



# ***PORTFOLIO***

Mukul Gupta

# CONTENTS

## ACADEMIC

2020

### **01** LITH: COMBINATORIAL HOUSING PLATFORM

*Re-design of Aguada central prison, Goa a correctional institution based on reformativ techniques.*

2016

### **02** WALLS OF CONFINEMENT : PRISON DESIGN

*Re-design of Aguada central prison, Goa a correctional institution based on reformativ techniques.*

2015

### **03** URBAN VALLEY : URBAN DESIGN

*Urban design intervention at central business district, mayur vihar.*

2014

### **04** SCHOOL OF ARCHITECTURE

*Learning environment, discourse on architecture as an extension of the landscape.*

2013

### **05** SPIRITUAL PAVILION

*A multi-purpose water edge pavilion. Located in the spiritual town of Vrindavan.*

2013

### **06** SOCIAL HOUSING

*A group social housing project designed within the constraints set by the local guidelines.*

## CONCEPTUAL

2016

### **07** DISCRETE EXPLORATIONS

*Conceptual. Algorithmic explorations of discrete component inspired by megalithic tectonics, crystalline geometry, minerals and wood joints to create a housing project.*

2016

### **08** LIGHTHOUSE

*Conceptual. A monument to the right to privacy.*

2014

### **09** LIBRARY

*Conceptual.*

## PROFESSIONAL

2017

### **10** IZMIR UNIVERSITY OF ECONOMICS

*Plasma Studio : Master-planning for the university of economics, Izmir, Turkey.*

2017

### **11** CHENGDU FLOODGATE BRIDGE

*Plasma Studio*

2018

### **12** SHENZHEN HQ

*Buro Ole Scheeren*

# mg

## MUKUL GUPTA

mukul.gupta2309@outlook.com  
mukul.gupta.19@ucl.ac.uk  
+44-7541373416

## LANGUAGES

English  
Hindi (हिंदी)

## EDUCATION

Master of Architecture:  
Architectural Design  
**Bartlett School of  
Architecture**, UCL,  
London  
2019-2020

Bachelor of architecture  
(5 year professional degree)  
**University School  
of Architecture and  
planning**, New Delhi  
2012-2017

Senior secondary educa-  
tion  
BBPS-GRHM, New Delhi  
2012

## EXPERIENCE

Architectural internship at  
**Buro Ole Scheeren** |  
Beijing  
Feb'18- Sept'18

Architectural internship at  
**Plasma Studio** | Beijing  
Nov'16- Feb'17

Architectural internship at  
**Morphogenesis** | New  
Delhi  
Jul'16-Oct'16

## E.C.

Directed and edited a short  
film 'The Grey mile.'  
October-December 2013

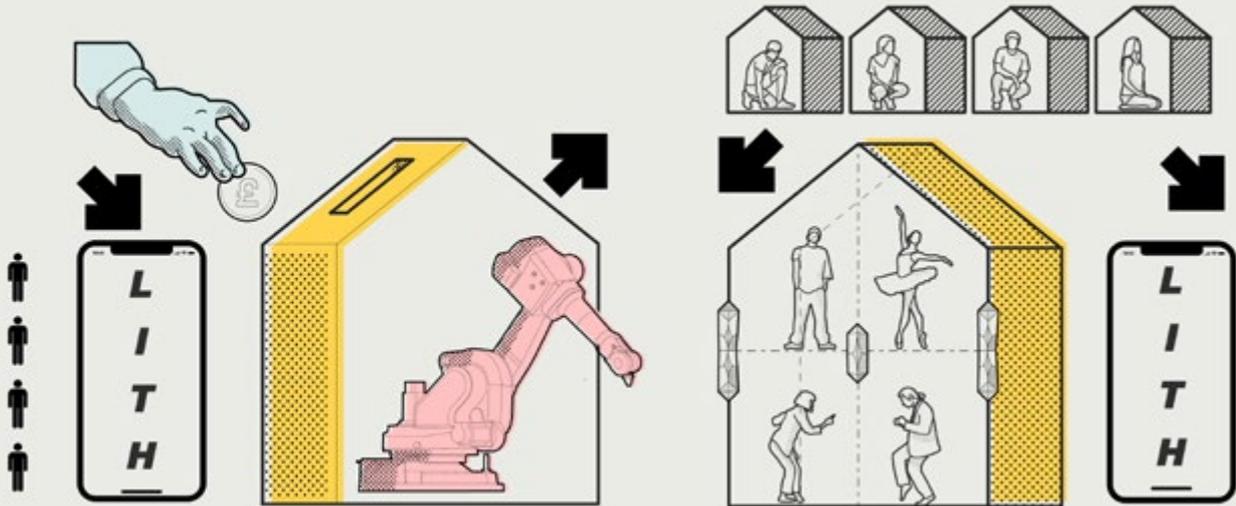
Graphic editor and co-  
editor to the publication and  
documentation of streets of  
Dwarkadeesh, Gujarat.  
July 2014

## SKILLS

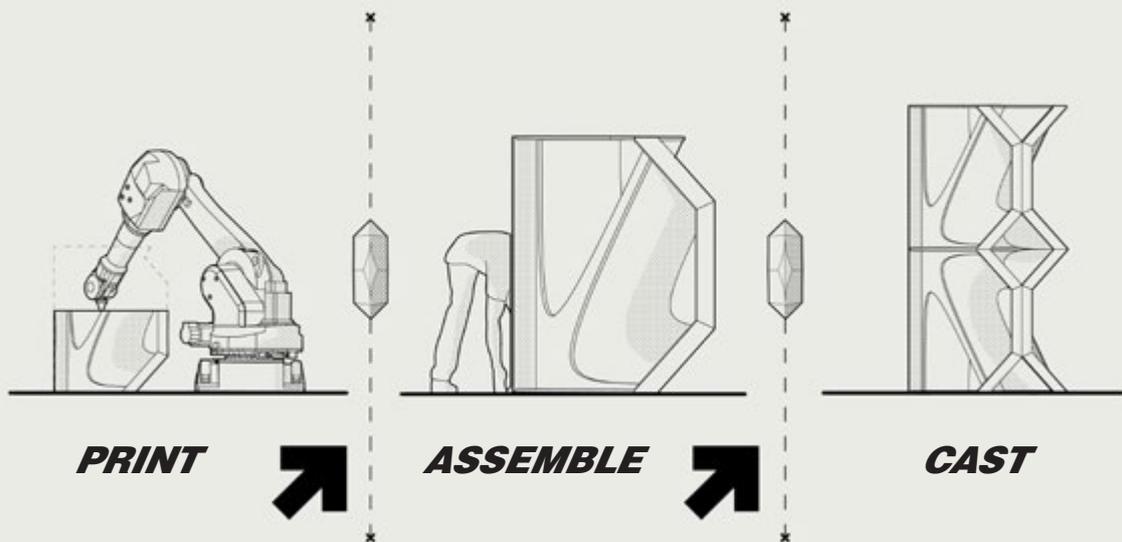
Rhinoceros 3D  
Grasshopper  
Unity  
C#  
processing  
AutoCAD  
Photoshop  
Illustrator  
InDesign  
After effects + Premiere pro  
UI design  
V-ray  
3Ds Max  
Trimble Sketchup PRO  
Python  
XD  
Webflow

# 01

## LITH: A COMBINATORIAL HOUSING PLATFORM



Lith is an automated living system, composed of A user owned structure, that manages a spatial-sharing platform and a localized automated fdm printing farm, funded by the local council, Utilized to generated a kit-of-part of printed form-works Which can be assembled and cast to produce an intentional community, where spaces and utilities which are being underutilized, Can be shared as studios with the local artistic community.



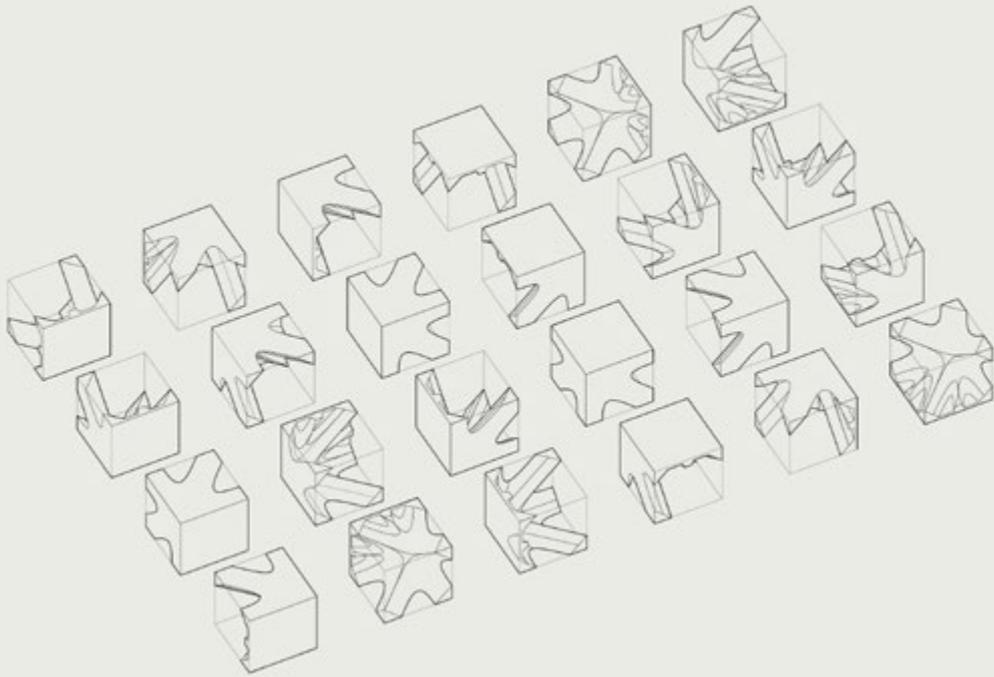
Lith, utilizes an automated construction system, to print, assemble and cast. This system remains a part of the structure it constructs.



## ***THE PRINTING FARM***

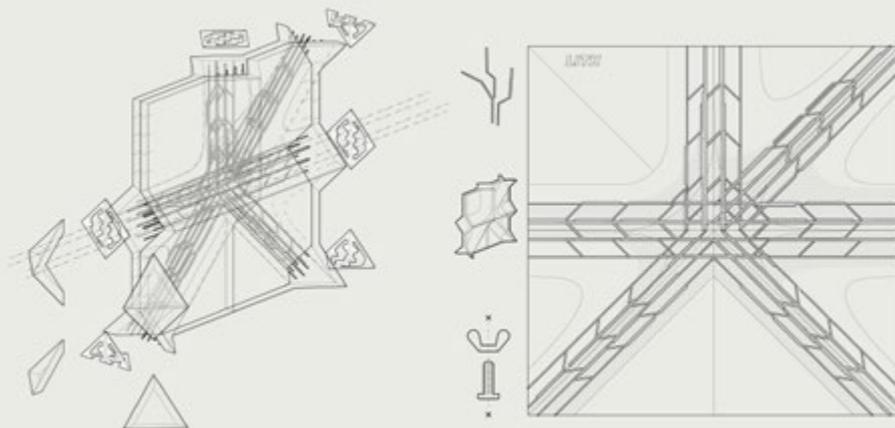
The printing farm is visible from the street level, a spectacle for the passer-by, carefully placed at the edge of the street becoming part of the urban scenery.

**PARTS**



A library of re-usable serialized parts of form-work is designed which can be reconfigured to produce monolithic structures.

**STRUCTURE**

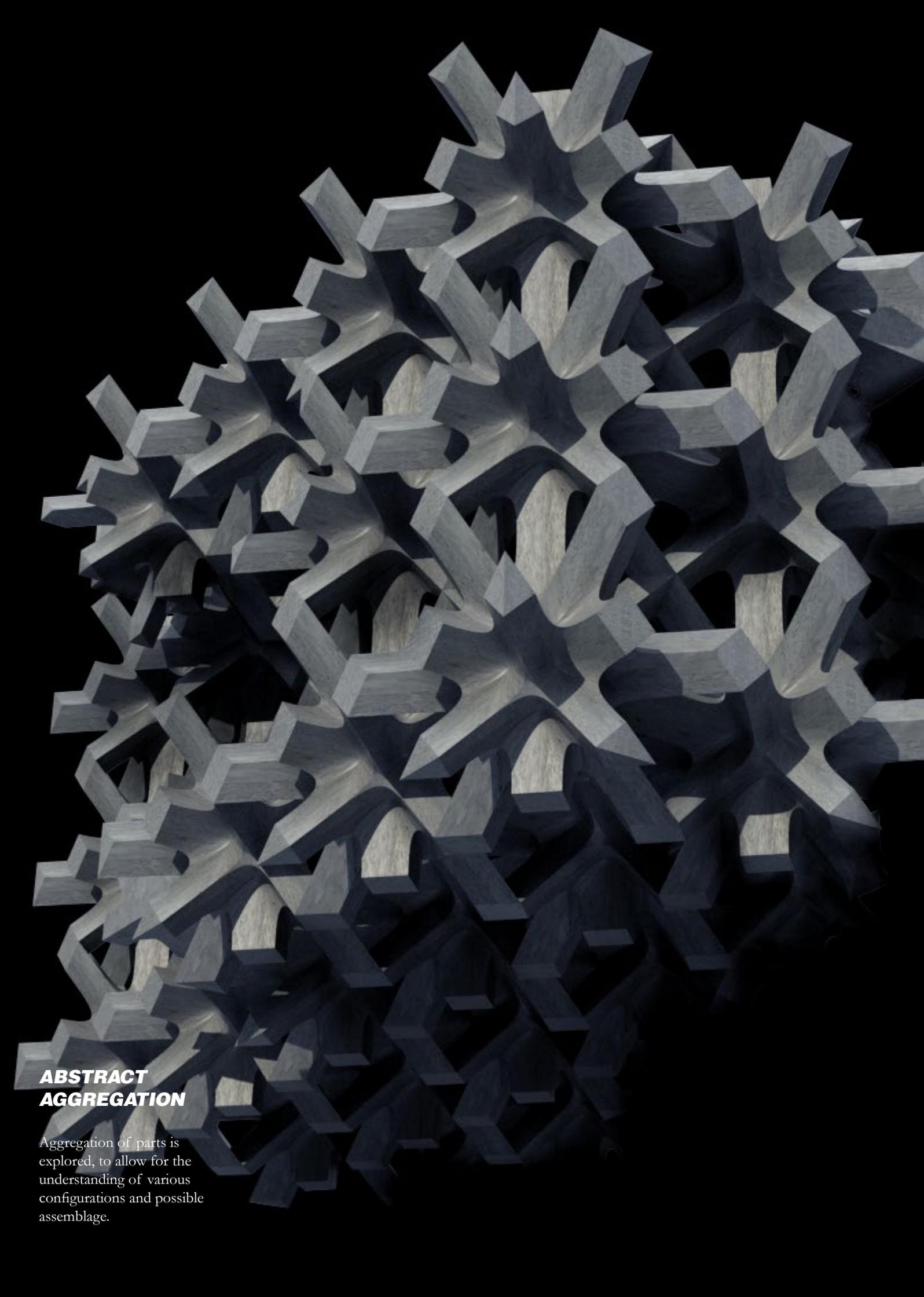


A network of Automated bent steel tube aggregation are utilized to reinforce parts of Lith.

**ASSEMBLY**



The printed form-works are self-supporting and require no additional scaffolding, reducing the production chain of traditional casting methods.



**ABSTRACT  
AGGREGATION**

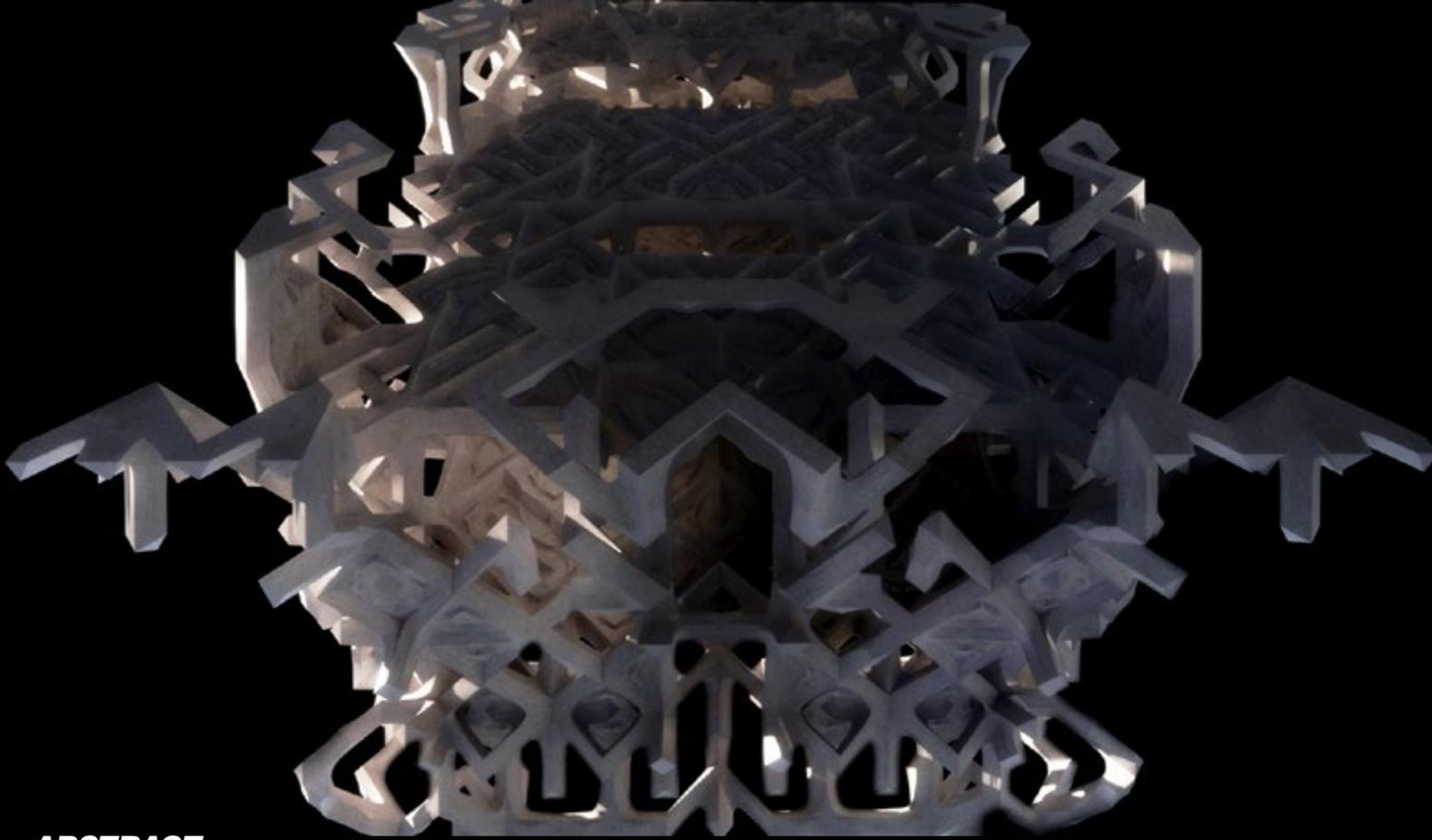
Aggregation of parts is explored, to allow for the understanding of various configurations and possible assemblage.



## ***ASSEMBLAGES***

Exploration of part tectonics and mereology is essential to a discrete reconfigurable part system. The connections of each part is explored for its structure making potential.

Parts can combine to form vertical, horizontal, sparse, dense and diagonal elements.

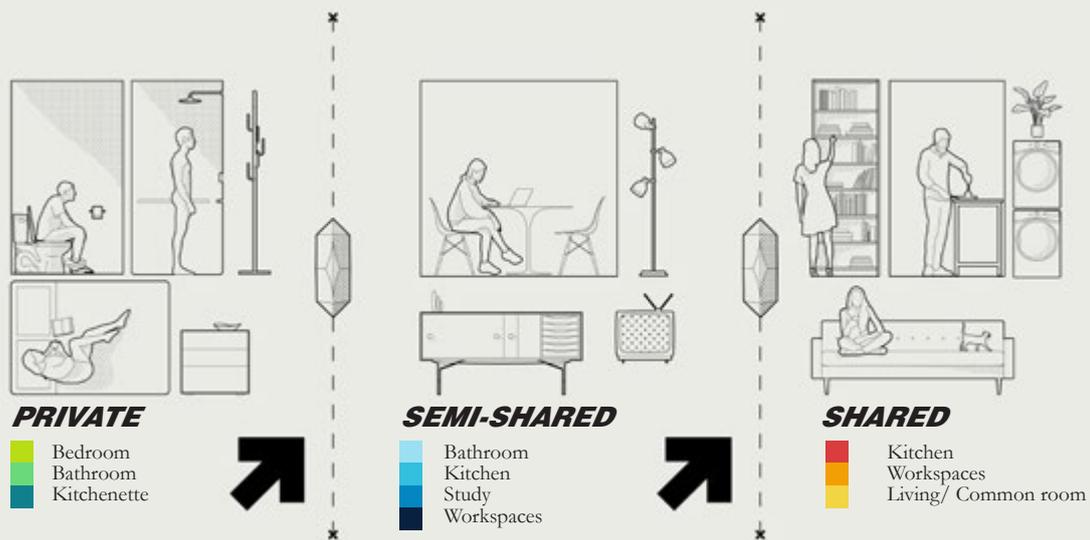


**ABSTRACT  
AGGREGATION**



**VIEW**

View of one of the built structures with the ETFE facade from street, looking up.



The framework divides the spaces within the housing as private, semi-shared and shared. Where semi-shared spaces are reserved for residents, while shared-spaces are utilized by the neighbourhood community as studios and galleries.



To configure these each resident can designate the volume of space they are inclined to share, which has a co-relative effect on their rent,



**PRIVATE**

Bedroom  
Bathroom  
Kitchenette

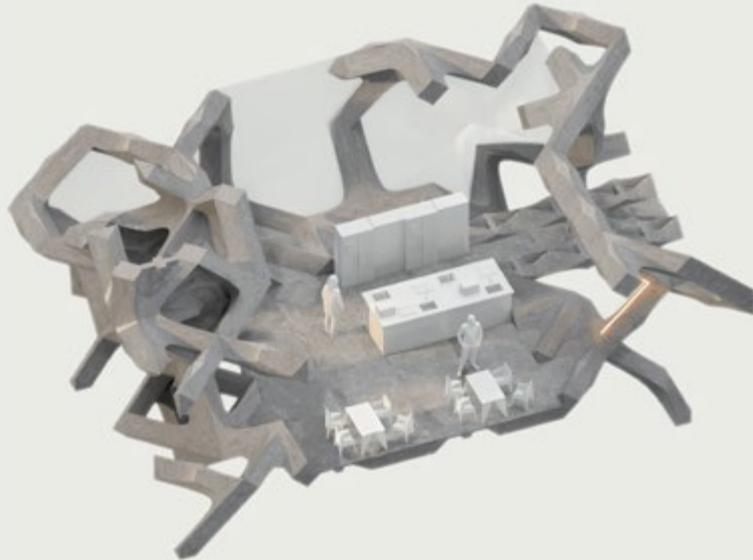
Private aggregation utilize denser and more opaque parts , to preserve privacy and allow for differentiation between private spaces and others.



**SEMI-SHARED**

Bathroom  
Kitchen  
Study  
Workspaces

Semi-shared spaces are accessible from all private spaces but not from all public spaces. The space optimization algorithm ensures that adjacency rules for different rules are followed.



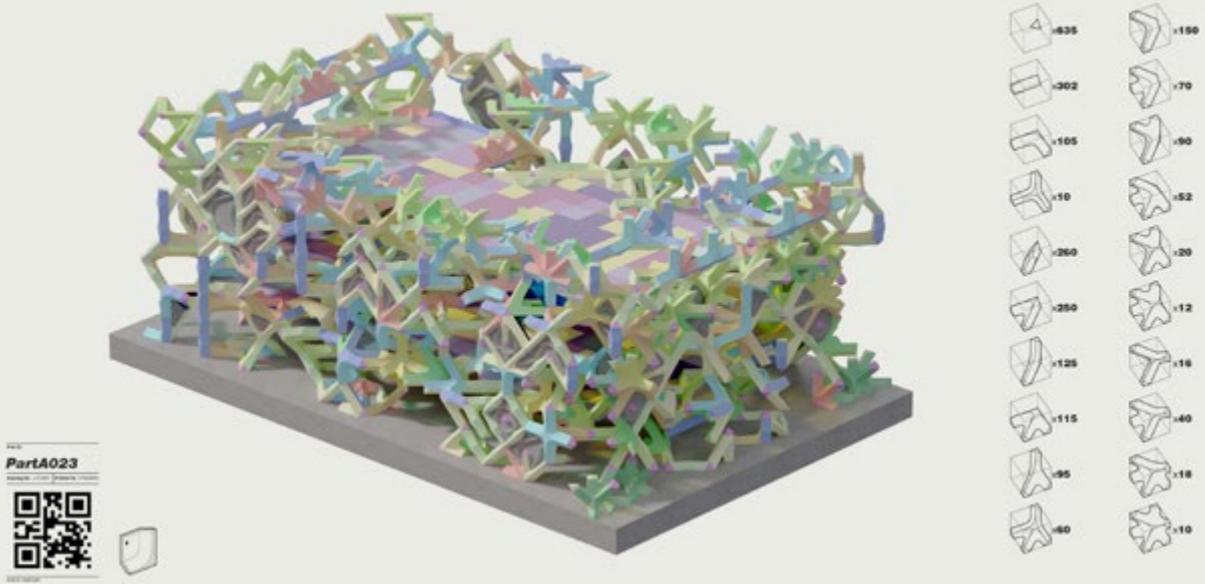
**SHARED**

Kitchen  
Workspaces  
Living/ Common room

Parts of shared and private space are measured in Voxel-units. A single bed occupies two voxels, a shared kitchen occupies 9.

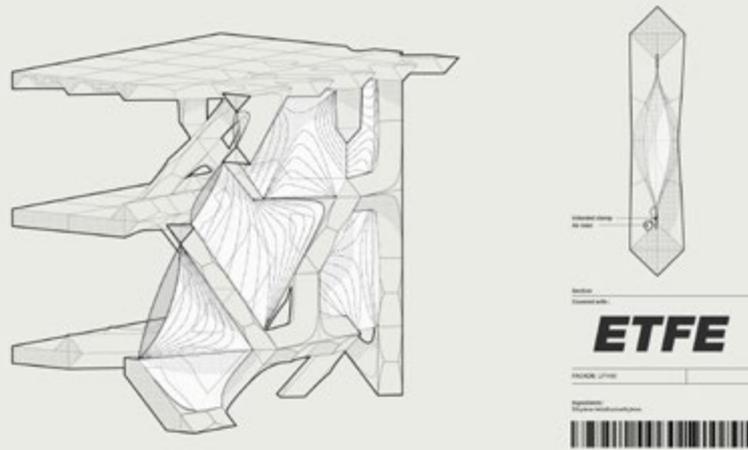


**SERIALIZATION**



Each algorithmically generated part is serialized, ID'ed and tagged with a code, Enabling the assembly process to re-use moulds from the layers below as the building grows.

**FACADE**

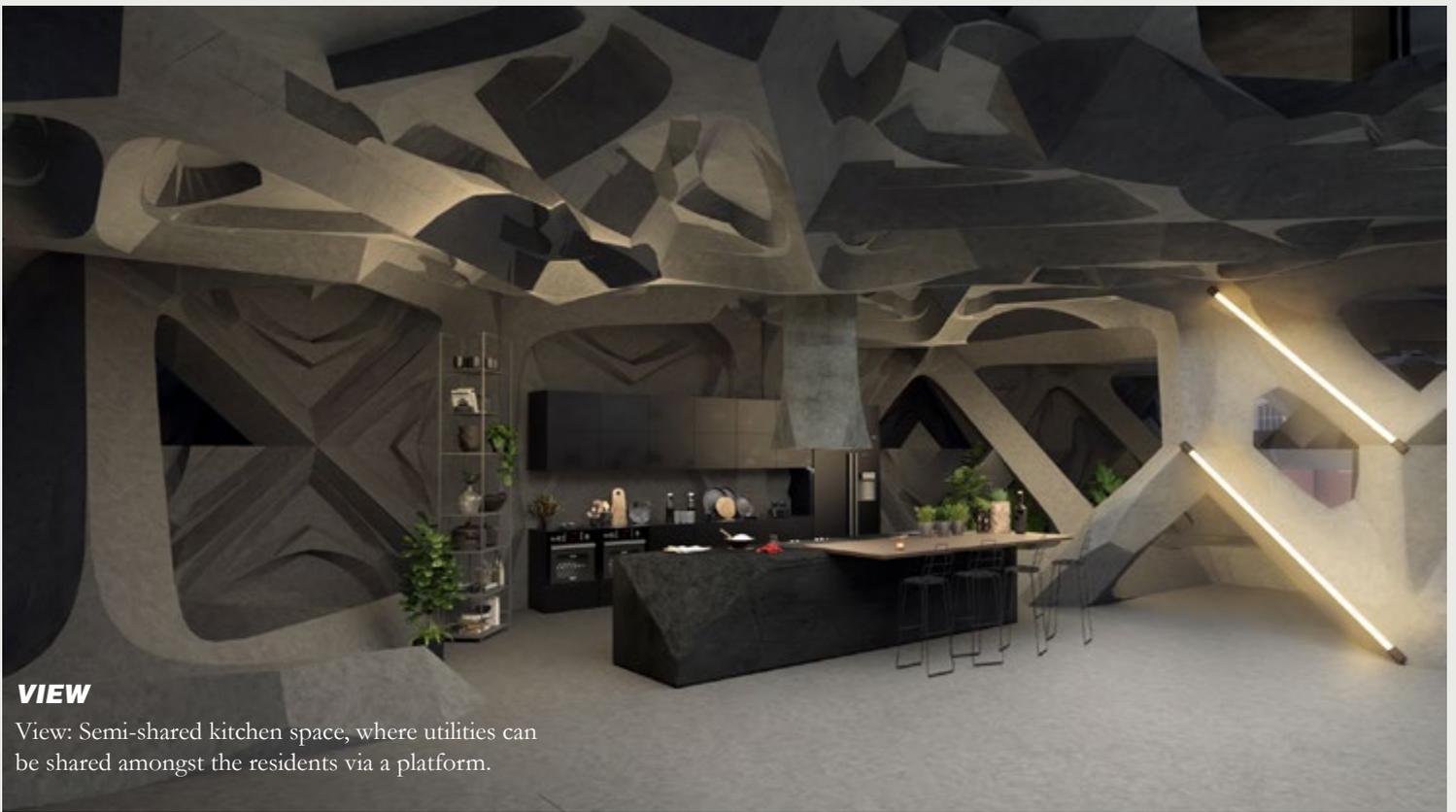


These generated aggregation, void of planar skin, can then be enclosed using ETFE membrane.

**CUSTOMIZATION**

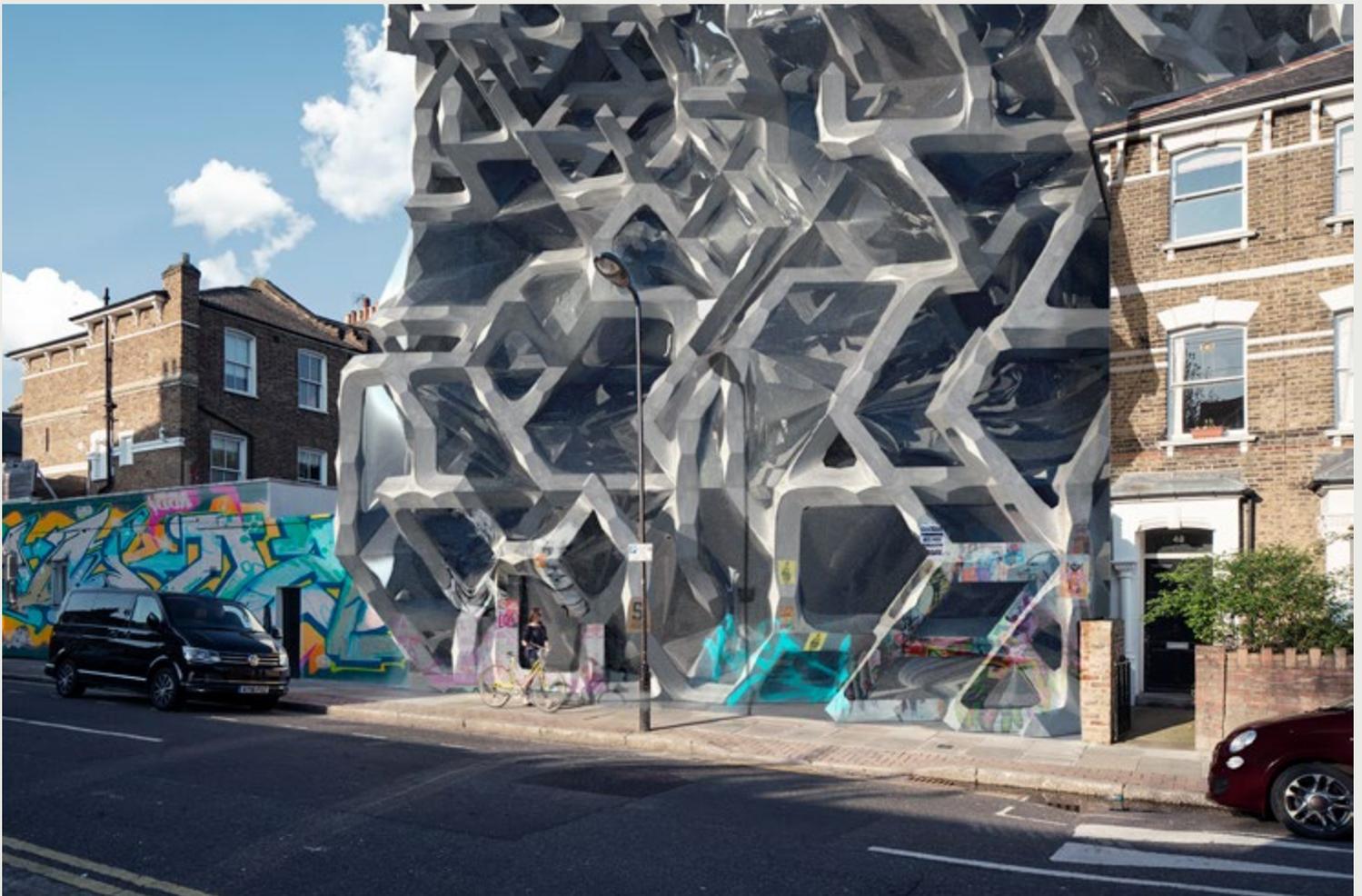


These parts have an opportunity to be customized via triangulation. users can utilize a platform interface to generate points on the surface of the parts which can then be pushed and pulled to generate a triangulated surface which fits in with the existing parts.



**VIEW**

View: Semi-shared kitchen space, where utilities can be shared amongst the residents via a platform.



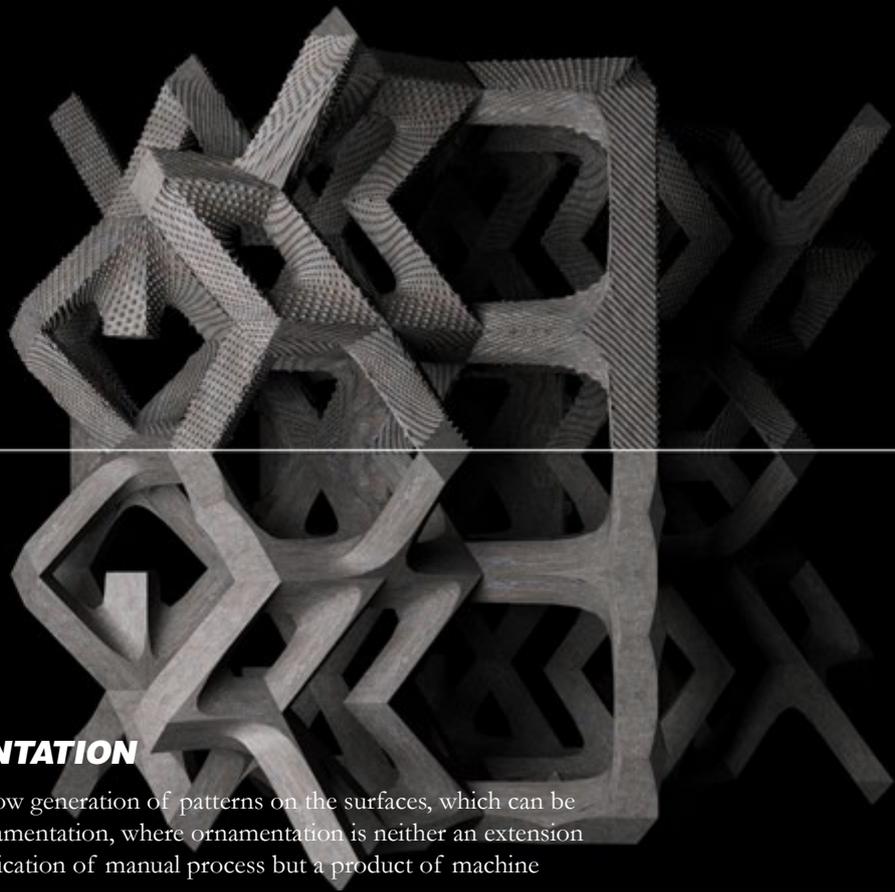
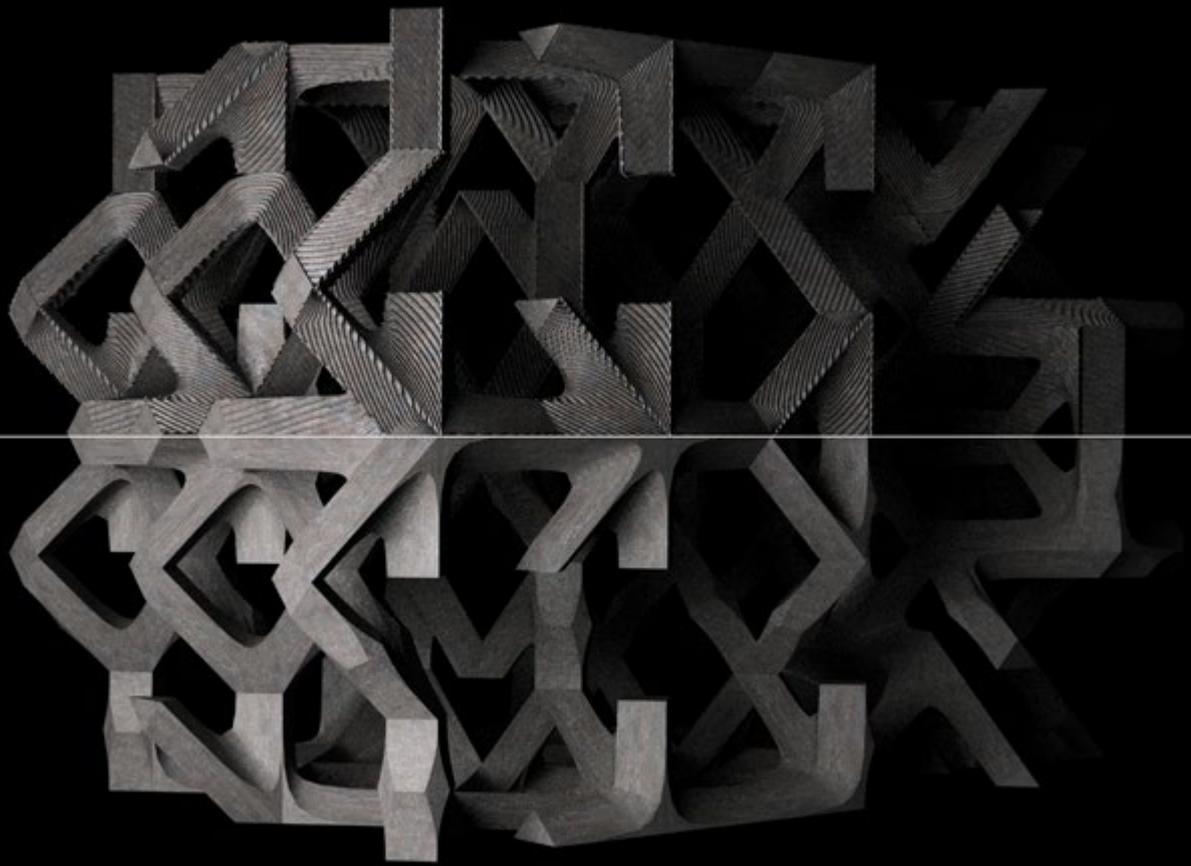
**VIEW**

View: Semi-shared kitchen space, where utilities can be shared amongst the residents via a platform.



## ***TYPOLOGIES***

Exploration of the various ways the parts can assemble and various spatial configurations result in a system enabled to produce varying typologies which can fit different urban conditions.



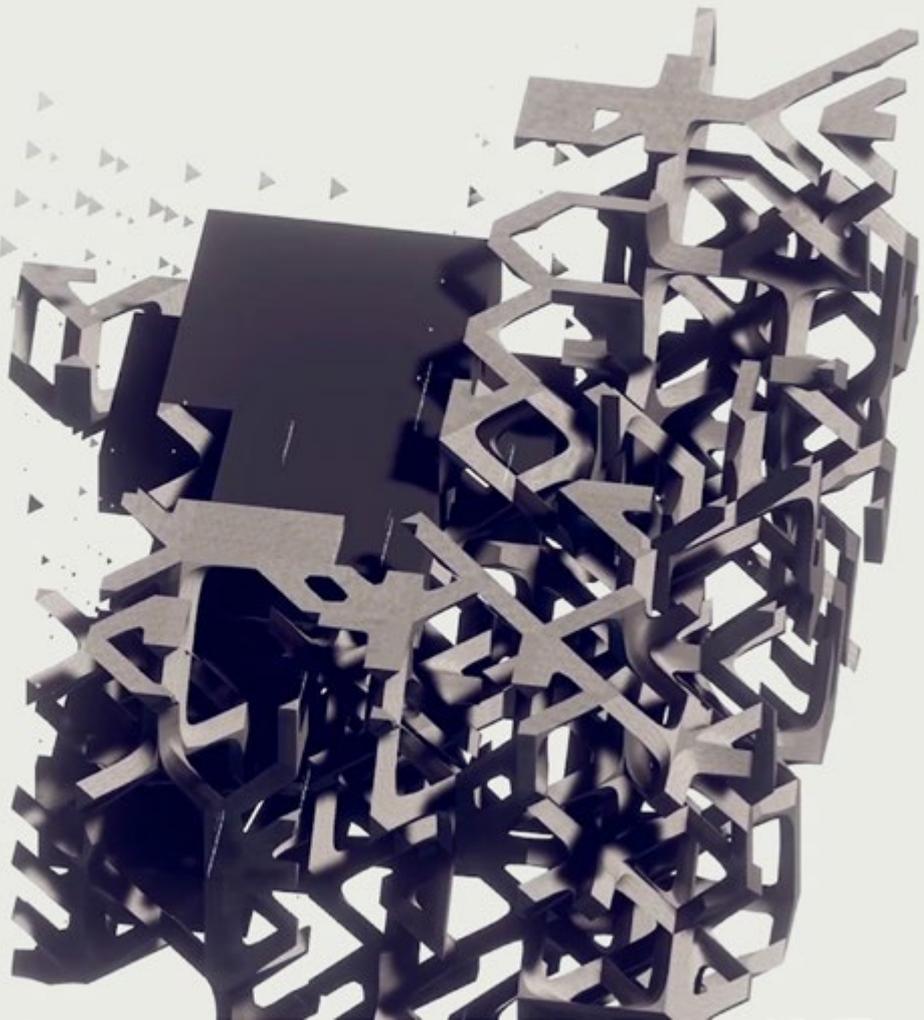
## **DIGITAL ORNAMENTATION**

The 3d printed form-work allow generation of patterns on the surfaces, which can be viewed as digital machine ornamentation, where ornamentation is neither an extension of manual labour nor the replication of manual process but a product of machine production.



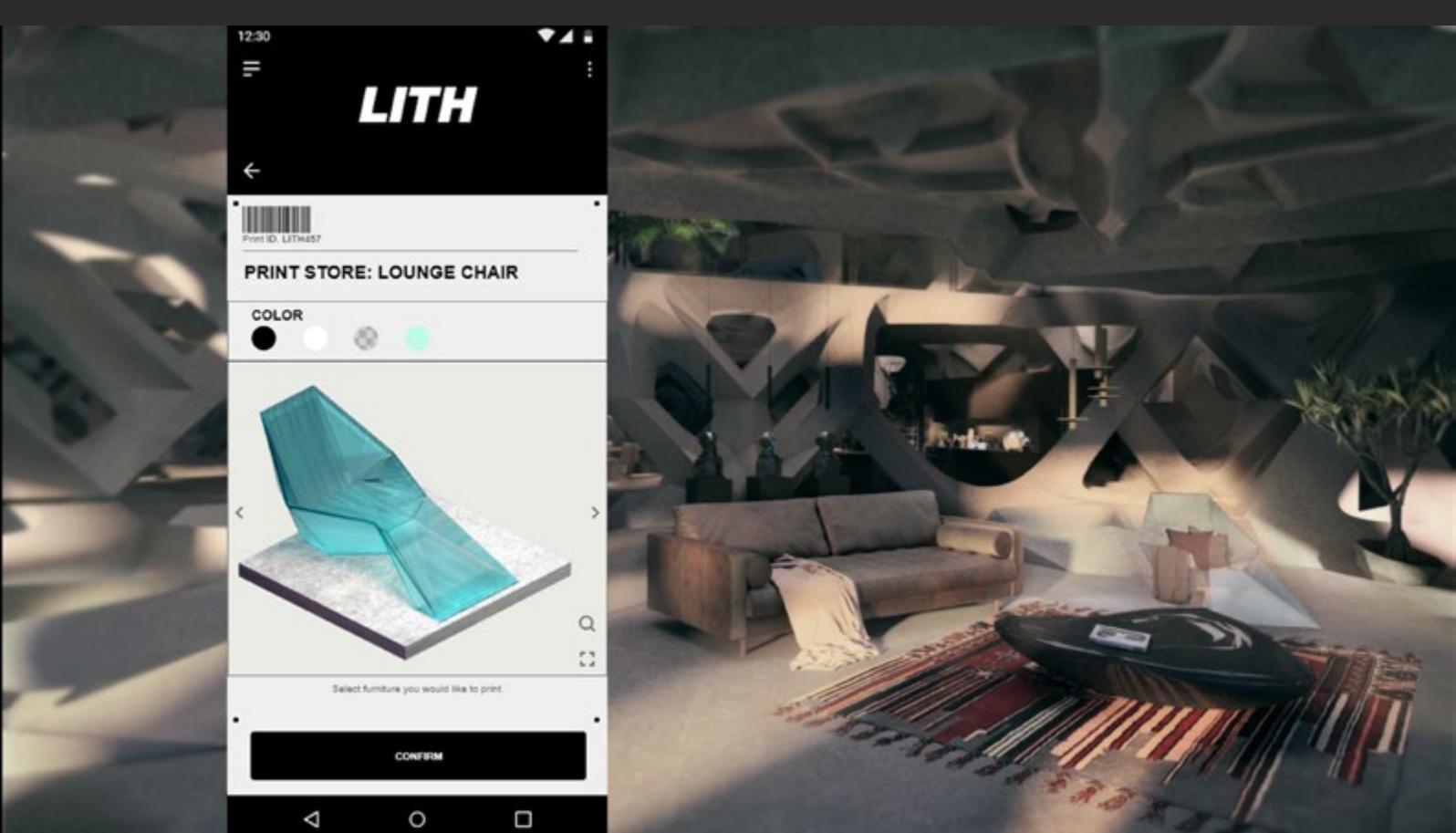
## **SPATIAL GENERATIVE ALGORITHM**

A combination of hill-climbing optimisation, and space-function sorting algorithm is utilised to generate spaces which occupy voxel spaces.



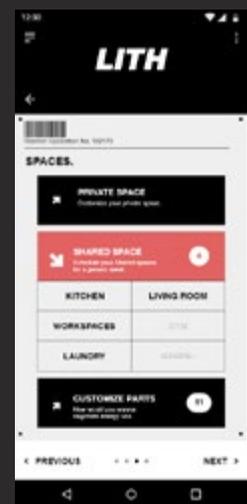
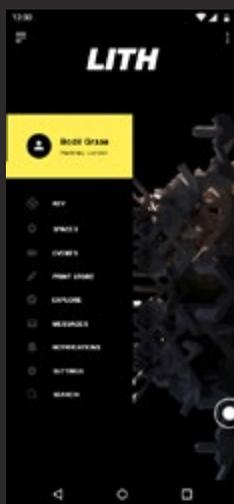
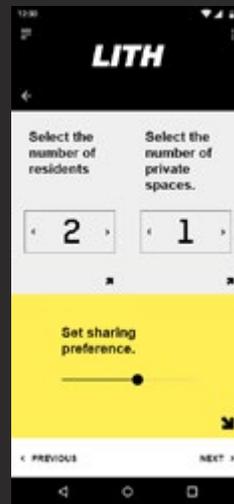
## **CONSTRAINT SOLVING ALGORITHM**

The parts of LITH then populate the negative spaces around these generated voxel-spaces resulting in spaces carved out of lith part assemblages.



## PLATFORM UI/UX

All aspects of the design, from generation of spaces to production of parts are controlled or influenced through a user platform. community participation and platform driven data collection is essential for the LITH design methodology.



# 02

## WALLS OF CONFINEMENT

Architecture is primarily concerned with design of habitable spaces, these spaces can vary from built to open, from solitary rooms to large cities. It is influenced by forces such as utility, structure and aesthetic. To some extent, it seems, buildings can be used to influence individuals. Society at large can be influenced through design of houses, institutions and ideal communities.

One is then drawn to contemplate about spaces which fundamentally contradict the idea of positive influence of architecture on behavior, as architects we must strive towards basic human standards for all; even those condemned to be unfit for society. In confined environments such as prisons, one often feels the environment is hostile and renders any possibilities of reform void. The plan and the symbolic forms with which buildings of incarceration are invested, are certainly of interest. The prison can be seen by society as an instrument of social policy and thus the ability to change its typology may impact social policies.

It's peculiar to say, but it's nevertheless true: we punish people with architecture. The building is the method. We put criminals in a locked room, inside a locked structure, and we leave them there for a specified period of time. So, should architects remove themselves from prison design entirely? No, quite the contrary. Architects need to strive for better system for reform in penal architecture towards models of incarceration that incline towards reform and rehabilitation.

Confinement is, in the penal sense, a restriction of physical activity within a defined boundary. It has been, but should never have been a restriction on mental activity. The imposition of inhumane physical hardship within the prison as a 'punishment' in addition to the necessary confinement for public safety, is cruelty to the mind. Society has lost its ability to provide a tolerant and caring environment to such degree, that to create such an environment within prisons will be a cause of great outrage and resentment for most people, but nonetheless necessary. The following architectural design looks forward to adapt to the changing paradigm of prison design and aims for a prison that reforms its inmates and stands for a society that believes in hope, even for its worst.

The prison could be seen as a marginalised urbanism, a heterotopia. To elevate the prison from its institutional qualities the following design has been visualised as a community or a village, where each inmate is housed within his own private cell or hut. The cells resembled caves, as cavities cut into the steep contour of the site. The design sticks to the natural contours imparting an organic quality to the community, where the various functions have been placed in accordance with prioritisation to the programme or the regime of the inmate.

Year : 8th Semester  
Project Guide: Aarti Sharma  
Project : Academic  
Subject : Architectural Design  
Type : Correctional Institution  
Client : Public service authority  
Users : Public / Police / Inmates



# AGUADA CENTRAL PRISON

Site area : 56860.00 sq.metre

FAR : 0.2

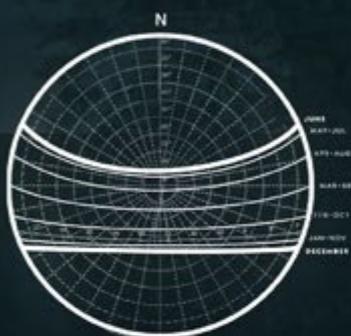
Built area : 8995.70 sq.metre

AGUADA FORT AREA  
CANDOLIM DISTRICT, GOA  
8°35'28.7"N  
77°17'45.3"E

Site :

# AGUADA FORT

Fig. The site is located at the southern tip of Aguada district, Goa and is surrounded by water .



Solar chart



Wind chart



Tide chart

Arabian Sea

Sinquerim Beach

Fort Aguada

Site

Mandovi River

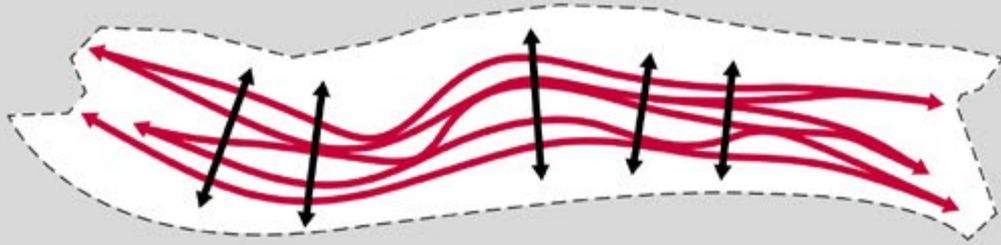
Fort Aguada is a seventeenth century Portuguese fort facing the Sinquerim beach and the Mandovi river, south of Candolim, Goa. The word 'Aguada' in Portuguese means water .

At the foot of fort Aguada lies Aguada central jail, Goa's largest prison, Fort Aguada used to be a prison during the Portuguese rule in Goa. This fort was built in the year 1612. This has two fort known as lower fort and upper fort. Aguada fort was converted into a jail during the Portuguese rule and continued to be a prison for convicts in post-colonial Goa.

# DESIGN CONCEPTUALISATION

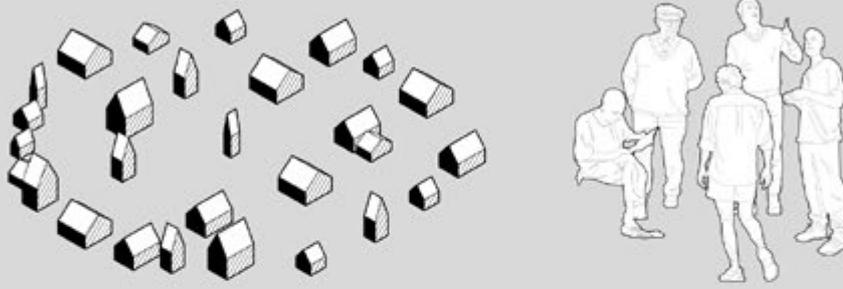
The following design concepts attempt to translate the ideological concepts of reformative prisons into design solutions.

## 1. CONNECTIVITY



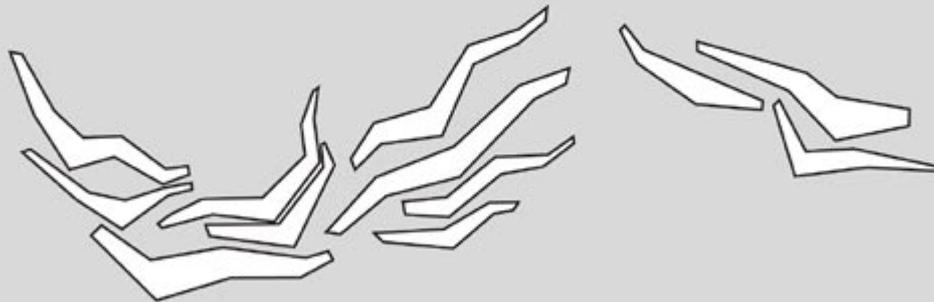
The reformative prison has higher connectivity in contrast to punitive prisons with strict control and low connectivity. This leads to increased probability of interactions amongst inmates and the guards/guides making the prison a better environment for learning by example. The architecture should meet prisoners and staff with an anti-authoritarian face, avoiding symmetries and axial orders. Security is a combination of static and dynamic measures, with static physical barriers and the dynamic presence of prison staff.

## 2. COMMUNITY □ CULTURE

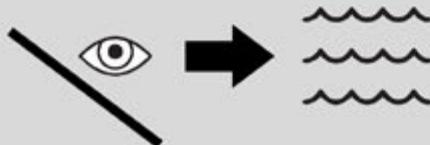


The design is organic inspired by local fishing villages that settle on similar terrain. The village typology is in contrast with the rigid iron grid typology of the punitive prison. Opening between clusters function as community space for group sessions and social learning. The residence units run parallel to the contour to maintain the natural terrain of the site as much as possible.

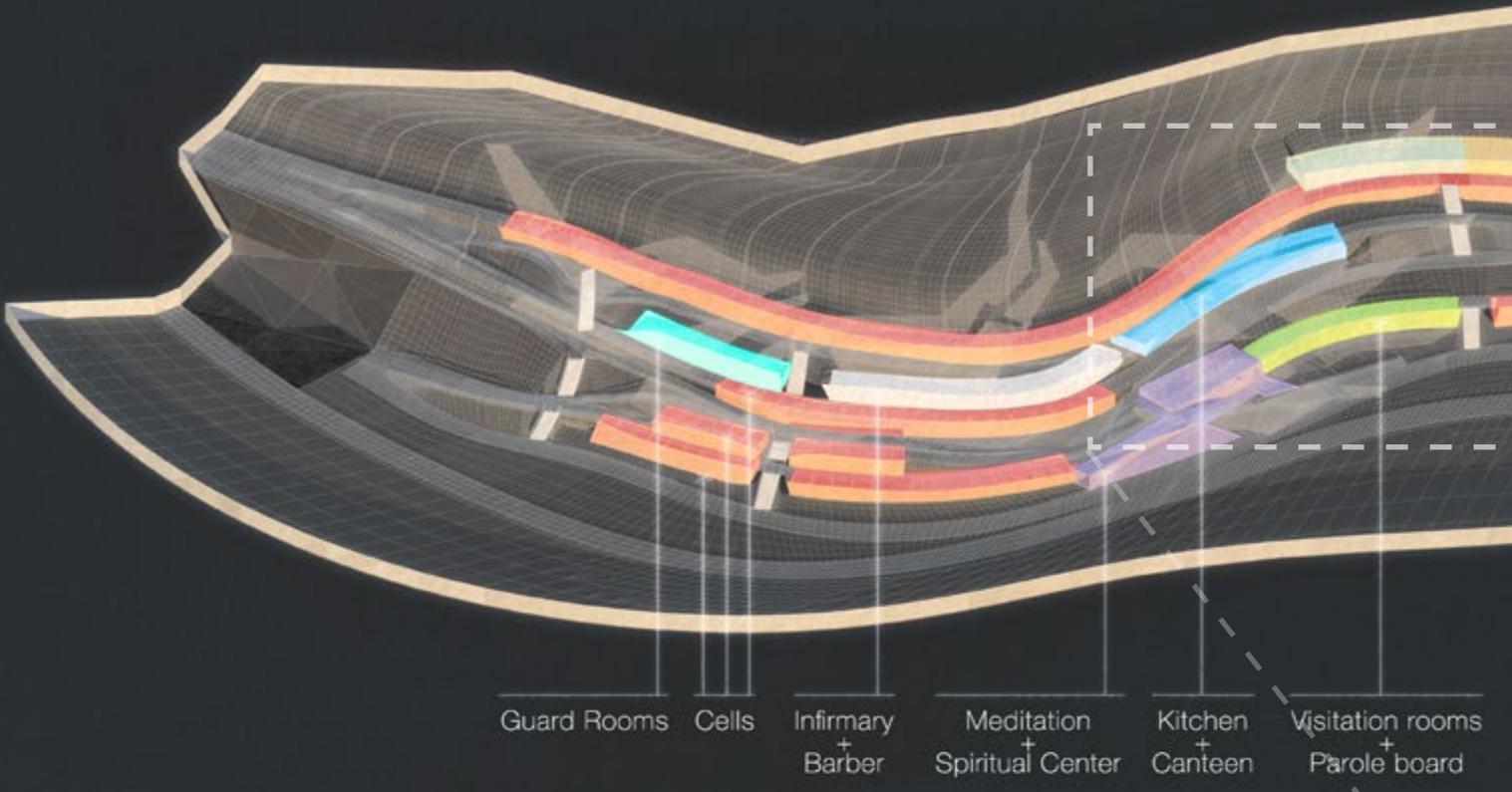
## 3. ENVIRONMENT



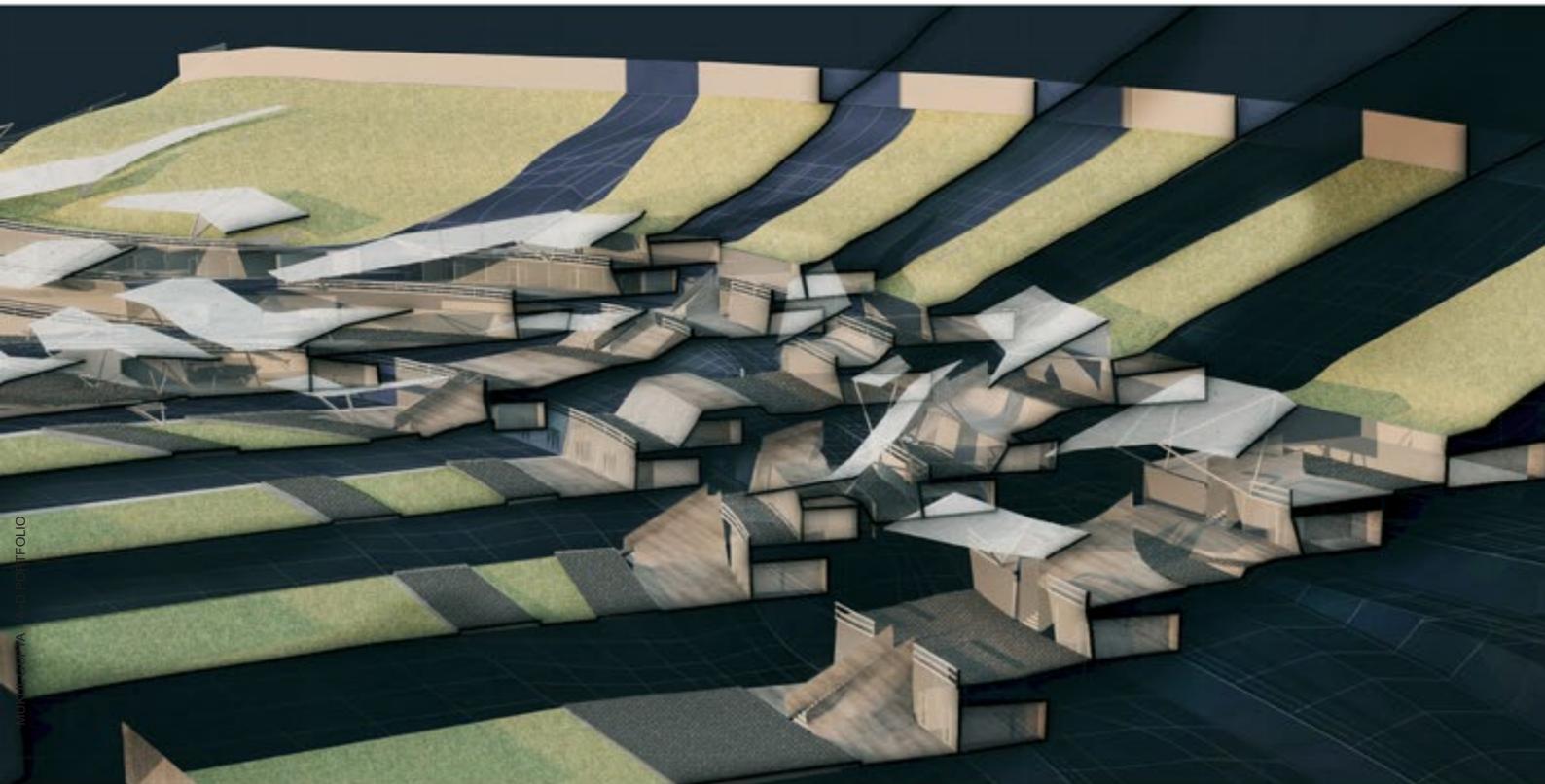
The tropical climate is harsh and an inmate would spend a part of the day outdoors as part of physical exercise and other labor. A shading structure mimicking the rocky cliffs shade the walkways and community spaces.



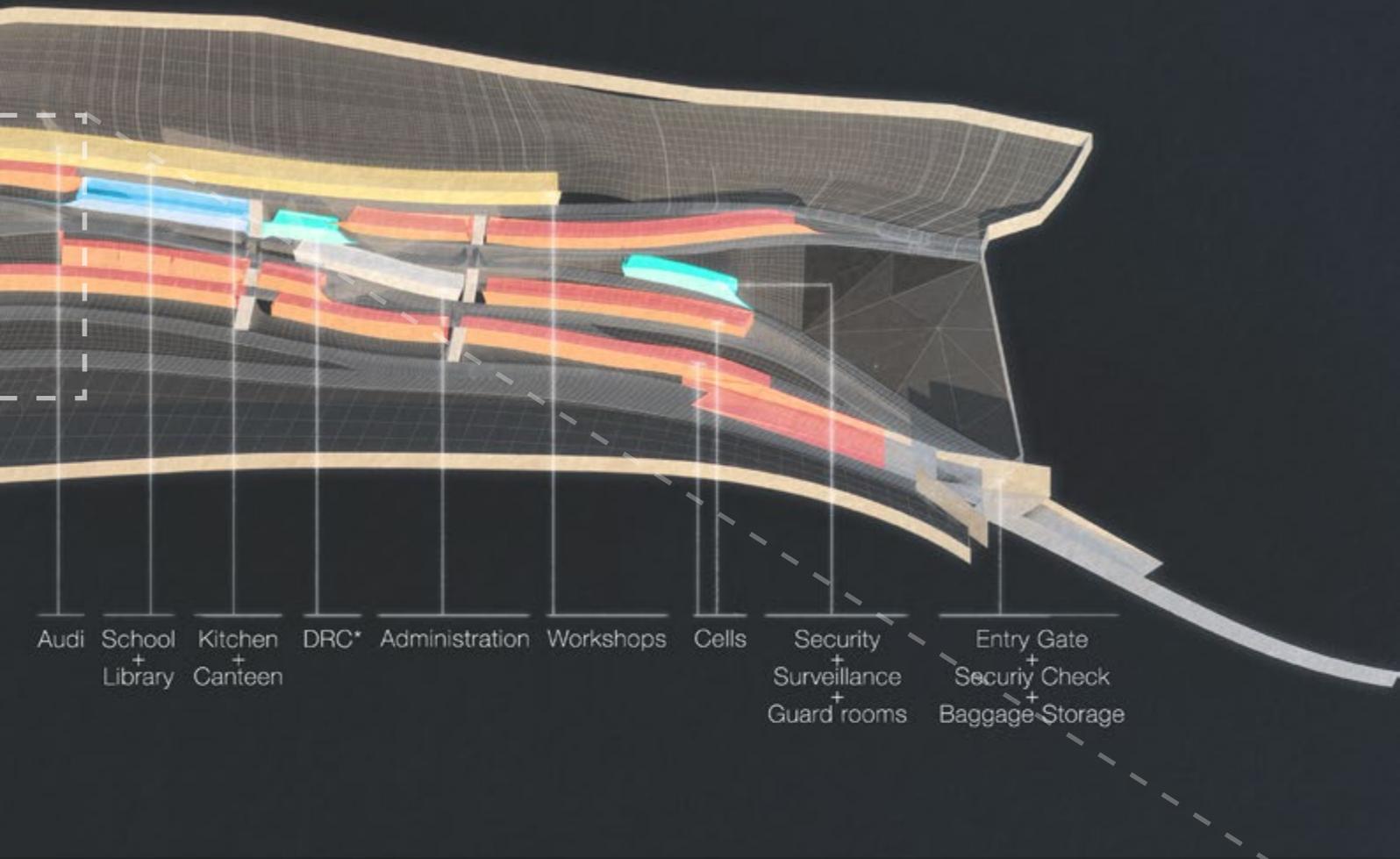
The reformative prison prepares the inmates for a better life after prison along with skill training, drug rehabilitation and social aid the reformative prison must provide hope. The inmate cells are oriented towards the open ocean to let the inmate glimpse at the outside world.



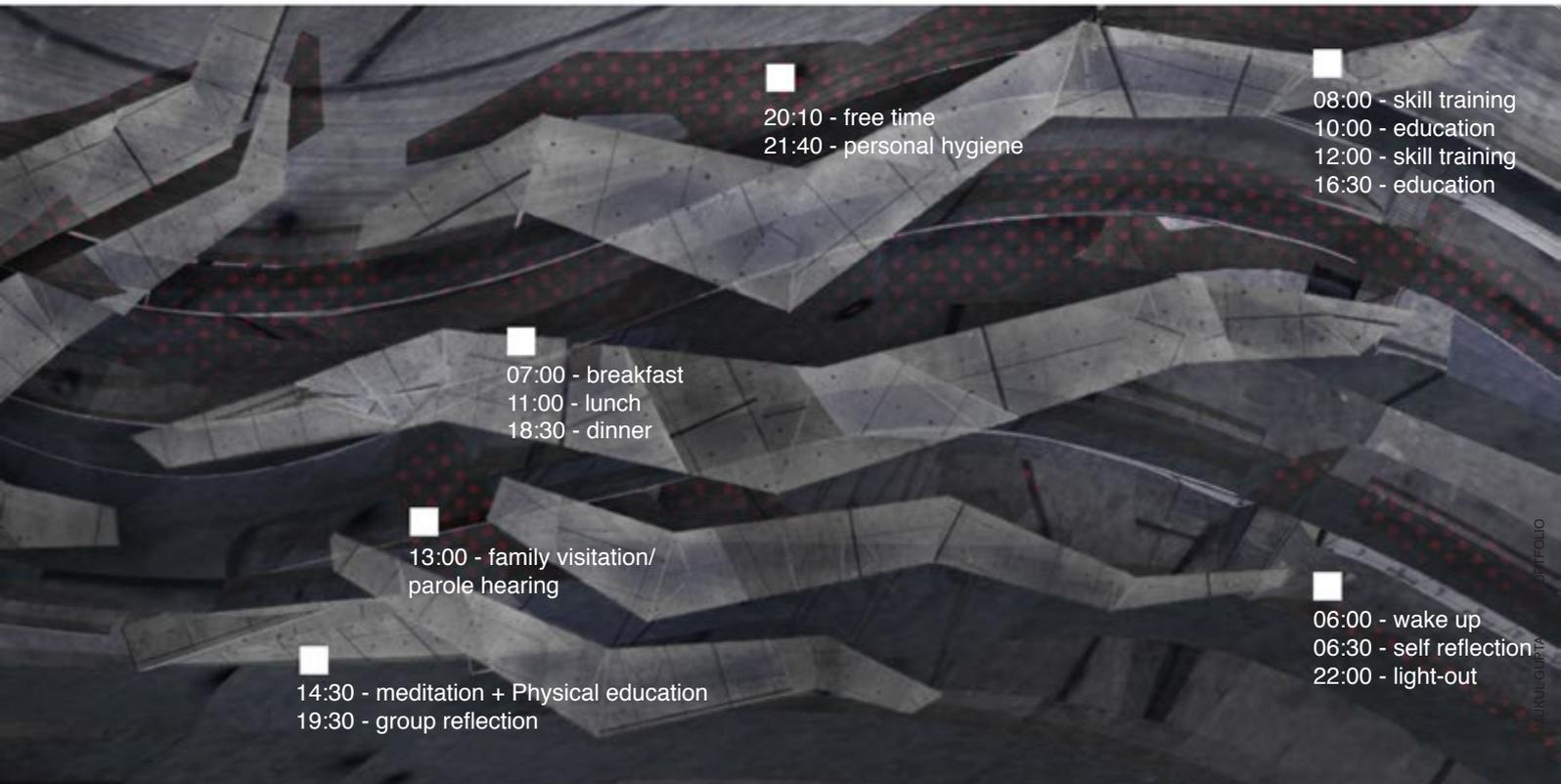
# FUNCTIONAL DISTRIBUTION



# SECTION



Audi School + Library Kitchen + Canteen DRC\* Administration Workshops Cells Security + Surveillance + Guard rooms Entry Gate + Security Check + Baggage Storage



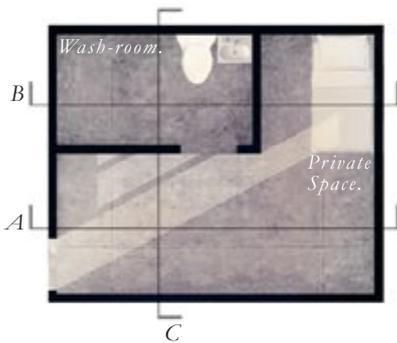
07:00 - breakfast  
11:00 - lunch  
13:00 - family visitation/  
parole hearing  
14:30 - meditation + Physical education  
18:30 - dinner  
19:30 - group reflection  
20:10 - free time  
21:40 - personal hygiene  
06:00 - wake up  
06:30 - self reflection  
08:00 - skill training  
10:00 - education  
12:00 - skill training  
16:30 - education  
22:00 - light-out

# INMATE REGIME

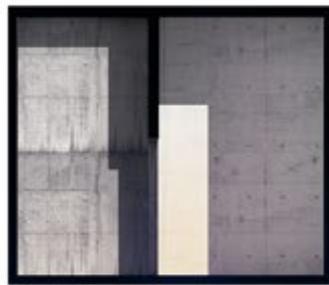
# CONFINEMENT CELL

## Confinement

1. The action of confining or state of being confined. Synonyms: imprisonment, internment, incarceration, custody, captivity, detention, restraint, arrest, house arrest.



Plan.



Section C.



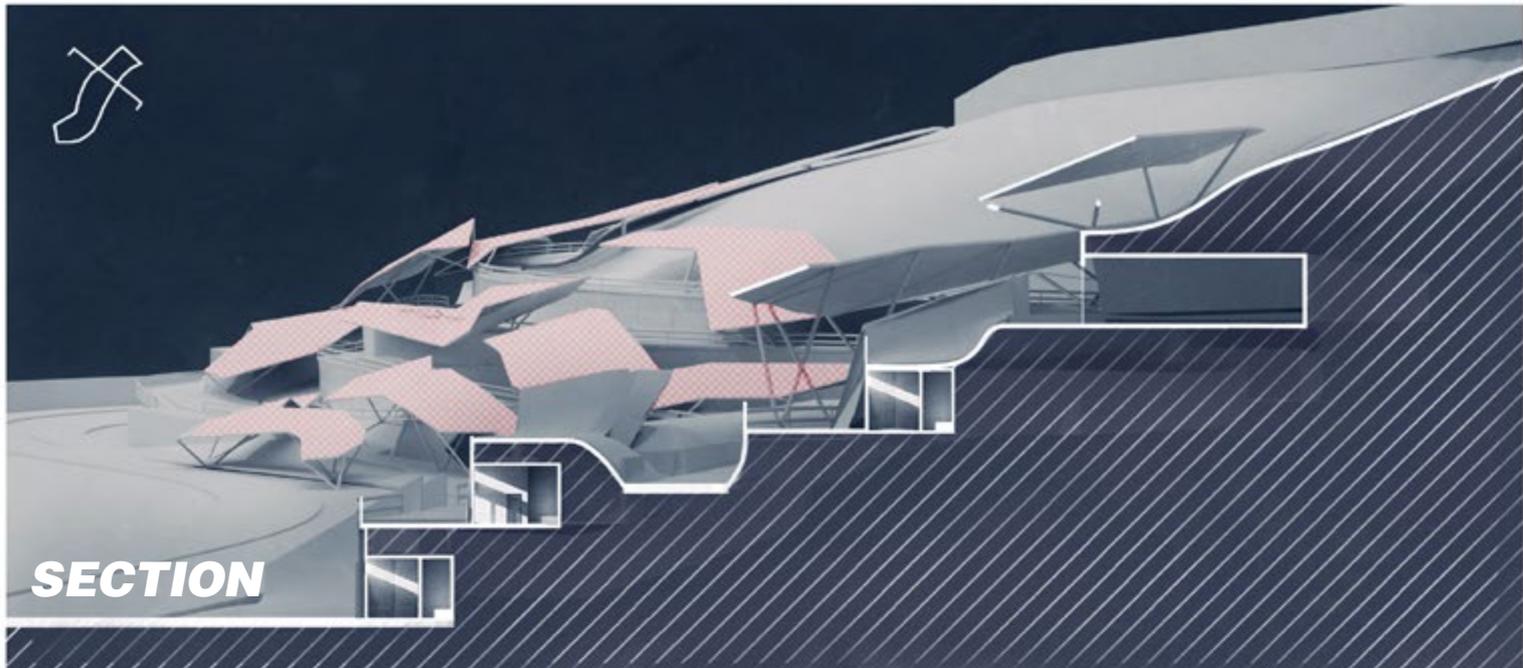
Section A.

Each cell for an inmate is its residence for the period of his sentence. It becomes necessary for him to be able to connect to his new home. The cell is thus treated as a regular living space, a home, provided with both a space to have guests over and have communication within the inmate community and a private cove for the inmate to self reflect and rejuvenate. The minimum habitable space for an incarcerated individual is measured.



Section B.

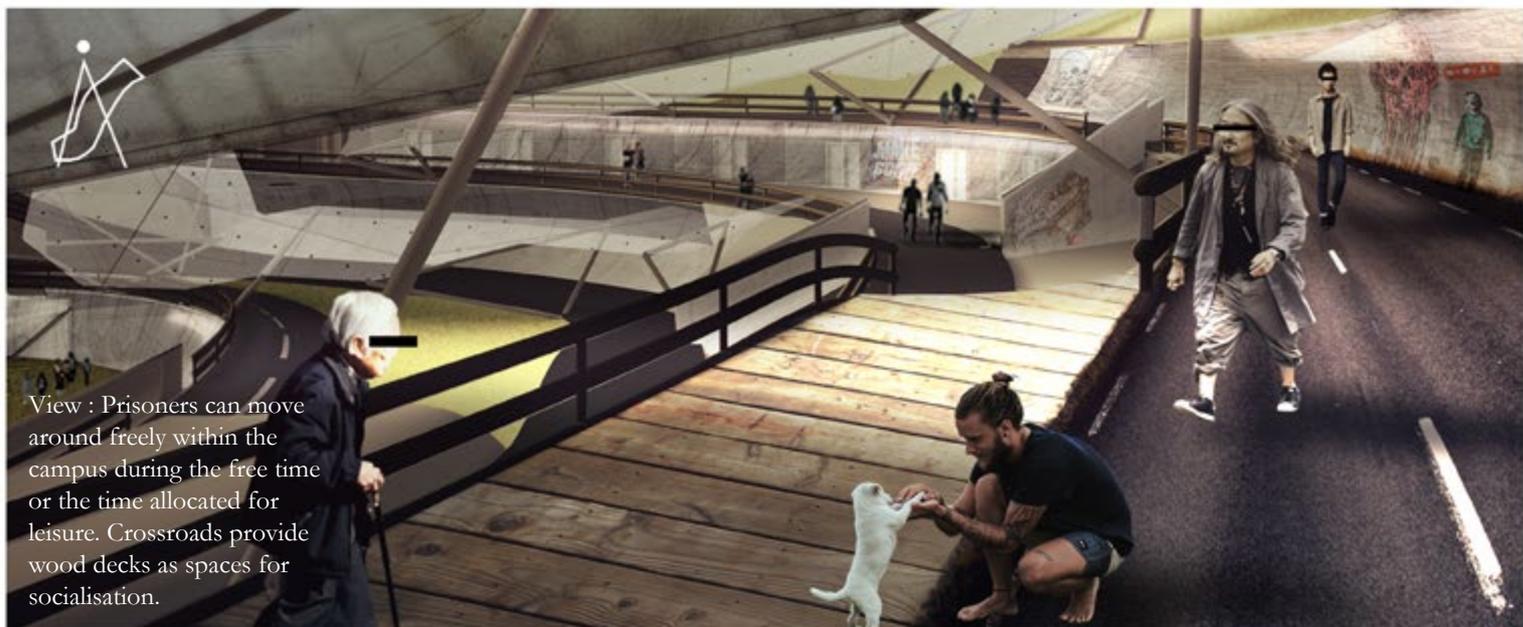
In this volume, the contents of your life are caged. But every human action cannot be programmed or predicted, Our bodies always find ways to carve out space, to refocus our attention from the geometry to the lived experience, from the container to the contained.



**SECTION**



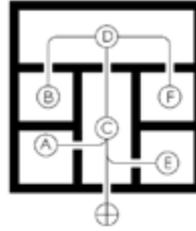
View : A flat part of the site has been kept un-built to provide exercise fields, ground and sport courts.



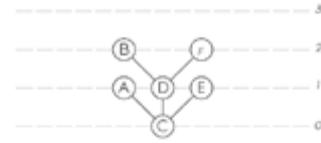
View : Prisoners can move around freely within the campus during the free time or the time allocated for leisure. Crossroads provide wood decks as spaces for socialisation.

# DEPTH MAP GRAPH

Depth between two spaces in a space system is defined as the least number of syntactic steps in a graph that are required to reach one space from the other. . Syntactic step is defined as the direct connection or permeable relation between a space and its immediate neighbours and is different from a metric step in the way that it is only representational.



Depth Map



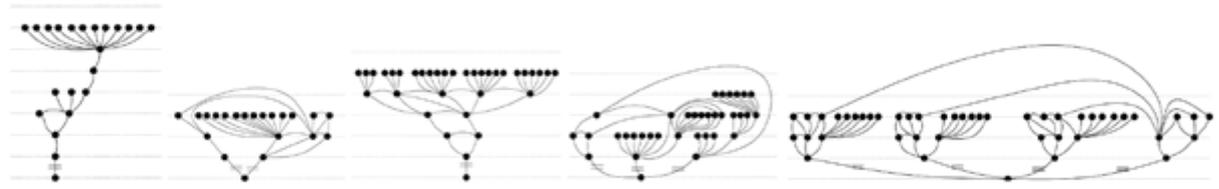
J-graph

## Control

{Punitive}

## Interaction

{Reformative}



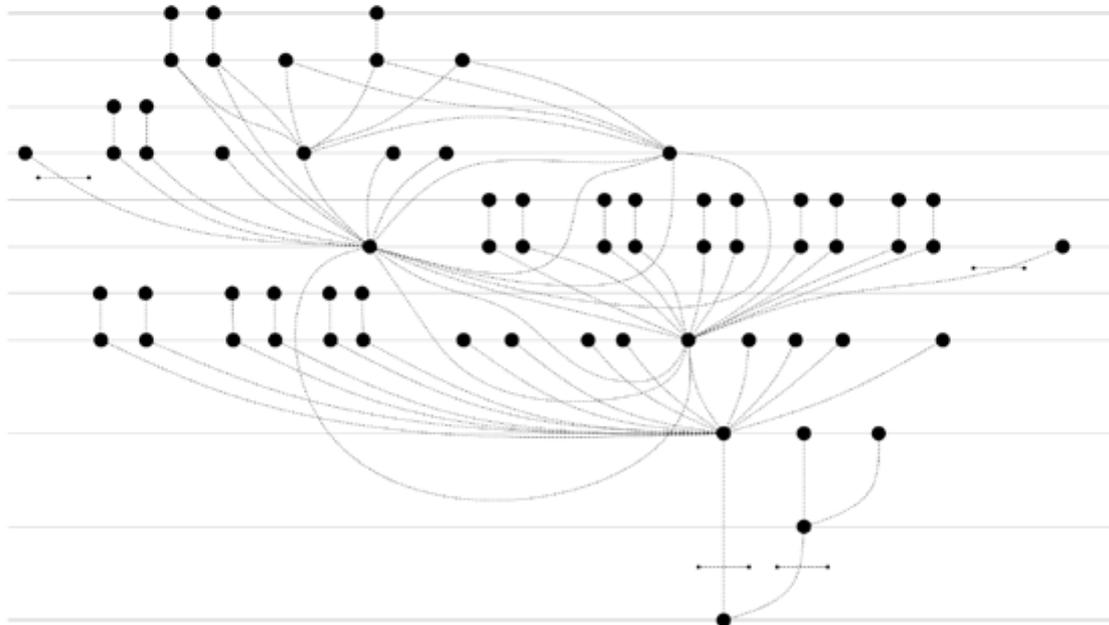
Pure tree.

Diluted tree.

Open net.

Closed net.

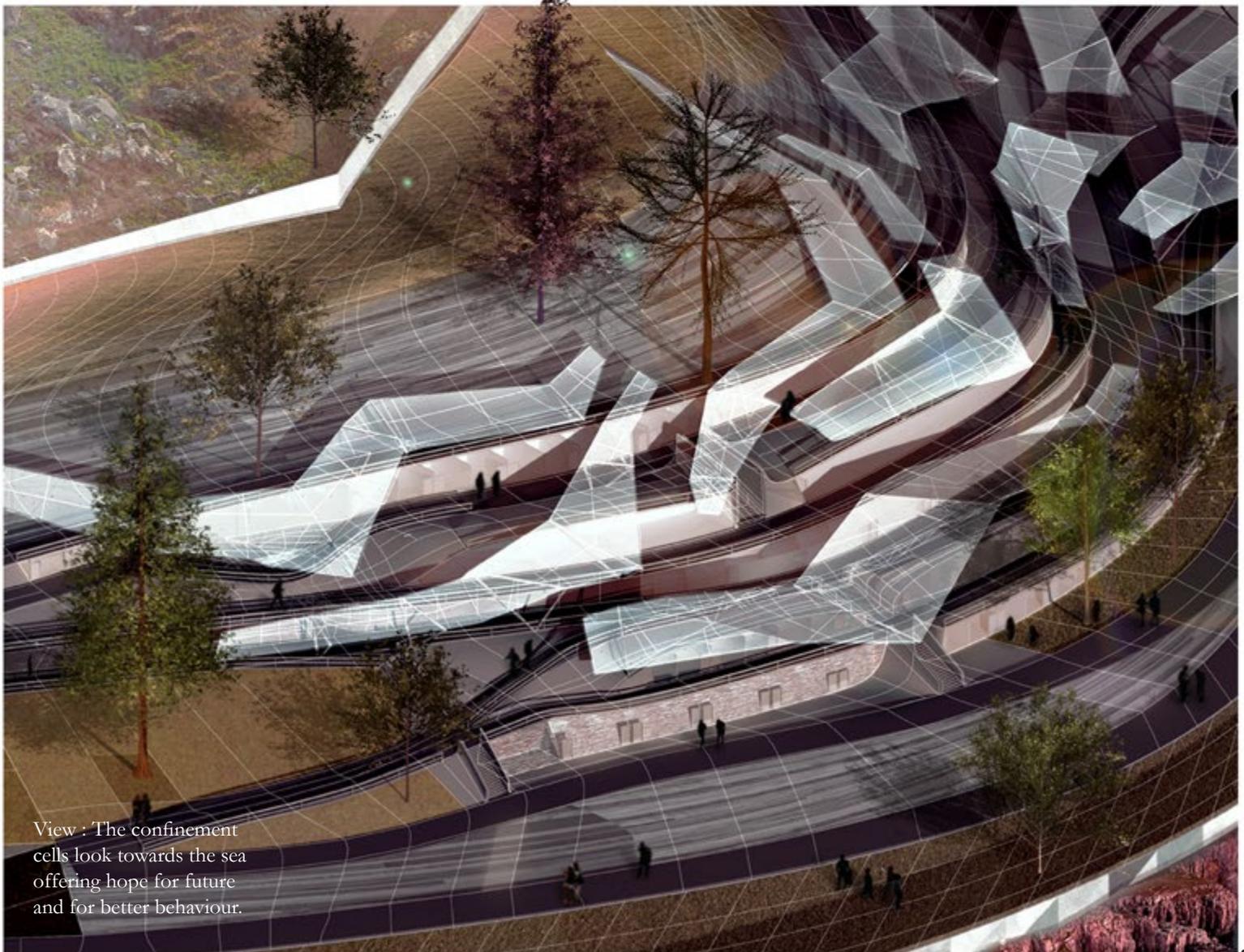
Hamlet.



Spatial configuration of the prison represented as a justified graph. The graph represents depth of convex spaces and their interconnections. A shallow depth map with multiple interconnections imply that the design provides multiple opportunities for interactions among its users.



View : Dynamic shading structures provide relief from harsh tropical sun.



View : The confinement cells look towards the sea offering hope for future and for better behaviour.

# 03

## **PECULIARITIES OF THE CONTEMPORARY CITY AND URBANISM**

Contemporary urbanism faces some of the hardest challenges of providing safe and habitable public and private spaces for its occupants. Urbanism struggles to cope up with the exponential increase in demographics, Analogous to an arthropod which grows too fast and too big for its exoskeleton. India has the second highest population in the world. A large part of this population resides in high-density urban centers which struggle to provide an amiable socio-cultural and economic environment with this ever-increasing population size. New Delhi, the capital is one of the densest urban centers of the world, it faces acute shortage of area as a resource and finds it increasingly hard to provide habitats for its inhabiting population. Designers of the past had tried to solve the issues by covering the land with built which in-turn had resulted in lack of green-open-public spaces. The following urban design studio aims at reconciling the needs for habitats and public spaces.

Contemporary urban centers in India also face the issue of lack of identity, urban designers under the constant pressure of keeping up with the increase in its pragmatic requirements to develop infrastructure have failed to address issues about identity and being. The contemporary city is a generic multiplication, a fractal of the city block repeated indefinitely in all directions or at least it's heading towards that in the foreseeable future if it remains unredeemed.

The design vision was to re-imagine district center at Mayur Vihar as an active urban-scape with a vision to develop a walkable neighborhood with legible nodes, to make the streets safer and make building forms that are appropriate and aesthetically appealing. To provide for abundant active open plazas within each neighborhood block such that each neighborhood has sufficient open spaces.

The project fills in the void for the district center for Mayur Vihar, located in east Delhi, at the edge of the city. Lying at the transitional space between two cities of Delhi and Noida, it holds great economic and social value. It has the highest population density within the city and projects even higher growth rates. It is essential that issue relating to housing, and infrastructure be dealt with promptly. The road and street network is an extension of the neighborhood urban fabric in an attempt to stitch the two cities into a single connected fabric that promotes intermingling and blurs the borders of the city. The key features of the district center are the two water canals which have been pulled inwards towards the center forming the backbone and identity of the space, the proposed design allows for the reclamation of these waterways as public spaces. The waterways are surrounded by either green plazas, cultural activities or commercial and retail. The following project proposes a mixed-used functional typology with most businesses and commercial activities being located near the streets and the housing elevated towards the sky into high-rise residential towers. The urban blocks are loosely based on the idea of inner courtyards, where the inner courtyards function as plazas providing green public spaces to an otherwise high-density neighborhood. The skyline has evolved as a result of an interpretation of two contemporary urban design principles, of Transit-oriented development and Ecology oriented development as waves and the following attempts at reconciliation of these waves.

New Delhi



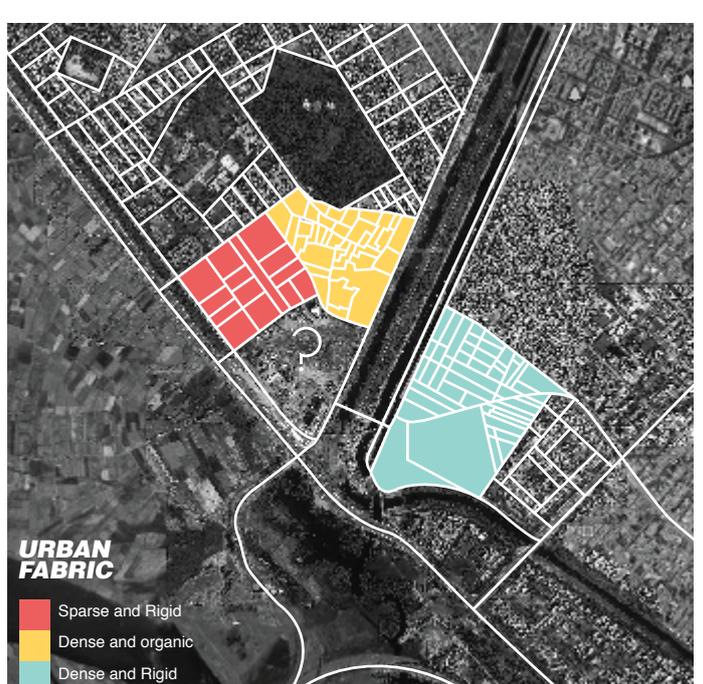
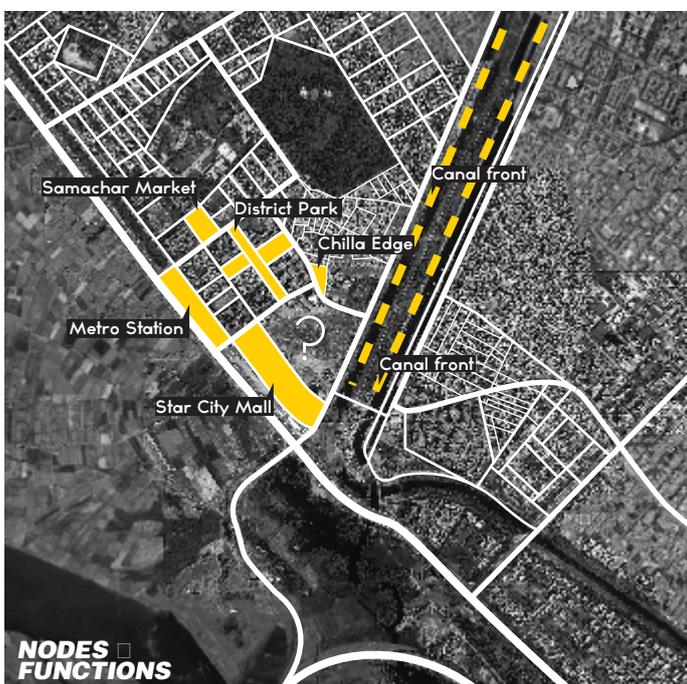
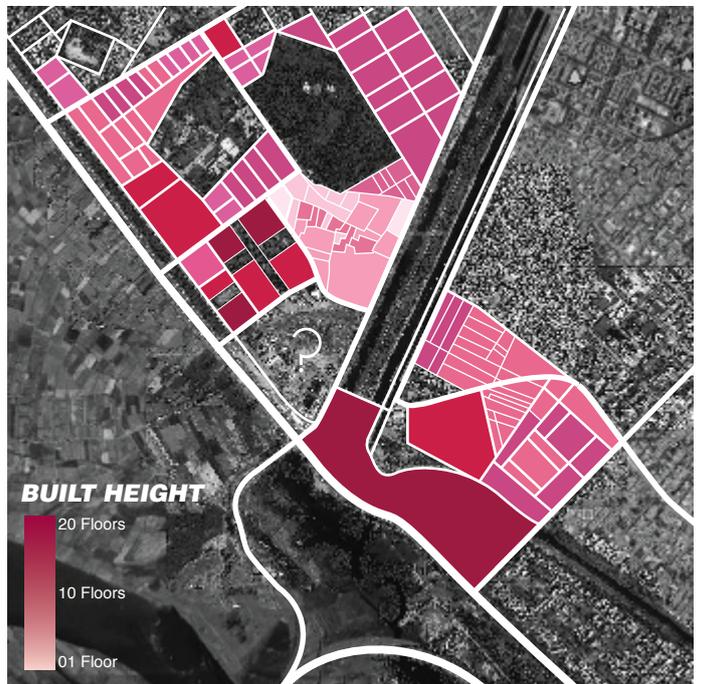
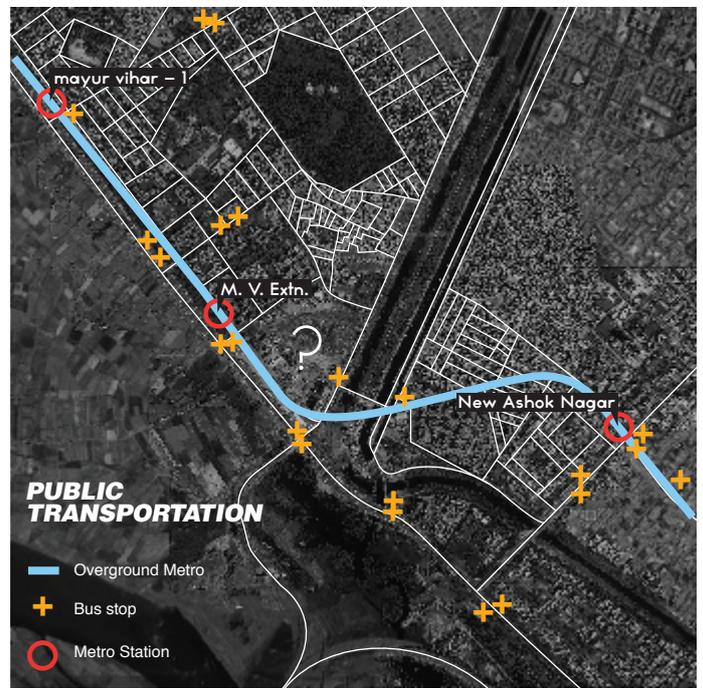
## **URBAN DESIGN**

Mayur Vihar

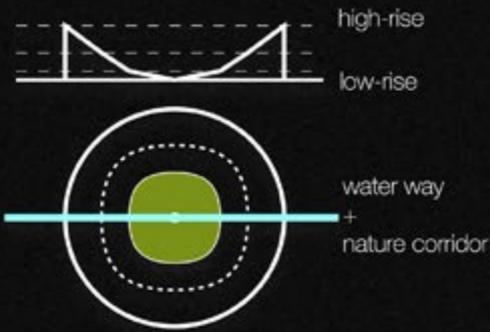
DISTRICT CENTRE : MAYUR VIHAR EXTENSION  
8°35'28.7"N  
77°17'45.3"E

Floor area ratio : 4 {5,60,000m<sup>2</sup> }  
Ground coverage : 32% {127,300m<sup>2</sup> }

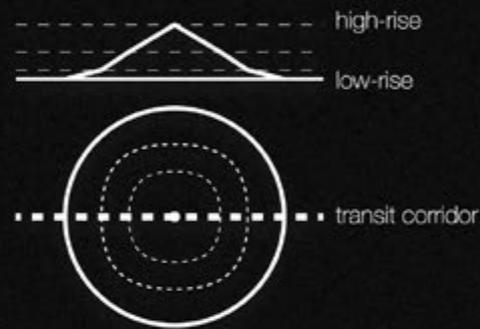
Project : Academic  
Tutors: Rajat Ray, Vijay Matange  
Year : 7<sup>th</sup> Semester  
Subject : Urban Design + Planning  
Client : District Development authority  
Users : Public + visitors



EOD+TOD



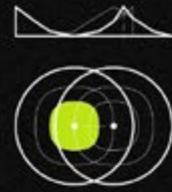
Environment oriented design



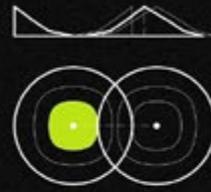
Transit oriented design



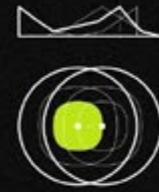
1. edge collision



4. Center interaction



2. edge interaction



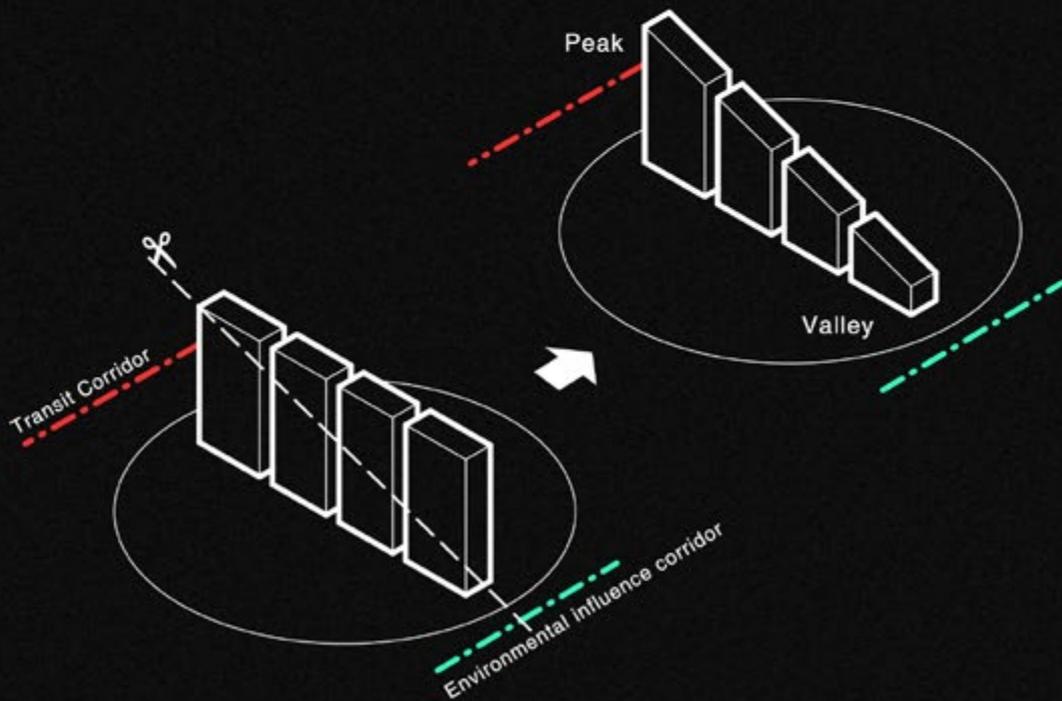
5. Center Collision



3. Overlap and in-sync



6. Coincidence and divergent



Urban Valley.

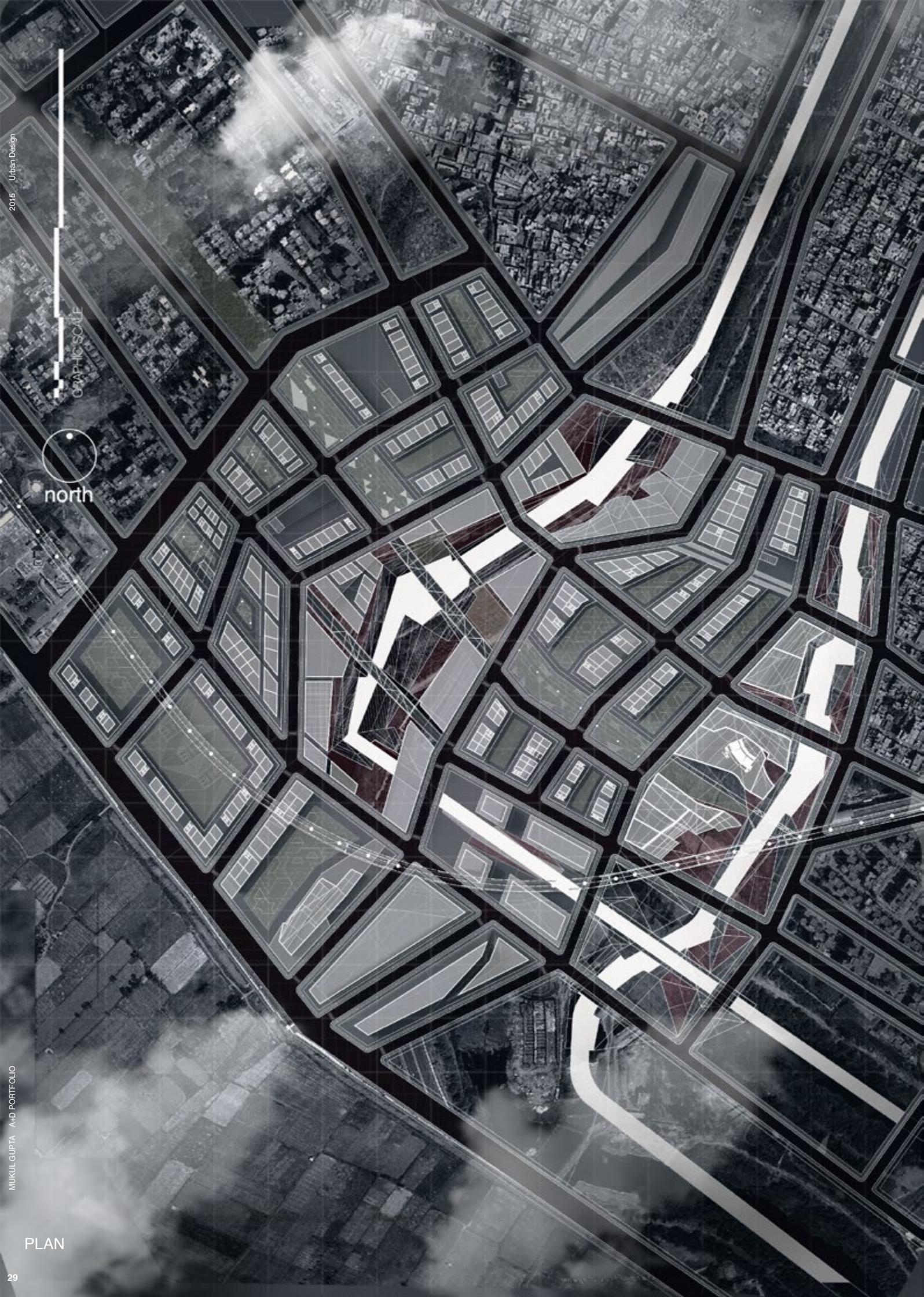
The building massing tapers towards the ecological corridor providing cleaner line of sight from the plazas around the corridor.



GRAPHIC SCALE



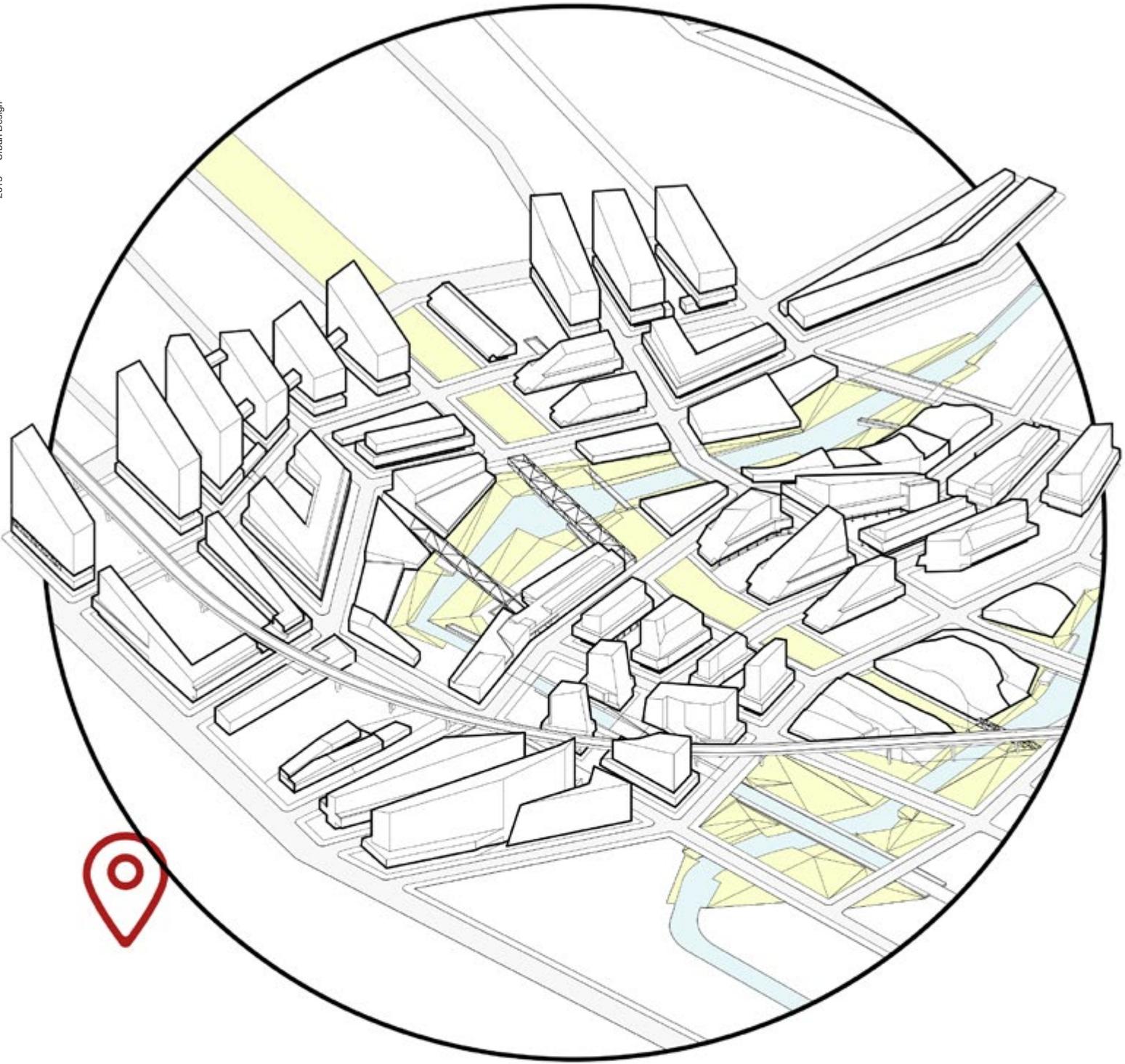
north





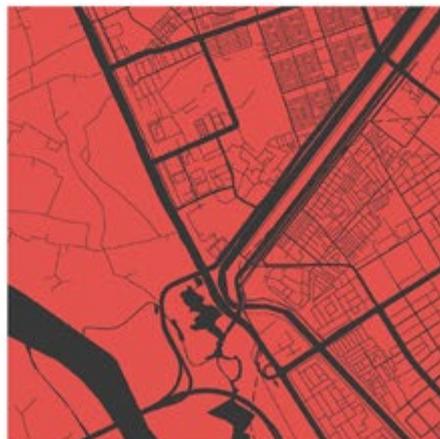
**Fig. Top :** Bird's eye view, As the morning mist dissipates, The sun shines over the Central business district, Mayur Vihar. It is possible to observe the abundant green public spaces, the water canal and the urban massing that descends towards it. One can observe the elevated rail track for the rapid transit system of The DMRC, which connects Delhi and Noida. As the day progresses the public spaces around the water-canal and the green corridor get flooded with scores of people.

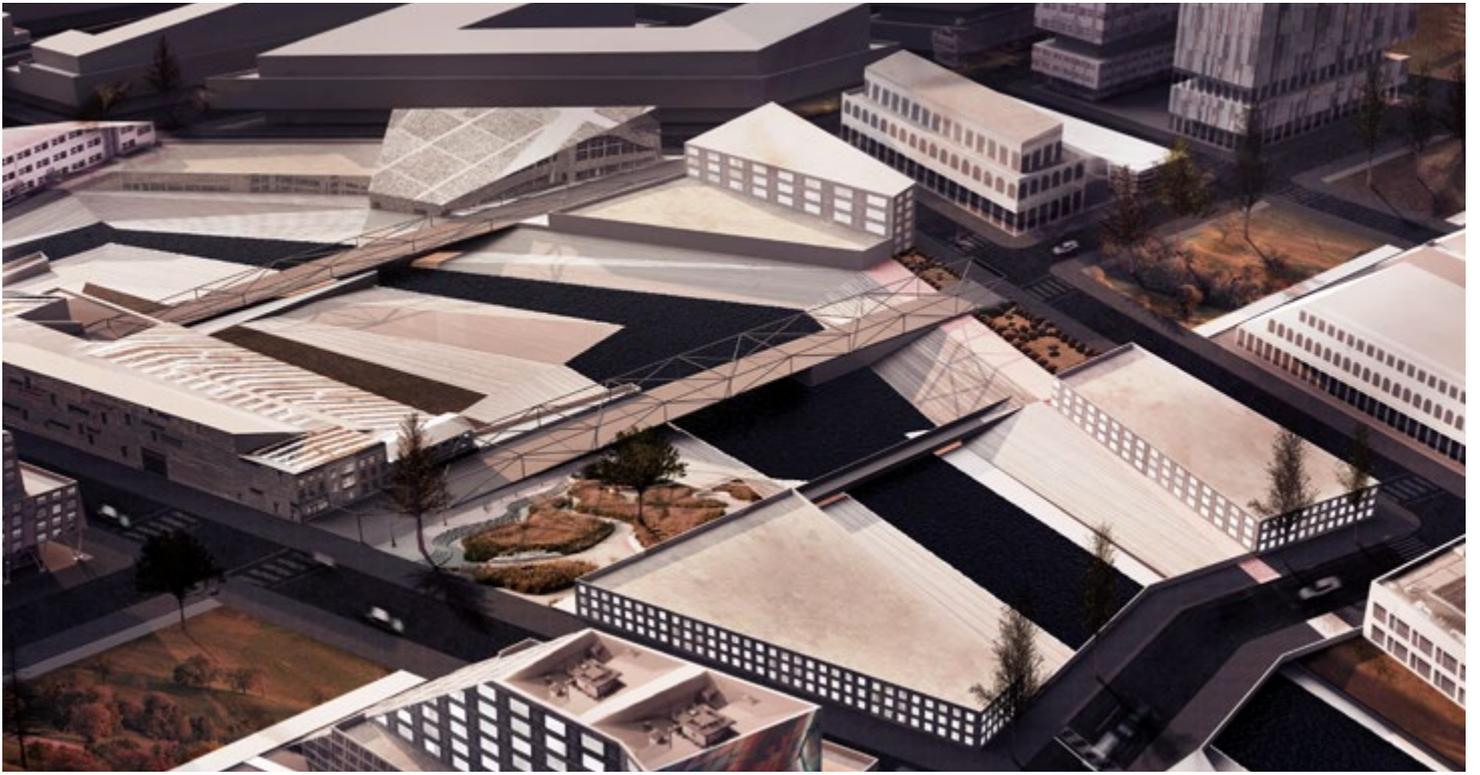
**Fig. Bottom :** The sliced massing results in a skyline which is distinctly individualistic, preventing mechanical repetition of block towers indistinguishable from each other.



## URBAN VALLEY

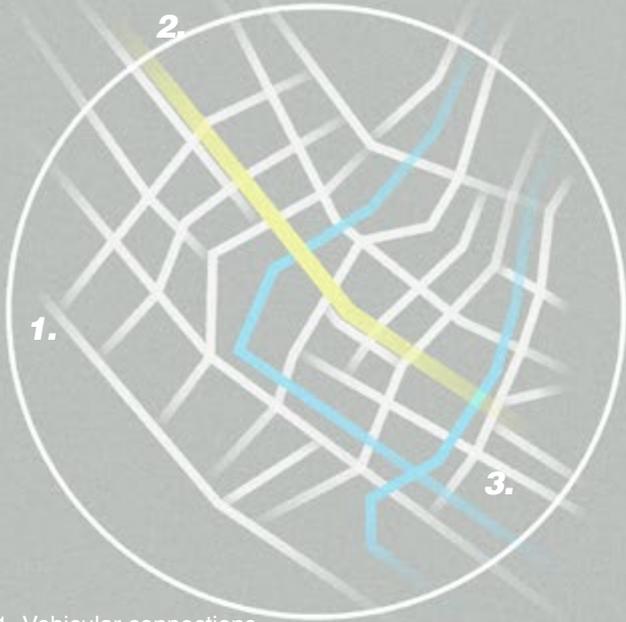
The urban Valley is a visual metaphor for the result of an experiment with extrapolation of two distinct urban design ideologies, the transit oriented development and the ecology oriented development as waves and the following models which overlap the two wave-forms resulting in a skyline which respects both. The resulting urban form appears to be a valley sloping towards the green corridor and the waterways, while forming peaks towards the transit corridors.



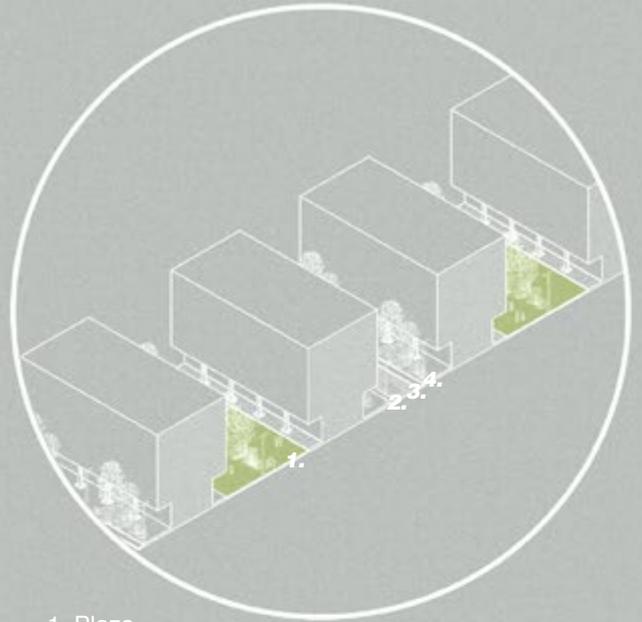


**Fig. Top :** Bird's eye view, looking over the water way. The water-edge is landscaped with a triangulated surface of deck wood and concrete, furnished with urban seater and lined with trees. Various pedestrian bridges connect the two sides.

**Fig. Bottom :** Busy time at the plaza. A shared space amongst cyclist, skaters and pedestrians. The plazas is a car free zone which can function as an area for celebration and festivities.



- 1. Vehicular connections
- 2. Green belt
- 3. Water ways



- 1. Plaza
- 2. Pedestrian path
- 3. Cycle-way
- 4. Vehicular path



# FUNCTIONS

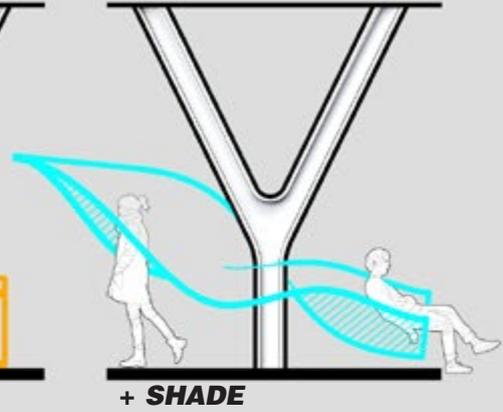
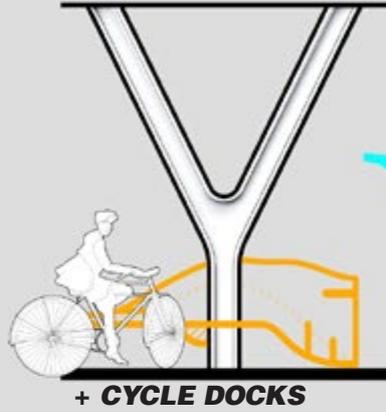
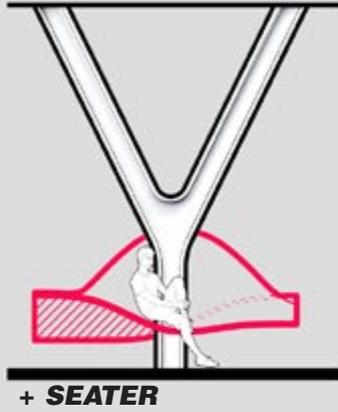
- 1. Residential
- 2. Commercial
- 3. Cultural
- 4. Public Facility

# PROPOSED GUIDELINES + URBAN OBJECTS

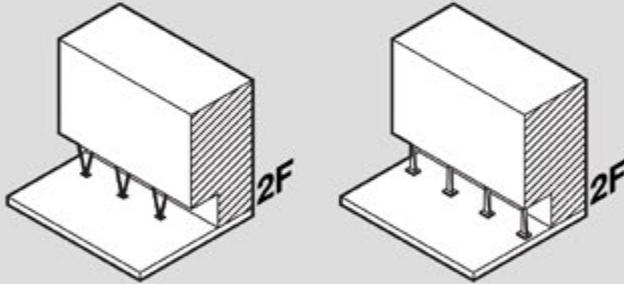
## 1. URBAN FURNITURE



All columns may have an added urban furniture which can take on a variety of function.

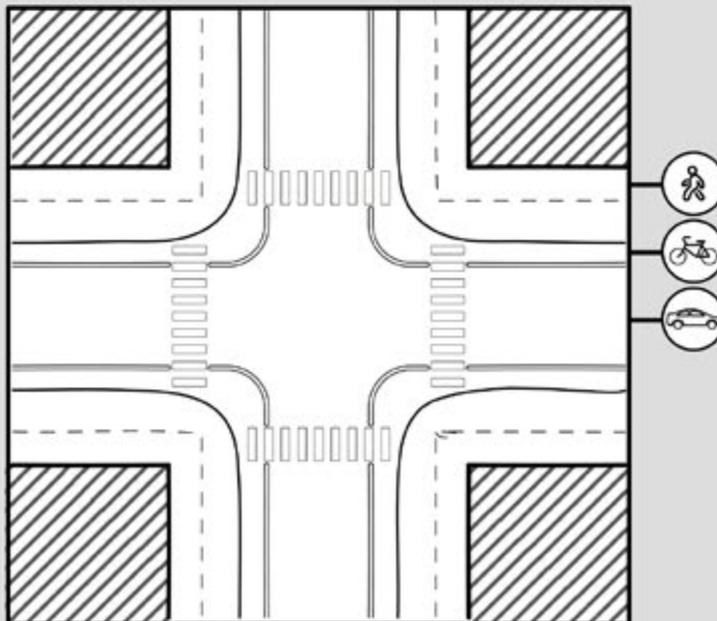


## 2. COLONNADE



Shaded colonnade area 5m wide and 6m high is reserved along the periphery of all commercial urban blocks.

## 3. ROAD LAYOUT



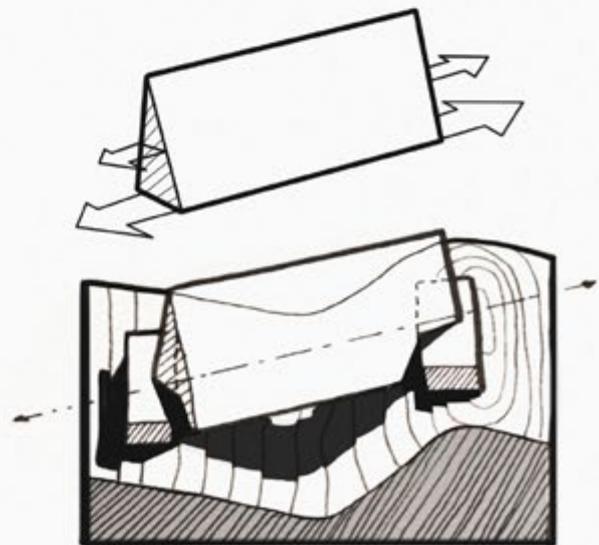
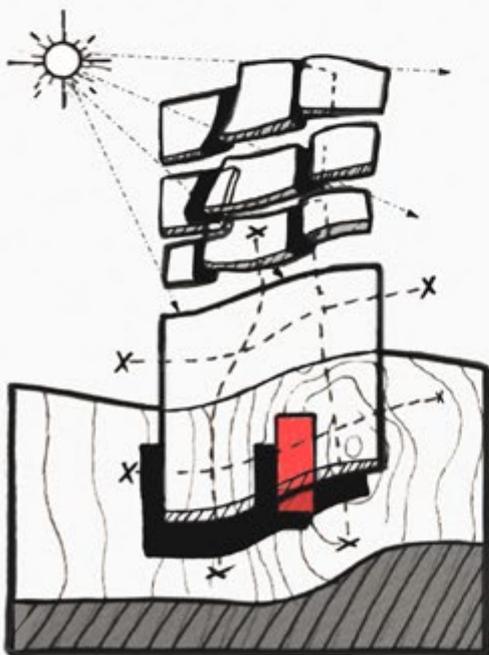
The road structure is divided into four zones. The vehicular zone is a 12m wide 2 way road. It is banked on both sides by a cycle path 3m wide. The zone closest to the building blocks are both 5m wide pedestrian path. The one closest to the building block is a covered colonnade path to provide adequate relief from the harsh Delhi sun.

# 04 SECOND SKIN - ARCHITECTURE AS A LANDSCAPE SCULPTURE

Architecture needs to be rooted in its physical and social context for its potential to be realized fully. Architecture renders an erstwhile landscape shrouded in mist to be oriented by introducing new structures, the following project was an exploration of architecture's ability to orient as an extension of the landscape. As a composition it is composed of superimposed horizontal membranes analogous to the epidermis. The design yearns to be a prosthetic to the steep topography, a second skin, a replication of the earth below which has been eroded away to give way to habitable spaces. A clone of the surface floats above the spaces, the surface shattered to let light slip through the cracks to enlighten the spaces within.

An architecture school should be a place to discover, inspire and debate ideas. The campus is provided with abundant spaces for interactions. Transitional spaces function both as spaces for exhibition and as a threshold between two spaces. These spaces for exhibition of work and design-ideas lend otherwise monotonous spaces a character of wonder and allows design to be critiqued publicly.

The planning revolves around the central axis from the point of entry. The functions are arranged in the order of increasing privacy with administrative and public functions such as the auditorium, the library and the reception located closest to the entry and the spine. The studios and workshops are located at the other side of topography, the two sides have been connected with a multi-level bridge, a wedge that functions as a place to exhibit the work while also connecting the two sides of the site.



**PROCESS SKETCHES/ CONCEPT**

Year : 6<sup>th</sup> Semester  
Tutors: Rajat Ray, Gopal Swaroop, Sumanth Sharma  
Project : Academic + Individual  
Subject : Architectural Design  
Type : Educational Institution  
Client : Educators/ Architects  
Users : Students + Tutors

---

# **ARCHITECTURAL UNIVERSITY**

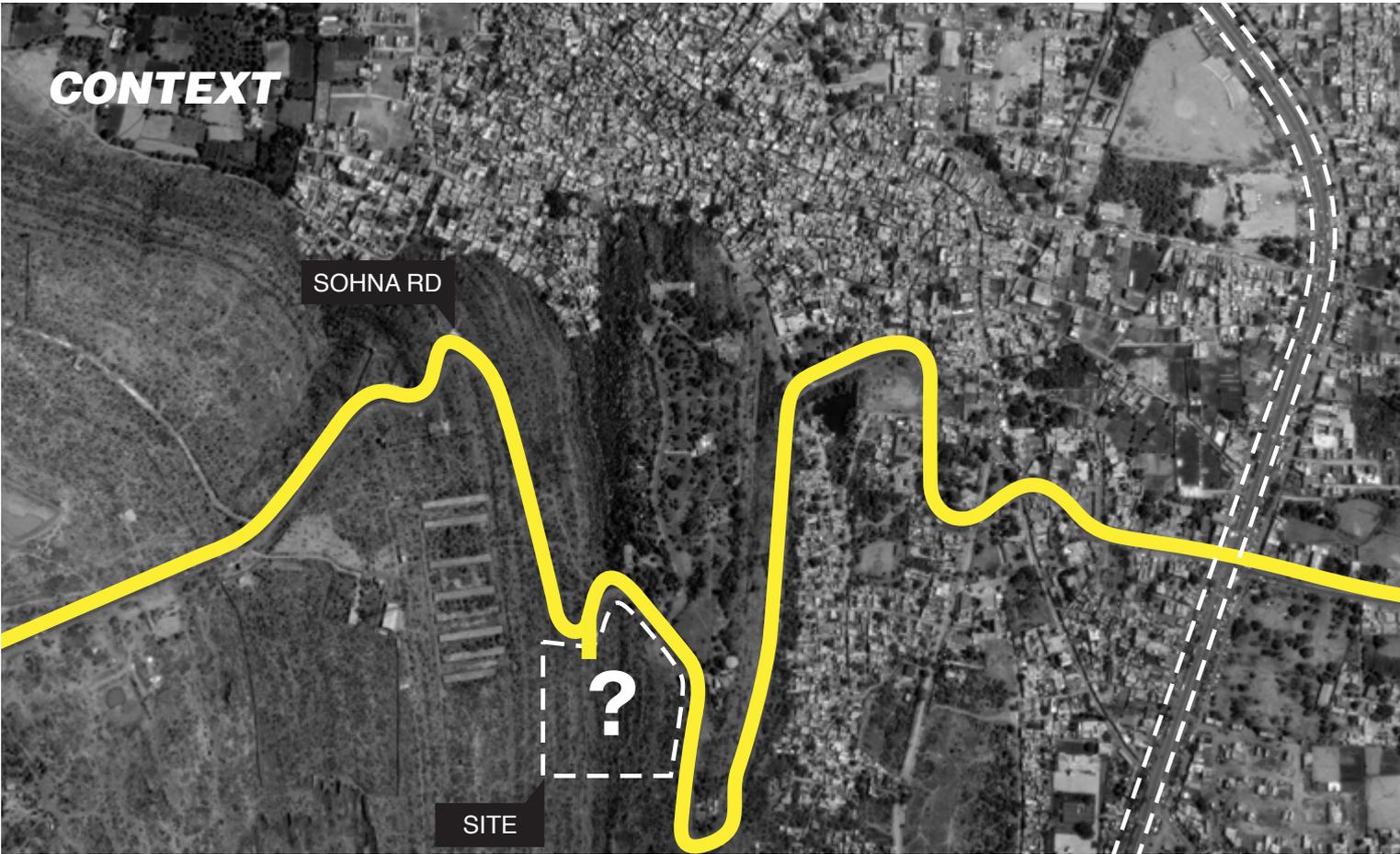
REWARI-SOHNA ROAD

SEHSAULA, HARYANA

28°14'29.0"N

77°03'47.7"E

# CONTEXT



# VIEW

The wedge functions as a dual level bridge across the site while also providing space for exhibition of work and art. Which allows conversation and debate upon the exhibited work.

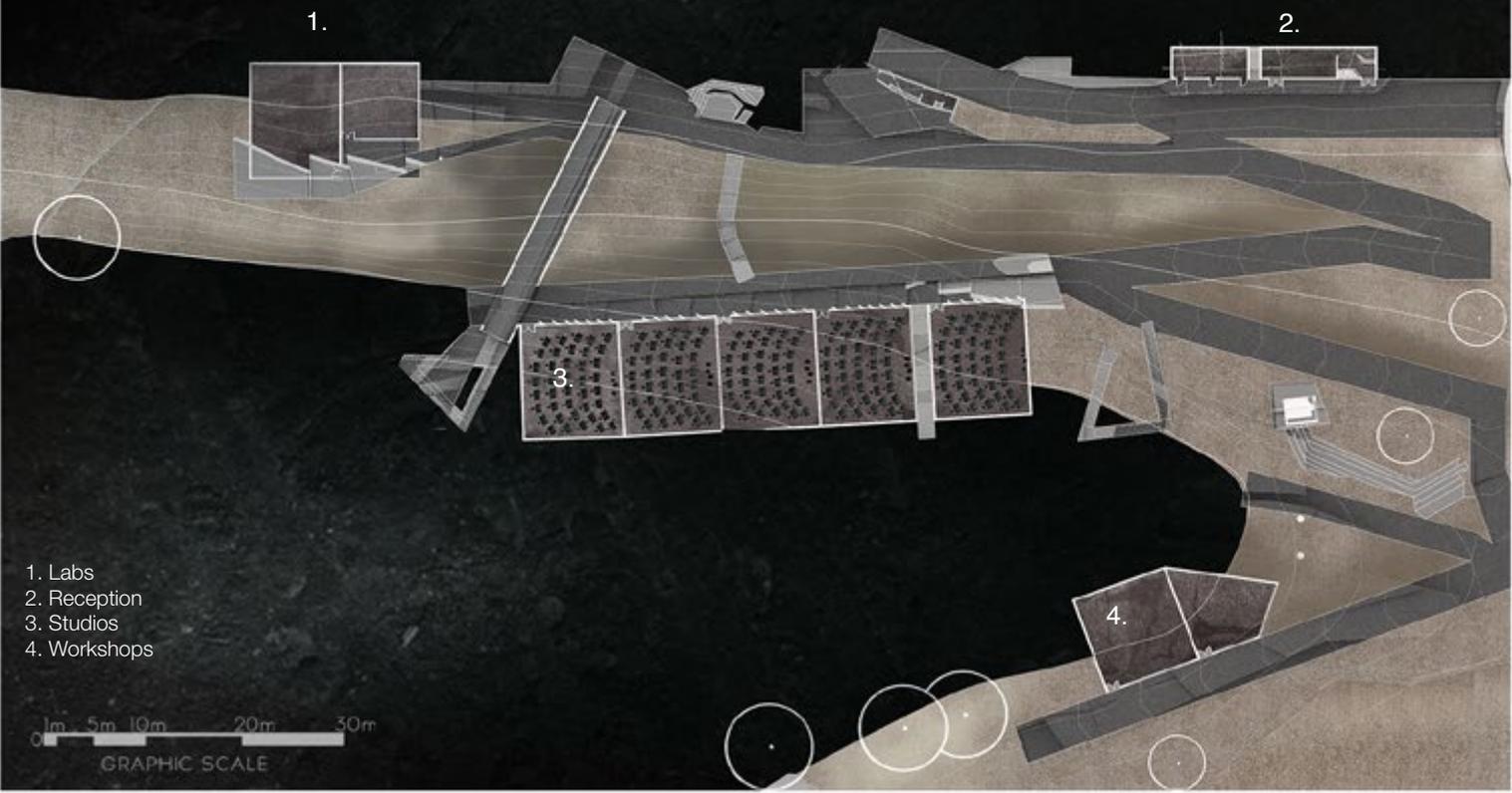


# FUNCTIONS

- 1. Studios
- 2. Workshops
- 3. Faculty rooms
- 4. Library and labs
- 5. Gallery Bridge
- 6. Auditorium
- 7. Reception and Administration

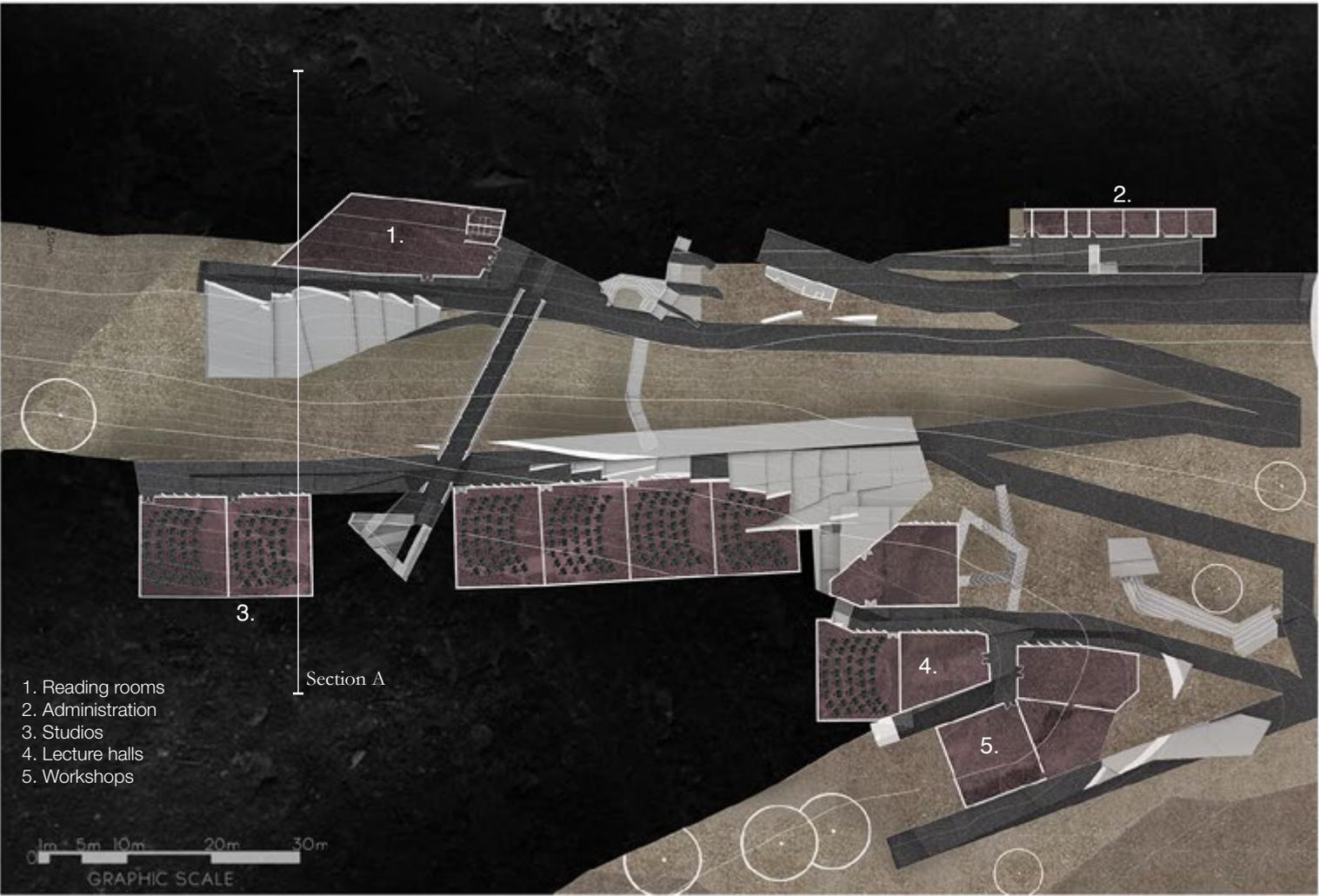


# PLAN



- 1. Labs
- 2. Reception
- 3. Studios
- 4. Workshops

0 5m 10m 20m 30m  
GRAPHIC SCALE



- 1. Reading rooms
- 2. Administration
- 3. Studios
- 4. Lecture halls
- 5. Workshops

Section A

0 5m 10m 20m 30m  
GRAPHIC SCALE

## BIRD'S EYE VIEW

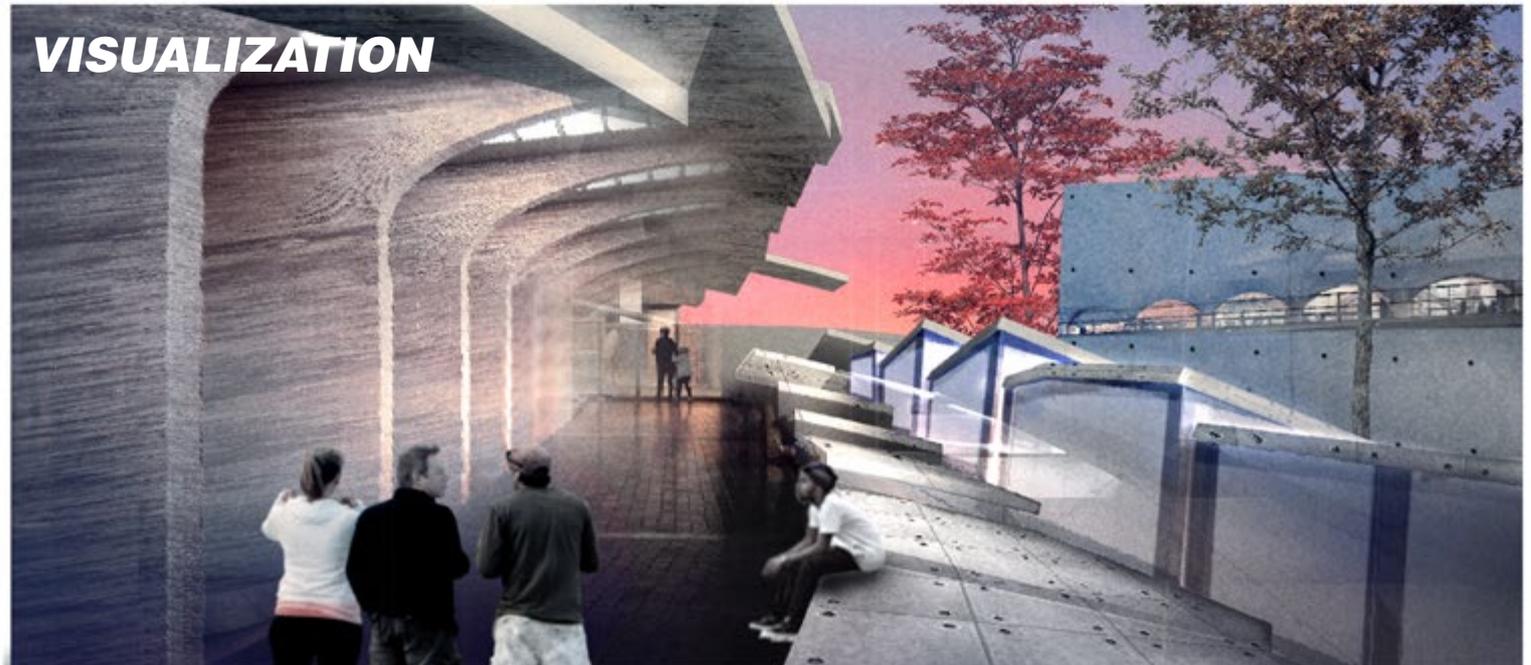


Architecture studios often extend till late evening, the skylights which allow sunlight through during the day, during the evening produce an effect where light shines out of cracks in the landscape.

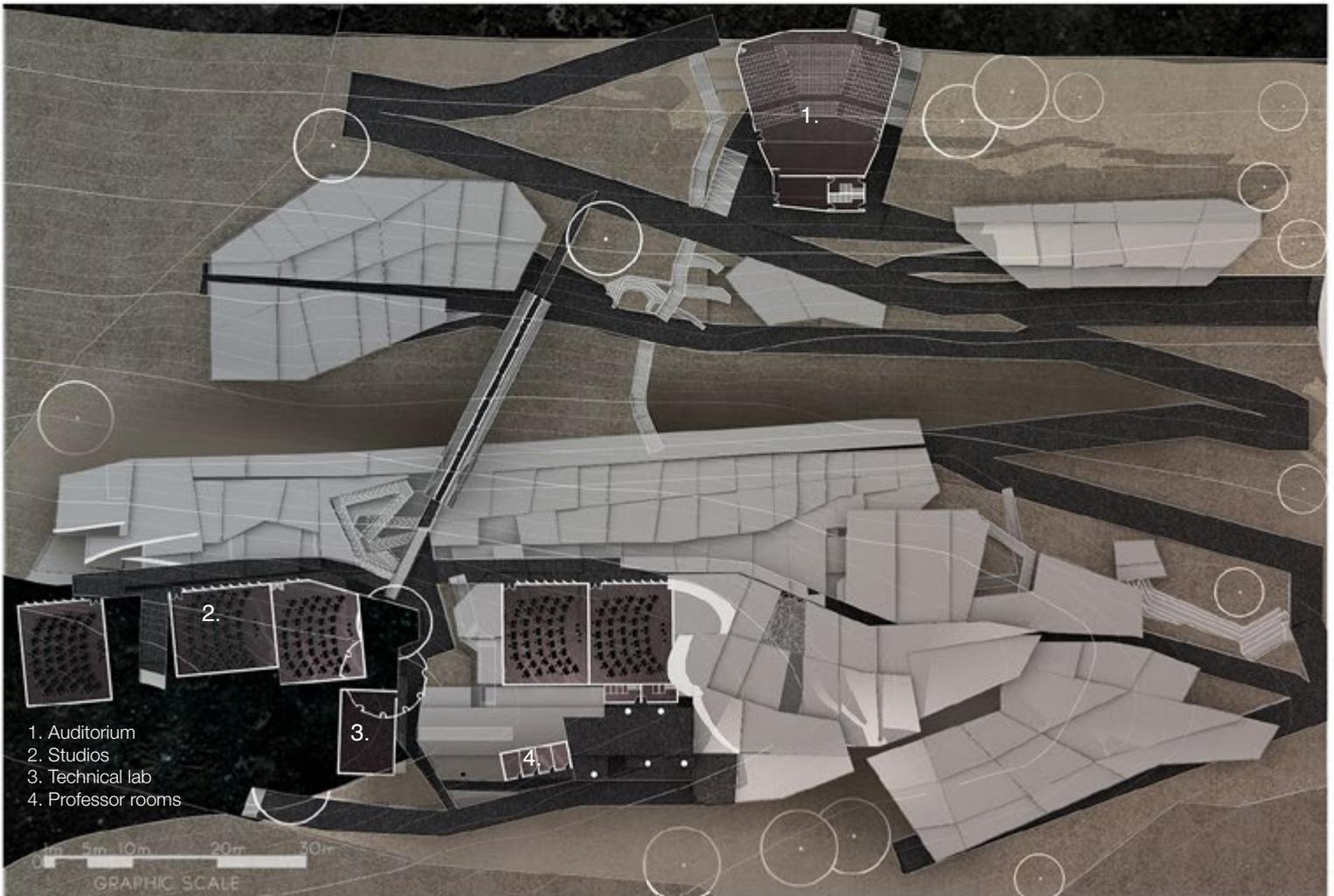
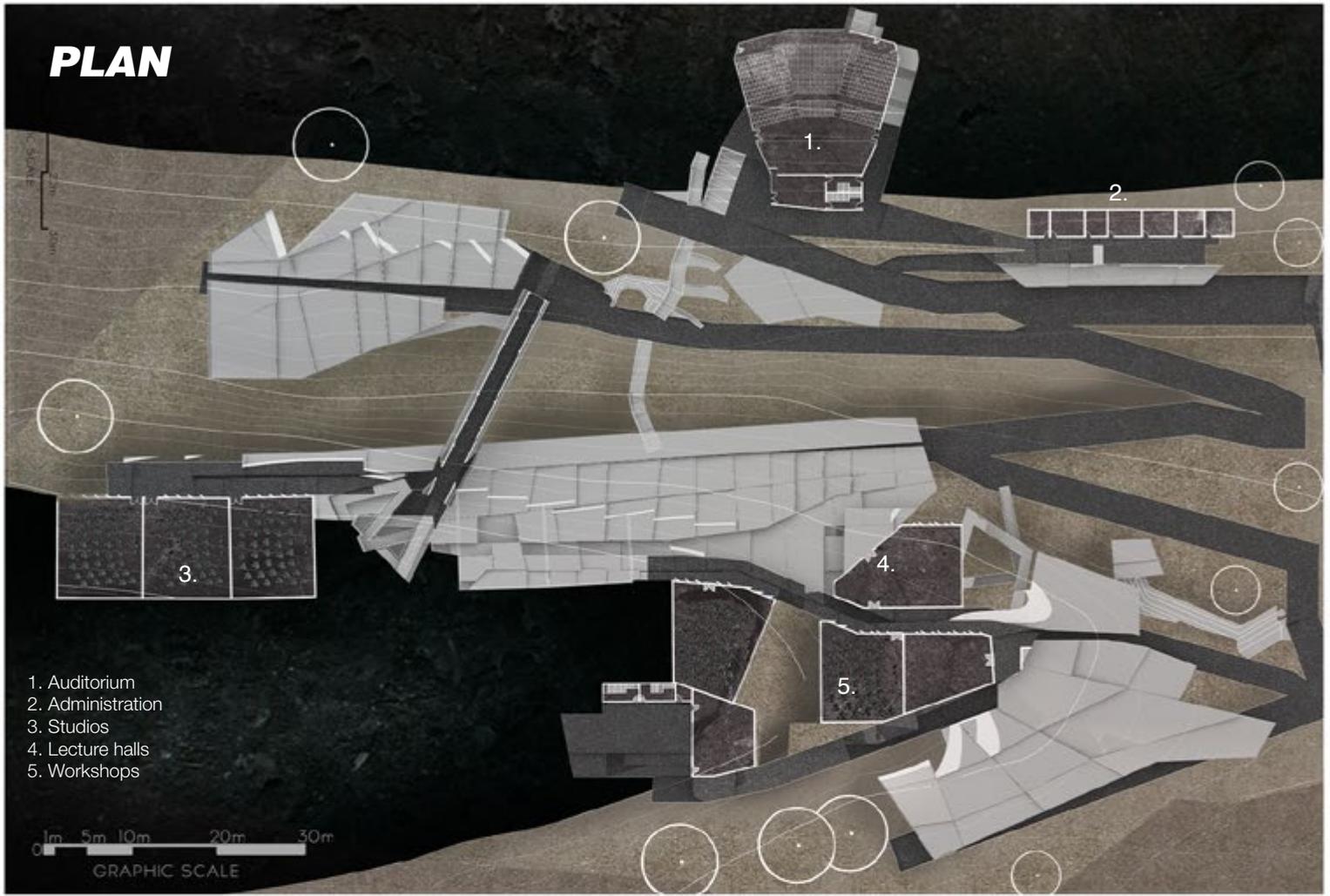
## SECTION A



## VISUALIZATION



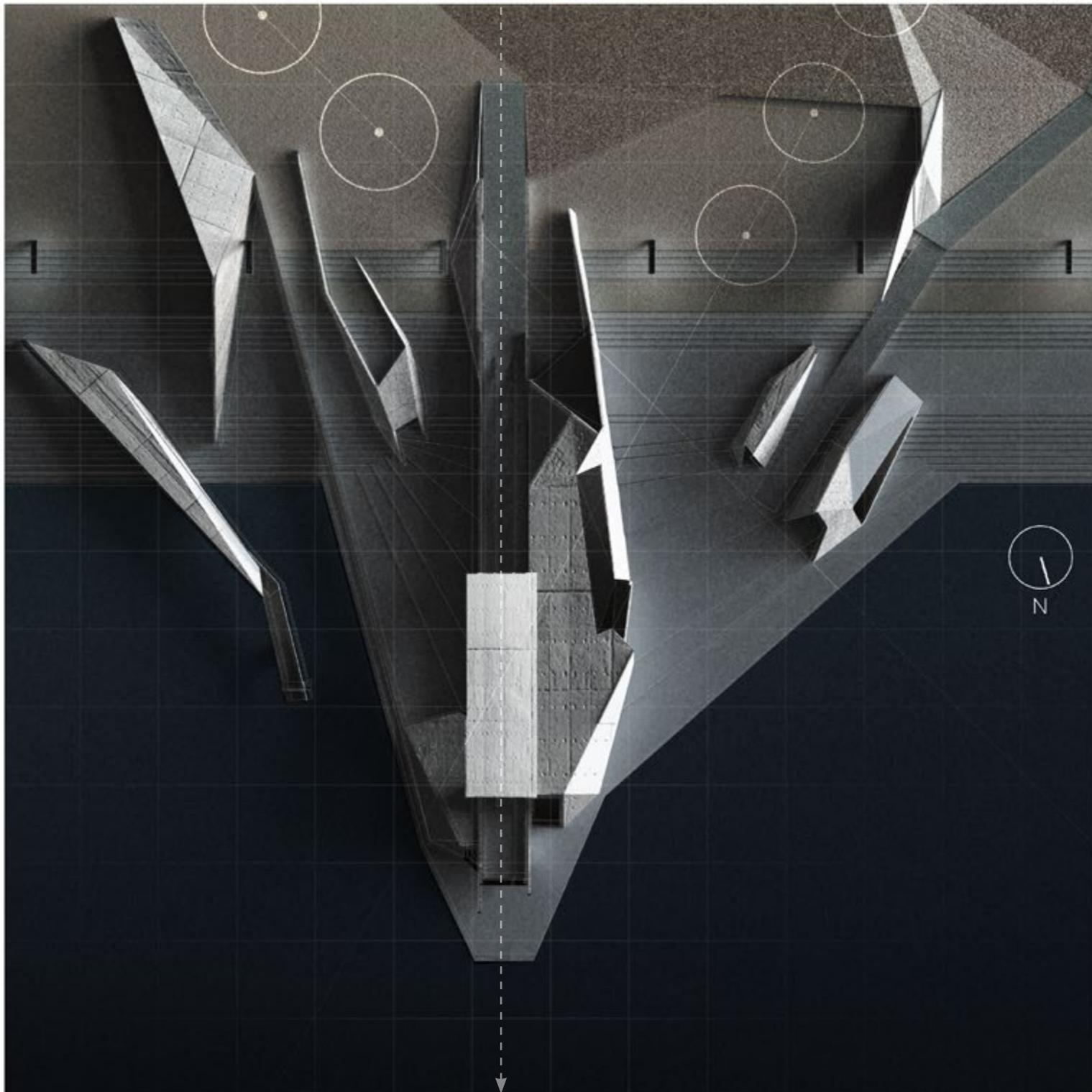
# PLAN



# MODEL

Materials : Steel, Wood, Board





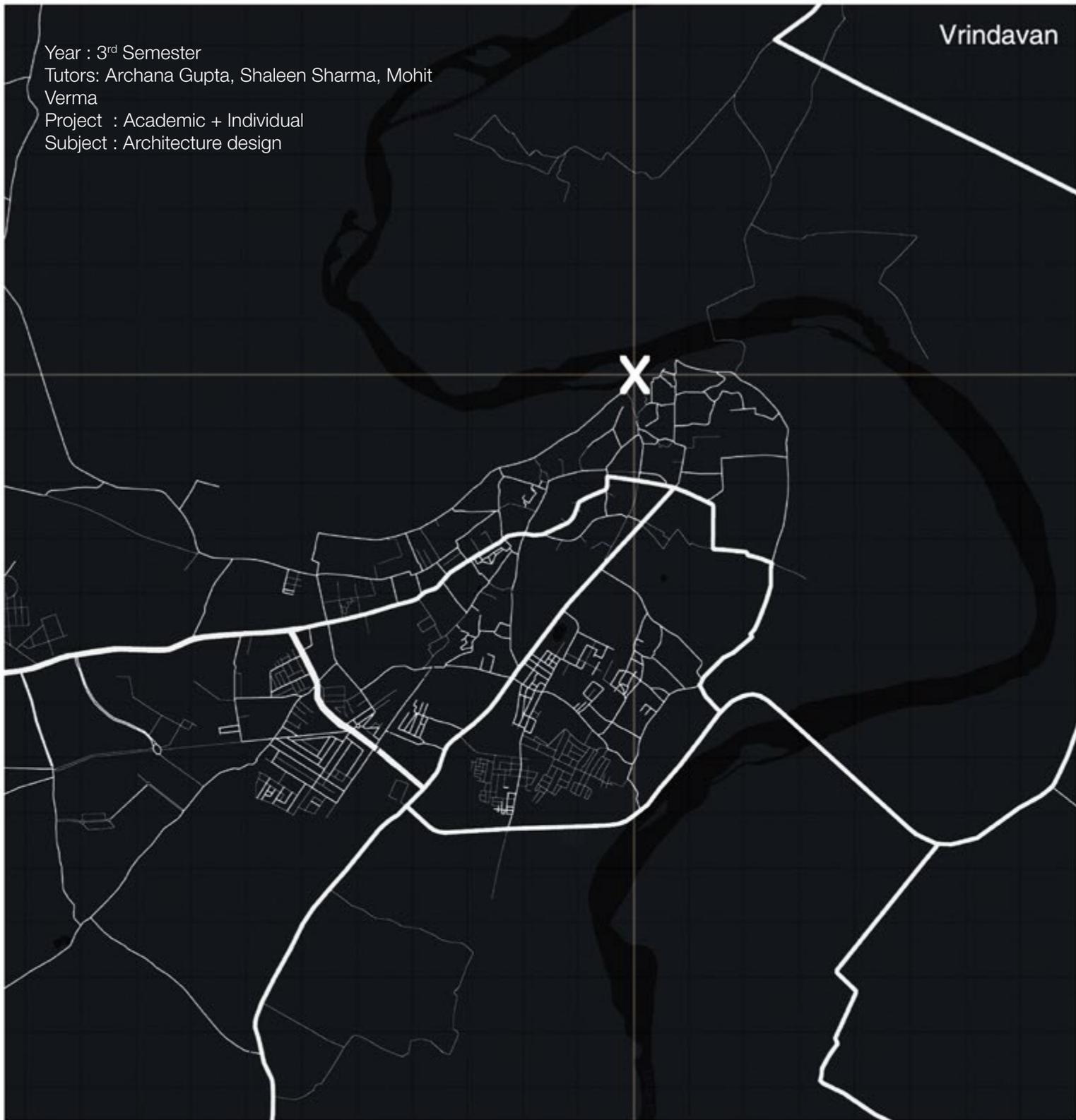
# 04

## **GHAT :**

1. A flight of steps leading down to a river.
2. A mountain pass.

The pavilion includes multiple functions but its primary function is to serve as an extension of the land into the river. The Ghat is understood as the transitory space between the clean and the unclean, the pure and the impure, the pious and the sacrilegious.

Year : 3<sup>rd</sup> Semester  
Tutors: Archana Gupta, Shaleen Sharma, Mohit Verma  
Project : Academic + Individual  
Subject : Architecture design

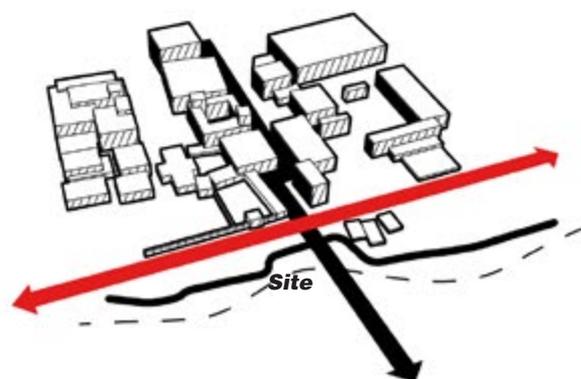


---

# ***SPIRITUAL PAVILION***

Vrindavan, Uttar Pradesh

WATER EDGE : CHIR GHAT  
27°35'09.6"N  
77°41'46.2"E

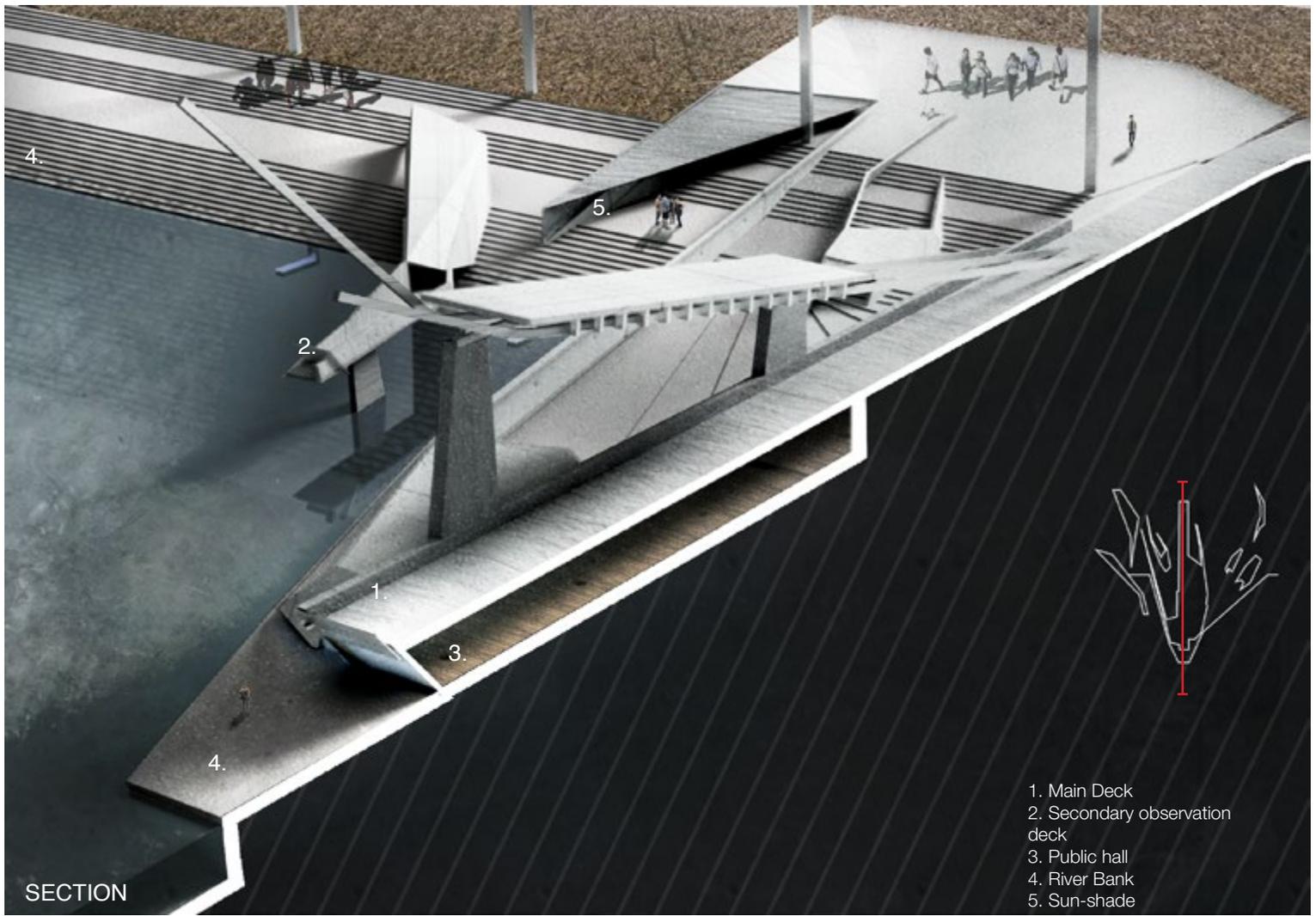




## **CONCEPT: IN-BETWEEN AND THROUGH**

The triangulated design is inspired from the movement of a solid-body through a fluid membrane. The central structure conceptualized as the body and the steps envisioned as the waves in its wake caused by its movement through an imaginary space. The spaces beside the main structure serves as changing rooms and a canteen for those who come to take a dip in the cool waters of river Yamuna.

The central axis forms the deck which can be used for public gatherings. The spaces below are accessible from either side of the deck and can be used to host events. The space is protected via extended high walls on either side. The space is submerged during monsoon and one can experience the light play on the interior space as it passes through flowing water.



# 06

## **HIGH-DENSITY HOUSING**

**Year : 2014// 5<sup>th</sup> □ 6<sup>th</sup> Semester**

**Tutors: Gopal Swaroop, Sumanth Sharma, Tauseef**

**Project : Academic // Group (2)**

**Subject : Architectural Design**

**Type : Housing**

**Email : ar.gopalswarup@gmail.com**

**sumant.nith@gmail.com**

### THE BRIEF

To design a group tower housing society with 374 functional units with varied economic and size units at Narela, New Delhi

The design aspires to provide its occupants with a safe and comfortable abode. It looks at how architecture can impact social structure and instil within the users a sense of equality and plurality

### CORRIDOR SYSTEM

The void stack system is arranged around a winding corridor which ensures cohesion and connectivity and forms sub-communities at a level at which the corridor runs. It also provides view to the central open space ensuring safety and aesthetical appreciation of the space.

### SPLIT LEVELS

Split levels increase the efficiency of the staircase in a corridor system without compromising its functionality and connectivity.

### HEIGHT GRADATION

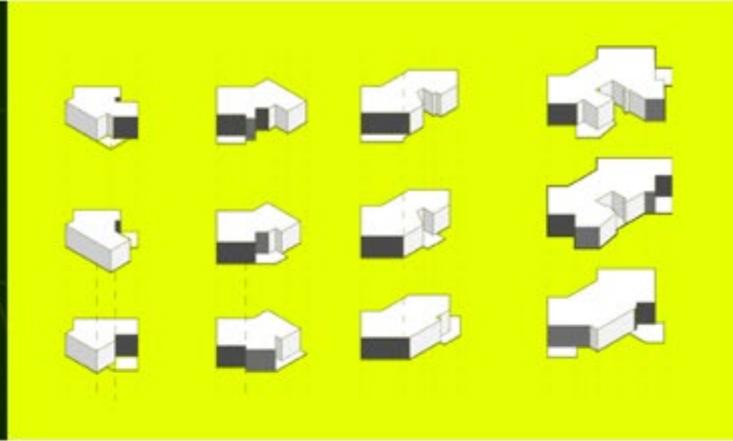
The gradation of height descending towards the main street humbles the imposing structure of the housing tower while simultaneously providing terraces at various levels which function as open spaces in the ever reducing green space crisis.

# ELEVATIONS



# ***VOIDS & TERRACES***

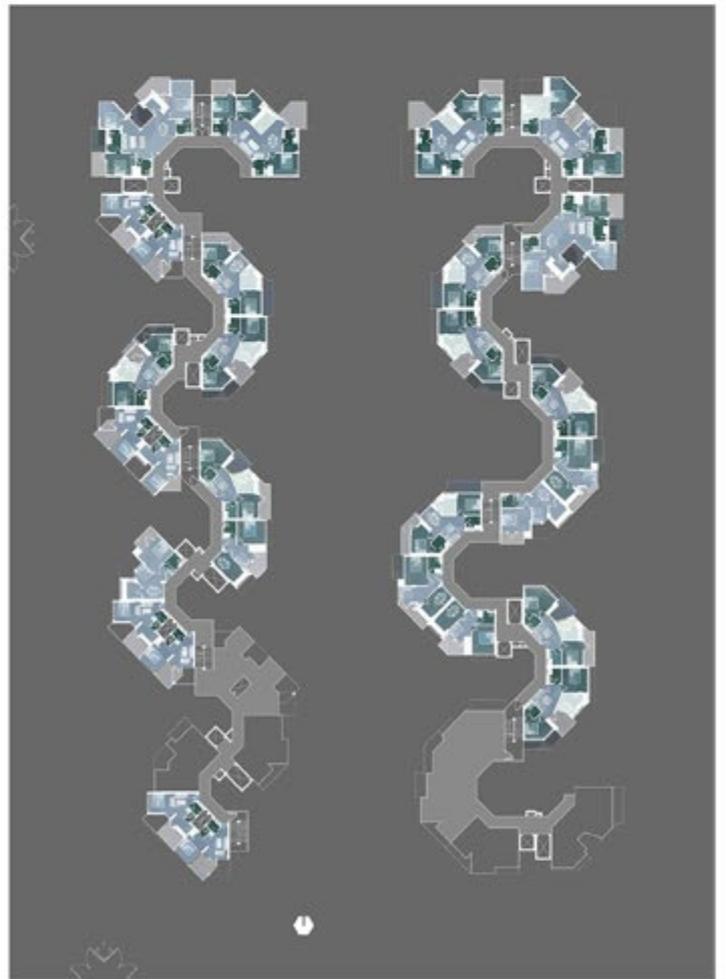
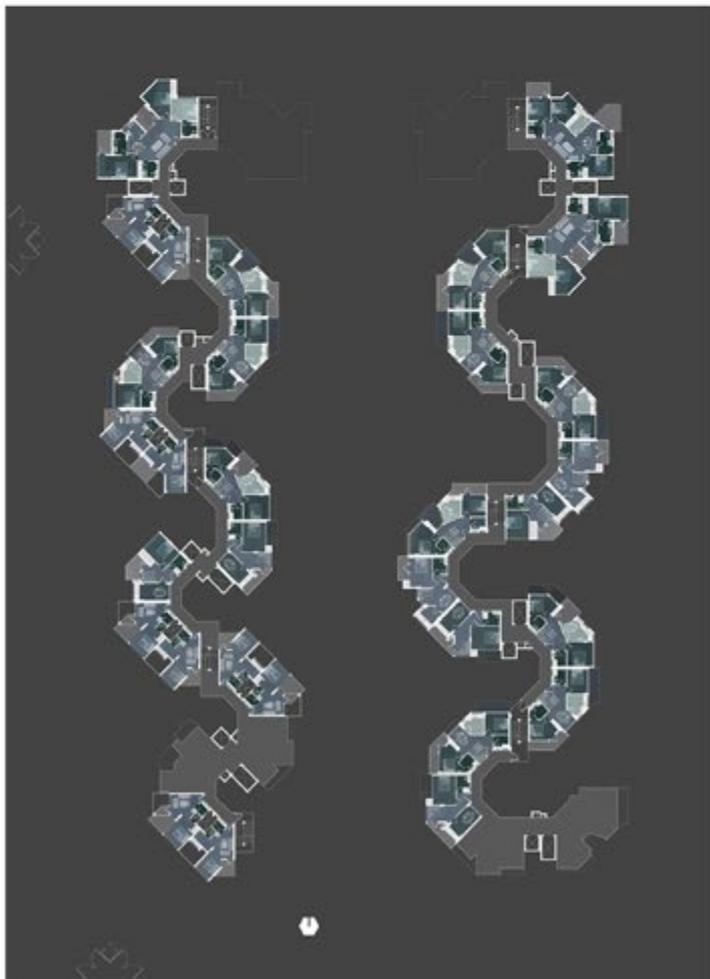
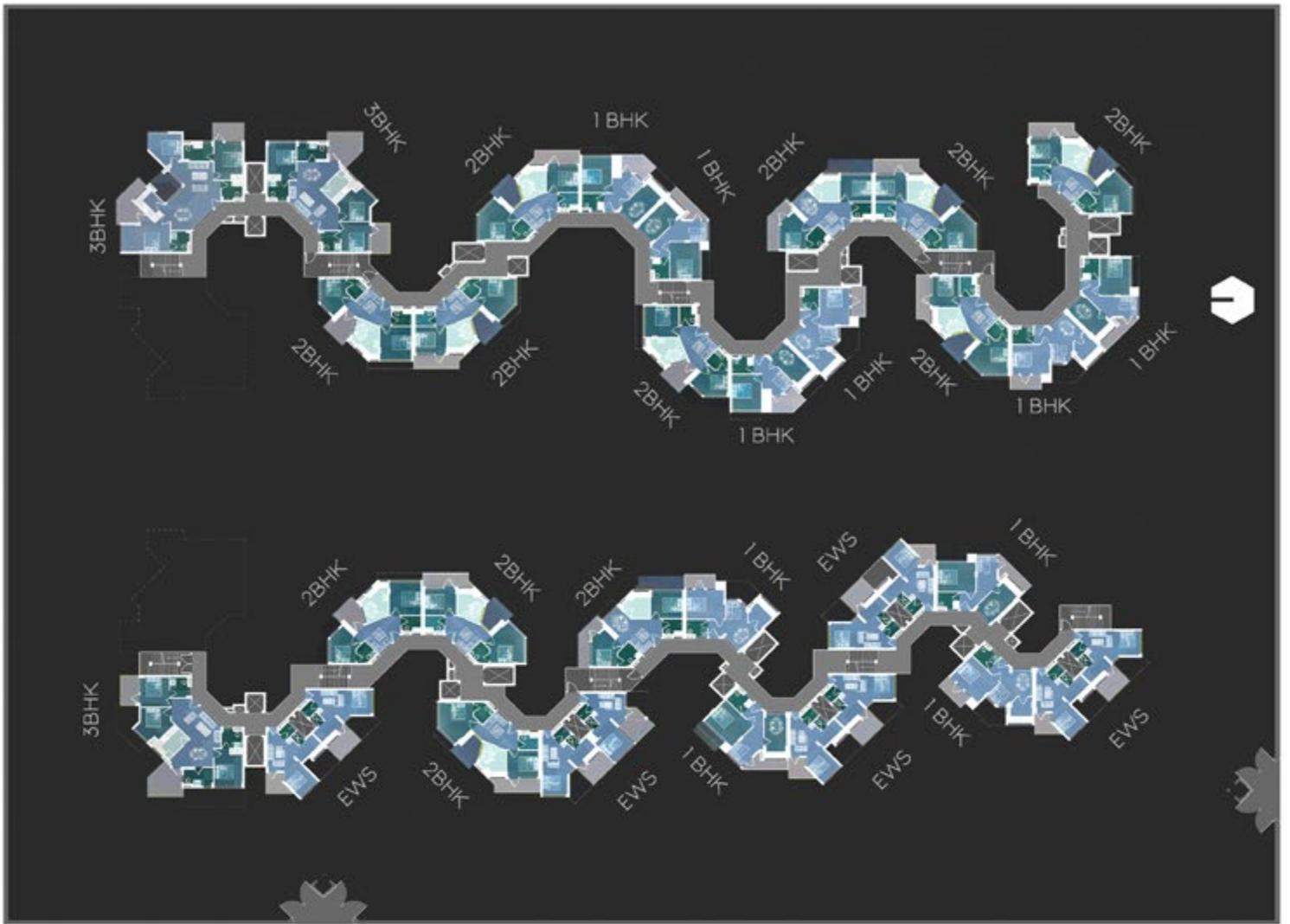
Units are formed with the idea of providing each with their own terrace. This is done via a system of three different units stacked with alternating voids and terraces.



# ***VOIDS IN AXIALITY***

Allows for public community spaces for the residents.  
Makes the appearance of the structure appear less bulkier and provides sight axis to the sky from the street.



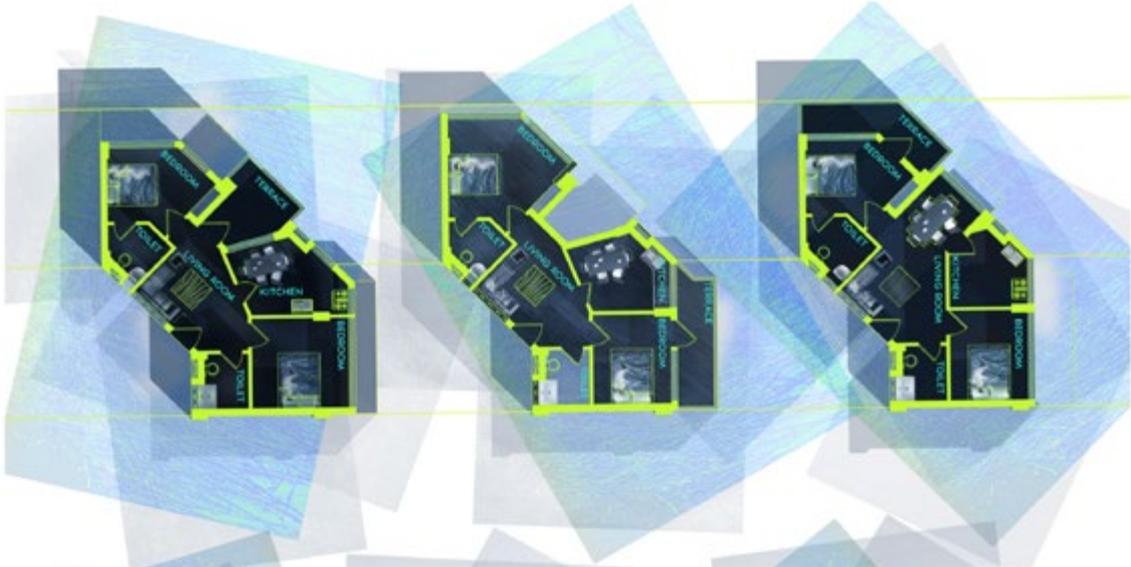


# UNITS

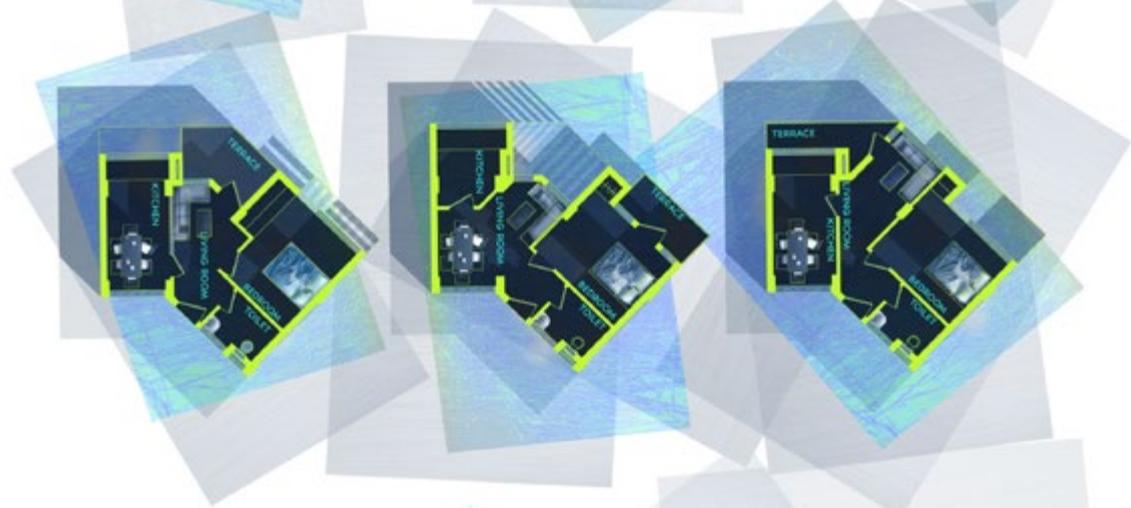
The form of the units is derived from the same basic section-of-a-hexagon shape through subtraction.

The combination of the concave-convex space allows optimisation of the circulation space while providing abundant opportunity for iteration of fenestrations, voids and terraces.

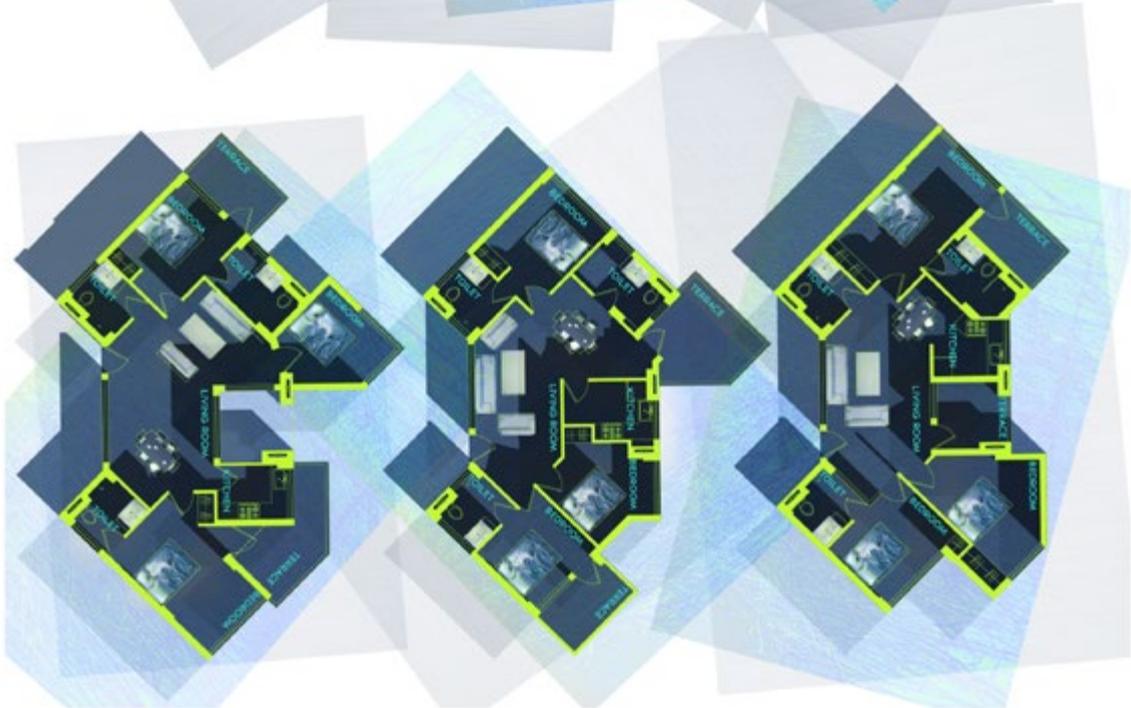
**2 BHK**



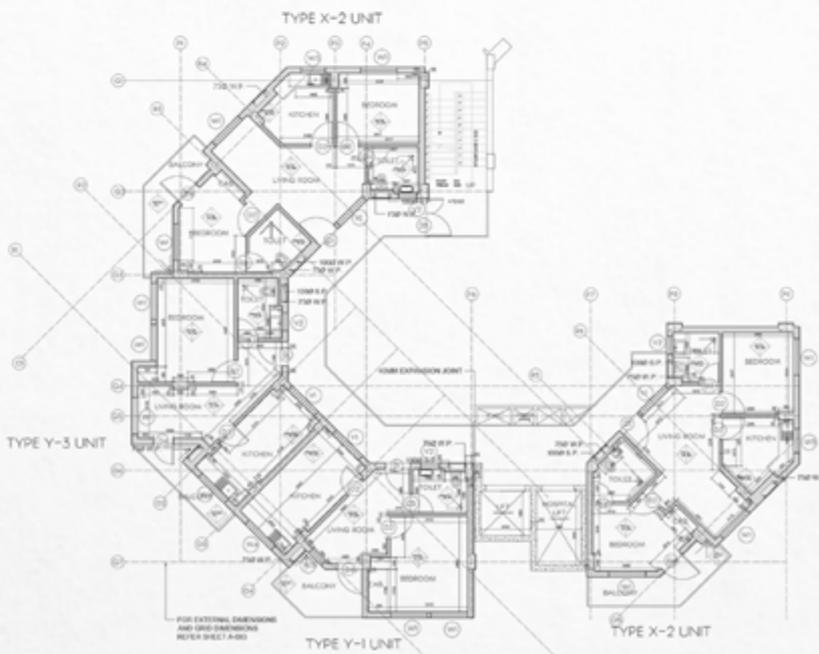
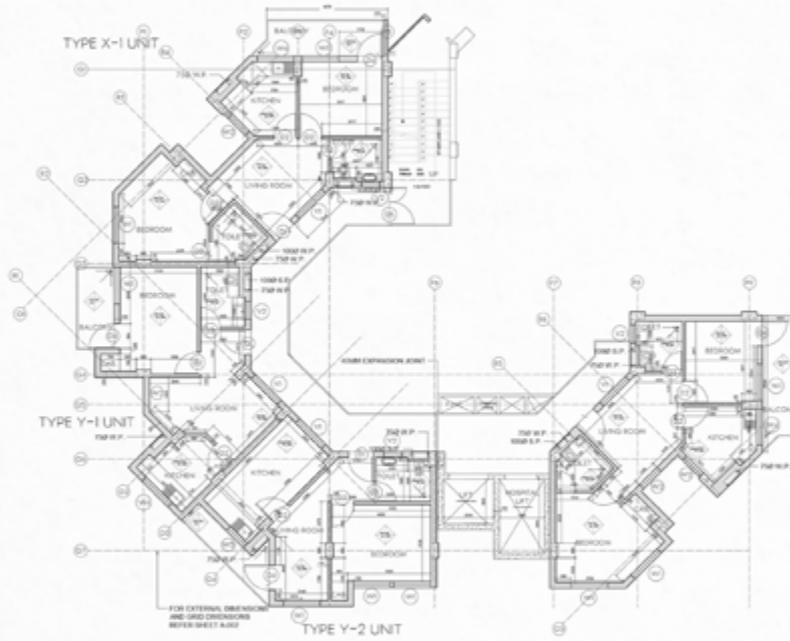
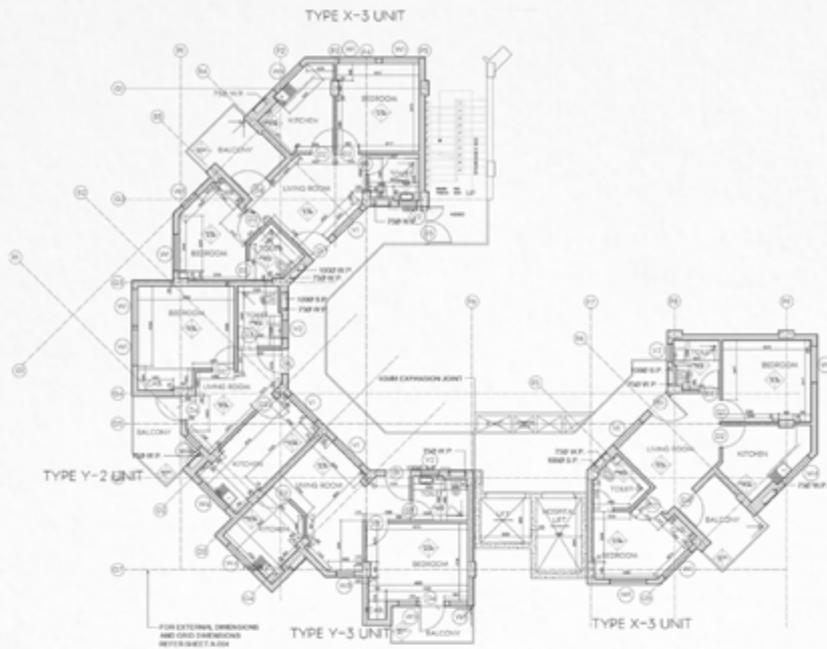
**1 BHK**



**3 BHK**



# PLAN



**TEAM :** Eva Castro, Giulia Mariotti,  
Juan Diego Ramirez Lion, Mukul Gupta,

10

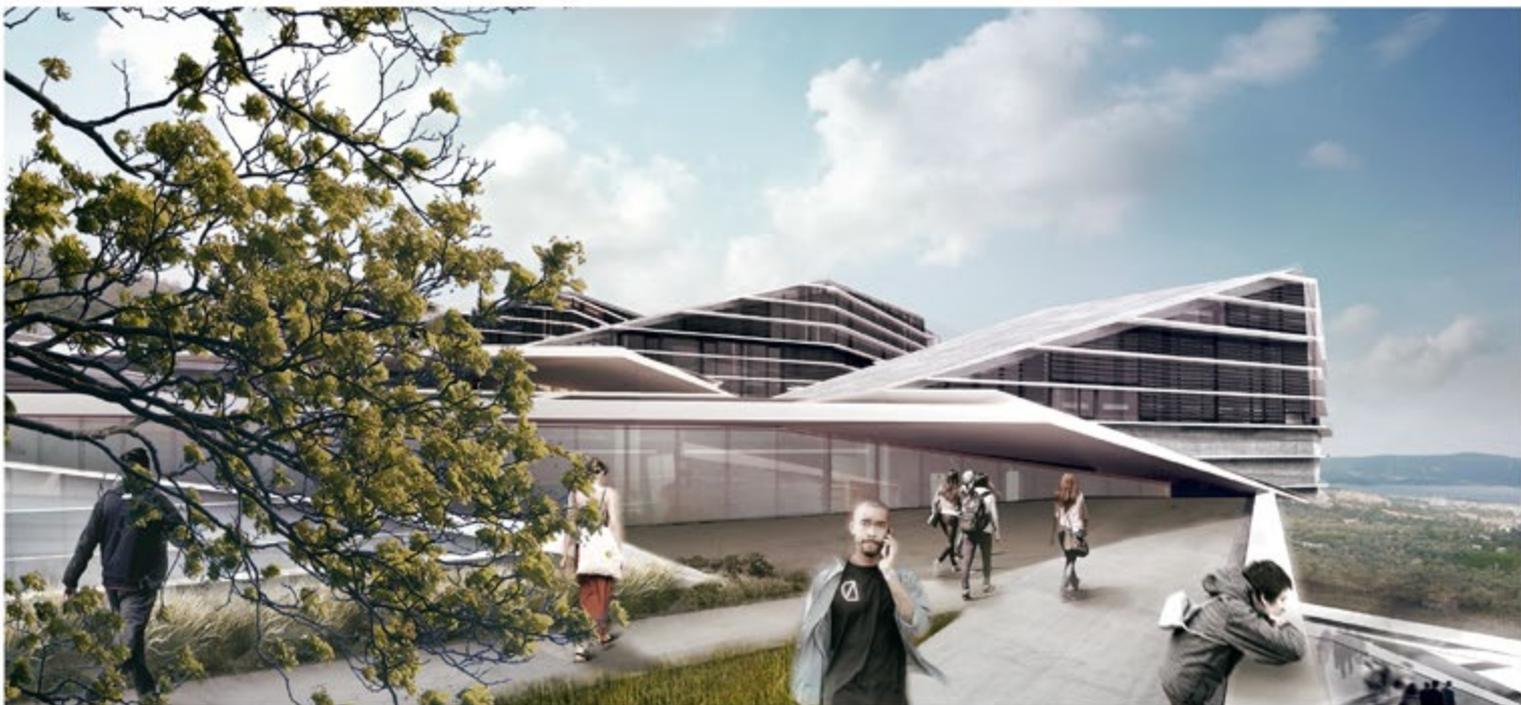
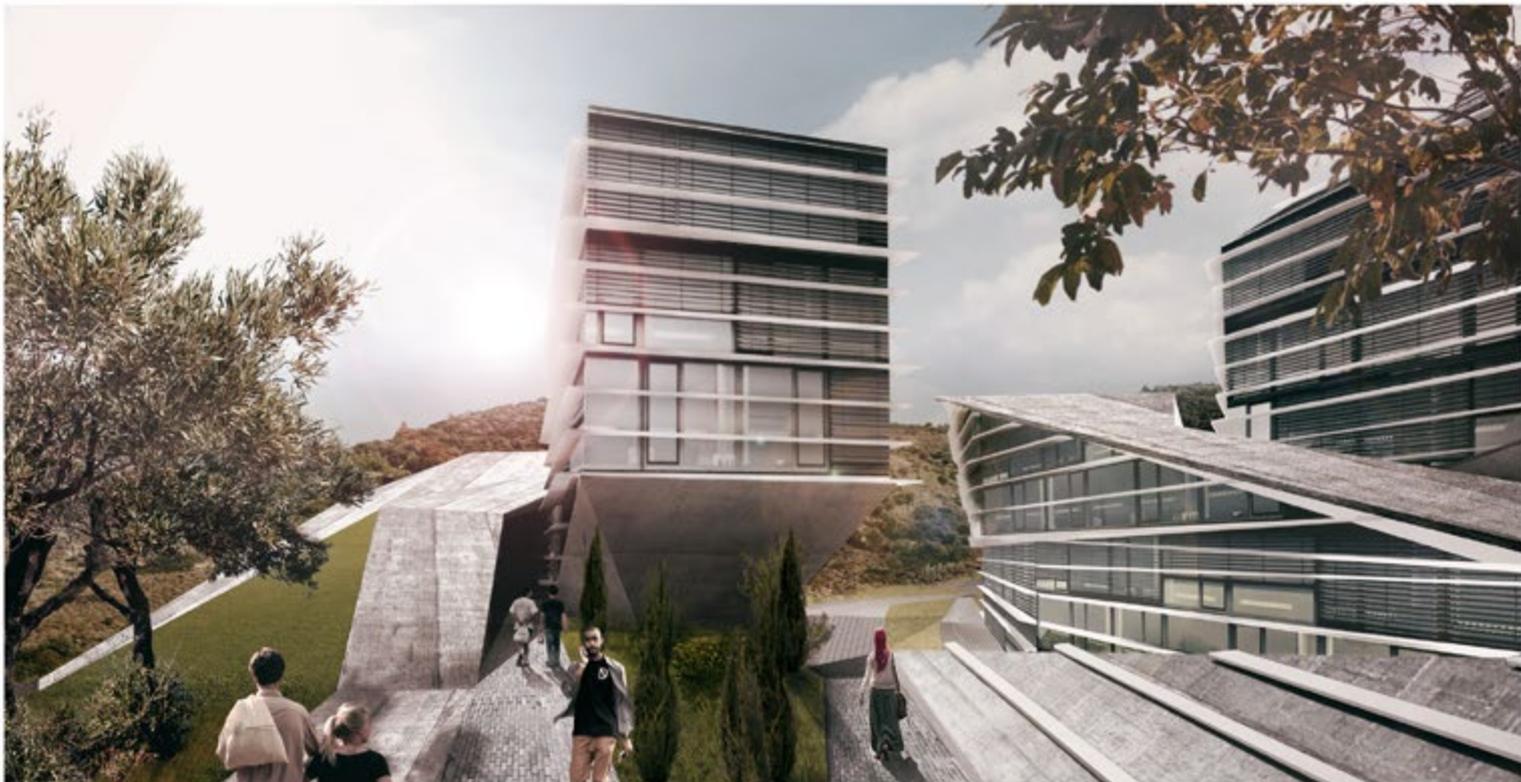
## **Izmir University of Economics Guzelbahce\***

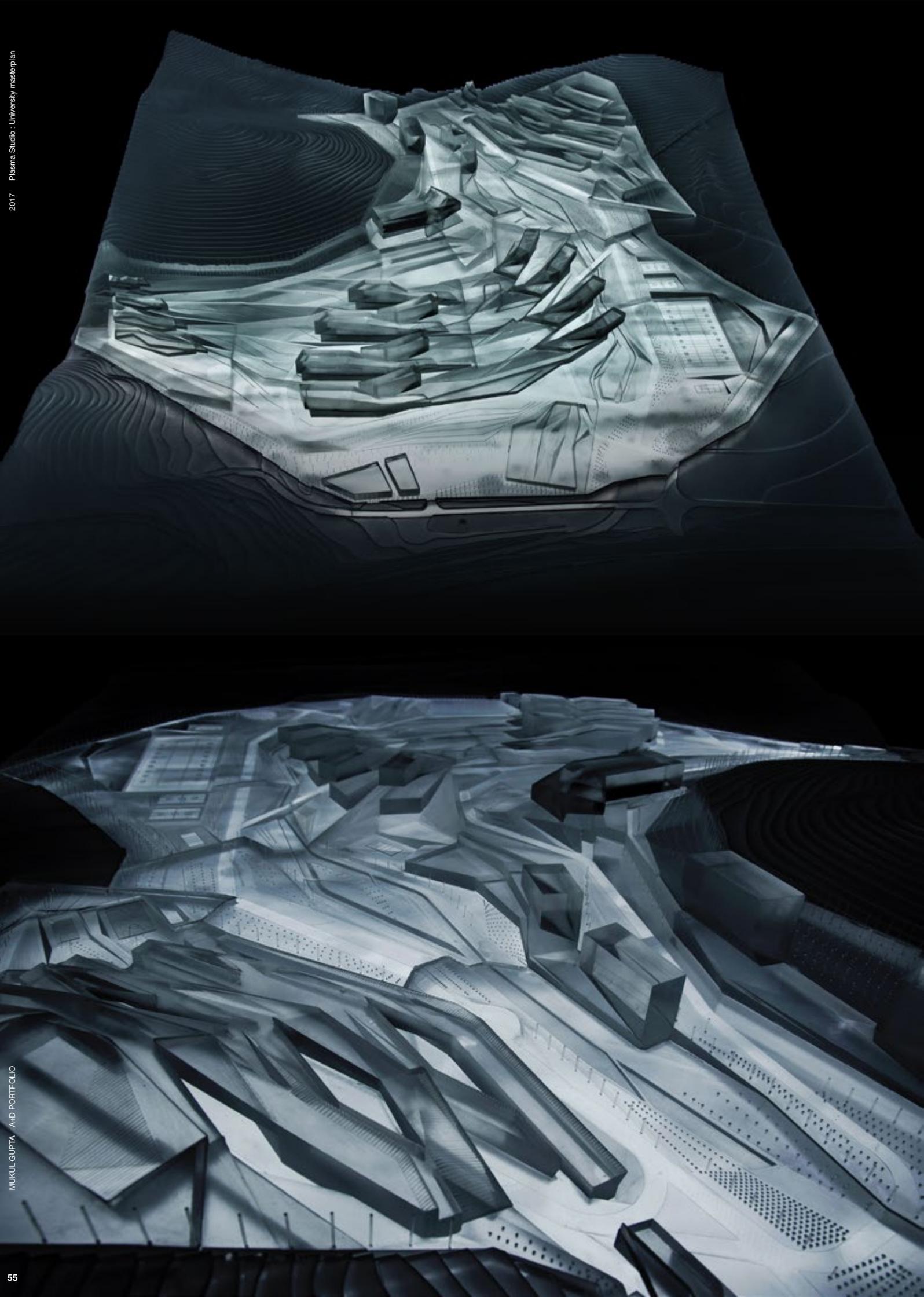
**Izmir , Turkey**

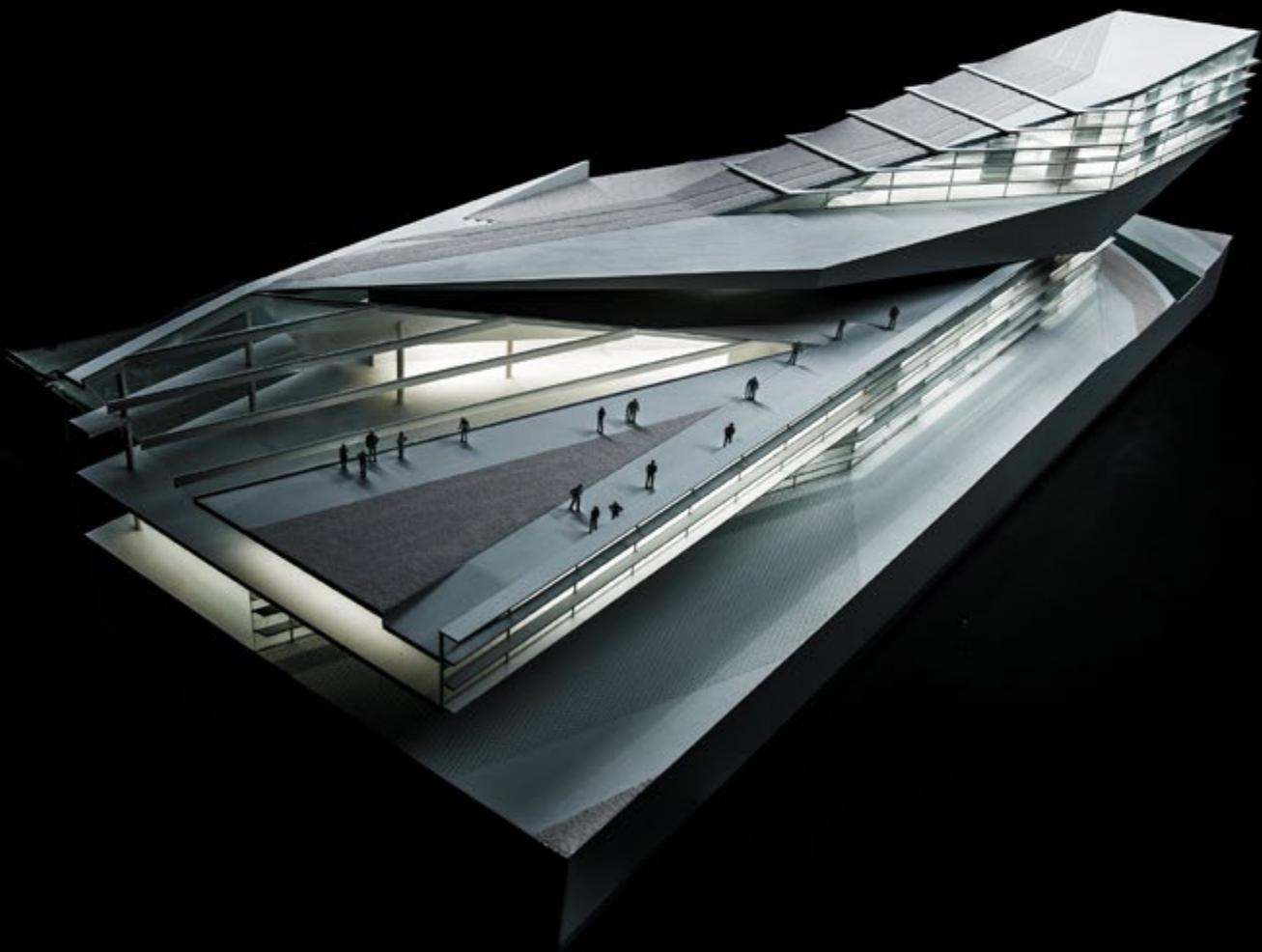
CAMPUS MASTER-PLAN AND ARCHITECTURAL DESIGN

The Izmir University of Economics - Guzelbahce Campus becomes instigator and core for the redevelopment of a large area between the coastal highway and the mountains of Izmir, known as the third most populous city after Istanbul and Ankara and as the fastest growing business centre of the extensive Turkish Aegean coast. Plasma Studio, with collaborators Buro Happold and PMA, won this invited international competition with a radical self-sustainable vision for the future: Guzelbahce Campus creates a consonant functionality of water, planting, circulation and architecture into one seamless system. The master-plan comprises of a 72,000 sqm building for university faculties, a 24,000 sqm school complex (K12: kindergarten + primary + secondary + high school) and 45333 sqm of secondary buildings (library, sport facilities, student dormitories, housing and services).









Project contribution : Research | Conceptualization | Modeling | Visualization

PLASMA STUDIO

TEAM : Eva Castro, Giulia Mariotti,  
Mukul Gupta,

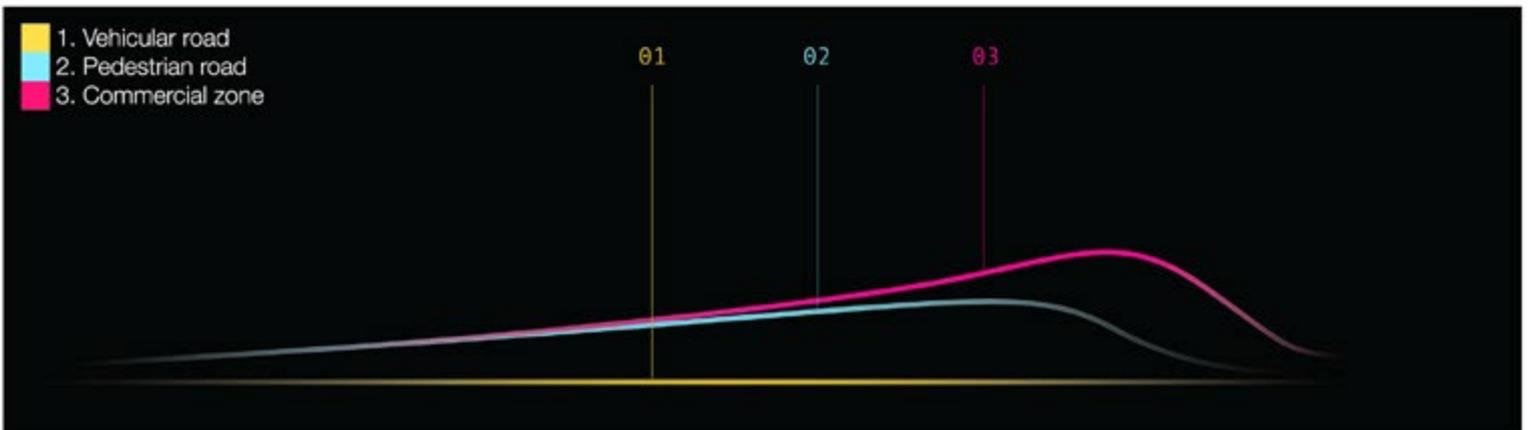


# 11

## Flood-Gate Bridge\*

Zhuhai, China

BAITENG : LANDSCAPE URBANISM AND BRIDGE DESIGN



# BURO OLE SCHEEREN



Büro Ole Scheeren



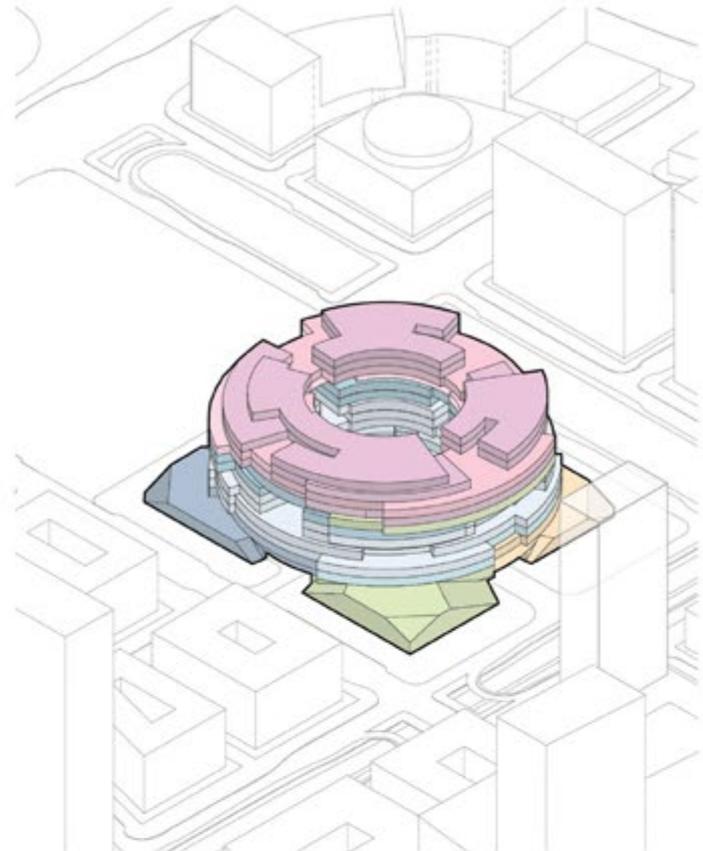
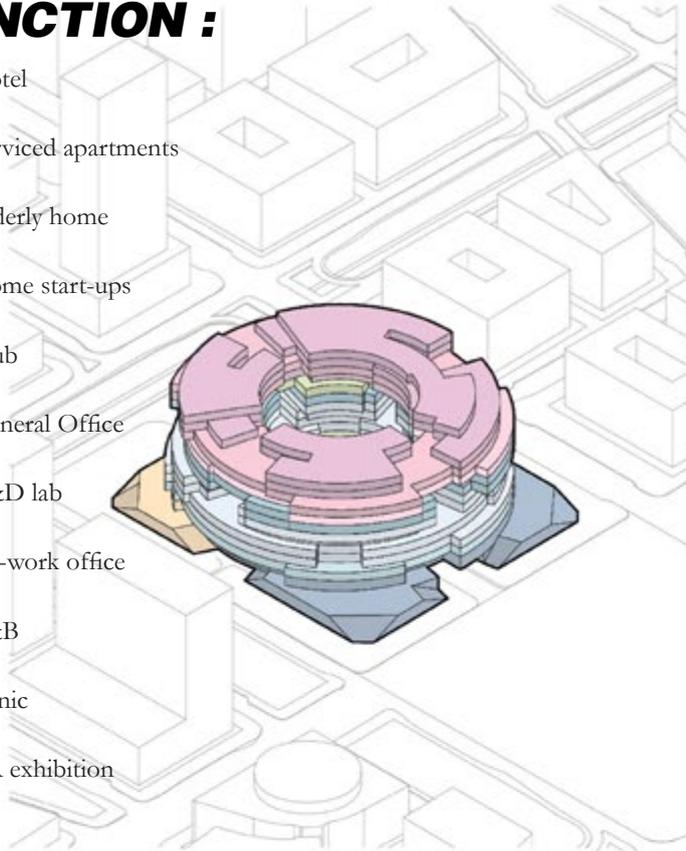
Büro Ole Scheeren

## 12 SHENZHEN HQ Shenzhen, China

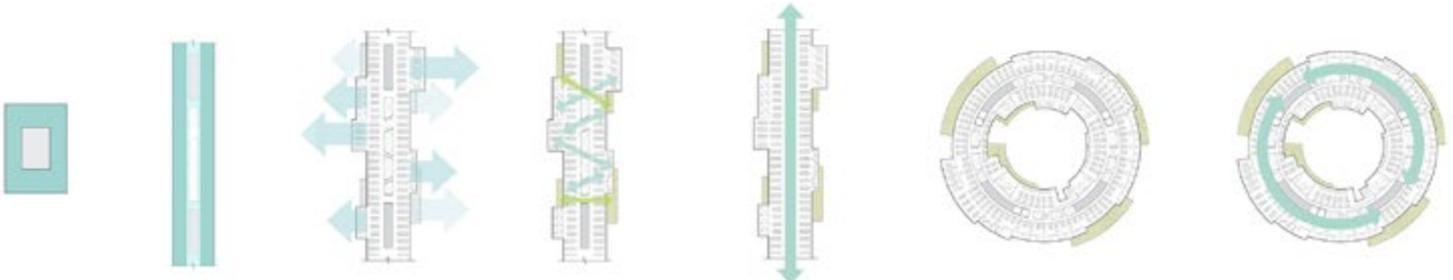
**TEAM :** Mukul Gupta , Connie Wan, Robert Munz, Nicolas Madriguez, Starry Wu, Brian Zhang, Shuo wang

# FUNCTION :

- Hotel
- Serviced apartments
- Elderly home
- Home start-ups
- Club
- General Office
- R&D lab
- Co-work office
- F&B
- Clinic
- VR exhibition



# CONCEPT :



# 07

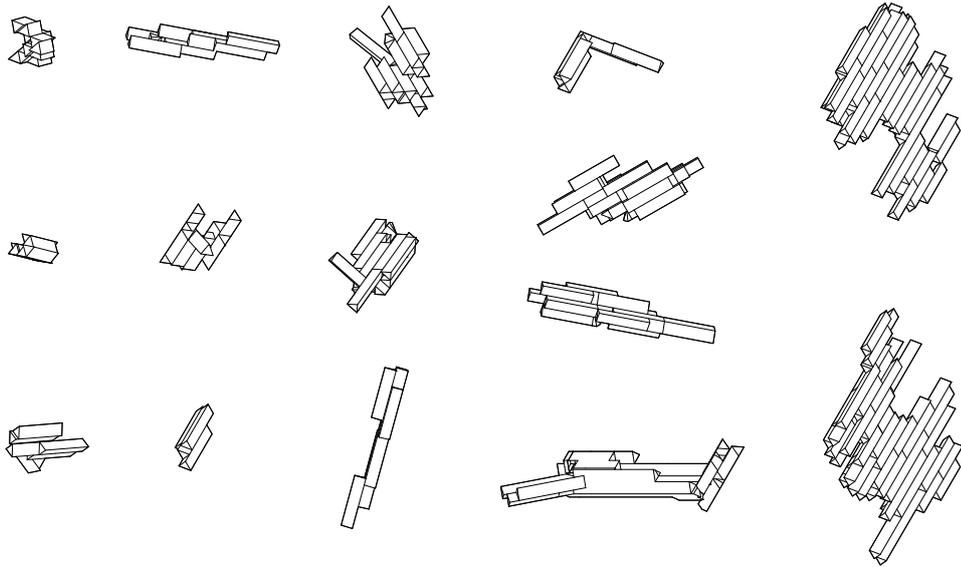
## DISCRETE EXPLORATIONS

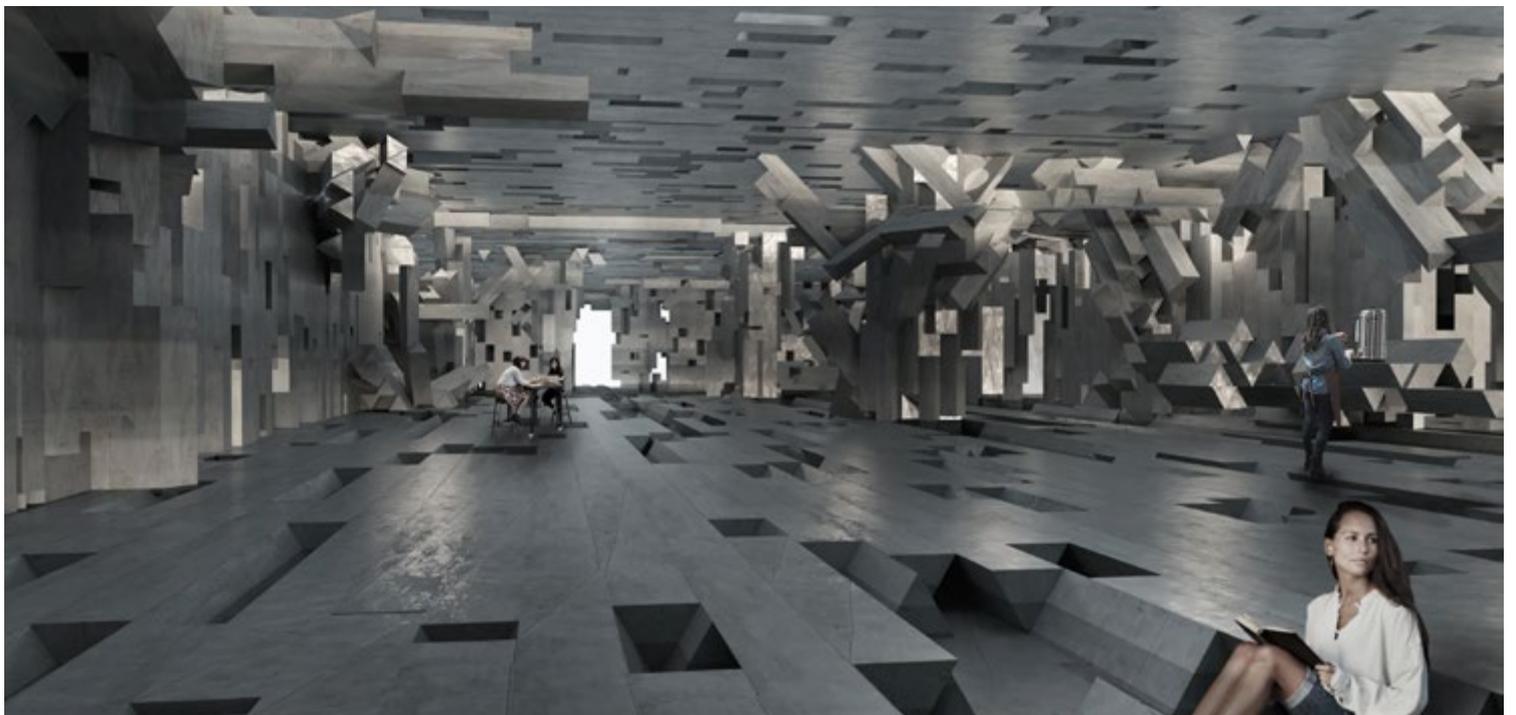
Year : 2019//BARTLETT// 1<sup>st</sup> semester

Subject : Architectural Design

### CONCEPTUAL

*Algorithmic explorations of discrete component inspired by megalithic tectonics, crystalline geometry, minerals and wood joints to create a housing project.*







# 08

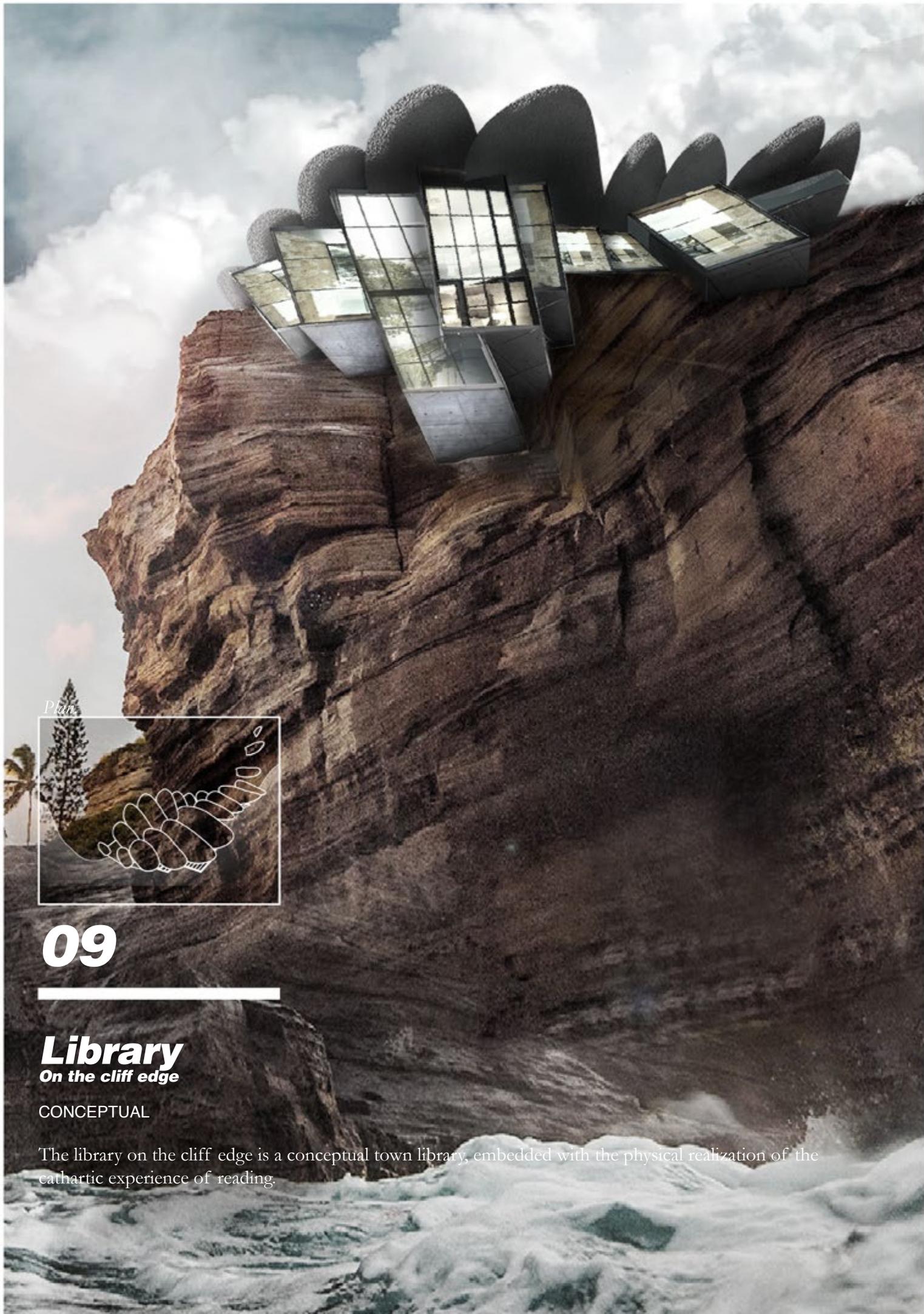
---

## Lighthouse

CONCEPTUAL

The lighthouse was conceived as a monument to the right to freedom of privacy and against institutional surveillance.

If the Panopticon stands for the power symbol and power struggle between the observer and the observed, the concept of the anti-Panopticon, an institutional construct that would stand against psychological oppression would stand for power stabilization and right to privacy for the ones being observed.



*Plan*



**09**

---

## **Library** *On the cliff edge*

CONCEPTUAL

The library on the cliff edge is a conceptual town library, embedded with the physical realization of the cathartic experience of reading.



*Thank you.*

**END**

**PORT  
FOLIO**

**ARCHITECTURE AND DESIGN**

**MUKUL**

**+91-8447681185**

**TWO THOUSAND  
TWELVE TO  
EIGHTEEN**

**mukul.gupta2309@gmail.com**