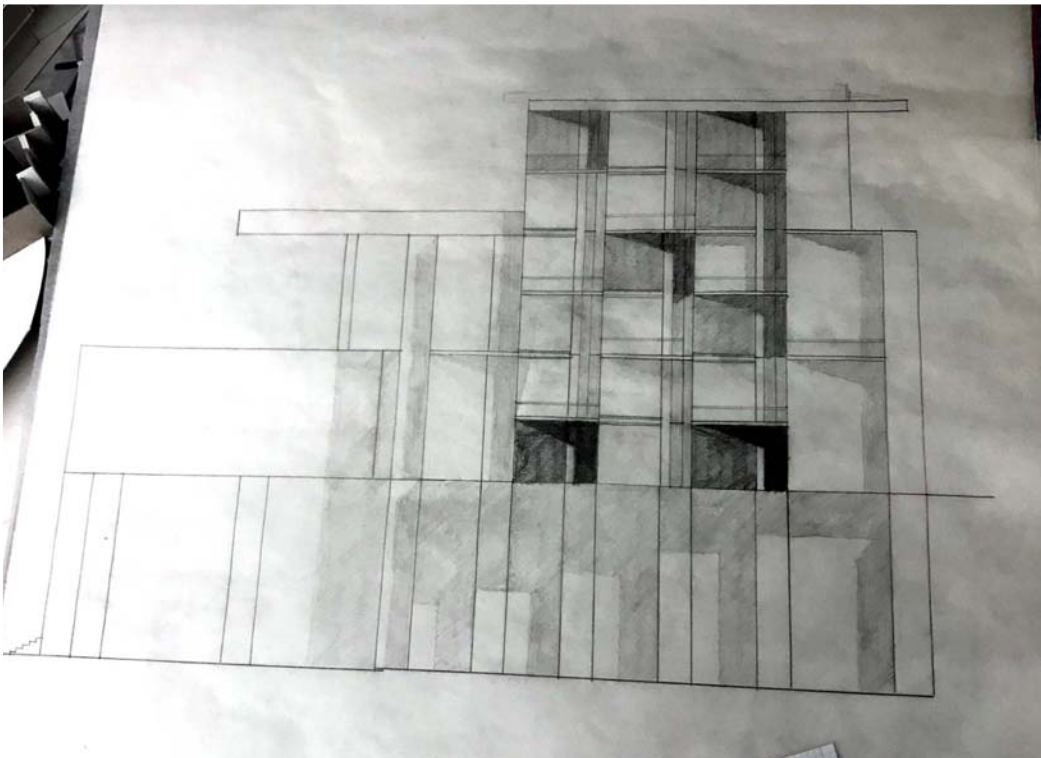
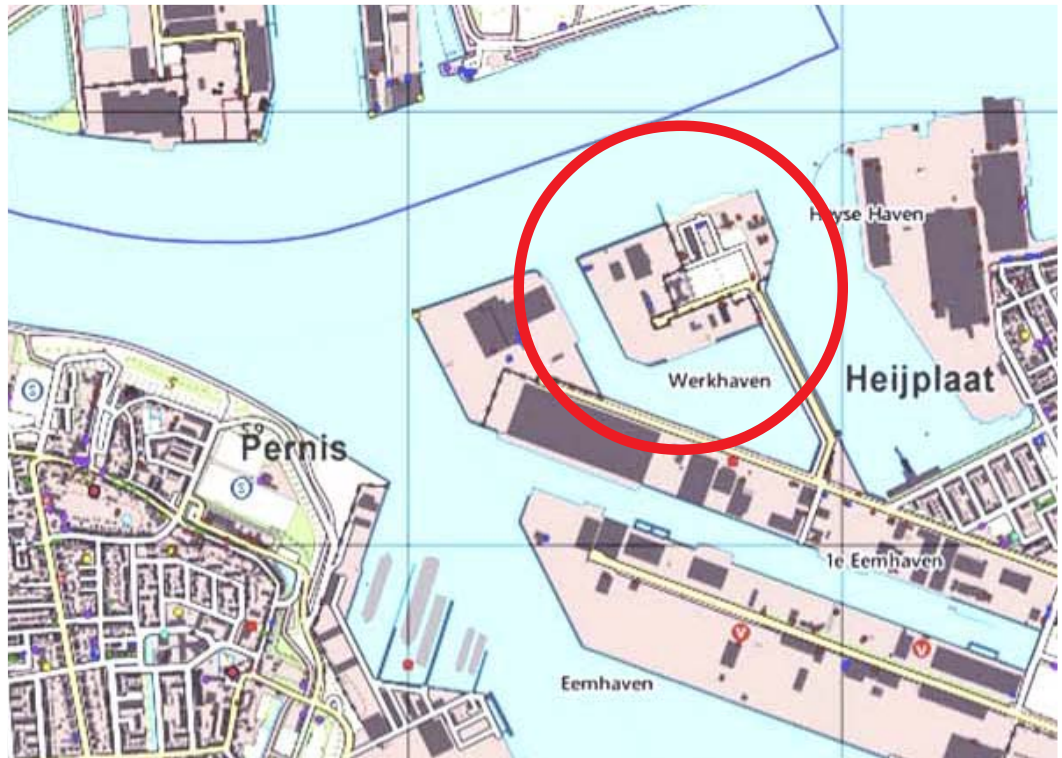
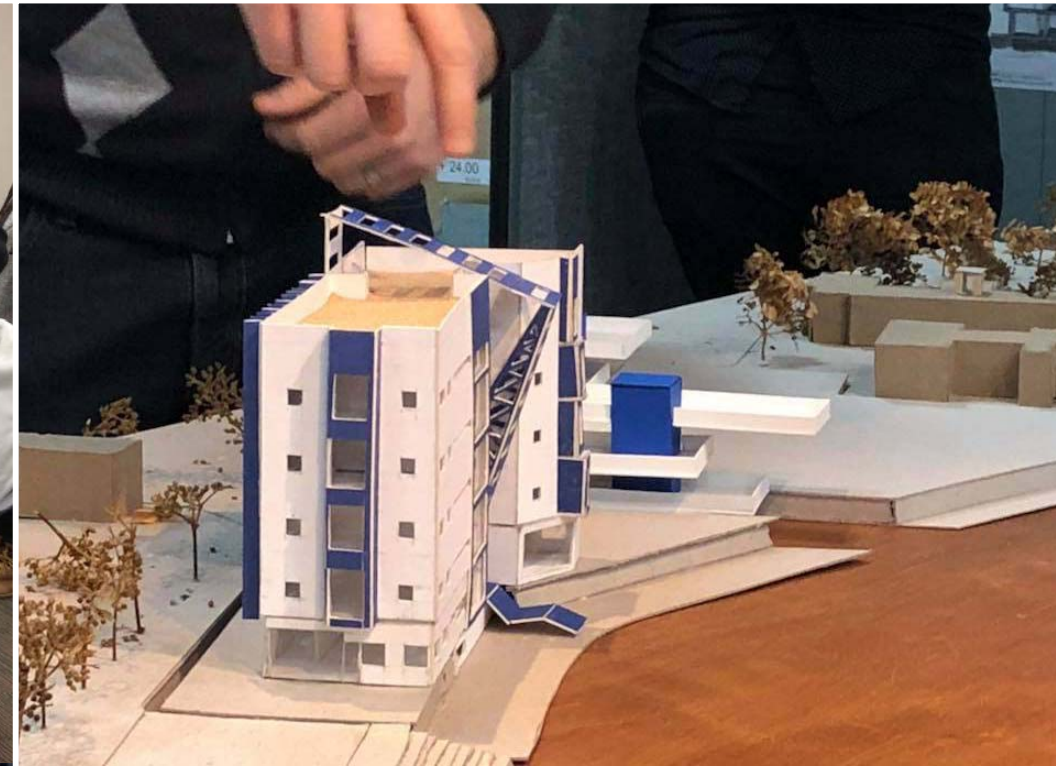
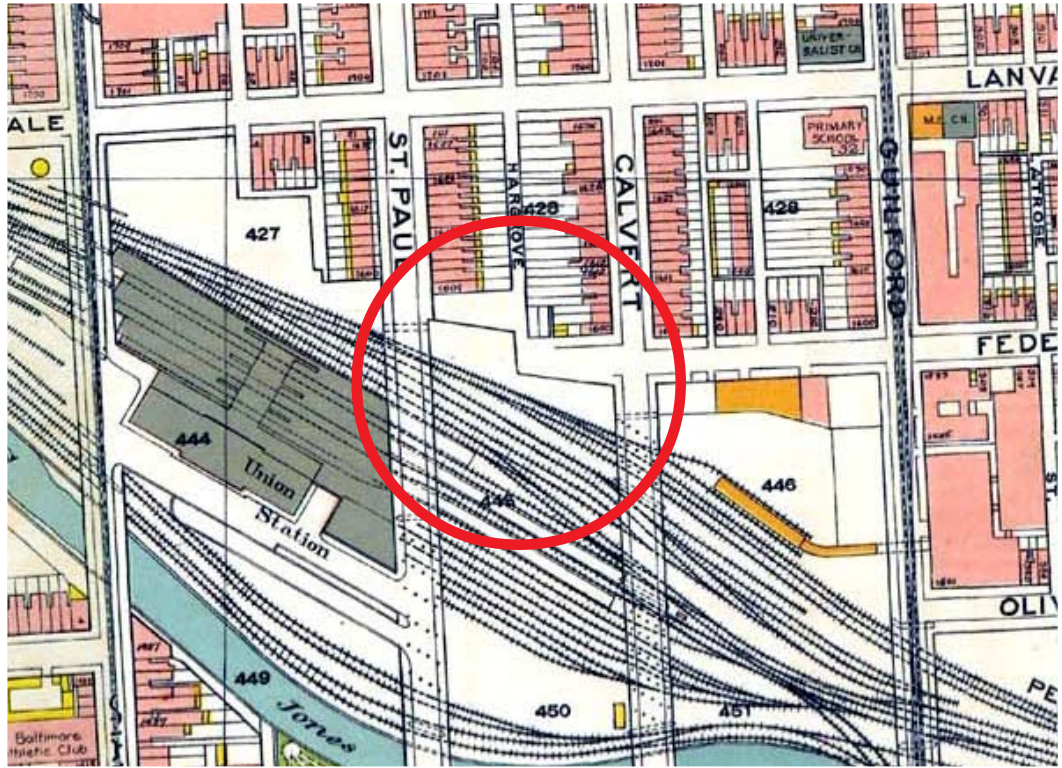


Living Laboratory for a “Global Maryland”

Rethinking the Built Environment for Maryland’s Immigrants, Refugees, and Transplants





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Introduction (1)

Maryland’s Twelve Visions...

... outline a template for sustainable development throughout the region. Increasingly, however, regional development depends on worldwide trends affecting climate, markets, and human migration. More than ever before, practical sustainability – including environmental stewardship and urban design – must be based upon reciprocal relationships at the micro and macro scale.

Those responsible for Maryland’s development include planners, architects, politicians, and local stakeholders. Increasingly, those stakeholders reflect also worldwide trends and the burgeoning migration of people to and from the State. A “global” perspective for long-term planning is more critical than ever.

“Global Maryland”...

... is a concept that acknowledges this perspective. With a special emphasis on Maryland’s cities and their counterparts abroad, “Global Maryland” seeks to supplement local planning practices with new ideas from around the world. Thinking about sustainable development from Europe, Africa, Asia, and South America must influence conventional thinking here at home.

Maryland’s Sister Cities programs provide a useful model for the intellectual and cultural exchanges which can (potentially) drive a true “Global Maryland.” Existing agreements exist between the State and more than 14 regions, including Mexico, Liberia, Poland, and Ireland. Baltimore alone has agreements with more than 10 cities around the world.

The Scope of Our Study

This semester’s design studio sought an issue of global importance to establish shared interests between Maryland’s cities and similar conurbations abroad. Working with the Baltimore-Rotterdam Sister Cities Committee, Morgan students researched, analyzed, and designed projects for parallel sites in both Baltimore and Rotterdam.

Among the many current issues demanding attention, human migration -- understood as both legal and illegal immigration, political refuge, and the influx of US citizens from other states -- appeared especially critical. **More than ever, “Global Maryland” must place planning for migration at the core of its Twelve Planning Visions.**

Introduction (2)

Who Are Our Newcomers?

The distinction among categories of immigration is often contentious. Is it necessary? Maryland’s Twelve Planning Visions address environment, infrastructure, and community -- *not* residents’ legal status. Accordingly, designers and planners need a new, less value-laden way of discussing Maryland’s variously migrant population.

We propose the term “Newcomers” to embrace all persons, of whatever status, who seek Maryland’s communal vision. Newcomers may come from diverse backgrounds, speak different languages, or embrace different faiths. *How, through planning and design, can we nurture their present and future contributions to our community?*

Rethinking Newcomer Settlement in “Global Maryland”

Planning for Newcomers requires managing contradictions.

Should Newcomers be considered permanent residents or transients by the community? If the latter, should planners anticipate short duration or long duration of transiency?

Should care for Newcomer populations emphasize their cultural and linguistic “absorption” into a new city, or should such care nurture their culture of origin?

Should settlement planning disperse individual Newcomers (or their nuclear families) throughout Maryland’s communities, or should planning maintain geographic cohesion among Newcomers’ settlements?

How can Newcomers’ immediate needs be balanced by concern for long-term welfare of existing residents? What does “equity” mean with respect to both?

How should resources be divided? Categories of resources may include employment, education, data, and mobility, as well as shelter, food, and water.

Naturally, the diversity among Newcomers contributes to these contradictions. Nevertheless, sensitivity to the presence of contradictions must inform planning for Newcomers. One consequence of such sensitivity might be a renewed emphasis on *infrastructure*, rather than merely (architectural) *structure*.

Introduction (3)

Changing the Status Quo -- New Models of Development for Newcomers

Instructors challenged students to rethink typical housing’s “status quo”:

- * *To propose a conceptual development framework other than the “Developer-led” model.*
- * *To propose dwelling-unit aggregation based on models other than the “nuclear family.”*
- * *To test the efficacy of alternative building types other than those a city’s traditional vernacular.*
- * *To research and design non-conventional environmental systems, with an emphasis on passive energy, regeneration, and recapture.*
- * *To propose architectural designs that break down spatial and geographical segregation between Newcomers and current residents.*

Each explicit challenge addressed one or more of Maryland’s Twelve Planning Visions.

PUBLIC PARTICIPATION and COMMUNITY DESIGN must be the foundation for future, non-Developer-led housing schemes.

INFRASTRUCTURE and TRANSPORTATION must be key components of all new development in “Global Maryland.” According, thinking about housing itself as “infrastructure” will require direct public investment in the future.

If different kinds of groups can share individual units, eating areas, common spaces, and work facilities, a range of HOUSING densities emerges naturally from architectural design.

Likewise, new mixed-use building types (courtyard, monobloc, land-form) will improve neighborhood QUALITY OF LIFE by providing a stronger tax base and greater cultural diversity at a local scale.

Innovative energy systems are critical to improved SUSTAINABILITY, ENVIRONMENTAL PROTECTION, RESOURCE CONSERVATION, and STEWARDSHIP of our natural resources, in and out of urban areas.

Services for Newcomers must be provided in GROWTH AREAS, so that all persons together are afforded opportunities for ECONOMIC DEVELOPMENT in an equitable and mutually supportive environment.

Process (1)

Pedagogy, Analysis, and Design: The Studio Process & Site Analysis

Studio III is the third design studio in the Graduate Architecture sequence. All work is, however, expected to be done by hand: sketching, drawing, and model making. The emphasis on hand-produced graphics and models is intended to foster increased attention to architectural tectonics and to lessen reliance on preconceptions implicit in digital media.

Students were divided into two groups. One group would work on a site in Baltimore; the other would work on a site in Rotterdam. Halfway through the semester, each group would switch sites, so that both groups would design one project for each site in Baltimore and Rotterdam.

After a brief warm-up assignment, students were presented with four projects of the course of the 16-week semester: initial site analysis for Baltimore and Rotterdam sites, a four-week design project, a two-week sketch project, and a six-week design project.

Site Analysis & Design

The first step is fact collection. Yet hand-in-hand with “collecting facts” is the context-ualization of those facts, a synthetic process called “analysis,” and the reciprocal study of close-up and big-picture information. Site analysis proceeds, therefore, as a combination of observation, reading, representation, and research.

The result of site analysis is not necessarily a definitive direction for students’ design process, but rather an inventory of alternative perspectives, opinions, and narratives which can be drawn upon throughout the design process. Students were encouraged to consider the following:

- * *How did Baltimore & Rotterdam develop as a city?*
- * *How can one characterize their “urban morphology,” their architectural traditions, and their past and present demographics?*
- * *Who and what contributed to each city’s historical development?*
- * *Which voices are missing from traditional descriptions of that development?*

Process (2)

Pedagogy, Analysis, and Design: Project Brief, Sustainable Development, & Collaboration

After initial fact-collecting and analysis, students were presented with architectural projects to design.

For each project, the starting point is the “program” or “brief,” a document that lists functions to be included in the building and expressed by the designer. Each function is assigned a required floor area, along with additional technical parameters. Each student is encouraged to modify the assigned project brief to align with her or his vision for the project.

Projects were titled as follows:

- * **Outreach Center for Newcomers**
- * **Portable Architecture**
 (Dwelling Unit for Transients)
- * **Living Laboratory for Newcomers**

Students were especially encouraged to consider the future of Baltimore and Rotterdam in the context of climate change and current social inequality. Students were reminded of Sustainable Development initiatives in both Maryland and Holland

Accordingly, students were challenged to bring architectural quality, spatial quality and ecological quality together in their design narratives and to look for the social value that each design could add.

To do so, students had to work iteratively in drawing and model in order to experiment first with a proposed form, to evaluate it, and to assess how best to modify the design to achieve their goals.

At regular intervals, students presented their work to invited guests for feedback. These guests included architectural professionals as well as local experts in global economics, immigration history, and cross-cultural exchange.



What follows is a **redacted digest** of this semester’s work, including four individual student projects conceived as “Case Studies,” illustrating the second design project:
Living Laboratory for Newcomers

Participants

Instructors

Cristina Murphy, Assistant Professor
 Architect, Rotterdam + Baltimore

Jeremy Kargon, Associate Professor
 Architect, Baltimore MD

Students (Group 1)

Faranak Ghanaatpisheh Sanaei
 Teheran, Iran

Jordan Horne
 Baltimore, MD

Opeyemi Ikotun
 Lagos, Nigeria

Alhaji Jalloh
 Freetown, Sierra Leone

Adia Key
 Richmond, VA

Marcella Massa
 Cuiabá, Brazil

Oluwagbemiga Oderinde
 Lagos, Nigeria

Matthew Tuckfield
 Annapolis, MD

Adam Walczyk
 Bel Air, MD

Students (Group 2)

Ginikachi Eburuoh
 Upper Marlboro, MD

Jessica Batista De Freitas
 Salto, Brazil

Tinashe Kasiyamhuru
 Harare, Zimbabwe

David Keener
 Annapolis, Maryland

Mudiaga Odudu
 Ikeja, Nigeria

Brian Oswinkle
 Baltimore, MD

Benjamin Riniker
 Ellicott City, MD

Joseph Taylor
 Eldersburg, MD



ARCH 530 Design Studio, Groups 1 & 2
 Missing: J. Kargon, G. Eburuoh, B. Riniker, J. Taylor

Site Data & Analysis - Baltimore (1)

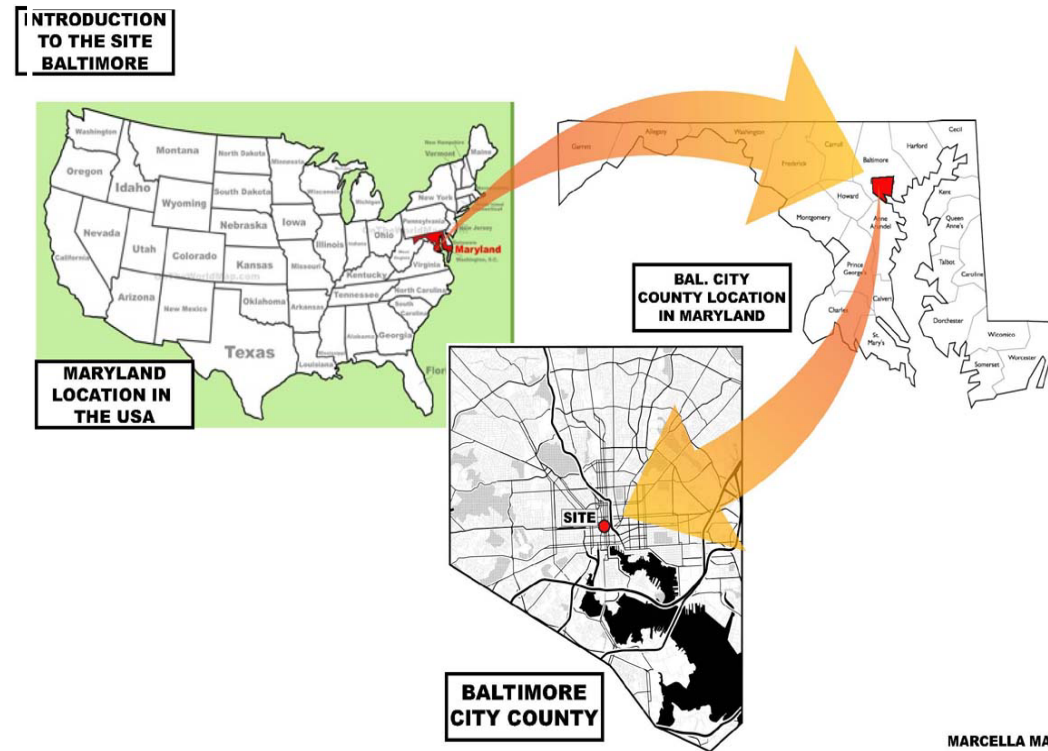
Site Narrative

The site selected in Baltimore for the “Living Laboratory” is geographically central within the city, adjacent to several transportation systems, close to commercial and cultural institutions, yet (paradoxically) a “leftover” space at the edge of the city’s premier arts and entertainment district. The apparent contradictions embodied by the selected property were especially attractive considering the different ways in which a “Living Laboratory” would have to serve its occupants and residents elsewhere in the city.

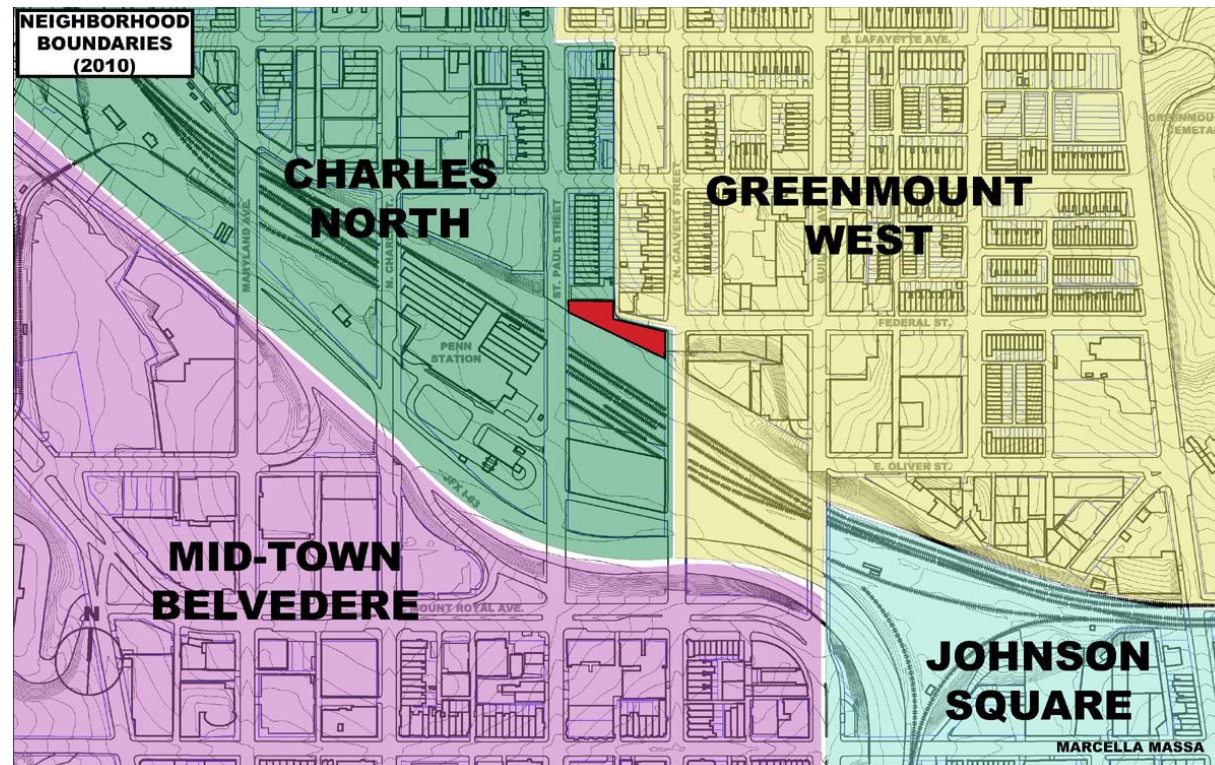
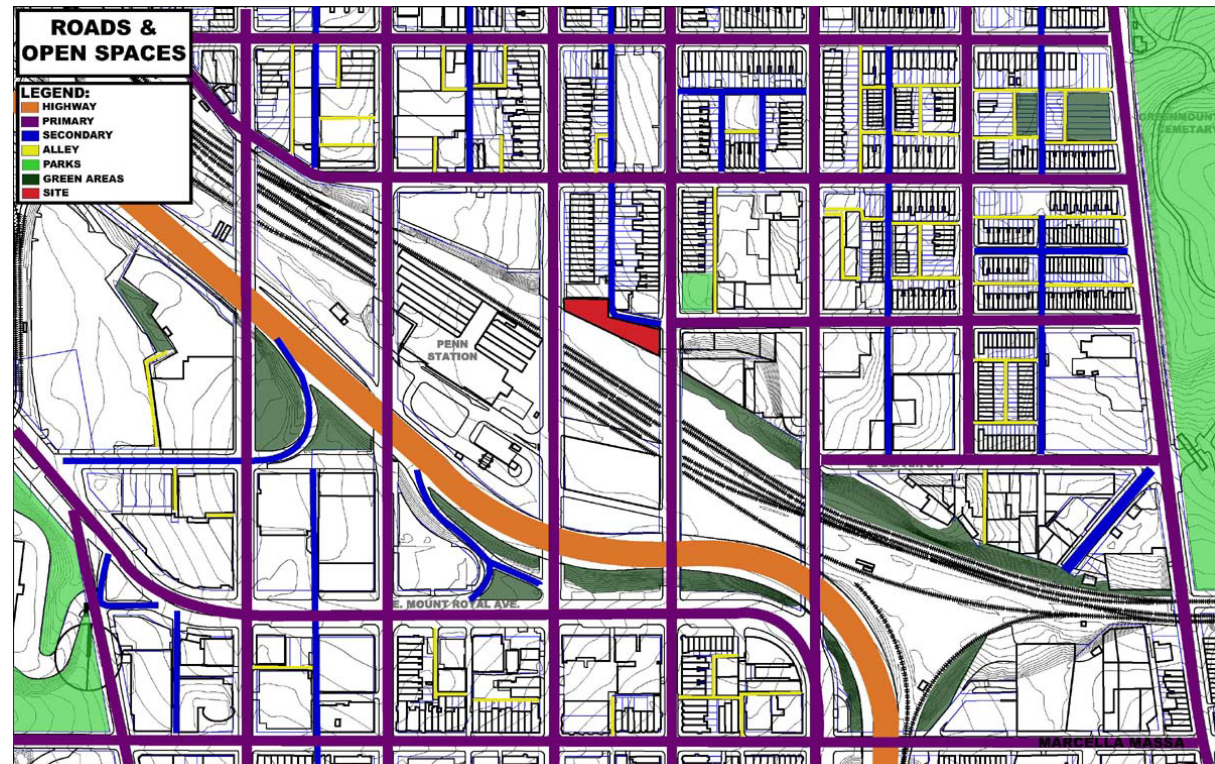
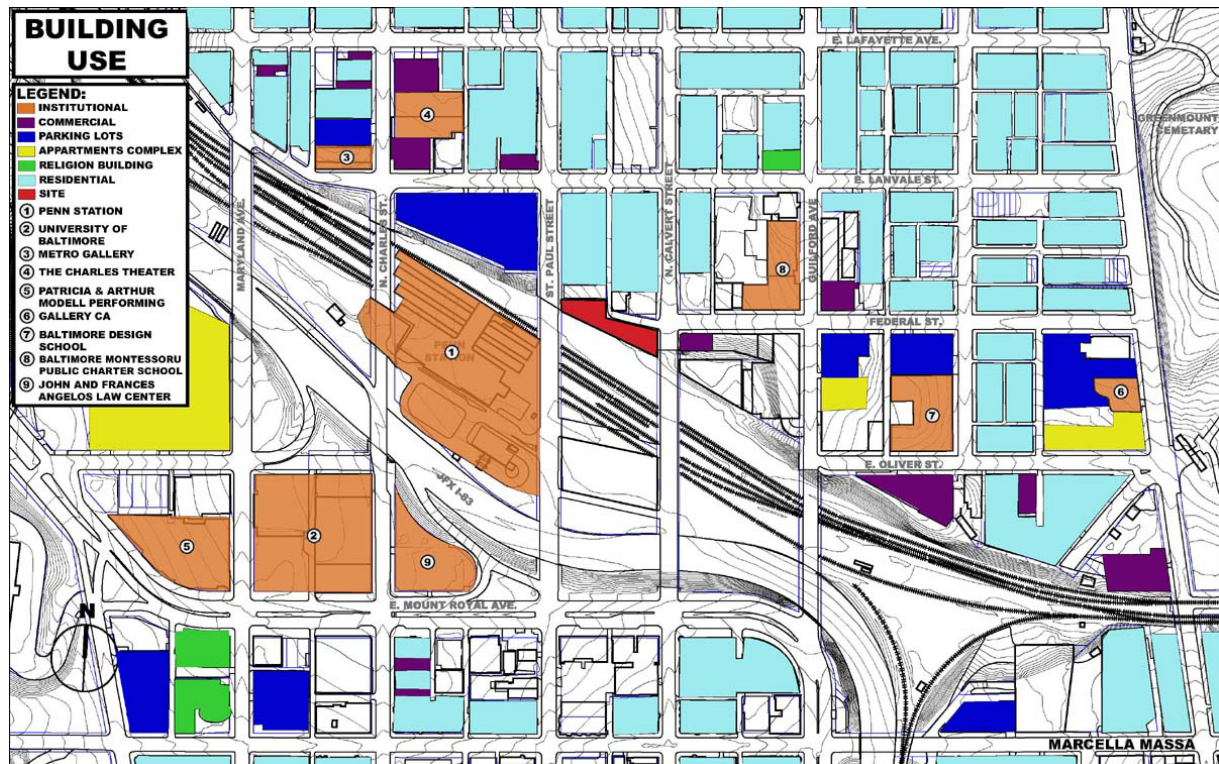
The site selected in Baltimore spans a full city block, with St. Paul Street (a major southbound traffic artery) to the west and Calvert Street (a major northbound traffic artery) to the east. To the north of the site, the property is bounded variously by a private parking lot, an alley, and a short segment of Federal Street. To the south, the site is bounded continuously by the Amtrak right-of-way next to Pennsylvania Station. Each boundary of the site is, therefore, different from every other, affording the Living Laboratory with a multiplicity of urban conditions appropriate to its complex program.

The site features also an extreme change of grade, rising almost 30 feet from south (at the train tracks) to the north side. Given the site’s extreme vertical rise, its narrow plan proportions, and its proximity to the nuisance of train traffic, it is unsurprising that the property has remains vacant throughout its history. Nevertheless, contemporary pressures of development have led recently to development of similar parcels nearby; the large property west of St. Paul Street has recently been slated for a multimillion dollar “transit oriented” shopping and residential complex.

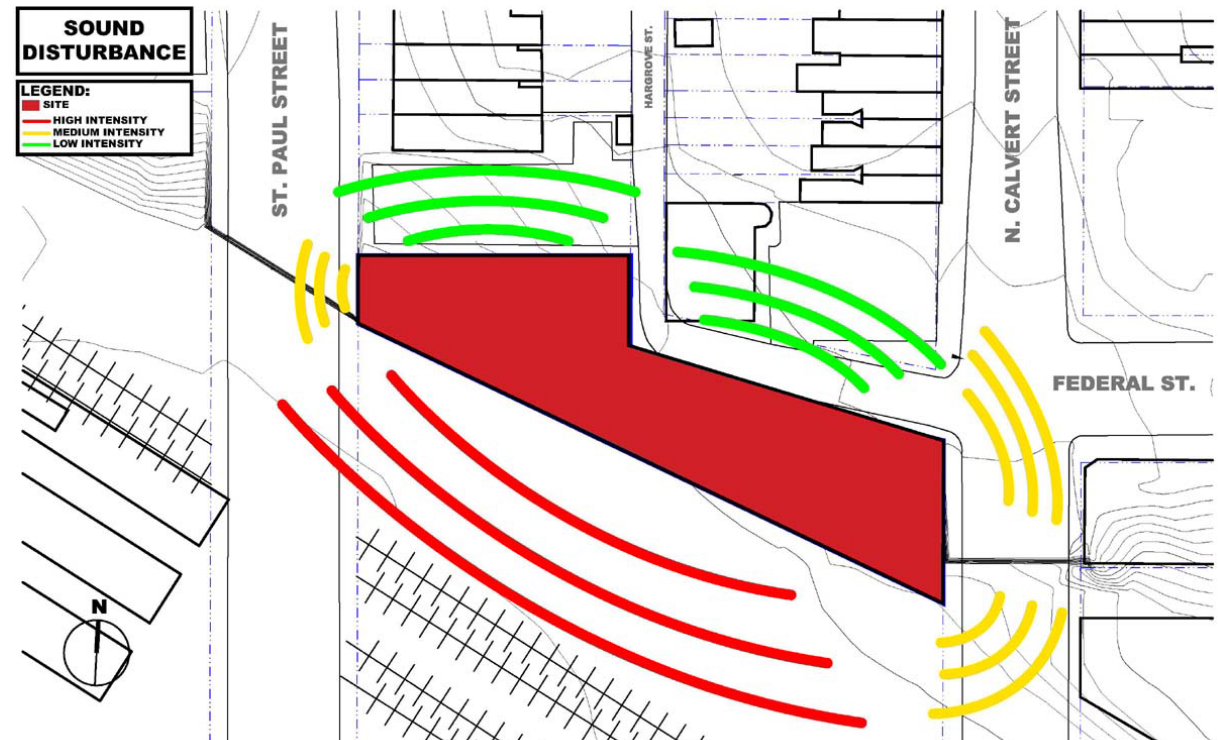
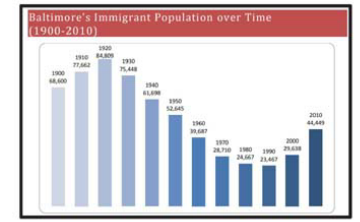
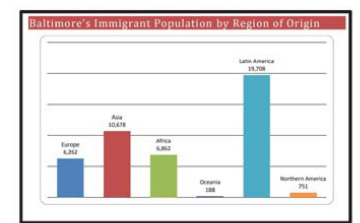
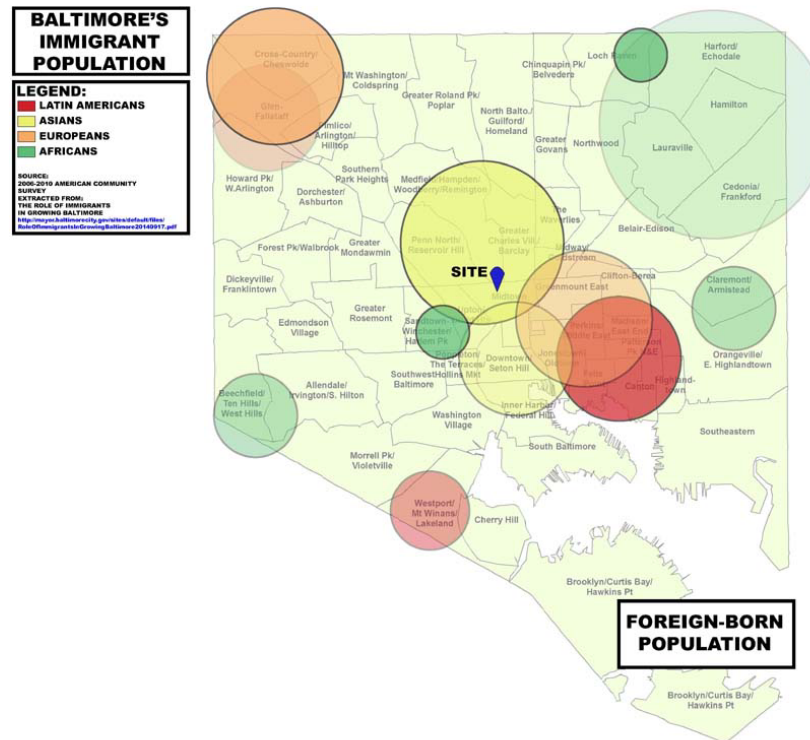
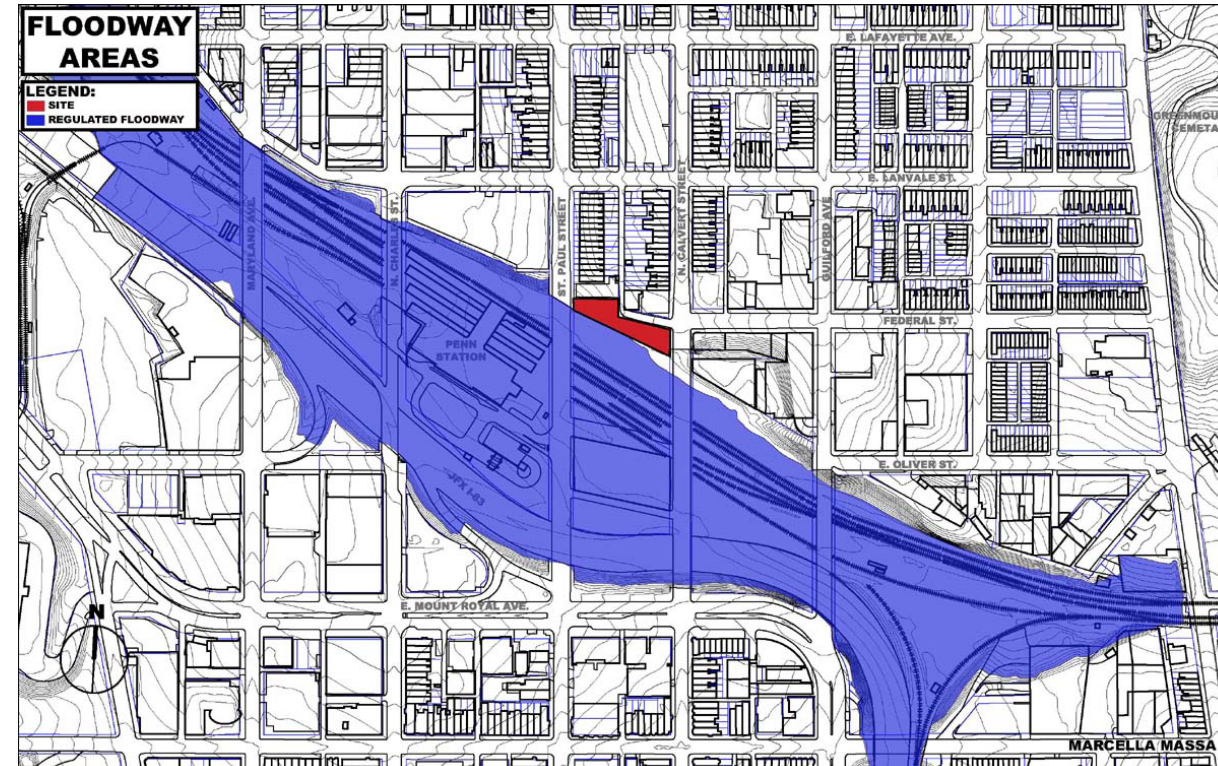
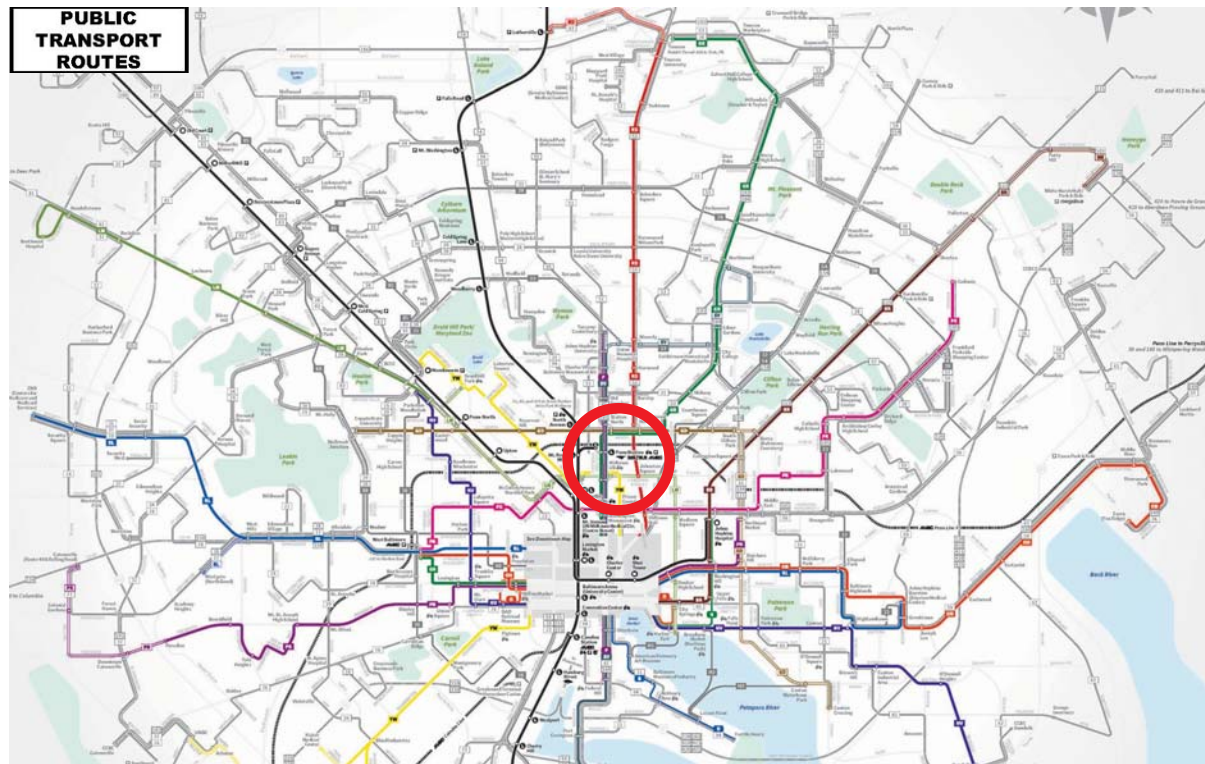
Finally, from the perspective of Baltimore’s immigration history, the site is unencumbered. Having been vacant over its history, using the property displaces no one; far from the core residential areas, the site’s development threatens no one’s immediate interest. On the other hand, remote from previous century’s port of call, it has no connection with earlier waves of immigration. As the potential locus of students’ thinking about “Global Maryland,” the site is a practical choice -- close to amenities, but historically “innocent” as any urban site can be.



Site Analysis - Baltimore (2) -- by Marcella Massa



Site Analysis - Baltimore (3) -- by Marcella Massa



Site Data & Analysis - Rotterdam (1)

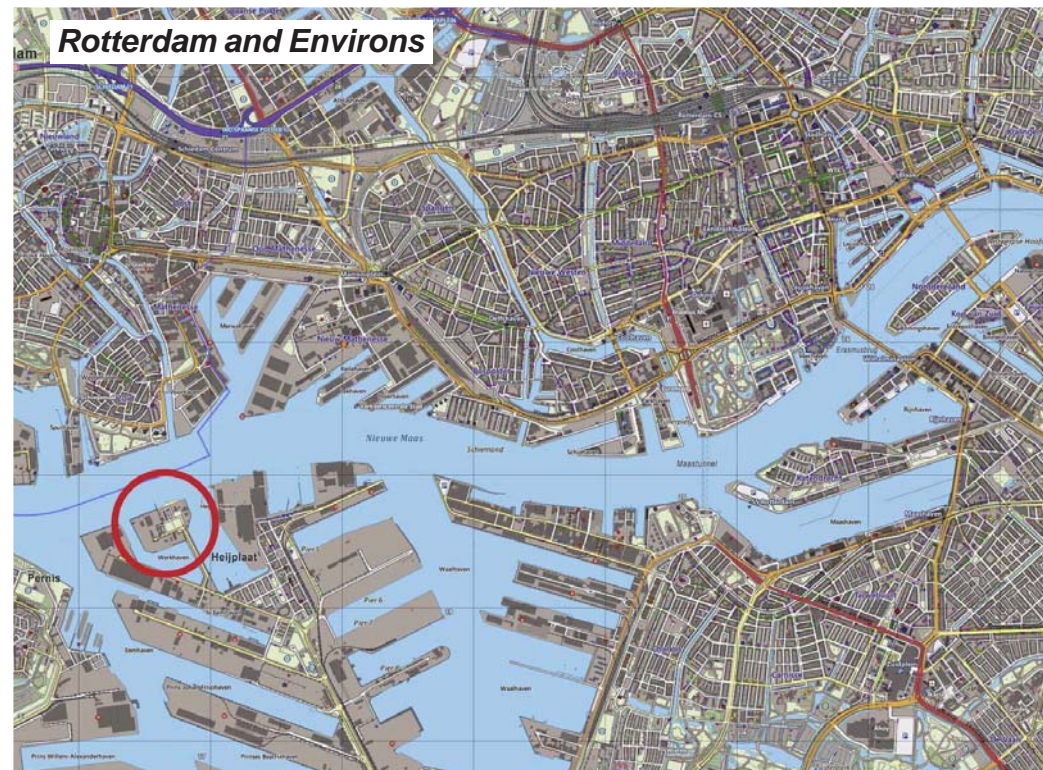
Site Narrative

The site selected in Rotterdam for the “Living Laboratory” is geographically remote from the city’s historical core, yet an active part of its urban history. Like so many other areas throughout Holland, the site is itself reclaimed land, created for the purpose of human use. Its creation was part of the centuries-long process of expansion of Rotterdam’s port along the complex Rhine river system.

The site stands on the east edge of what is called now “Quarantine Island.” Starting in the early 1930’s, a significant portion of the island was given over to use as a quarantine station for seafarers possibly subject to contagious diseases. By the late 1930’s, Rotterdam experienced an influx of refugees -- mostly Jews -- from Germany. These refugees and other immigrants were housed in the institution barracks which were built earlier that decade. After the war, the facilities were used intermittently as residence for the mentally ill and eventually abandoned as social services were established elsewhere in the city. Most recently, Quarantine Island’s fraught history has been acknowledge by its designation as a protected heritage area; at the same time, artists have used its relative isolation to establish a growing community within the formerly abandoned buildings. This relatively stable environment is currently threatened with intensive economic development as Rotterdam’s metropolitan growth has expanded to include even formerly peripheral areas like Quarantine.

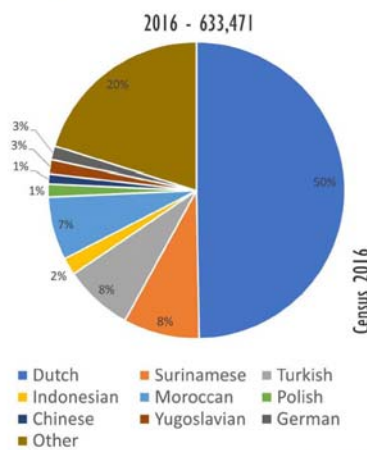
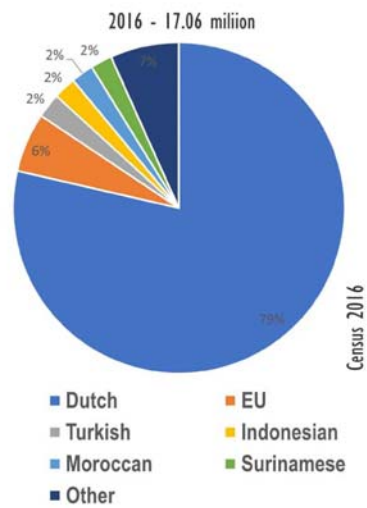
The specific location identified for the students’ engagement lies outside the historic designation. The irregular parcel is bounded by the access road (on the west), an interior road (on the north and south), and the long water’s edge (on the east). The site is only a few meters above sea level, and most without a change to its topography. Views to the east, north, and south are considerable and include technical innovation center “RDM Rotterdam” immediately across the channel.

Quarantine Island in Rotterdam represents a unique challenge: still peripheral to the city’s vibrant activity yet central in the city’s historical imagination.



Site Data & Analysis - Rotterdam (2)

POPULATION



source: rotterdamfestivals.nl



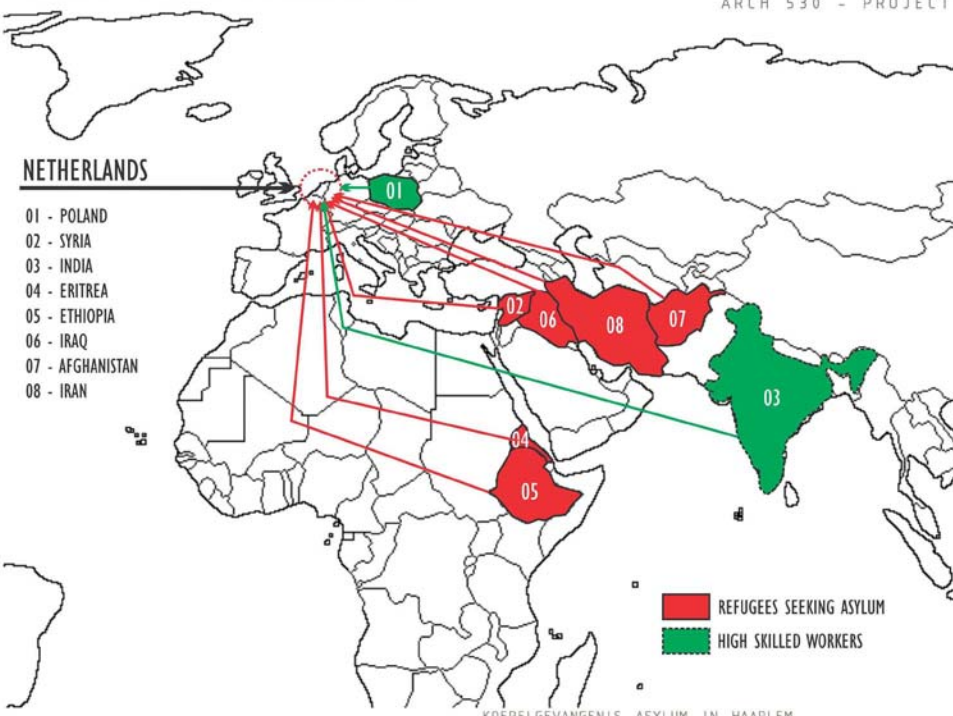
MULTICULTURAL
Newcomers
develop
shape
make
the city



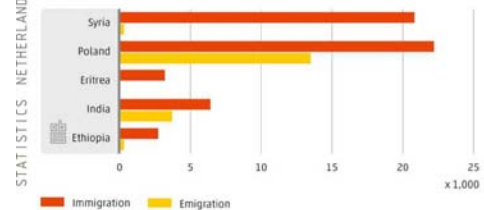
USERS

COMING TO THE ND

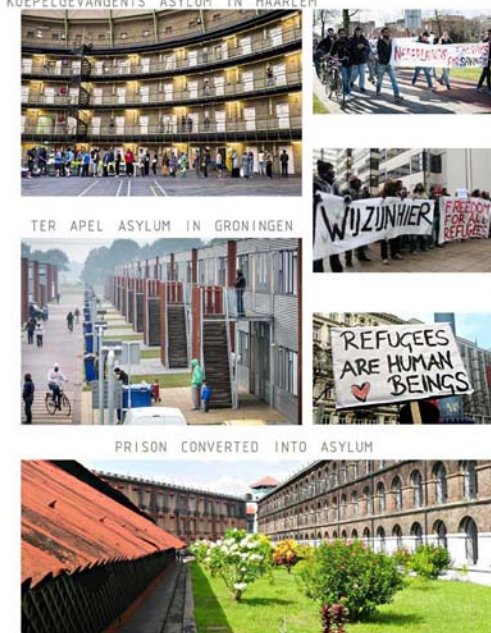
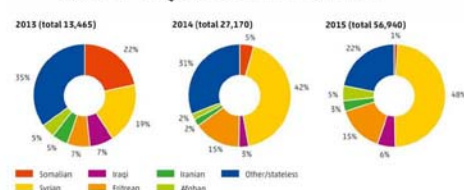
IMMIGRATION TO THE NETHERLANDS IN 2015:



TOP 5 COUNTRIES IMMIGRATING TO AND MIGRATING FROM THE NETHERLANDS



ASYLUM REQUESTS BY NATIONALITY



BRIEF

ORIGINAL BRIEF

- Lobby, Reception Desk & Info Area
- Exhibit Gallery for Cultural Programming
- Public Restrooms (HC-accessible)
- New Business Incubator Space
- Vocational and Cultural Training (Classrooms)
- Group Political Action Area
- Exit Stairs
- Elevator
- Transportation Bay

- Legal Consultation Clinic:
 - Reception/Waiting
 - Computer Terminals
 - Consulting Rooms
- Health Clinic:
 - Reception with Records
 - Waiting Area
 - Consulting Rooms
 - Caregivers Station
 - Caregivers Meeting Room
 - Hematology Station
 - Lavatory

- Management Facilities:
 - Receptionist / Waiting
 - Director's Office
 - Other Offices
 - Board & Staff Meeting Room
 - Staff Restroom (including shower)
- Tech Building Systems:
 - Mechanical Room
 - Electrical Room
 - Water Service
 - IT / Telecom
 - Elevator Machine room

DE KUBUS NEWCOMER HEIJPLAAT CENTER

ADDITIONS FOR THE HEIJPLAAT COMMUNITY

- Urban agriculture site
- Free Market - Festivals Area
- Artists Workshops
- Outdoors Cinema

Newcomers and Heijplaat

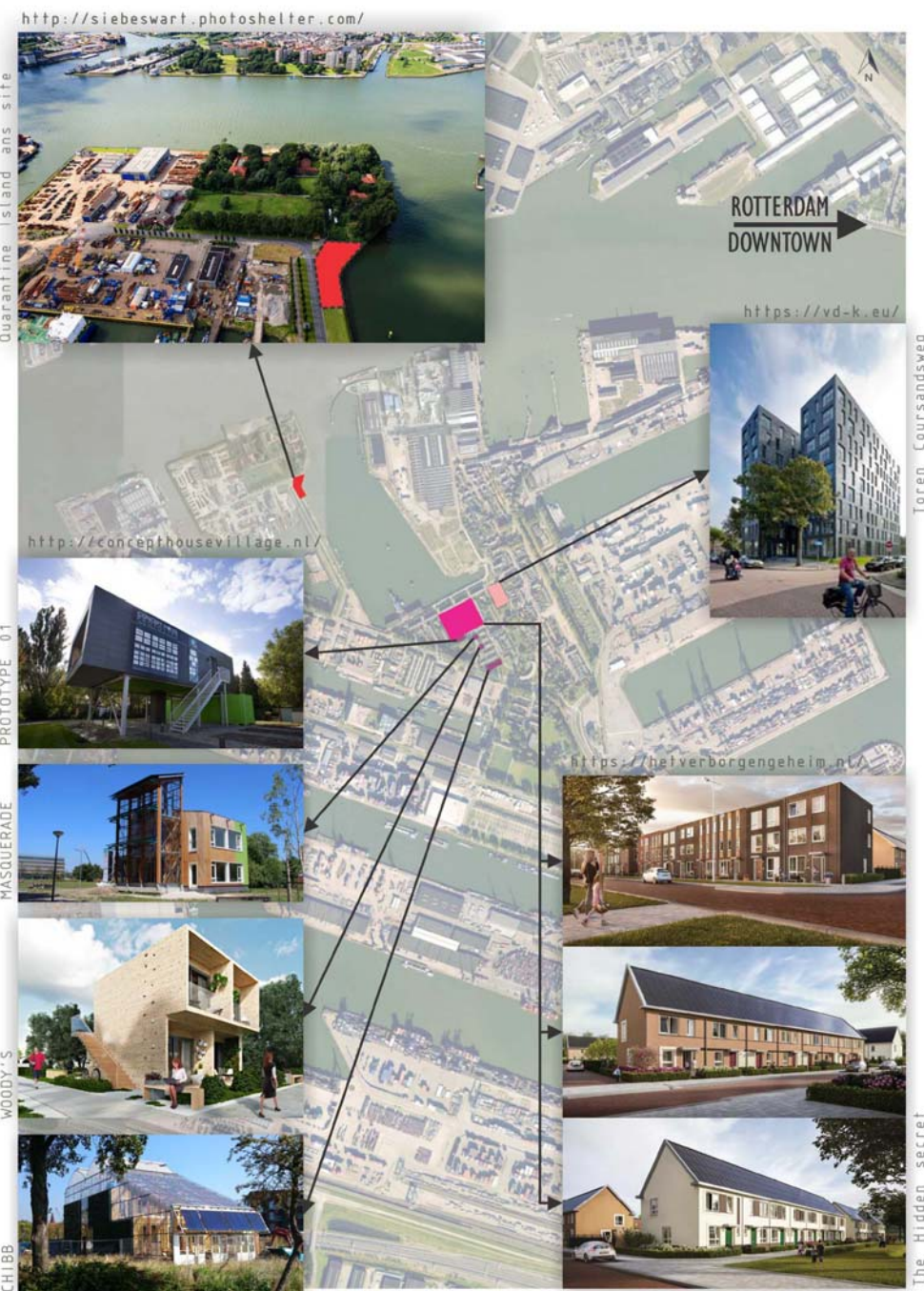
Newcomers only

Staff only

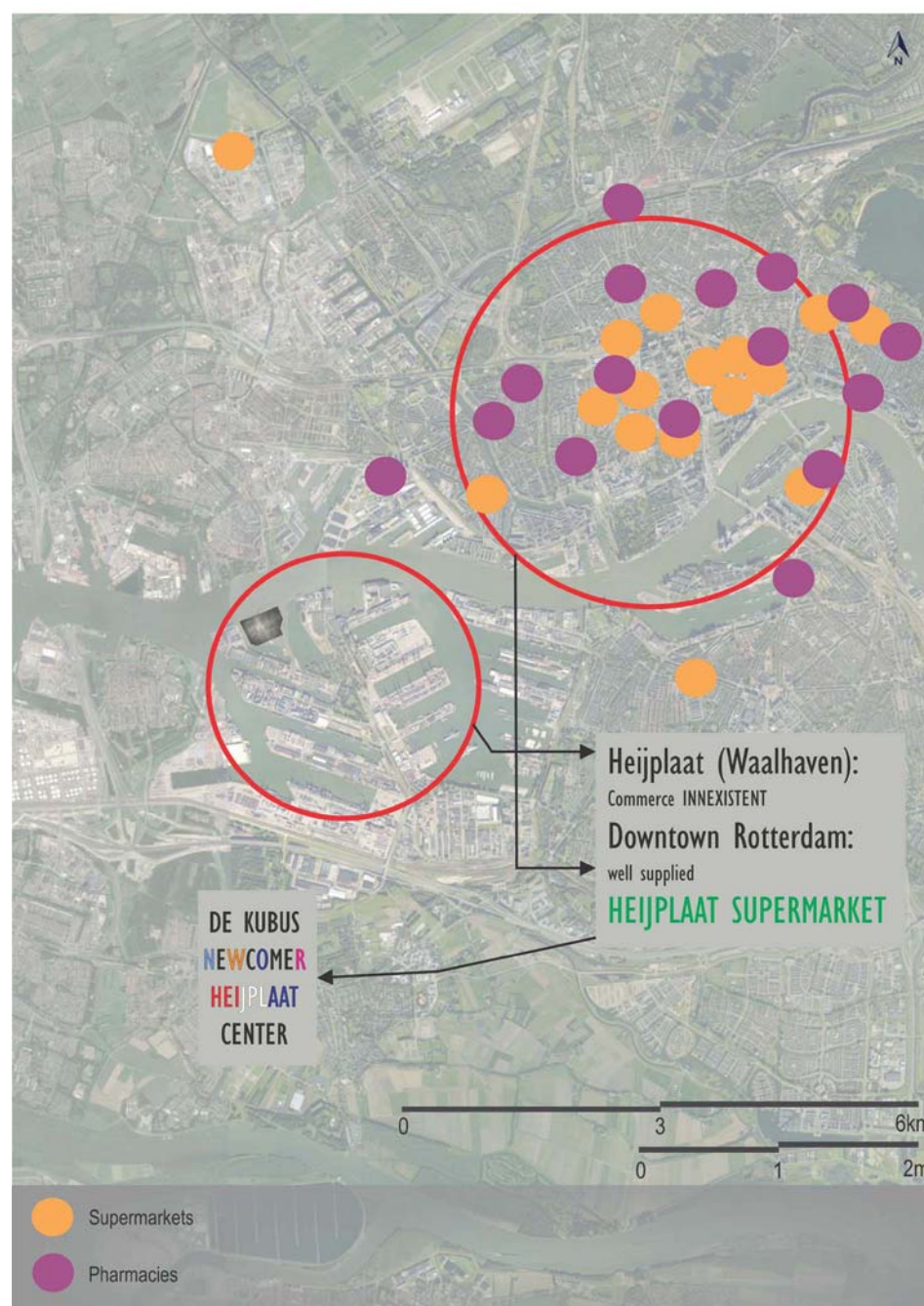
Site Data & Analysis - Rotterdam (3)

HOUSING

DEVELOPMENTS IN HEIJPLAAT

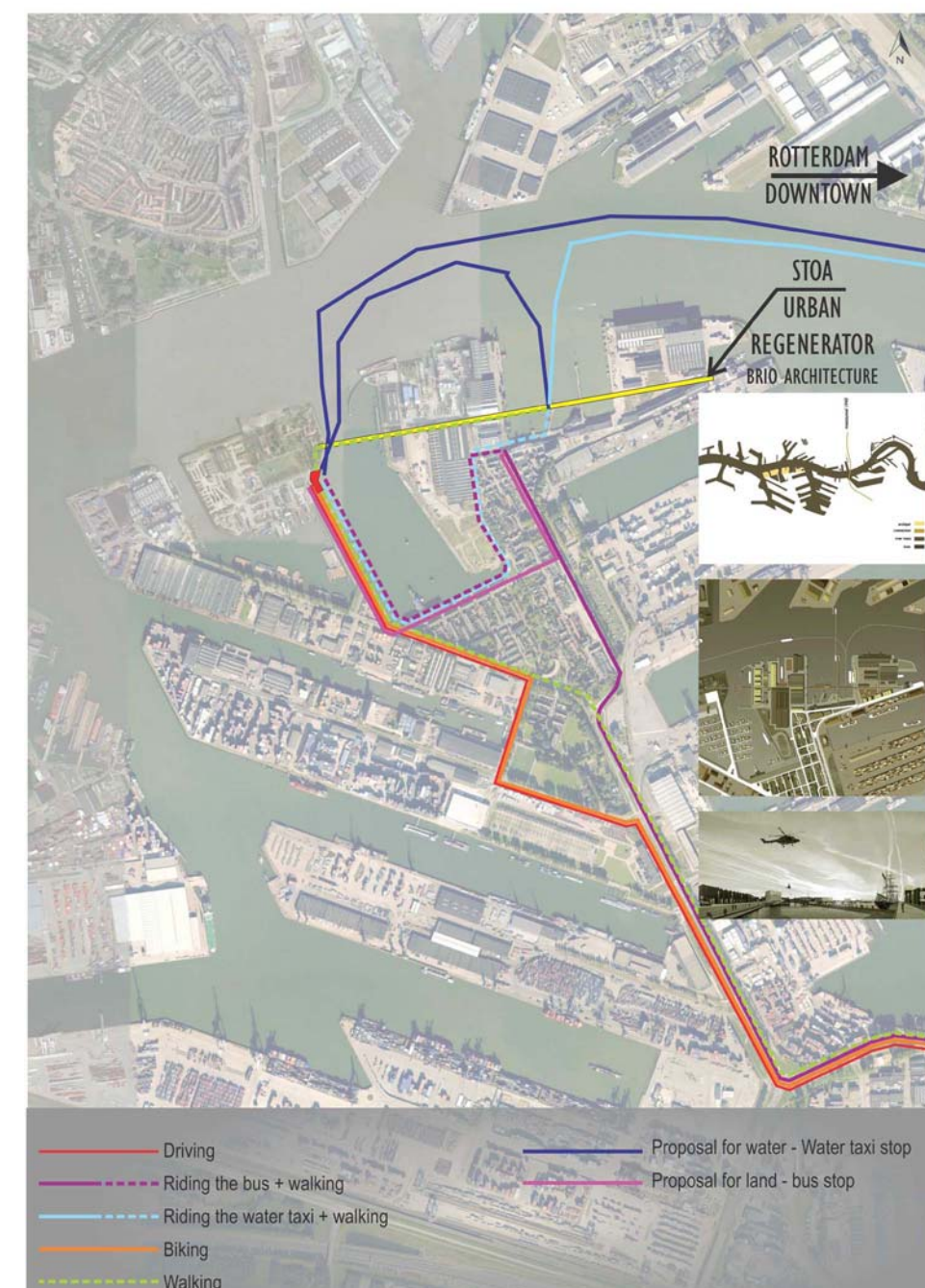


COMMERCE



CONNECTING

TO ROTTERDAM DOWNTOWN



Case Study I - Baltimore (1)

“AGRIitecture” by Tinashe Kasiyamhuru

The idea behind the building was to simply have a living breathing structure that focuses on the sustainable use and conservation of natural resources (land, water, and air). Anchored by the ‘FORM **FOLLOWS INFORMATION**’ approach, the result is a balance -- between programmatic requirements and site restrictions, between urban morphological constraints and climatic conditions -- to achieve functional and comfortable interior spaces.

The project seeks to belong to the Baltimore city design language by conforming to the general dimensions, proportions and style of the surrounding buildings. It goes further by smartly incorporating sustainable technologies and maintaining a strong street support.

In a bid to keep the *Carbon Tag* of the project on a minimum, the following sustainable technologies are incorporated in the project:

1. Reuse of existing on-site fence as an exterior “Green Screen.”
2. Rehabilitation of the existing on-site vegetation for environmental control on the building facade. Doing so conserves the naturally existing ecosystem.
3. Introduction of air purification plants on the interior of the building ensure a healthy environment to the inhabitants. The preserved vegetation on the exterior Green Screen as well as the green roof seeks to assure that post intervention carbon footprint is equal to the pre-intervention levels.
4. The herbs and leafy greens produced within the building adds to a healthier lifestyle of the inhabitants while ensuring net zero carbon miles on the vegetables consumed by the inhabitants.
5. All this held together by an uncomplicated traditional concrete and steel structure. An autonomous hydroponic system seeks to reduce costs associated with manufacturing, construction and maintenance.

Green Screen Hydroponic Technologies



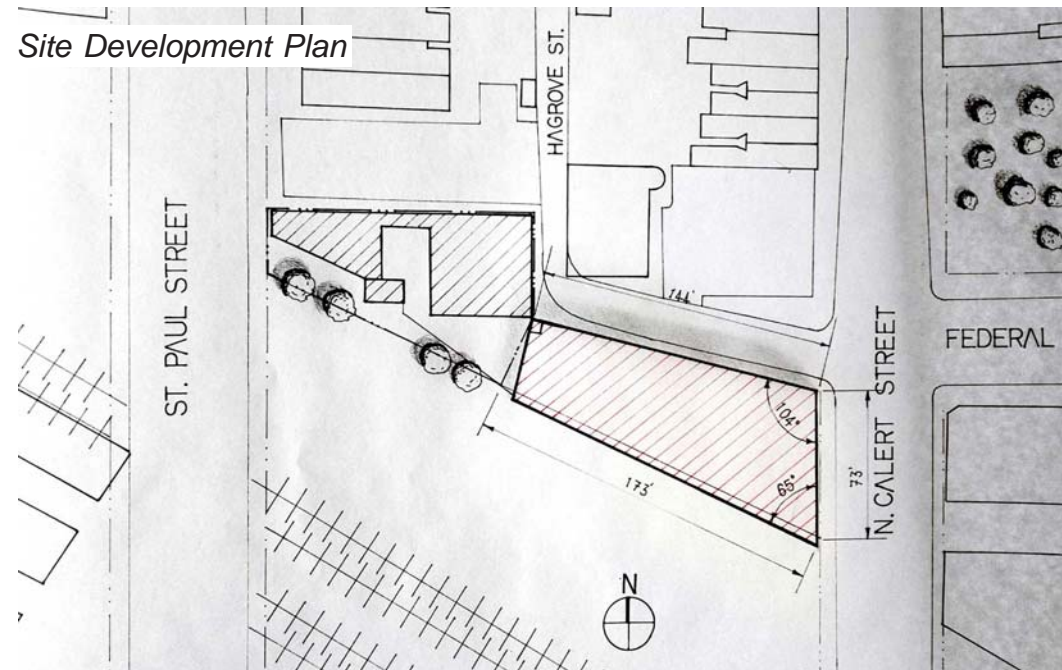
Source: <https://blog.brightagrotech.com/indoor-hydroponic-farming-costs-profits>

View of 1/8” Scale Model
 South-facing Facade, including “Green Skin,”
 Curtain Wall, and Public Performance Area



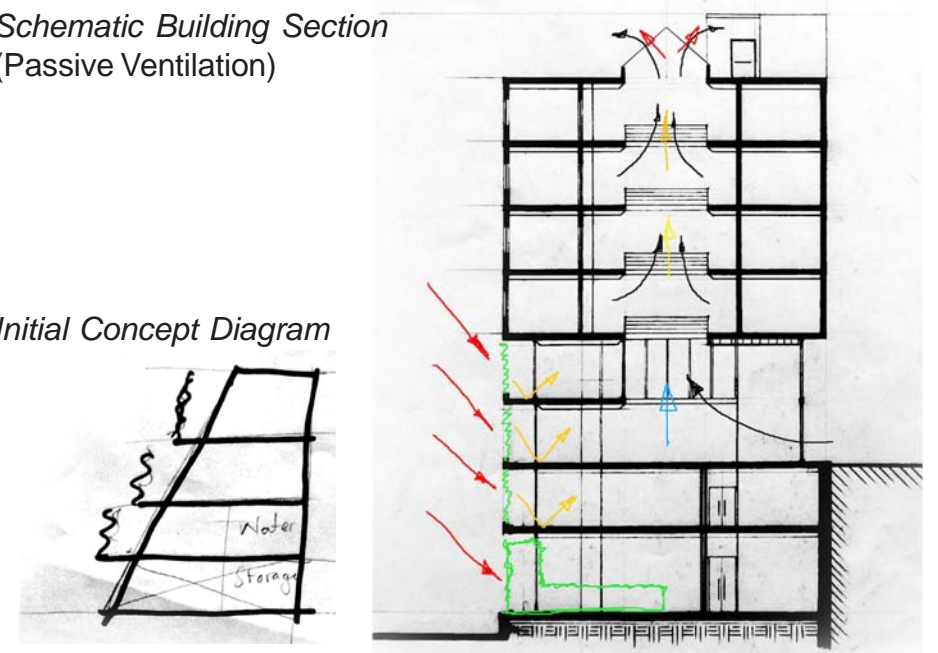
Case Study I - Baltimore (2)

"AGRIitecture" by Tinashe Kasiyamhuru



Schematic Building Section (Passive Ventilation)

Initial Concept Diagram



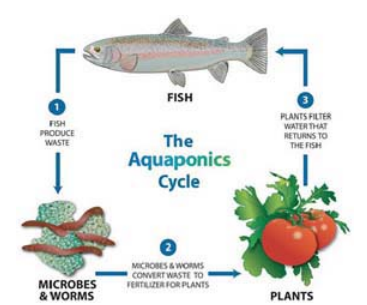
Site Development Diagrams

View of Working Roof: Greenhouses, Rainwater Harvesting, Skylight, & Social Space

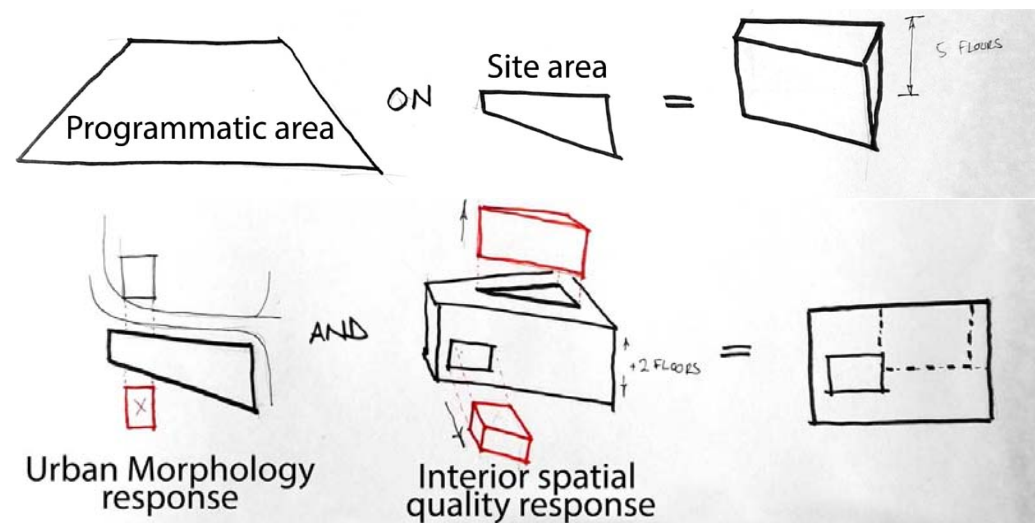
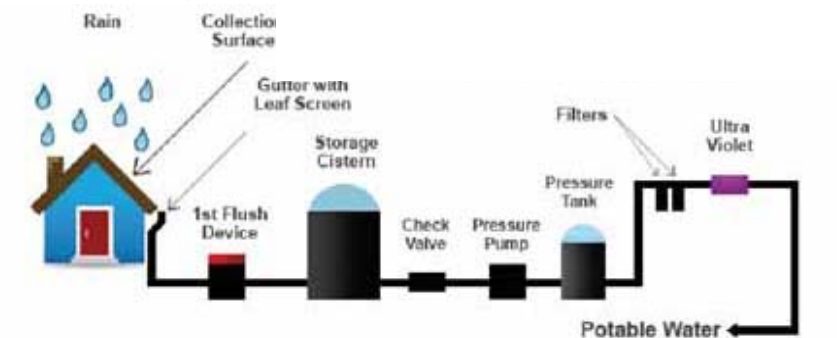


Hydroponic System Fixtures

Aquaponics Cycle

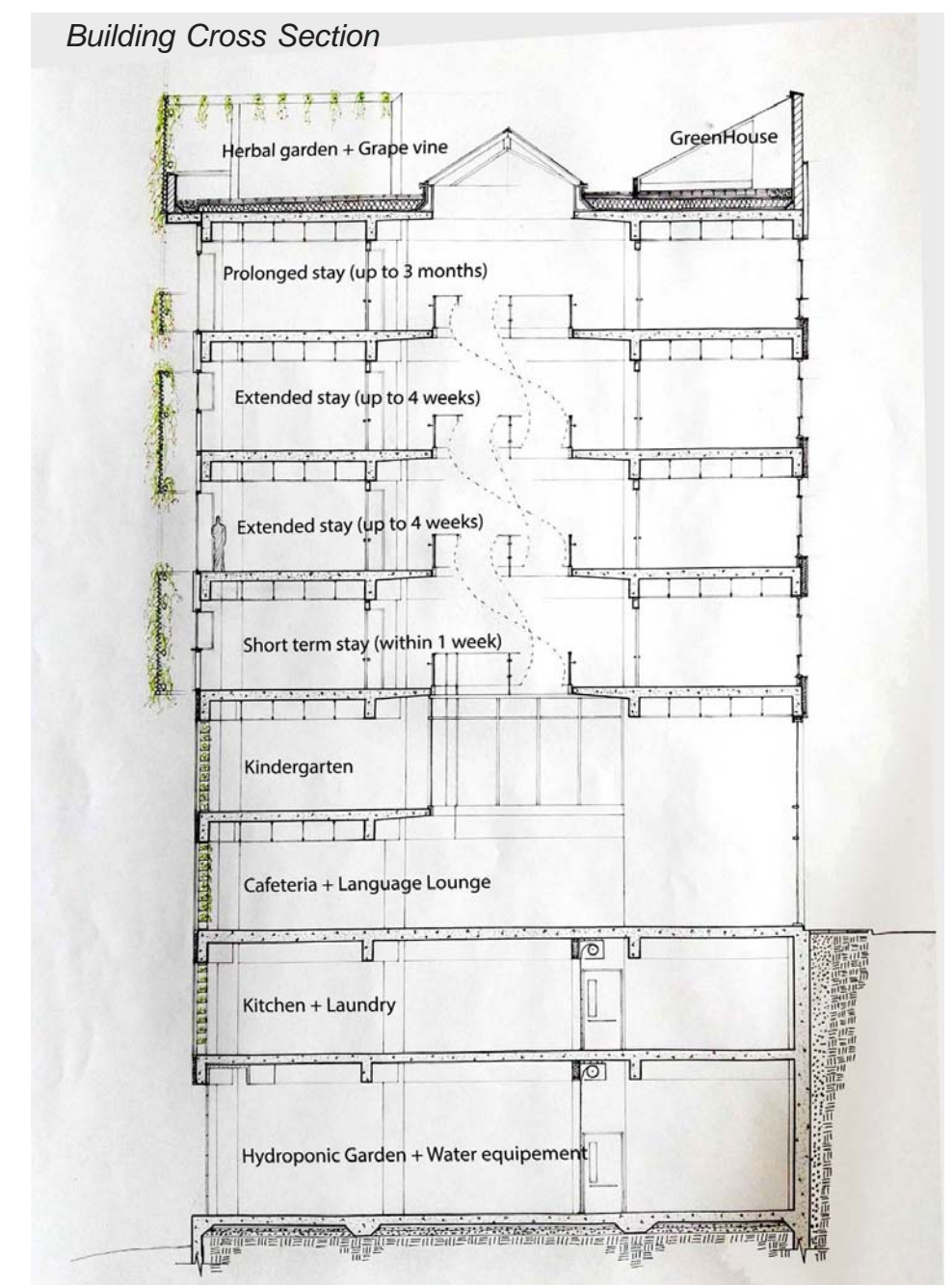
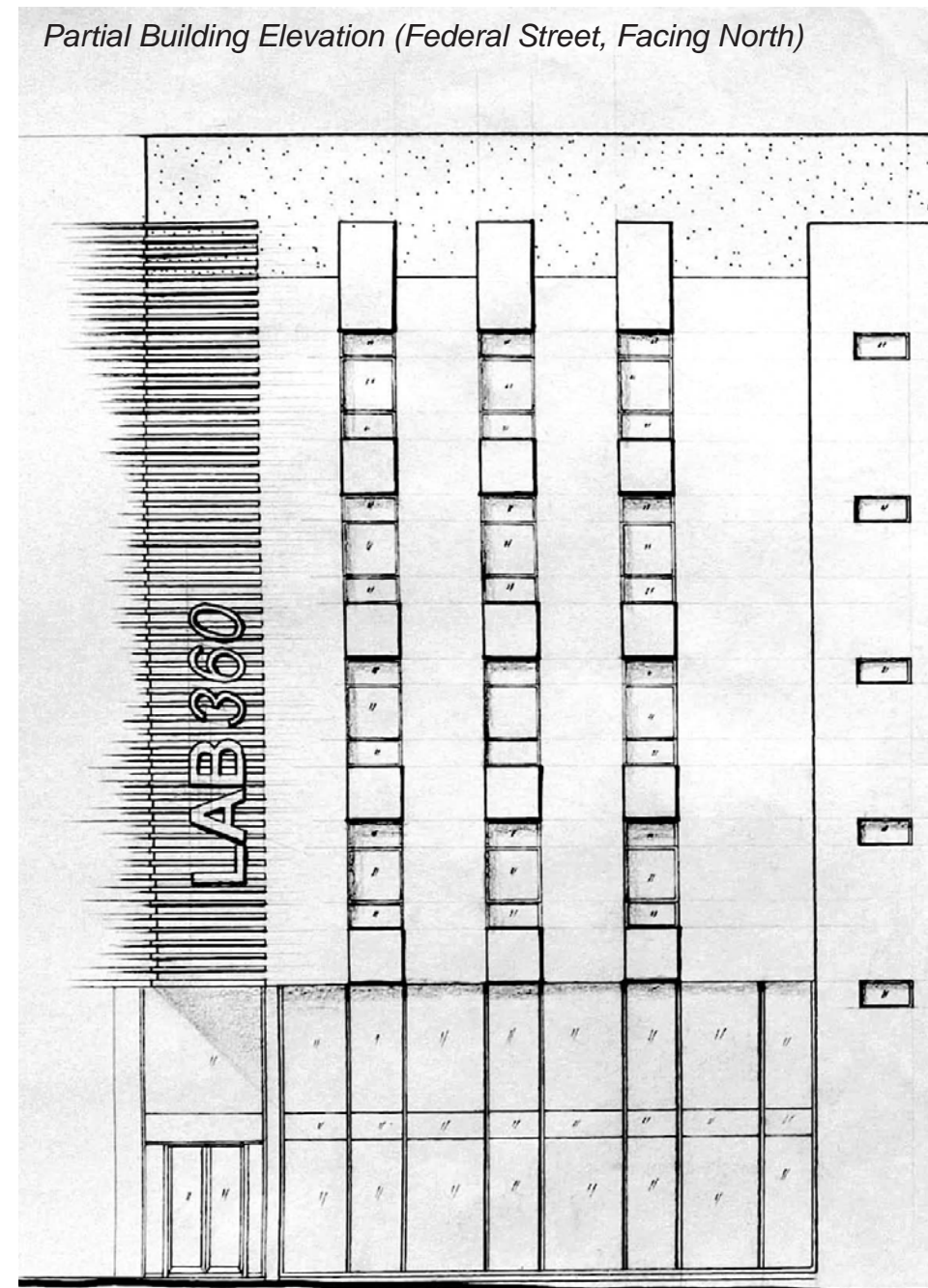
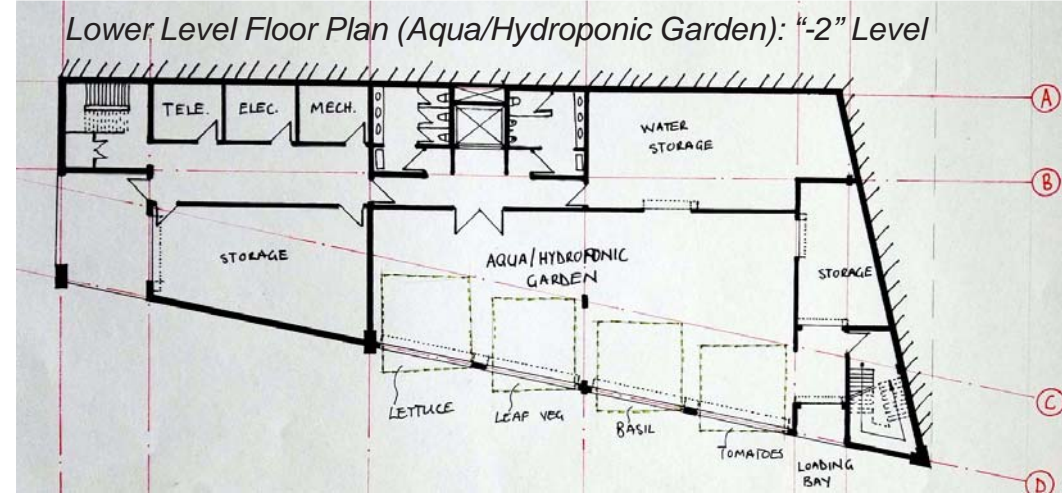
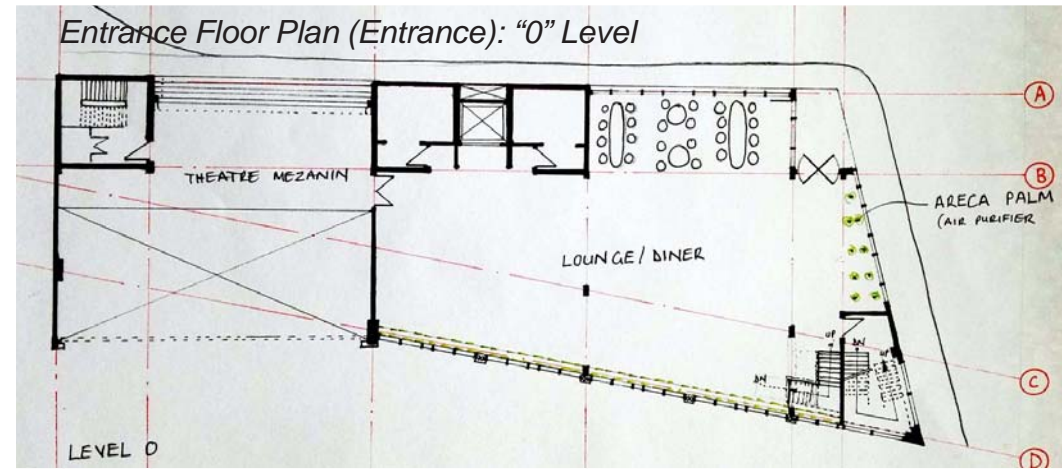
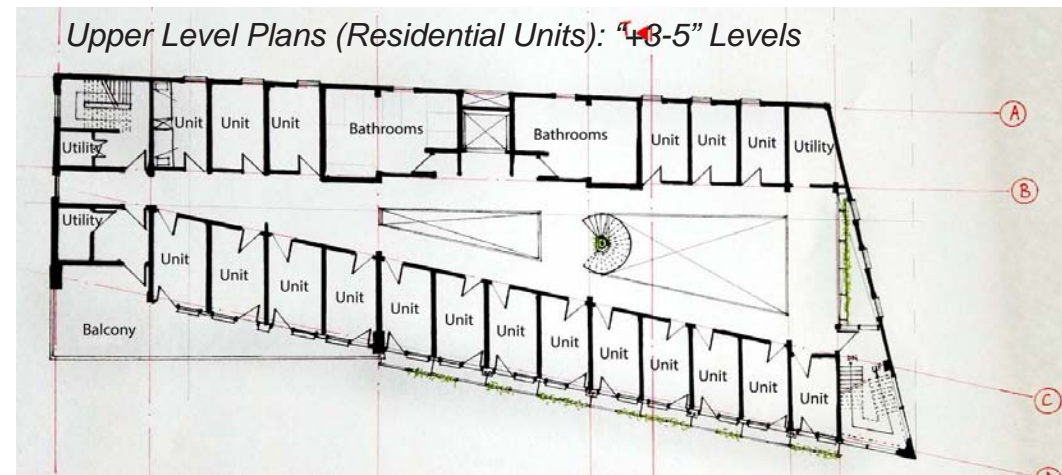


Rainwater Harvesting System Schematic



Case Study I - Baltimore (3)

"*AGRitecture*" by Tinashe Kasiyamhuru



Case Study II - Baltimore (1)

BALTIHOMES by Jéssica Freitas

BaltiHomes Living Laboratory (BLL) incorporates different living typologies to serve multiple family arrangements present in our current society and to accommodate the urban population expansion, focusing on Newcomers as part of this population.

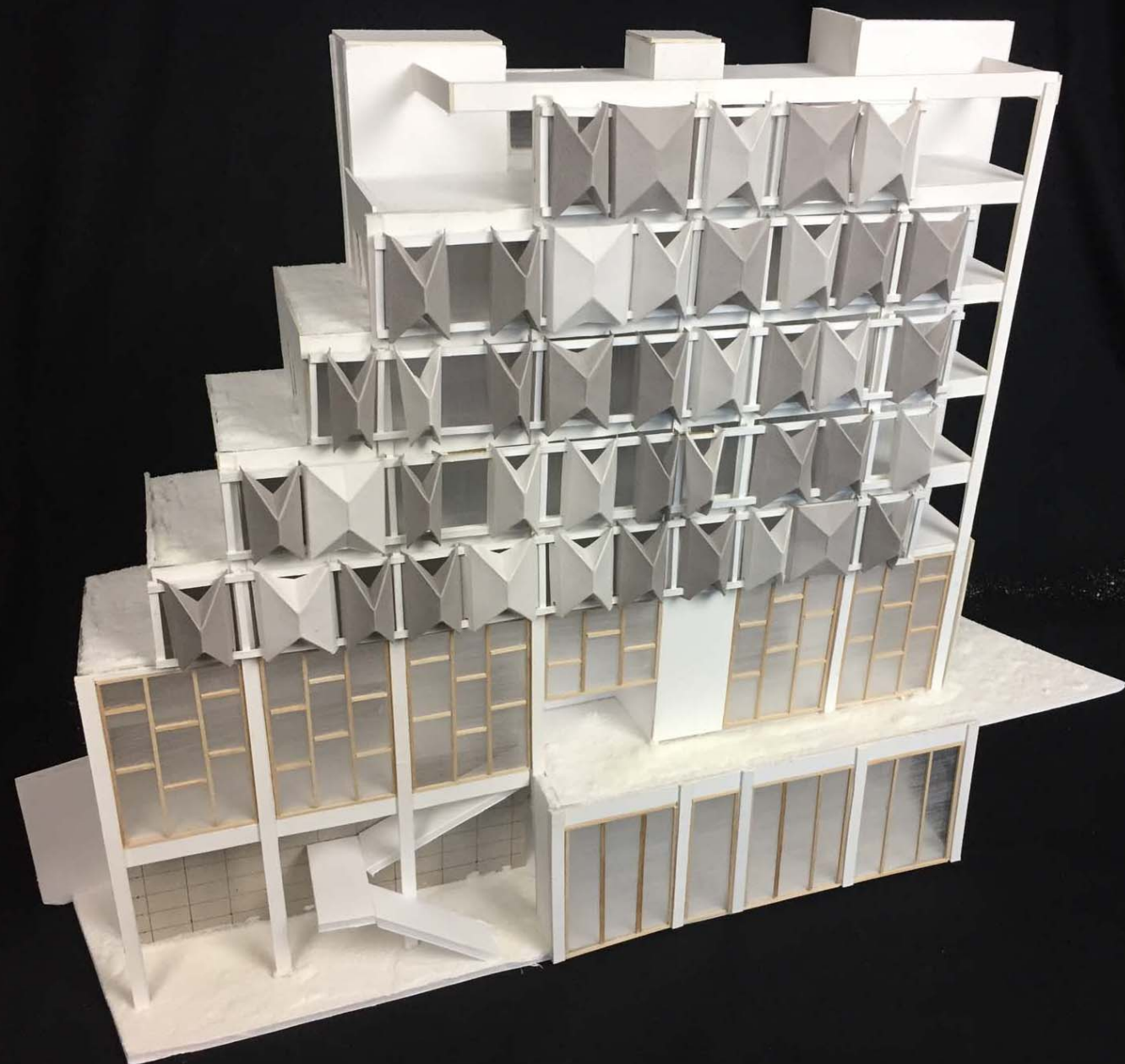
At its street level, the BLL includes a public kitchen, language exchange lounge, and food court. These facilities can be used for classes, volunteer work, and residents’ cooking their own food.

The residential area comprise the 5 upper levels of the BLL. It can host up to 120 people, who may stay as short-term or long-term guests. The units can, therefore, be personalized to meet the needs of the ever-changing community.

Residential units facing south receive considerable solar gain and are provided motorized sun shutters, which are controlled individually by the guest living in the unit. The shutters save energy and help in the overall building comfort. They also produce their own energy by capturing solar power through PV devices attached to each one of them.

The two levels below street level serve the BLL community and its surrounding area. Facilities offer daycare, theater, and a fabrication workshop. At the lowest level, a linear park divides the BLL building from the tracks of the Pennsylvania Station.

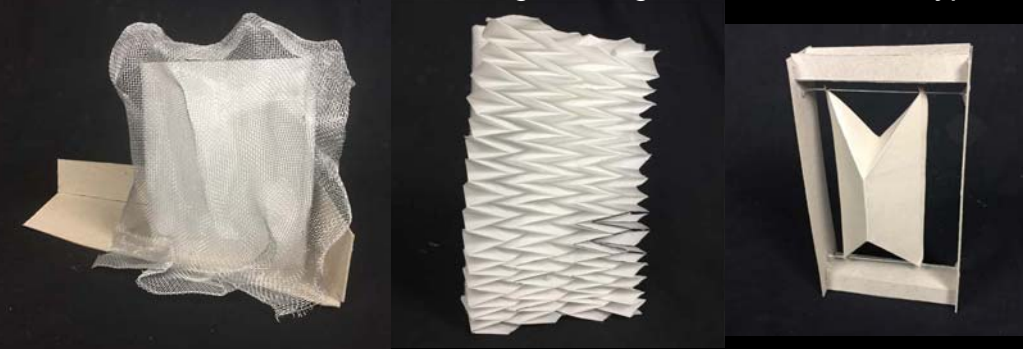
*View of 1/8” Scale Model
 South-facing Facade, including “Dynamic Shading”
 Curtain Wall, and Public Site Access*



Sketch Model

Folding Paradigm

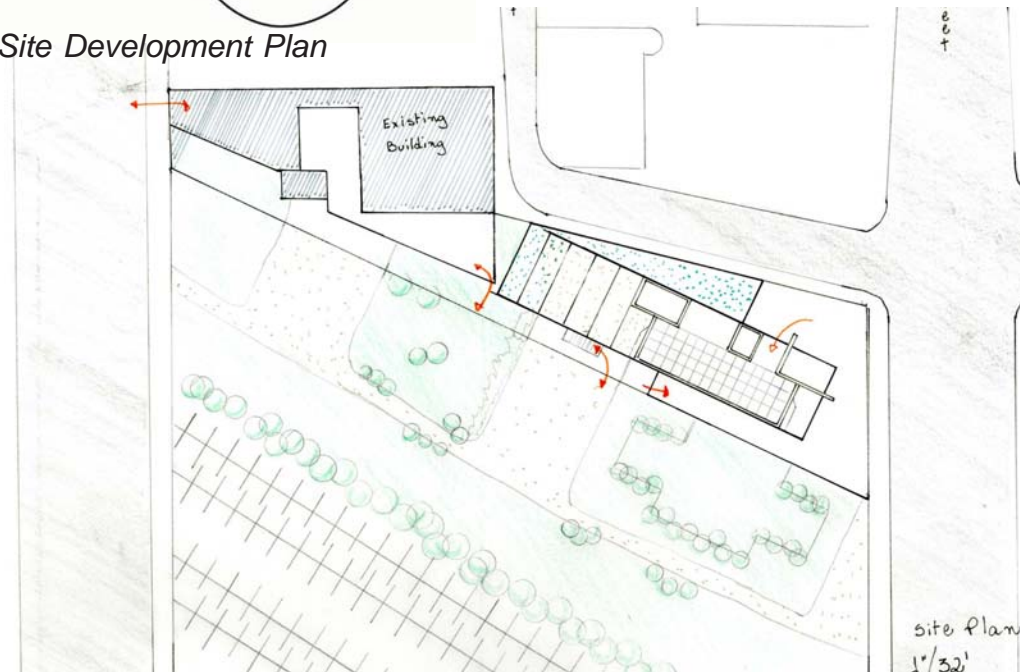
Shade Prototype



Case Study II - Baltimore (2)

BALTIHOMES by Jéssica Freitas

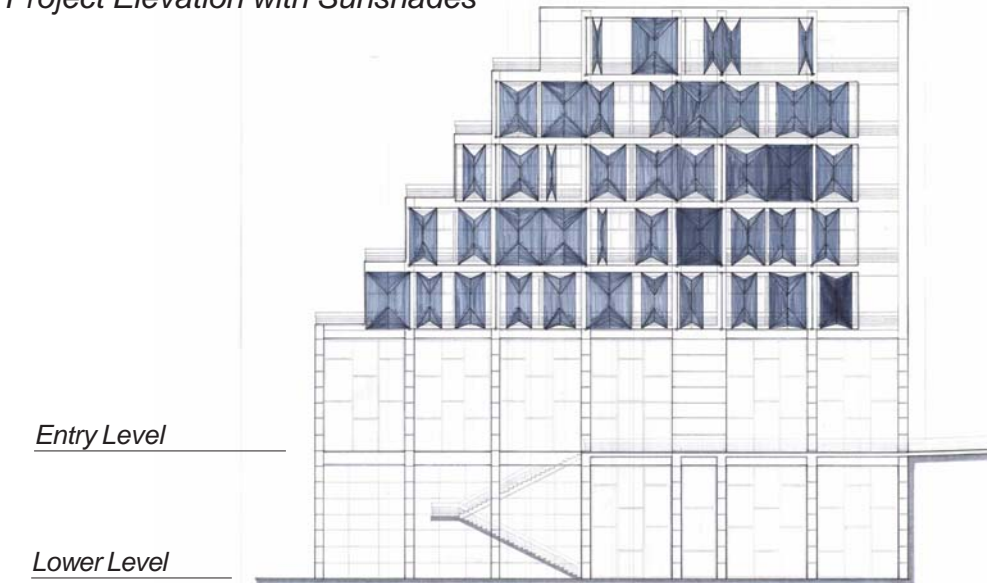
Site Development Plan



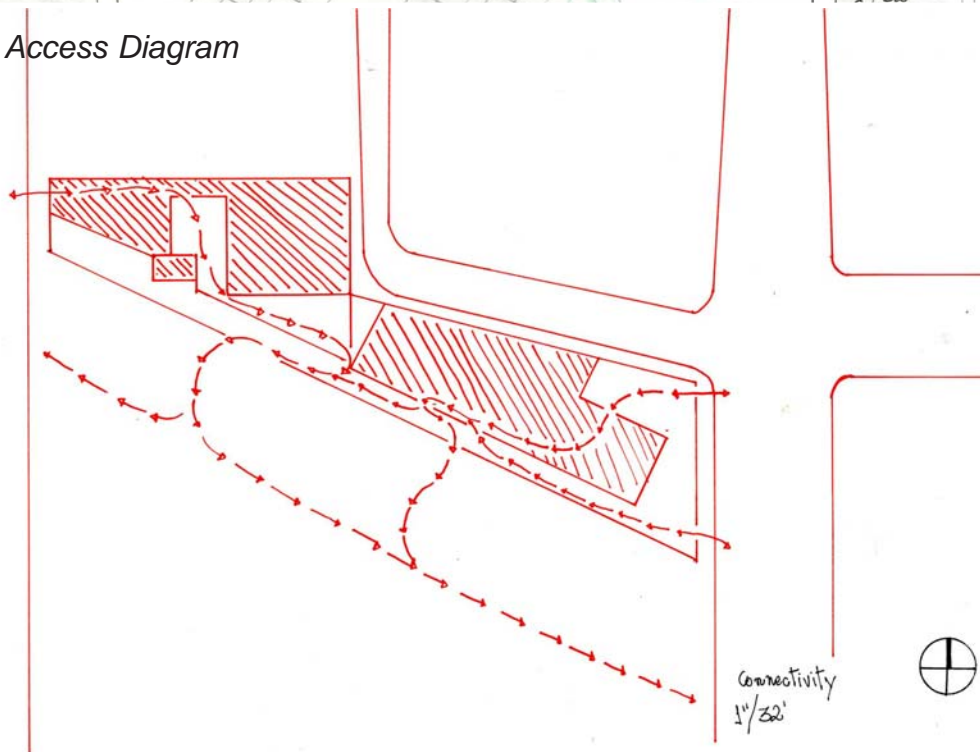
Preliminary Site Model with Adjacent Buildings



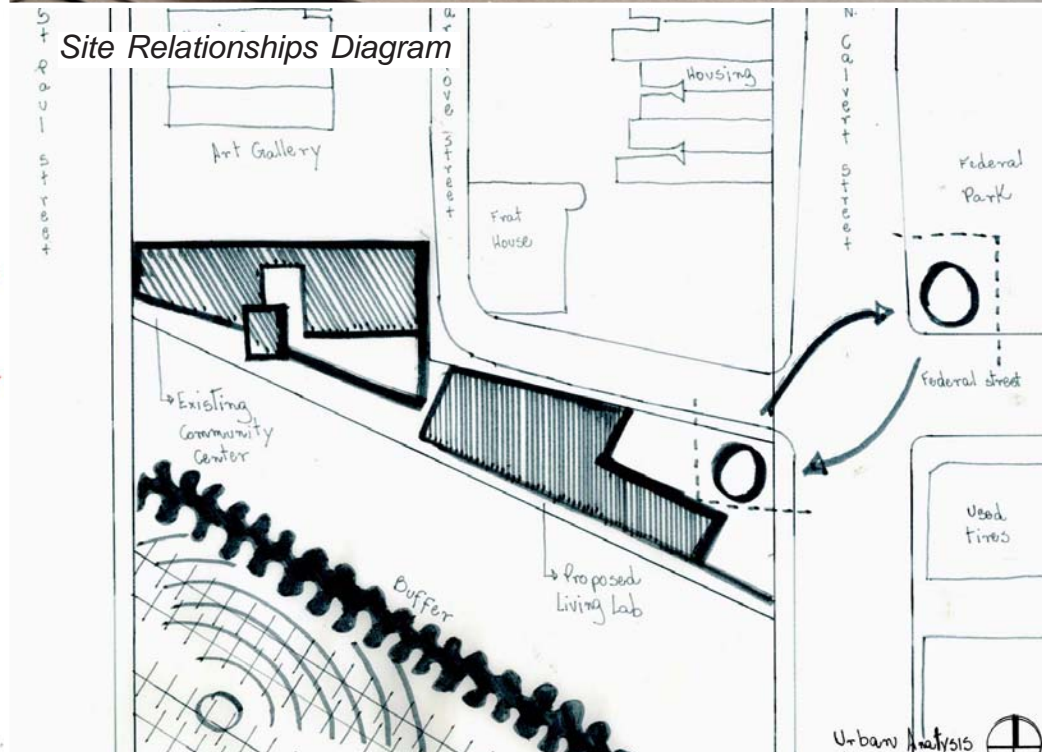
Project Elevation with Sunshades



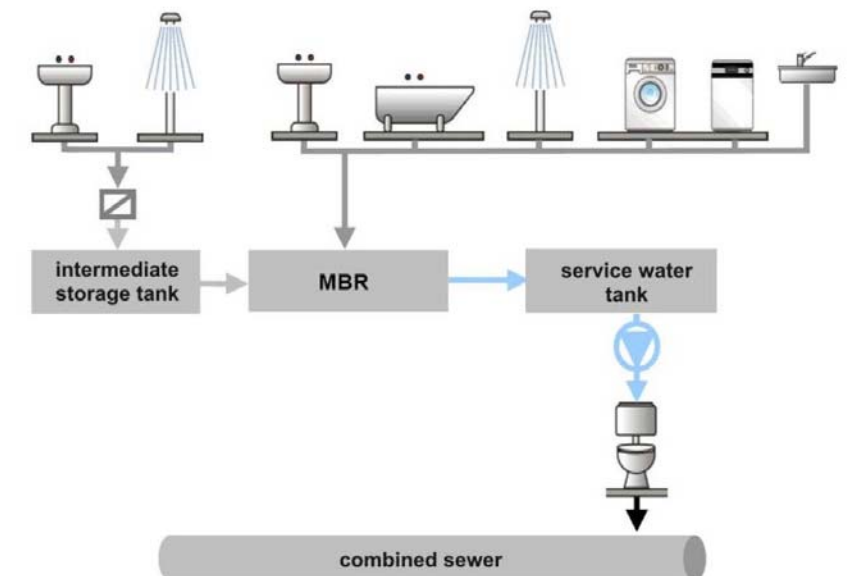
Site Access Diagram



Site Relationships Diagram



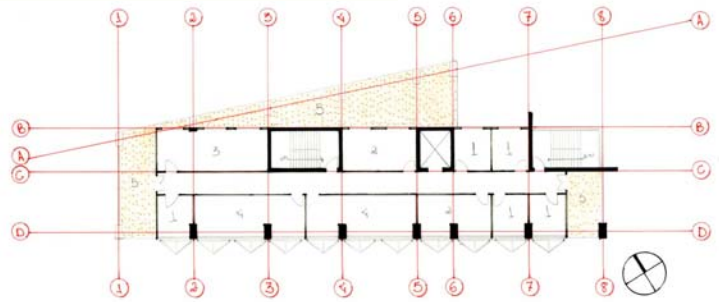
Greywater Reuse Diagram



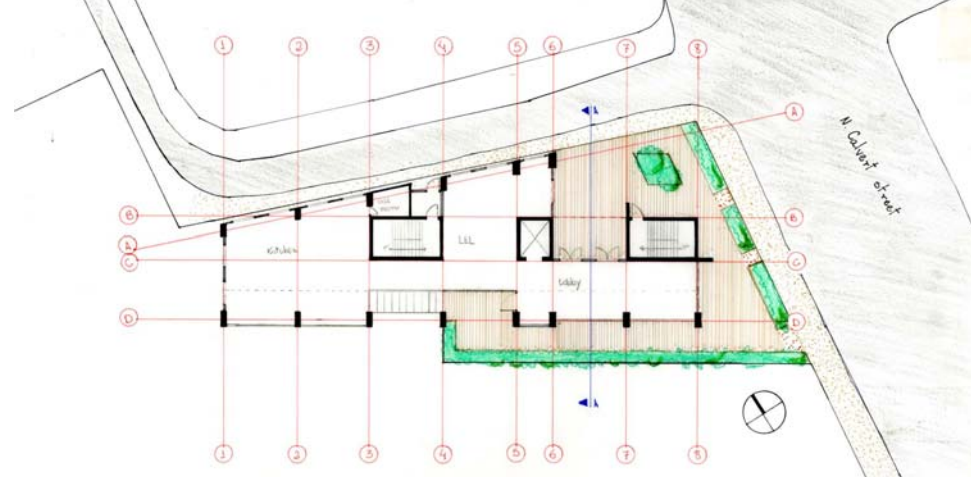
Case Study II - Baltimore (3)

BALTIHOMES by Jéssica Freitas

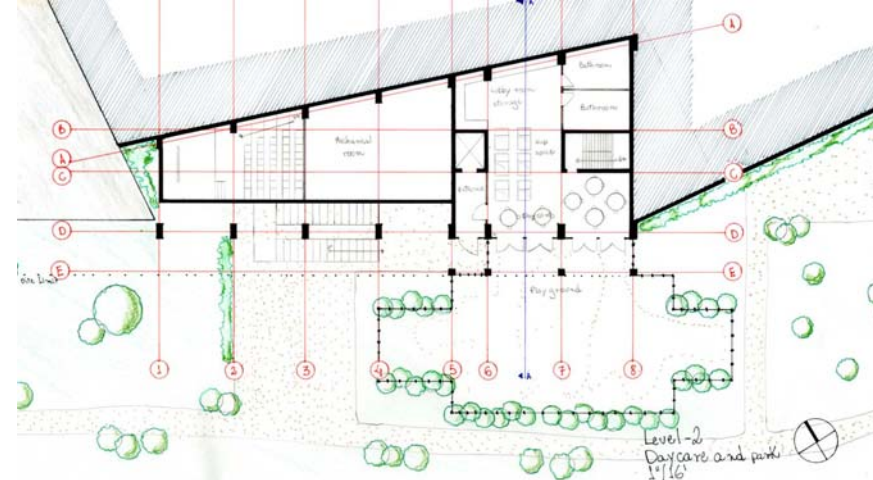
Upper Level Plan (Residential Units - Typical Floor)



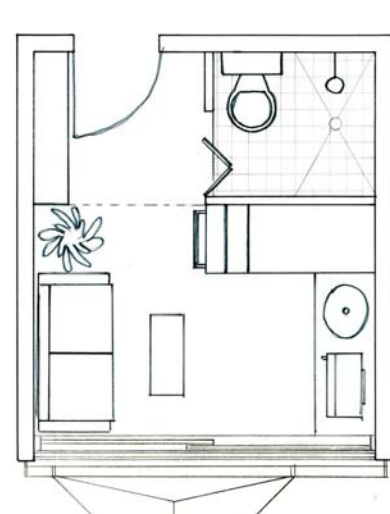
Entry Level Plan (Lobby and Shared Kitchen)



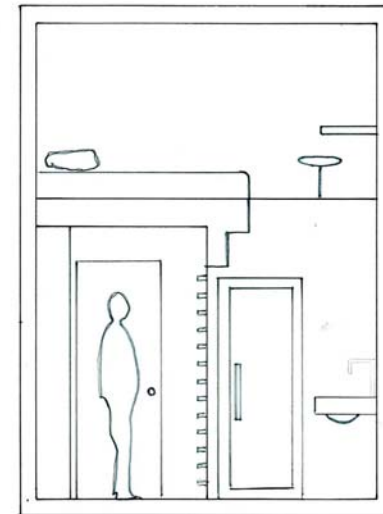
Lower Level Plan (Theater and Daycare)



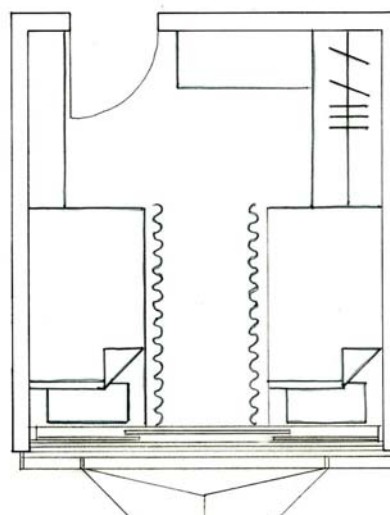
Alternative Residential Unit Configurations



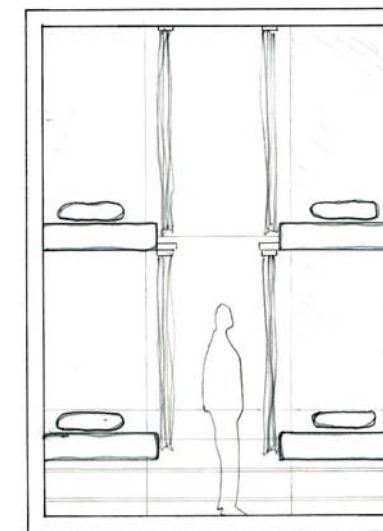
(Plan)
 Long Term Unit, Single/Double



(Cross Section)
 Long term unit
 1 1/2'

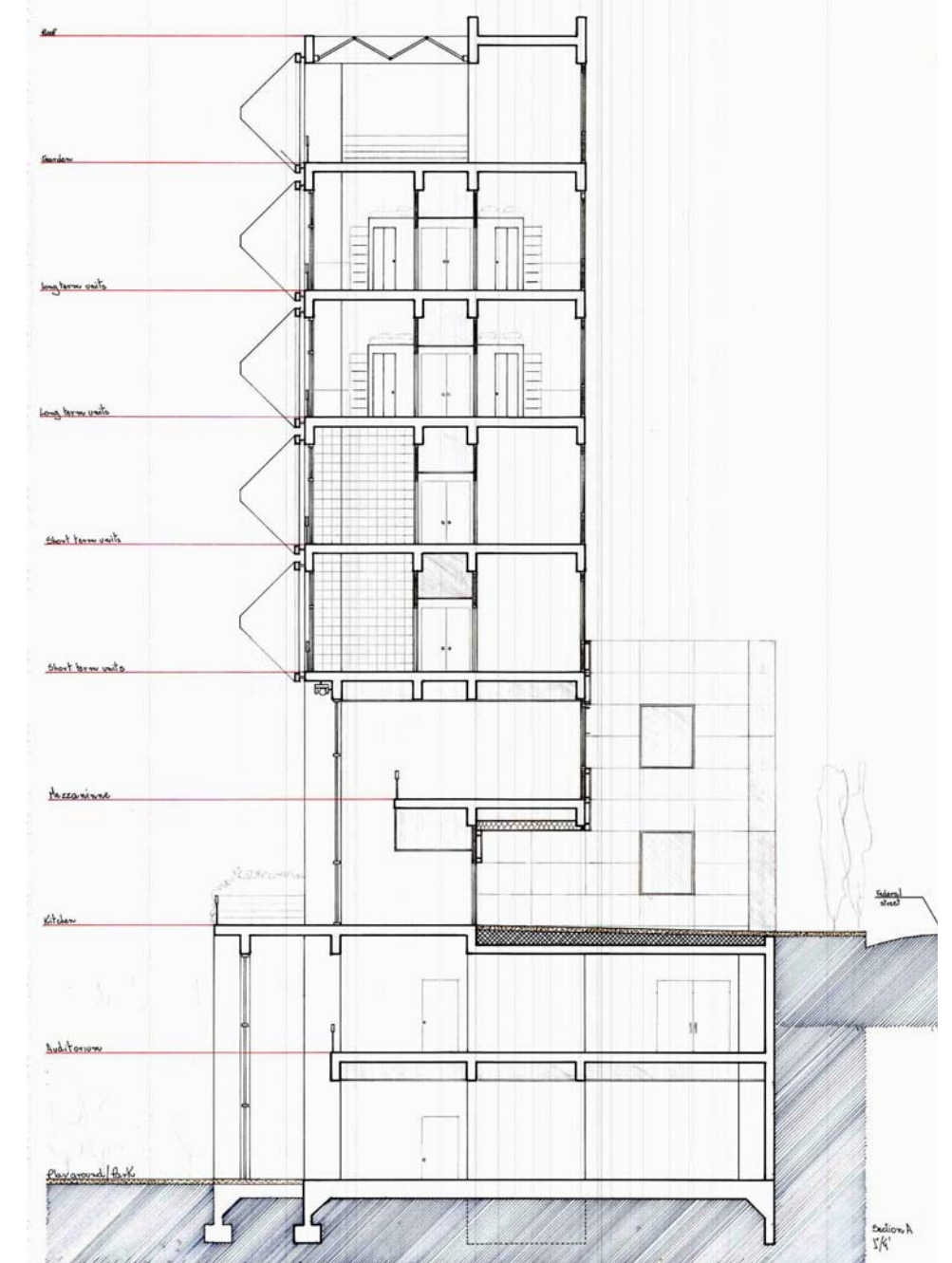


(Plan)
 Short-term Unit, Quad



(Cross Section)
 Short term unit
 1 1/2'

Building Cross Section



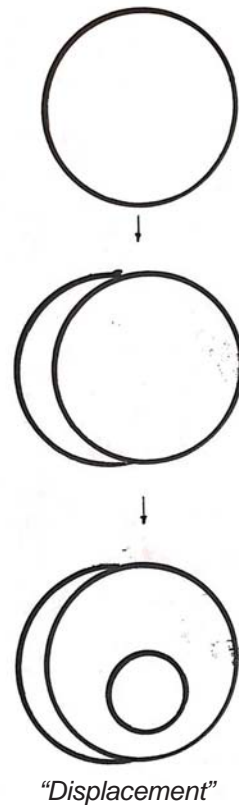
Case Study III - Rotterdam (1)

The ALIEN by Alhaji Jalloh

Now more than ever, the ideal of equality and tolerance for diversity is under sustained threat. This project seeks to address those issues while providing a sustainable abode for integrating transplants into egalitarian Dutch society.

However, being sited on Quarantine Island presents challenges to (and opportunities for) integration and interaction between Newcomers and locals. To circumvent isolation, this project proposes that the art storytelling (theatre) may be deployed to transcend cultural barriers and unify people. *A circle represents purity in equality.* In this design, therefore, a circular composition leads Newcomers from the river through healing gardens towards mental well-being, as they brace themselves for an uncertain but hopeful future.

The design was further guided by the concept of “displacement” (see diagram, right) to provide terraced shelter. This aspect of the design represents the abrupt shift in reality that Newcomers experience after immigration.

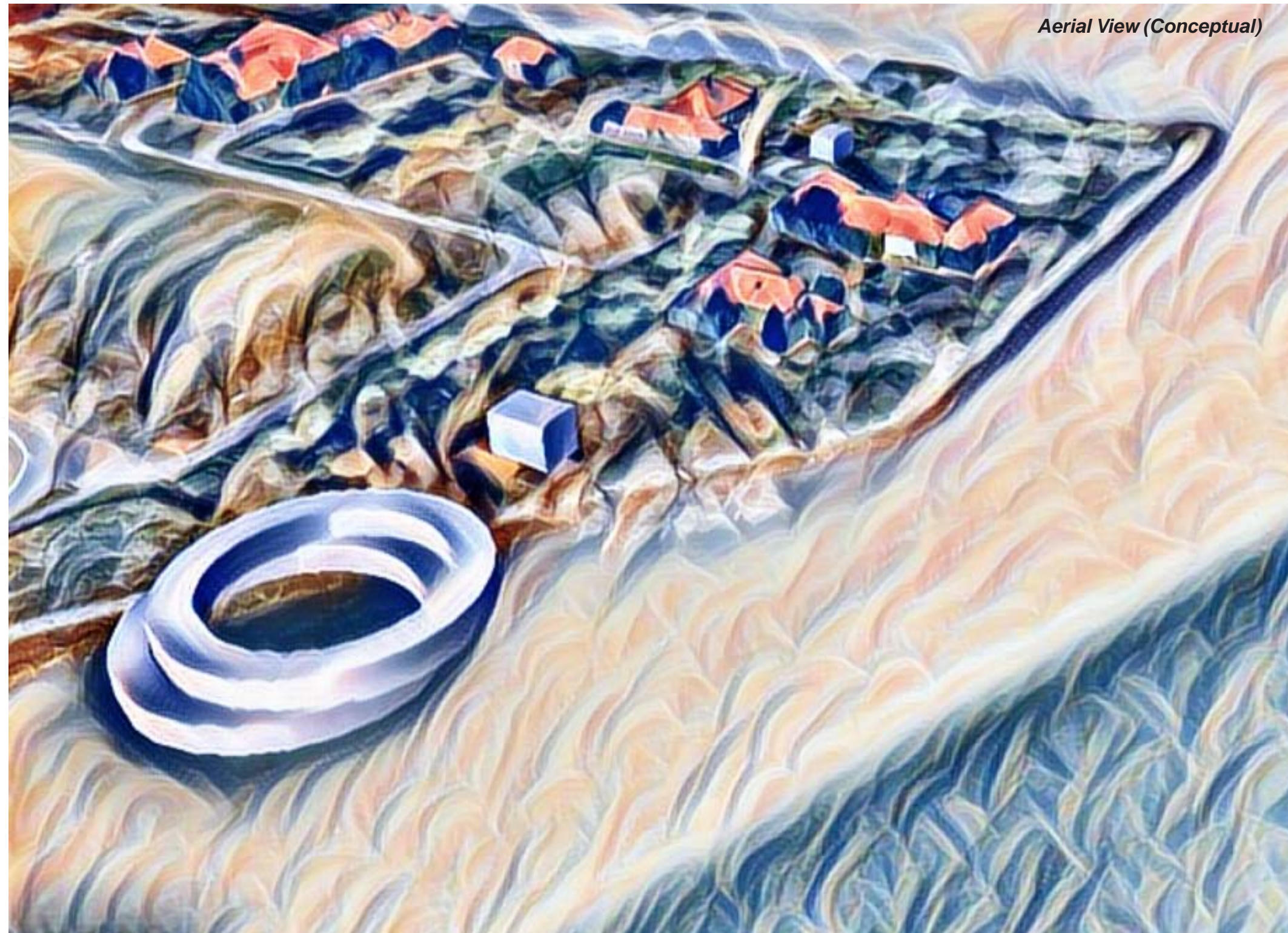


Technologies Contributing to Sustainability:

Play Pump: Derived from the adjacent river and rain water, the building’s water supply, pumping, and filtration system would be partially driven by the dynamic energy generated by on-site playground merry-go-rounds and see- saws.

Piezoelectricity: Energy generated by pedestrians and cyclists would be stored through piezoelectric cells installed along the continuous spiral.

Circular Economy: The Theatre is the heart of the building, ensuring not only cultural exchange but driving the self-sustaining economy of

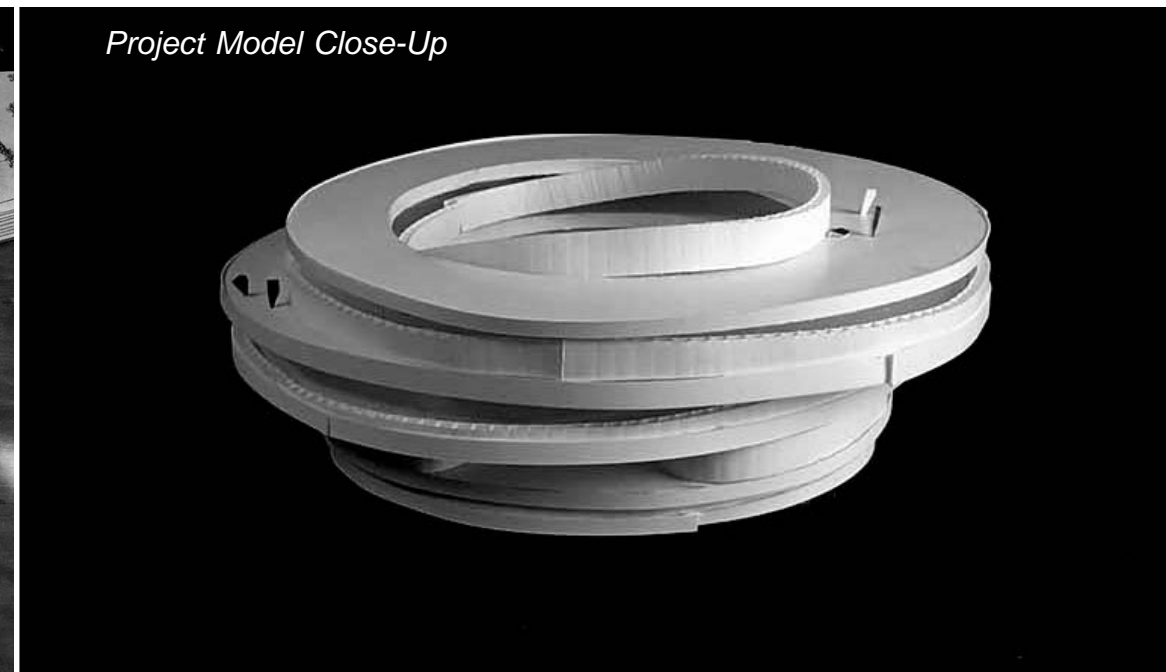
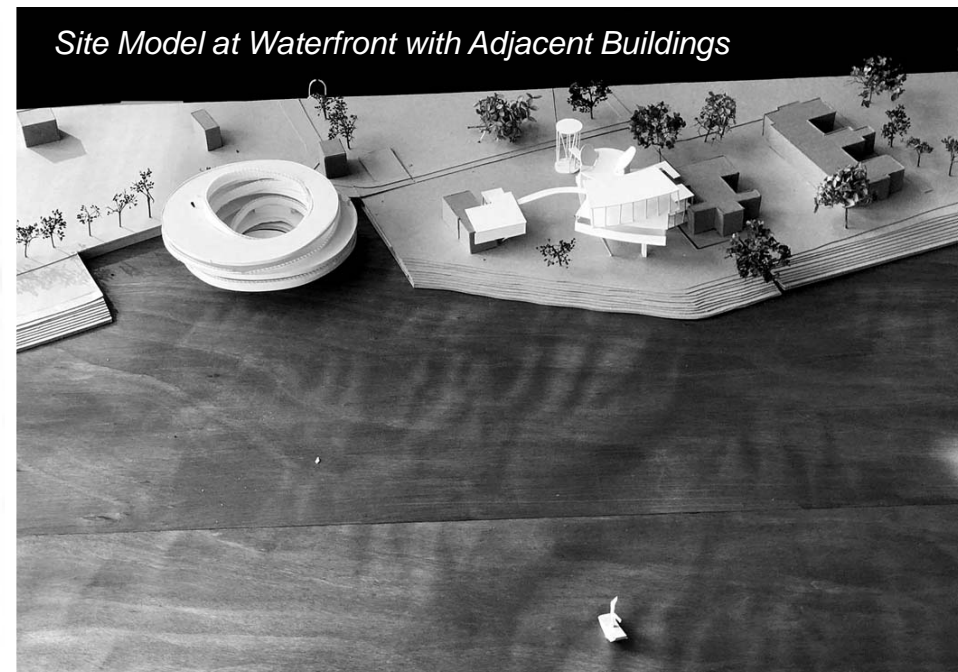


Aerial View (Conceptual)

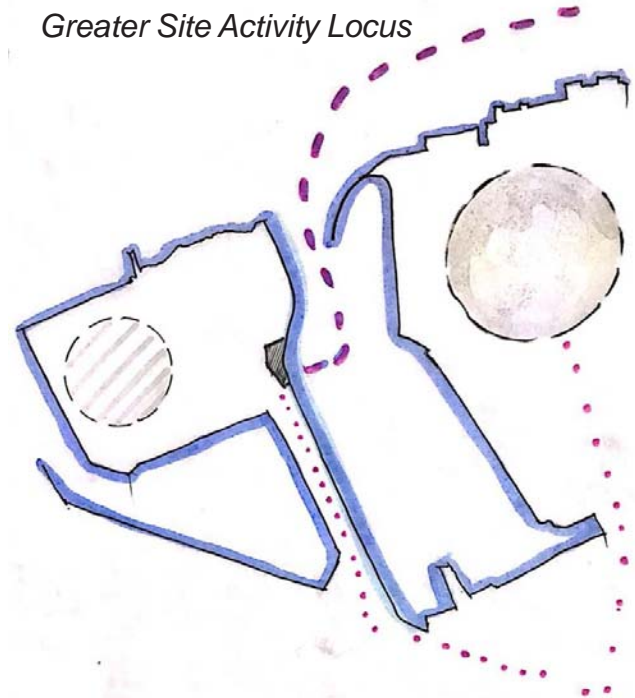
Case Study III - Rotterdam (2)

The ALIEN by Alhaji Jalloh

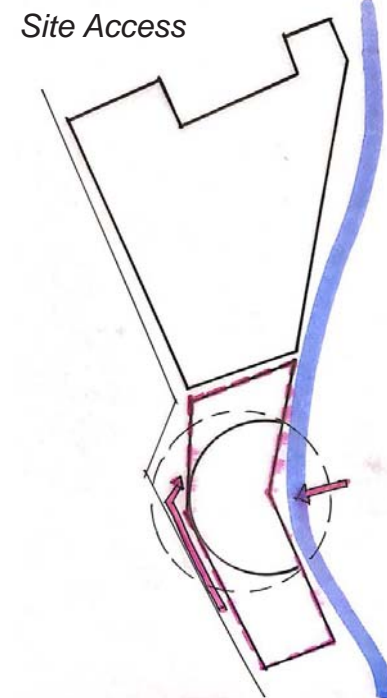
Site Development Plan



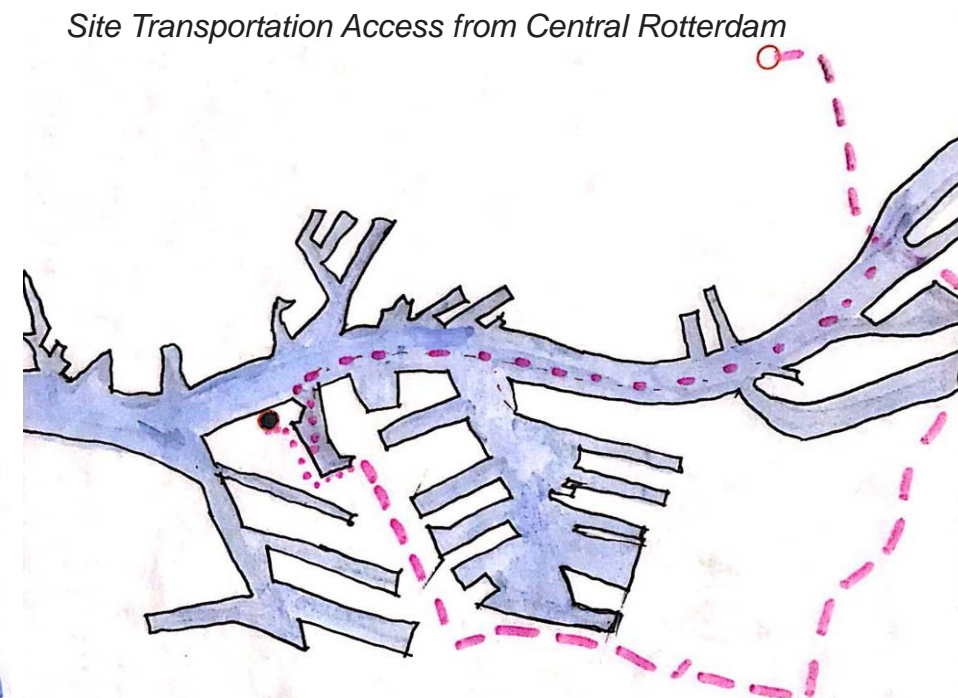
Greater Site Activity Locus



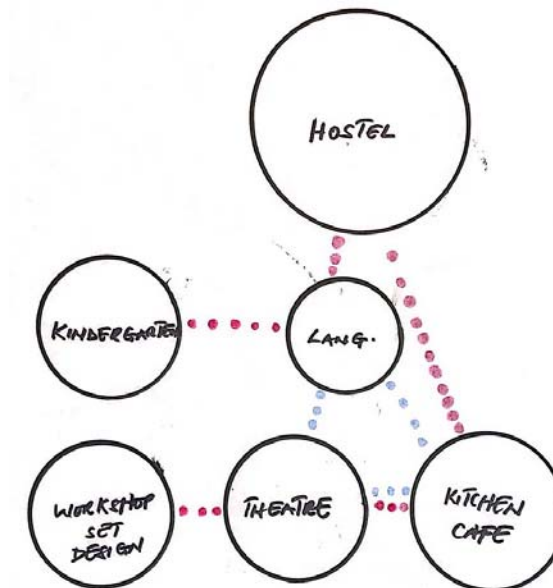
Site Access



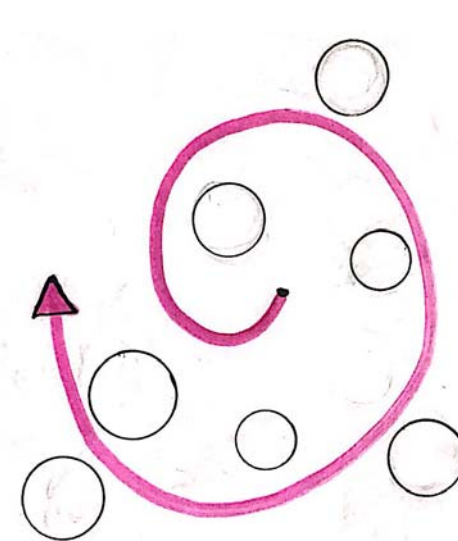
Site Transportation Access from Central Rotterdam



Programmatic Adjacencies



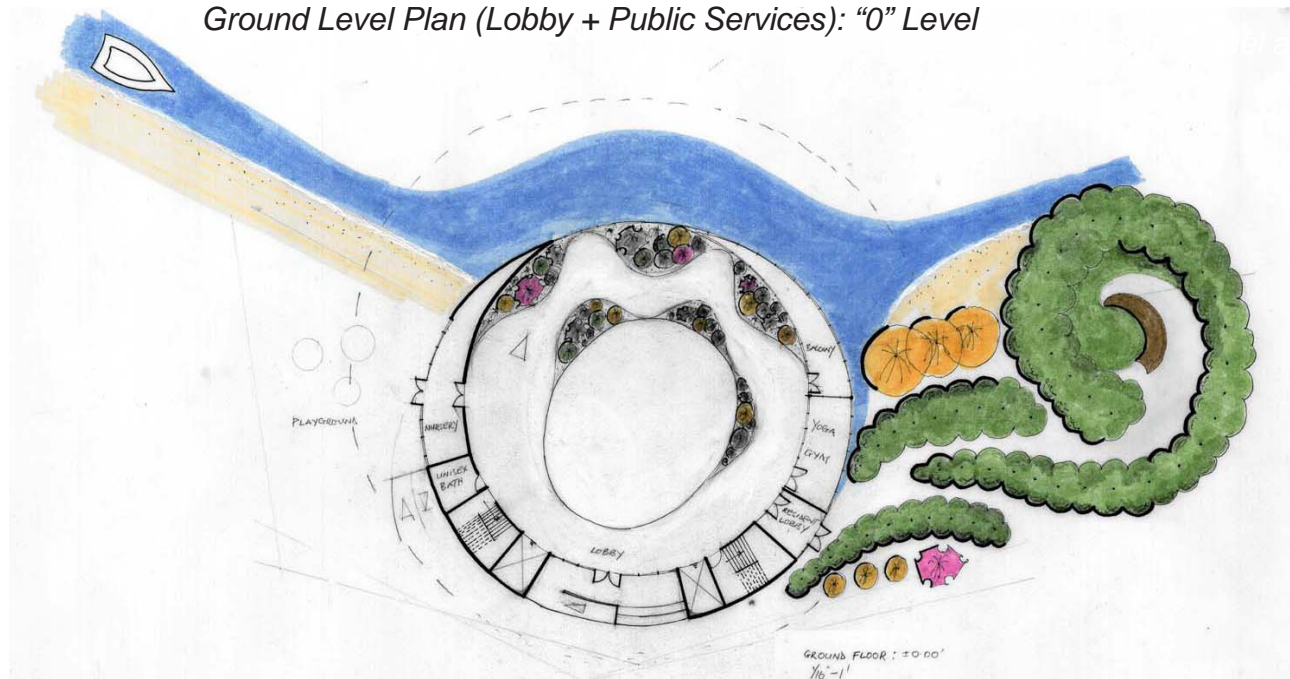
Parti Diagram



Case Study III - Rotterdam (3)

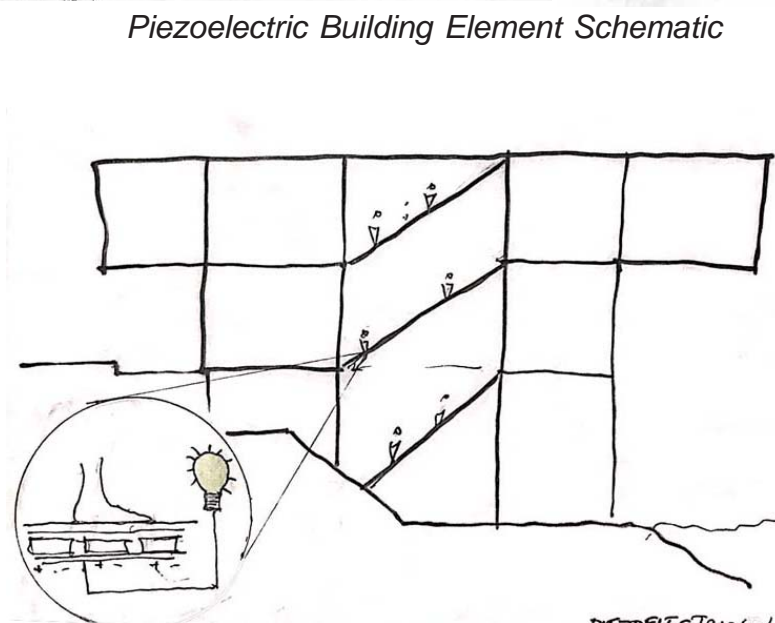
The ALIEN by Alhaji Jalloh

Ground Level Plan (Lobby + Public Services): "0" Level

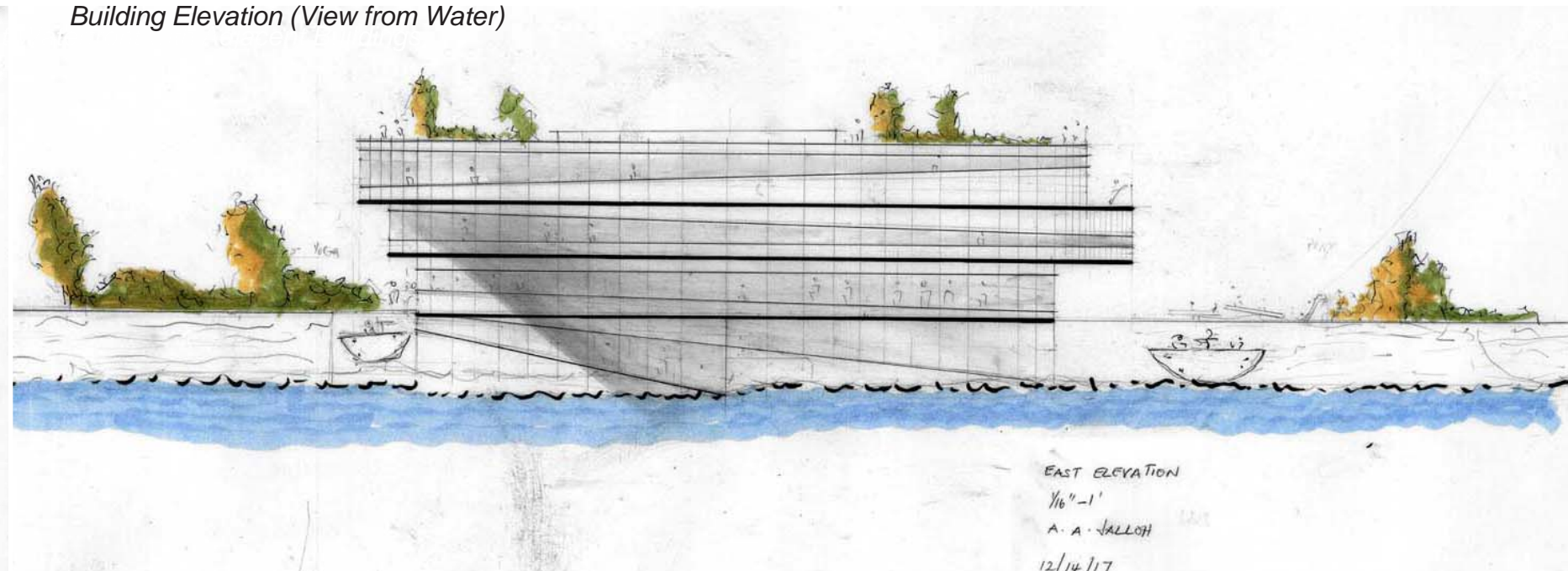


"Play Pump" Schematic

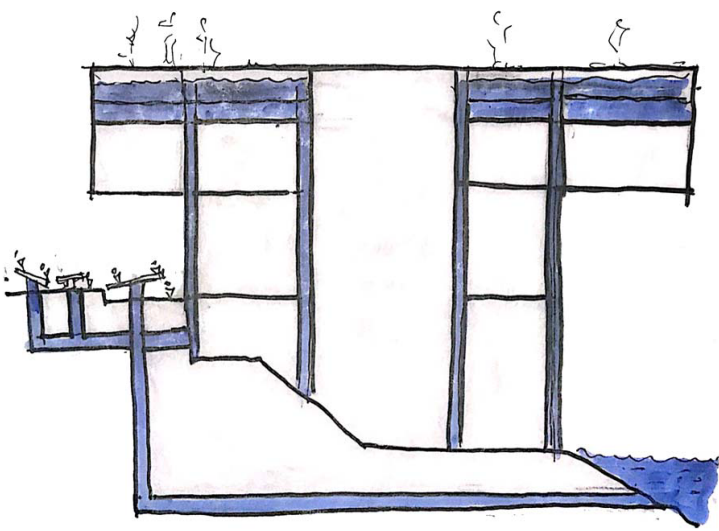
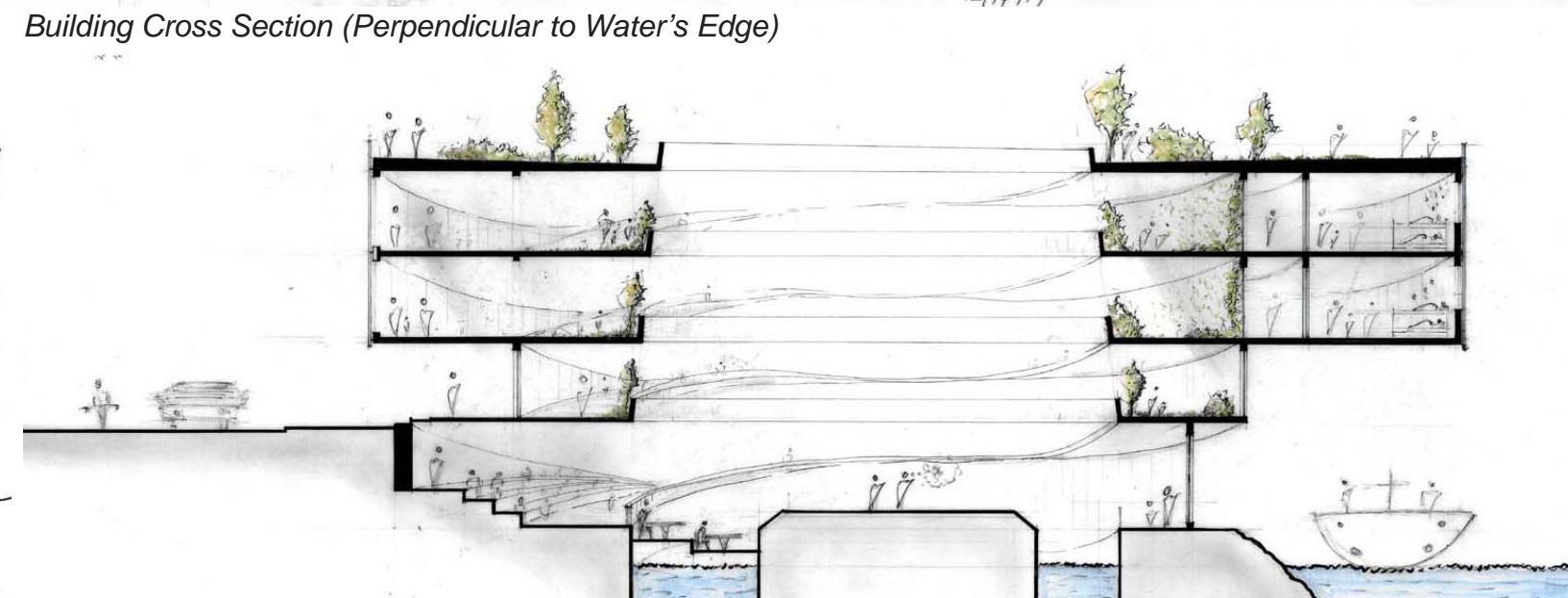
Piezoelectric Building Element Schematic



Building Elevation (View from Water)



Building Cross Section (Perpendicular to Water's Edge)



Case Study IV - Rotterdam (1)

The LOTUS by Faranak Ghanaatpisheh Sanaei

In many countries, the lotus, flower is symbol of rebirth & regeneration. But the start of this flower's life is unlike many other flowers. When the lotus first begins to sprout, it is under water and surrounded by mud and muck, by fish, by insects — simply dirty, rough conditions. Despite these conditions, the lotus flower maintains its strength. Throughout this time, the stem continues to grow, and the pod slowly surfaces above the water, into the clean air. It is then that the lotus slowly opens each beautiful petal to the sun, basking in the worldly beauty surrounding it. The lotus flower is ready to take on the world.

Rotterdam's Newcomers are like the lotus. They were elsewhere but were forced to leave and move to the new country because Persecution, Forced Removal, or War. They have to rebuild their future despite this muddy situation.

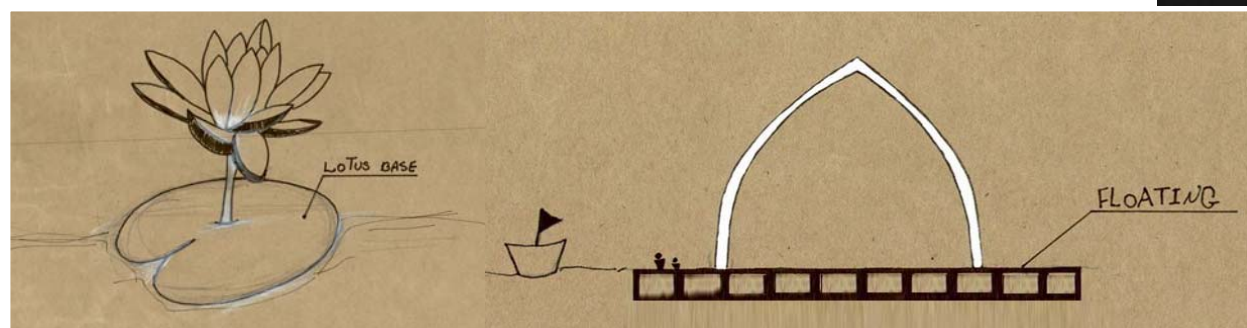
Location:

The site located in the middle of the water between Quarantine Island and RDM Campus, Heijplaat. The site would be accessible by a new bridge to connect the two areas.

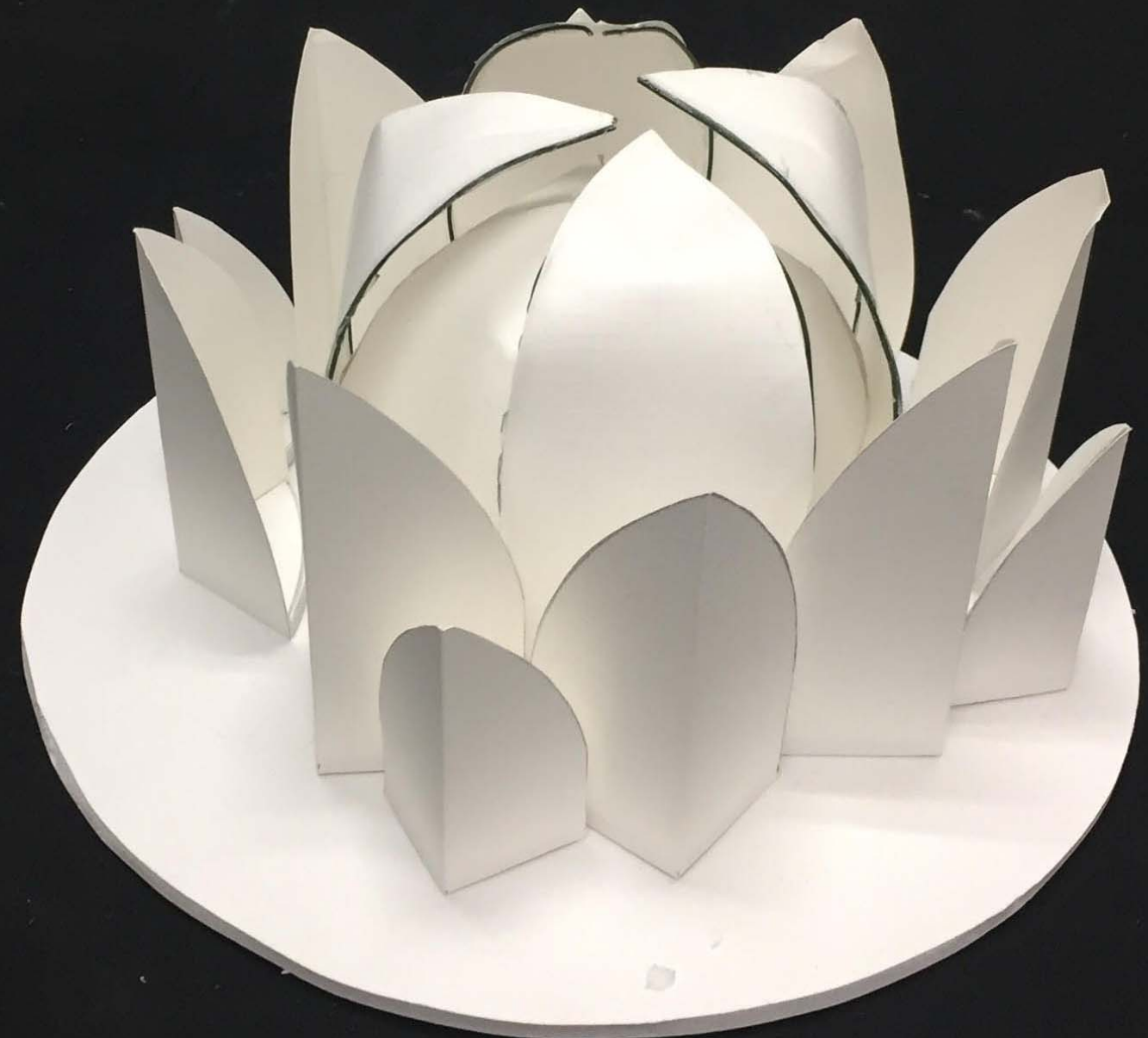
Sustainability Concept:

The project is an example of a floating superstructure. We have proposed a Geopolymer Concrete substructure, formed into large, sturdy boxes.

Diagram: Lotus and Floating Structure

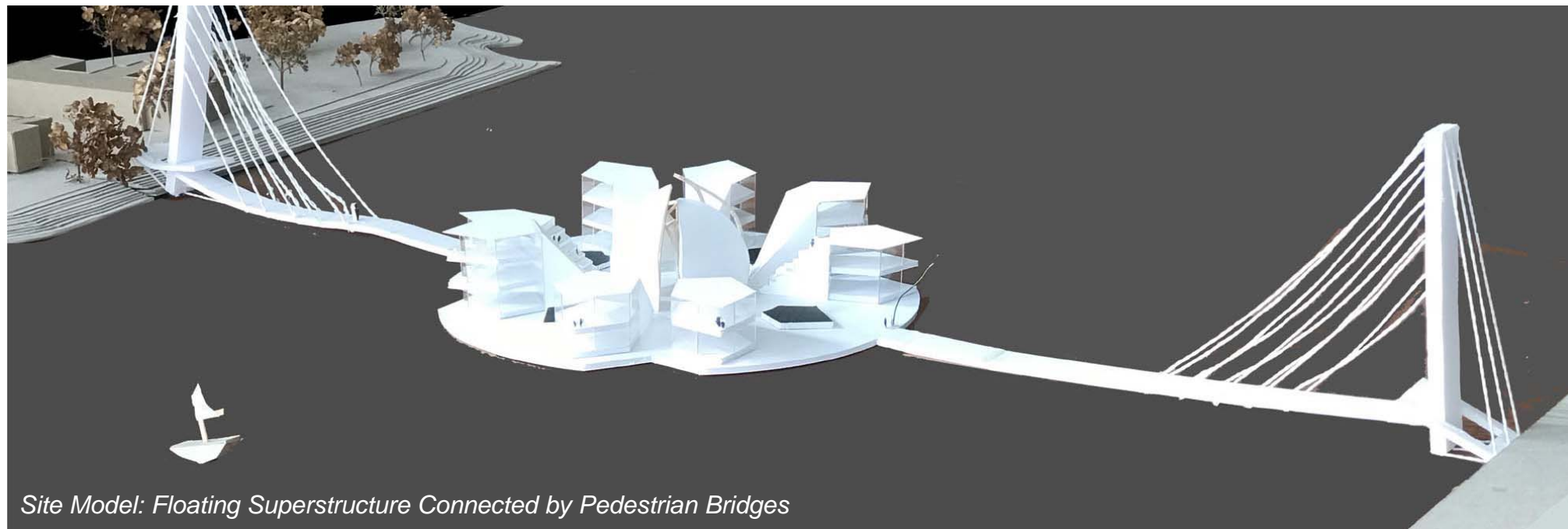


*View of 1/16" Scale Model
Central Dome Superstructure*



Case Study IV - Rotterdam (2)

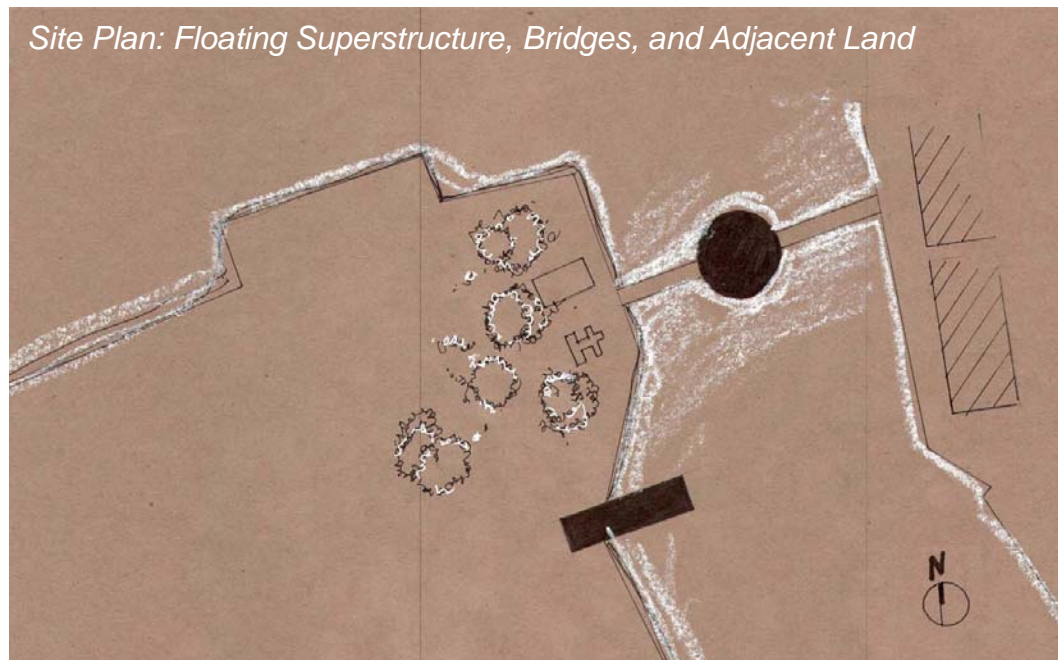
The LOTUS by Faranak Ghanaatpisheh Sanaei



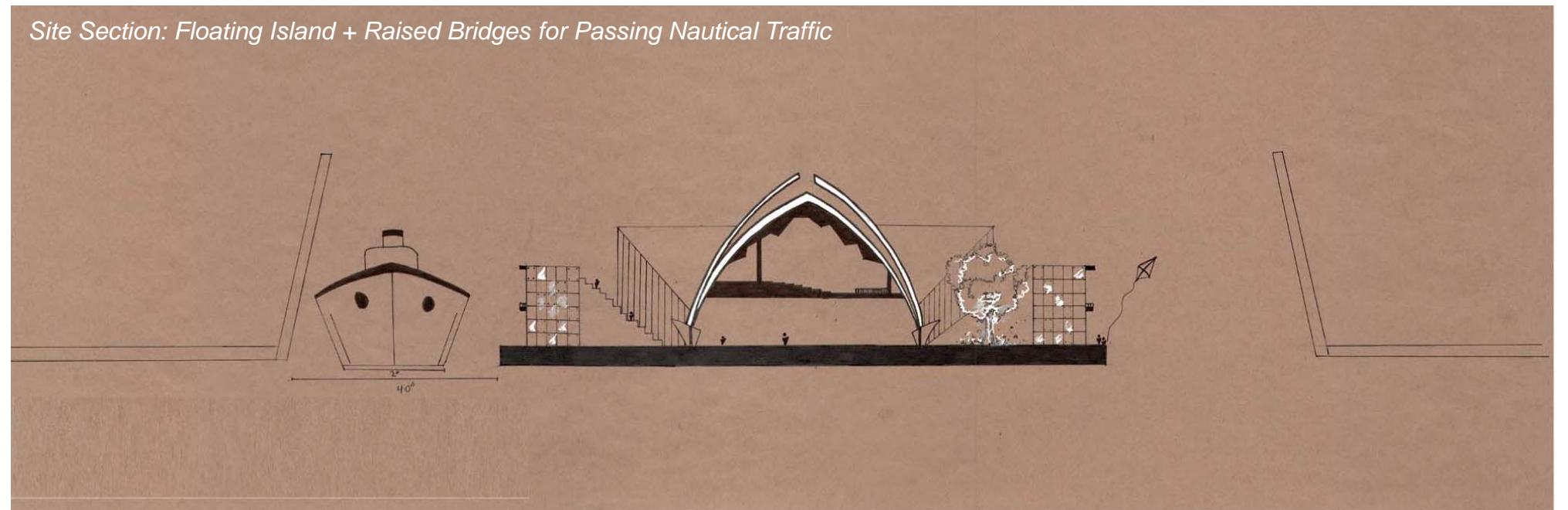
Site Model: Floating Superstructure Connected by Pedestrian Bridges



Project Model Close-Up



Site Plan: Floating Superstructure, Bridges, and Adjacent Land

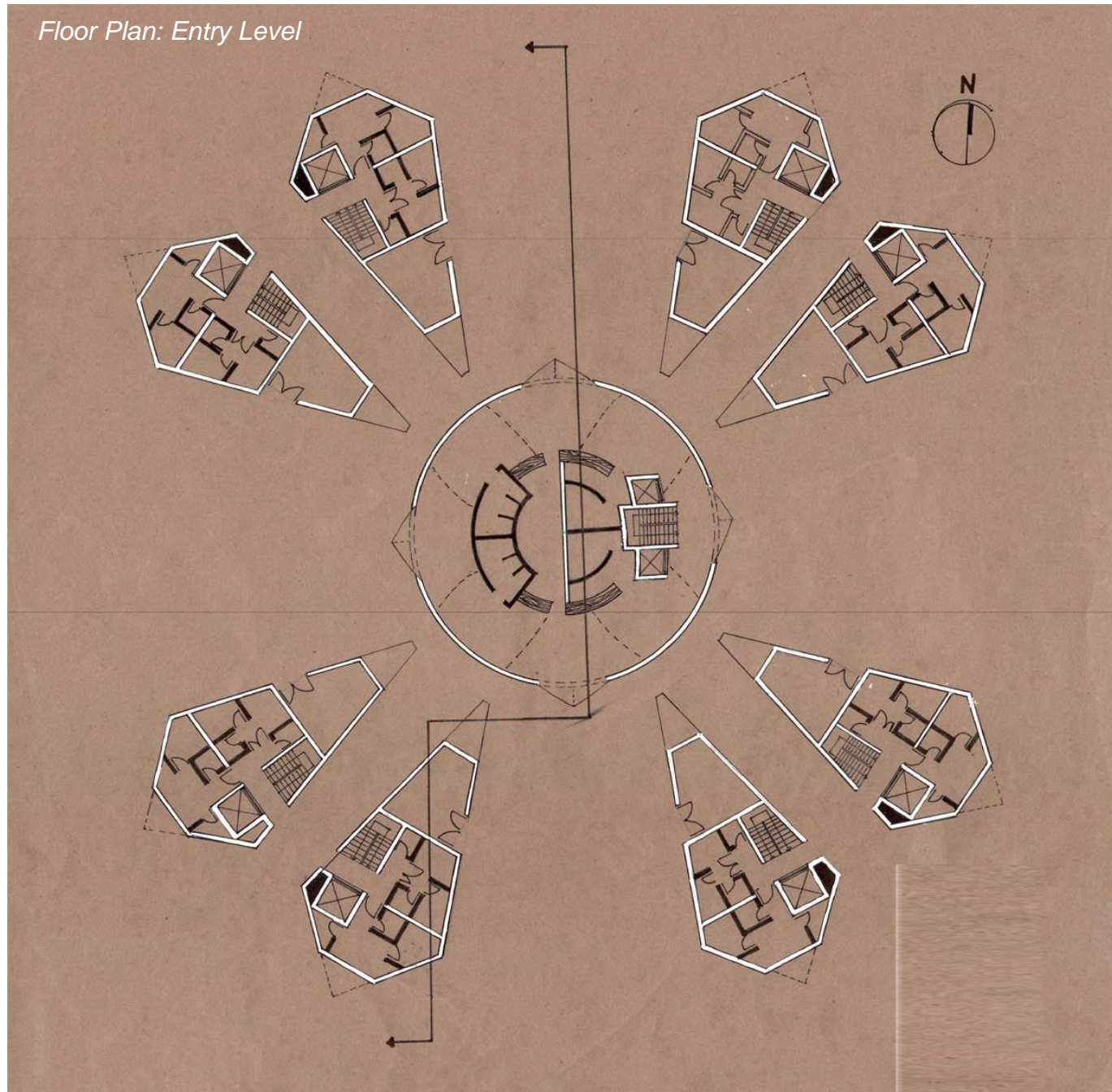


Site Section: Floating Island + Raised Bridges for Passing Nautical Traffic

Case Study IV - Rotterdam (3)

The LOTUS by Faranak Ghanaatpisheh Sanaei

Floor Plan: Entry Level



Perspective Section through Central Building

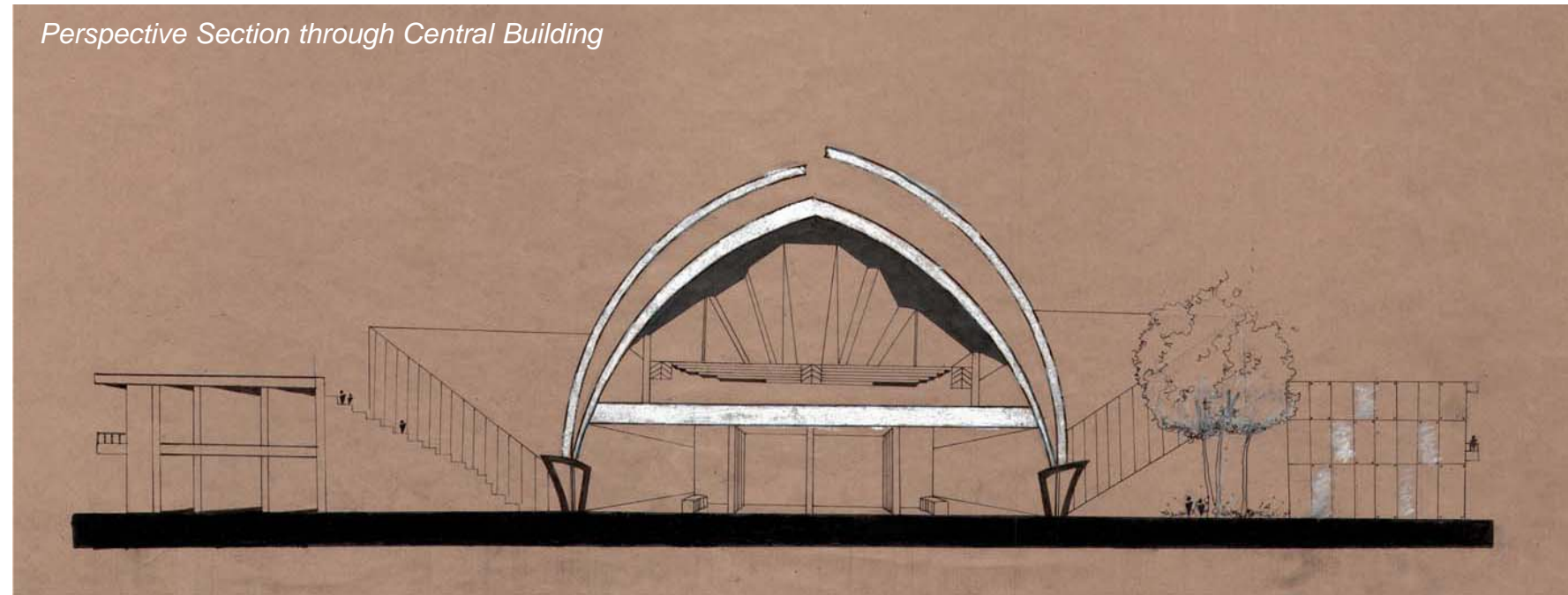


Diagram: Passive Ventilation

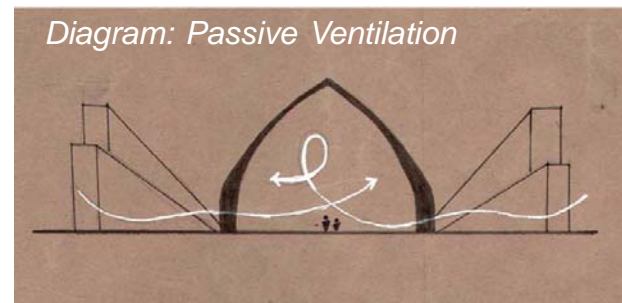
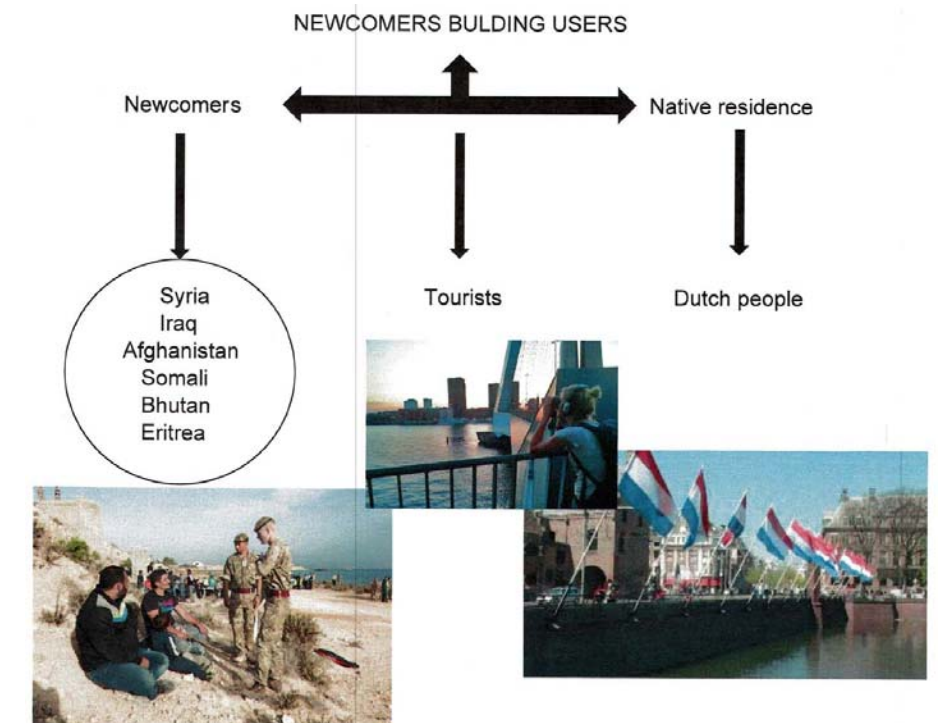
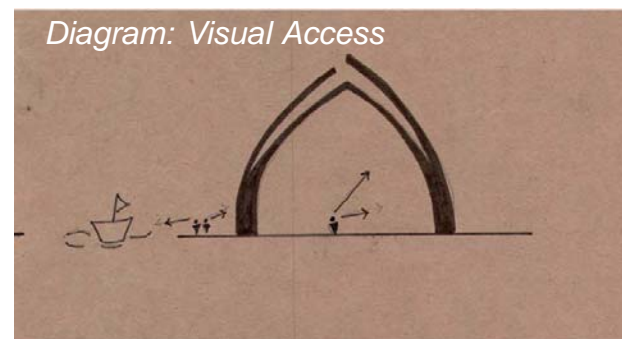


Diagram: Visual Access



Conclusion

New Visions for a “Global Maryland”

What will be remembered about our century, more than anything except perhaps changes to the climate, is its shift of populations.

The “Global North” needs migrants not only as service providers but also as intellectual partners to plan, jointly, how we all can live on this planet in a sustainable fashion. Immigration itself will inevitably continue. We need, therefore, to plan for that “Global Citizen” who embraces new directions to take, together.

Through this studio, we tried to provide answers that moved beyond welcoming and projected a future where immigration is not a one way exchange but rather a double learning process of integration,

a mutual process of learning, and an open-minded process of growth. We all ought to be curious and even eager to get to know different cultures and look what we both can learn and how to move forward.

Inspired by Doug Saunders’ *Arrival City*, the students analyzed two sites (in Baltimore and in Rotterdam) not just to provide temporary shelter and institutional support to Newcomers but also to embrace the opportunity to create a place where citizens of all nations can come together and imagine a better world.

Students were challenged to create sustainable environments in which people could thrive and flourish as individuals, families, and as healthy communities.

Sustainability within this studio has been about expressing (through architectural design) concepts of circular economy and communal living. Including new infrastructure for the newcomers and attracting the local population to our sites has been the most complex task of all.

Our students sought to create spaces that would be, to paraphrase Saunders, not “static conditions” but “points of interchange,” places where some of the most important and surprising changes of the 21st century are taking place.

Globalization is where we are. Now, Maryland and its partners (near and far) must move forward through planning and design.



Sources

Selected Texts and Online Resources

- Baltimore Rotterdam Sister Cities Committee. “Baltimore and Rotterdam Are Working Towards ‘Sustainable Cities’ Together.”
<http://www.sistercities.org/news/baltimore-and-rotterdam-are-working-towards-%E2%80%9Csustainable-cities%E2%80%9D-together-0>
(Accessed 12 January 2018)
- Baltimore Rotterdam Sister Cities Committee. “MSU School of Architecture Fall 2017 Baltimore-Rotterdam Project.”
https://www.facebook.com/pg/baltimorerotterdam/photos/?tab=album&album_id=1570968622972028
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- Clochard, O. and Migreuop, R. *The Atlas of Migration in Europe: A Critical Geography of Migration Policies*.
Ontario: New Internationalist Books, 2013.
- Maryland Department of Planning. “12 Planning Visions.” <http://planning.maryland.gov/OurWork/planningvisions.shtml>
(Accessed 12 January 2018)
- Saunders, Douglas. *Arrival City: How the Largest Migration in History Is Reshaping Our World*. New York: Vintage, 2012.

Appendix (1) Project Brief: Outreach Center for Newcomers



Morgan State University
 School of Architecture and Planning
 Department of Graduate Built Environment Studies
 Program: Master of Architecture

**Architectural “Infrastructure” for Newcomers: Fall '17 ARCH 530 Studio III Design Projects
 09/19/2017**

One characteristic of arguments surrounding how best to engage the current global refugee crisis -- or similar crises of any period or place -- is that the dialects at the core of those arguments are contradictory. Even the word “refugee” is reasonably contentious, implicitly deferring the possibility of permanent residence or, alternatively, the possibility of return. Accordingly, the Morgan’s Design Studio III will adopt the phrase “Newcomers” to embrace those who have, literally, come “new” to the city from whatever background and for whatever reasons.

Nevertheless, urgent questions remain. How can governments, educators, and even the diverse peoples characterized as Newcomers themselves make constructive sense of possible, future life paths? The following questions presuppose that cities, rather than national governments, have the strongest role in addressing the following issues:

- Should Newcomers be considered permanent immigrants or transients by the “host” city? If the latter, should government plan only for short duration, or long duration?
- Should care for Newcomer populations emphasize their cultural and linguistic “absorption” into a new city, or should such care nurture their original culture?
- Should settlement planning disperse individual Newcomers (or their nuclear families) throughout communities of the host city, or should such planning maintain geographic cohesion among Newcomers’ settlements.
- How can Newcomers’ immediate needs be balanced by concern for long-term welfare of the host city’s citizens? What does “equity” mean with respect to both?
- How should resources be divided? Categories of resources may include employment, education, data, and mobility, as well as shelter, food, and water.

Not surprisingly, decisions about built environment planning for have often exacerbated Newcomers’ physical conditions. This might be true even after considered study of so-called “best practices” cultivated under different circumstances. Accordingly, **sensitivity to the presence of such dilemmas must itself inform planning for Newcomers.** One consequence of such sensitivity might be an renewed emphasis on *infrastructure*, rather than merely (architectural) *structure*.

This semester’s first design project will require that you design an **Outreach and Service Center for Newcomers** in the City of [Baltimore / Rotterdam]. This project will place the many issues surrounding the social engagement of Newcomers at a prominent physical location in order to testify to the diverse perspectives -- yours! -- concerning the questions listed above.

Baltimore / Rotterdam

In the spirit of Rotterdam and Baltimore’s being “sister cities,” this studio proposes that individual projects sited simultaneously in each can usefully highlight shared physical facts and critical issues. Towards that end, **each of the two design projects this semester will be proposed for a single site in each city.**

For the first project, CM’s class section will design for a Rotterdam site; JK’s class section will design for a similar Baltimore site. For the second project, CM’s group will design for the Baltimore site, and JK’s group will design for the Rotterdam site.



Morgan State University
 School of Architecture and Planning
 Department of Graduate Built Environment Studies
 Program: Master of Architecture

Project 1: Outreach and Service Center for Newcomers to the City of [Baltimore / Rotterdam]
 Total Area ~ 15,000 sf

Space	Area (SF)	Quantity	Area	Sub Total	Total
Urban [Baltimore] [Rotterdam]	Free-access Pedestrian Path Connecting Calvert and St. Paul Streets Free-access to Water’s edge from Public Right-of-Way.				
Visitor	Reception and Exhibit				3,000 to 4,000
	Lobby, Reception Desk & Info Area	500	1	500	
	Exhibit Gallery for Cultural Programming	2000	1	2000 +/-	
	Public Restrooms (HC-accessible)	250	2	500	
Social	Public Access and Engagement				3,000 to 4,000
	New Business Incubator Space	2000	1	2000 +/-	
	Vocational and Cultural Training (Classrooms)	333	3	1000 +/-	
	Legal Consultation Clinic				1,000 to 1,500
	• Reception/Waiting	250	1	250	
	• Computer Terminals	250	1	250	
	• Consulting Rooms	125	4	500	
	Health Clinic				2,000 to 2,500
	• Reception with Records	250	1	250	
	• Waiting Area	250	1	250	
	• Consulting Rooms	125	6	750	
	• Caregivers Station	125	2	250	
	• Caregivers Meeting Room	125	1	125	
	• Hematology Station	125	1	125	
	• Lavatory		3	125	
	Group Political Action Area	2000	1	[Exterior, with overhang?]	
Staff	... & Management Facilities				1,500
	Receptionist / Waiting	150	1	125	
	Director’s Office	250	1	250	
	Other Offices	125	4	500	
	Board & Staff Meeting Room	500	1	500	
	Staff Restroom (including shower)	75	2	125	
Tech	Building Systems				1,000
	Mechanical Room	250	1	250 (may be at grade or below)	
	Electrical Room	250	1	250 “	
	Water Service	250	1	250 “	
	IT / Telecom	250	1	250 “	
	Exit Stairs (2 min @ 10’x20’min)	200	As Required		
	Elevator (1 min. @ 10’x10’)	100	As Required		
	Elevator Machine room	60	As Required (may be at grade or below)		
	Transportation Bay		[As required, Exterior]		

Total Net square footage 11,500 to 15,000
 Circulation factor of ~20% 2,250 to 3,000

Site Area: [Baltimore] Area X = 6,948 sf; Area Y = 8,286 sf. **TOTAL: 15,234 sf total**
 [Rotterdam] Area A = 49,277 sf; Area B = 13,175 sf. **TOTAL: 62,452 sf total**

Project 2: Living Laboratory for the City of [Baltimore / Rotterdam] Total Area ~ 30,000 sf
 • Short Term Residences (Hostel) for 100 families...

Appendix (2) *Project Brief: Portable Architecture*

ARCH. 530 Architectural Studio III

Fall 2017

Project B: Portable Architecture

INTRO: *The desire to break free from urban living is facing a resurgence and portable architecture has been developed to reflect that. Shelters and other structures that are easily moved allow for consumers to explore their desire for a nomadic life. Abodes like portable compact homes and other similar houses can easily be shifted to another location. [Alexander Lam]*

A portable structure is used in situations where anything 'permanent' is not a solution. Usually, portable structure are a solutions to projects which realization time is tight, or when the built project has to be completed in a difficult location. For instance, if you are doing expeditionary work, occupy remote location, settle temporary village quickly and easily in areas being affected by natural catastrophes or simply the drive is to use the structure again.

In short, portable structures can be used for an exhibition, or a performance building, or for humanitarian purposes.

The best way to do it more sustainably is to make the temporary and portable structure as light as possible, very compact, which makes it a lot more economic to relocate. Providing that the materials used to make them are also sustainable, they can be reused again and again.

Temporary and Portable structures can address adaptability hence the capacity to be changed in the time and respond to more present human and environmental needs. Adaptability and flexibility is a real matter for the future! Due to our lifestyles and the lack of resources we are facing, we should be able to change buildings more easily and quickly.

We are quickly developing new materials which are lighter, easier to use, cheaper, more efficient; we are getting better in recycling materials; as technology tends to become smaller and less expensive, we seem to have nourished the need to become more mobile and flexible as human being.

At the same time, it is still true that people like to live in the same place for a considerable amount of time, and acquire satisfaction in owning their own land! Yet, as we develop, flexible housing, which can change form and shape, and adapt to people's lifestyles, will not only become more popular, but also necessary. We have an aging population: as people live longer lives, homes need to adapt to how their bodies change over time, and that idea of flexible housing becomes vital.

Arons Gelauff, the Dutch architecture group, has done a lot of work in this area, and built housing especially for aging people. As they get older, the housing changes around, so that they can still stay in the same place without having to move home.

Additionally, well known references are Renzo Piano and Richard Rogers – the Pompidou Centre in Paris – the cultural centre – which was built with a lot of innovative technologies. That building was very flexible, and allowed lots of uses, and those changes have taken place all its life.

The Serpentine Gallery Pavilion commission is an ongoing programme of temporary structures by internationally acclaimed architects and designers. Each Pavilion is completed within six months and is situated on the Gallery's lawn for three months for the public to explore and enjoy.

PROJECT: Sleeping Pods for Homeless People.

The brief ask for a Modular homeless shelter / temporary shelter that would hang off the sides of existing buildings or other structure like a bus stop. These pods-like structures will be elevated above the street and ladders would provide access, and could be stored away when not in use to prevent obstacles at street level.

This structure will be designed and built out of light-weighted materials to accommodate a simple living layout (sitting, entertaining a few friends). It should be affixed to the external walls of an existing (host) buildings or on top/sides of a bus stop to create a series of overnight refuges.

SCHEDULE: 19 October – 30 October, 2017

19 October 2017: via sketches, collages, reference pictures, (full or partial) physical models, Investigate Portable Architecture and analyze three (3) examples in terms of location, function within the location, specific program, materiality and degree of flexibility, adaptability, mobility and reuse;

23 October 2017: (present findings of 19 Oct 2017) Identified and analyzed three (3) alternative locations on MLK, Baltimore for your design proposal. This is a mini-site analysis which needs to include urban, social, and physical context through historical research. Presentation will occur via sketches, collages, photographs, and conceptual diagrams.

26 October 2017: (present findings of 23 October 2017) One selected proposed design to be installed on one selected site. Each student will have to develop a buildable version of their design in orthographic drawings (plan/section/elevation) at 1/2" scale. To illustrate their project, each student will develop presentation-quality model *and* high-quality-rendered axonometric drawing at 1/2" scale.

30 October 2017: Final Presentation Project B



Appendix (3) Living Laboratory for Newcomers

SAP Morgan State University
 School of Architecture and Planning
 Department of Graduate Built Environment Studies
 Program: Master of Architecture

ARCH 530 / Studio III

PROJECT 2: A Living Laboratory

INTRO: *The convergence of globalization, changing demographics, and urbanization is transforming almost every aspect of our lives. We face new choices about where and how we work, live, travel, communicate, and maintain health. Ultimately, our societies are being transformed. [William J. Mitchell, Kent Larson, and Alex (Sandy) Pentland, MIT]*

This is the project of a multidisciplinary and collaborative environment: this facility ensures that the newcomers find a short-term accommodation for themselves and their families while, through learning the local custom, can learn and/or exchange skills.

The structure is to be designed by keeping in mind sustainable practices. Due to the different nature of the given two sites, the list below might or might not be feasible. Each student is responsible for evaluating the proper application of sustainable practices.

A- Solar voltaic [NL makes massive use of it even if there is less sun and it is northerner than Maryland. It will all depend on the Solar System used but we can make use of this power also on a cloudy day]; also...

1. Solar water heat both for heating the building and hot water use;
2. Passive solar heating.

B- Rain Water Harvesting for toilet use, garden, laundry, etc: this will support the city sewage system cos it collects all that water that otherwise will end up in the gutter on heavy rain days.

C- Insulation as per passive standards [special attention should be made in the wall section / passive envelope and a proper understanding of cooling and heating should be considered].

D- Fresh air intake through Ground + heat exchanger + Energy Recovery Ventilation.

E- Drain water heat recovery (mostly shower).

F- Vegetation for shading and cooling.

SAP Morgan State University
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 Program: Master of Architecture

ARCH 530 / Studio III

PROJECT 2: A Living Laboratory

PROGRAM

- Incubator Kitchen (https://www.bmorekitchen.com/)	1x 2,000sqft
- Day Care / Kindergarten	1x 1,000sqft
- Workshop (wood, metals, plastic vocational education of a profession)	1x 1,500sqft
- Short Term Residences (Hostel) Units to be designed for 120 people all in various -- and changing – relationships. This will require various configurations using a basic and flexible module that allows units of different sizes to accommodate different sized families, couples, extended families, or single people...;	1x 10,000sqft
- Language Exchange Lounge Comfortable areas where people come together to talk and exchange and learn the language and the traditions;	1x 500sqft
- Performance Area / Theater (with projection).	1x 1,500sqft
Program Total	16,500sqft