THE RECYCLING BIN
Seven Stories of Re-use
Andrew Magnus

THE BROOKLYN QUEENS EXPRESSWAY BECOMES A CATHEDRAL TO THE MTA

PUERTO RICO'S GOLF COURSES BECOME QUEER FARMS

UPSTATE MOBILE HOMES BECOME A WATER MANAGEMENT SYSTEM

A BRONX BLOCK BECOMES AN INTERGENERATIONAL BRIDGE

A SCHOOL BECOMES A CENTER FOR EXTINCTION REBELLION

NEW YORK'S SCAFFOLDING BECOMES A FRESH FRUIT MARKET HUB

A CONCRETE PLANT BECOMES A CHEMIST'S ARCADIA
01. The Cathedral to the MTA

A transportation hub for a congestion-priced-out city; a last mile green delivery hub; a mosaic studio for public consumption.

ADV V / Laurie Hawkinson / FA2021
How to Participate in Infrastructural Decision-Making
The cathedral to the MTA seeks to be the city's new seat for equity in infrastructure decision-making by centering participatory design. The legacy of the BQE is one of intense fragmentation – it disconnects neighborhoods here and throughout Brooklyn, and makes some of the best resources in the area inaccessible or inhospitable to residents and visitors alike. The engineering marvel of the BQE is arguably not the cantilever, but the miles of tunnels and support spaces underneath: 12 tunnels houses, 10 escape exits, 4 fan vents, two substations, a pump house, are all woven into the structure; at the triple cantilever, the MTA hides in plain sight. This constitutes a different way to think about how we make decisions about infrastructure. Here, at different scales of decision from personal to state, we can see how spatial orientation tries to optimize efficiency, order, or in the case of the MTA, the status quo. I argue that we should adopt a model of engagement like a cathedral, where participation is nuanced, personal yet communal, and multi-layered concentrically.

Programmatically, a cargo-to-electric bike transfer station would dovetail with the various futures of congestion pricing, a car-free BQE, and a low-carbon last mile delivery solution for New York. At the scale of the city this is the last exit before Manhattan, where delivery companies will try to avoid future congestion pricing tolls due to razor-thin margins. These e-bikes can operate ten 2-mile trips each day, five and a half bikes can transport the average goods of local delivery van, and the result is a modality that is more efficient than today's Amazon vans with fewer emissions. Lastly, the BQX tramway currently proposed along the dashed route into the cantilevers of the BQE, as it would offer additional connectivity and more access to...
Once the MTA is properly funded, we should align its working objectives with climate goals, namely electrification with green energy, arts and media, and clean cargo. Now informed by our spatial constraints and future needs, we can synthesize an architecture for the city’s benefit. This triptych focuses on three elements: first the transfer of goods that happens below the structure of the BQE to support deliveries on the ground, second the equitable space created on top of the cantilever structure will sponsor small groups, offer community meetings and resident MTA positions by sortition, and reconceptualize the makeup of the MTA, and lastly, the story of a new mosaic fabrication space that will specialize in large scale fabrication. How can we support the BQE? Quite literally, it involves a series of compound piers made of Dowel-Laminated Timber that enclose volumes around the concrete structure and anchor programming. The exoskeletal form of the cathedral, which reaches around the cantilevers, gives new life to the structure. The construction of the cathedral is made of minor arcs, which are glazed with programming, and major arcs, which wrap around the BQE. The exoskeletal structure is NLT and DLT, and uses the existing concrete to tether new volumes. The cathedral creates a fantastical gateway to the brooklyn heights neighborhood that invites visitors and residents to go up above and under the structure. The main cathedral space makes good use of the views of Manhattan to push a progressive climate-backed infrastructure agenda.

Inside, on the Manhattan-Bound level of the old Brooklyn Queens Expressway, the main cathedral space makes good use of the views of the downtown skyline to push a progressive climate-backed infrastructure agenda. Framing of participatory design is recreated as an active savior of the city’s most valued and vain aspects in the face of climate change. At the same time, underneath the BQE, the existing cavity is converted into a busy transfer center with ramps for bikers, trams, and storage for goods. The bowels of the system of the new Cathedral to the MTA both create a financial lever for its creation, but also bring people through the space in a self-perpetuating architectural experience. The programs are stacked sectionally. At the upper level along a new continuous pedestrian accessway shared by all projects in the studio, the main cathedral space and meeting rooms wind along the path of the existing asphalt. Underneath the top layer, public transit like the BOX station and subway to elevators create a new node of accessibility in Brooklyn. And below that, the borough’s first cargo to bike transfer station and mosaic fabrication studio use the full height of the BQE’s catenary caverns to make the things that make New York City function. Finally, underground, a new subway station for the 4 and 5 trains creates a multi-level node. Taken together, a thick sections approach to ontologies create new alignments for public engagement by proximity and entangling programs. The Cathedral is a place for people in a space where cars once idled in traffic.
02. Land After Luxury

Agroecologies of post-capital landscapes; queering the Puerto Rican Golf Course typology; a new kind of small farm for food sovereignty

ADV VI / Justin G. Moore / FA2021
ANTI-FARMS
Speculative Land-Use Diachrons

Pre-Colonial
Conventional Farms
Plantations
Fellow Lands
(Flight to Cities / US)
All-Exclusive
Tourist Cities
Vertically
Integrated
Agro-Tech
US Military
Ag-Bio
Social Farms

1400
1950
2000
Today
2100
American Occ.
Op. Bootstrap
Section PM
The Junta
Act 60
Intrepidness
San Cristo
San Ciprián
Maria - Irma

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Golf Courses, though not technically farms, occupy a huge and oversaturated presence on the Island’s luxury and tourism spheres. In Puerto Rico, many developers claim bona-fide farm status to secure subsidies, get free water, and avoid paying taxes. There are a lot of golf courses, all are private ventures. The health of golf course capitalism is interesting - almost half of these courses are in-debt, default, or have been abandoned. Additionally, because golf courses are designed as the ultimate colonial leisure activity, they are usually built in ecologically sensitive areas where pesticide and vehicle use have outsized impact, and have a displacing effect because they take up so much land. The selected site was the Caguas Real golf club, which is just south of the city center, and was opportune to play out how to make this place an agroecological haven that performs distributed food justice.
Three Systems for Local Construction

01 / RUBBLE GABION

1. Plan the Pillar
2. Formwork + Fill
3. Top off with Larger Pieces
4. Align and Surface

02 / THATCH BLOCK

1. Trim Palm Trees
2. Harvest Reed and Grass Thatch
3. Bundle Fronds
4. Press Layers into Thatch Block

03 / CARPENTRY SYSTEM

1. Fell Carpentry On-site
2. Erect Sarga-crete Pillars
3. Hurricane Tie Redundancy
4. Mount Thatch Blocks
Lastly, the proposal speculates a new typology for the small farm that embodies the goals for food sovereignty. Building off of the rubble reconstruction, we can create a new material construction library for assembly and deployment around the various sites, including thatch and timber. Fundamentally, the kind of small farms that may come from the golf holes are not like the existing corporate structure, instead of moving goods off site to modify and sell, we can imagine a circular economy that locates most production, packaging, innovation, and eating on site. Because golf holes are all similar in their construction, the various transformations can be parameterized for the best future use cases that transform or return as much land as possible with minimal earth-moving. A standard golf hole could be stewarded by a group of young people from Caguas that are interested in agroecology but don’t have the capital or experience to farm outright. They would be set up their space here, perhaps to create a farm that celebrates malanga, and need things like furnace, storage shed, and want a classroom to teach local schools about the important cultural heritage of the tuber, and innovates for things like the highly valuable and energy independence as well, and this building is technically considered to maximize these goals. In the main housing construction, approaching the entrance, we can read the materiality and the value gained by showcasing the mechanism of water and material assemblage. This begs the question - can this lesson be applied across the island? Because golf is such a regularized and codified system, it enables a robust framework for reestablishing a connection to the land and landscape that can be adapted based on climate, local partner organizations, and the willingness of municipalities to engage.
New Agroecologies - From the Lake
03. Waqf - Watershed

A spiritual reclaiming of land, water, and pre-fab structure; a new bridge across generations; a topo-conscious housing typology.

with Yi Liang

ADV IV / Ziad Jameleddine / SP2021
The Waqf Watershed proposes a reconstruction process along the central creek of Islamberg, a rural Muslim hamlet in New York State. Giving rural America a religious re-reading, we aspire to create a self-autonomizing way of life around that re-orientates water to follow religious habits. In each step of the town’s social hierarchy, water is a social currency that mediates relationships to family, neighbors and spirituality. To create autonomy within Islamberg, especially water autonomy, we first needed to understand the specific basins and micro-watersheds that flow through the town. Below is identified the local basin, which we are calling the Roods Creek Watershed. Next, we want to establish a land conservatorship for

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Water, Religion, Community

1. Security
   Alive and safe, eyes open to train entry, a gate and wall, and surveillance

2. Mobility
   The community network of 15 nomads and 11 camps, moveable transport of livestock for new animals

3. Residency
   The majority of residents are institutional homes, mobile single and double-wide trailers

4. Community
   Commonitarian self-sustaining system in the public arena, the community connects with the moorpark

5. Economy
   A mix of well-water and rain-catchment supplies the town

6. Spirituality
   At the center of the town, the vineyard mosque, trees, and shrubs are tended and we walk for congregations on Eids

A. Water is playful
   Summer camps and summer holidays make light of the fickle supply of water

B. Water is essential
   A mix of well-water and rain-catchment supplies the town

C. Water is sacred
   The creek is used for ablution, especially before Friday service

"Have you considered? If your water drains away, who will bring you pure and running water?" (10:9)
1. Remove CMU blocks and prepare wheels/axle

2. Strip vinyl siding, brimming, and exterior fixtures

3. Reorient water heater and cistern to soilbed

4. Direct septic drainbed to diamond landscape

5. Plant spruce, pine, and fir to dimension lumber for future building

6. Build meditative observatory that memorializes mobile home
Some conditions of this model of conservatorship include a lack of profit - any income created from the property must go to future maintenance or improvements.

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At best, residents live with ambivalence for the creek as a natural feature, and at worst, residents' lives are negatively affected by the spills, freezes, and floods that disrupt their daily
and spiritual lives. Because Islamberg is so rural, we wanted to be smart about the parameters of new construction. We noticed that the overwhelming majority of buildings are manufactured homes (mobile homes are misnomers for these immovable structures), which typically last 30 years, or 45 years with excellent care. This is common in rural America, but it also presents an opportunity to give these buildings a second life in the watershed. By overlaying a new living water infrastructure over the existing religious structure in place, we enable the town to reinforce people’s mystic relationship with the natural world.
04. Bronx Bridge Housing

Rebuilding the block for seniors, services, and stairways; a new home for a historical center

with Alexa Greene

CORE III / Eric Bunge / FA2020
The Bronx Bridge proposes a hybrid typology for housing meant to enrich the lives of local Melrose residents. The design links towers of microunits and flex-able apartments with senior and resident services. In this hybrid geometry, eight towers share a plinth and semipermeable courtyard, creating a microcosm of, and echo-chamber for, urban life on the block.

When looking for successful cooperative communities in the Bronx, two distinct types emerge from the vast city fabric. The perimeter block style, like the garden apartment United Worker Corporation in Allerton that allows access to graded outdoor spaces, and the modernist elevated tower, was successful due to its density as it embedded systems of democracy, childcare, and healthcare, in Coop City. Our hybrid bridges smaller towers with an elevated plinth to satisfy residents living within and among nature, but still promises a density of cultural amenities and social complexity. At the site, we are rehousing the Bronx Documentary Center, a cultural staple in an unfortunate building, at the same corner of 151st street and Courtland Avenue.

The plinth plan shows how services, like healthcare, dining, and education, are woven into the block. At the typical upper floor plan, multifamily flex-able units are found at the corners, and microunit towers in between. Because each tower has a unique system of private occupancy and public movement, systems of room and armature are coordinated in concentric bands at the flex-able tower. We found that by pressing as much dense functional utility into a central armature zones plumbing, storage, public

Site Parti

Micro-unit Tower
circulation, we were allowed more freedom at the outer ring to freely experiment with rooms and combinations of living arrangements. In these living spaces, we imagine move-able walls, with minimal effort for installation, that would be better suited to changing extended family structures that exist in the Bronx already. For microunit towers, a non-linear accessory stair doubles as a meeting space. Senior living units are more defined by specific parameters due to limitations by HPD and SARA (Senior Affordable Rental Apartments) qualifications. The design allows for aging in place, by ensuring a sliding scale for different care needs.

Inside the buildings, the design employs an accessory stair as a social armature to connect between the different typologies, starting at the left side (the BDC entrance at Cortlandt and 151) we can travel to different microunit towers, and connect through the plinth to any tower. The unit distribution is layered by typology, and offers 438 beds. It has an FAR of 3.92 per city limit, and an OSR of 40.5%.

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From the street, at Cortlandt and 151, the commercial and BDC face is peeled back and more open to pedestrian traffic. Similarly, the plinth band is sheathed in a opalux translucent material that glows at night but allows for privacy from the street face. Here, the plinth is a beacon and living advertisement to the new possibilities of intergenerational living.

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05. The Extinction Rebellion School

An island for pedagogical eco-futurisms, a new bridge between art and activism

CORE II / Gordon Kipping / SP2020
From East 9th Street
Site Research

Sewing a Garden for Dissent in the East Village
Activism, in all its forms, is fundamentally about healing injustice. This implies that health and healing are radical practices, and architectures which promote healing should be built to enable these transformations. The XR school encourages student activism by proximity with nature to engender a sense of environmental responsibility. Meant to bridge a traditional structure with more radical community involvement, the existing wings of a school currently in neglect are interjected by woven mass-timber bridge structures. The result is a strong dichotomy that reflects the need to depart from business-as-usual in the realms of architecture and pedagogy.

The site at Old P.S. 64 in the East Village is sited precariously in time and in space. The building itself is flood prone and isolated in a food desert. This project affirms farming as medicine in three ways. Firstly, produce from the farming plots along the roof and the buildings terraces can provide key nutrients to students and the community. Secondly, gardens can act meditatively and have been shown to lower cortisol levels in children and adults alike. And finally, by acting as a third space for families, the farm can strengthen social bonds in a way that also prepares students and their guardians to become excellent stewards of the planet.

Two types of classrooms reflect the two main types of gardens throughout the school. Traditional walled classrooms for younger students look onto courtyards where teachers can tailor the growing season to the curriculum. Also, flexible canvas partitions enable creative combinations of spaces to cross-pollinate interdisciplinary approaches across ages and backgrounds. The actual structure of the intervention, inspired by basket-weaving paffleord truss mass timber of covered bridges, anchors into the existing wings of the school and is a self-stabilizing frame to allow for large column free spans. This operations opens a new central space as an inverted atrium, where the school becomes a shelter, open to 8th and 9th streets, to bridge the more programmatic demands of a school within a community on the front-lines of climate risks. Activism, in all its forms, is fundamentally about healing injustice. This implies that health and healing are radical practices, and architectures which promote healing should be built to enable these transformations. The XR school encourages student activism by proximity with nature to engender a sense of environmental responsibility. Meant to bridge a traditional structure with more radical community involvement, the existing wings of a school currently in neglect are interjected by woven mass-timber bridge structures. The result is a strong dichotomy that reflects the need to depart from business-as-usual in the realms of architecture and pedagogy.
Structural Assemblage

inter-lock

inter-weave

Structure in Use

UNITED FOR CLIMATE
06. MARKET ARCADES

A flexible street-market built piece-meal from a Manhattan classic; a cloister of construction and habit-changing tactility.

CORE I / Lindsey Wikstrom / FA 2019
Market Arcades installs a fresh food market at the intersection of Broadway and Park Row, adjacent to City Hall Park. The assembly of structures, made of sidewalk-shed scaffolds from around the city and movable panels, celebrates the entire life cycle of food and mystifies the growth, consumption, and waste process for New Yorkers. Moving counterclockwise, Market Arcades features an urban greenhouse, food storage, a market, and a composting center.

These forces revolve around a new pedestrian intersection, sheltered under repurposed sidewalk shed, to create a vibrant node between the Financial District and its adjacent neighborhoods. At a closer level, panels hanging from horizontal pipes are made of plastic-bag-reinforced-concrete, and use three plastic bags for every square foot of panel. For the 600+ panels in the structure, more than 10,000 plastic bags will be used in the tensile loops and decorative finishes that remind consumers of their waste practices as they shop at the market. By pairing the right to fresh food with an agile construction typology that is quintessentially New York, Market Arcades offers new life to this luxury food swamp.

What will happen to the millions of square feet of sidewalk shed when a NYC proposal further regulates their use? Each year, the Department of Buildings entertains up to five propositions that limit the extent and frequency of sidewalk decks and scaffolds. While this might improve storefront traffic or push landlords to improve conditions in a more timely manner, the eminent influx of industrial scale aluminum alloy beams offer unique opportunities to build volumes. Following the flow of the extant turning lane at the intersection of Park Row and Broadway, the building is programmed counter-clockwise, from a greenhouse hosting new growth, distribution and storage volume, consumption inside a market hall with restaurant above, and finally a waste disposal further regulates their use? Each year, 10,000 plastic bags will be used in the tensile loops and decorative finishes that remind consumers of their waste practices as they shop at the market. By pairing the right to fresh food with an agile construction typology that is quintessentially New York, Market Arcades offers new life to this luxury food swamp.

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The ‘food waste’ process, meant to capture the resultant waste, is an unpredictable and less-than-regulated system that captures less than 20% of waste. Using the sun to delimit the height of the structure, the staggered heights of the building ensure that no shadow will cast onto the adjacent park. The structure maximizes solar exposure toward and emphasizes the importance of our existing natural resources.

By bringing together a respect for existing natural resources, an emphasis on the everyday pedestrian experience, and the ability to engage in the small-scale experience of food processes through the lens of political membership, Market Arcades offers a new typology that elevates the importance of physical and social health in an urban context.
Concrete Plant Park, the newest green space in the Bronx, has been hailed as a successful example of bottom-up transformation to create a greener cityscape. While the narrative of Concrete Plant Park is traditionally told through the lens of environmental justice and community building in the face of an apathetic city, we can read the physical transformation of the soil as a proxy for the battle between a progressive bureaucracy and poisoned history. Embedded in the remediation of dirt lies the community’s aspirations for public space, but also the city’s limited willingness to improve the earth for its worse-off constituents. By analyzing technical documents, instead of the more public correspondence which frequently builds an anthropological argument of sociographic actors, we can retell the story of this park’s creation in molecular terms with the story of its toxic soil. Said another way, by ditching the examination of grass-roots activism for an examination of the soil in which those grass roots grew, we can combat the dominant narrative of activists, rather than chemical actors, to explain why one remediation project failed but another succeeded. Concrete Plant Park, when viewed as a case study in stories of environments, complicates our understanding of the urban frontier. In doing so, the explication of dirt invites more questions about the consequences of the traditional downstream hand-off of toxic commodities to poorer and poorer communities. It also clarifies what is meant by aesthetically salvageable in a post-industrial or industrial zeitgeist, and offers a more generalizable framework to address the validity of success of other post-industrial remediation projects.

A brief history of Concrete Plant Park is required to understand the layered relationship between soil, bodies, and the state. The park lies on the Bronx River, just north of the Hunts Point neighborhood, and is bounded by the Bruckner expressway to its south, the Amtrak railway to its West, the Westchester Road and elevated Pelham Bay Line to its north, and the river to its East. The land itself is thin, half a mile long but only 187 feet across at its widest point. The earliest significant use of the site was for a concrete batching plant by the inconspicuous name of Transit-Mix Corp., which specialized in large-scale infrastructural construction projects since its opening in the early 1940s.1 During its operation the plant mixed the cement and poured the asphalt for hundreds of miles of highways that crisscrossed the Bronx, Harlem and Westchester, and, in doing so, polluted the ground with excesses of petroleum byproducts and heavy metals. The site became abandoned in 1981 as a result of insolvency, largely due to the owner facing criminal charges for price-fixing and racketeering, which we can interpret as extralegal involvement with mafia, as was the typical criminal procedure during the Giuliani administration. By 1987 the site defaulted and was given to the city, where it faced an uncertain future.

Against the backdrop of this ambiguity, there was a coalescing group of community leaders who hoped to create more green space, especially along the Bronx River. In the conventional retelling of events, as a triumphant example of bottom-up planning, the story follows a series of coincidences. The ‘activation’ of local residents by opposing of series of 79.9 mW generators, solid waste transfer stations, and a truck route at the site happened to perfectly overlap with new sources of funding. These seed grants, earmarked in $10,000 packages by then park’s commissioner Henry Stern who declared 2000 the “year of the Bronx River” were meant to bolster participation in whiter, wealthier north Bronx neighborhoods to clean the areas around the Bronx Zoo and Botanical Gardens. It then follows that by some chance, a coalition of residents from the groups Youth Ministries for Peace and Justice (YMPJ), the Point CDC, and Sustainable South Bronx (SSB) were awarded one of the grants and decided to hire a design firm to bring their community’s vision of a green patch to life.2 Then, in a near frictionless relationship with the City Parks department and the State Environmental Protection Agency, the project was green-lit for redevelopment to become a park. The narration then concludes that the park, which is almost finished construction, worked miraculously to connect life-long residents of the south Bronx to their river for the first time, and nourished a new generation of Brownites with a medicinal food-way that runs through the park.

Before getting into further specifics, we should frame the ontology of the ground as precisely as possible given the context of the myriad actions happening on its

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2. According to the Bronx River Alliance, the microgrant funds went toward a partnership between the aforementioned community groups and the firm Inhabit the Earth (website accessible at http://inhabit.earth/concrete-plant-park), who designed the foodway for the first time and actively presented it to the parks department for adoption. The name “Inhabit the Earth” fits uncannily with the theme of rehabilitation at this site, as we through engineering or architectural interventions, try to inhabit the chemical complexities of the earth at this spot.
This reading of ground, or dirt, or soil, or earth seeks to marry the physicality of the archaeological survey (a classical form of archive by catalogue), with the implicit human actions that resulted in the composition and sedimentation of chemical stories. It is important to remember the twin truths that the ground is alive, and it is used by and for the living. To clarify, the ground is alive at many scales – both in the colonies of anaerobes within the soil layers that are invisible to the human eye, and the plate tectonics that prove imperceptible except at a geological timescale. The spirit of dirt is mirrored, at times contradictorily, by its use as a singular surface by those living above and among it, where the use of architectural building volumes or city planning reflexively changes some of the ground’s properties.

Given the sort of elemental compartmentalization of our narrative reframing, it is useful to bring about an approach which explicates the ground in an anthropocentric context. For this, I turn to the precedent laid by Horn, who argues that such “a phenomenological method means to conceive of the air not as an object distinct from its observer but as something in-between, connecting and encompassing, entering and exiting any living beings.” There is a similar logic to unravel the complexities of the soil: it is not a flat layer, but something inexplicably deep, complicated, alive (or deadened by mis-use), non-monolithic yet global, constituted by natural and man-made processes, time specific and ever diffusing. As John Durham Peters argues in the marvelous clouds, these elements components of media are “vessels and environments, containers of possibility that anchor our existence and make what we are doing possible.” To bring this logic underground, we could say that soil is not merely the material basis of life and living, but that it constitutes a sense of grounded-ness, legitimacy to occupy a space, and creates the foundation for an infrastructure of place-making.

At the site of Concrete Plant Park, the dirt is conceived largely in two camps. First, the dirt is a symbolic arena, where people linguistically or phenomenologically connect to the grounding of community by connection to the earth, and second, the ground is a chemical matrix, where it is analyzed and dissected with the goal of being invisibly reconstructed to create a seamless park-scape. In the public sphere, the ground was discussed in largely pacifying terms that seemed to emphasize the bureaucratic process of remediation (as if there is anything normal about a fifty-year saturation of chemical pollutants so intense that the top three to five feet of earth need to be trucked away for the safety of occupants). Jim Mituzas, the Parks and Recreation employee who designed the park, proclaimed that it was an extremely cheap park to build, given that of its nearly $10 million budget, more than 90% of budget went to contamination remediation. The Highline, a similar sized park completed at around the same time, cost nearly $153 million to design and complete. For Concrete plant park, this is not some assurance of the natural beauty of the old concrete plant park as much as it is a scarcity of resources that would be worth spending on the area; this is simply a brownfield with new soil that fulfills the green space needs of the borough. Mituzas describes the process of the remediation as ‘refreshing’ the soil to allow for the edible food-way, which ignores the thousands of hours of labor spent to bring the soil to acceptable standards of chemical composition, and the years of illicit activity that made the soil unacceptable in the first place. The phrase refreshing does a lot of work to comfort the fears of residents who mistrust the city’s intentions as it implies both a state of relaxation to a natural calm and order, as well as something that is fertile or ‘fresh’. The anthropomorphizing of the ground did not stop there: in a series of public meetings, Mituzas stressed over and again that he and his team had changed the grade of the soil to make the park more friendly and inviting, which posits that the soil was the antagonistic spatial element instead of the previous users of the site who had walked off the waters edge to make room for petrol tanks and concrete wash-out.

The soil sampling and analysis, a spatially and temporally mediated archive maintained by Lawler, Matysky, and Skelly Environmental Engineers, was a procedurally standard approach when dealing with a suspected toxic or Superfund site. The team drilled and exhumed soil cores from various locations around the park, and ran a series of electrophoretic analyses of these samples to ascertain the chemical makeup and concentration of volatile organic compounds (VOCs), metals, pesticides, and diesel range organics (petrochemical byproducts). Using highly technical language, the report dictates the scope of work – seven piezometers were dispersed, and recovered three previously unknown underground storage tanks at 550 gallons each. The report banally recites the procedure: 3-inch outer-diameter split spoons drive by a
The contract documents are ill-resolved here on an architectural level; on the pages that plan for the concrete-blocks new life as a riverine bulkhead, the designers were able to engage in the remolding and reshaping of the site to fit the request of the community groups that had proposed its change. A series of contract documents clarifies how the planning of a park is again a selective process of archiving, albeit one to maximize the comfort of the visitor instead of minimize the harm to a resident. The contract explores three facets of design in its technical data: how the earth should be shaped at this spot, what should stand upon it (and how structures should be connected through the ground), and what should sit below the surface.

The first exploration, how to effectively earthwork the site, is the easiest to understand. The landscape plan attempts to calm the sharp cliffs and embankments on the surface of the concrete batch site with rolling hills that gracefully connect the river’s edge to the adjacent roadways. This urge to smoothness might be mistakenly read as a yearning for the pastoral, or an Olmstedian want to re-create a topography of the natural. The park designers insist that this kneading of the earth is as closely as possible. Because this chemical substance, an unregulated possible carcinogen according to the EPA, can travel filled with contaminated soil without worrying about sliding back down the walls of the pocket. By expediting its own demise, the components of the park’s toxic past are strategically positioned to destroy any record of ill-health.

This leads to the final technical investigation of the dirt, a study of its modern replacement. Given the attention and funding dedicated to remediation of the unearthed, it may be logical to assume the contaminated dirt was replaced with clean dirt, as if in a one-to-one swap. Instead, the current park is largely dirt-free beneath a few sparse inches of top soil or sod. The park designers, with an eye for efficiency of scheduling and cost, replaced the unpredictable and contaminated soil with a twentieth century swap: expanded polystyrene foam (EPS). The chemical, molecularly identical to Styrofoam insulation, replaces dirt as far down as 19 feet below a laid façade of grass. The process to create the material on site is violent – a polymer goo is poured into a mold and heated until it pops like a corn kernel, and the resulting rectangular brick of air, often six to ten feet wide, is light enough to carry by only one person. The geofoam, bound by “geotextile” and a “biomat erosion control blanket” to protect the new earth from the elements, is topped with borrowed fill, topsoil and sprinkles with planting. Instead of the unpredictable and contaminated soil with a twentieth century swap. Instead, the current park is largely dirt-free beneath a few sparse inches of top soil or sod. The park designers, with an eye for efficiency of scheduling and cost, replaced the unpredictable and contaminated soil with a twentieth century swap: expanded polystyrene foam (EPS). The chemical, molecularly identical to Styrofoam insulation, replaces dirt as far down as 19 feet below a laid façade of grass. The process to create the material on site is violent – a polymer goo is poured into a mold and heated until it pops like a corn kernel, and the resulting rectangular brick of air, often six to ten feet wide, is light enough to carry by only one person. The geofoam, bound by “geotextile” and a “biomat erosion control blanket” to protect the new earth from the elements, is topped with borrowed fill, topsoil and sprinkles with planting. The carefully crafted section ensures that the new earth, untenable in the real world without several layers of protection, should resemble its contaminated predecessor as closely as possible. Because this chemical substance, an unregulated possible carcinogen according to the EPA, makes up a huge volume of the new ground, we should change the narrative of the park’s remediation to one that swaps a 20th century toxic with a 21st century one.

The subsequent set of drawings, succinctly called the removals plan, details the fate of each built object on the park. For the determination of archive and relationship to the ground below, this is the clearest example of a selective archiving driven by an aesthetic romanticism for the industrial ruin. The plans, with giant exes, call for the demolition of several buildings on the site, as well as many other elements like concrete walls, a nursery, a string of eight-foot-tall fencing, three railroad ties, and more than fifty trees that sit in the contaminated soil. The transformation renders the modern parkscape follies unrecognizable from the factory that created them. The hoppers, sorters, and tanks that are strewn randomly through the park today used to be deeply embedded by a deeply linear history of manufacturing. For example, at the center of the site a nearly circular ring of eight structures is reduced to four, and the rows of buildings that connect the hoppers to silos a few hundred feet away are removed, leaving the iron structures as sculptural elements that are more isolated by the excision of their neighboring processes than by a fifty-year lapse in their usefulness. The structures that exist in the park today are the result of a surgical process of elimination to
The new ground at Concrete Plant Park is not only comprised of usable landscape, but also of a hardscape riparian buffer built of three-foot cubic concrete blocks. These so-called “mafia blocks” are the result of end-of-day washout from the concrete batching trucks that have accumulated on the site for nearly fifty years. These elements of ground are a less visible than the architectural hopper structures, but are much more contested due to the connection to the previous regime of toxicity. Again, the community forces pushing for the redesign of the park were well reminded of their air-born threat of diesel inhalation as a result of reshuffling the ground-scape. If thousands of the blocks, each weighing 4,050 pounds, were transported from the site, it would require hundreds of truck trips, which, in the words of community members, would be an acute reminder that the resolution of toxicity at this space of green privilege requires that young people in the area pay with even higher incidences of asthma and pertussis. They suggested that the blocks, which are poor quality by any standard due to their production, be used to manicure the waters edge and be intentionally overrun with the natural to create a terrace of vines and wildflowers. The result would be a hardscape softened by dirt, a low sight-plane, and excesses of green, where one could literally step over the baggage of the past on the way to the river.

Ultimately, the dirt at Concrete Plant Park is the invisible feature that underwrites the success of its transformation from brownfield to green oasis. By looking largely at technical documents that were never intended for public view, but nonetheless became objects of public scrutiny, we can begin to understand the ability of the ground to be archived. The environmental engineering report displays a beautiful abstraction of chemical consequence that hides the harm of heavy metals and VOCs behind colorful bands of ‘soil anomalies,’ and the architectural contracts display the granular level of control that the agency tried to exert over the planned re-deposition of dirt at the site. Taken together, these reports from the city parks bureaucracy, which were only a small fraction of the documents needed to create the park, display a deeper willingness to engage with the original goals of South Bronx residents than is typically told in the history of this park’s creation. Yet, the technical documents also profess their flaws – using cheap filler materials to make new land, or only sampling the worst looking areas of the site to avoid further remediation findings – can be read as the incomplete engagement with the archive of soil. The environmentally conscious designer, notes Menard, must tread a dichotomous line to express the aesthetics of ruinous decline, but at the same time surround the ruined sublime with the perennial belief in beauty as a ecological solution set. At Concrete Plant Park, this dichotomy is clearly expressed in its passive follies and active plantings, although connecting these narrative threads is only a thin blanket of dirt that must refute its past toxicity as much as honors it.
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