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125th St/Old Broadway

Connect // Columbia's Engagement with Community + Environment

The Columbia Engagement with Community + Environment team looked towards engaging the 125th Street Corridor from Amsterdam Avenue to the Waterfront, with new public spaces on the east and west, both focused on making environmental systems tangible and providing attractive new spaces for the community, and on strengthening the hub at its core with a new mix of university – and community-oriented development.

WEST HARLEM — COMMUNITY ENGAGEMENT

-  Proposed Mixed Use Residential/ Commercial Building
-  Proposed Residential Courtyard
-  Proposed Waterfront
-  Existing Green space
-  College Campuses
-  Proposed Greenway



CONTEXT



LIVABILITY



SUSTAINABILITY



VISUAL EXCELLENCE



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Gateway to Community

This project proposes two buildings, one northwest of 125th Street and Broadway focused on university programming, and one southwest of 125th Street and Broadway focused on mixed-used, community-oriented programming. It aims to fulfill programs displaced by Columbia's expansion including churches, and to give them an identity in the community.

Sustainability

Use streets to connect to waterfront
Green building design: Minimize impermeable surfaces + maximize vegetation
New public open space.

Visual Excellence

Allow for future growth
Consistency in streetscape
Lively urban atmosphere
Mixed residential + commercial buildings.

Context

Complementary materiality to surrounding neighborhood
New multi-generational arts and cultural facilities
Affordable housing
Gathering spaces + pedestrian access to destinations
New home for displaced churches.

Livability

Create jobs
Public open spaces for social, civic, + economic interactions
Support local businesses
Improve existing open space
Opportunities for green-planted areas
Revitalize West 125th Street.



Site 1: Mixed-use Community Building

Site 2: Park for the Community

Site 3: University Building



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125th Street Connection Corridor

The West 125th Street Corridor, from Amsterdam Avenue to the Hudson waterfront, will be seen as a physical connection within the community. This connection will begin through improving the environmental quality of the streetscape, with a focus on community safety, walkability, sustainability and appearance. These improvements will also increase economic opportunities while providing community amenities and encourage a more livable urban environment for the future.

This project repurposes and redesigns two types of open space: the lawns at the base of a NYCHA Grant Houses building, and a traffic triangle formed by 125th Street's diagonal route. The design adds to the city's green infrastructure by harvesting rainwater, creates a refuge for residents and passersby, and uses native species to represent the ecological heritage of the site.

- Encourage economic growth through business development
- Generate local support through creating local destinations
- Reconnect local businesses with the community through a greening process
- Decrease traffic speed to create a safer pedestrian experience
- Children's Play Area
- Private Area
- Storm water/Wetland Observation Zone
- Topographic Mound Area
- Parking
- Tennis Courts



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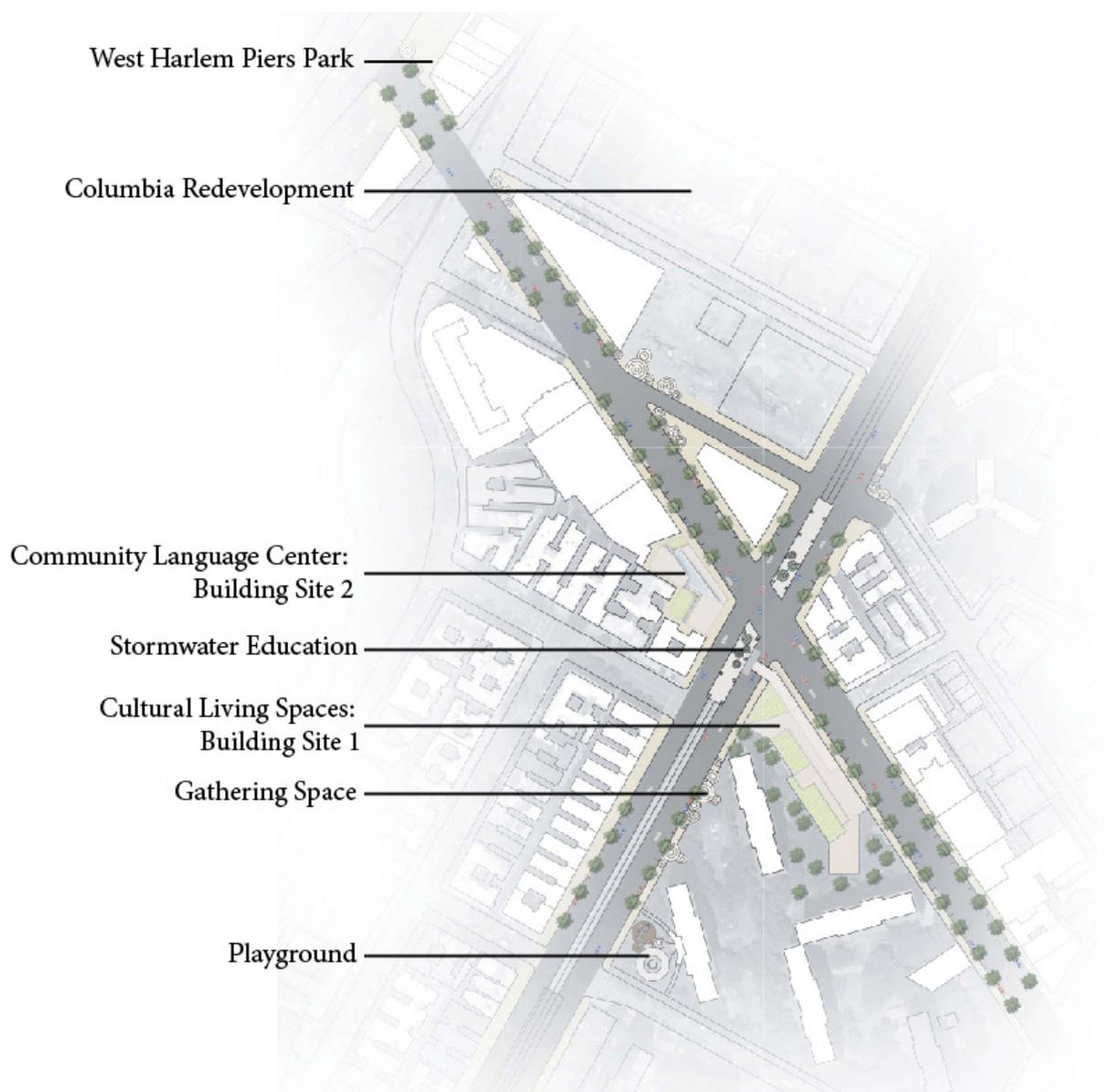
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Urban Equilibrium

Seeking to highlight pleasant areas and reveal urban areas that exhibit potential to become more pleasant to create a balance within the urban fabric of Manhattanville and Columbia University's campus. Linking the culturally diverse community of Manhattanville with Columbia's campus. Using connections within the city to draw people toward already-existing attractive areas and improve upon areas of neglect. 125th Street draws a connection with the Hudson River and the revitalized park to draw people toward the water. Broadway and its subway are intimately connected, yielding unique opportunities for the urban streetscape but creating unhealthy amounts of noise. Already existing parks, such as Riverside Park, can be intimately woven into the urban fabric by embracing existing and expanding green space – making sustainability visible.



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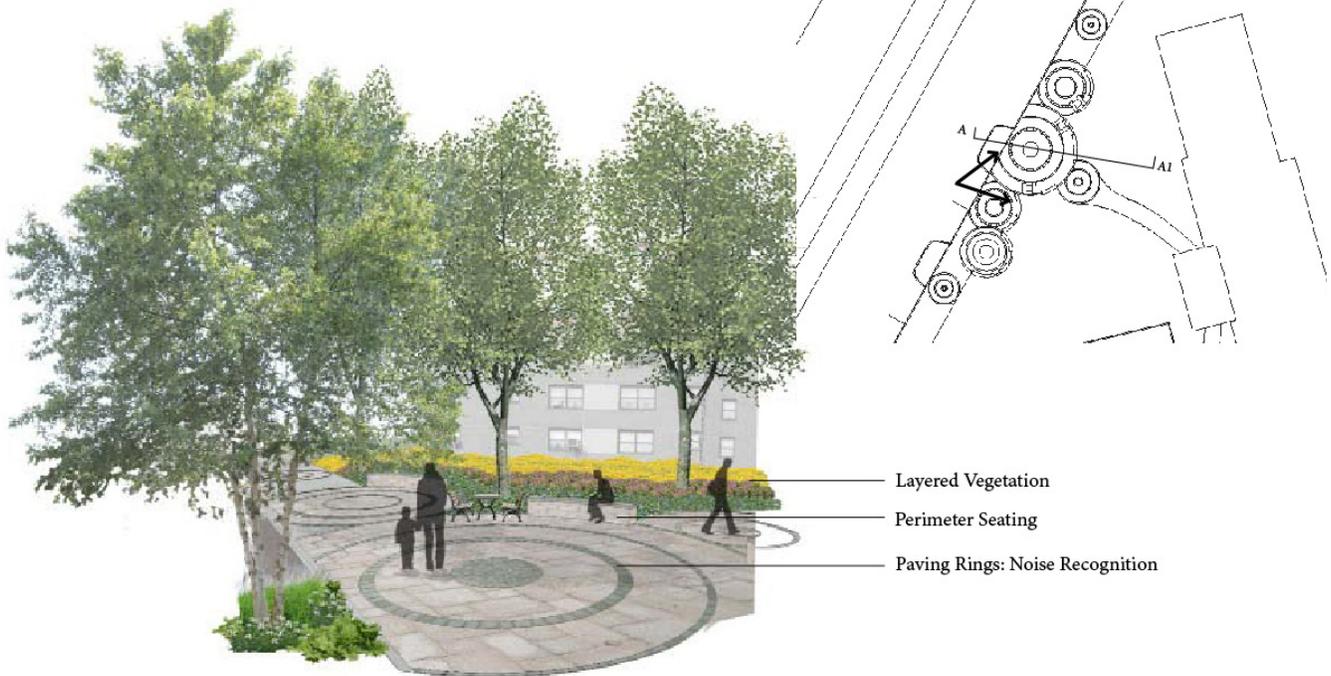
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Modular Connectivity Landscape Design

Members of the West Harlem community have been at odds with Columbia University due to the school's expansion into their neighborhood. The purpose of this design is to create modular connectivity throughout the neighborhoods. The spaces designed would all center off of a common theme based on the idea of concentric noise waves. The designs ultimately have four goals: to connect Columbia and the community, create "positive noise," develop a Green Street, and link the community to West Harlem Piers Park. Creating positive noise can counteract the loud, negative noise emanating from the elevated subway. There are three main types of spaces created: gathering spaces, storm water demonstration spaces, and playgrounds.



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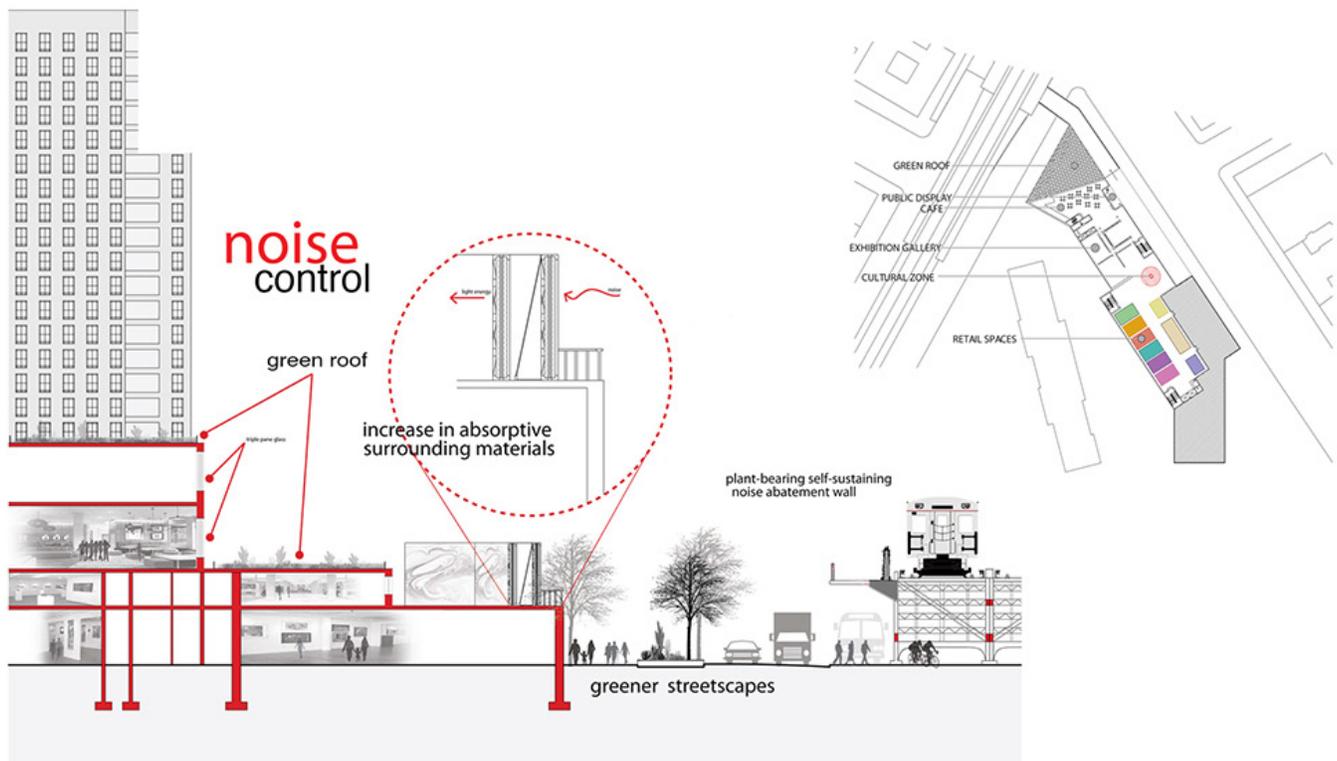
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Cultural Living Spaces

Driven by noise abatement, this project aims to dissipate harmful noise created by the elevated subway stop at 125th and Broadway. According to the Arts and Culture Committee, hubs and incubators for new media needed to be discussed for the Harlem area. Through the creation of cultural living spaces on site and development across the immediate neighborhood to highlight and increase visibility of culture zones, the project strove to create a useful, vibrant environment of healthy and pleasant noise – noise that does not eliminate the cultural buzz of New York, but diminishes the damaging noise levels radiating from this intersection.



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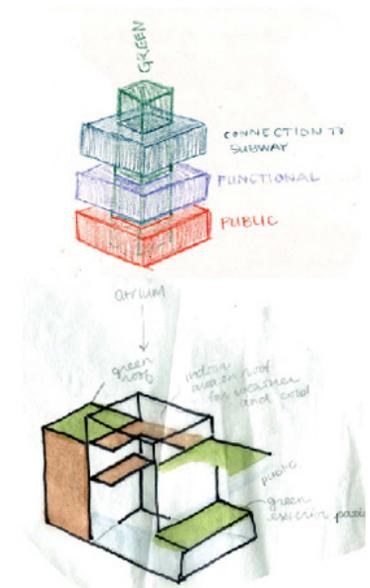
Community Language Center

This project focuses on the connections and relationships between several forces existing in Harlem near 125th Street and the need for more effective communication between the surrounding communities. It creates a center dedicated to education and the learning of language. The goal is to maintain a relationship where members of the Manhattanville community can learn English while the members of the Columbia community can learn Spanish, potentially bringing the population of Columbia and the culturally diverse neighborhood of Manhattanville together. The concept focuses on the difference between "assimilation" and "acculturation." Additionally, because of the proximity of the subway line, unhealthy and chaotic noise would be dissipated into "helpful" noise, such as language and the spoken word. Both communities would be interwoven both linguistically and culturally, while improving neglected areas and highlighting pleasant spaces within the neighborhood as well.

B



Main atrium space with cafe, restaurant, green spaces, and lounge spaces for studying, talking, communicating, and eating.



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Making Sustainability Tangible in Urban Context

Addressing the community's perceived lack of park space presented by CB9 representatives, this project introduces a series of "green" interventions. Isolated "islands" (park spaces that are visually connected to the community but difficult to access) and "bonsais" (inaccessible green spaces) are interconnected through a continuous Green Corridor that provides recreation space and habitat for improved biodiversity. The street section of Broadway is redesigned as a central Green Spine that improves pedestrian experience and collects/distributes storm water runoff. Bioswales are introduced to the east/west streets; these Green Streets connect all residents to the major parks (Morningside Park and the waterfront), cleanse storm water, and provide for a sensory engagement with the environment. Finally, the underutilized "residual" spaces are interconnected with Green Ribbons to create interior block connections. Building off a plan developed by Columbia University's Urban Design Lab, the Green Ribbons connect ground level food production spaces to rooftop urban agriculture, establishing a strong relationship between people and their environment through food.



Green Spines Detailed Plan - Broadway



Green Spines Perspective - Broadway



Connection of Broadway With Other Streets

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The Green Loop

Addressing goals of PlaNYC 2030, this project creates an educational network through the implementation of a “green loop” bus system. The central median of Broadway is redesigned to accommodate bus stop waiting areas with covered bike parking and public restrooms that use captured rainwater to operate the facility. These stops also illustrate the cleansing of black water using an integrated living machine in which the user can see the flow of water from beginning to end. Storm water infrastructure is revealed while signage presents passers-by with fun facts to inspire more sustainable living.

Each bus stop location has its own unique form of “green education.” Some educate the public on the reuse of water while others take the opportunity to educate people about urban agriculture. Both are done so through visuals and tangible means of education.



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Math and Science High School

This design for the proposed High School implements urban farming into the curriculum as a means for teaching math and science. Conventional classroom spaces are redefined to establish more collaborative learning and interactions between the students and the community.

A program such as urban agriculture and sustainability can connect the people to the environment, education, and the community at large. The introduction of urban agriculture to students' own backyards and parks through hands-on learning becomes an extension of the school and fosters neighborhood growth and development. The school becomes a hub for progress and education throughout the community and its people.

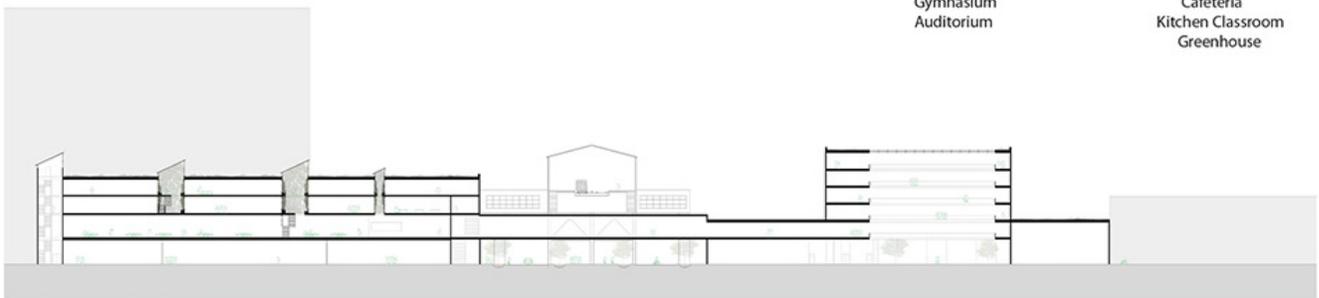


Program Elements



Administrative Offices
Classrooms
Gymnasium
Auditorium

Science Labs (Varying Sizes)
Classrooms
Cafeteria
Kitchen Classroom
Greenhouse



School and Bridge Longitudinal Section

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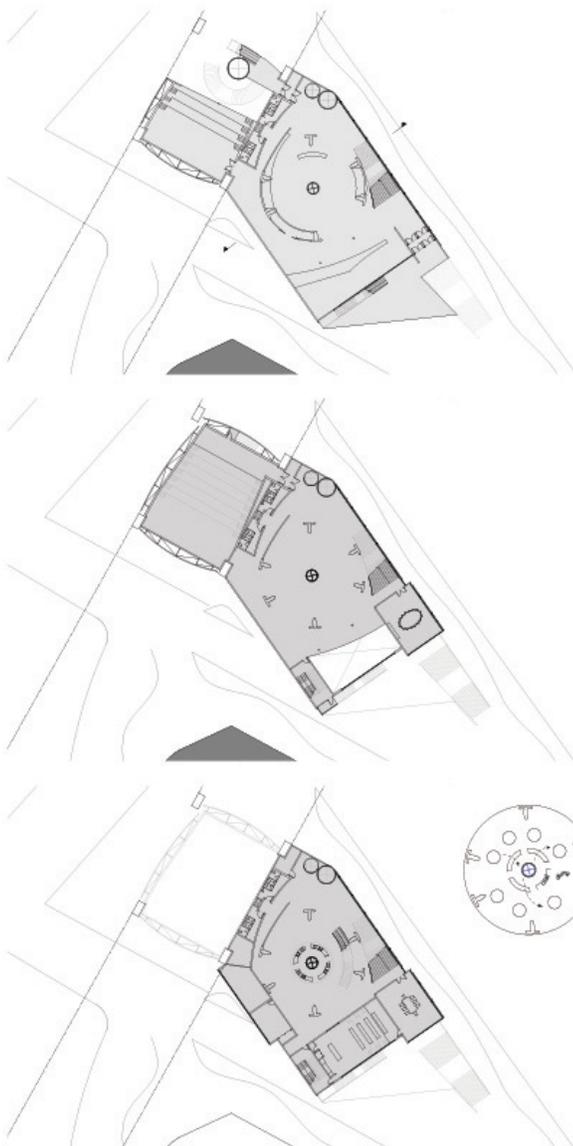
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Urban Agriculture

Stemming from Biophilia, an incubator for urban agriculture can help resolve the particular biophilic challenge of mending the current distant relationship people have with their food.

The overall food production/distribution market has become an industrialized and unsustainable aspect of everyday life. By inserting the “farm” into the urbanity of New York, the communities of Morningside and Manhattanville can acquire an awareness and appreciation for their food production. Thus, better-informed decisions on food consumption will develop a future community that not only is food resilient but also one with a sustainable lifestyle.



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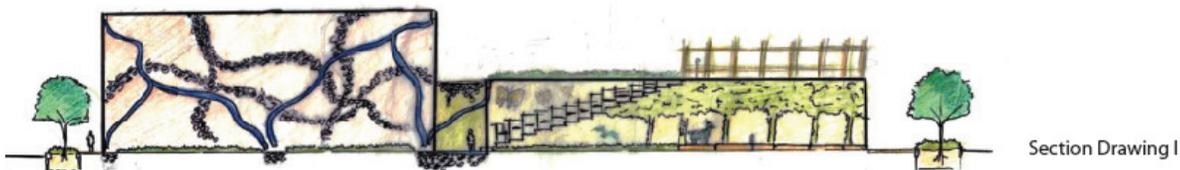
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Green Ribbon

Linking Green Ribbon spaces to rooftop agriculture, this project is a combination of art installation and landscape design. The site activates an inner-block condition between 125th and a small park on 126th Street. The vision is to connect the upper level urban agriculture to the lower level green parks so the connection could be noticeable for pedestrians even on the ground level. A church food bank and neighboring program for school children serve as client/ users for this project. Through the development of an engaging and visually appealing green landscape design for various users across all age groups, the project can help to instill a communal value in shared urban green spaces and other green opportunities such as urban agriculture.



Concept Perspective



Concept Plan

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Broadway 1000 Steps: Designs for Incremental Urbanism

The team's approach began with analyses and proposals for improving the existing movement network, including bikeways, and responding to existing design proposals to make Montefiore Park a greater community resource. Envisioning a redesign of the park, one project proposed a new market building on the north, while another provided an adaptive reuse of a theater building, incorporating multiple existing and proposed programs. The hub at West 125th Street was reconceived as a gateway that offers education and opportunity for an active way of life.

 **BIKE BROADWAY**
Elevated Bike Path



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Community Marketplace

Members of the community have high hopes for Montefiore Park and would like to see the area redesigned into a place for the community. The proposal is to reclaim the park and to create a community center.

Broadway and Hamilton Place bound the park on both sides from 136th Street to 138th Street. The park has great potential to be an economic draw for the area. It is close to a transportation hub, the 137th Street subway stop, and young families are moving to the neighborhood.

This newly redeveloped park would provide several things to the community:

- A public outdoor space for community gatherings
- Space for festivals and outdoor markets
- A place for fruit and vegetable markets



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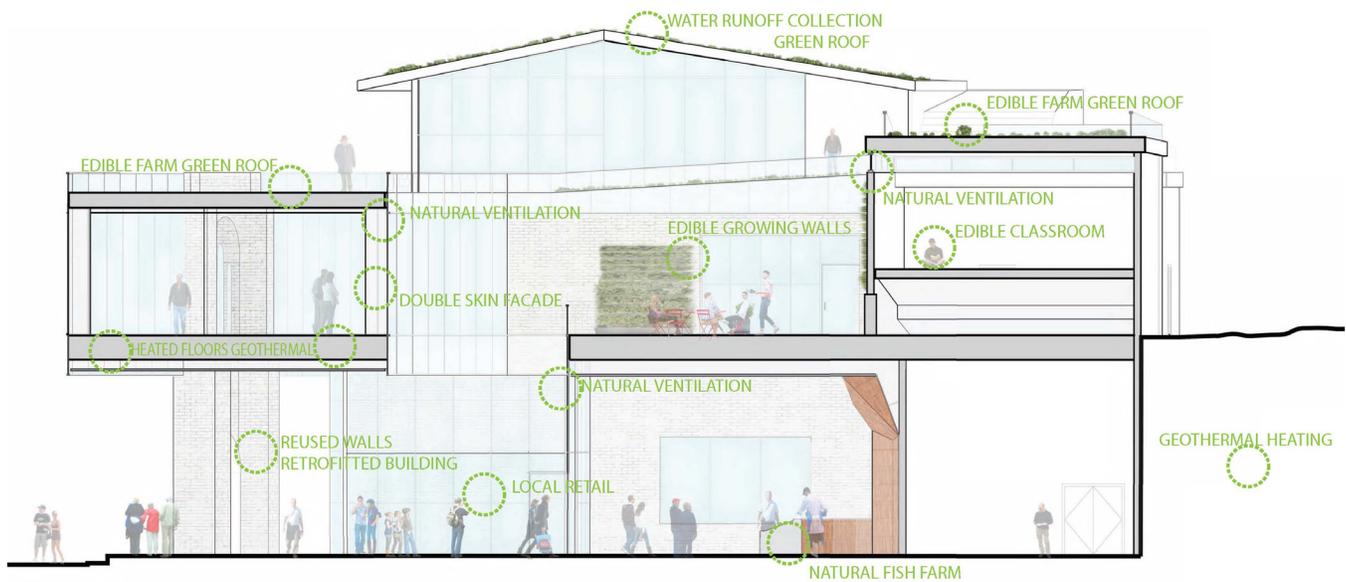
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Creating a Neighborhood Center

The Hamilton Heights district is a unique part of the city with low-rise residential housing that fills its streets. The old brownstone and tenement buildings create an environment of charm. The area, however, is a food desert with limited economic opportunities. The first phase of the project creates a pedestrian street along one side of the park, connecting the community. The proposed building creates a beacon for both the community and sustainability where this street and Broadway connect. The retrofitted theater becomes a community market and retail area while creating better sustainable practices for the expanding market by using cyclic sustainable measures.



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Integrative Communities

The focus of the Integrative Communities urban design project revolves around the hub of West 125th Street and Broadway. This location is important because it is a convergence point of the strong arts culture of Harlem and the scientific nature inherent in much of Columbia University's program. By focusing on the relationship of these two cultures, the project can better connect the communities of Harlem and Columbia. In addition to the collegiate connection being made between Columbia's main campus and the Manhattanville expansion, there are two other important connections being made. The first is the green street and landscape design installations that connect Morningside Park and Riverside Park and engage local shops, residences, and the campus. The second consists of the visual cues and new architecture that connect the high-rise apartment complexes, West Harlem Piers Park, and other important community establishments along the waterfront. The Integrative Communities master plan fulfills the BROADWAY: 1000 Steps vision "to make sustainability personal, visceral, and tangible, so that city residents are empowered to take positive action."



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A Green Connection of Art and Science

This project aims to create two visual/conceptual paths, one from the green open space of Riverside Park, and the other from the open space surrounding the Manhattanville NYCHA development, bringing the paths together at the elevated subway platform, representing the connection of the built environment to natural systems.

The green connection from Riverside Park is characterized by planting features, street trees, benches, and bike racks strategically placed along a sweeping curve. The connection through the housing development resembles the flow of water, and connects to a rainwater collecting system providing cooling around the subway station. The final feature reconnects the area to the river through a series of water runnels embedded in the street and sidewalks. The interior of the station displays art. The walls of the station are painted, representing the train map, while the ground displays a collage of street signs and train stops. This information is represented as art but also helps show a larger connection of this area to the city.



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Art at the Heart

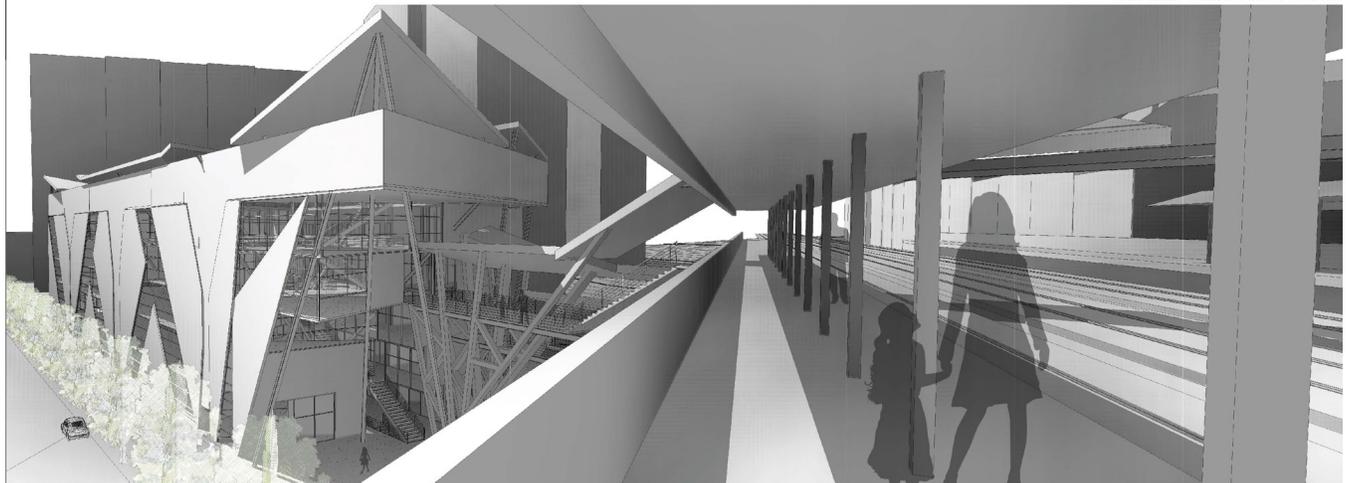
A hub for the creation of science integrated art pieces was designed at the intersection of Broadway and 125th street to address the art aspect of the group's urban design scheme. The program for the building developed around the need for artist studios and galleries within the neighborhood. The tectonics of the building were influenced by the nearby subway structure. The site, including the elevated subway stop, became a catalyst to create a connective, multi-level urban space. This urban space not only links internal building elements but also determines their spatial characteristics, creating an internal urban space. These spaces are anchored by pyramidal atriums that are alternatives to traditional airshafts. The form facilitates day lighting, the grounding of the subway and creates a critical response to typical solutions associated with these designs. Complexity is also added to these spaces through a reinterpretation of the ground floor. Acting not only has an active street façade, but also creating a secondary internal street, the building is able to connect across Broadway.

BUILDING EXTERIOR



Facade on 125th

View from Transit Station Platform



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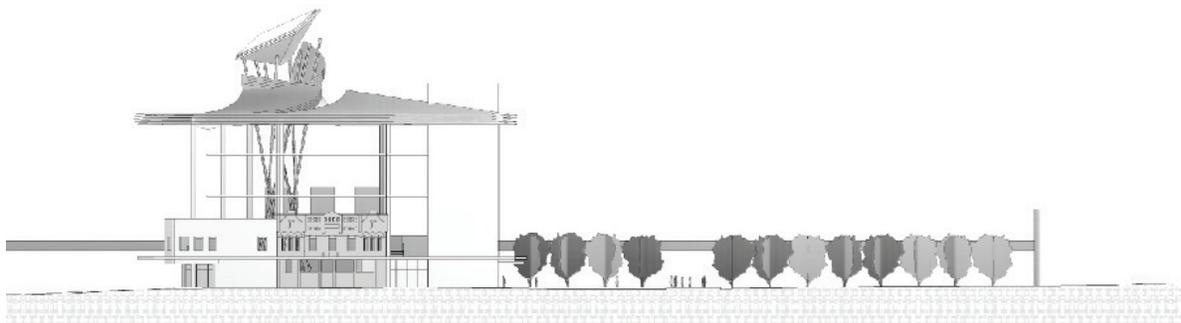
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New Leaf: Leaders in Environmental Action for the Future

It is the goal of this phase of development to enhance the liveliness of the waterfront and existing establishments, while engaging and educating the community in the sciences surrounding climate change, sustainability, and environmental awareness. The Environmental Center is meant to act as a visual symbol of sustainability, leading by its own example. The building itself acts as a billboard to the city; a sustainability poster child implementing innovative green design techniques while promoting research and outreach programs. It is visible to those at street level on 125th, Amtrak passengers, the vehicular traffic travelling the Henry Hudson Parkway, and the traffic on the Riverside Drive Viaduct. This exposure is essential to the success of the project as a tangible symbol of sustainability, instilling a sense of pride and importance to the Harlem community to which this project belongs in cooperation with Columbia University and the science community.

Responding to a community-based environmental action group's desire for a visible headquarters, and positioning it at the nexus of Columbia's future West Harlem/Manhattanville campus, the thriving Fairway market, and Harlem Piers Park, this project both houses environmental education activities and communicates them to multiple audiences: pedestrians, train-riders, and drivers.

Building Design & Surrounding Context



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Campus Connection

Green Streets have many benefits to street life and diversity of urban environments, plants, and animal species. Green streets and Biophilic streets have been introduced to the areas surrounding the intersection of 116th street and Broadway and 116th Street and Amsterdam Avenue to create a bird – and pedestrian-friendly ecosystem. The overall goal of the place making strategies is to provide an opportunity for engagement of the Columbia University, Barnard College and Harlem communities while promoting stewardship and sustainability. In addition, this Green Street provides a linkage across Columbia's campus via "College Walk" between Morningside Park and Riverside Park facilitating improved social and recreational interaction.



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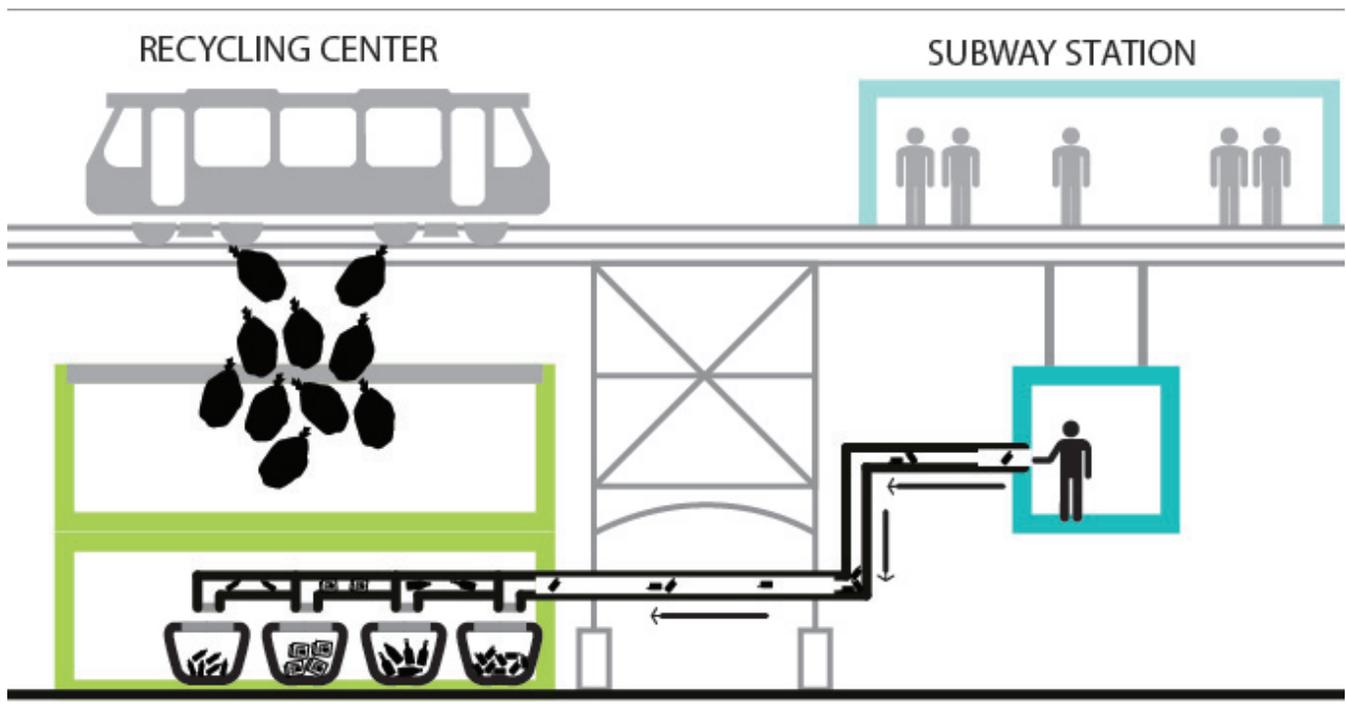
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Waste of Spaces

The main goal of the team's urban design proposal is to bring awareness to the community by repurposing void spaces with new functionality, making recycling easy and accessible. By creating a new recycling program, it is necessary to design a strategy and space for this collection to happen. Unfortunately, space is exactly what the site is lacking. Because of this, this project chose to use the existing infrastructure to house and support a more systematic approach to solving this problem. The purpose of this project was to connect the recycling center to the existing subway station at 125th combining the functions of each of these systems.



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Autonomous Collection

Don't bring people to the recycling; bring the recycling to the people. With an interest in mobile, connectable, expandable architectures, this project proposes that the answer to recycling is not allocating giant volumes of space for sorting and distribution but to create machines programmed to explore streets and buildings looking for the proper materials to satiate their desire.

In the same way the ice cream truck anthem attracts young children to the streets, so should the call of the mobile recycling center; bringing communities out to engage in reducing their waste, and in return giving them something useful as a medium of exchange.



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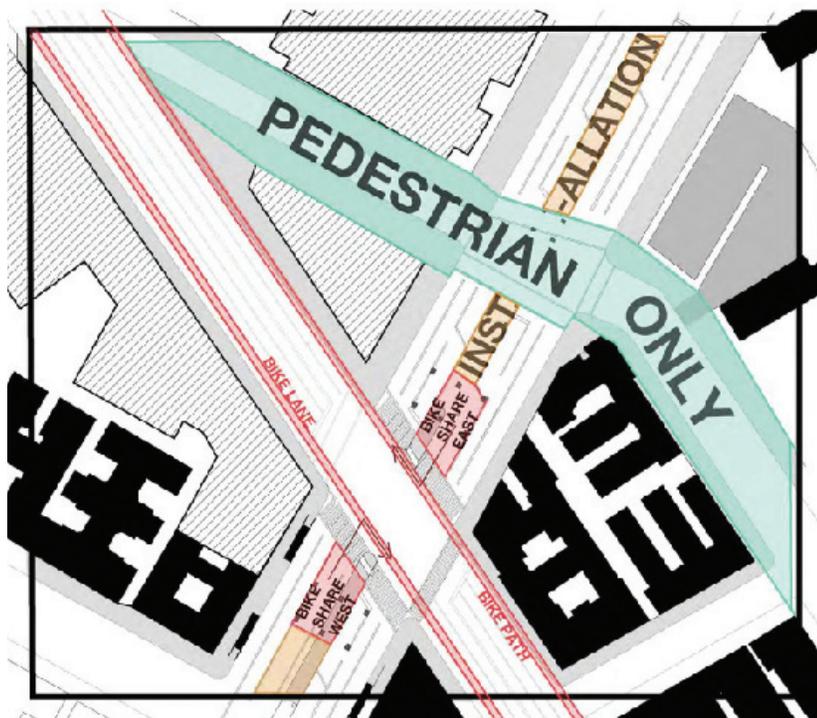
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Repurposing Urban Spaces

Repurposing Urban Spaces focused on the 125th Street Hub and its connections to existing park spaces and underutilized public spaces, from transitioning industrial areas, to alleyways, to renovated building courtyards.



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Repurposing Urban Spaces | Urban Heat Island

The Goddard Institute, whose premises at 112th Street and Broadway go relatively unnoticed by passersby, is a leader in climate change research. The proposed design makes this cutting-edge research from the Goddard Institute offices visible and tangible on the street.

In the proposed design, two intersections on Broadway – 112th and 125th Streets – are paired together to create awareness about the urban heat island effect while simultaneously implementing positive change. Around the intersection of 112th and Broadway, interactive digital screens targeted at pedestrians and motorists, provide information on the urban heat island effect and its implications on New York City, as well as live readouts of surface temperatures; light-colored roof surfaces and green roof surfaces, for example, reduce the effects of the urban heat island.

Around the intersection of 125th Street and Broadway, the Goddard Institute's research is visually and physically accessible to the public; green walls hanging from the above-ground subway structure repurpose this previously underutilized space. This mutually beneficial relationship provides the Goddard Institute with space to conduct its green wall research, while simultaneously engaging the public on this salient issue faced by modern urbanities.

This pairing of informational screens at 112th Street and living screens at 125th Street engages the public on the urban heat island effect, while simultaneously creating measurable change.

125TH HUB

Research made visible / tangible.



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Active [of] Use

As a low-“cultural return” building, the taxi station on 127th street, adjacent to the Mink Complex, serves little purpose to the localized district. By claiming the footprint for a building and through-way, the new Green Cart Education & Storage Center will provide a critical connection between the Create @Harlem Green development and the Mink Complex inner campus. It is a catalyst for the act of active reuse through the area and West Harlem.

Established in 2008, the NYC Green Cart program provides raw produce for the upper third of Manhattan. These carts are typically owned and run by area residents with a strong motivation to work for themselves. However, certified cart and fruit storage centers are typically in central Manhattan, two miles away from the legal vending zones.

In this proposal, by reclaiming a West Manhattan taxi garage, the Green Cart program gains a new headquarters close to the action. Leasable cart storage and growing plots are available for vendors while affordable offices will simultaneously provide growing space for local businesses and former cart owners.



