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The project aims to reshape the public green spaces and reintroduce urban density to a South Bronx neighborhood. The affordable housing complex of 294 units promotes collaborative production and sustainable living by opening up a flexible structure for future extension of community gardens.

Besides groups of the compact units are the elongated shared balconies which bring people right into the center of the courtyard, providing generous space for planting and cooking for all residents. Our design responds to a lot of local opportunities, including Bronx Documentary Center, a local landmark and cultural center and two existing gardens. “Share and grow” is the theme our project would bring to the local community.

Location:
South Bronx, NYC
Program:
Affordable Housing
At Home of Green, the units are arranged compactly along the perimeter of the block, wrapping around two fully planted courtyards opening towards the two existing gardens. Pedestrian alleys weave through the landscape, providing access to the public programs on the ground level as well as a path through this urban block. The whole building complex is organized by a 15 feet structural grid, economic and flexible for construction and organization.
Ground Floor Plan
Type C Couple Room

Type D Studio

Type E Family Apartment
Section Model 1’=1/4”
Columbia University GSAPP
Advanced IV Studio 2020 Spring
Critic Adam Frampton
Partner Anoushae Eirabie
For decades, topographical manipulations prioritising cars happened in the Downing Park, a forgotten historical landmark in the center of Newburgh, an upper state city of New York. We boldly transformed the park by reinterpreting the typology of retaining wall. The curved wall radically deals with the problem of separation between east and west side of the park by turning the existing driveway and the steep slopes along it into a series of platforms. Interweaving high and low, old and new, the intervention blurs the boundary between landscape and architecture, in search of the new definition of the urban park.
Project Phases
The cut-and-fill operations stitch the two side of the park, cutting out new open air playgrounds as well as building up single floor indoor spaces. The height of the wall changes with the existing topography, becoming as tall as 2-floor high amphitheatre seating and as low as below grade to allow seamless trespass.
1 Urban Farm
2 Footbridge
3 Screening
4 Lookout
5 Amphitheatre
6 Sunken Stage
7 Workshop
8 Playground
9 The Pergola
10 Shelter House
11 Fun Pool
12 Park Cafe
13 Polly Pond
14 Terrace Garden
15 Service

Site Plan
The height differences are celebrated by the grand multi-functional steps and ramps, while the programs of the new stages are curated responding to the existing historical structures on site, including an amphitheatre, a shelter house, a pergola garden, a lookout point, and vacant houses.
Section BB’ Stepped Playground and Pergola

Section AA’ Shelter House, Pool, and Terrace Garden
02 PARK OF WALLS Downing Park Revitalization
The most expensive real estate development in the U.S., Hudson Yards, manipulated 6 billion of public funding to build a platform hosting an infrastructure of air conditioning dealing with a huge problem of heat. When the Eastern Train Yard is covered, 150 degrees of heated air from trains accumulates under the platform, while the cooling and maintenance are all at the cost of taxpayers’ money.

Our proposal is to remove public funding and initiate a public management of the heat. The intervention does not simply stand on its own as a solution to the overheated platform, nor as a singular concession acknowledging and removing public funding. Instead, the efforts to establish a process of demolition, archiving, reconstructing, and entangling should be seen as a part of a broader restructuring of public engagement in the making of public infrastructure.
Hudson Yards is made when two modes of exploitation collide, where vertical multiplication of land has to happen on top of a rail yard serving horizontal expansion. A platform is built above, as a “public garden” serving luxury towers and shopping malls. Incoming trains release a huge amount of heat into the rail yard. To insulate and ventilate the yard, 15 aerial engineered exhaust fans, extensive glycol chilling tubes, 6 feet of rigid insulation and 4 feet of structural soil are assembled in a steel platform, mostly at the cost of public funding - $1.6 billion from EB-5, $3 billion through ISP, and $1 billion of city tax break.

We propose to
1) remove the current MEP system which abuses public funding,
2) release the heat through naturally driven stack effect, and
3) initiate a public management of the infrastructure.
In the name of heat, the surgical demolition plan excavates the existing air infrastructure and turns part of the privatized circulation of heated air into public circulation, which provides 5,000 employment opportunities for the city. The first step is to reclaim the podium of the 35 Hudson Yards, which currently accommodate the air intake system for the platform, re-purpose it as the town hall for public meetings during the demolition process, as well as a temporary shelter for workers. The deconstruction work involves archiving the dismantled structure and materials in the by then vacant shopping mall, where a public management of deconstruction wastes is promoted.
IN THE NAME OF HEAT

Hudson Yards

Deconstruction
Existing Air Tower Under Deconstruction
West Exhaust Tower
Central Exhaust Tower

New air towers will be built 100% using materials recycled on site, in the form of a hollow hill with a reversed fan on top to facilitate the stack effect. The “air mountains” will become the bases for the accumulation of not only heat but also soil, water and insects, which entangles alternative life forms coexisting with heat and toxicity.
West Exhaust Tower Perspective
Columbia University GSAPP
Advance Studio VI 2022 Spring
Everything Must Scale: Removal of Motion
Critic Michael Bell
Individual Work
“LightWork” is a network of lightweight distributed work spaces in the future. If remote working can bring more comfort and efficiency at a lower cost, it will fundamentally remove the demand of two things: parking lots and office tower. How might we reclaim the outdated parking and office infrastructure for a flexible remote workspace that can bring people closer to nature? If the mechanical and electrical system inside a vehicle can serve more than itself, it could become part of an off-grid energy and information system, unlock the possibility of working anywhere. Having the support structure 90% made of air, actual footprint 10% of the floor area, the proposal is an alternative building solution against gravity that leaves minimal impact on the earth.

Location: Distributed
Program: Temporary Work Space
Potential Site Plan
1 360 Projection Pod
2 Solar Panel
3 Mechanical Pack
4 Central Desk
5 Inflated Column
6 Meeting Pod

Work Pod
Transformation
1 Solar Membrane
2 Translucent ETFE
3 Opaque Rigid PVC
4 Translucent Curtain
5 Restroom
6 Board Table
7 Coffee Bar
8 Mechanical Pack
9 Work Picnic

Work Station
Exterior Perspective Night
Interior Function Zones
Work Station
In this increasingly digitalized world, public spaces for people acquiring and exchanging information face-to-face is more important than ever. Library, as one of the oldest social institutions for knowledge sharing, is now expected to offer educational experiences richer than books, and spaces not only for reading alone. I conceived the library as a mini-city for people not only read, but also live, where users from different community groups are free to stay and communicate. Given the site of Roosevelt Park, a public field runs right in the middle of different neighbourhoods, it is a great opportunity to build a library to capture the invaluable culture of diversity around. Balconies, terraces and rooftop gardens on all levels, together with the central indoor courtyard, make the library become a permeable city.
The architectural operation of folding increases exposure, creating in and out spaces interacting with surroundings in different ways: terraces of different heights extending the inner rooms to the outside, while the central atrium invites in natural light and street life.
Typical Floor Plan

1 Atrium
2 Archive
3 Lounge
4 Event Room
5 Terraces
6 Family Reading Room
7 Group Reading Room
8 Digital Reading Room
Top: N-S Section
Bottom: Ground Floor Plan
The building envelope is a triple-layered glazing system of 1.2m wide by 4m high units, which consists of expanded copper mesh held between two outer sheets of clear low-e glass. The copper mesh can significantly reduce glare and heat during the daytime while allowing natural light in and great view out. At night, the effect is reversed.
Final Model 1’ = 1/8”
Billboards have become part of the basic infrastructure in metropolitan cities like New York. On Times Square, those overwhelming digital billboards have completely changed the urban landscape, occupying and polluting the public airspace with thousands so-called “green” LED bulbs shining twenty-four hours a day. The city is, actually, not as dense as it is appearing to be - behind the tall billboards, there are many leftover empty spaces on the podiums of the skyscrapers. More accessible than the rooftop gardens which are usually exclusive, the space behind billboard exists on a relatively low level of the city, allowing it a good potential to be transformed into public green space that is extremely scarce in this highly commercial area.
PORTFOLIO

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