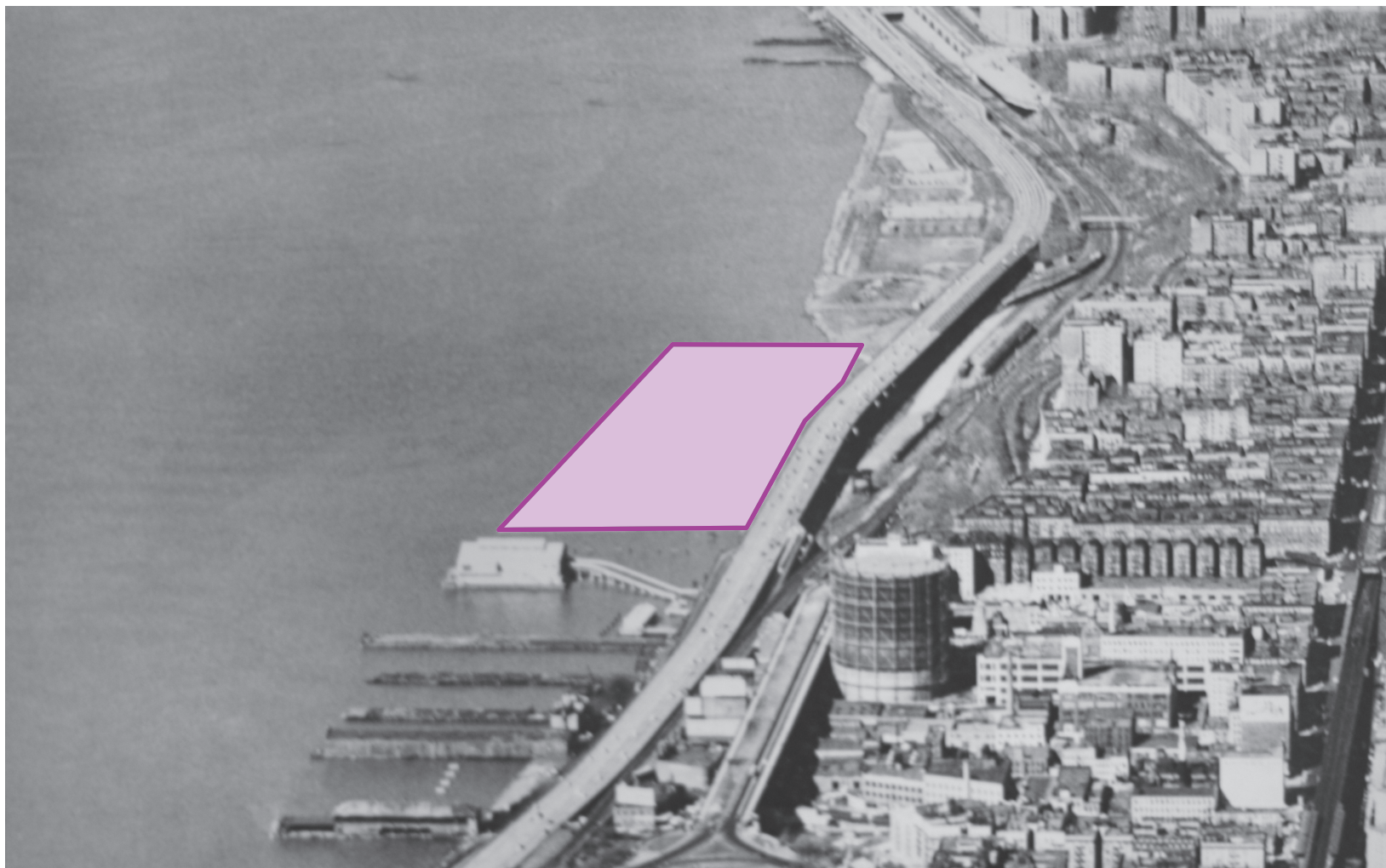


THE ARCHITECTURE OF REMEDICATION: RIVERBANK PARK

MARIANA MOGILEVICH



Planners considered two sites along the Hudson waterfront for a wastewater treatment plant, but plans to build a two block "island" at the western end of 72nd Street were abandoned in favor of a site between 137th and 145th Streets. The Harlem site was just north of a jumble of industrial uses in an area considered "blighted," but the plant would also be located in close proximity and plain view of the residential buildings of West Harlem.

In a growing number of cities where “sustainability” ostensibly guides plans for future development, the social implications of the term are often ignored. To intervene in the urban environment today implies dealing with stormwater, street trees, and wayward coyotes. Where human needs fit in is less clear. Most designers tend to approach sustainability as an abstraction of checklists and vague science, rarely asking who benefits and who loses. Yet contemporary scholars of political ecology make clear that “processes of socio-environmental change are never socially or ecologically neutral;” when the sustainability of one social group or place is enhanced, that of another will be undermined.¹

Waste landscapes, which flourish as cities enlist designers to reclaim landfill for recreation, are more complex problems than dumps requiring alchemical conversion to playing fields. Advocates celebrate such sites as automatic urban amelioration without much critical attention to the processes that shaped them or the specific groups who live with them.² Focusing on technical solutions, architects often ignore the social and political implications of the urban environment, and with that an opportunity to mediate an urban ecology that better serves all enmeshed in it. Similarly, numerous designers and municipalities have attempted to convert functional infrastructures into valuable amenities and therefore productively engage in processes of urban environmental change. Rather than mediating the conflicts necessarily entailed by the management of urban ecologies, they see the social and “natural” aspects of urban environments as either separate spheres or entirely in sync. This is rarely the case, as the long saga of the planning and design of New York City’s North River Waste Water Treatment Plant, and the Riverbank Park that was ultimately built on its roof, have demonstrated for almost fifty years. The project presents a lesson in the complexity and possibility of designing urban ecologies that include people as well as plants and animals.

1: PLANT AS PROBLEM

In 1963, faced with a Hudson River suitable for “fish survival only” and increasing pressure to clean it up, New York City’s Department of Public Works hired a consortium of architects and engineers to design a sewage treatment plant for the West Side of Manhattan. The North River Waste Water Treatment Plant, a gargantuan affair to be decked over 35 acres of waterfront, would treat half of Manhattan’s wastewater. Functional above all, the plant’s design was dictated by the biological treatment process it housed. In a series of tanks, sewage would be aerated and digested by bacteria, separating sludge from treated effluent that the plant would discharge into the river. Like the city’s eleven other waste water treatment plants, North River would be a critical but unremarkable component of New York’s environmental infrastructure.

Plans for the plant had been in the works for decades, but there was a new urgency to its construction given the growing sense that the city, like so many others, found itself in a “crisis” of deteriorating environmental quality. The city’s polluted air and water were major, if intangible, causes for concern. The perceived epicenter of New York’s environmental crisis was the inner city slum, with its substandard housing and deteriorating neighborhoods, where the city’s low income and minority residents were concen-

trated. The North River plant had been sited literally in the backyard of such a neighborhood, at the western edge of Harlem. While North River would doubtlessly help all New Yorkers—plus the bass and the bluefish—in contributing to a cleaner river, it also directly threatened the quality of Harlem’s social environment in particular.

When plans for the plant were publicized in 1965, reactions were overwhelmingly negative. The Regional Plan Association criticized the plant for directly contravening the goal of restoring the deindustrializing waterfront to people-friendly uses like parks and housing, and the plant’s neighbors opposed the corruption of their river views. But more fundamentally, the plant, which seemed disgusting and possibly dangerous, abutted an “in transition” neighborhood that was more than sixty percent Black and Hispanic. The attempt to protect universal rights to a “decent” or “unpolluted” environment found itself squarely at odds with the right of all citizens to live in a decent neighborhood. In this period, Matthew Gandy has argued that “the elision between the social and technical dimensions of urban space was no longer politically credible.”³ The plant could not claim to perform its environmental function without addressing its place in the city’s social ecology. The subsequent story of North River testifies to the rapidly evolving conception of the social dimensions of the urban environment and architecture’s role in mediating this conflict.

2: MONUMENTS AND ORNAMENT

In 1965 New Yorkers had elected a new Mayor, John V. Lindsay, who promised better municipal design and greater sensitivity to the city’s minority population. Shortly after his inauguration, Lindsay ordered an independent review of the North River project. In March 1967 the consulting engineers concluded that the plant would not produce odorous or noxious fumes—it could stay where it was. But the “outstanding architectural consultant” contracted by the city—Philip Johnson—concluded that the plant required “a bold new approach to the exterior aspect,” and the city hired him to design one.⁴

Johnson’s brief was not to conceal the eight-block-long facility, but to convert it to “an aesthetic asset to the community.”⁵ He proposed covering the plant’s roof with ornamental pools and a system of fountains shooting water jets almost twenty stories into the air. Johnson designed a proscenium on the Hudson, “a major aesthetic monument on the waterfront.”⁶ The necessary digester and thickener tanks at the north end of the site lost their utilitarian appearance, transformed into elegant geometric volumes. Johnson roofed over the central aeration tanks with a reflecting pool containing three elementary forms: a cone, a cylinder, and a trapezoidal volume. These housed various functional requirements, but were assembled to “make a gigantic sculpture garden” not unlike Isamu Noguchi’s recent *Sunken Garden* at Yale (1963). The bulk of the plant area—11 acres which had been open water tanks—became a vast confection, with four water jets shooting high in the air over a shimmering, frothy pool. “The changing effect of such a display lighted at night and blown about in the wind during the day,” the architect suggested, “can be one of the great attractions of the New York scene.”⁷

The aquatic mise-en-scène may have owed its inspiration to Johnson’s recent success with waterworks further downtown.

Johnson's Revson Fountain was the centerpiece of Lincoln Center, a particular irony as the North River Plant had been intentionally relocated from a site just west of the cultural complex to Harlem so as not to mar that refined environment with its scatological functions. Location aside, while the Revson Fountain would prove a lively and popular attraction on an otherwise austere campus, the North River waterworks could only be viewed as a spectacle from afar. This "great fountain" would only be experienced from New Jersey, or from Riverside Drive, beyond the uncrossable and visually disorganized moat of the elevated Henry Hudson Parkway and the tracks of the New York Central Railroad. Such views would also include the boats which inevitably transported sludge the plant produced, and the marine transfer station located just south of the plant at 135th Street, neither of which appeared in Johnson's renderings."

No doubt aware of the shortcomings of his solution, Johnson—playing the role of socially responsible architect—presented the city with a "bonus" proposal. By lowering the highway to grade and covering it and the railroad tracks with a platform, he made room for a badly-needed new 15 acre park and playground. This was to be a "gentle green slope" extending down from Riverside Drive, with fields for baseball and football and some half-hearted and vaguely picturesque paths denoting a park. But the plant, separated from parkgoers by a strong barrier of trees, remained a phenomenon apart from the neighborhood. While providing that great amenity of "open space," the park would serve primarily as a viewing platform enticing a captive audience for Johnson's great show.

The New York *Daily News* opined in an editorial entitled "The Sewage Plant Beautiful" that "the Johnson job would be a thing so beautiful that few uninformed outsiders would suspect what was going on inside," and Mayor Lindsay vaunted the plant's "architectural distinction," which would add to the neighborhood's "value and attractiveness."⁸ But while the mayor had promised to confer with neighborhood leaders who had opposed the plant and seek their approval of the Johnson proposal, in October *Progressive Architecture* reported that the city was sitting on Johnson's proposal to "mask" the plant: "Apparently, residents of the area from 137th Street to 145th Street are not satisfied with ornament."⁹

Aesthetic objections met environmental ones as critics voiced concern about the release of toxic amounts of ozone and asked exactly what water was going to be shot two hundred feet into the air. When the Board of Estimate, which had to approve the selection of the plant's site, met in April 1968, representatives of a newly galvanized and growing opposition to the plant accused the city of racial discrimination and a lack of respect for Harlem residents. Threats of violence and rioting were raised, followed by protests against "the toilet in our living room."¹⁰ As groups began to connect environmental issues like open space and dirty streets to civil rights, the environment and its problems—waste water, air pollution, and material refuse—were becoming increasingly politicized. "Garbage riots" would in fact become a reality in East Harlem the following summer, among the many "civil disturbances" which were taking place in cities across the United States since 1964. In this context, North River was neither a technical nor even an aesthetic problem, but a social and political one, which would require a very different design solution.

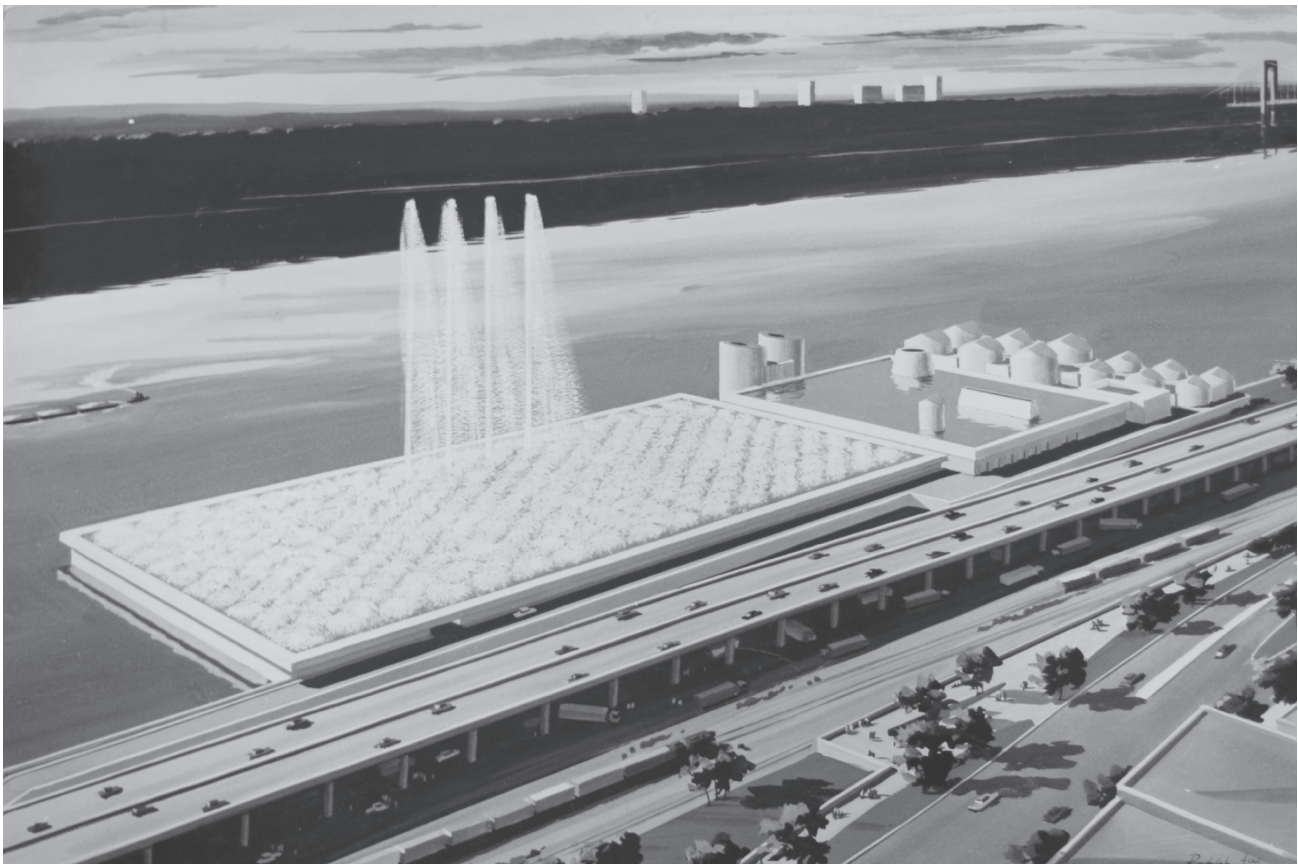
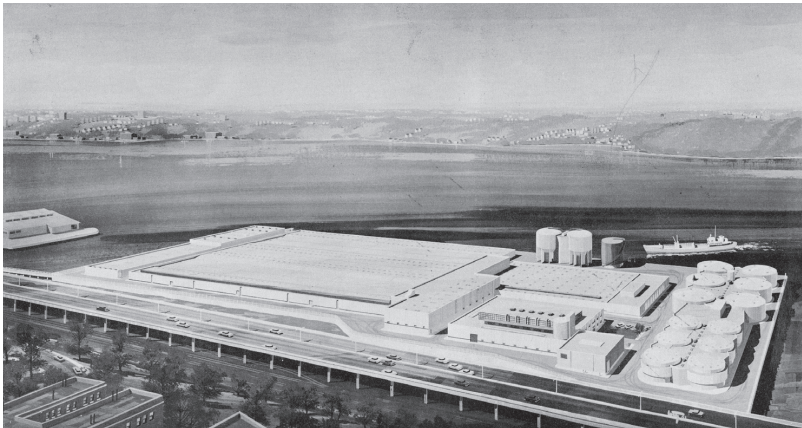
3: PURIFICATION AND DISTRACTION

Community members and the Regional Plan Association had long advocated a park on the plant's roof, inspired by recent events in Tokyo. There, the Bureau of Sewage had inaugurated the Ochiai Water Treatment Center, which was surrounded, like North River, by dense residential districts. Ochiai's tanks had been roofed over to form a park—the first of its kind. This clever solution kept the plant's smell from fouling the air and also created more than 20,000 square meters of open space—room for a track, playground, and grounds for baseball, soccer, and tennis—where urban parks were sorely needed.¹¹ Ochiai clearly demonstrated that North River could be put to good use.

In 1969 the city abandoned plans for the fountain and joined forces with a new commission to create state parks within city limits, and to plan a park on the roof of the North River plant. Gruzen and Partners were hired to complete an exploratory design study for what would now be called Riverbank Park. The architects, who completed numerous city projects under Mayor Lindsay, excelled at making the best of a bad thing, boasting specialties like humane prison design. Plant beautification was no longer the priority. After investigating alternative sites and programs, including housing on or around the plant, the architects ultimately endorsed building an "activities park" directly atop North River.

In extreme contrast to Johnson's stunningly passive monument, and responding to survey and community input demanding recreation facilities, Riverbank was to be all program. It was carpeted in activity, from handball and checkers to ice skating and basketball, such that parkgoers wouldn't have the time to figure out they were on top of a sewage plant. The park's integration with its surroundings—a central platform bridged over to Riverside Drive, and Riverbank sloped down to meet surrounding parkland to the north and south—also distracted users from the existence of the plant below.

This "useful facility," as the architects described the park, would match the utility of the "much-needed" plant below.¹² In the long tradition of urban parks as antidotes for social unrest, Riverbank mimicked the North River Plant in orchestrating a purification process where people, rather than water, would be treated through access to nature and wholesome activity. At this precise moment, Henri Lefebvre criticized what he described as the rise of a new "pseudo-right" to nature, where spaces for recreation and leisure presented city dwellers with a false respite from their environment at the expense of its actual transformation. "'Nature', or what passes for it, and survives of it," he wrote, "becomes the ghetto of leisure pursuits, the separate place of pleasure and the retreat of 'creativity.'"¹³ Lefebvre argued that the "functionality" of urban parks and open spaces created by urbanists to substitute for nature was "reduced to an absence of 'real' functions, to a function of passive observation."¹⁴ In the same way that the sewage plant would negatively impact the environment of Harlemites, a park could distract from the larger physical and social problems at hand, disenfranchising residents while offering them a new amenity. To accept Riverbank Park as an escape valve from Harlem implied abandoning an insistence on the improvement of the neighborhood itself.

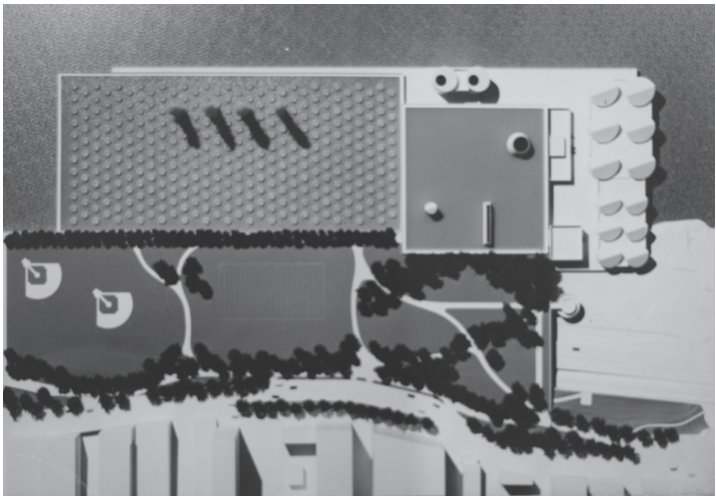


top: A team of engineers and architects submitted drawings for the North River Pollution Control Project in 1963. Decked over 35 acres of waterfront, it would treat the wastewater produced by 500,000 residents, plus commuters and tourists, on the West Side of Manhattan. Though the plant was no different from others in operation or under construction in New York at the time, it would garner tremendous opposition.

left: In 1967 New York City hired Philip Johnson to “beautify” North River. His proposal for a monumental fountain was popular with the local press but incensed neighbors of the proposed plant.

bottom left: An alternative proposal by Johnson created a new park that would span from Riverside Drive to the new fountain, but did not permit access to the plant’s roof.

bottom right: Though the City was unwilling to relocate the North River Plant to another site, intense resistance compelled it to turn the plant into a community asset. Gruzen and Partners prepared an exploratory design study for a Hudson-Riverside Park Development for the State Park Commission for the City of New York in Cooperation with the City of New York in 1969. Their proposal for “Riverbank” carpeted the roof of the North River Plant with recreation facilities.



4: AN URBAN ECOLOGY

Although the pacifying function of the park was evident, the *Amsterdam News* argued in an editorial that “while the poor still wallow in their filth,” this project presented Harlem with “its greatest opportunity for depollution of people.”¹⁵ This statement, all the more evocative in its obscurity, suggested an expanded conception of “environmental protection” and enthusiasm for the social and physical benefits that combined open space and waste water treatment could provide. In his State of the Union Address that year, President Nixon spoke of an unpolluted environment as “the birthright of every American.” A growing emphasis on the “natural” environment in this year of the first Earth Day was in fact the harbinger of a retreat from the more concrete problems of the urban environment.

Yet for the moment there was still a strong conception of a socially produced and experienced urban environment. A 1971 EPA report focused on the environment of the urban poor, arguing that if there was “one environment” it was “unequally shared.” Similarly, the conclusions of the 1972 United Nations Conference on the Human Environment envisioned a synthesis of environmental protection and human development, where “both aspects of man’s environment, the natural and the man-made, are essential to his well-being and to the enjoyment of his basic human rights.” It was in this context that Bond Ryder & Associates were hired to develop the master plan for Riverbank Park in 1971, as a series of sewage interceptors were completed and construction of the plant commenced. The Harlem-based architects initiated a process that would see the development of the park as part of the development of the neighborhood that surrounded it. They began the park planning process with extensive community consultation and outreach that resulted in a plan focused on the quality of the urban built environment.

Emphasizing access to the park, the architects sited two bridges at either end, connecting the park to the subway and more densely populated areas. These roads joined together to create a space frame megastructure along the park’s eastern edge, which made room for additional open space above it and classrooms and indoor sports below. Rather than cover the plant like a blanket, this multilevel park incorporated additional functional layers to the site. Instead of attempting to distract parkgoers from the constructed nature of the site, Riverbank recognized the particular nature of its urban ecology and proposed to augment it, extending technology for the improvement of the urban environment to the park above. Air structures, for instance, would enable flexible year-round use of a windy, exposed site.

Bond Ryder’s explicit allusion to megastructure was not a frivolous one. On the one hand, the project was “mega” in very concrete ways. When construction began on the concrete and steel platform for the plant, the North River complex was to be the most expensive building project in New York City history.¹⁶ But Bond Ryder and Associates also envisioned Riverbank as a self-enclosed complex—a “total park environment” that incorporated the best of the era’s technological conceits.¹⁷ The park’s space frames, inflatable coverings, and even a geodesic dome, were essential components of what Reyner Banham would call “the Megastructure look.”¹⁸ The future, not nature, was at the center of this park, which posited a sort of para-environment of possibility.

Riverbank shared the megastructural ambitions of the “city as a single building.” In this case a city which resonated with what Lefebvre called the right to urban life, one which would not need manufactured nature as an escape valve, and where pleasure, creative activity, and self-actualization would replace alienation.¹⁹

Bond Ryder brought in the firm of Lawrence Halprin to complete the final site design. They further developed Riverbank into a “lively urban place,” resolving the ecological conflict so the park and plant would serve as a model for the city beyond. Halprin saw the park as “a significant extension of the urban environment” that incorporated the plant’s functional elements.²⁰ The large, sculptural Cor-Ten steel ventilation stacks at the plant’s center, for instance, rather than an unwanted incursion from below, could be embraced as industrial sculpture and “a challenge to any mural painter.” The smokestack as canvas set the tone for a city where inhabitants had a role in its production and where the practical could be beautiful. As a dense setting for urban life, incorporating strolling, shopping, and people-watching, the park also featured a canopied “bazaar cluster” with brightly colored stalls for vendors and refreshments running along one side of a “main street.”

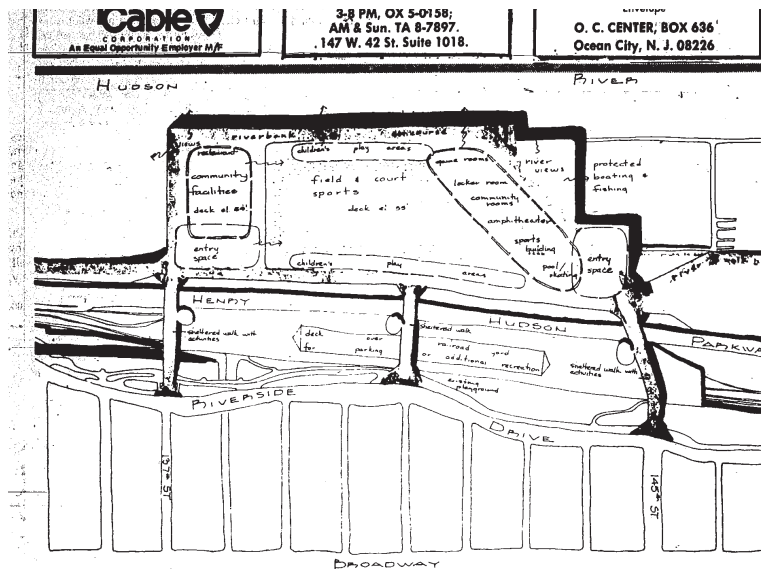
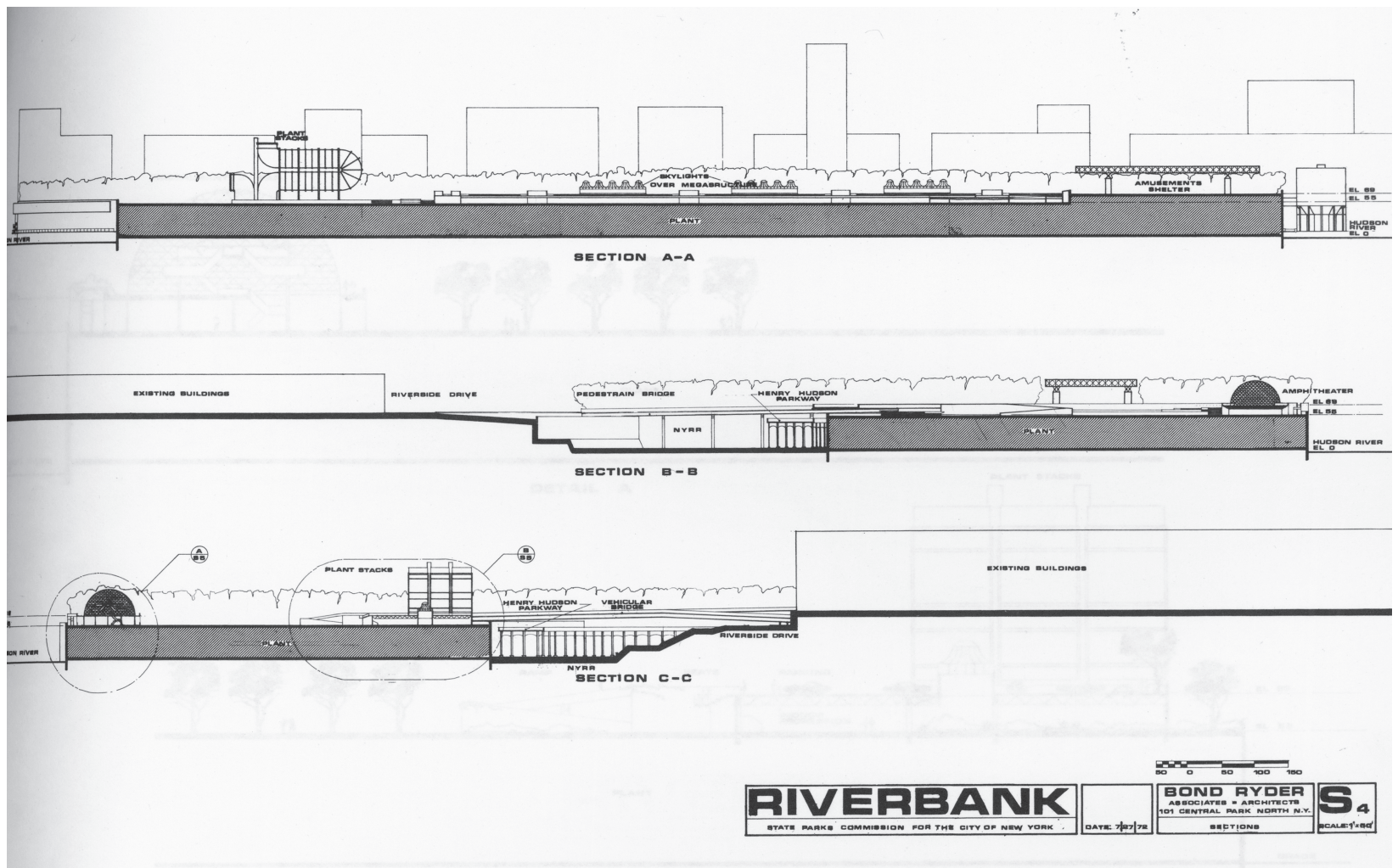
Riverbank’s “main street” led from the real 137th Street toward the water—to both a riverfront promenade and a large fountain which then descended down to a 15,000-square-foot pool. Water, so off-key in Philip Johnson’s fountain, reappeared as an essential feature, with environmental, social, and aesthetic properties. Though Riverbank’s fountain would never progress beyond the hazy sketch, Halprin’s Portland Fountain (completed in 1971 and which came up in design discussions for Riverbank) or the fountains at Freeway Park in Seattle (under construction at the time) suggest where Halprin’s design was headed. In one place, water could be clean and dirty; for processing, for contemplating, and for swimming. Jokingly describing North River as “a plant without even one leaf,” Halprin integrated plants and the plant in the same urban ecology.²¹

5: ENVIRONMENT FOR WHOSE SAKE?

Unfortunately, Riverbank’s triumph of reconciliation, accounting for New Yorkers’ social and environmental needs in one place, coincided with the city’s dramatic fiscal unraveling in 1975. Not only was funding for the project in doubt, the social project that made the park possible was decisively abandoned. Riverbank stalled for years. By the time the North River plant was nearing completion, the old designs for what now seemed a “superpark” on its roof were hopelessly out of reach.²²

In 1980 the State Park Commission hired a new architect, Richard Dattner, to address the prosaic but no less difficult task of redesigning Riverbank once more, conserving the park’s major elements and some degree of delight within the constraints of multiple rounds of value engineering. The park, inaugurated in 1993, was more modest than once envisioned, the *beau idéal* of ecological reconciliation replaced by a stricter utilitarianism. The plant was built because it was federally mandated and the legal commitment to the park also had to be honored, but the logic of the park’s design was “architectural triage,” or “the greatest good for the greatest number.”²³

New Yorkers—more than four million a year—ultimately skate in the park’s roller rink, swim in its three pools, attend concerts at



Riverbank Park

This is a preliminary sketch of Riverbank Park, planned for the Hudson River bank atop the 137th-145th St. sewage plant. Community reaction to the concept is being sought by the designers, Bond, Ryder Associates, 101 Central Park North.

Seek Harlemites advice on Riverbank project

By SIMON ANEKWE

Bond, Ryder Associates, Black architectural firm of 101 Central Park North, is inviting residents and organizations of Harlem to advise on the recreational and cultural plans for the planned Riverbank park.

moved to an uptown site after whites rejected earlier plans to locate it in their neighborhood downtown.

The architectural firm was endorsed by Community Planning Board Nine and selected by the State Parks Commission to prepare the plans for the park.

als, according to Bond, Ryder urban planner Robert Catlin.

The main part of the park would run from Henry Hudson Parkway into the river, atop the sewage plant. A smaller section would lie between the parkway

Promise and Opp

If you're tired of the PROBLEM and want to move to a SOLUTION, come to a "TWO DAY HAPPENING" that to these, and other,

Clayton Yonkers

By MEL TAP

Yonkers' Angry Mr. LeBoeuf.

He was born in Washington he had stayed there he have been constantly pour of the White House to get Presidents to correct their Our Folks.

Fortunately—or and some people see it—Clayton Miss Ella LeBoeuf, living in 1939 he came to the City with her, grew up, got married been there ever since.

"Cats say LeBoeuf good," he grinned, "I where I came from."

But the way he neer cajoles and speaks out a that he feels are wrong Westchester, they soon leave at.

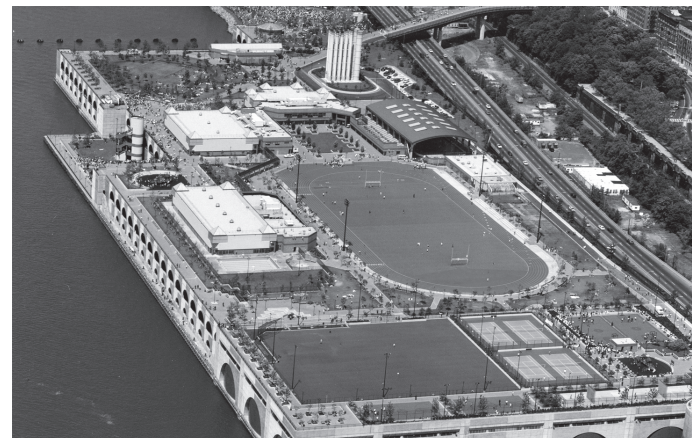
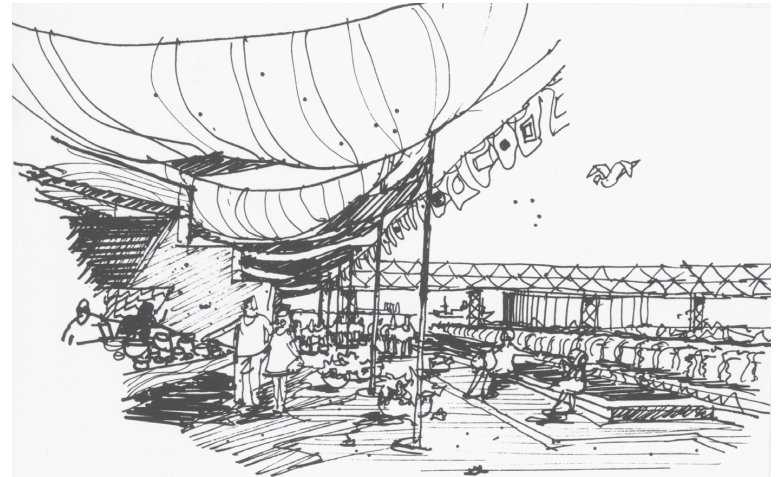
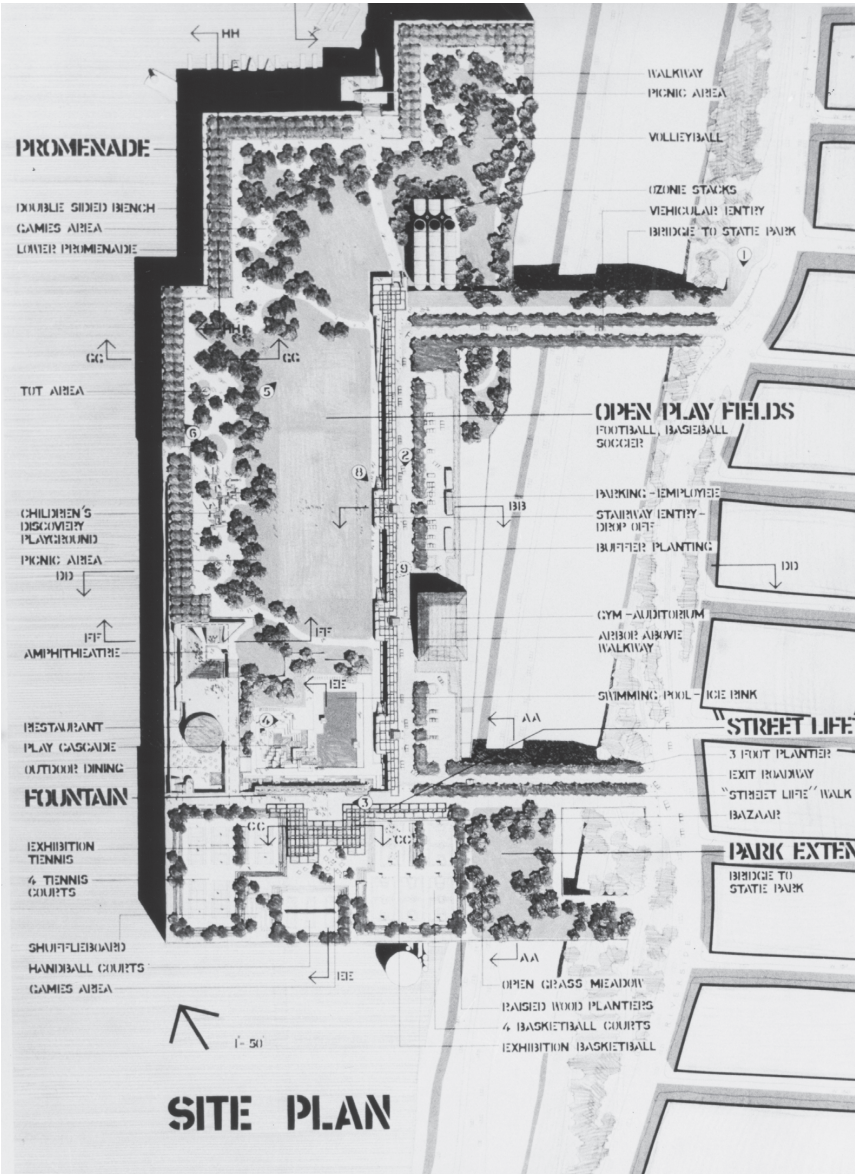
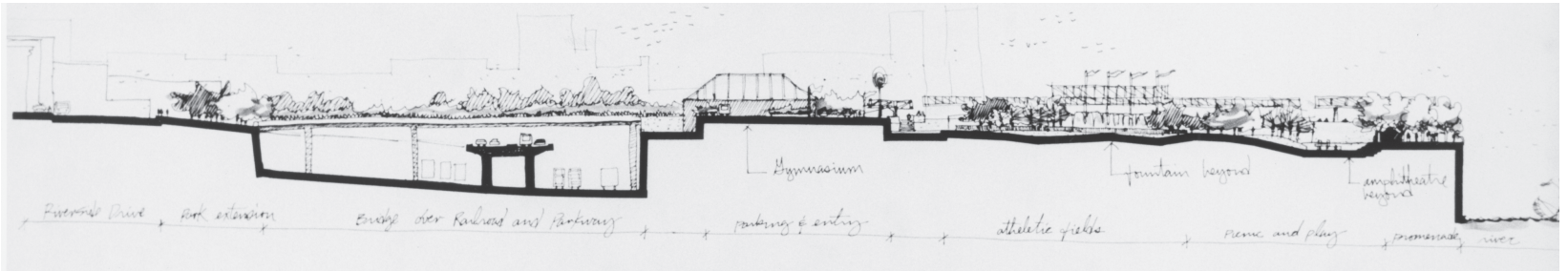
For instance, he's active that is important to Black the Community Action Project is constantly raising the Yonkers has attracted who were on various projects in the County.

Called 'dumping

Yet, at the same time about Yonkers CAP be ground" for outside anti but he admits that Yonkers

above: In 1972 the preliminary plan for Riverbank by Bond Ryder and Associates brought an array of technological conceits—space frames, geodesic domes and inflatable coverings—creating a leisure infrastructure atop the plant on the scale of the water treatment mechanisms below.

left: Bond Ryder reached out to incorporate a range of voices into the planning of Riverbank Park, including community organizations, churches, and politicians, and published a preliminary sketch in the May 27, 1972 edition of the New York Amsterdam News with a call for community reaction.



top: Riverbank was conceived as an extension of the city beyond. Creating connections from West Harlem to the Hudson River, it brought parkgoers to the water and created a model city. Incorporating natural features and biological treatment processes with the pleasures of urban life, Riverbank proposed an environment where residents were active participants in the shaping and use of space.

left: Lawrence Halprin and Associates collaborated with Bond Ryder on the site design for Riverbank State Park as construction progressed on the plant's platform, 1975.

right center: Parkgoers would be participants in a city conceived as theater. A large fountain bordering an extensive pool would serve as a stage for urban life. Water was central to the park's design. Rather than simply watch it passively or forget that it was being processed in the plant below, people could also wade and splash in the water and participate in a complex urban ecology.

above: Riverbank State Park, finally constructed as redesigned by Richard Dattner and inaugurated in 1993.

the riverside amphitheater, or garden small plots on the roof's 28.5 acres. The plant below processes the waste of a million Manhattanites, and the Hudson River's water quality has improved dramatically. The community gardens, plantings, and playing fields make the park a green roof *avant la lettre* and suggest, if not enact, a more recent emphasis on architecture's ecological performance.²⁴ Yet design and construction flaws led to North River producing terrible smells after it began operation in 1986. Renewed action in West Harlem for redress made the plant into one of the early battlefields of the environmental justice movement.²⁵ Activists in Harlem and their counterparts elsewhere argued strongly that "people are an integral part of what should be understood as the environment."²⁶ The continuing problems at the plant beg the question: what today would be an architecture of environmental justice?

One answer would be no architecture at all—that is to say, the plant should never have been built at that site. But North River, like all of our infrastructure for the calibration of a complex urban environment, had to go somewhere, and at every site specific issues will arise. Riverbank demonstrates the potential agency for architecture in mediating among conflicting components of the urban environment. The notion that social and environmental concerns in the city are not only inextricably linked but one and the same ecology is as true today as it was forty years ago, with implications for how architecture claims to be, and has the potential to be, ecological.

NOTES

- 1-Erik Swyngedouw, Maria Kaika and Esteban Castro, "Urban Water: A Political-Ecology Perspective," *Built Environment* 28:2 (2002), 125.
- 2-Elizabeth K. Meyer has argued that large parks, on disturbed sites in particular, should be more didactic and demonstrate to users their role in the creation of disturbed environments. Envisioning a universal waste-producing consumer-citizen, however, she does not take into account the uneven distribution of responsibility for environmental disturbance. See "Uncertain Parks: Disturbed Sites, Citizens, and Risk Society" in Julia Czerniak and George Hargreaves, eds. *Large Parks* (New York: Princeton Architectural Press, 2007).
- 3-Gandy, Matthew. *Concrete and Clay: Reworking Nature in New York City* (Cambridge, Mass.: MIT Press, 2002), 15.
- 4-Letter, Meyer F. Wiles to Mayor Lindsay, March 21 1967, Mayor Lindsay Papers, NYC Municipal Archives, Subject Files 80:1506 North River.
- 5-Ibid.
- 6-Presentation Booklet "North River Water Pollution Control Project" Philip Johnson Papers, V. Box 16 (Oversize II.42). The Museum of Modern Art Archives, New York.
- 7-Ibid.
- 8-"The Sewage Plant Beautiful" *Daily News* (New York) August 18, 1967, 37; Press release, Oct 9, 1967, Text of an Address by John V. Lindsay, Mayor of the City of New York Before the Water Pollution Control Federation's 40th Annual Congress. John Vliet Lindsay Papers (MS 592). Manuscripts and Archives, Yale University Library. Box 351 folder 267.
- 9-"Fountains to Mask NYC Public Works Plant on the River" *Progressive Architecture* October 1967, 52.
- 10-"Motorcade to Show Sewer Opposition" *New York Amsterdam News*, 20 April 1968.
- 11-See Atelier Bow Wow's *Made in Tokyo* (Tokyo: Kajima Institute Publishing Co., 2001) for the little material published in English on this plant. Tokyo now has thirteen wastewater treatment plants with roof parks mixing active and passive recreation.
- 12-Gruzen & Partners. "Riverbank: Hudson-Riverside Park Development: Exploratory Design Study Prepared for the State Park Commission for the City of New York in cooperation with the City of New York" March 1969.

13-Lefebvre, Henri, "The Right to the City" [1968] *Writings on Cities* (Oxford: Blackwell Publishers, 1996), 158.

14-Lefebvre, Henri. *The Urban Revolution* [1970] (Minneapolis: University of Minnesota Press, 2003), 27.

15-"The Environment" *New York Amsterdam News*, 14 February 1970.

Stern, Robert A. M., Thomas Mellins, and David Fishman. *New York 1960: Architecture and Urbanism Between the Second World War and the Bicentennial* (New York, NY: Monacelli Press, 1995), 1041.

16-Riverbank—Interim Report—Phase II. January 1973. Prepared by Bond Ryder Associates for the State Park Commission of the City of New York, 014.I.A.6235, Lawrence Halprin Collection, The Architectural Archives, University of Pennsylvania.

17-Banham, Reyner. *Megastructure: Urban Futures of the Recent Past*. 1st U.S. ed (New York: Harper and Row, 1976), 179.

18-Ibid, 32. Although Banham suggests that the megastructure, despite pretensions to provide space for play and self-determination for its users, was designed for the "mobile, leisure-seeking citizens" of a "swinging affluent society," (83) in the Bond Ryder project an issue of justice was at play, in making these spaces, however consumerist, accessible to residents of Harlem, as they might be to people elsewhere.

19-Lawrence Halprin and Associates, Untitled report on Riverbank State Park, 1975. 014.I.A.5561, Lawrence Halprin Collection, The Architectural Archives, University of Pennsylvania.

20-Ibid.

21-Scott Aiges "An \$80-Million Park Planned Atop Treatment Plant" *New York Times*, 4 August 1985.

22-Richard Dattner, quoted in Susanna Sirefman, *New York: A Guide to Recent Architecture* (London: Ellipsis, 2001), 13-16.

23-Much of Riverbank's ecologically performing, energy efficient building design was eliminated before construction for budget reasons. The park's stormwater drains to the Hudson River, while its sewage goes directly to the plant.

24-See Chapter 2, Julie Sze. *Noxious New York: the racial politics of urban health and environmental justice* (Cambridge, Mass.: MIT Press, 2007.) And Vernice D. Miller, "Planning, Power and Politics: A Case Study of the Land Use and Siting History of the North River Water Pollution Control Plant." *Fordham Urban Law Journal* 21 Fordham Urb. L.J. 707, no. Spring (1994).

25-Giovanna Di Chiro "Nature as Community: The Convergence of Environment and Social Justice" in William Cronon, ed. *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton, 1996), 301.