alongside the New York State Pipe Trades Association (NYSPTA), explained how thermal energy networks, or TENs, have unique advantages that "provide this consensus pathway for a lot of stakeholders." That's why the organizations present at the Summit had been working together for over two years through a coalition called UpgradeNY to ensure TENs play a central role in the State's strategy to reduce economy-wide greenhouse gas emissions 85% by 2050, as mandated by the Climate Leadership and Community Protection Act (CLCPA).

As part of this strategy, during her 2022 State of the State address, Governor Hochul announced a plan to have two million "climate-friendly" homes by 2030, but Considine pointed out that, three years later, we are not on track to meet those goals. TENs can address this gap because they make it possible to decarbonize entire neighborhoods—or even entire districts instead of approaching the problem building by building and house by house. Put simply, they unite previously separated buildings through a network of pipes to hyper-efficiently heat and

cool them.

In her speech at the 2024 NY Thermal Energy Networks Summit, BDC Director Lisa Dix highlighted how TENs, in addition to enabling neighborhood scale decarbonization, help achieve a just transition for New York's workforce and guarantee investments in underserved communities. Recognizing TENs' ability to unite stakeholder interests as much as buildings, BDC helped found UpgradeNY with the New York League of Conservation Voters, the New York State Building Construction and Trade Council, the New York State AFL-CIO, WE ACT for Environmental Justice, the Alliance for a Greater New York (ALIGN), the Sierra Club Atlantic Chapter, and the Alliance for a Green Economy (AGREE). By collaborating on campaigns, policy, and market transformation, these groups are putting TENs at the heart of New York's just transition.

Historic Roots, Untapped Potential

Thermal energy is one of the most fundamental energy sources at our disposal, like the kinetic energy—or energy of movement—produced by a flowing river or a spinning wind turbine. One of the most familiar kinds of thermal energy is geothermal, or the Earth's constant temperature of around 55 degrees about 10 feet below ground level. For more than 10,000 years, from indigenous North America to ancient

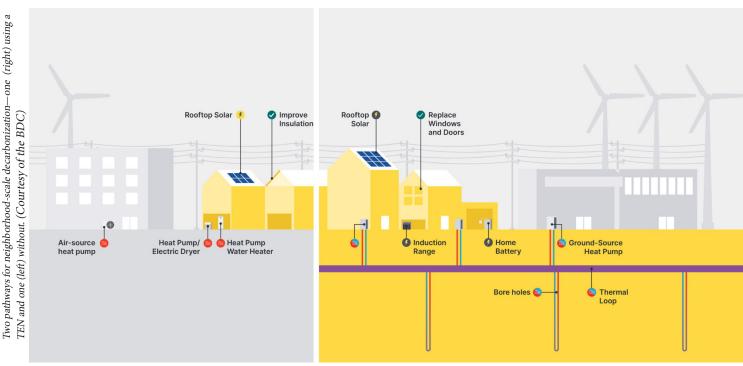
lied upon geothermal energy to cook and heat buildings and imbued it with spiritual and medicinal significance. We continue to take advantage of geothermal energy today when relaxing in the thermal baths and touring the hot springs that are common in the western United States. European and Asian countries have their own long standing geothermal traditions that the United States is beginning to learn from.

At the same time, anything from using computers to running underground subway trains to treating wastewater can produce thermal energy, making it ubiquitous in 21st-century human settlements. Over 70% of this heat generated through human activities is wasted, however, according to the Yale School of the Environment. TENs are designed to capitalize on this abundance and minimize waste by capturing heat produced at the source and distributing it to places where it is needed. Inevitably, TENs also function as cooling mechanisms by removing heat and redistributing it to another location.

While other clean energy technologies, like solar panels and wind turbines, have entered mainstream parlance, TENs continue to fly comparatively under the radar. This may be due to the fact that, rather than generating energy, TENs are capturing and redistributing existing energy, typically between buildings, so that it may be used instead of wasted. Buildings currently rely on fossil fuels for heating and cool-Greece and Rome, people have re- ing, whether by directly burning oil



Panelists at the Thermal Energy Networks Summit in Albany last year. (Courtesy of the BDC)



or natural gas on-site or using an air conditioner powered by fossil-fueled electricity. Replacing these carbon-intensive systems with TENs can significantly lower a building's greenhouse gas emissions, an important advantage when nearly a third of New York's greenhouse gas emissions come from buildings.

Azulay, executive director of AGREE, compared TENs to hugging your friends to stay warm in the wintertime. "We can reduce the amount of exposure that our bodies have to cold air and reduce how much heat is leaving our bodies, therefore conserving and keeping heat in for both of us by reducing the transfer of heat from our bodies to the environment," she explained. "So the big question here is: how can buildings hug?"

TENs, she went on to explain to a chuckling audience, are the hug. They form an inter-building pipe system that thermal energy, even if they are not directly next to one another. This physical design is similar to the natural gas distribution system, but instead of moving methane and steam derived from combusting natural gas, TENs move fluid that relocates heat from places that need cooling, like data centers, to plac-

es that need heating, like homes.

The overlap between TENs and natural gas infrastructure has been key to winning labor union and utility support for this technology. Harkening back to the industry's successful installation of 1.5 million miles of natural gas distribution lines in the mid-twentieth century, John J. Murphy, international At the March 2024 Summit, Jessica representative for the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada, executive board member of the New York State AFL-CIO and the New York State Building and Construction Trades Council, and fourth-generation union plumber from Plumbers Local 1 in New York City, envisioned TENs as the next generation of workers' great achievement in his opening remarks at the Summit.

He emphasized how such an enormous task would ensure economic opportunity for disinvested communities allows buildings to share and conserve across New York. "We will build healthier, climate resilient communities, maintain and create equitable family-sustaining union careers, and ensure that New York has the skilled workforce for tomorrow to realize our clean energy future," Murphy told the applauding crowd, "That is a just transition."

Twenty-First Century Challenges

Fully utilizing this technology not only requires extensive pipe work, but also that buildings be completely electrified because electricity powers the movement of fluids throughout the TEN. Thanks to heat capture, these systems are considered some of the most efficient means of heating and cooling available. Though efficiency is often invoked as an empty buzzword, in physics it can be measured by a fairly straightforward concept: the coefficient of performance (COP).24 COPs vary from context to context, but studies have shown that geothermal systems and TENs can provide 300% to 600% efficiency, exceptionally high performance compared to other technologies like a gas furnace or air conditioner.

Escalating energy demands resulting from climate change and technological expansion make finding energy-efficient solutions especially important as we work to achieve a fossil-free future. Not only does efficiency minimize waste in and of itself, but it helps ensure the grid is able to reliably distribute energy between users. Though TENs increase our current grid capacity due to building electrification (as do most other clean energy solutions), they are one of the only renewable energy sources

that reduces grid strain and vulnerability because of their exceptionally high COP and ability to make use of heat that is already in the environment. They also replace the work that electricity-demanding air conditioners previously did by moving heat away from a space in order to cool it down.

Preparing the grid for a climate-changed future is perhaps the most important infrastructure question the world currently faces, not only because the grid will become more vulnerable as floods, heatwaves, and other climate impacts intensify, but also because expanding renewable energy means scaling up electric capacity to levels we have never before executed. In the United States, grid infrastructure is more than a hundred years old in many places and prone to technical issues like outages that will worsen without thoughtful and proactive grid upgrade and expansion. New York City alone has more than one million buildings, many of which are not fully electrified and still rely on gas

their basements. Electrifying all ity that has not been adequately

planned for yet.

of decarbonizing each building individually, as currently mandated in the City's landmark climate law, Local Law 97, cannot be overstated. Cost burdens on individual property owners alone threaten its political feasibility and the law has already received pushback, as property owners attempt to meet its first deadlines. Lack of resources also makes it more difficult to build trust between property owners, especially individual owners, and those managing the public programs for decarbonization measures. Oftentimes necessary steps like personal information collection become obstacles for home mitigation and resiliency ret-

Networked designs like TENs can address this challenge to spur momentum and alleviate pain points by leveraging shared costs and distributing investment risks among a group, similar to cooperative models like community solar. Getting a large group of residents on board with a project is no small feat, but the advantages of distributing responsibility among property owners and every other stakeholder involved with a large TEN project are significant.

Testing It Out

To fully understand how TENs can work around these challenges, UpgradeNY helped pass the Utility Thermal Energy Network and Jobs Act (UTE-JNA) through the state legislature in 2022. The coalition's first major victory, the bill authorized utilities to construct TEN pilot projects throughout New York with provisions for labor standards and other related aims of the CL-

"We will build healthier, climate furnaces or oil-fueled boilers in resilient communities, maintain of them through new laws such and create equitable family-sus- heating system: a cogeneration as Local Law 154—the mandate to ensure all-electric construction—will add significant capac- sure that New York has the skilled electricity production and genworkforce for tomorrow to realize Seeking to replace this now aged Additionally, the challenges our clean energy future. That is a just transition."

> CPA, a major step forward in ramping stall a system that utilizes geothermal up climate efforts. The New York State Public Service Commission (PSC) released rules that regulate the new utility TENs and help finance this new kind of infrastructure in summer 2024. The aim is to achieve much lower costs than individual building owners would pay undergoing retrofits on their own.

Thanks to UTENJA, twelve thermal energy pilot projects around New York State, costing a total of \$880 million, are currently under review by the PSC in Buffalo, Rochester, Haverstraw, Ithaca, Brooklyn, Syracuse, Troy, Mount Ver-

non, Rockefeller Center, Chelsea, and Poughkeepsie. Over the coming years, utilities will draw up plans and submit them for state approval, advancing the state's understanding of real-world TENs. In one proposal, for the Chelsea project, waste heat will be captured from a data center and used to provide the soon-to-be-redeveloped Fulton Elliot Chelsea public houses with clean and efficient heating and cooling.

In addition to the pilot projects, Jamestown, New York, home to the largest of forty-seven municipally-owned-and-operated utilities with generation in New York State, is scoping a TEN with support from the New York State Energy Research and Development Authority (NYSERDA)'s Just Transition Site Reuse Planning Program. The program enabled Jamestown to freely assess its options and quantify costs. Jamestown's heating infrastructure is unique in that it relied upon steam district heating from 1948 to

> 1969, when customers switched to natural gas due to lower costs. Then, in 1984, the municipality installed what is now its district (combined heat and power) system to capture waste heat from erate both heat and electricity. infrastructure, officials sought a new system that proactively addresses Jamestown's needs.

Jamestown is planning to inwell fields and captures heat from a wastewater treatment facility to power space heating and domestic hot water for sixty-eight customers. Earlier this year, two Jamestown Board of Public Utilities (BPU) engineers even traveled to Denmark to research a similar operating system and assess how they might be able to replicate it at home. Considine hopes to learn from Jamestown's pioneering example as the State gears up to construct new renewable energy and TENs.

Jamestown's TEN as well as the other

25 24

rofits.

pilot projects will need years before they are fully operational. In the meantime, the State is looking for potentially faster results at their own properties: SUNY and CUNY campuses. Using funding from the Clean Water, Clean Air, and Green Jobs Environmental Bond Act of 2022, Binghamton University, University at Buffalo, SUNY Oswego, Stony Brook University, City College of New York, Brooklyn College, and last but not least, Hunter College, will invest in climate-related construction work including thermal networks, solar PV panels, and electrification by 2026.

What's Left to Do?

New York is not the only place experimenting with TENs expansion. Utility commissions in Massachusetts, Maryreviewing around two dozen proposals legislation in favor of utilities constructing TENs. Massachusetts' Framingham project is the country's first utility-operated underground thermal energy network, a one-mile loop of pipes that connects houses, apartments, commercial buildings, a community college campus, and a fire station. Totaling \$14 million and already seeking to expand after going online last year, it's a major step forward for TENs in the US, but it does not entirely replace the existing gas infrastructure. Doing so



would likely require not only more legislation, but the consent of some of the most important stakeholders who have not received their fair share of discussion up to now: ratepayers.

For the ratepayer—people like you and me who pay to use energy from the system—the tactics New York and other states are pursuing with TENs, like coordinating strategies among stakeholders and prioritizing investment in underserved communities, are central to implementing an equitable transition away from fossil fuels. This is because ratepayers who continue to use the gas system as fewer people rely on it are burdened with disproportionately high costs. If communities with the least means are left to invest in new infrastructure last, they will also be left with the costs of every other customer land, Minnesota, and Colorado were who used to contribute to the newly stranded gas system. This unjust and in 2024, while eight states have passed infeasible scenario can be prevented with carefully designed policy to guide the transition.

> Because of a utility regulation called the "obligation to serve," however, it just takes one reluctant customer to keep the old system in place. Every state has regulations requiring gas utilities to provide gas to any customer in their service territory. If there is just one person on a system who does not want to stop using natural gas, the infrastructure must remain operational by law. Removing the obligation to serve in only the pilot project areas, UTENJA misses a critical opportunity by failing to remove it at a wider scale.

Another bill currently awaiting the Governor's signature in Albany, the New York Home Energy Affordable Transition (NY HEAT) Act, would end that obligation.²⁵ According to WE ACT for Environmental Justice, a member of Upgrade NY, the bill is "designed to make energy more affordable while helping advance New York's transition to renewable energy, ensuring that New York State's Public Service Law is aligned with the CLCPA...[and] would end wasteful ratepayer subsidies to build out more gas infrastructure

and curb utility costs for the most energy-burdened."

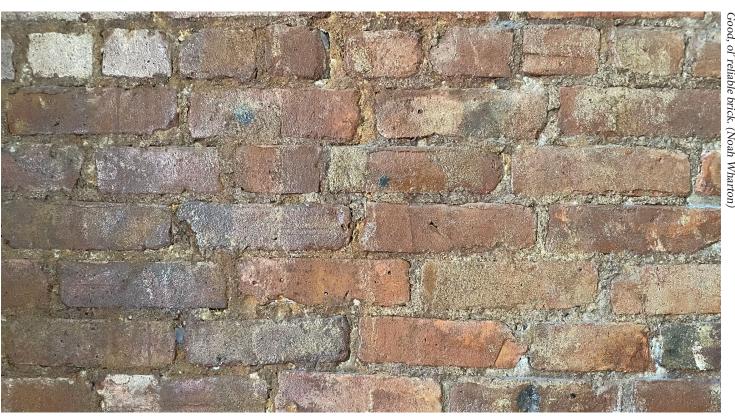
One of NY HEAT's proposed provisions is a 6% household income cap on energy bills for low-income customers. The cap is meant to directly address the energy affordability challenges disproportionately faced by customers who are low-income people of color. Additionally, curtailing the obligation to serve and the 100-foot rule, which "requires utilities to build a gas pipeline to any building or home within 100 feet of an existing gas main at no cost to the customer," seeks to prevent unnecessary and exorbitant costs to the tune of \$200 million a year for the remaining ratepayer pool as the State's own laws deem gas infrastructure obsolete.

In the United States, \$347 billion in utility investments into gas distribution pipelines have already been "locked in" to be paid off over the next fifty years according to research from Cambridge, Massachusetts-based nonprofit Home Energy Efficiency Team (HEET). Another \$698 billion in future capital costs is hanging in the balance with expansion plans currently under discussion. Leaving ratepayers that kind of future gas bill while mandating clean infrastructure is contradictory at the very least. Creating legislation to manage the transition from fossil fuels to new infrastructure is imperative, especially when its key stakeholders are aligned.

UpgradeNY and all of its member organizations will keep working to ensure some of our most important 21st-century infrastructure enables humans to live more equitably and thrive long into the future. As with all elements of the climate transition, exceptionally thoughtful and creative long-term planning is essential to invest resources intelligently and ultimately save lives. It is a rare opportunity that the interests of so many different groups converge around this high-potential solution. **UR**

Jilly Edgar works to decarbonize the built environment and improve people's lives along the way.

HOUSE CARE



Old House Eco Handbook and the Promise of Thoughtful Maintenance and Investment in Green Retrofits

By Noah Wharton

Imagine a window in a very old building. The paint has been mostly worn away and the wood frame is dull and rotting in one corner. It's giving weathered, neglected, decrepit. If this were your home, what would you do with this window? Many professionals will tell you to replace it with a modern, double-glazed energy efficient window. The Old House Eco Handbook: A Practical Guide to Retrofitting for Energy Efficiency and Sustainability by Marianne Suhr and Roger Hunt encourages you to ignore the replacement window salespeople and repair it instead. Suhr & Hunt point out that with most modern windows, like those made with PVCu

(vinyl) frames, it is often necessary to replace the entire window even when or frame is damaged. However, with timber windows and doors, like those often seen in older buildings, it is "relatively easy to cut out a broken or rotten section, such as the bottom rail of a sash window, and insert a replacement part."26 This reduces both the waste and resources consumed—instead of sending the whole old unit to a landfill and replacing it with a modern replacement that will likely also be sent to the landfill within a few decades, you have a window that is once again in good working condition and could last another 200+

years with proper maintenance.

A home is more than just a place to only a small section of the window lay your head at night. Housing resilience and sustainability is not just about energy efficiency, or sophisticated building technologies. It is about thermal comfort, healthy indoor air, and homes that can weather increasing climate disasters, the deadliest of which is longer and hotter heat waves. A home is a place of refuge that people often form deep emotional attachments to. The state of your home affects not only your physical health but also your psychological well being. Thoughtful resilience and sustainability retrofits are a key part of making sure our homes



support our health and well being.

The Old House Eco Handbook (OHEH), written in 2019, may seem like an unlikely resource for residents of New York City, where 40% of units are in multifamily buildings and 69% of households rent. OHEH is, after all, a practical guide clearly written for an audience of British homeowners with the resources to be choosy about home upgrades. Furthermore, many of the homes OHEH is written for are over 400 years old, with thatched roofs and stone walls. And yet, its guiding principles—research, repairability, a holistic approach, thoughtful use of materials, preserving aesthetics where feasible are valuable to New Yorkers as well, as we all face an urgent need for durable, climate-friendly transformations of our built environment.

we make our homes resilient and sustainable in a thoughtful way, making moderate changes in a logical order that takes into account any systems that may already be approaching their end of life as well as the way various measures interact with each other? For example, installing solar panels when your roof is in need of repair; or replacing your boiler with a heat pump system as it approaches the end of its useful life as a decarbonizing measure. Weatherization and building envelope improvements should be made before selecting your heat pump, so you can right-size it instead of installing a pump with more capacity than your home will actually need once the windows are properly sealed.

Suhr & Hunt also remind us of the

value of traditional materials like timber, clay bricks, and lime plaster that have stood the test of time.27 These materials are natural, non-toxic, and durable. They have demonstrated longevity and compatibility, and can be reused, recycled, or biodegraded safely; in stark contrast to many modern building materials like vinyls, asphalt shingles, and spray foam insulation that are made with petrochemicals and, as we are learning, often pose significant risk to human health. Traditional materials also tend to be low carbon (meaning they produce significantly less emissions compared to materials like concrete and steel²⁸) and create well-insulated buildings that can still breathe,²⁹ avoiding the moisture-trapping and temperature control issues that have plagued modern buildings since the 1920s and 1930s with the introduction of modern insulation and lightweight multilayered construction techniques.³⁰ Additionally, while petrochemical building materials can be cheaper to install, they often end up costing you more in the long run as they tend to break down more quickly and often need to be replaced rather than repaired. Sometimes they aren't even a better option anyway: woodframed windows, like the ones men-OHEH asks us to consider: How can tioned above, are more insulating than vinyl- or aluminum-framed ones.

Historic structures, made from natural and often locally-sourced materials, are among some of the most beloved and highly valued buildings in NYC today. Take, for example, the brownstone. These townhouses were built primarily in the second half of the 19th century with brown sandstone from American quarries, the foremost of which was located in Dauphin County, Pennsylvania. Today they sell for anywhere from \$2.5 to \$20 million. Often built with parquet wood floors, detailed molding,

and intricately carved designs,31 each brownstone retains its own unique aesthetic quality and sense of craftsmanship. Beyond just brownstones, most of NYC's multifamily properties were built before 1940, according to the Urban Green Council. This means they are an important target for reducing building emissions and improving thermal comfort for NYC residents. Historic buildings are also often excellent candidates for adaptive reuse and conversions from single-family to multi-family or vice versa,³² unlike the modern office buildings that have proved so challenging to convert to housing post-pandemic.

Preserving historic buildings is also valuable from an environmental standpoint due to embodied carbon. Embodied carbon is the carbon that is released in the construction phase of building a home (including the manufacturing and transporting of building materials), which then becomes "embodied" in the building itself. Buildings account for 70% of NYC's carbon emissions. The construction of new buildings requires massive amounts of carbon, so every new-build that can be avoided by simply maintaining and upgrading an existing building provides important environmental benefits in avoided additional carbon emissions. This is especially true in an era of globalization, where many materials are sourced and produced in different countries and exported all over the world, generating substantial emissions along the way.

OHEH chides people for their tendency to want to make things like new—to restore old buildings to their original state. What if we made room to appreciate the beauty of age? What does it mean to repair, rather than restore? To repair, rather than replace? To join new wood to old in the corner of the window frame and let the repair be visible? At one point, they tell the reader not to discount materials like marble or granite that "might initially appear to have a high environmental impact...[because] things of beauty and value tend to get passed on as part of the building rather than being ripped out and dumped in

landfill."33 In a world that is dominated by the economic demand to consume, where planned obsolescence has produced appliances that last a fraction of the time they did fifty years ago, where the manufacturers may stop making replacement parts after only 3-5 years, what would it take to change course?

In 2019, NYC passed Local Law 97, which requires buildings over 25,000 square feet to meet certain greenhouse gas emissions limits beginning in 2024. These limits will be lowered in 2030 and again in subsequent years until reaching the stated goal of net zero emissions by 2050. It will take a substantial effort for NYC's larger building stock to make the transition, and even LL97's hefty fines may not be enough to spur building owners to comply. Beyond motivation, owners and boards need guidance on how to update their properties, especially in a very tight market where tenant relocation while retrofits are being performed is often infeasible.

Building Energy Exchange, a building

decarbonization hub in NYC providing "education, exhibitions, technology demonstrations, and research" related to energy efficient building solutions released a new report in March titled "High Rise, Low Carbon." This report profiles fourteen high-rise multifamily buildings that have undergone deep energy retrofits that "resulted in annual operational carbon emissions at or below LL97's 2030 carbon cap." One of these buildings was at 172 E 4th St. in NYC. The twelve-story building, built in 1929, is home to a co-op with an "active" and "financially disciplined" board that managed to reduce its energy use by 32% between 2001 and 2011 through a series of incremental changes: adding a TRV to each radiator (thermostatic radiator valve—a device that detects room temperature and adjusts the radiator accordingly), switching from a fuel oil to a high efficiency natural gas boiler, and several other changes like switching to LED lights and sealing windows.34

This approach, which in fact was motivated not by environmental concerns

but by a desire for energy cost savings and the end of useful life of the old fuel oil boiler, fits in well with the advice of OHEH—a series of unobtrusive smaller changes (two larger changes, one that addressed existing overheating issues and another that was a natural time to replace a system that was approaching its end of useful life) over a several year period, with minimal disruption to tenants or the building itself. As the report



states, "the building's co-op board president began a retrofit journey with a mindset of long-term investment rather than the previous approach of as minimal investment as possible."35 However, this long-term investment mindset is far from common among NYC buildings as evidenced in the "High Rise, Low Carbon" report, which notes that "most retrofits were not part of a longterm capital plan."36

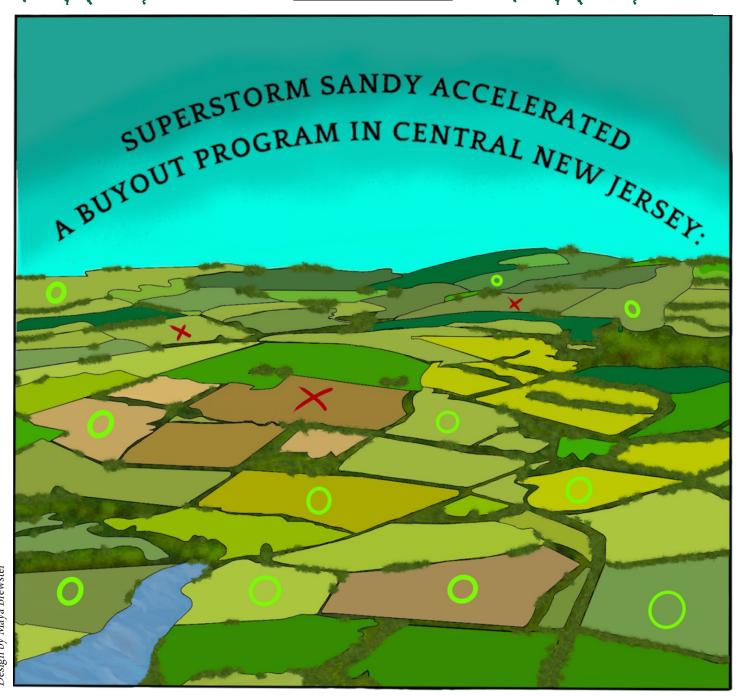
This is at the heart of OHEH's message: care for your building. This means thoughtfully maintaining it through regular repairs and planned upgrades as needed, of course, but it also goes beyond the physical needs of the structure. Emotional attachment and loving long-term investment into a building is part of what roots people in their homes, creating conditions conducive to the development of strong communities. Beauty matters, healthy materials and systems matter, and routine maintenance that keeps a building in good physical condition as opposed to allowing small problems to compound over time matters a great deal. People

who see a building as a long-term home are more motivated to care for it, while those who see it as merely a means of passive income are less likely to treat it with the thoughtful care it requires. New Yorkers are familiar with landlords who only put in the minimum effort to keep it in rentable condition, which makes some naturally occurring affordable housing barely habitable. Landlords like these are extremely unlikely to invest in decarbonization or energy efficiency improvements even when incremental and affordable changes could save them a lot of money later.

This is why pilot programs like NY-CHA, NYSERDA, and NYPA's Clean Heat 4 All window heat pump challenge, that led to the design and implementation of saddle style heat pumps that can be installed in less than two hours by staff with minimal specialized training and plug into a 120V outlet like a window AC unit,37 are so important. They don't involve invasive and highly skilled installation or very particular building specifications and, once widely commercially available, will put decarbonization and improved thermal comfort within the power of tenants as well as landlords. This is just one of many ways the public and private sector can work in tandem to further building decarbonization among older multifamily buildings even without complex and expensive renovations. Bills like the NY HEAT act38 and Intro0994/Tenant's Right to Cooling³⁹ are also vital, as they prevent continued expensive gas infrastructure build out, push landlords to take action to ensure tenants have access to cooling, and will hopefully further encourage updates that increase energy efficiency and decarbonization. It is also vital that Con Edison refrain from continuing to jack up the price of electricity, both to ensure New Yorkers can afford cooling in increasingly brutal summers and to encourage decarbonization. One key finding from the "High Rise, Low Carbon" report was that "The economics of electrification need to evolve before

(continued on page 42)





ARE THE COMMUNITIES NOW MORE RESILIENT BECAUSE OF IT?

By Dana Debari

New Jersey in October 2012, then-Mayor and practicing attorney John Krenzel was still in his first term in office.

hen Hurricane Sandy was happy to never go through again. struck South River, I don't wish that on anybody," Krenzel said. "The three major things I took this town through, Sandy was number one, Black Lives Matter, and COVID."

Roughly thirteen years later, the col-"It was an experience, and one that I lective trauma of Hurricane Sandy is

still fresh for the political leaders and residents who dealt with the aftermath firsthand. However, the sense of urgency around implementing more aggressive resiliency measures, such as residential buyouts, has waned while the allure of waterfront development has persisted.

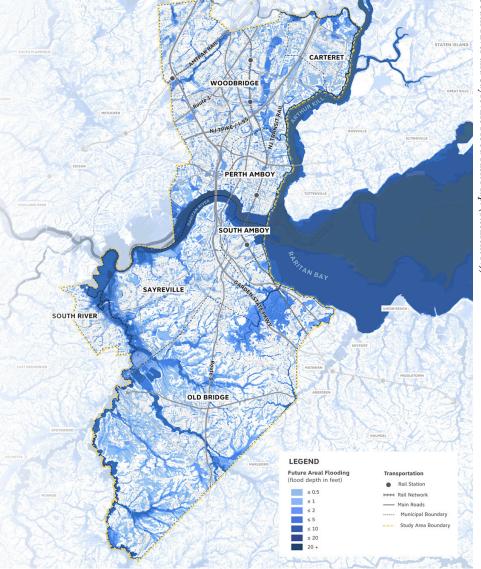
The slogan "Jersey Strong" is typically associated with both the state's resiliency in the storm's aftermath and the image of the Seaside Heights roller coaster engulfed by the Atlantic Ocean, but the storm's impacts were felt well beyond the Jersey Shore and met with much less fanfare. Hurricane Sandy had severe flooding impacts on New Jersey's coastal communities, including the boroughs of South River and Sayreville located in Middlesex County. These communities, home to roughly 16,000 and 45,000, residents respectively, and sit along the South River within the Lower Raritan Basin that flows into the Raritan River. Both municipalities "contain neighborhoods classified by the Center for Disease Control and Prevention (CDC) as among the highest-ranking 'socially vulnerable' census tracts in the state and the country." The residents living within South River's "Main Street" business district—a portion of which is within the flood plain and includes neighborhood grocery stores—are particularly vulnerable to the risks associated with natural disasters.

The storm's lingering impacts continue to shape local politics, regional plans, and statewide policies today. Questions swirl around funding, resources, leadership, time horizons, and community identity, but the hottest debate more than ten years later quietly percolates around future development in these flood-prone areas.

A Region at Risk

Since the storm, there are visible, tangible discrepancies in how risks associated with climate change are being addressed across New Jersey's 564 municipalities. The differences are particularly stark between neighboring South River and Sayreville.

In the wake of unprecedented property destruction, the storm led to a surge in government-funded residential buyouts, a form of managed retreat, with the highest concentration of buy-



outs taking place in Middlesex County (which is highlighted in neon green in the photo on page 32).

The initiative is formally known as the Blue Acres program and is facilitated by the New Jersey Department of Environmental Protection (NJDEP). Since 1995, the state-run program has received funding from several sources, including the federal government, to purchase properties from willing homeowners in high-risk, flood-prone areas and demolish them to make way for restricted open space to be managed by the respective municipalities.

Uniquely, the Blue Acres program is permanent (not prompted by disaster), time efficient (when compared to federal buyout processes), and well-funded with a dedicated revenue stream (a percentage of the state's corporate business tax).

"At first, it was a bit difficult because it was all very new. We and Sayreville were the guinea pigs for the rest of the state, and I think for the rest of the country," Krenzel said, about the early days of administering the Blue Acres program for South River. "And after a while, it smoothed itself out and became much easier to handle, and in fact, I was able to handle a few of the cases myself—the sales of the property. The state would come in and make an offer. The people can decide whether to accept it or not. The vast majority of people did. All the people got their money. It was a rather clean deal. Then the state came in, tore down the houses, scooped up like two to three inches of soil, planted grass, and said to the town, 'It's yours. You can only do certain things with it. And that's that."

According to the current South River

Borough Administrator, Art Londensky, there have been 114 properties purchased in South River through the ownership.

Presently, local leaders are wrestling with what to do with the restricted open spaces. Many of the Blue Acres' open spaces throughout the state, like in nearby Woodbridge, have been transformed into passive recreation flood control measures such as wetland restoration.

Some communities, including both South River and Sayreville, are faced with Blue Acres' open spaces inconveniently interspersed with "hold-out" properties that have refused to accept buyout offers over the years. Essential services to these properties, like sewer and water, still need to be provided by the municipalities.

The Open Space Dilemma

The two communities' approaches to handling the open space have diverged

Maryland

over the past decade.

In 2018, at a time when NJDEP heavily restricted allowable uses on Blue Blue Acres program that are under state Acres open spaces, a community garden was established within the floodplain along the South River near Causeway Park for South River residents. The park is located right alongside Main Street, abutting the commercial downtown and the river.

According to Dr. Heather Fenyk, Presspaces like walking trails, and feature ident and Founder of the Lower Raritan Watershed Partnership (LRWP), the purpose of creating the community garden was an initial, community-driven attempt to put a stake in the ground against future development. However, there is a 100-year legacy of illegal industrial dumping on sites along various portions of the Raritan River that may lead to "essentially dredged spoils" contaminating the land now being used to grow food.

> Raritan Watershed Partnership has "other ideas, like a tree farm...or a Missouri gravel bed" for the open spaces in similar contexts to "prevent addi-

New York Allentown Reading burg Philadelphia Toms River laltimore gton

tional harm" to residents. Despite efforts from organizations like LWRP to inform community members of the associated risks, the South River Community Garden continues to receive applications through its website from residents looking to grow food on the available plots. En route to the community garden and park, Causeway Street is flanked by several auto body shops that remain in operation.

"It's a question of how you can activate these spaces with DEP's approval in a way that is meeting community members' interests and needs," Fenyk said. "A community garden was just sort of the fast and dirty way of doing

As part of the space activation process that same year, the Middlesex County Office of Planning led a regional team (including the five municipalities of South River, Sayreville, Old Bridge, Fenyk mentioned that the Lower Perth Amboy, and South Amboy) in its pursuit of an NJDEP National Disaster Resilience Grant. In 2019, this regional team was awarded an initial planning and engineering grant through the National Fish and Wildlife Federation (NFWF) that ultimately funded 60 percent of "an engineering plan which will reduce not just coastal inundation in multiple communities surrounding the Raritan River, but also help preserve and restore the watershed's ecosystem."

> In preparation for the grant implementation, Fenyk led a graduate-level Rutgers University Environmental Planning Studio during the Spring 2020 semester. The plan was to detail and document the "bigger picture" as it relates to the connections between climate and health outcomes among residents in the Borough of South River (with the municipality's "vacant and neglected Blue Acre buy-out lots" serving as a foundational piece of the broader conversation). The report's findings offer sobering insights into South River's many challenges. Census Tract 69 was identified as one of the tracts with the lowest life expectancy rates at birth in the entire county, and the Borough has several census block groups along



the water designated as "overburdened communities" under the New Jersey Environmental Justice Law.

The overarching goal of the studio report was to facilitate improved community engagement and organizing. With the project derailed by the COVID-19 pandemic mid-semester, Fenyk articulated that "LWRP's primary goals were not met in terms of using the report as a springboard for ongoing engagement... and we weren't able to get back up to speed with South River ever since." Fenyk mentioned the loss of a local advocate, who moved to another state, and the incongruences among the community partners involved including local church leaders, as potential limiting factors that hindered the graduate student research team's ability to gain traction beyond the initial data collection and analysis.

A proposal to develop a recreational trail along South River's waterfront was included as part of its Master Plan Amendment in 2023, but it failed to gain traction. When asked about the trail proposal, Krenzel said that "we could be doing that, but that requires money and South River is a small town." South River is small in both land area (around 2.8 square miles) and in population (approximately 16,000 people)

home to roughly 45,000 people who live within its 15.8 square miles.

In contrast, Sayreville has a dedicated Environmental Commission that develops reports with science-backed recommendations related to open space conservation. In 2022, the municipality hosted the Lower Raritan Watershed Partnership (LRWP), which presented on a proposed action plan with detailed ecosystem restoration and flood control projects. The town's leadership team has been responsive to these proposals.

"Years ago, the municipality, by referendum, established an Open Space Fund to acquire and preserve open space, which is quite spiffy, and it gets replenished. It's like a percentage off the tax base," said Sayreville Borough Administrator Glenn Skarzynski, who started in the role roughly two and a half years ago. "I think we threw in about a half million, \$600,000 a year goes into that account. I'm sitting on about \$7 to \$8 million in that account, which is great, but I'm very limited in terms of what I could use it for. We went to a referendum two years ago, trying to leverage that money to move this project forward, and it was voted down by cally. "They have been invited to everythe voters. We are at the point in our development that there just aren't any

when compared to Sayreville which is large tracts of contiguous space that I can buy. There's nothing left."

> Sayreville's elected officials have also worked collaboratively with both LRWP and nearby Rutgers University on various grant proposals to activate these spaces, especially on Weber Avenue. "No Mowing" signage is prominently displayed on each of the open spaces alongside new tree plantings.

> In February 2025, it was announced that Savreville was awarded a \$1.57 million Resilient NJ grant from the National Fish and Wildlife Foundation's (NFWF) National Coastal Resilience Fund to finalize the designs and engineering plans from the initial 2019 NFWF grant. Despite the fact that Sayreville and South River share the South River as a water boundary, this funding would be dedicated to wetland ecosystem and upland habitat restoration on land within Sayreville's juris-

> "Sayreville is the municipality that really picked up on this and ran... They are so well resourced...and South River, how many times can you place a phone call or send an email and not get a response?" Fenyk asked rhetorithing...just did not pick up the ball and run with it."

South River's lack of involvement in the grant application and implementation processes prevented the grant program's designers from being able to tailor the program more to the municipality's needs, Fenyk explained.

could have done more design that was

specific for South River. We just could not gain traction, even after we had developed the initial 60 percent engineered design in partnership with South River and Sayreville," she said.

Skarzynski explained that the final engineering phase of the NFWF-funded wetland and habitat restoration project is being developed with a focus on achieving three primary goals for the large tract of land: enhancing flood resiliency as much as possible, restoring natural habitats, and creating opportunities for passive recreation, such as walking paths and kayak launches. He also acknowledged concerns about securing future funding to maintain and operate these projects

tial options being considered to address this challenge.

While the Trump Administration cuts back on dispersing federal funds for resiliency projects, Skarzynski says he's still hopeful "because at the end of the day, whether you're an environmentalist or you're a developer, you don't want the shoreline flooding. You want the best bang for your buck out of any of those properties."

Tax Revenue Implications

In defense of his active participation in facilitating the residential buyout process in South River, Krenzel described a noticeable decrease in the severity of flooding in areas that are now pervious open spaces along the the economic implications of the Blue Acres program for the borough was less

positive.

"Economically, it's been hard. We lost, I think now, it's a total of 114 houses, and that hurts. That tax base is gone," Krenzel said. "Sayreville was fortunate because Sayreville was big. So the loss "Had South River been involved, we of a little bit over here, a little over there...they were able to recover, by re-



A flooded Causeway Street in South River that leads to the community garden. (Dana DeBari)

but noted that there are several poten- lying on the rest of the town." Sayreville flood forecasts and address pressing Borough Administrator Skarzynski confirmed this to be true.

> The true economic implications of buyouts throughout New Jersey are currently being debated among academics with the help of federal National Science Foundation funding. As part of a "Demographic and Fiscal Modeling for Environmental Planning" event hosted at Rutgers University's Bloustein School of Planning and Public Policy in New Brunswick on April 22, 2025, researchers presented on an array of on-going projects, ranging from resident survey results detailing their perceptions of flood risk, to a newly developed fiscal impact analysis tool.

Developed by Junghoon Lee, Professor David Listokin, and Professor Clinton Andrews from the Center for South River. The conversation around Urban Policy Research at Rutgers University, the fiscal impact calculator web app serves as an interactive way to as-

sess managed retreat and the loss of homes on New Jersey municipalities' ratables and finances, based on property values and other factors. The tool can theoretically be used by local officials to map out exact tax implications when arguing in favor of more buyouts in the future—a key recommendation made

> specifically for South River in the Resilient NJ: Protect, Restore, Transition Resilience Action Plan For The Raritan River And Bay Communities Region.

> The panelists at the event urged the need for "education" and "a lot of handholding," around the value of these complex resiliency measures and policies—like managed retreat—especially for small municipalities with part-time mayors. Donna Rendeiro, Former Executive Director at the Office of Planning Advocacy and the New Jersey State Planning Commission, posed several intriguing questions to the audience. How do we collectively reconcile four-year mayoral cycles with twenty-year

regional challenges when home rule allows for municipalities to have complete autonomy over their land use and zoning? According to the New Jersey Department of Health, "New Jersey's Home Rule Act grants municipal governments broad authorities to enact ordinance and regulations providing for public welfare and order, and stands as one of the major sources of authorization for local autonomy in the State."

Regarding the buyouts' impact on South River's tax base and overall resiliency, Dr. Fenyk echoed a similar sentiment: "In the long run, it will benefit South River. They just won't have to be dumping money into a very vulnerable landscape and community."

A Transition in Leadership

After twelve years serving as South River's mayor, John Krenzel lost the

Republican primary to Peter Guindi, a then-sitting councilmember, in June 2023. When recently asked about the town's open spaces, Mayor Guindi described them as an unsightly administrative burden that is costing the town plenty, in both tax revenue and sorely needed opportunities for development.

Mayor Guindi is admittedly laser-focused on working with private developers to recoup lost tax revenue, revitalize the Waterfront Revitalization District, and bring the mayoral position from "the 1950s to 2025."

"We lost a lot of utilities, a lot of tax ratables on these houses. And now I'm trying to make it back by bringing redevelopment, which I've been so far successful," Guindi said in an interview. "I mean, we already sealed the deal on four major redevelopment projects. They're going to be breaking ground by the end of this month."

One of the projects Mayor Guindi is referring to is the redevelopment of the former Laffin Chevrolet property in the town's main commercial district along the South River in the floodplain (AE flood zone). The mixed-used project is slated to include a new supermarket, Seabra Foods, and seventeen new housing units.

When asked about this specific mixed-use project, former Mayor

Krenzel let out an audible sigh. "Well, (the developer) told us it's going to be prepared...that if it floods, they are prepared. People are looking forward to it and there's going to be apartments there, but they are going to be up high."

"Economically, it's been prevented the expansion of existing hard. We lost, I think now, it's a total of 114 houses, and that hurts. That tax base is gone."

ideas as part of a broader strategy to create a more functional waterfront, ranging from dredging the South River to facilitate ferry commuter service to New York City, to controlled fires along the marsh.

Regarding the Blue Acres open space, "I'm still running into the problem, because (sic) you have all this empty space. And it looks terrible when you're driving down some of these roads in South River," Guindi stated. "The Blue Acres (program) has come up with so many crazy laws and so many rules, and they're neglecting the obvious, where towns such as South River, where it's

only a 2.7-mile radius, we're struggling just to bring ratables into our town and here I am fighting from both angles."

In both South River and Sayreville, current leadership bemoaned the hold out properties that refused to be bought out at the height of the Blue Acres program, but for different reasons. The properties in Sayreville have open spaces, while the twelve holdout properties mentioned by Mayor Guindi are considered a barrier to potential private developers' aspira-

Since Hurricane Sandy, NJDEP made a concerted effort to get the word out about the Blue Acres program to local leaders and their con-Mayor Guindi floated several other stituents, but with every passing year without a destructive storm to serve as a catalyst for action, South River's new leadership team appears to grow more skeptical of the program's value. This may negatively impact future participation in the program among residents at a time when experts continue to drive home the point that more buyouts are desperately needed.

> As the leader of LWRP, Fenyk says she "has focused on areas where these issues have gone unexamined and the municipal rules are not oriented to resilience at all.... They are just not connecting on why this is such a big issue."

Still, Fenyk remains optimistic about the long-term opportunities posed by the Raritan.

"There is so much need in South River and in the central New Jersey area, the lower Raritan," she said. "It's one of those spaces where you think that if you can crack the lower Raritan nut, you can really have a model that can be applied almost anywhere. I mean, not like a one-size-fits-all but if you can make it happen here, then you can figure out resilience almost anywhere else." UR

Dana was raised in Central New Jersey and has completed her first year in the Master of Urban Planning program.



The former Laffin Chevrolet property located at 7 and 11 Main Street in South River, New Jersey. (Dana DeBari)



CARVING OUT SPACE

The Tactical Urbanism of Skaters

By Taylor Richards

planners, city residents, skaters have a deep connection to the built environment. Unlike other sports, skating is intertwined with the physical elements that make a city or a town. The intersection between community. Often disregarding prop-

"nknown to many urban urban planning and skating reveals the resilience of the sport, marked by skatpoliticians, and more, ers' dedication to carving out spaces for themselves. Skaters have a unique way of seeing and shaping the world around them: they identify underutilized spaces and reclaim them for their sport and

"We showed up to a meeting with

erty laws, they function as tactical urbanists within our prescriptive world.

Ben Berkowitz is a prominent skate advocate in New Haven, Connecticut. He has been instrumental in the building, renovating, and legalization process for numerous skateparks and skate spots across the small city. A few years ago, Berkowitz and other skate advocates were looking to activate a street-level section of a massive parking garage in downtown New Haven for skating.

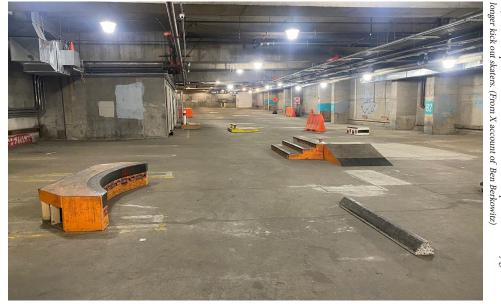
the head of the New Haven parking authority who controls the garage, which is a quasi-municipal organization," he

recalled. "The mid-level manager said that he didn't know why we were even asking for permission [to use the space], and asked why we don't just skate the basement of the garage instead?"

The garage is managed solely by the parking authority, but, since the organization is quasi-municipal, governance also belongs to private businesses connected to the garage. Following this meeting, Berkowitz and other skaters started filling portions of the basement with skate obstacles like ledges and rails. Despite the parking authority telling them it was fine, the space was still unofficial and security guards started regularly kicking out skaters. They asked permission, were granted it, and skaters were still shown the door.

Some skaters accepted that they couldn't use the space anymore. But Berkowitz and Douglas Hausladen, the Board Chair for the New Haven Coalition for Active Transportation, continued to seek legal approvals to skate the basement. Liability issues held up approvals for a couple years. The ceilings are low and this isn't a park run by the Parks Department—it's a parking garage. Injury laws for parks, that are applicable to outdoor skateparks, didn't apply here. The parking authority ended up hiring an insurance consultant for a different space, and utilized them to get proper signage and legalese written up for the basement. Eventually, Berkowitz, Hausladen, and New Haven skaters got their win: a legitimized DIY skatepark protected from the elements.

The parking garage basement in New Haven encapsulates the ongoing struggle skaters face when trying to create



space for their sport. Most sports re- of private property and followed their quire some kind of facility: basketball needs a court, baseball needs a field, swimming needs a pool. One can argue that a skater needs a skatepark. While true, the resilience of the sport is marked by skaters' ability to take it wherever there is a hard enough surface for the wheels to roll.

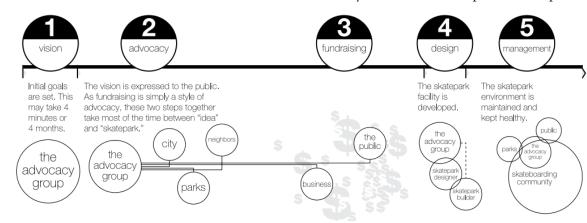
Following the governmental process of constructing skateparks can be antithetical to the ethos of original skatthemselves, regardless of who owned the property. When the sport came to prominence in the 60s and 70s, facilities for it barely existed, forcing early skaters to get creative. For decades, skaters trespassed schools, offices, and private residences to utilize the landscape for various tricks.⁴³ This planted the seeds of the sport being considered a counterculture. For decades, skaters were kicked out of these spaces, fined, or arrested. They tested the concept

own rules. In response to their lack of dedicated space, skateparks were built en masse to hopefully keep skaters off private property.44

Today, skateboarding is in the Olympics and skateparks are ubiquitous across the country. This couldn't have happened without the resilience of the counterculture for decades. Yet this resilience is still required today—the fight has moved from the streets to city ers, which involved taking spaces for hall. Due to the sport's origins in counterculture, along with the high costs of the design and construction, building a skatepark today requires knowledge of the bureaucratic process and patience with potential Not-In-My-Backyard (NIMBY) resistance. The Public Skatepark Development Guide, written by Peter Whitley, lays out the hurdles skaters need to jump through to advocate and secure funding for the construction of a skatepark—in 66 pages.

"Skateparks don't happen on their

own. They always require an energetic, committed team of advocates with members from the community, the City, and Parks Department. The team requires support from the local business community and the larger population





of non-skaters,"45 said Whitely in the away from skatepark crowds. guide.

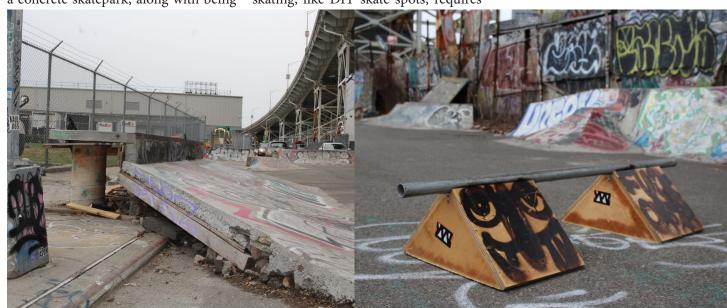
As we saw with Berkowitz, the legal route can quickly bog down an energetic advocate. Even when he asked for permission, it wasn't a guarantee for access. Often skaters will stick to their tactical urbanist roots and forego the entire bureaucratic process. It's common for skaters to create DIY spots in underutilized parcels by pouring concrete for ramps and building ledges, with or without permission. Despite plenty of skateparks existing, skaters still create these spaces because they enjoy the challenge of skating somewhere that's not perfectly smooth like a concrete skatepark, along with being

The fate of DIY spots is dependent on how pertinent groups handle their existence. Sometimes a DIY spot will get dismantled by a disgruntled authority, whether it's the owner of the property, security, or city workers. Sometimes it will be ignored by authoritative parties and left indefinitely to enjoy. Other times, advocates will work to legitimize an existing DIY spot by navigating legal protocol, such as what Berkowitz did in New Haven.

Creating official spaces for skating, like skateparks, requires determination and patience to navigate bureaucratic hurdles. Creating unofficial spaces for skating, like DIY skate spots, requires

gall to trespass and transform underutilized urban space. The sport of skateboarding (or other types of skating) toe the line between official and unofficial, legal and illegal, accepted and prohibited. Being a skater is not a single-note story of rebellion and resilience; it's about reclaiming space and navigating the invisible boundaries that shape our cities. UR

Taylor Richards is an Master of Urban Planning student with a focus on land use planning. She's skated for 5 years and her passion for the sport informed



38 A DIY skatepark in an industrial area of Queens called "Mosquito Beach." This spot is unofficial but "the neighbor is cool about it," according to one of its first concrete pourers in 2020. This space has evolved over the years to include more and more skate features. (Taylor Richards)





SPOT BY SPOT

A Cleaner New York City

By Rebecca Odell

n empty takeout container skitters across the sidewalk. A soda bottle rolls Latoward a sewer grate. A plastic bag waves from its perch on a tree branch. For many New Yorkers, seeing trash in the streets is a daily occurrence. New York City produces roughly 14 billion pounds of trash annually, and some of that inevitably ends

up in our streets. Although litter is frequent, our current state is much better than it was a hundred years ago.

"Before that, the government didn't do anything. It was not a public [sector] responsibility...it was a shared responsibility and nobody did it," said Professor Lily Baum Pollans, professor at Hunter College and author of Resisting Garbage: The Politics of Waste Man-

agement in American Cities. "But now, we definitely have an expectation that it's the public sector's job. And we don't view ourselves as part of it. But that's actually kind of weird that we feel so disempowered...and like we shouldn't have to participate. But in some ways, that's kind of crazy. Of course we should participate."

New York City has come a long way

from its nineteenth-century streets, covered in a shin-high mixture of manure, human waste, broken furniture, and dead animals when waste management responsibilities belonged to everyone and no one.46 However, persistent litter is still a problem in much of the city. And trash on the street isn't just an eyesore, it can lead to accessibility issues, attract rats, cockroaches, and other pests, and decrease the general quality of life.

The density and size of New York increases challenges, and the lack of alleys in the city means garbage needs to be picked up on the crowded street network. "There are some structural problems. It's really hard to coldon't have alleys, and a lot of the streets are narrow and they are all lined with cars...It's not easy," said Pollans.

To help close New York City's trash gap, the Department of Sanitation's nonprofit arm, Sanitation Foundation, has launched a new program called Adopt Your Spot (AYS). The program resources to New Yorkers who want I thought I might get overwhelmed

to clean up their streets. The premise is simple: sign up and pledge to keep a spot in the city clean, and the Sanitation Foundation will send you a litter grabber, gloves, and trash bags.

I joined AYS in the fall of 2024, excit-

"It's a communal exercise and we're all sort of alone together in it."

ed to receive a free litter grabber. In addition to my free supplies, I gained access to the Adopt Your Spot WhatsApp group. Others in the group felt similar to me, motivated (to varying degrees) lect garbage in New York because we by free supplies, a desire to help the community, and frustrations with consistently dirty streets. In one year, over 750 people across all five boroughs have pledged to keep a small area clean since the program's inception.

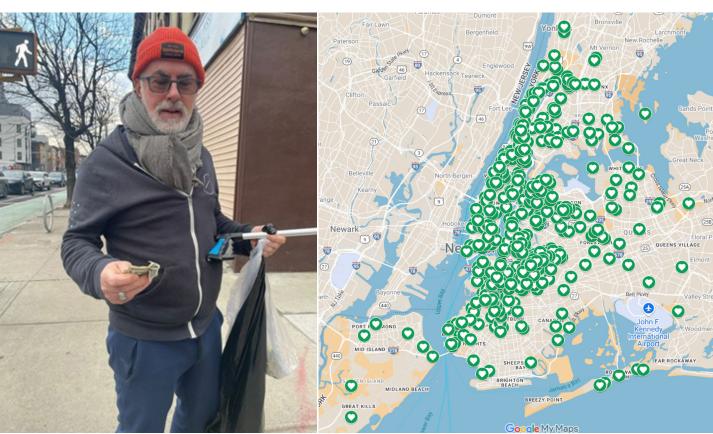
I joined the Adopt Your Spot WhatsApp group with some intention of muting it soon after. There were over started in April of 2024 and provides a hundred members in the group, and

with group messages that weren't really relevant to me. I didn't anticipate how influenced and encouraged I would be by the group, where members share before and after photos, discuss new waste policies, and give tips for the best ways

to safely pick up trash. Picking up on the same block can sometimes feel thankless, especially when you look out the window the day after cleaning and see more trash; receiving messages from others in the group made me feel more motivated and less

alone. Plus, seeing impressive before and after photos of big cleanups that other members did made the sewer grate and tree bed on my corner seem less daunting.

"I shouldn't be shocked, but I'm always shocked...the enthusiasm, how excited people are, and how active the community is," said Johari James, a project manager at the Sanitation Foundation who helps lead the Adopt Your Spot program. "A goal of the Foundation is making sure that people feel that they can play a part in the change and the bettering of their community, right? Giving people the tools







and supporting people. I think one of the things that's fascinating and in a macro sense of working with the Foundation is you don't realize until you're in it just how many people see the same issues you see...We all see and share the same problems, but we may not feel empowered to do something about it... We want to maintain that level of support for people who see these issues."

James has been taking initiative in his community since before his time with the Sanitation Foundation, starting an after-school program for kids in his neighborhood. It was so successful he started looking for grants to keep pace with the growth, which was how he came across the Foundation. Now in his position at the Sanitation Foundation, he helps connect other community-minded people seeking to improve their neighborhoods.

Community was at the forefront of many AYS members' minds when they joined the group, along with frustrations about seeing trash in their neighborhoods. "I found that the block that I live on had a really persistent litter issue. I signed up so I could have some

I thought was important work for the local community," said Jeremy Lerner, who usually cleans in Bushwick and Ridgewood. Danny Yang, an adopter in Long Island City, had gotten annoyed with seeing litter when out walking. "[I] want to keep the neighborhood clean for families," he said. Dashawn Davis, who adopted a spot in Manhattan, joined to "be the solution and not the problem." "[I've] seen some great results from cleaning the spot and [gotten] a lot of great feedback from the community," he said.

Other adopters have also gotten closer to their neighbors through cleanings. "My neighbor Mick and I go out every Saturday or Sunday, have a cup of coffee, solve the world's problems, and we have found twenty-eight dollars! Garbage pays," said Elizabeth Tallman, who cleans up in Bed-Stuy. "I know most of my neighbors now, at least by sight. Some have commented that they've seen us out cleaning. Mick and I chat with the neighbors when we see them." Tallman is one of the AYS members who has gone the extra mile and led some in-person cleans. My personal accountability and to continue what experience in the WhatsApp group has

thing bigger than myself, and it's clear other members have felt the same.

"[The WhatsApp group] definitely feels connected to a larger thing," said Lerner. "A lot of people share their thoughts. It's a communal exercise, and we're all sort of alone together in it."

For James, the benefit of the program is its potential to adjust people's attitudes and bring about collective change. "It's not just a tree bed. If more people adopted the same mentality, then we would have a whole slew of nice, clean tree beds across the city, and we wouldn't have so many issues," said

Already, over 750 adopters are chipping away at persistent litter in the city. If you look around your neighborhood and notice trash, consider picking it up. And if you want support, free supplies, and access to an awesome community, consider Adopting a Spot. UR

Rebecca Odell (she/her) is pursuing her Master of Urban Planning at Hunter College with a focus on pedestrian

40 "Garbage pays!" (Courtesy of Elizabeth Tallman)

This map shows each adopted spot in NYC (as of March 2025)

(RISING TIDES from page 11)

In recent years, this story has taken on a resigned tone, as if one day the coastal cities will cease to exist and there is nothing left to be done. How has the rhetoric become so blasé? These hopeless narratives hurt everyone involved.

Condemning cities and the people that call them home is not an ethical way to proceed. There are communities to support and histories to preserve. As climate events unfold with increasing frequency and intensity, we should resist resignation. This piece invites you to consider the tone with which we discuss climate events and to consider the line between false optimism and hope. UR

Isabella is entering her 4th semester at Hunter College, exploring the intersections of science, cities, people, and art.

(BEST TRAVELED from page 17) narrow point of the curb and fencing but I did not obtain his name. While there, I left the map and renderings for possible internal posting so that employees of the building would take notice of the plan. I have considered the opportunity to form a local group of residents that are willing to volunteer for cleanup and general maintenance like snow clearing or leaf brushing.

Desire paths like the one by the Queens Center Mall illuminate how we have designed spaces for ourselves that no longer meet the needs of people and their movement. As hinted by the name, people expressed a desire for safety and some sense of beauty in this residual space– indeed, I have seen people taking an interest as they wander through to pick plants or undertake DIY cleanups. I hope that a recognized desire path can come to fruition as an opportunity to collectively adapt shared space and equitably place diverse land use side by side without casting too long of a shadow. **UR**

Sebastian Sopek is interested in public transportation planning and as of late, the idea of working on improving bicycle infrastructure.

(HOUSE CARE from page 29)

we see conversions at scale. The cost of natural gas relative to electricity makes it hard for full load electrification to make economic sense as a standalone measure."40 Meanwhile in January of 2025 Con Edison proposed an 11.4% rate increase for electricity.⁴¹

Ultimately, however, fulfilling the promise of the values expressed in OHEH-repairability, whole building approach, non-toxic low-carbon high-quality materials, preserving craftsmanship and beauty-will take a paradigm shift. As seen at 172 E 4th St, there is an economic case for green retrofits, but it often takes financial discipline and a long-term outlook and approach to carry them out for the average building without millions of dollars in reserves to spend on retrofits.

We are in an age of financialization of real estate and increasing corporate landlordship,42 which incentivizes quick profits to the detriment of everything else. This has led to an increasingly depersonalized system

where there is often no one who has a deep connection to and investment in the structures we call home. Tenants perhaps come the closest, but besides the fact that they have the least power to insist on thoughtful and loving investment in their homes, they also face waves of rent increases and other conditions pushing them in and out of various homes over the course of their lives. A new dynamic will need to be forged between tenant and owner that incentivizes both parties to care deeply for their building. Fulfilling OHEH's promise will require putting more power over building retrofits and maintenance into the hands of tenants and helping people root themselves in their homes through policies that prevent displacement and staunch the flow of families leaving the city due to economic pressures. UR

Noah Wharton (they/them) is interested in green retrofitting, decarbonization, and their impact on residents' quality of life.



Renderings of a potential new path for Queens pedestrians—prepared on Adobe Photoshop. (Sebastian Sopek)

CITATION

Lessons on Resilience from Wojnarowicz (page

Carr, Cynthia. Fire in the Belly: The Life and Times of David Wojnarowicz. New York, NY: Bloomsbury USA, 2012.

Carr, Fire in the Belly, 443 Carr, Fire in the Belly, 458 Carr, Fire in the Belly, 455-456

Can Cities Survive Mass Tourism? (page 8)

Bachelor, B. (2025, January 15). Overtourism was the buzzword of 2024. This summer looks to be just as crowded and chaotic. CNN Travel. https://www.cnn.com/travel/overtourism-2025-summer-crowded-chaotic/index.html

UNWTO. (2025, January). International tourism recovers pre-pandemic levels in 2024. UN Tourism. https://www.unwto.org/news/international-tourism-recovers-pre-pandemic-levels-in-2024.

EU sees bigger share of tourists from outside Europe. (2024, October 24). Eurostat. https:// ec.europa.eu/eurostat/web/products-eurostat-news/w/ ddn-20241024-2#:~:text=In%202023%2C%20the%20 EU%20registered,other%20European%20countries%20 represented%2021.4%25.

And Bryant, C. (2025, March 12). Americans Still Love Europe Even if Trump Doesn't. Bloomberg. https:// www.bloomberg.com/opinion/articles/2025-03-12/europe-needs-a-45-billion-american-apology-tour

Bajrami, B. (2024, July 29). The top 10 most visited countries in Europe. Schengen Insurance Info. https://schengeninsuranceinfo.com/travel-guide/ top-10-most-visited-european-countries/.

Russo, A. P., & Scarnato, A. (2017). "Barcelona in common": A new urban regime for the 21st-century tourist city? Journal of Urban Affairs, 40(4), 455-474. https://doi.org/10.1080/07352166.2017

Montalbano, W. D. (1992, July 14). Spain '92 / A medal year : Environment : Barcelona reinvents itself to host the world: The Mediterranean city dazzles the eye with new beaches, a seaside Olympic village, a striking new airport and new parks. Los Angeles Times. https://www.latimes.com/archives/la-xpm-1992-07-14-wr-4007-story.html and Poblenou, Barcelona: Changing Places and Identity, Rebranding and Regeneration. (n.d.). Barcelona Field Studies Center. https://geographyfieldwork.com/Poblenou.htm.

Observatori del Turisme a Barcelona. (2025). Key figures. Observatori Del Turisme a Barcelona. https://observatoriturisme.barcelona/en/key-fig-

Alderman, L. (2025, March 30). Barcelona Becomes Ground Zero for Europe's Housing Dilemma. New York Times. https://www.nytimes. com/2025/03/30/business/spain-housing-crisis-europe.

Jones, S., & Burgen, S. (2025, January 20). 'A vicious circle': how the roof blew off Spain's housing crisis. The Guardian.https://www.theguardian.com/ world/2025/jan/20/a-vicious-circle-how-the-roofblew-off-spains-housing-crisis

Abend, L. (2024, August 21). 'The Demand Is Unstoppable': Can Barcelona Survive Mass Tourism? New York Times. https://www.nytimes. com/2024/08/20/travel/overtourism-barcelona.html

Assemblea de Barris pel Decreixement Turístic (ABDT). (2024, December 13). [Comunicat] Reunió Valls-ABDT: l'Ajuntament del PSC manté la seva aposta històrica pel creixement turístic [Online forum post]. Assemblea De Barris Pel Decreixement Turístic (ABDT). https://assembleabarris.wordpress.

Burgen, S. (2024, April 16). Barcelona bus route removed from map apps to tackle tourist overcrowding. The Guardian. https://www.theguardian.com/world/2024/apr/16/barcelona-bus-route-removed-map-apps-tourist-overcrowding-park-guell

Burgen, S. (2024, April 16). Barcelona bus route removed from map apps to tackle tourist overcrowding. The Guardian. https://www.theguardian.com/world/2024/apr/16/barcelona-bus-route-removed-map-apps-tourist-overcrowding-park-guell

Dutch government scales back previous plans to reduce flights at Schiphol Airport. (2024, September 4). Reuters. https://www.reuters.com/world/ europe/dutch-government-scales-back-previous-plansreduce-flights-schiphol-airport-2024-09-04/

Catalan government accelerates Barcelona-El Prat expansion talks amid record passenger growth. (2024, September 4). Aviacionline. https:// www.aviacionline.com/catalan-government-accelerates-barcelona-el-prat-expansion-talks-amid-record-passenger-growth

Smith, V. L. (1989). Hosts and Guests: The Anthropology of Tourism, 184

Hosts and Guests, 22

Closing the Loop (page 22)

According to the BDC, this coefficient "compares an appliance or system's energy input to its heating or cooling output. If an electric resistance heater has a COP of 1, that means 100% of the electricity it uses produces an equivalent amount of heat. If a heat pump has a COP of 3, it means that 1 unit of energy provides 3 units of heat or cooling: it is 300% efficient." The NY HEAT Act was rebranded shortly before passing the New York State Assembly and Sen-

House Care (page 27)

Hunt, Roger, and Marianne Suhr. Old House Eco Handbook: A Practical Guide to Retrofitting for Energy Efficiency and Sustainability. Frances Lincoln, 2019, 15.

ate as the Customer Savings and Reliability Act.

Hunt & Suhr, Old House Eco Handbook,

"Building Materials and the Climate: Constructing a New Future" United Nations Environment Programme 2023 p. xiii

Hunt & Suhr, Old House Eco Handbook,

11-12, 19 Essentials of Building Science, Introduction

Podemski, Max. A Paradise of Small Hous es: The Evolution, Devolution, and Potential Rebirth of Urban Housing. Beacon Press, 2024, 41.

Department of City Planning, SoHo NoHo Neighborhood Plan FEIS Chapter 19: Neighborhood Character https://a002-cegraccess.nyc.gov/CEQR/ Details?data=MjFEQ1AwNTlN0&signature=b29ef13cb250e67783754e77ce3bc0e28d33e8eb, 19-3.

Hunt & Suhr, Old House Eco Handbook,

Building Energy Exchange, High Rise Low Carbon, 22-23.

35 Building Energy Exchange, High Rise Low Carbon, 22.

Building Energy Exchange, High Rise Low Carbon, 6.

Building Energy Exchange. "How & When? Clean Heat and Climate-Friendly Homes for All Building Energy Exchange." Building Energy Exchange -, February 5, 2025. https://be-exchange.org/cleanheat-for-all-2025/

NYSenate.gov. "Senator Liz Krueger Announces Reintroduction of NY HEAT Act," n.d. https://www.nysenate.gov/newsroom/press-releases/2025/liz-krueger/senator-liz-krueger-announces-reintroduction-ny-heat-act.

Granicus, Inc. "The New York City Council - File #: Int 0994-2024," n.d. https://legistar.council. nyc.gov/LegislationDetail.aspx?ID=6788510&GUID= 156F95BB-CA74-44F3-A07B-A0E54EA0C10F&Options=ID%7CText%7C&Search=994.

Building Energy Exchange, High Rise Low Carbon, 7.

Gonella, Catalina. "More New Yorkers Are Going to Die' — Official Warns of Rising Heat, Energy Costs." Gothamist, June 4, 2025. https://gothamist. com/news/more-new-yorkers-are-going-to-die-official-warns-of-rising-heat-energy-costs.

NYCity News Service Staff. "Special Report: When Your New York Landlord Is a Corporation." New York City News Service, July 8, 2024. https://www. nycitynewsservice.com/2024/07/08/when-your-newyork-landlord-is-a-corporation/.

Carving Out Space (page 36)

"The Pool and the Stream," 99% Invisible (blog), July 4, 2017, https://99percentinvisible.org/ episode/the-pool-and-the-stream/.

Brief History of Skateparks - Public Skatepark Development Guide," https://publicskateparkguide.org/vision/brief-history-of-skateparks/.

Peter Whitley, "PUBLIC SKATEPARK DEVELOPMENT GUIDE Handbook for Skatepark Advancement," International Association of Skateboard Companies, October 2008.

Robin Nagle, Picking Up: On the Streets and Behind the Trucks with the Sanitation Workers of New York City (New York: Farrar, Straus and Giroux,

