

MEDIATOR



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Architecture is like the mediator that organize the relationship between city, space and people. Once set up, the invisible logic are able to do its job to inspire the infinite potential of the places. Just like the nature, once the basic rules such as seasons or day and night are established, the ever-changing landscape will keep changing and growing on its own.



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Architecture: The Contemporary (Ideas and Concepts from 1968 to The Present)
Transcalarities

GSAPP MSAAD
6/3/2019-7/25/2019
Summer Studio

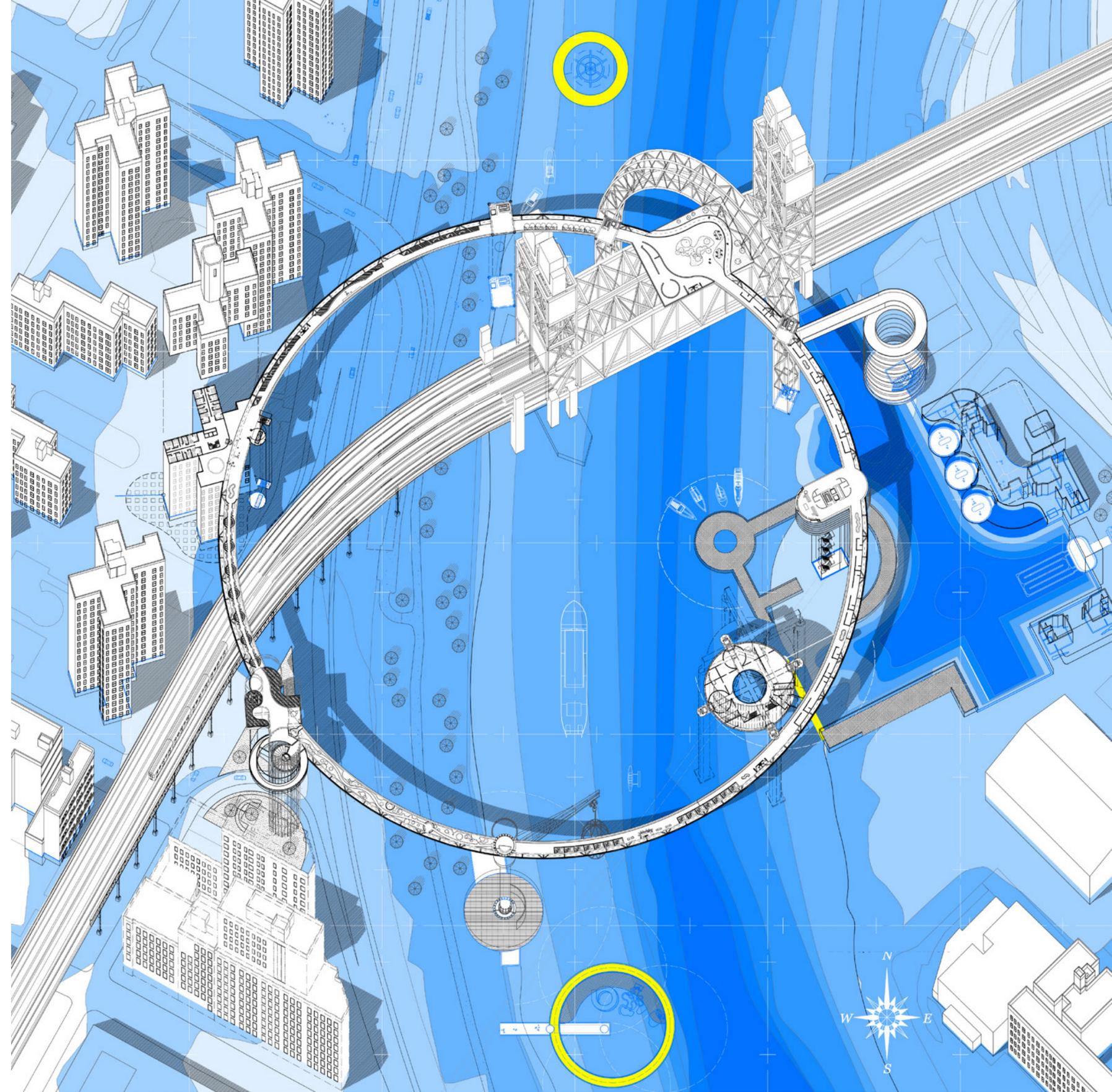
New York, USA

Coworker: Euna Song
Critic: Nahyun Hwang
David Eugin Moon

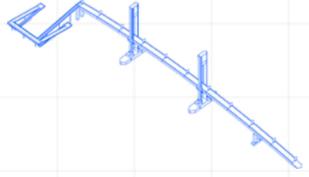
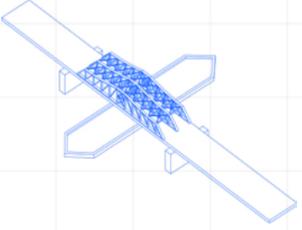
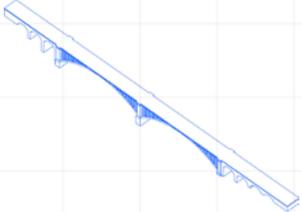
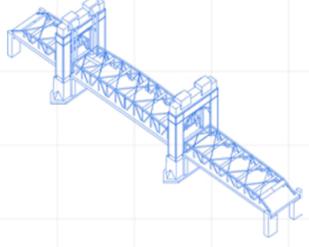
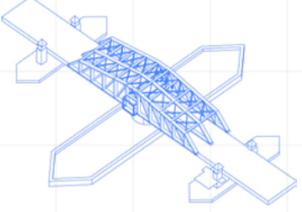
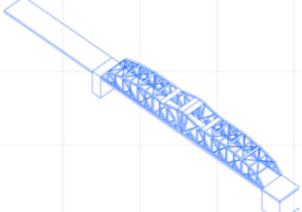
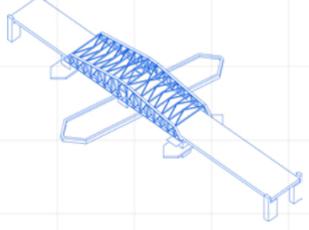
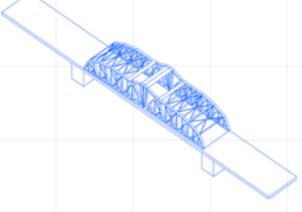
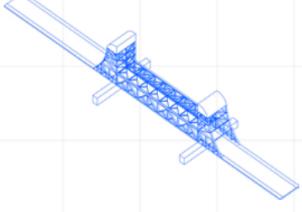
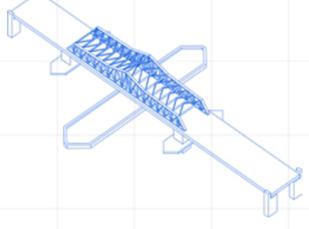
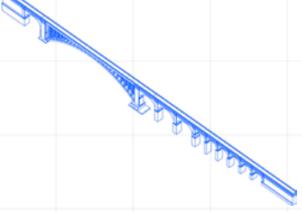
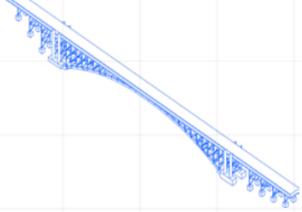
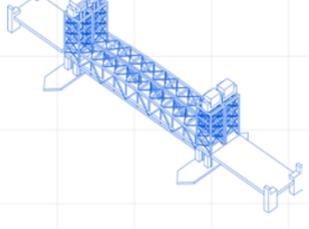
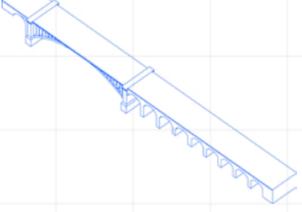
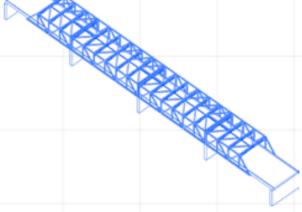


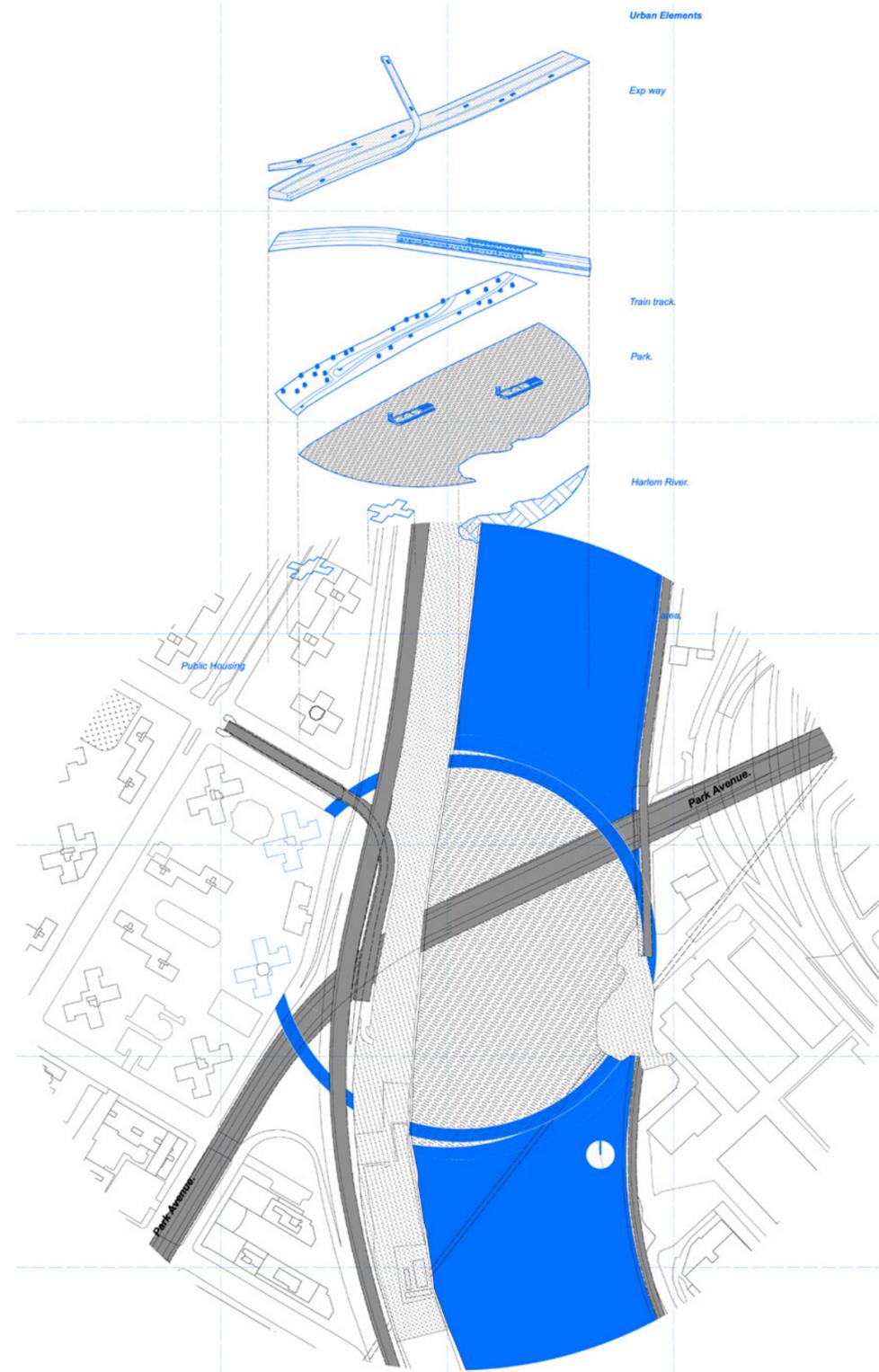
RING BRIDGE

At the termination of Park Avenue in Manhattan, urban highways and empty lots located near Harlem River create a disconnect towards the Bronx. The Harlem River is an isolated zone; the linear gesture no longer works as an effective connection but rather than functions as a border. This project proposes a "Ring" to surround this urban area. This circular passage collects urban fragments and supports an infinite passage along a loop. It touches the ground on multiple points in different cultural districts, promoting interaction across these regions. The bridge features an infinite jogging path with six program zones to support a restaurant, library, temporary house, park, and study center. Moreover, the circle addresses flooding along Harlem Riverside by functioning as a safety zone in the event of high flood levels.

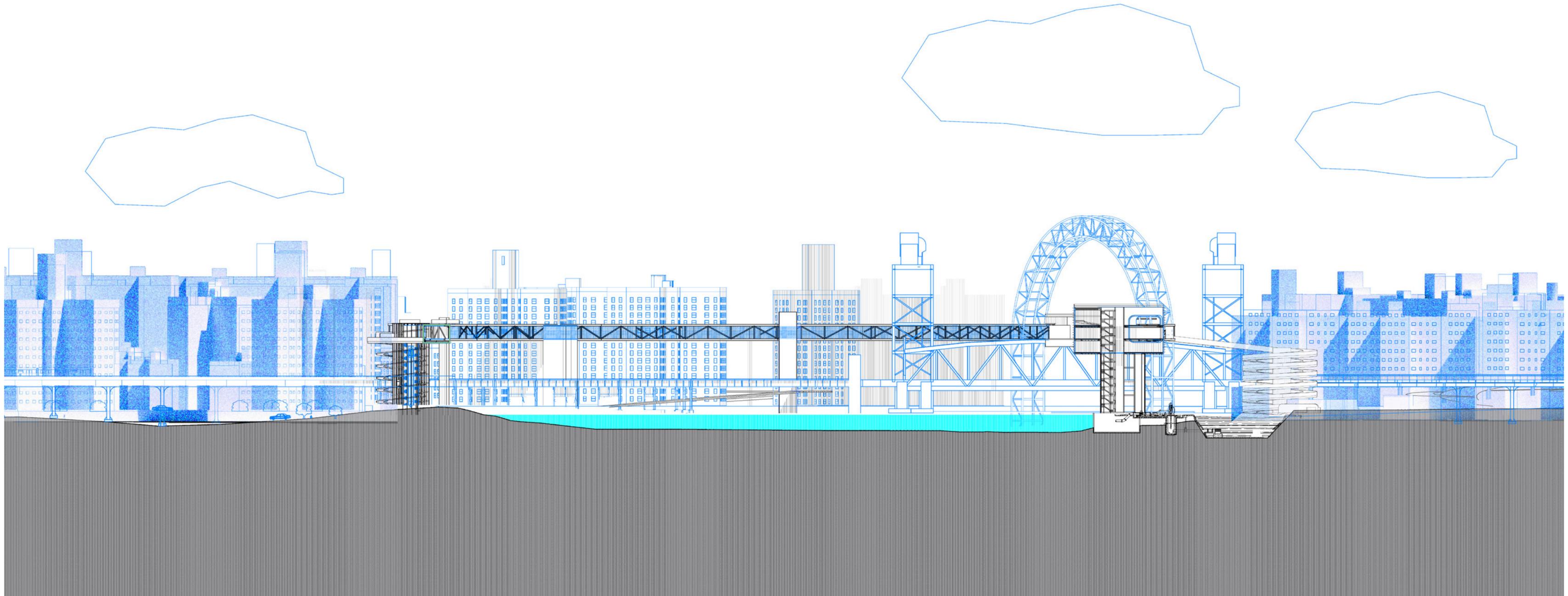




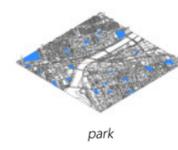
	<p>Name:Wards island bridge Type:vertical lift bridge Carries:pedestrian/bicycle Location:manhattan and wards island Material:steel Total length:1,247feet Date opened:oct11,1941</p>		<p>Name:Madison avenue b ridge Type:swing bridge Carries:douthbound/eastbound auto traffic/pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:1,892feet Date opened:july18,1910</p>		<p>Name:Washington bridge Type:arch bridge Carries:pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:2,375feet Date opened:dec1,1888</p>
	<p>Name:Triborough bridge Type:suspension/life/truss bridge Carries:6 road loans Location:manhattan and randall's island Material:steel Total length:1,380feet Date opened:jun11,1936</p>		<p>Name:145 street bridge Type:swing bridge Carries:westbound/eastbound auto traffic/pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:1,602feet Date opened:aug04,1905(re-built:Nov 2006)</p>		<p>Name:University heights bridge Type:swing bridge Carries:westbound/eastbound auto traffic/pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:268feet Date opened:jan8,1908</p>
	<p>Name:Willis avenue bridge Type:swing bridge Carries:northbound auto traffic/pedestrian bicycle Location:manhattan and bronx Material:steel Total length:3,212feet Date opened:aug22,1901</p>		<p>Name:Macombs dam bridge Type:swing and camelback bridge Carries:westbound/eastbound auto traffic/pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:2,540feet Date opened:may1,1895</p>		<p>Name:Wards Island Bridge Type:vertical lift bridge Carries:pedestrian/bicycle Location:manhattan and wards island Material:steel Total length:1,247feet Date opened:oct11,1941</p>
	<p>Name:Third avenue bridge Type:swing bridge Carries:southbound auto traffic/pedestrian/bicycle Location:manhattan and bronx Material:steel Total length:2,800feet Date opened:aug1,1898</p>		<p>Name:High bridge Type:arch bridge Carries:pedestrian Location:manhattan and bronx Material:steel Total length:2,607feet Date opened:1848(original aqueduct)-1927(partly rebuilt)-2015(reopened as walkway)</p>		<p>Name:Henry hudson bridge Type:double-checked arch bridge Carries:NY 9A/parkway Location:manhattan and bronx Material:steel Total length:841feet Date opened:dec12,1936</p>
	<p>Name:Park avenue bridge Type:vertical lift bridge Carries:metro-north railroad Location:manhattan and bronx Material:steel Total length:340feet Date opened:1956(replacing in 1897)</p>		<p>Name:Alexander hamilton Type:arch bridge Carries:interstate 95/U.S.route Location:manhattan and bronx Material:steel Total length:2,375feet Date opened:jan15,1963</p>		<p>Name:Spuyten buyvil bridge Type:railroad swing bridge Carries:amtrak empire connection Location:manhattan and bronx Material:steel Total length:610 feet Date opened:1900</p>



not the end of Park Avenue



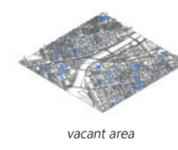
public housing



park



parking lots



vacant area



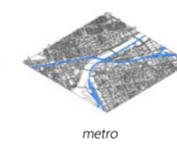
bridges&tunnel



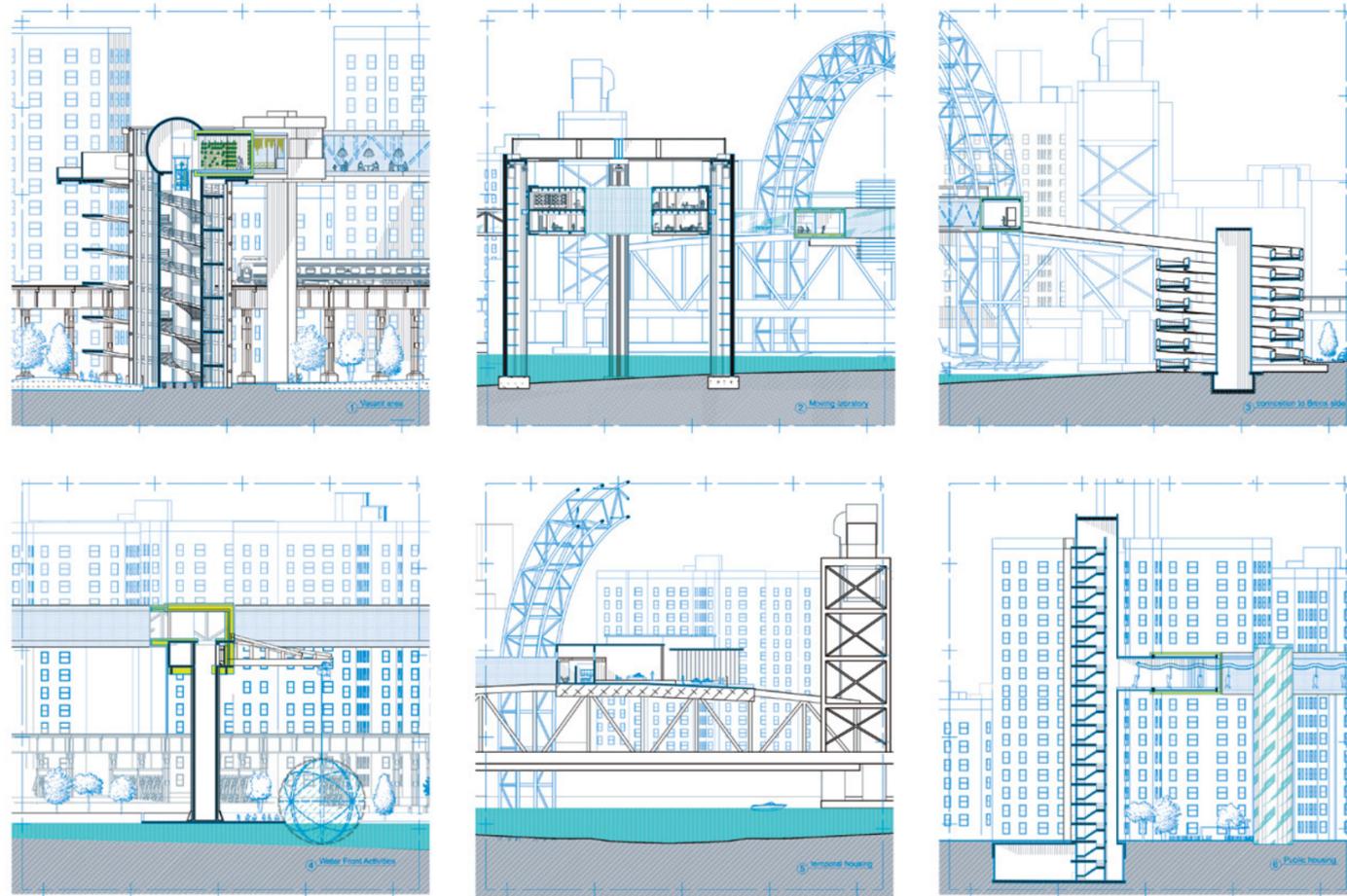
public housing



park avenue



metro

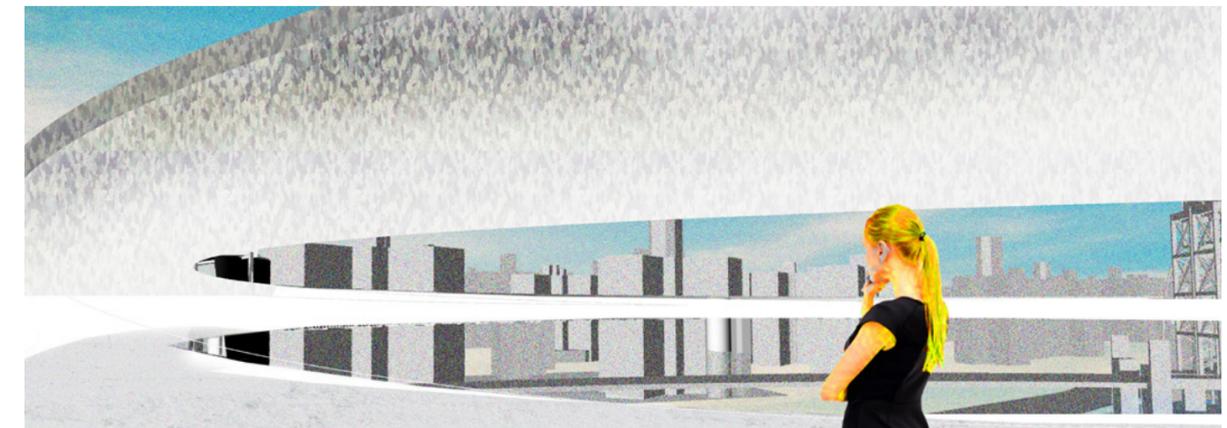


A larger sphere - The system is divided into fixed part and moving part. The fixed part provides guarantee for drifting modules to flow better on the river.

Transportation - Linkage with surrounding environment. By contacting the riverbank, the modules can be organized as a different kind of bridge, creating cross-strait connections for pedestrians.

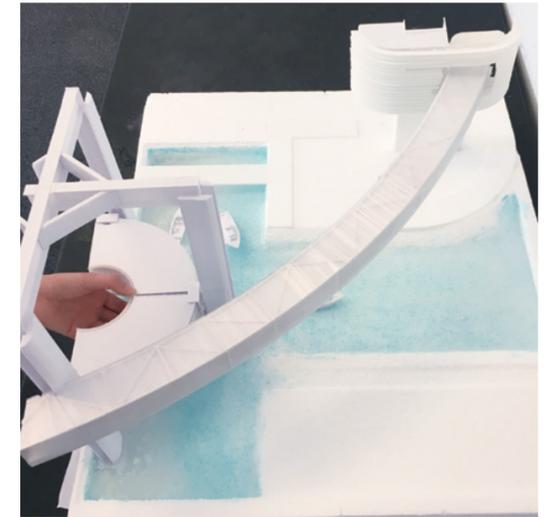
Filtration - Purer water resources. Water treatment devices, such as filters, are placed underwater and run to purify sewage into water that can be used for activities like swimming, fishing.

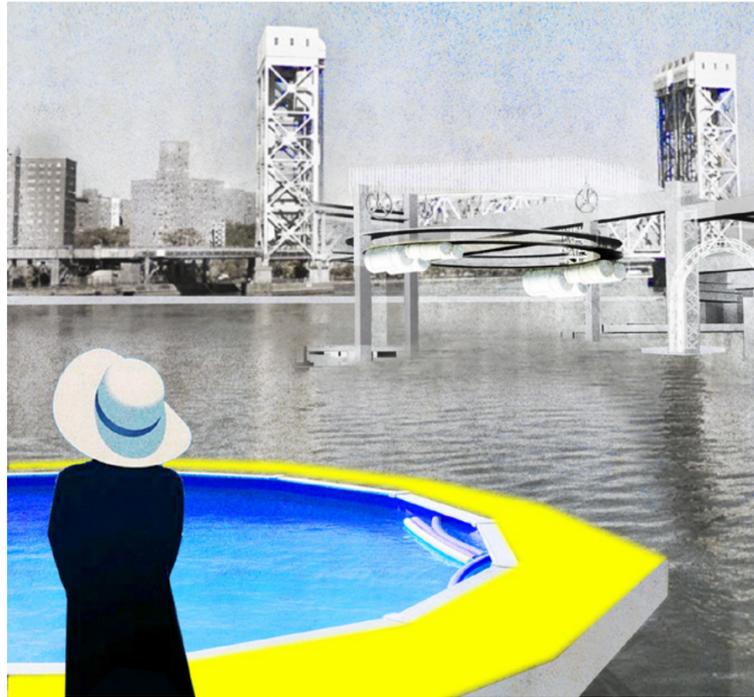
Fun public - More diverse group activities. Through the form and space design of the module, it can gather people and is able to accommodate more interesting activities. Even holding some water festivals that can bring vitality to rivers and communities





Basically, it is about a new typology of bridge. The site is at the end of park avenue. There are some vacant lots here and the Manhattan and Bronx is disconnected with each other. The Harlem river is also related to some environment issues such as flood and pollution. So a movable circular system is created to link two districts and trying to respond to the flood situation. It shows as a large ring above the park avenue bridge.





movable classroom or laboratory



recreation pool

All these modules can be working as a rescue ship when it is flood . With the diversity of programs, this zone can also become a public park.

GSAPP MSAAD
9/3/2019-12/11/2019
Fall Studio

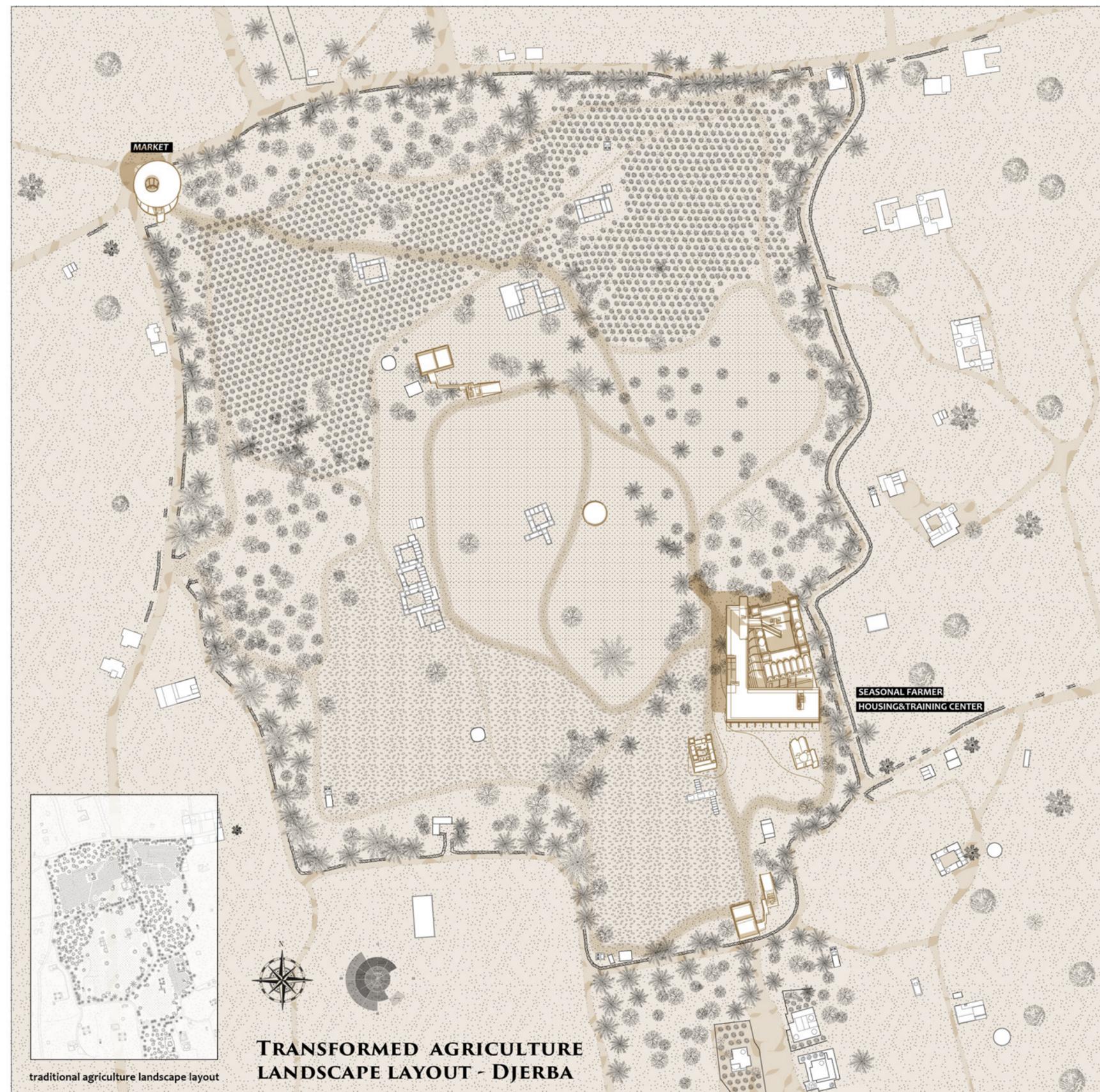
Djerba, Tunis

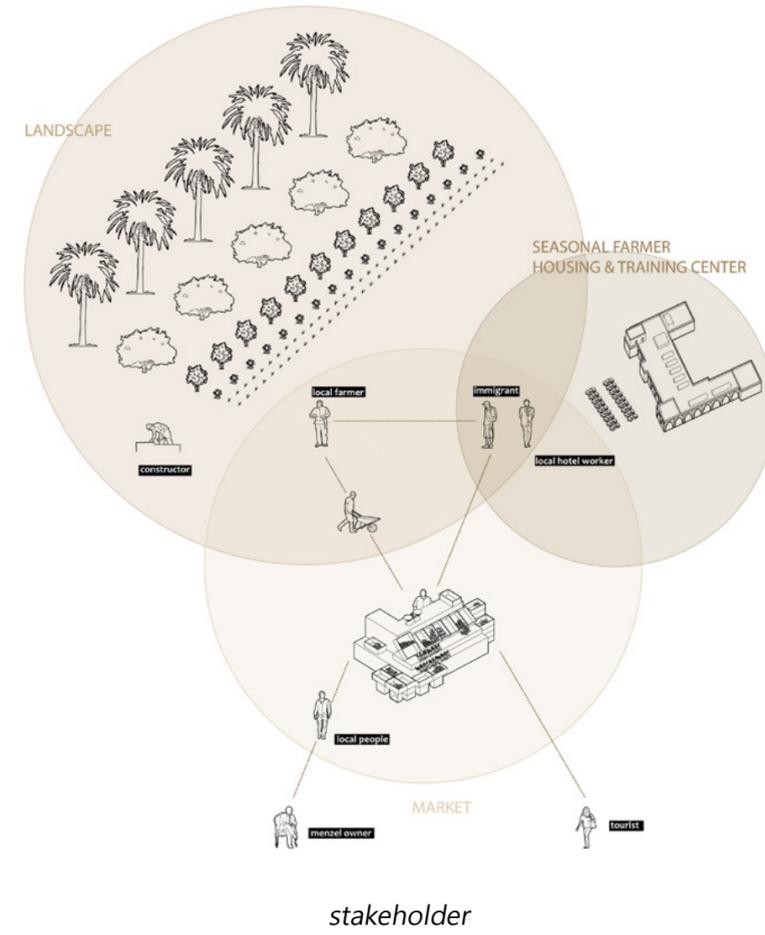
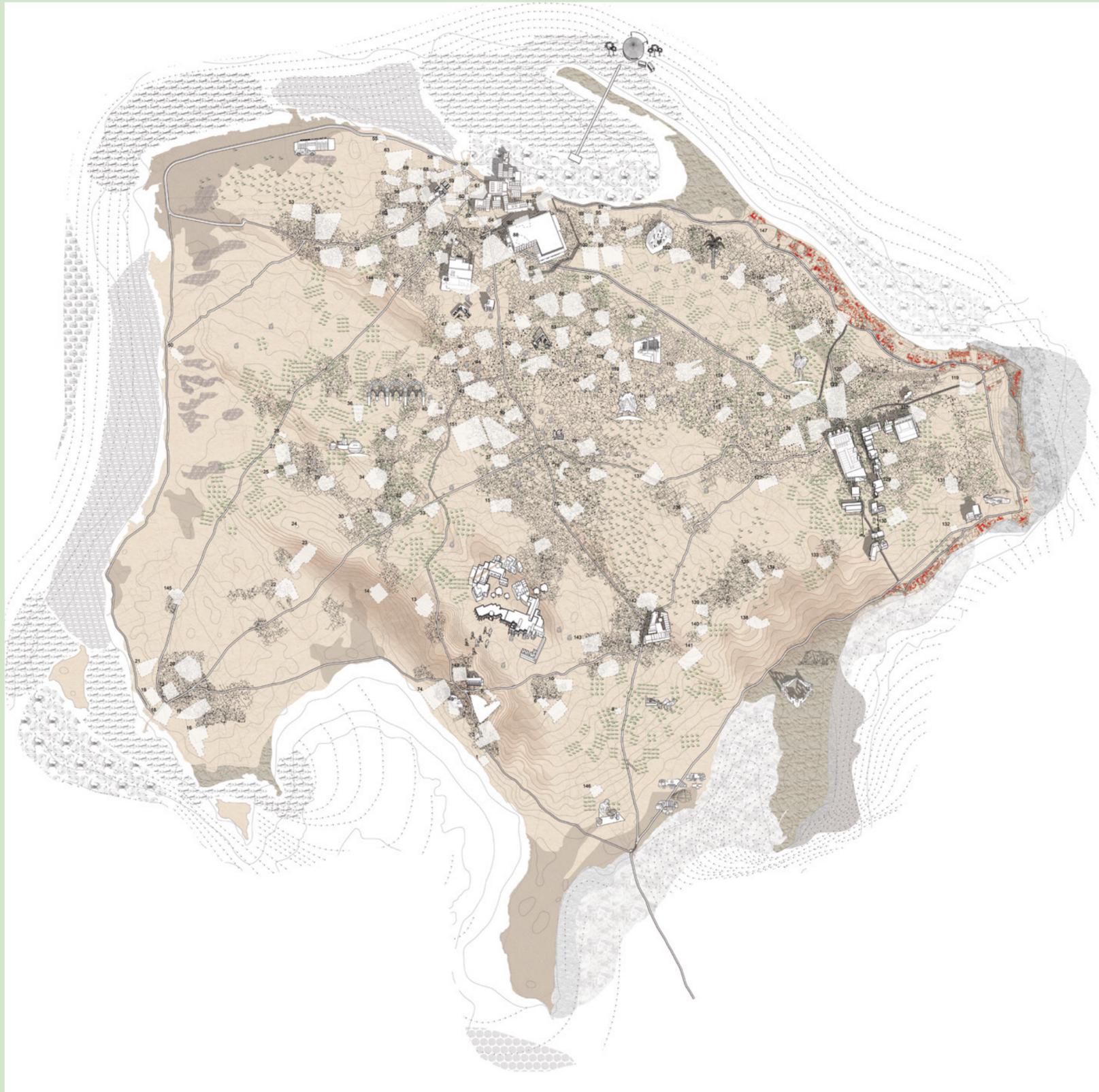
Coworker: Shaolin Feng
Critic: Ziad Jamaledine

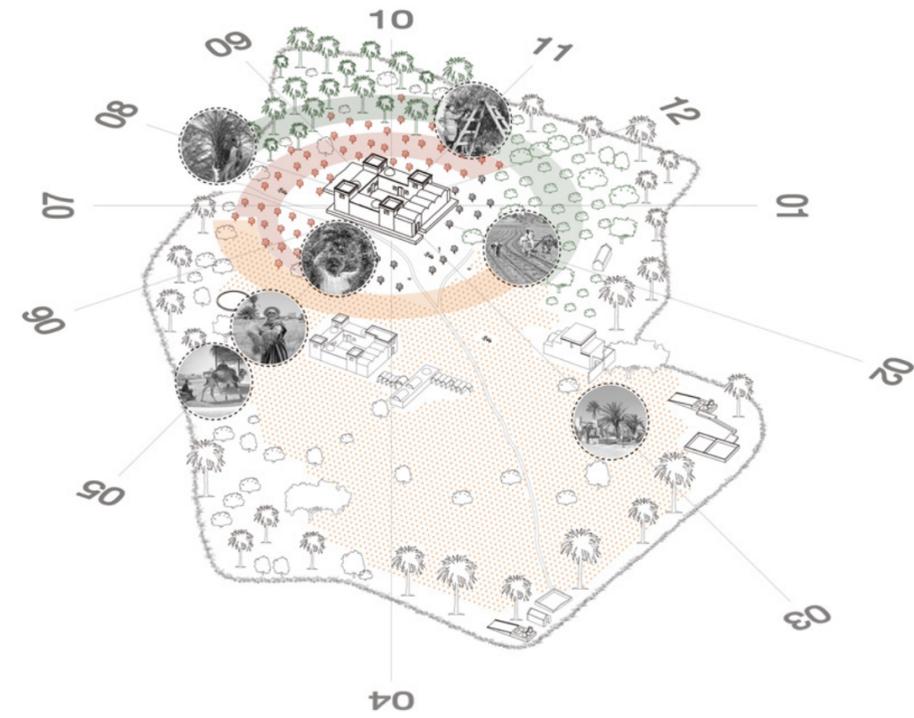


MARKET MENZEL

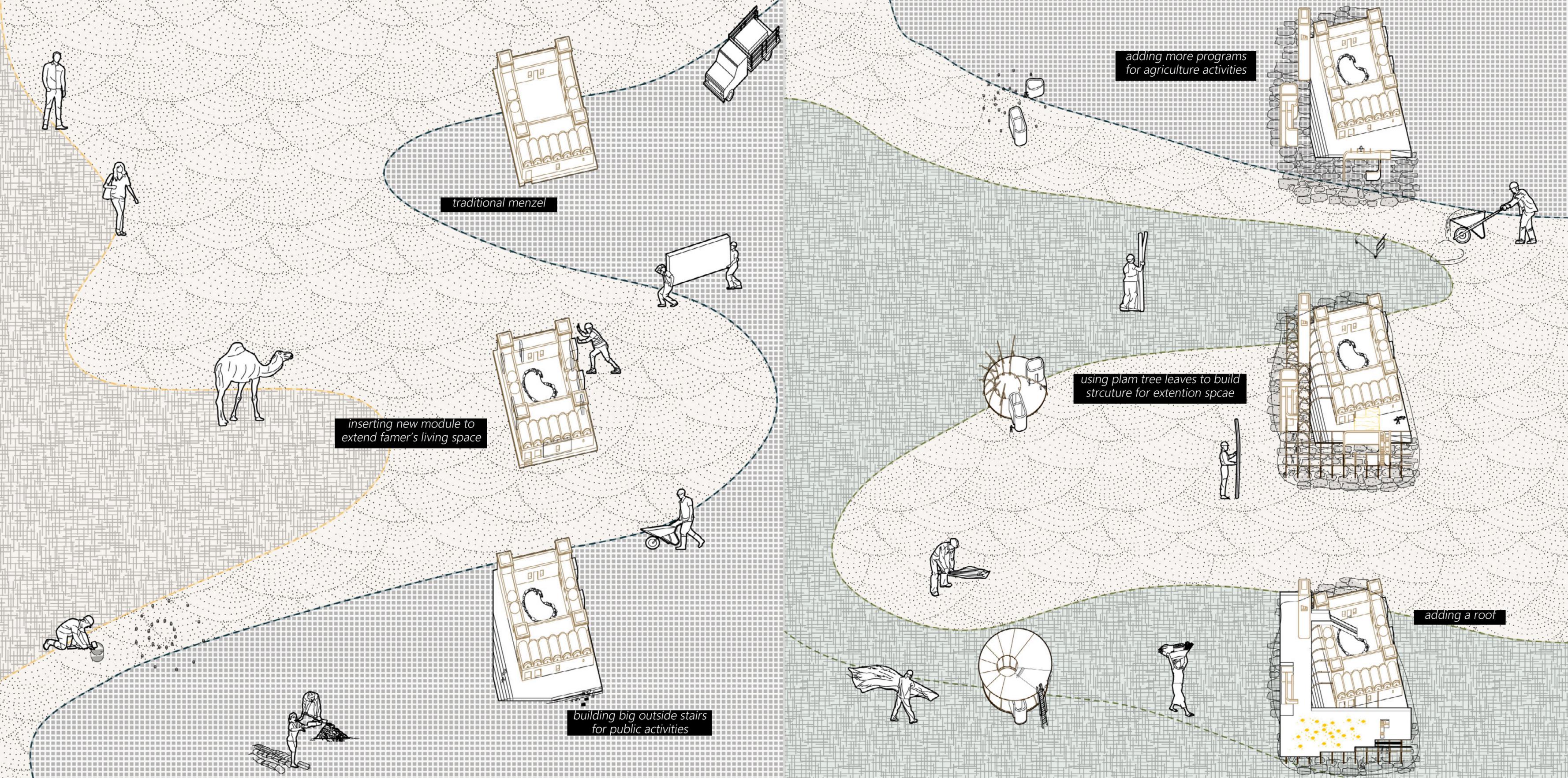
This project looks at the potentials of the deserted agricultural landscape of Djerba island, slow the pace of suburbanization as well as proposing to redefine the Menzel territory by developing new interdependent agricultural systems, food distribution, and housing for permanent and transient farming population.







seasonal agriculture activities based on Landscape



traditional menzel

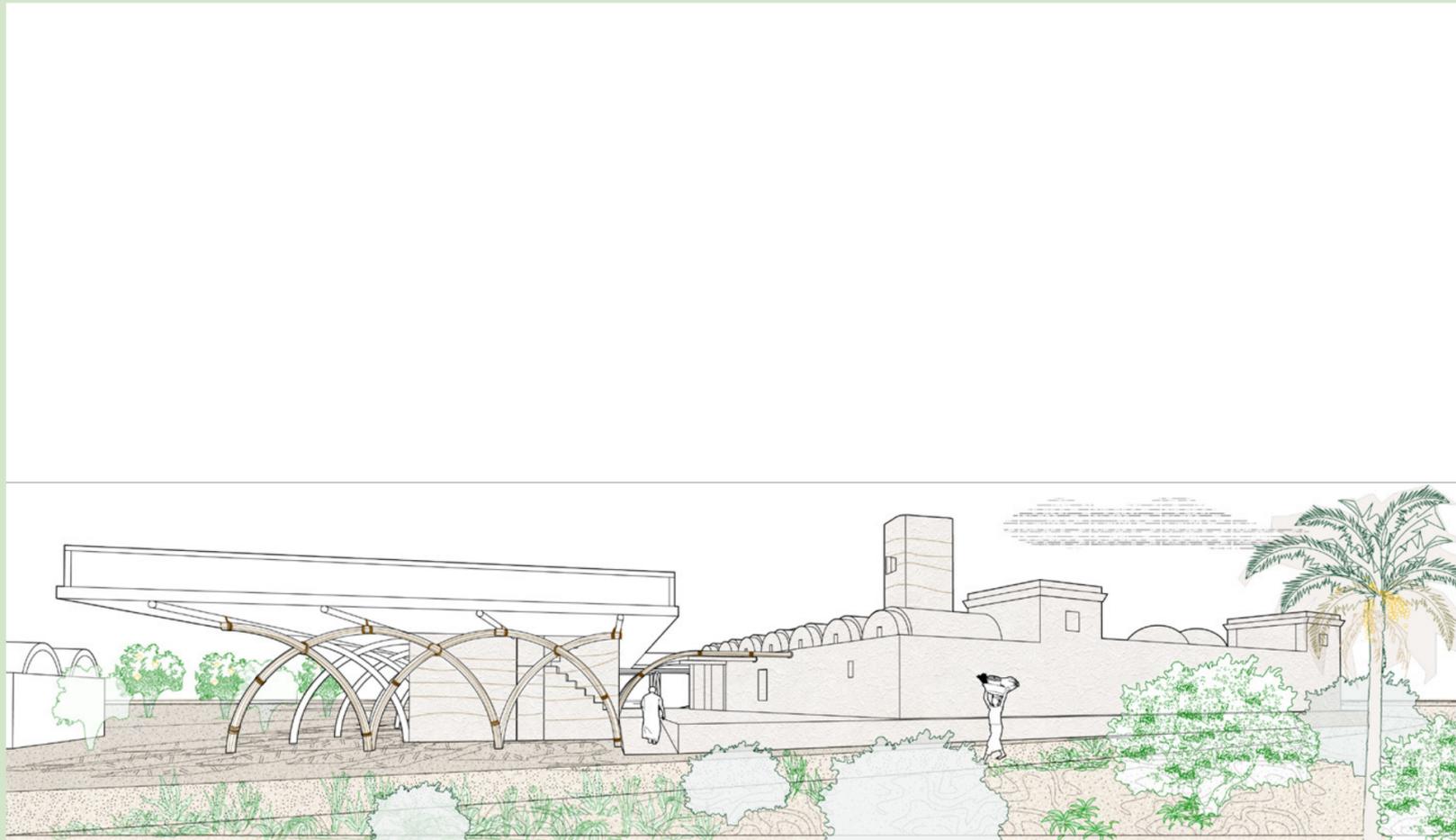
adding more programs for agriculture activities

inserting new module to extend famer's living space

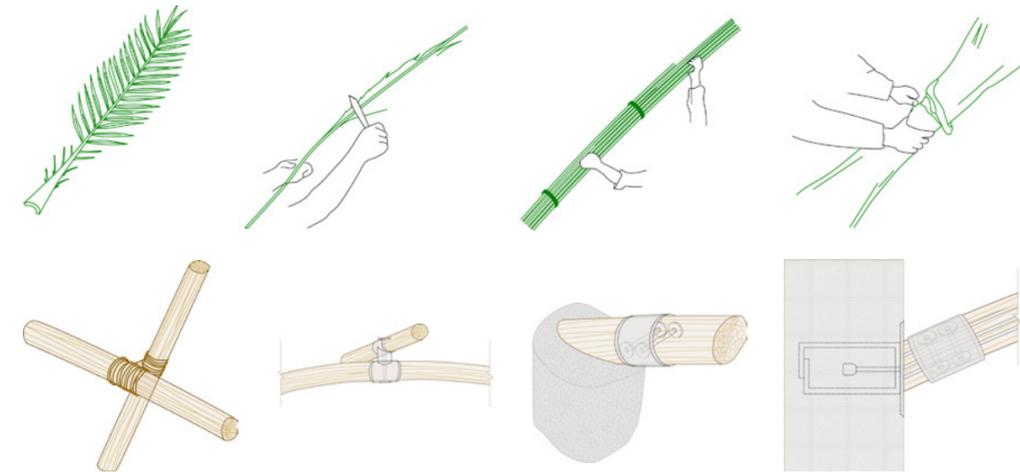
using plam tree leaves to build strcuture for extention spcae

building big outside stairs for public activities

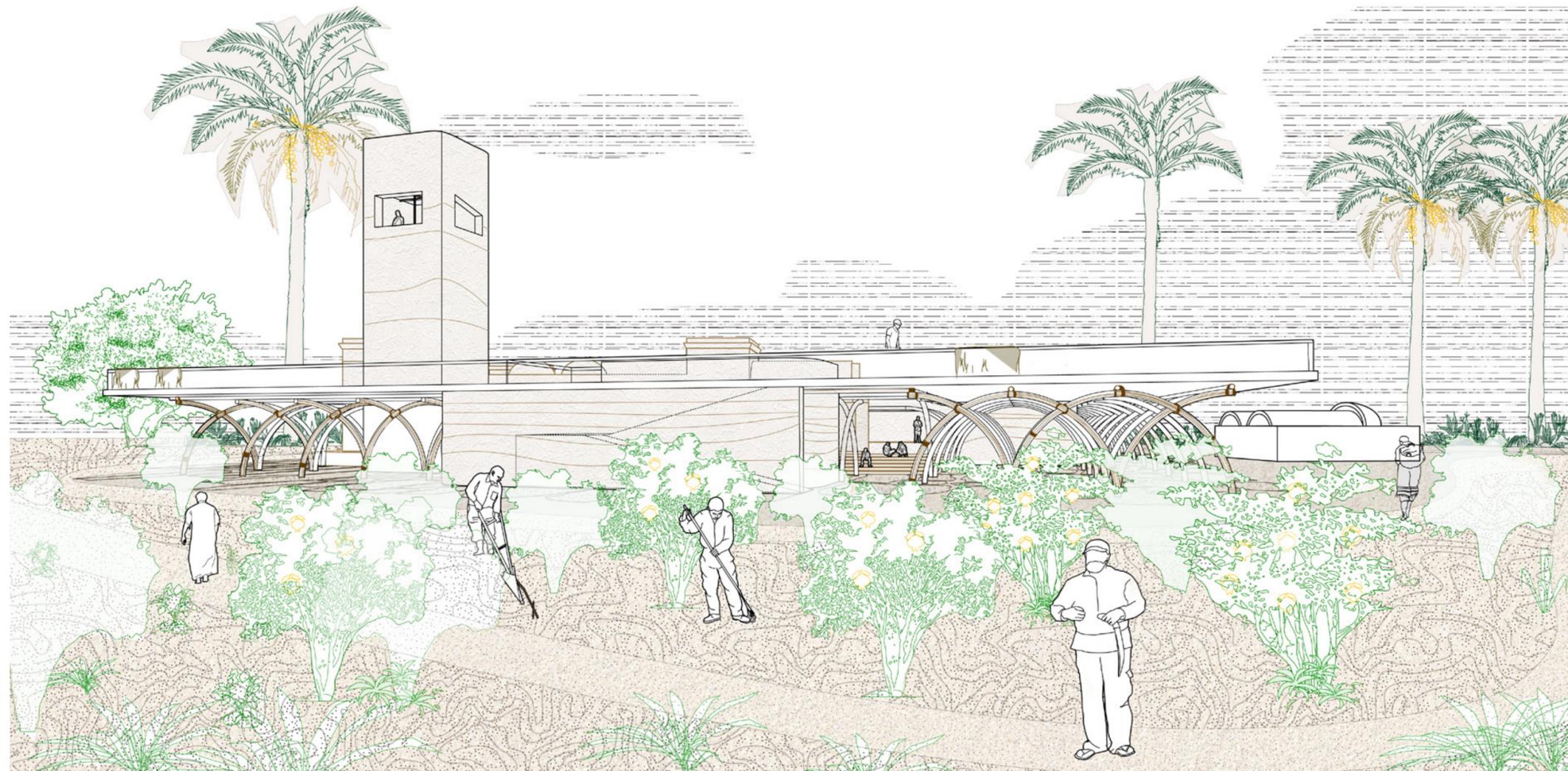
adding a roof



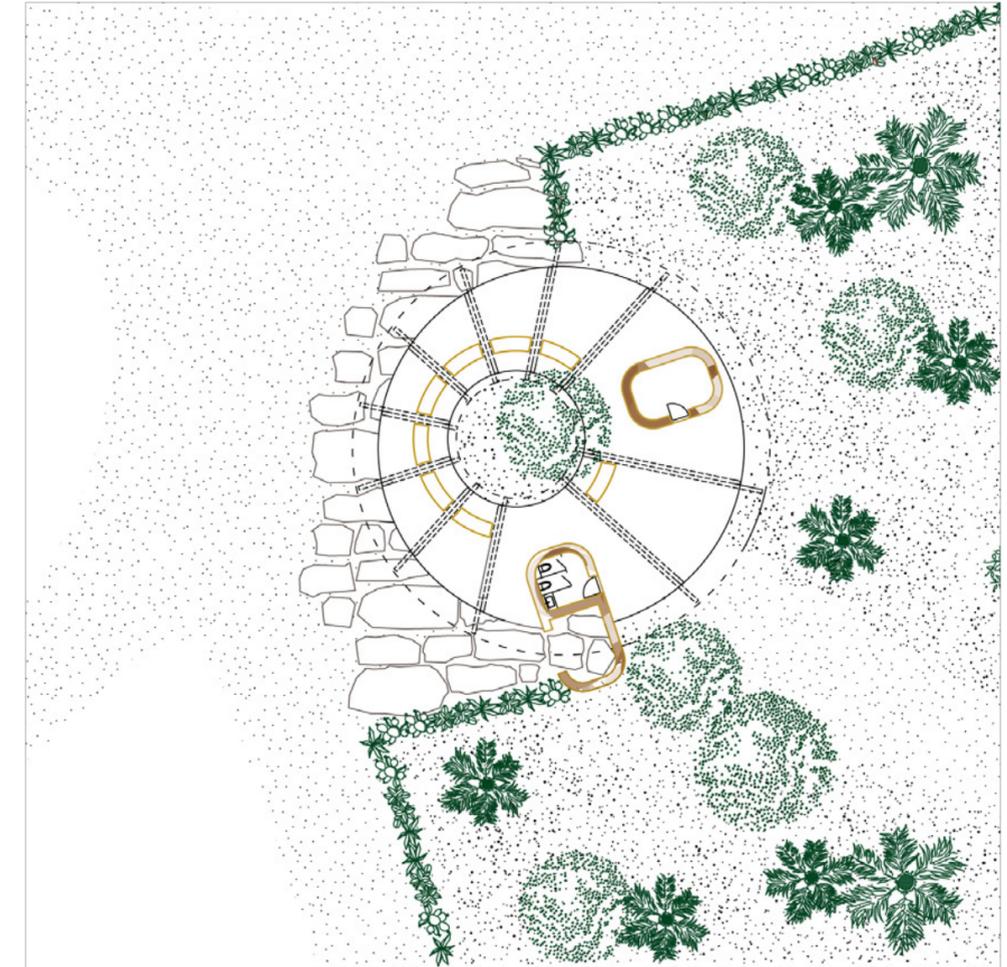
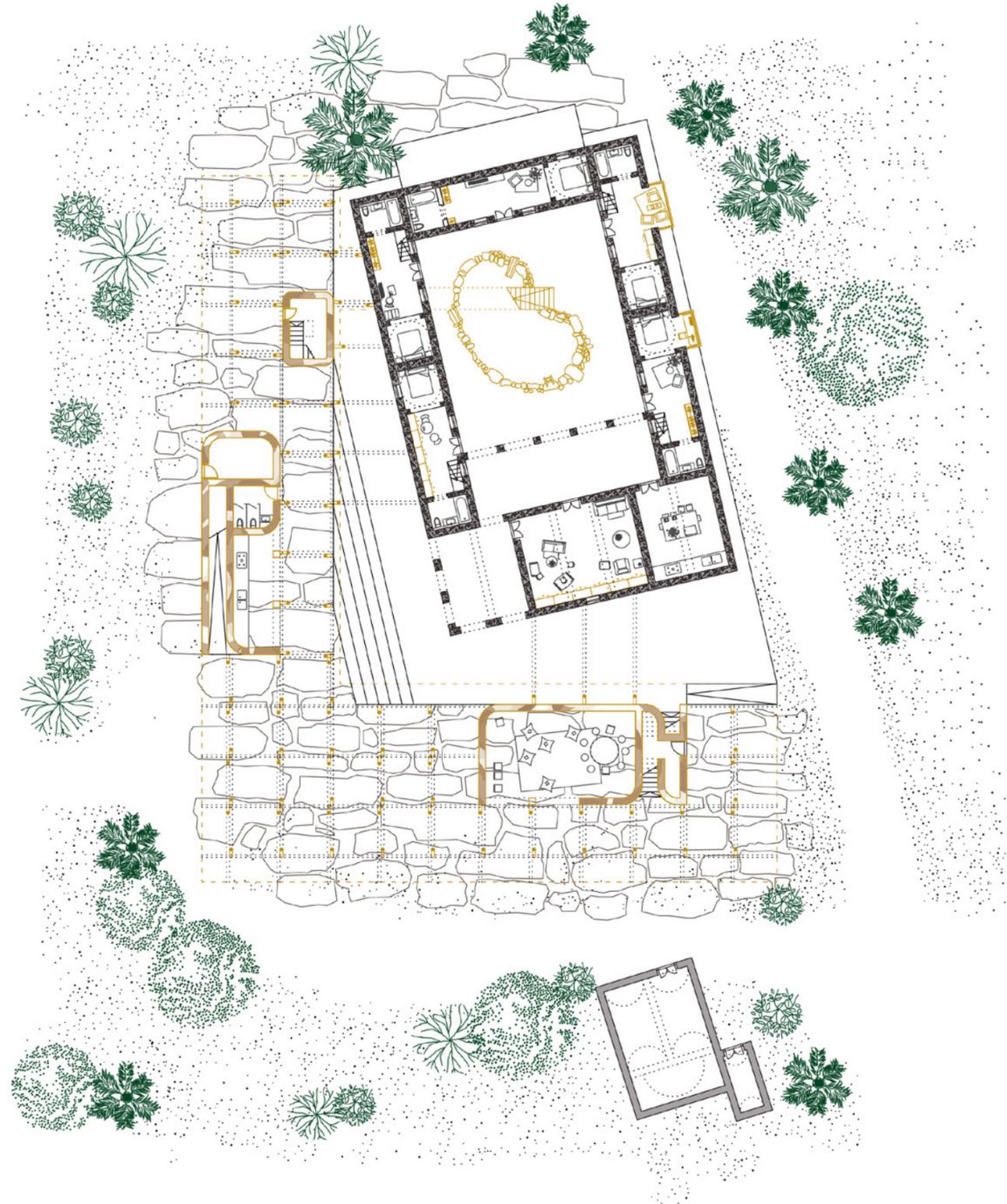
Due to the difficulty of transportation throughout the Djerba island and the abundance of palm trees, the houses will be built from local materials according to their seasonal growth patterns.
 On the one hand, it is easy to build.
 On the other hand, it is more organic and environmentally friendly to the ecological environment of the whole island.



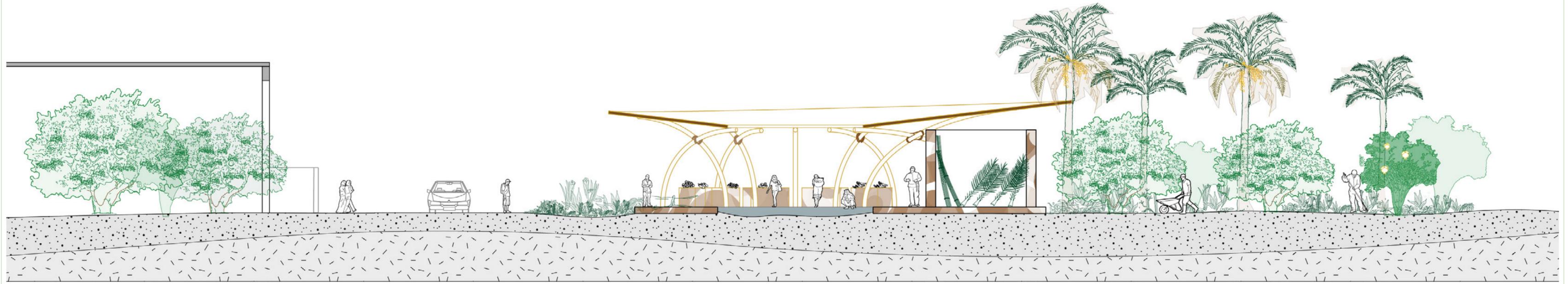
material and structure



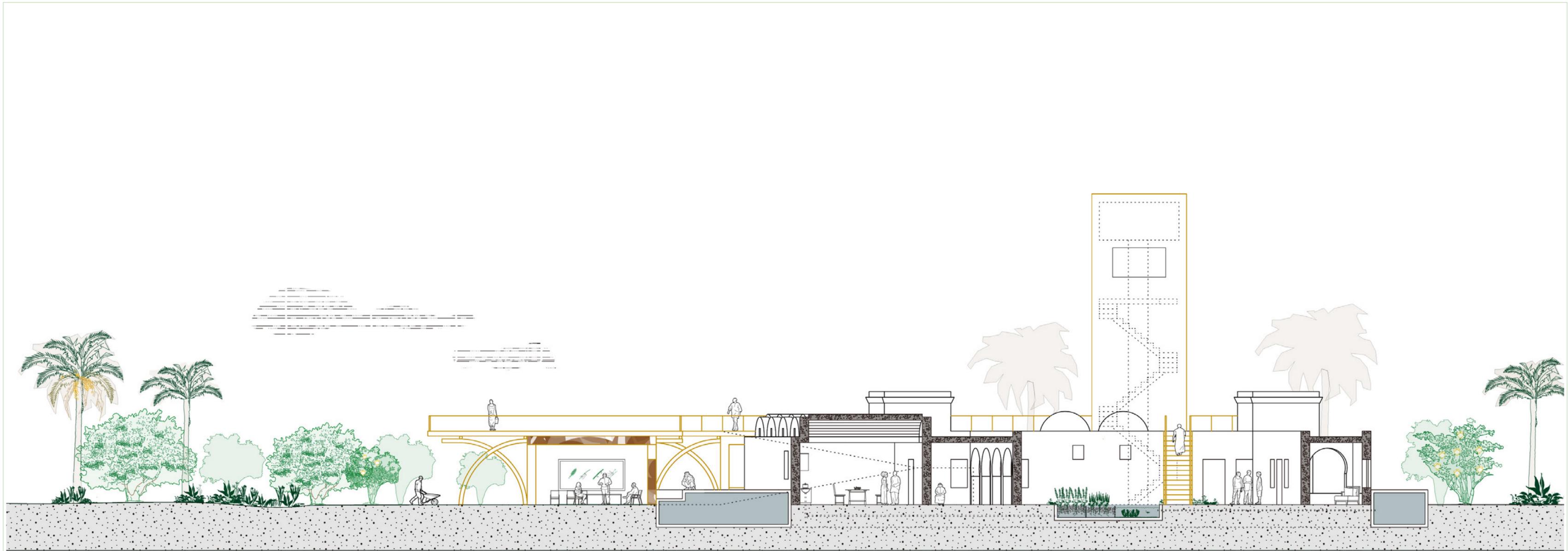
seasonal farmer housing constructed by palm tree leaves



market plan →
← menzel plan



market section

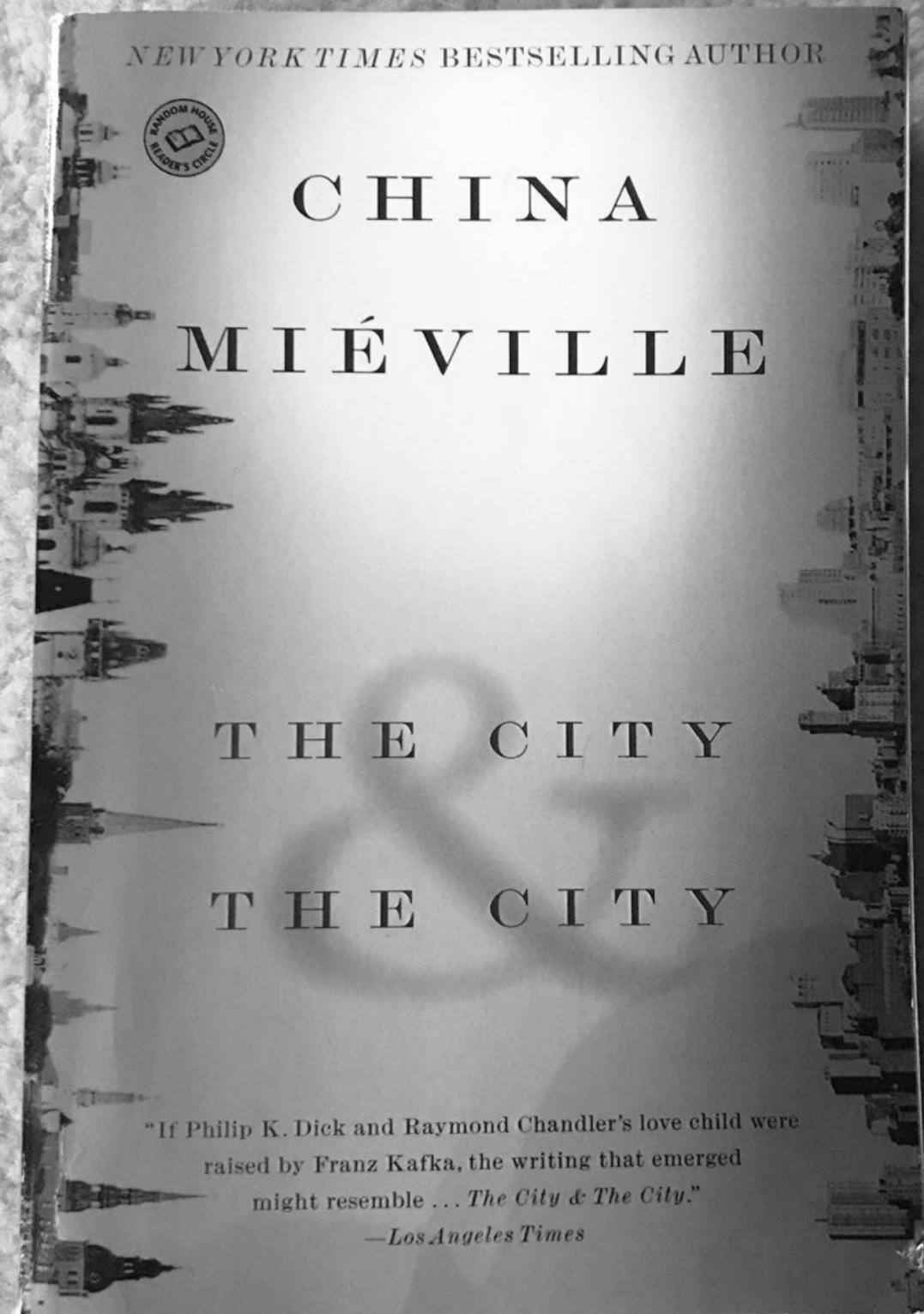


menzel section

GSAPP MSAAD
1/21/2020-5/1/2020
Spring Studio

Beszel&UI Qoma

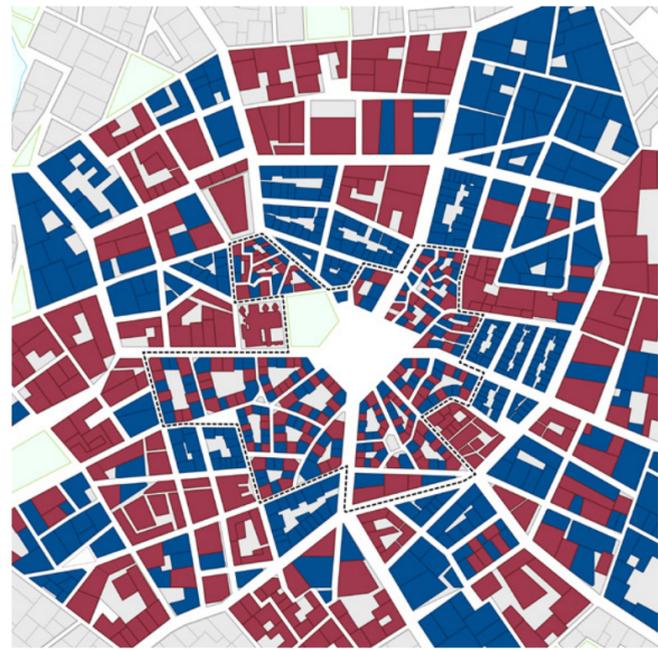
Indivisual work
Critic: Stephen Cassell
Annie Barrett



BESZEL & UL QOMA

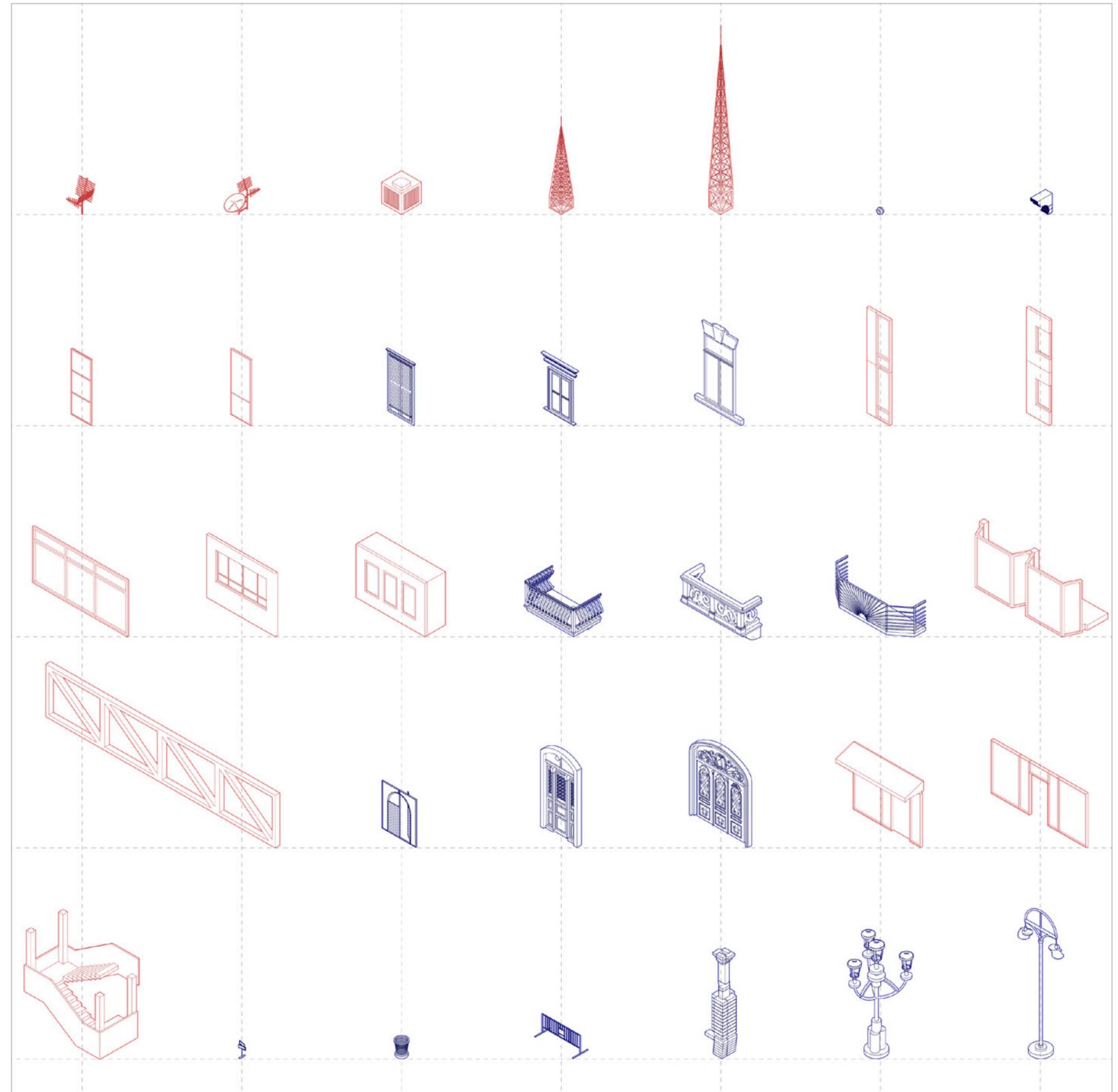
"Deep inside the town there open up, so to speak, double streets, doppelganger, streets, mendacious and delusive streets." The two cities mentioned in the novel are like shadows of each other. Both of them have their own characteristics while share the same local. So people follow rules to distinguish their own city and avoid interact with the other one. Based on some discription of the whole story and the study of some reference cities, BZ and UQ are created. We have designed the urban planning, the building styles, the specific buildings...

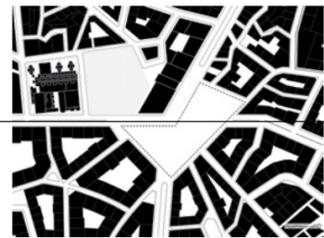


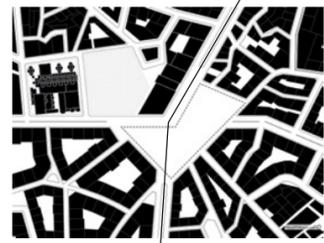
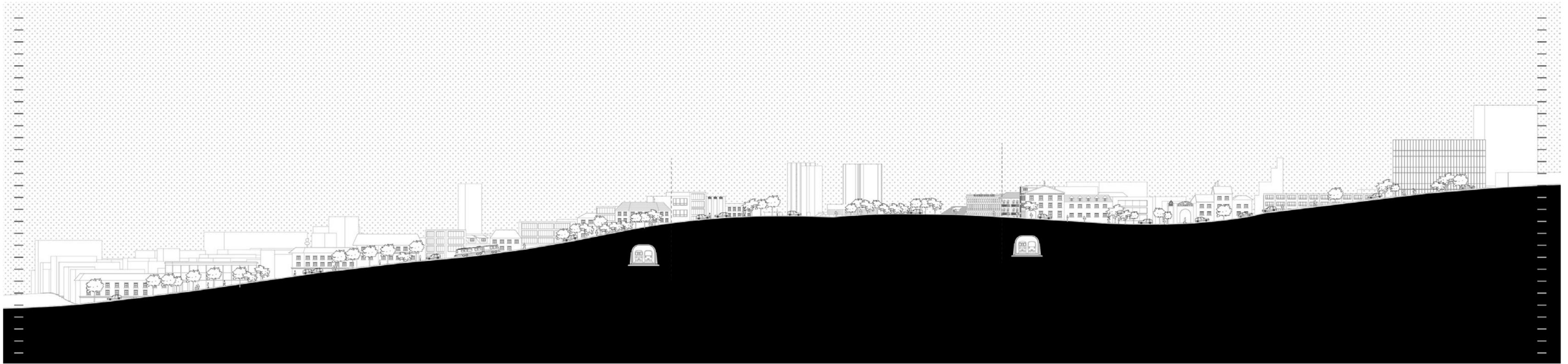


old town of two cities

red: UQ
blue: BZ

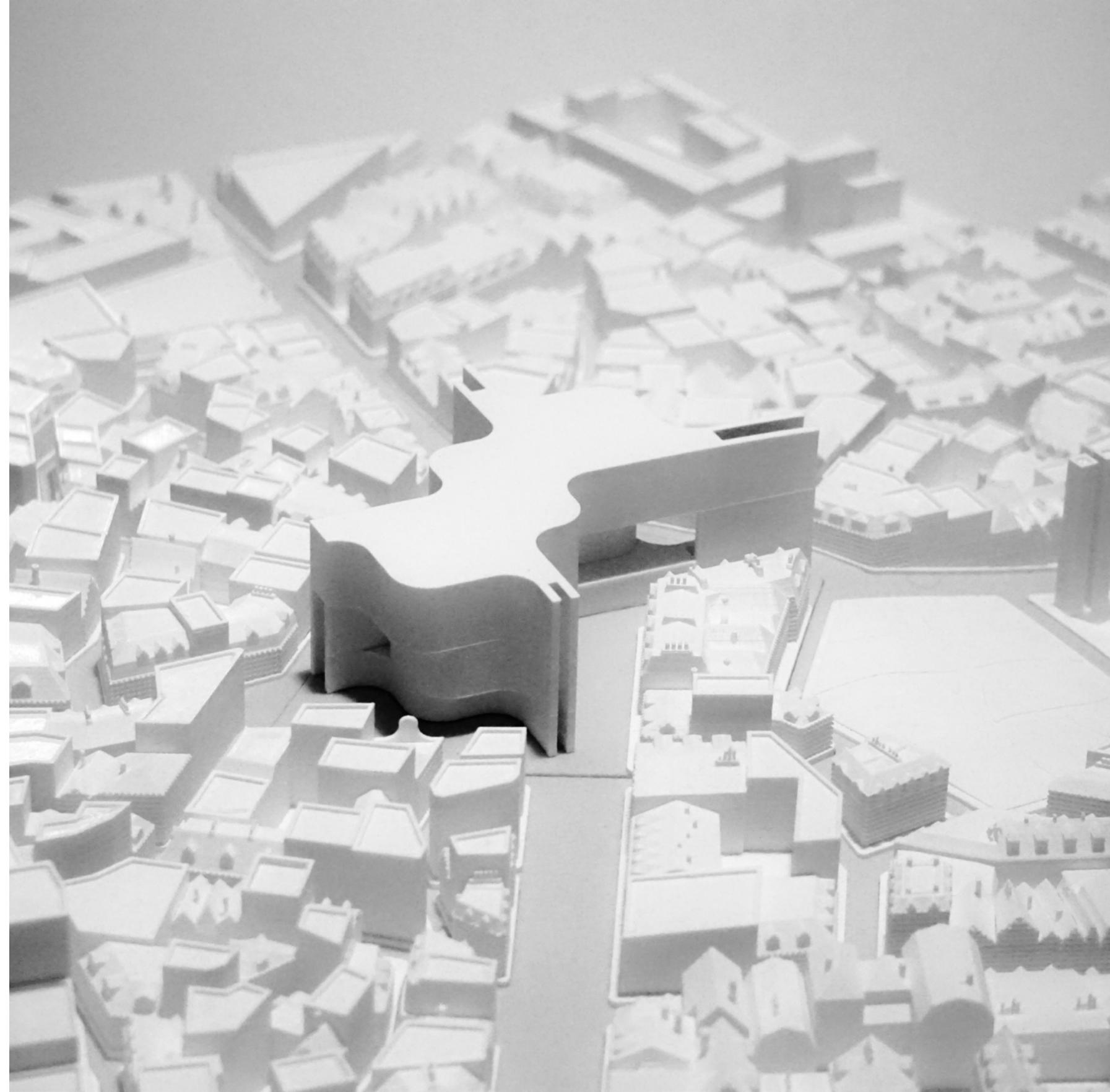


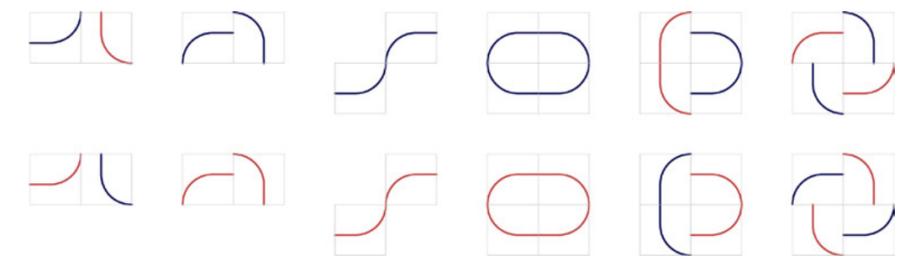
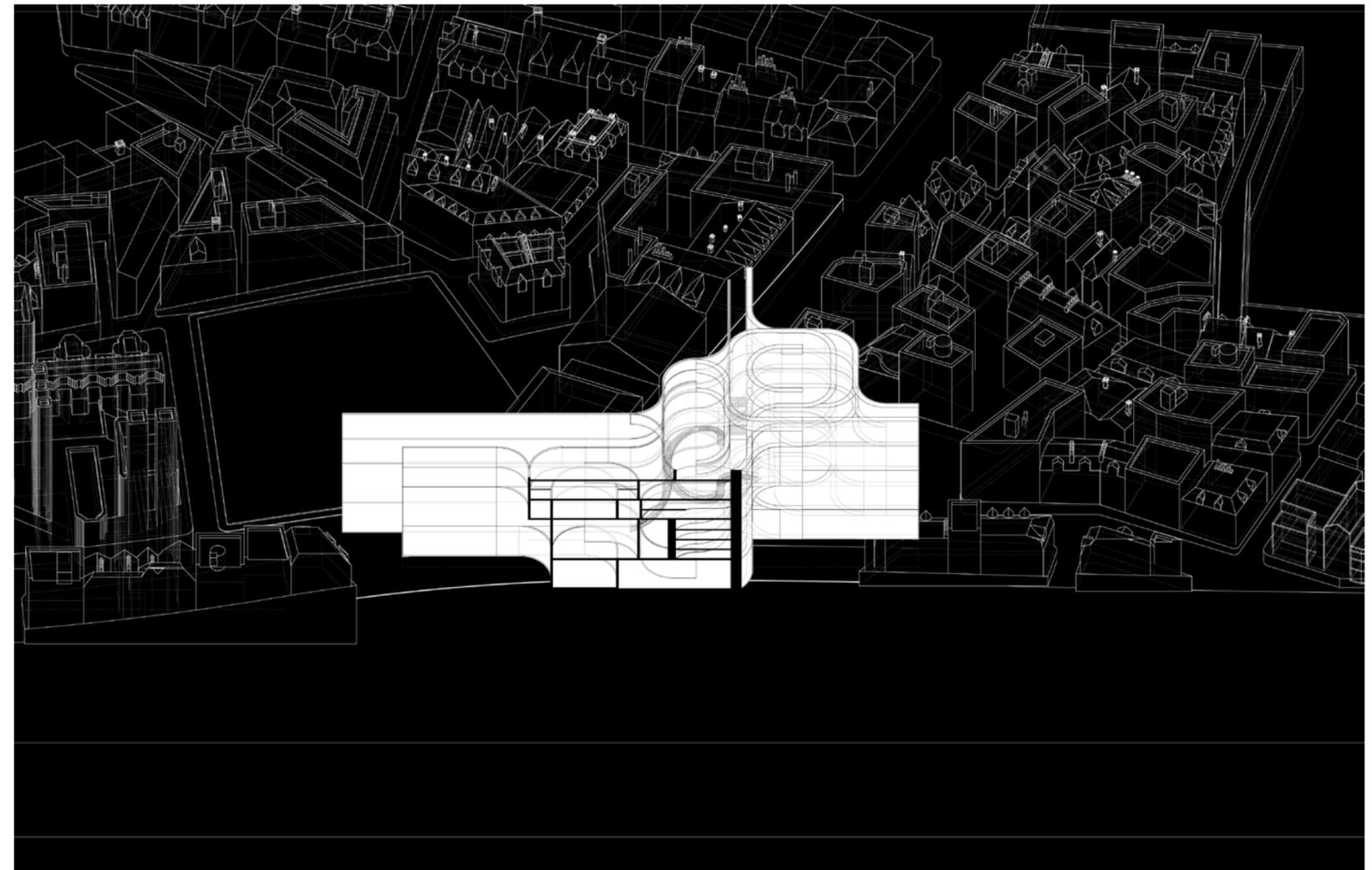
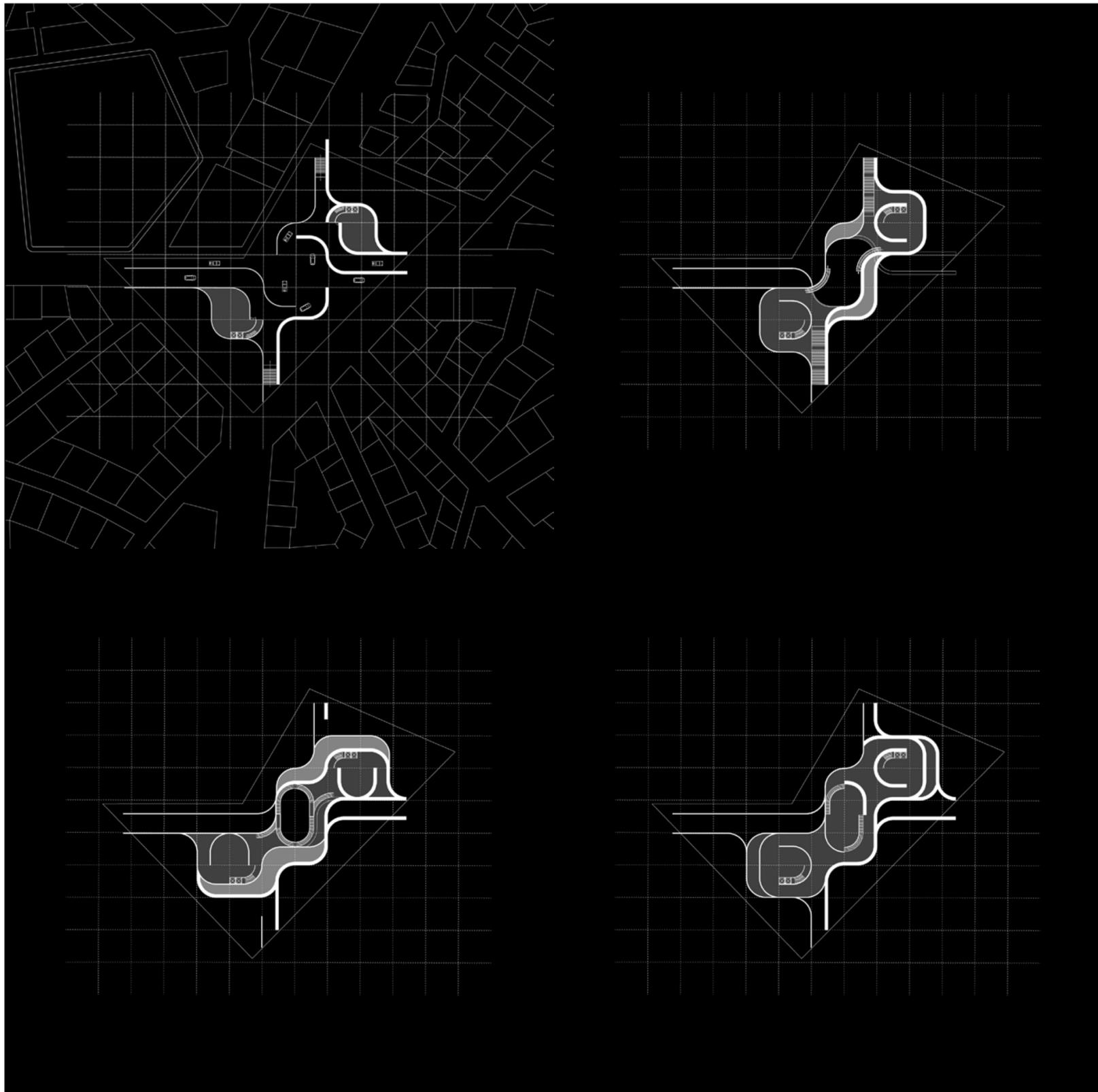




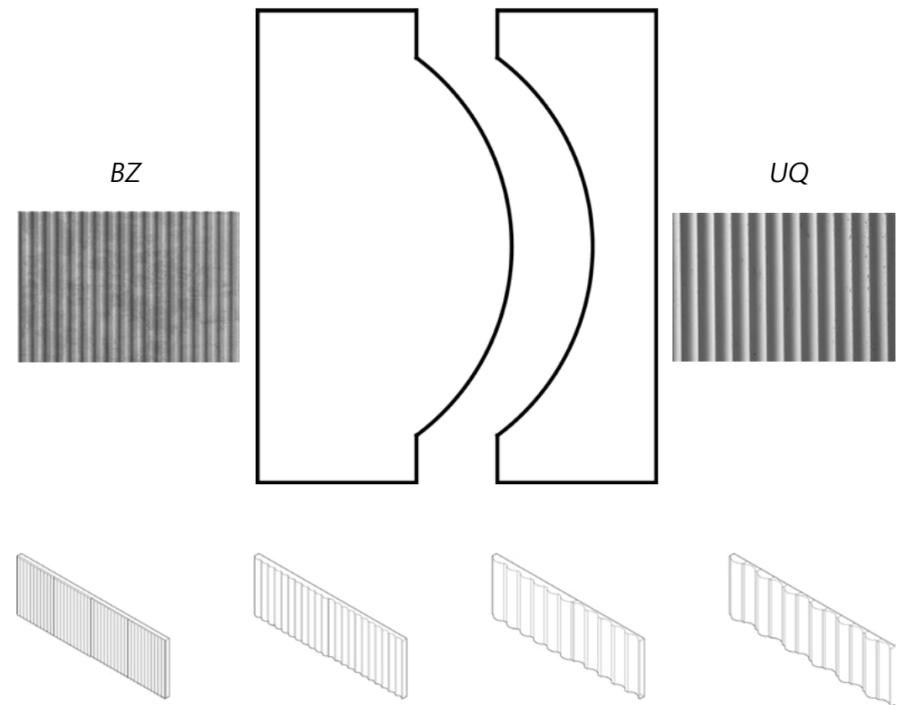
COPULA HALL

This project starts from the understanding of two cities and copula hall in the book. Through exploration of a simple curve wall, the entire architectural system is constructed. Meanwhile, a sense of indeterminacy is created with the consider of material, texture and space sequence. In copula hall, you are not entirely in one city and will gradually lose your cognition of specific cities so as to reach out the so-called Orciny.



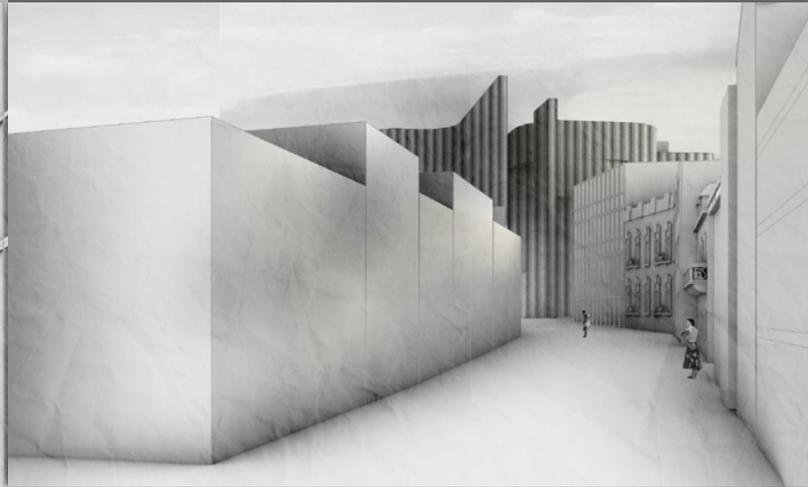


seperate *return* *lead* *isolate* *convert* *crosshatch*

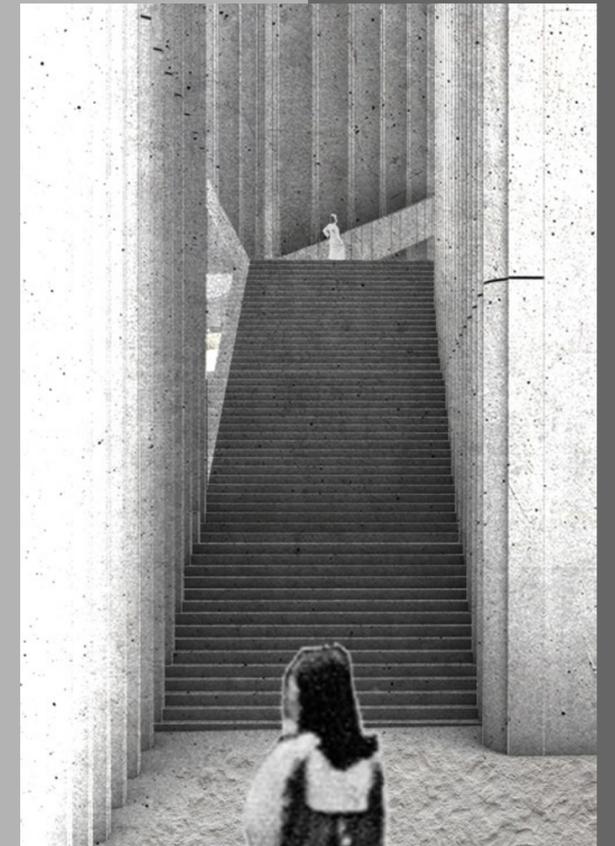


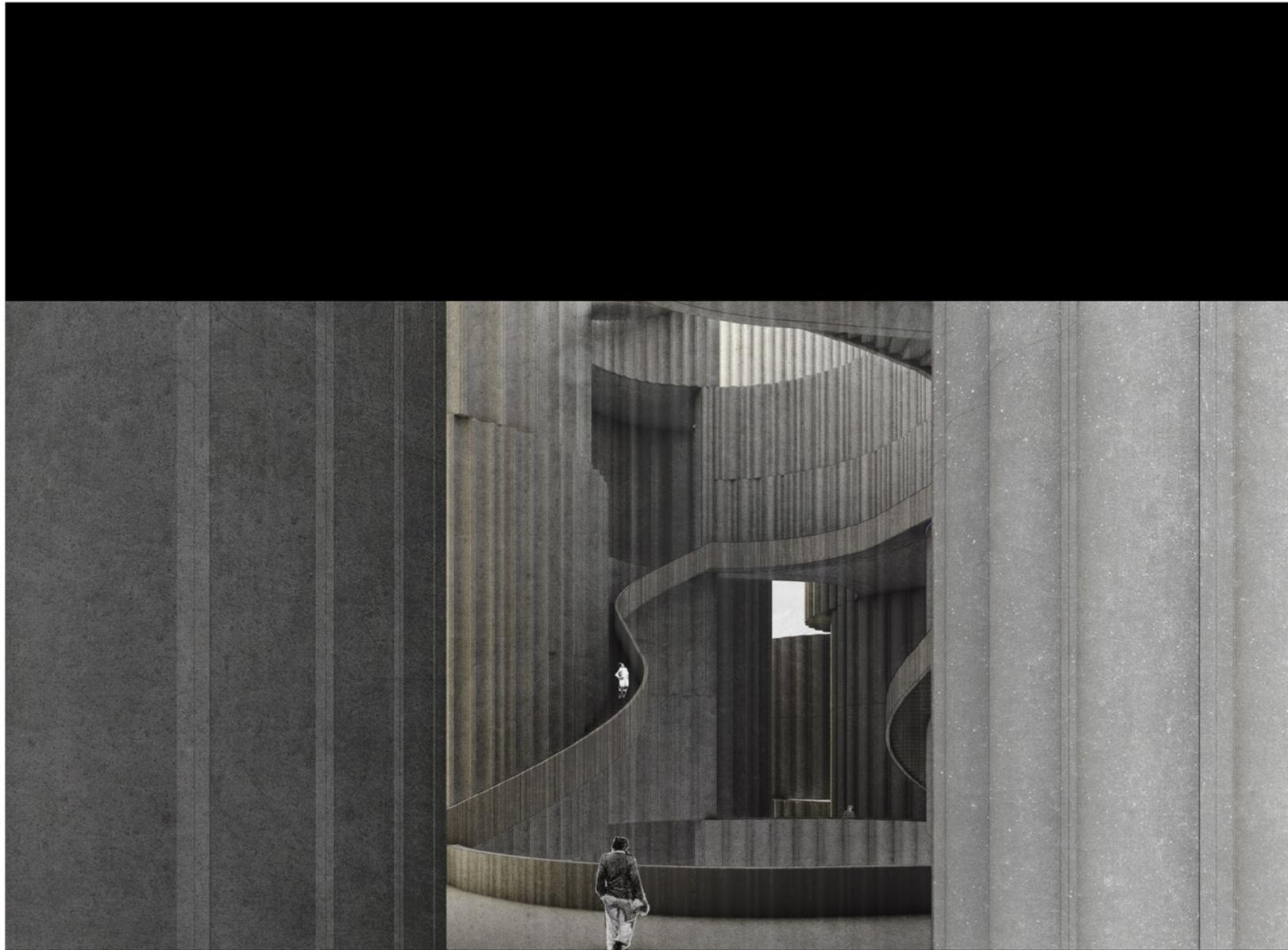


BZ

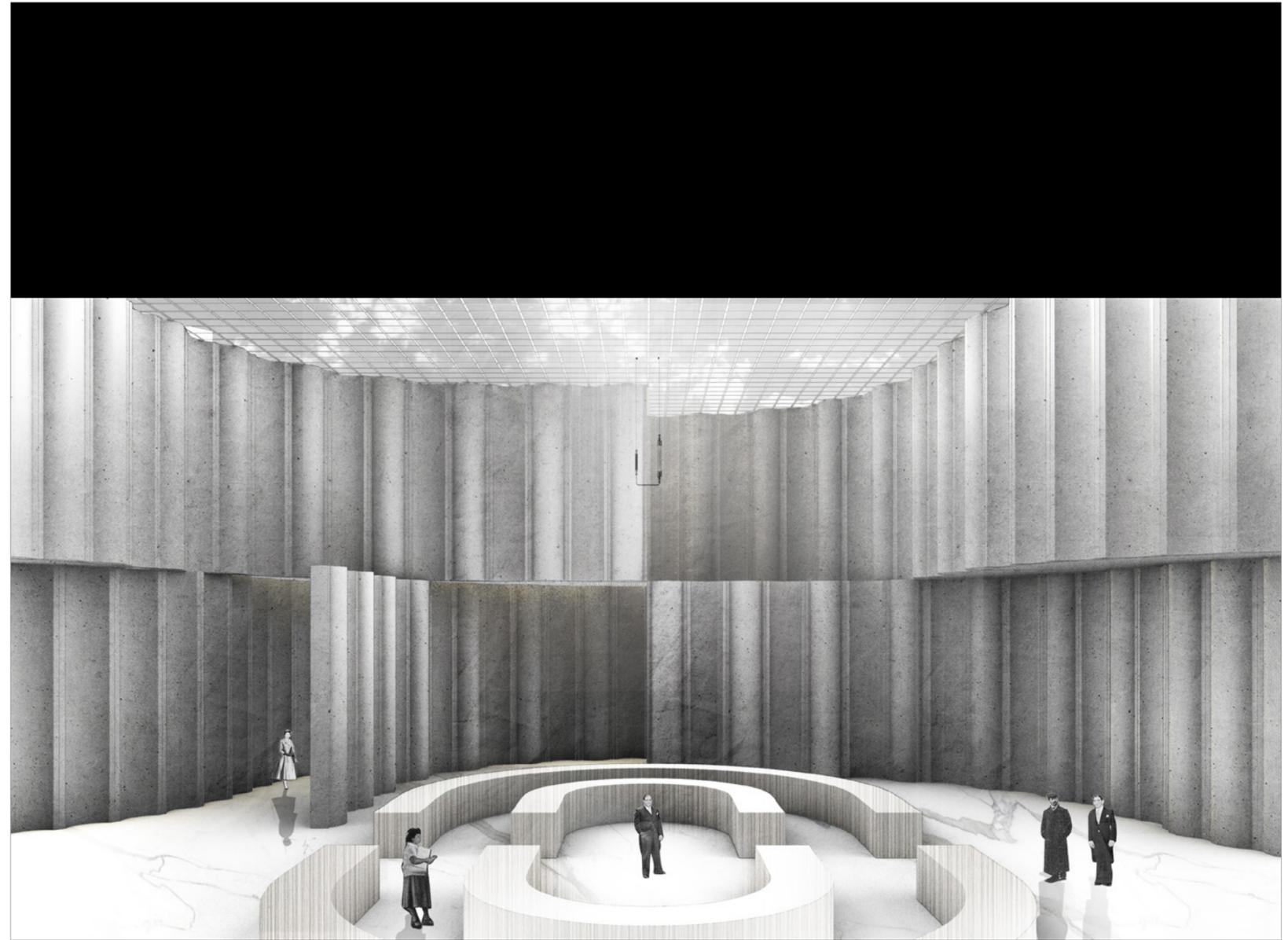


UQ





Lobby



Committee hall

*GSAPP MSAAD
Fall*

Metatool

*Coworker: Jie Yang
Critic: Dan Taeyoung*

*GSAPP MSAAD
Spring*

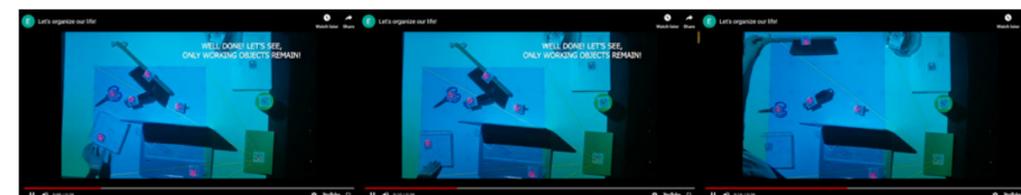
Generative Design

*Coworker:
Frank Mandell
Kate McNamara
Berkhan Eminsoy
Critic: Danil Nagy*

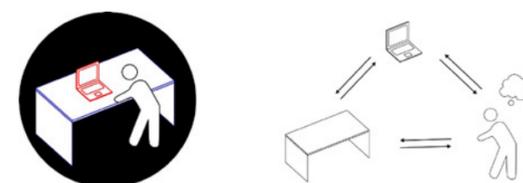


Let's Manage Our Life!

To create a tool in grasshopper that allows objects to automatically form a visual area on the table and furthermore, to help us manage the table or even our life!



For the working objects, the codes imported in the computer will be defined as outside points and inside points. The outside points will link together shaping as a polygon which can generate a rectangle box with grid of points. At the same time, the inside points will be hinted about the shortest path to points in the grid system. This grid will be visualized on the table helping people organize objects in order.



we consider the people, computer and table as a whole system. People are not just using computer but are working with him. Not only will we direct the computer but also we will receive the feedback and responds from him. Moreover, as table objects are linked with computer, a lot of works can be visualized and spatialized. The change of the reality is also able to trigger activities in computer. Meanwhile, people's connection with working table become closer which means our lifestyle and working style is more intuitive. Using the program, we have the capability of managing our life better.



Gran Panel Tropical Remix

I. INTRODUCTION

In certain parts of the world where highly processed construction materials or ingredients such as cement are a sparse resource, enclosing a space, typically used for housing, while prioritizing the condition of the inhabitant creates a challenging task. We base our study in the specific history of structural pre-cast concrete panel construction in Cuba. The technology used in the construction of these panel molds originated in the USSR, where their design was then adapted to the tropical Cuban context with the addition of perforations. More recently, availability of concrete has become more sparse in Cuba's contemporary isolation, while the demand for cheap, safe, well-designed housing has never been greater. Our project models the construction of modular perforated concrete panels, minimizing the amount of material used, optimizing for daylight and shading, all while maintaining structural integrity.

This design presents a hard problem that requires generative optimization because each objective and constraint work against each other, preventing the existence of an intuitive solution. Minimizing the volume of material poses problems for structural integrity and thermal comfort in Cuba's tropical climate.

II. METHODOLOGY

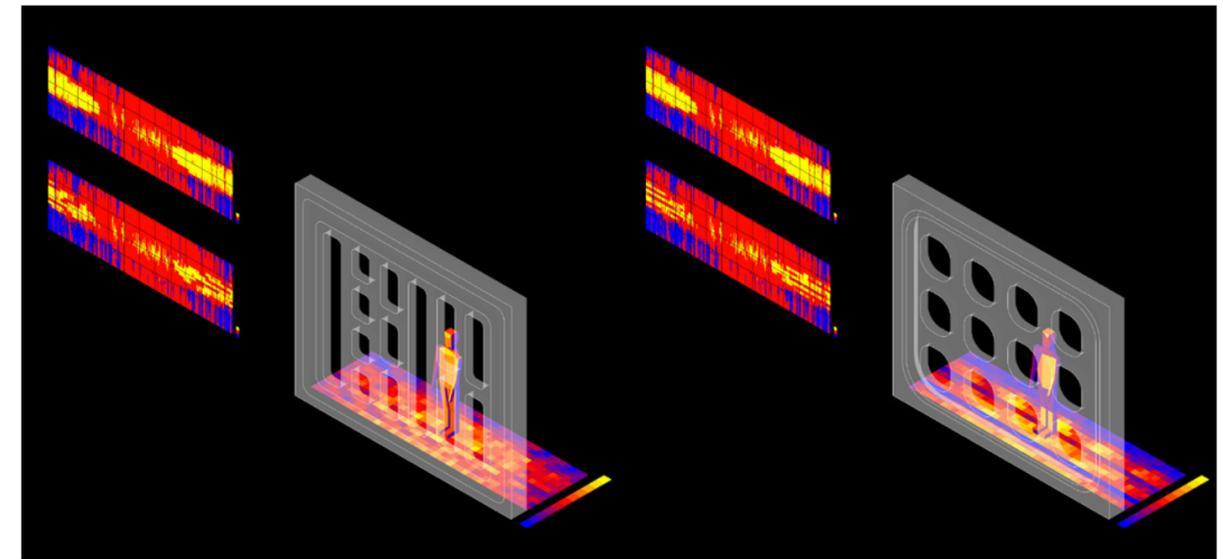
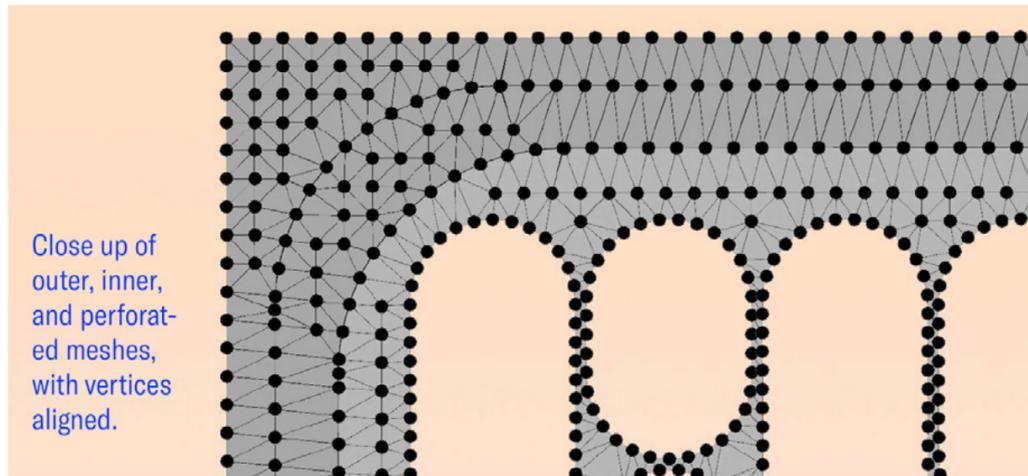
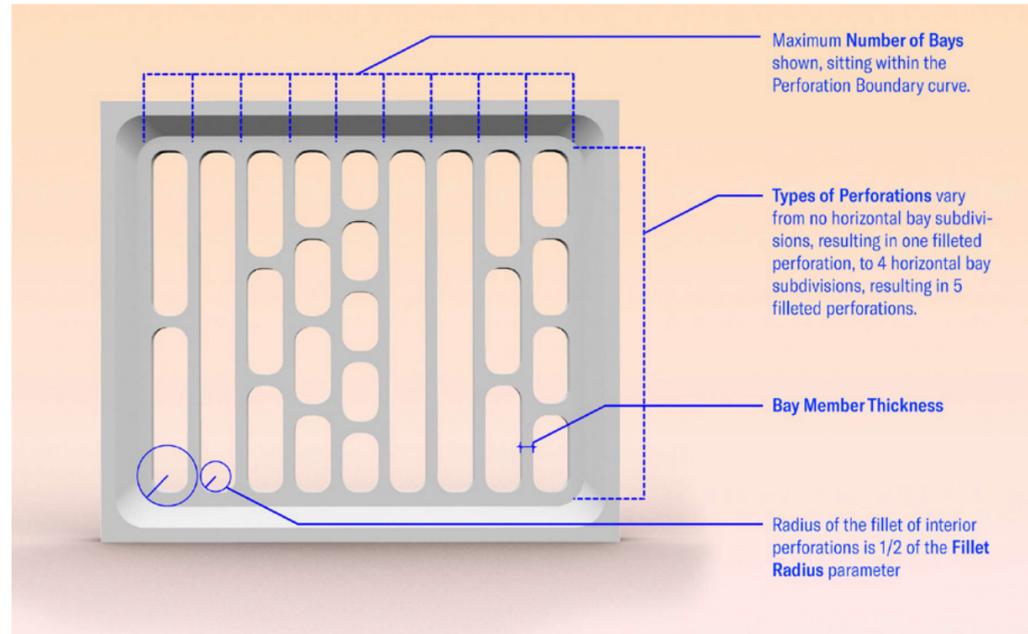
We begin by defining the extents of the panel that remain fixed, and are not controlled by Discover. The height, width and maximum thickness of the panel are the only fixed inputs (height = 12, width = 14, max thickness = 1), though they are set on sliders, and have the ability to be adjusted. Our design space model takes 6 variable inputs that define the design of the interior of a single modular panel. The variables are chosen based on examination of existing panels in Cuban modular housing blocks.

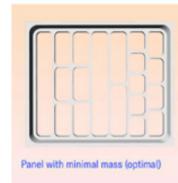
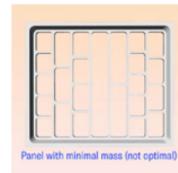
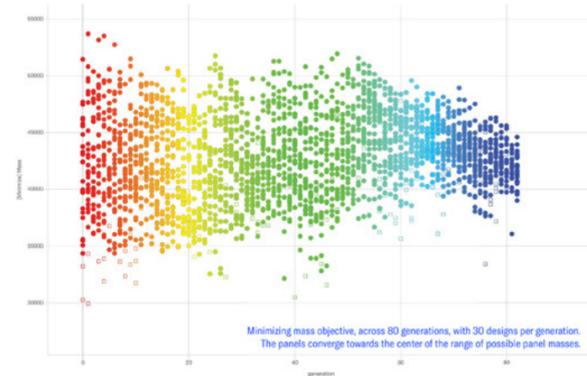
To create the perforations in the panel, in the Inscribed Offset Rectangle for Perforations portion of the Grasshopper Model, we begin by defining a boundary curve that prevents the perforations from coinciding with the lofted surface between io1 and io2.

III. PERFORMANCE METRICS

karamba structural analysis: We used Karamba to perform a static structural analysis on a 2-Dimensional shell mesh, analyzing the structural utilization and displacement of the panel, when forces are applied. We set the utilization as a constraint, while we set displacement and mass as objectives to minimize.

ladybug daylighting analysis: To optimize the panel for the climatic conditions of the site we employed Ladybug v.0.068 to calculate the number of daylighting hours, the amount of solar radiation (in kWh/m²) and the comfort level of a hypothetical human being standing behind the panel. Taking the exterior conditions as a benchmark, the aim of our study was to compare the environmental and physiological effects of the generated panel design on the human body.

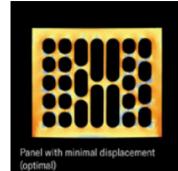
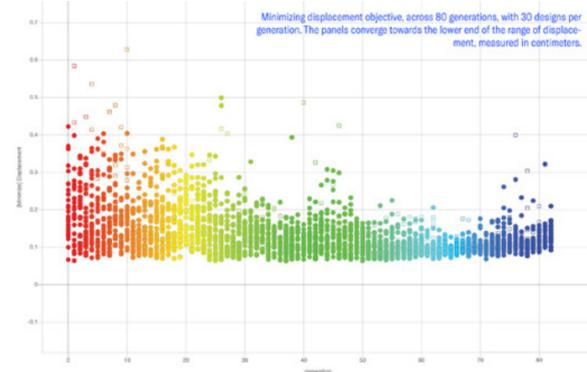




mass

As one would expect, the designs with the lowest mass largely have a minimized $io1$, $io2$, Fillet Radius and Bay Member Thickness. The design with the lowest mass has only four perforation bays, but other low-mass designs have upwards of 6, so it appears the sizing of the portions of the panel frame (and Bay Member Thickness) has a greater effect on the mass than the number of bays or the types of perforation. Though, it should be noted, that almost all of the lowest mass are never optimal, and almost all do not meet the utilization constraint, with over 50% utilization.

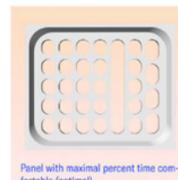
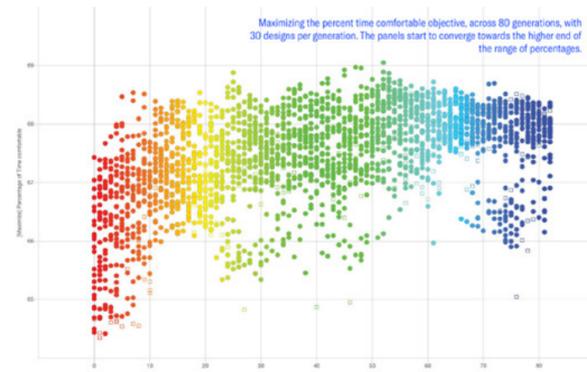
Attempting to minimize mass inherently works against the goals of maximizing structural stability and percent of time comfortable. While the graph of the mass objective over generations does show some convergence, it converges more towards the center, rather than lowering the mass over time.



displacement

Graphing displacement across generations shows convergence towards the lower end of the spectrum of displacement, which ranges in early generations from .06 to .65. Logically the greater the $io1$, $io2$, and member thickness, the more structurally sound the panel will be. But, as we'd expect, the optimal designs do not always have minimal displacement, because of the competing objective to minimize mass, though the majority of them converge between .06 and .12, which seems successful.

The majority of optimal panels have a minimal $io2$, usually fixed at the minimum value of .25. They also, as previously stated, have a bay member thickness of the nearly maximum value of .16. The $io1$ value seems to have more variations amongst the optimal designs, ranging from .28 to .41, rarely selecting the minimum of .25, but also rarely reaching the maximum of .5, likely due to the mass objective. The general trend towards higher bay subdivision also carries through here, resulting in many optimal panels with higher numbers of perforations.



percent of time comfortable

From the discover output graphs below we can also witness these findings. Looking at the two different graphs charted against percentage of time comfortable we can see two distinctive Pareto fronts emerge. Looking at the scatter plot, mass vs. percentage of time comfortable, the highest percentage of time comfortable, logically boasts the highest mass. This phenomenon gets quickly overtaken by the goals to minimize mass and deflection which have their own conflict within themselves. This conflict between the goal to minimize displacement and the mass at the same time results in two different Pareto fronts to emerge in scatter plots charted against percentage of time comfortable. As the algorithm pushes towards the mass vs. displacement Pareto front it offers us the choice to choose between a panel which is either both high in mass and displacement yet longer in time spent comfortable OR lower in mass and displacement yet shorter in time spent comfortable. Happily the decision is left to us and depending on the function taking inside the hypothetical building we can choose the right panel for the use.

IV. RESULTS

general trends: Over several optimizations with 80 generations and 30 designs per generation, there appear to be some general trends in the panel design. The first most noticeable trend is that the optimization prefers panels with 7 perforation bays. This trend begins to appear as early as 20 generations in. The optimization also appears to prefer designs with higher numbers of perforations, typically upwards of three bay subdivisions. If there are bays with only zero, one or two subdivisions, these bays appear fewer times in the panel (meaning optimal panels have more frequent instances of highly subdivided bays, and fewer instances of bays minimally subdivided bays, with larger perforations). The panels seem to also converge toward minimizing $io1$ and $io2$. Most of the optimal designs have $io1$ and $io2$ close to their minimum values of .25. The optimization also tends towards a higher Fillet Radius. The Fillet Radius seems to converge to somewhere between 1.3 and 1.8, on the higher end of the range of inputs. The result is a set of optimal panels with thin panel frames, 7 bays, and more frequent instances of maximal bay subdivisions.

In earlier optimizations, there seemed to be a trend towards symmetrical panel, where odd numbers of bays allowed the number of subdivisions to mirror across the middle bay. When there were instances of 0 or 1 bay subdivisions (larger perforations), they would almost always be in the center bay. Though, in later optimizations, with more generations and more designs per generation, this trend does not seem to have continued, as most of the optimal designs are not symmetrical

V. CONCLUSION

In various iterations of the model, we increased the maximum number of bays from 6 to 9. Given that the most striking trend in the model is the tendency towards 7 bays, we wonder how further increasing, or further restricting the number of bays would affect that trend. It is especially interesting that the bay count would tend towards 7, given that almost all images of existing panels in Cuba have 9 bays.

Because the objective to minimize mass is resulting in tendencies towards thinner members, the tendency towards higher numbers of bays is intuitive from a structural standpoint, as thinner members with fewer bays would be less structurally sound. The tendency towards and higher numbers of subdivisions within bays is intuitive from the standpoint of thermal comfort optimization, because higher numbers of perforations allows for increased numbers of subdivisions, which block light. However, when there are bays with fewer subdivisions, it is also intuitive that they would be towards the center of the panel.

However ultimately, there is not a lot of variation in the resulting optimal panels. The tendency towards repetition of bays produces markedly less interesting looking panels. Going forward, we might want to alter the ways the bays are subdivided, to try to create more interesting and varied shapes of perforations. Also, compiling these panels into a complete facade, and optimizing with multiple panels at once, may also produce more interesting results. We imagine that the panels at the bottom of the facade may look very different from the top, as the loads would be much higher

*GSAPP MSAAD
Spring*

The Contemporary

Critic: Bernard Tschumi

*GSAPP MSAAD
Summer*

Transcalarities

Critic: Andrés Jaque



The Legacy of Rossi

In 1966, the Italian architect and theorist Aldo Rossi has published *The Architecture of the City*. Faced with the trend of poverty and vulgarization in the development of modernism in Europe, he tries to re-examine the new trend and discussion of modern architecture after 1960.

He protests against functionalism and the Modern Movement, attempts to restore the craft of architecture to its position as the only valid object of architectural study and also analyses the rules and forms of the city's construction. Rossi's critique extends the content carried by architecture itself to city scale and mainly focuses on the neglect and destruction of the city. He recalls the return of history and emphasizes the significance of the collective, the public realm.

His works and thoughts are not only about arising the historical value of cities and architecture, but also more about the profound paradigm revolution that brought to architecture field. According to Rossi, the rooted problem of the modern architecture movement lies in the lack of rational foundation. It has completely forgotten the claims of the early movement and placed the beliefs in purely commercial aspect. He intends to build the architecture to be like the natural science or the humanities and to reach the so-called scientific objectivity.

Due to the specific context and complex logic, this book, like what Rossi has mentioned in the preface of *American Edition*

- The meaning of architecture of the city is like the figure in the carpet, the figure is clear but everyone reads it in a different way. Or rather, the more clear it is, the more open it is to a complex evolution.

Among the huge number of interpretations of Rossi's theory in the following ages, Wang Shu, a famous Chinese architect who have won the Pritzker Architecture Prize, seems to be one of them. His PHD thesis fiction city completed in 2000, is mainly based on the intensive reading of *The Architecture of the City* and have laid the foundation for his future architectural exploration.

Basically, Wang Shu saw a new possibility of understanding cities in Rossi's structural linguistic analysis of the formation and composition of European cities. Meanwhile, he integrates the positions of formalism literary criticism theory and structuralism anthropology, rediscovers Chinese traditional settlements and cities, and puts forward some design themes and strategies. It will be interesting to search the content that Wang Shu has traced from Rossi.

Wang himself confides that he valued Rossi's methodology to linguistic most: architects no longer only focus on the iconicity of cities. They are encouraged to explore language or syntax of streets or houses, understand how building converged from monomer to urbanism in time. He claims that Rossi's approach stands firmly that the value of a city is embodied in the architectural types of language, rather than in the so-called practical reality changing with fashion of social ideology.

When comparing their work, it is still easy to find some connection and similarity. They both have a certain sense of scale. Rossi's works often bring a sense of strangeness caused by out of place and change of scale. San Cataldo Cemetery is a good example that he made cemetery to be like residential area. He allowed the outside shell and internal functions to coincide from the beginning without taking it for granted.

Buildings in Xiangshan campus designed by Wang Shu also appear a variety of scale of dislocation and change. They are like shrinking towns or shrinking mountains. In short, they are not like the typical campus building we are familiar with, nor like folk dwellings.



San Cataldo Cemetery



Xiangshan Campus

By taking the fragments of formal composition found within cemetery and transforming specific elements to represent them in his own plan, Rossi mentioned that

- the question of the fragment in architecture is very important since it may be that only ruins express a fact completely... I am thinking of a unity, or a system, made solely by reassembled fragments.

Following, Wang Shu begins to talk about the virtues of trifles, which indicates the possibility that the part can be bigger than the whole and the whole won't be broken.

All these explanations and design details partly reflect Rossi's influence on Wang Shu. Born in different ages and geographical backgrounds, differences between them are also obvious. Rossi has strips off the fur and restored the building to an original type. Nevertheless, Wang put himself more in the traditional Chinese culture context creating constants dialogue between the openings, the corridors, the roofs and the environment.

Through the analysis above, we are also able to focus on some more hidden things Rossi's *The Architecture of the City*, especially the structural linguistic. In this direction, Wang acted as a good example of presenting a new understanding of Rossi and unpacking a lot more dimensions that deserves renewed consideration, especially the relationship between urban contemporaneity and design strategy.

In fact, in the same year that marked the publication of Rossi's *The Architecture of the City* another important early document, Venturi's *Complexity and Contradiction in Architecture*, appeared in America. They both recalls the rethinking of history and asserts a kind of popular urban spirit against certain tendencies. Whereas Rossi understands architecture as a process of decanting the superfluous towards a maturation of forms and types, Venturi sees architecture as a collage, an extensive assemble of various mannerist moments.

At first, People always emphasized the theoretical and design differences between Robert Venturi and Aldo Rossi. However, amusingly enough, Rossi himself experienced a big switch, which we can spy a little bit on his book *A Scientific Autobiography* published for the first time in the United States in 1981.

Rafael Moneo offers us some clues as regards the American period:

- Rossi realized he was a master of his sentiments more than of the instrumentalisation of knowledge, as he had claimed at the beginning of his career; that he was more capable of constructing what he felt, than of establishing that series of linking rings that led in a hierarchical way from the type to the monument. In actual fact, Rossi began to work on a new book in the United States, *A Scientific Autobiography*, in which the leap we are talking of clearly came about, leading from knowledge to sentiment. If the early Rossi tried, above all, to be objective, the Rossi that returned from the United States was convinced that he could speak only of himself, that it was the subject that counted.

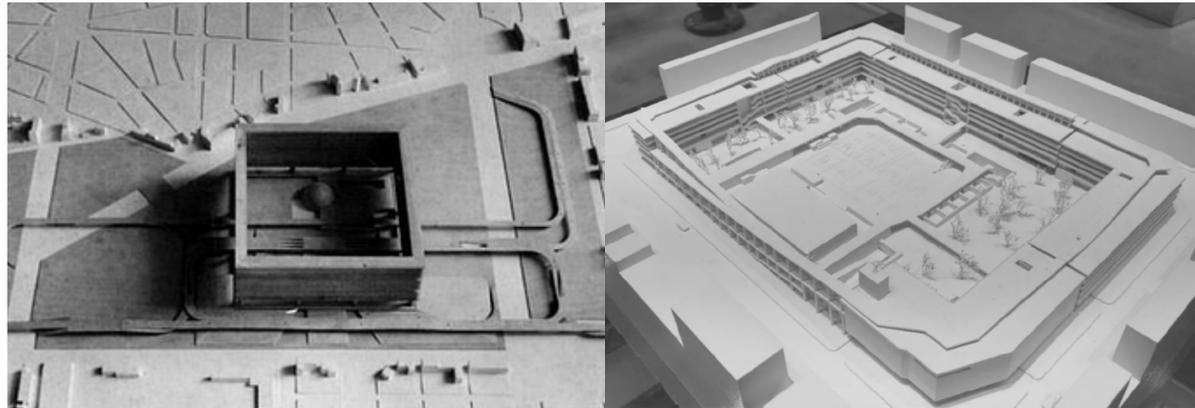
This, record Rossi's contacting with Postmodern in Eighties, when modernity was a period to be dissolved and crushed. It is from this period that some unexpected affinities can be found between Rossi and Venturi.

Like Venturi, Rossi became increasingly interested in the world of domestic and "ordinary" objects over the years. If, in his first stage of consideration of type, he sees type as the tool for recognizing the original condition of architecture, then, his second stage is more likely defined by the notion of analogy, which implies the poetical correspondence between types and objects.



Bonnefanten Museum

Museum of Imperial Kiln Brick



Centro Direzionale

West Village Basis Yard

In Rossi's analogical thinking, his ideas and projects seem to be articulated from memory, from which the personal and the collective evocations appear intertwined. Rossi once recalls in A Scientific Autobiography that

- one morning, as I was passing through the Grand Canal in Venice on a vaporetto, someone suddenly pointed out to me Filarete's column and the Vicolo del Duca and the humble houses constructed where the ambitious palace of this Milanese lord was to have been. I always observe this column and its base, this column that is both a beginning and an end.

The Friedrichstasse in Berlin verified that the image continues remaining in his memory and then reappears later converted into architectural assembly. By replicating an architectural fragment, Rossi incorporates its presence into society's collective memory. The column reminds me of the kiln in the Museum of Imperial Kiln Brick, designed by a Chinese architect Jiakun Liu. He put the symbolic object that resonate in his mind into the building and creates an eternal space.

Liu praises the ordinary. In his work, West Village Basis Yard, the language of collective spirit and collective memory is played to the extreme. Even though he never pointed that he has been influenced by Rossi, there is a sense of fully commonality when paring their works together.

In Rossi's Centro Direzionale and Liu's West Village Basis Yard, both projects are located on the outskirts of the traditional core city. Both architects attempt to create a positive relationship between the new building and the traditional inner city. They no longer believe in the planning principles of modernism. In order to form a vibrant and cohesive community, they adopt the spatial form of surrounding street blocks and enlarged a single surrounding street block to form a huge structure. Both architects carefully distribute the hierarchy and order between the physical enclosure and the open inner courtyard as well as the private unit and the public space within the surrounding street silhouette. On the basis of space form and function organization, they are not content with the expression of abstract language of functionalism, but also pay special attention to building the symbolic language, such as Rossi's dome as well as Liu's yard. They create a new collectivity of urban space.

Like Rossi, Liu summarized and controlled the design with the help of images. This is his habit of thinking in images as a writer. The image he sets up for his west village yard is a basin in the ground. It can directly refer to the formal result of architecture and the generating mechanism of architectural form. Liu extracted the architectural atmosphere from his memory, describing it as a cultural melting hot pot that was open to absorbing diversity of people and activities.

As mentioned above, Liu shares similarities with Rossi. They are both faced with the space tradition being fragmented by modernism. But on the other hand, the history that Liu stands is very different. Tradition, modernism and postmodernism are all mixed together, which is extremely complex for Chinese architects. By analyzing the distant resonate brought by Rossi, Liu's position and proposition become clearer and also helps his contemporaries to think about the attitude and operation of current practice.

Although Rossi has been questioned that his principal is not that clear in the exposition and his contradictoriness are not much resolved, his oscillations and transitions are also particularly charming and worth being exploring. What's more interesting is that, even though the western and the eastern are rooted in different context, they seem to be symbiotic and share a lot of commons. The several layers and structures of cities and buildings mentioned by Xiaodong Li in Chinese space seem to coincide with Rossi's point of view. At the present time when modernist architectural language is prevalent, how to seek balance and communion between languages is also worthy of consideration for architects with multiple backgrounds. It is exactly the legacy left by Rossi.



The Barclays Center

Some projects have a gradual impact on the urban context where they are built, blending with their communities, and introducing a new dynamic over time. On December 2003, the Barclays Center project is publicly released. Intended to be built in the northwest part of Prospect Heights, a neighborhood of Brooklyn; Well known for its sense of community and cultural amenities. According to the plan, the government would seize 22 acres of Prospect Heights on behalf of the developer to build a sports arena and 16 skyscrapers. A big percentage of the land designated was privately owned and located in a prosperous community where property values were increasing rapidly. The Project envisioned by Bruce Ratner, a real estate developer and owner of the NBA'S Brooklyn Nets and supported mainly by Michael Bloomberg (NY city Mayor at the time) and Marty Markowitz, Brooklyn Borough President who ambioned this Project as a "world-class arena" designed by a "world-class architect", including the starchitect Frank Gehry as the designer for this colossal Project. However, the story behind this sports venue became more relevant due to the opposition of 51 community organizations that protested the use of eminent domain for a private developer that evicted hundreds of families and business owners within and around the footprint of the Project despite the promises of low impact from the government.

Ratner's vision of an urban utopia would not have come to fruition without the active support by Markowitz, Schumer (United States Senator), and other city officials as the massive scope of the Project violated local zoning laws, including density, height, land use and the billions of dollars of tax breaks and direct subsidies. As an outcome to the irregularities of the process for approval of the Project and the apparent abuse power from the government, community leaders and civilians persisted asserting their discontent for the project that was expected to destroy their home.

Opponents of the Project formed community associations consisting of a diverse group of human rights activists, residents, and environmental organizations to stop the development group pursuing legal actions. They alleged that Pacific Park project did not respond to neighborhood needs or created decentralized, diverse exemplary urban progress for Brooklyn and that the Project would abuse the state's power of eminent domain. For example of the lack of concern to the existing neighborhood was during the announcement of the Project in 2004; Frank Gehry stated: "This is an extraordinary opportunity to do a mixed project and build a whole neighborhood, practically from scratch", also, when New York City Mayor assured that "It will create construction jobs, housing, and excitement" while the association claimed that the jobs would not go to the local community and the housing would not replace the home of the people that would be evicted.

Also, the government blighted private property existing in the Area of the site, an action that allowed the use of eminent domain and the association alleged that this entitled the city to take the property without just compensation or option to refuse to sell.

Letitia James New York City Council Member and Daniel Goldstein, a resident of Prospect Heights –and the last owner to sell his property on the site– were leading voices in the stand against the construction of the Project and to empower the community to assert their demands and offer solutions to the government and developers. Besides protests, there were initiatives to present development proposals representing the community. Experts on Urban Policy and health such as Mindy Fullilove, professor at Columbia University, became an advisor through this process to accent the fundamental affectations that the Barclays Center would create. According to her study on the effects of city structures on the health, she believes that the construction of the Barclays Center and subsequently the completion of the pacific park master plan would have a "deaththening effect," affecting all surrounding neighborhoods of Prospect Heights.

By the end of 2004, Council Member Leticia James, calls for a hearing to present an alternate plan designed by members of the community.

The firm Marshall Brown and other urban designers from Brooklyn were involved in the alternative proposal to improve the urban context instead of destroying it. The proposal was presented during the trial with the representatives of Forest City Ratner Companies. Unfortunately, even though the community leaders tried to prove the value of their alternate development, the New York City court ruled in favor of Ratner. Allowing them to continue with the eviction of the Area by the use of eminent domain to build the arena.

The sports venue was initially meant to open in 2006. However, due to the community resistance, the use of eminent domain, claims for environmental and urban health impact and continuous public financing, eventually, the construction of the Project was delayed and expected to be finalized in 2009. However, those five years went by with no progress on the construction of the Project. On June of 2009, after the US market crash, Ratner announced that AECOM was taking the place of Frank Gehry. The associations opposing the development asserted that the Project had too many significant architectural changes to continue without asking new approval. The New York Times architectural critic called the switch "a shameful betrayal of the public trust that should enrage all those who care about this City." The court dismissed the claim, and the development had a green light to continue. This decision confirmed the controversial debate between unbalanced support for the developers instead of the community.

Shop Architects became lead facade architects in the Project due to the intense adverse reactions of AECOM's proposal. The site is between where historic low-rise Brooklyn neighborhoods merge with the taller buildings of its booming downtown, Barclay's shape is a pledge to achieve balance. SHoP architecture used 12,000 uniquely-shaped panels in weathered steel to build the arena's iconic exterior in order to recall the color and scale of adjacent brownstone blocks. According to Gregg Pasquarelli, a partner at SHoP, this proposal tried to mitigate the size of the building, with horizontal bands that could be read in different scales, said Gregg Pasquarelli. There are larger at the top side which responds to the urban scale, and a lower band that is in the neighborhood scale, up to about the height of the brownstone neighborhood, four or five stories.

Besides, the interior of Barclay's center reinforces a connection with the cityscape. The arena's floor is below grade, allowing views to the bowl, scoreboard from the entry and even the plaza outside. The main concourse is built precisely at sidewalk level. By breaking with precedent, at ground level, the arena establishes an open and welcoming connection to the street to make it serve as a social, civic and economic catalyst for Brooklyn and to be embraced by its neighborhood and the borough at large.

However, the community had split opinions about the building. Many residents think it is ugly, and some go as far as calling the Barclays center an "eyesore." Locals fear the stadium will bring an influx of traffic and tourists, threatening the world-famous Brooklyn atmosphere also driving up housing prices and extinguish these cultural hubs.

The Barclays center represents the tip of the iceberg for the gentrification phenomenon that has affected an entire Brooklyn community — having an impact that extends further from the architectural design aspect and englobes the Project itself since it became a symbol of abuse of state power. Consequently, having an impact in several scales such as the raising of bus and subway fares, connecting with 11 subway terminals due to the annual influx of people, the lack of transparency for the use of public funding for the construction of the building and tax savings to keep it running during these years and getting unique benefits for the use of eminent domain even though it is not a public development. The reality behind this sports venue cannot be disguised for the opening of more shops and restaurants in the neighborhood, while hundreds of families and business owners in the footprint of the Project were evicted and others around have left due to the rising of living and rent prices. This Project has been an effort of several forces pushing towards a master plan that will continue to reshape the urban context around Prospect Heights.

TO THE VERY BEST OF TIMES

