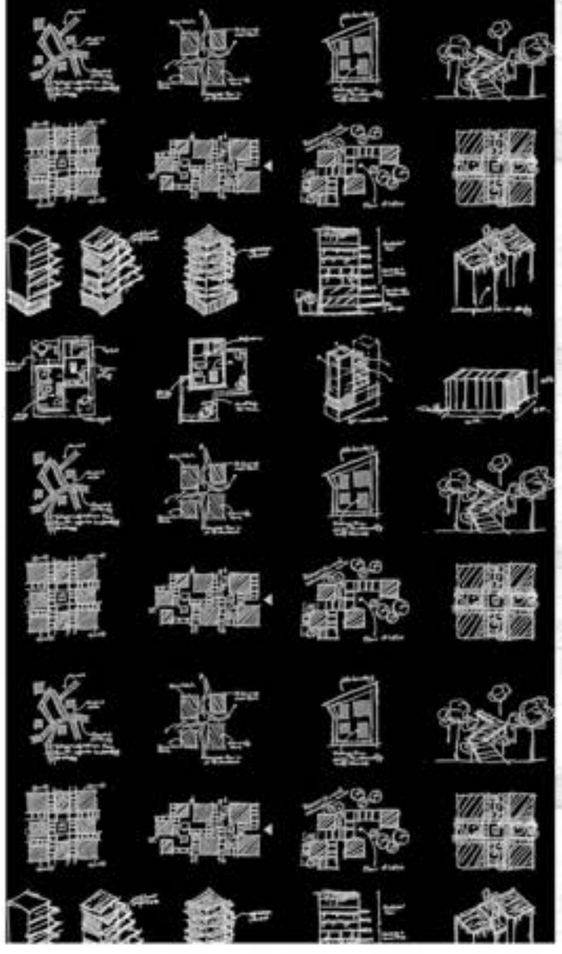
architecture folio

//Selected works 2017-2021//



SHIVAM ARYA

Architecture student

As F.L Wright said, "Study nature, love nature, stay close to nature. It will never fail you."

The coherence of a simple and serene design approach, a set of hierarchies of spaces, with nature being an integral part of it, defined my process of design development.

With all my understanding, I present selected works from my bachelors. Eager to learn and unlearn the process, I am looking forward to being guided by the greatest minds in this field.

PROFILE

Shivamarya435@gmail.com
+91-7488149007
Ranchi India

LinkedIn

EXPERIENCE

2019 · 2 months
Architecture plus Design Lab | Ranchi — Professional Architecture Internship
Chief Architect Ar. Ankit Berry | Formerly at VTN architects Vietnam

Worked on producing 3-D models, conceptual developments, CAD drawings, visulizations and site studies ranging from residential, mix use and institutional projects.

2018 · 4 months
Team Srijan | Ranchi — Professional Graphic Design Internship
Students' Automative Technical Club | BIT Mesra

2019-2021
LEO Club | Ranchi — Graphic Design Head /coordinator
Students' Social Service Club | BIT Mesra

2019-2021
Student Society of Architecture (SSA) | Ranchi — Coverage head/coordinator
Formal Architecture students' Body | BIT Mesra

AWARDS AND ACHIEVEMENT

2021 — **Reconnecting and Interpreting: Impact of Colonial Interventions on the Urbanscape of Bengal** — Publication|Team
IIA Journal Article| Jharkhand Chapter

2021 — **Bowen Island Community Center** — First Place|Team
International competition | ARCACE Canada

2021 — **RIBA Future Architects open call** — Feature|Individual
Project Feature| RIBA Education Instagram channel

2020 — **Annual NASA Design Competition (ANDC) Trophy 2020** — Top 110|Team
National competition | NASA India

2020 — **Upcycled Shipping Container Microhouse** — Feature|Individual
Project Feature | DesignTerrains Blog

2020 — **Micronation Microhouse Design Challenge** — Third place|Individual
International competition | Micronation India

2020 — **Pre's Rock Memorial design competition** — Shortlisted entry|Individual
International competition | Portland track USA

2019 — **Annual NASA Design Competition (ANDC) Trophy 2019** — Top 66|Team
National competition | NASA India

2019 — **Convention Trophy** — Shortlisted entry|Team
National competition | ZONASA India

2019 — **Wonderfruit Pavilion Design 2019** — Shortlisted Entry R-1|Individual
International competition | Wonderfruit Thailand

EDUCATION

Birla Institute of Technology Mesra | Ranchi India
2017 - 2022
Bachelor's of Architecture

Dav public school Hehal Ranchi India
2017
Higher Secondary School

Dav public school Hehal Ranchi India
Secondary School
2015

SKILLSET

Drafting
Autodesk AutoCad — Advance

Modelling
Trimble SketchUp — Advance
Rhinoceros 3D — Intermediate
3DS max — Basic

BIM
Autodesk Revit — Intermediate
Archicad — Basic

Graphics
Adobe Photoshop — Advance
Adobe Illustrator — Advance
Adobe Indesign — Basic

Visualization
Corona render — Basic
Enscape — Advance
Lumion — Intermediate
Vray — Intermediate

Sketching
Autodesk sketchbook — Intermediate
Procreate — Basic

Photography
Lightroom — Intermediate
Camera Raw — Intermediate

Year 2

III.

Academic	Competition
Residence design	Smart city challenge Zonasa 2018 event
Restaurant & Food court	

IV.

Academic	Competition
School design	Temporary Spaces during Festivities of India
Art village complex	Wonderfruit pavilion 2019
	Amravati design challenge 2019

Year 3

V.

Academic	Competition
Rescom/ mix use design	ANDC 2019
Country club house	LAGI 2019
	Convention Trophy Zonasa 2019
	Police station design CAAJ/AAJC

VI.

Academic	Competition
Hotel design	ARCASIA Bus Stop design 2019
Auditorium	PRE'S Rock memorial design competition

Year 4

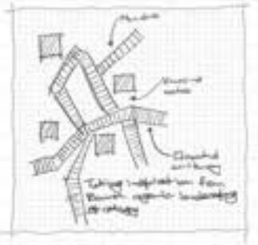
VII.

Academic	Competition
Campus design	**Microhouse design challenge**
Interior design	ANDC 2020

VIII.

Academic	Competition
Group housing	**Bowen island community center**
Thesis dissertation	

Design project

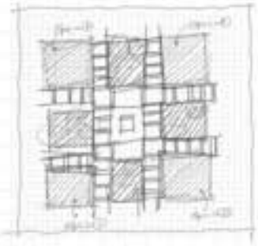


NATURA | Community center
An island in the heart of an island
Pg. 1-5

ATHITYA | Hotel design
Architectural biodiversity between living species
Pg. 6-9

SUKSHM | Microhouse
Upcycled shipping container microhouse
Pg. 10-12

Additional section

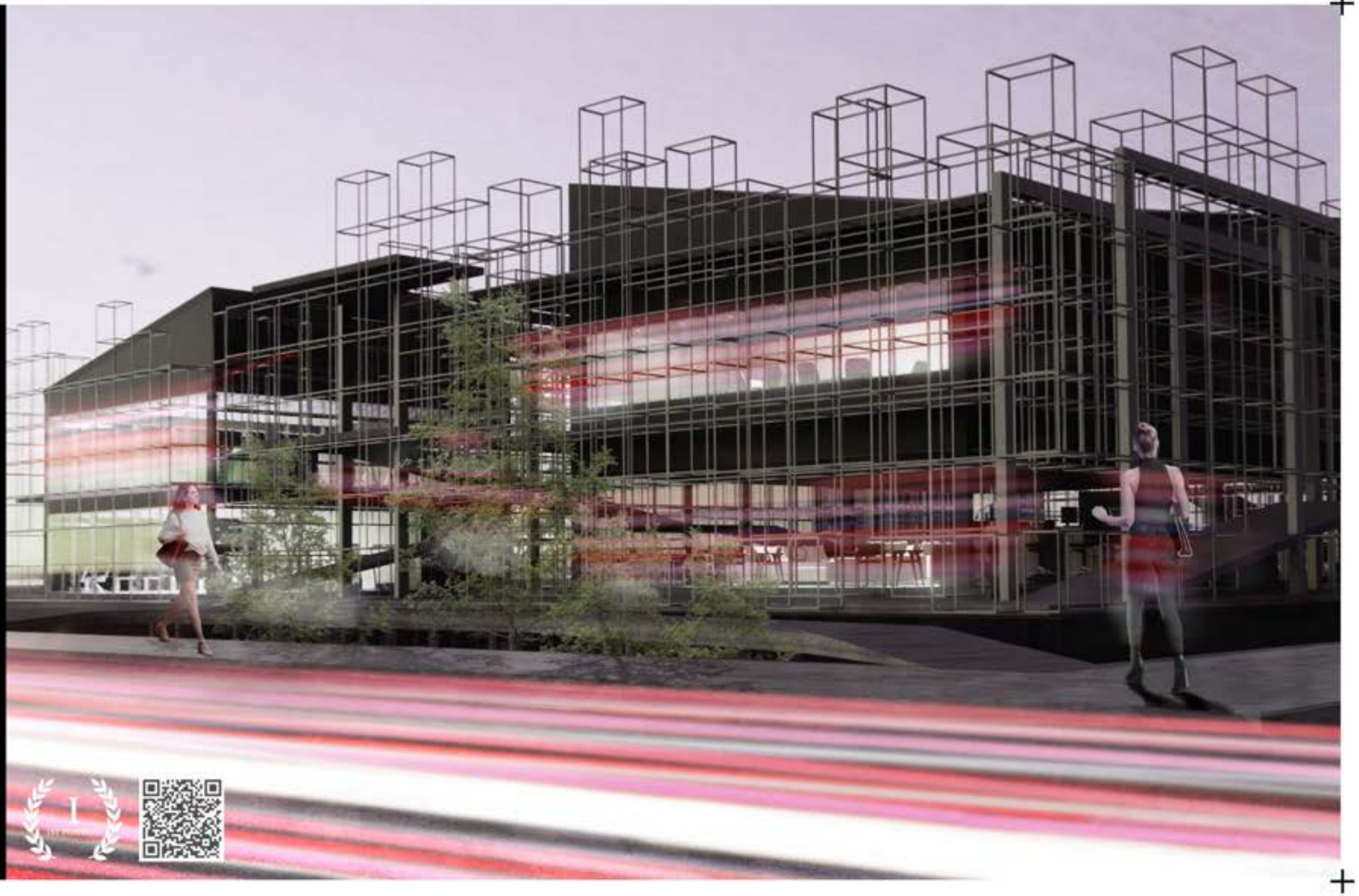


WALMI | Institution
A coherence of learning and nature
Page 13-16

Nātūra

na·tù·ra //noun//

nature/untouched/serene



An island in the heart of an island

type	**participation**	**site**
competitive	team (2p)	bowen island Canada
citation	**time**	**site area**
first place	eighth semester	3300 sqm.

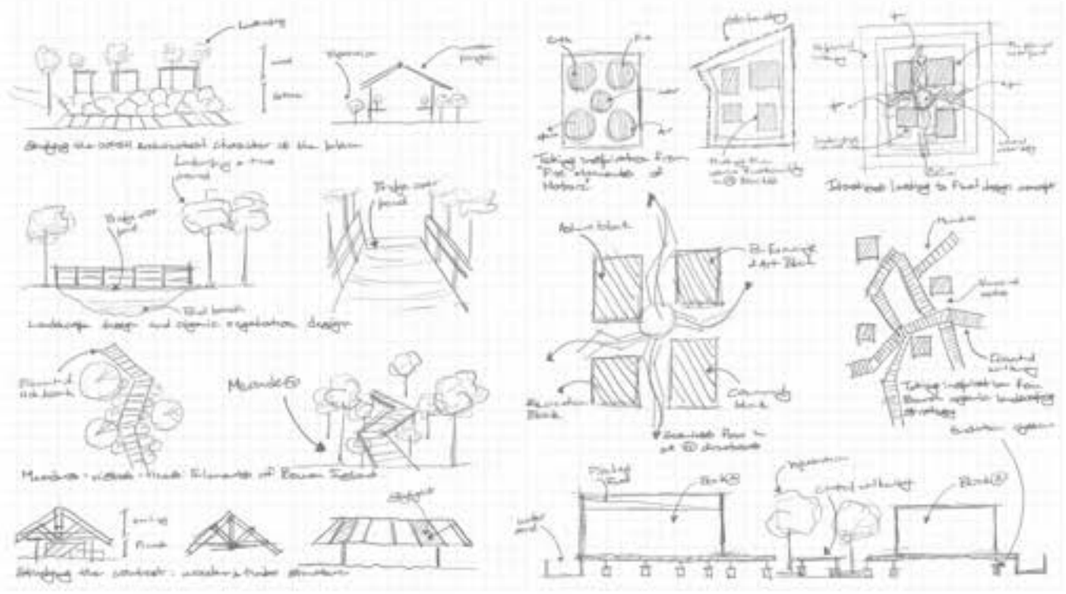
Bowen Island is located in British Columbia, Canada. Nature's healing power is in abundance at this island. The overall island is composed in lush green forest with views, vistas, landscapes and meanders, occupied by a population of less than 5000 people.

Understanding the architectural character of island

To understand the design essence, extensive literature study of the island was done, undestanding the overall character through sketches, diagrams and iterations.

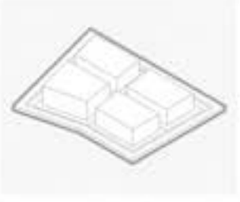
Formulating the design concept from studies

Understanding the overall ambience and architectural character of the island added with nature as an integral part of the island, concept was formulated. The overall island incorporated views, vistas, meanders, organic pocket landscaped spaces, hill and natural vegetation as the core element. Added to this, the architectural style was noted- small pitched roof cottage style houses in lush green sourrounding. Summing up all the concepts and studies, the core design concept was visualized.



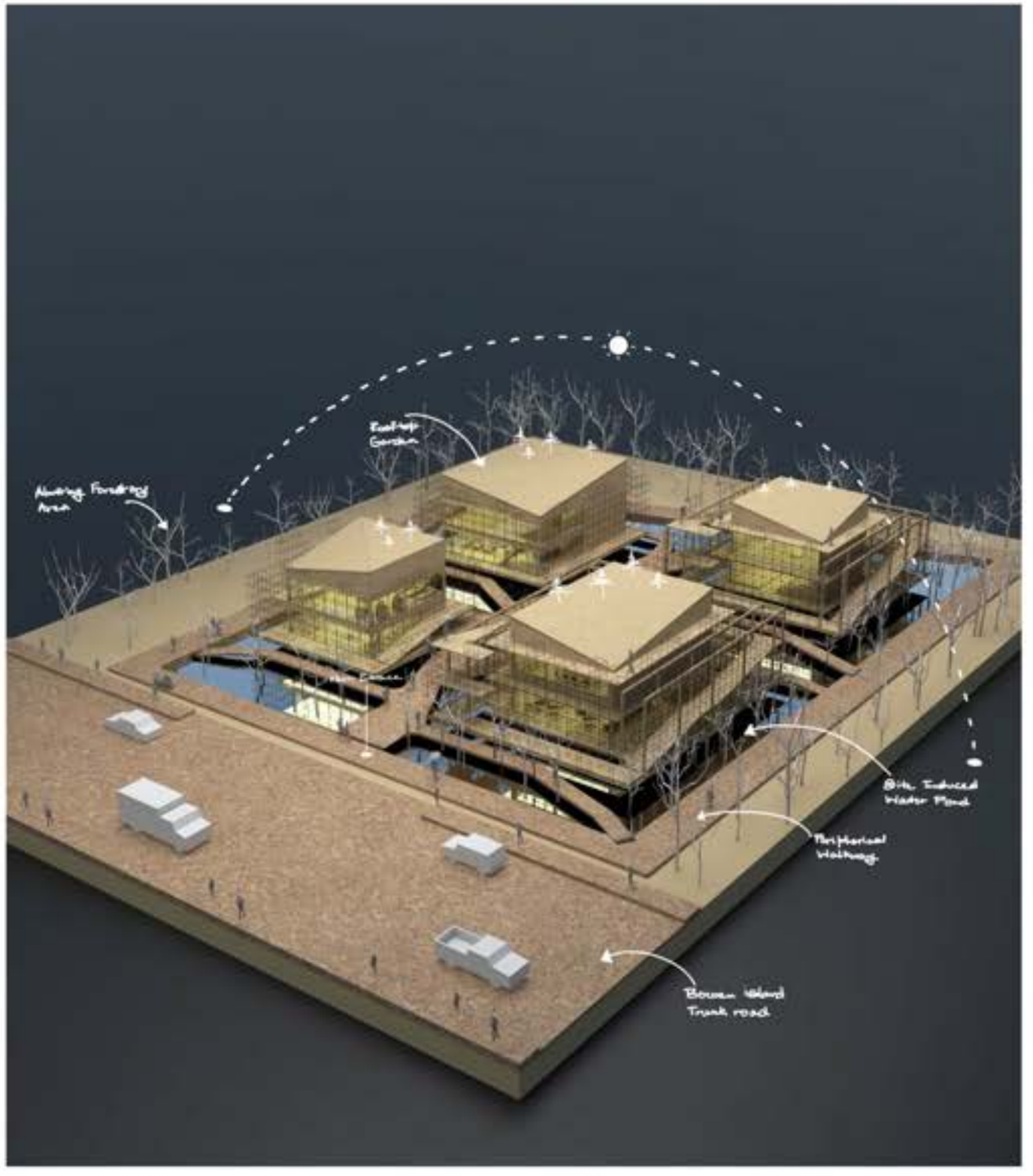
Demarcating permissible area within setback

Visualizing the core building footprint in the permissible area



Taking inspiration from the 5 elements of nature, dividing the overall form with central water body.

Incorporating water body induced design to create a sense of island in the overall design site

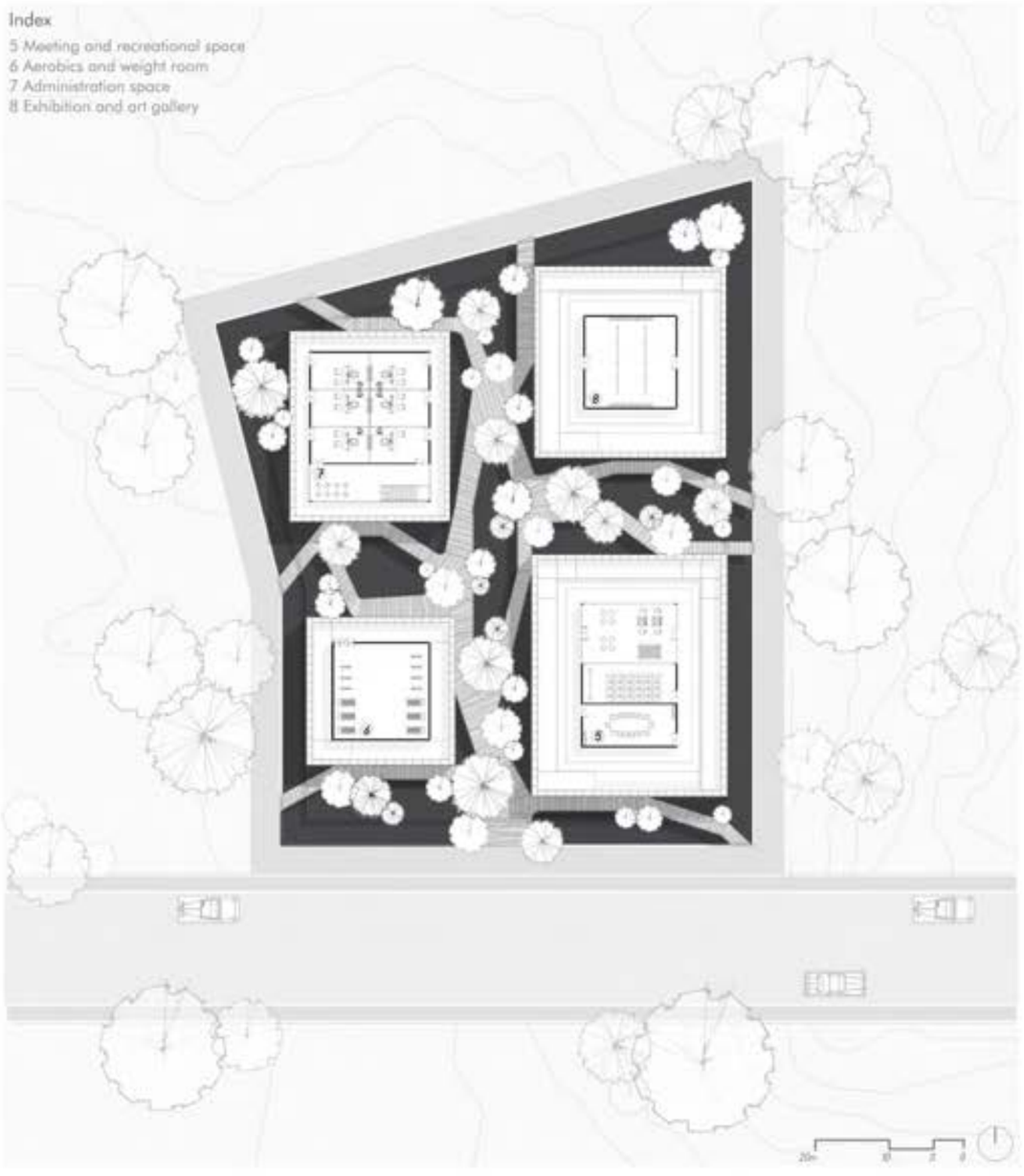


Index

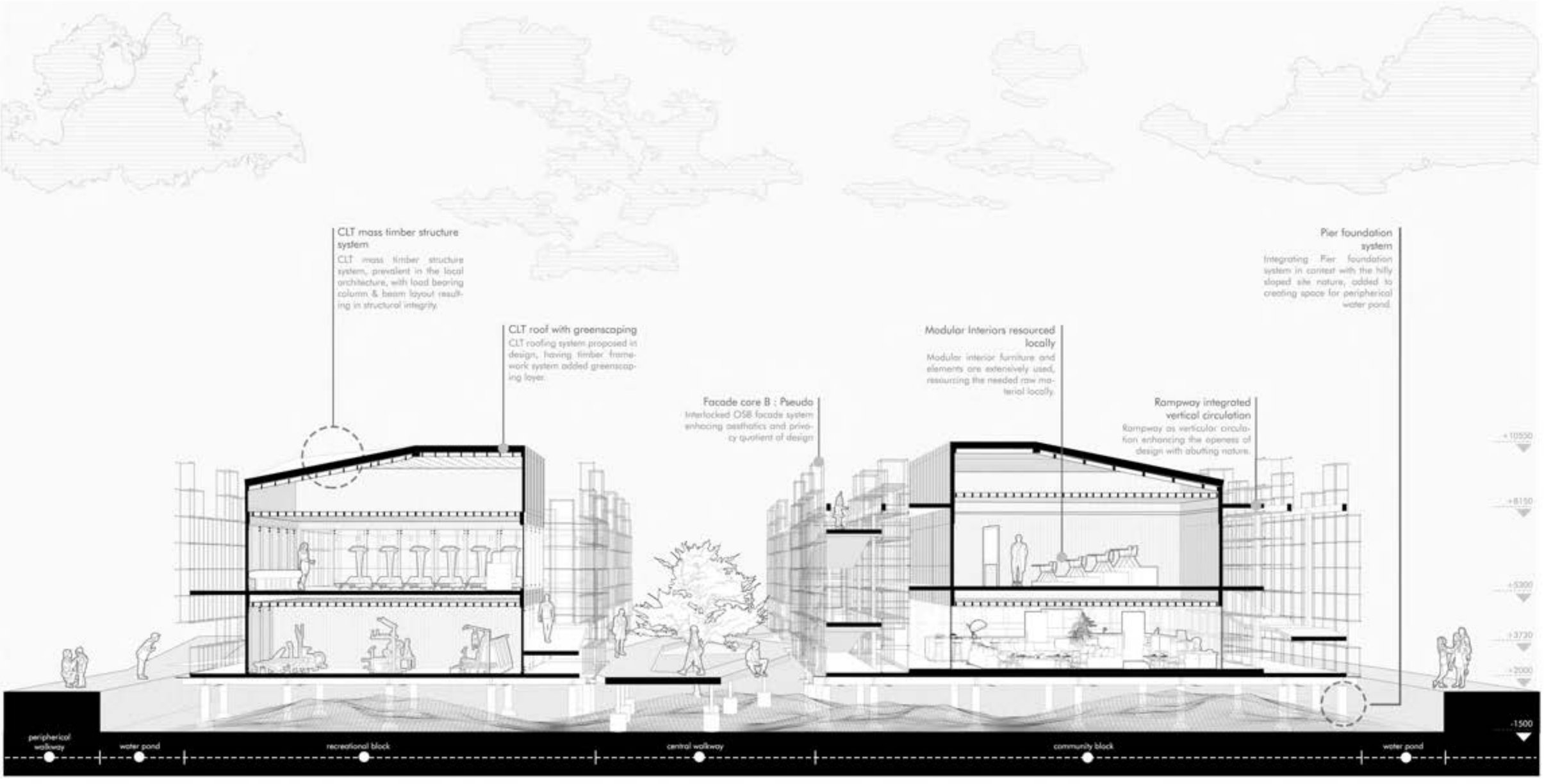
1 Reception hall
2 Gymnasium
3 Administration space
4 Multipurpose theater

Index

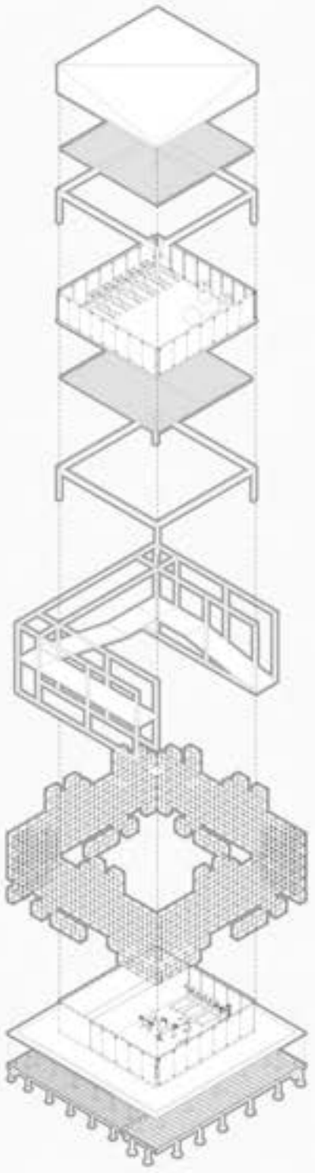
5 Meeting and recreational space
6 Aerobics and weight room
7 Administration space
8 Exhibition and art gallery



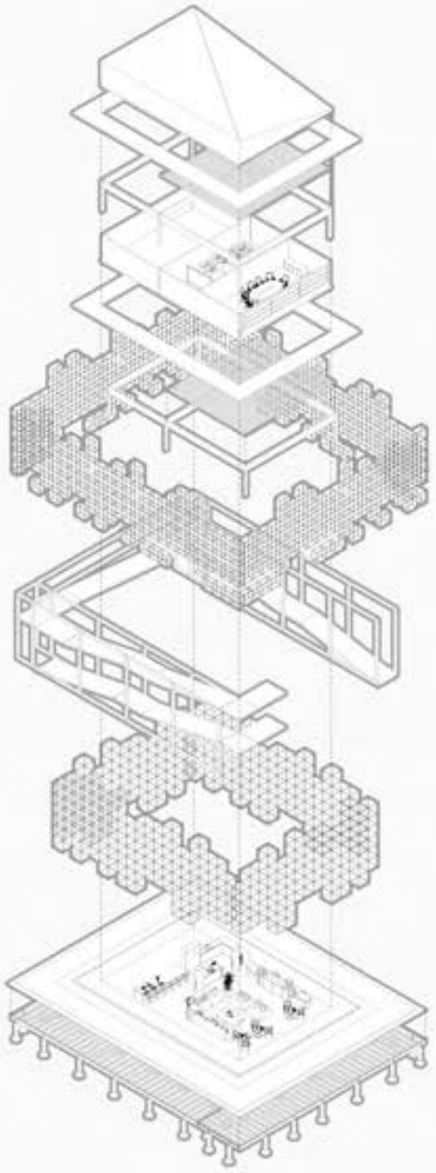
Natura: Perspective section



Natura: Exploded axonometric diagram



Recreational block



Community block

CLT roof with greenscaping

CLT roofing system proposed in design, having timber structure as core framework. The overall roof topped with greenscaping layer for vegetation.

CLT mass timber as core structure system

CLT mass timber structure system, prevalent in the local architecture, with load bearing column & beam layout resulting in structural integrity.

Wooden planks as outdoor corridor

Wooden planks resourced from used and scrap wood joined together used as corridor decking resulting in design uniformness.

Facade core B : Pseudo facade made out of recycled OSB sheets

Pseudo facade system resourced locally in form of OSB sheets further preparing desired set of interlocking facade system enhancing aesthatics and providing additional privacy.

Rampway integrated vertical circulation

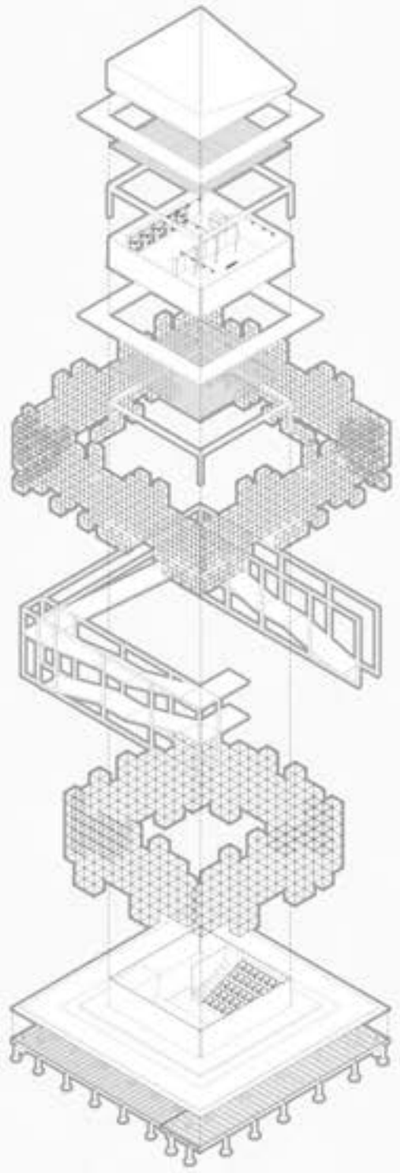
Integrating Ramps as vertical circulation leading to unconventional approach and simultaneously enhancing the overall design to connect with the sourrounding nature.

Facade core A : Pseudo facade made out of recycled OSB panels

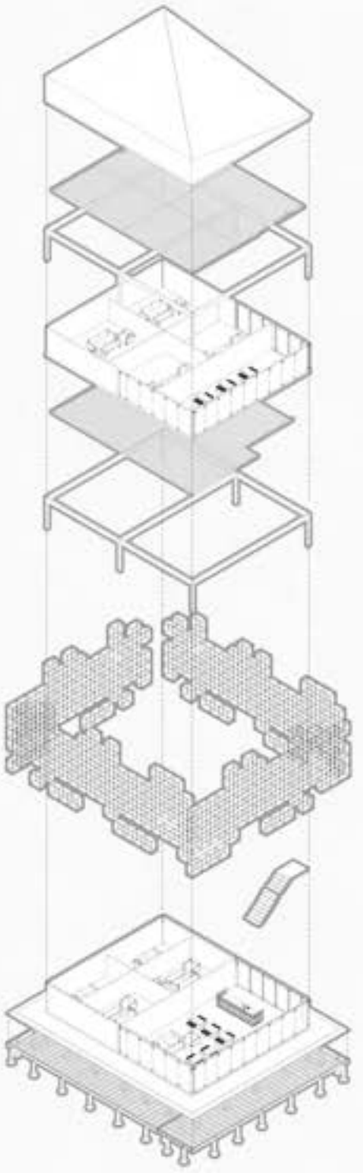
Pseudo facade system resourced locally in form of OSB sheets further preparing desired set of interlocking facade system enhancing aesthatics and providing additional privacy.

Modular Interior and elements resourced locally

Modular interior furniture and elements are extensively used, resourcing the needed raw material locally. Overall enhancing the design as eco friendly and sustainable.



Gallery & exhibition block



Administration block

Aåtithya

आतिथय //noun//

hospitable/embrace/cordial

Architectural biodiversity amidst living species

type	**participation**	**site**
academic	individual	ranchi India
citation	**time**	**site area**
jury's distinction	sixth semester	2000 sqm.

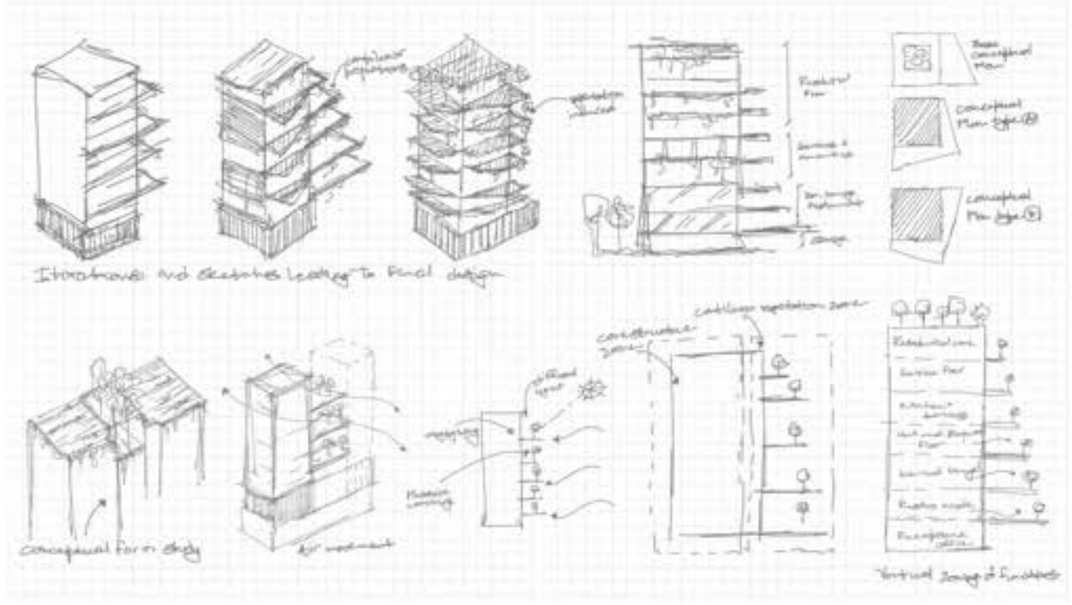
A coherence of humans, trees, birds and other living species. Creating a hospitality design concept of specified green hotel acoording to provided studio design brief, Athitya hotel design was formulated. Representing a strong biodiversity with the architecure as core medium.

Coherence of humans and other living species

Concept of vertical forest and vegetation induced design was approched for the design concept. As a result, several studies of existing vertical forest model and design concepts was taken into sight.

Athitya : vertical forest induced hotel design

The core design approach revolved around not only creating a practical solution against the provided brief but to create a design model, unconventional and sustainable in approch, integrating the nature in form of rich vegetation in design rather than excluding it. The whole design approach generating a space great enough to relish the hospitality requirement as well as creating a strong message to induce the nature withing design, eliminating the contemporary usage of glass and aesthatic based design approach.



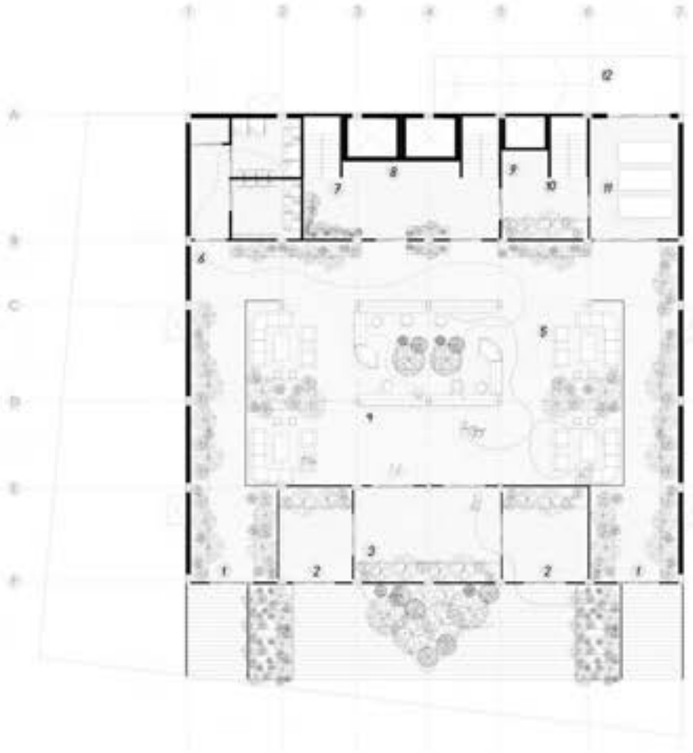
Analysing the height of building through space requirement and structure study

Demarcating the overall form with the area of usage - visitors' & recreation - service and residential core

Extruding cantilevers at each floor level from two faces to create a recreational yet provocative space

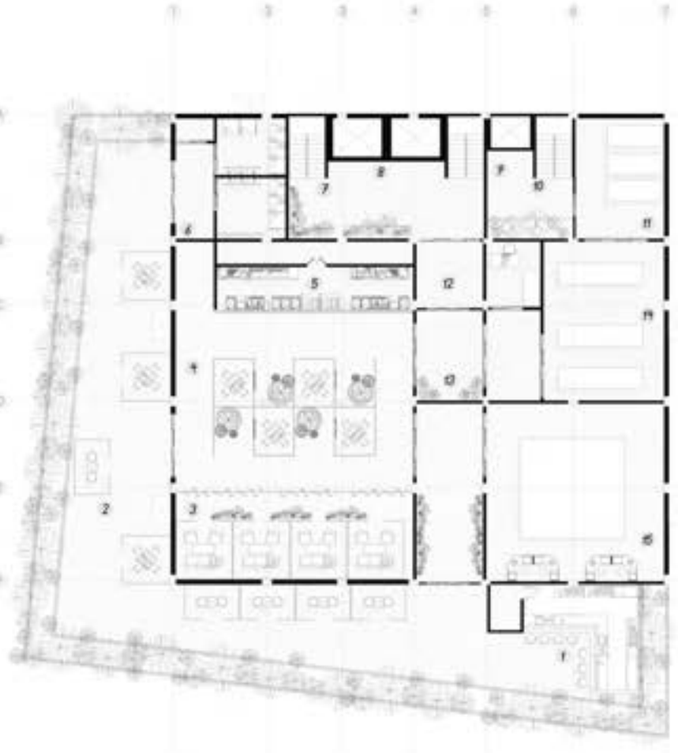
Distorting the extruded cantilevers at different angles alternatively at every floor to create a dramatic space

Athitya: Floor plan



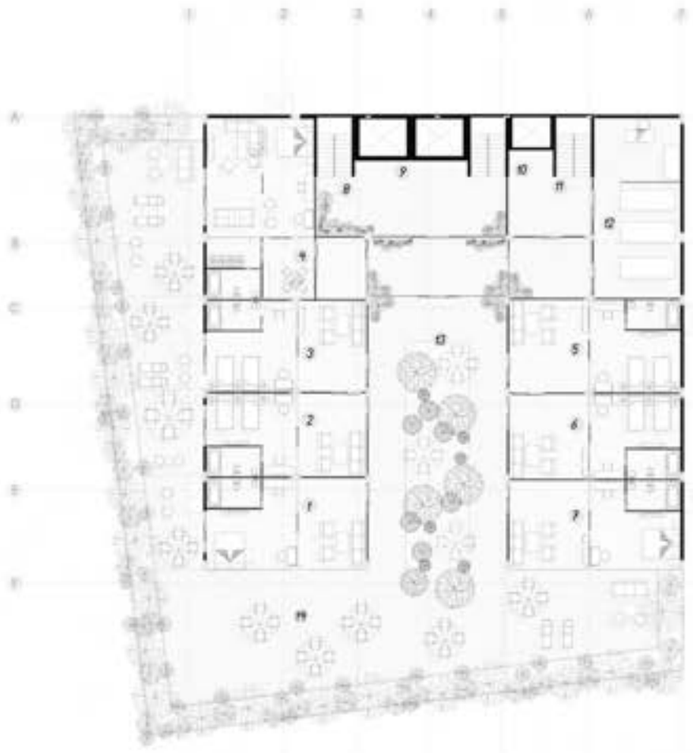
1 exit walkway
2 entrance walkway cum thermal check zone
3 disinfection area and central walkway
4 reception desk
5 reception sitouts
6 common toilet
7 public staircase
8 public lift
9 service lift
10 service staircase
11 temporary service storage
12 service ramp

Ground floor plan
reception core



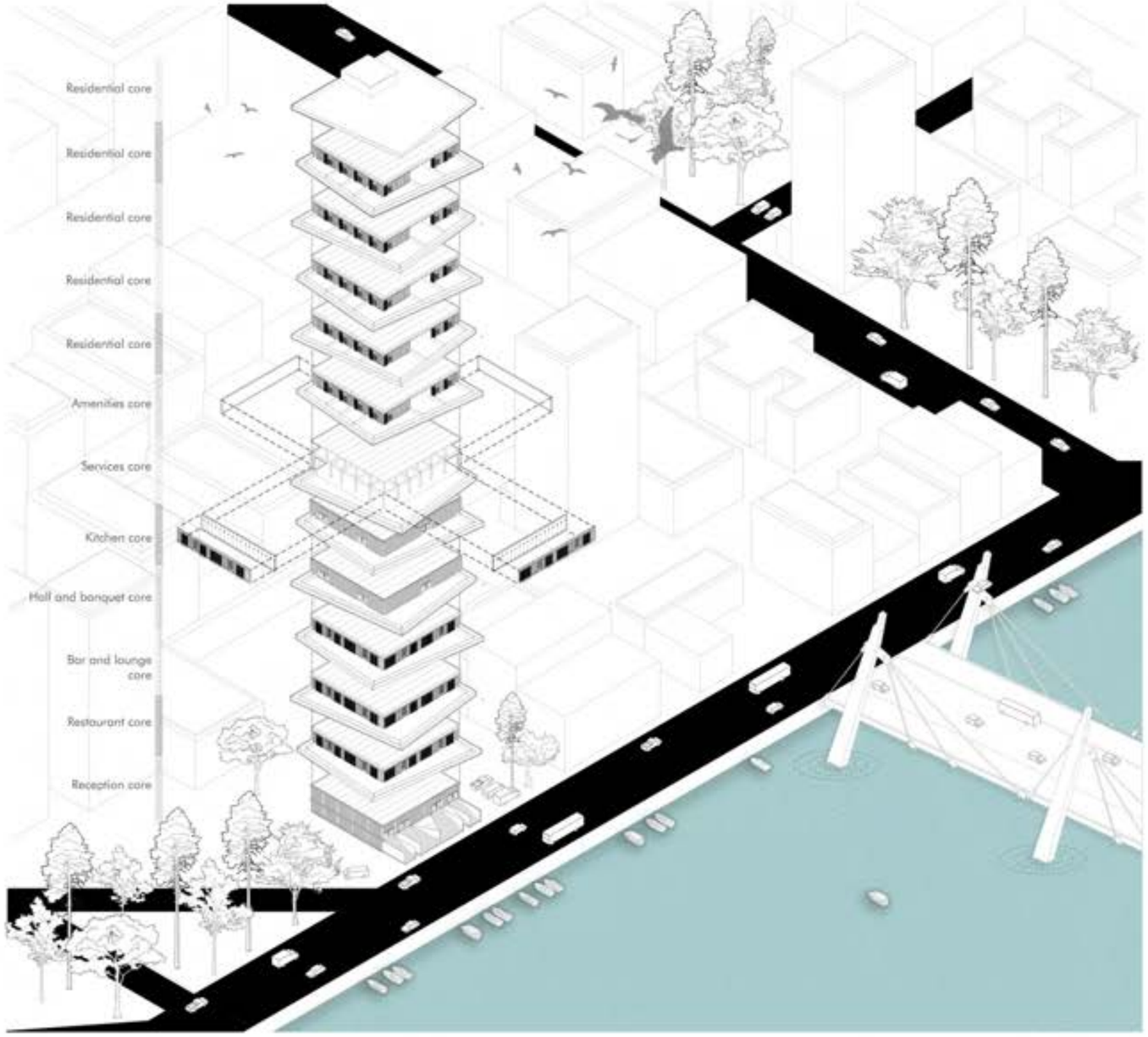
1 outdoor bar lounge
2 outdoor sitout space
3 indoor luxury lounge sitout
4 indoor table sitout
5 bar counter
6 common toilet
7 public staircase
9 service lift
10 service staircase
11 temporary service storage
12 thermal check
13 disinfection area
14 cold storage
15 dance and

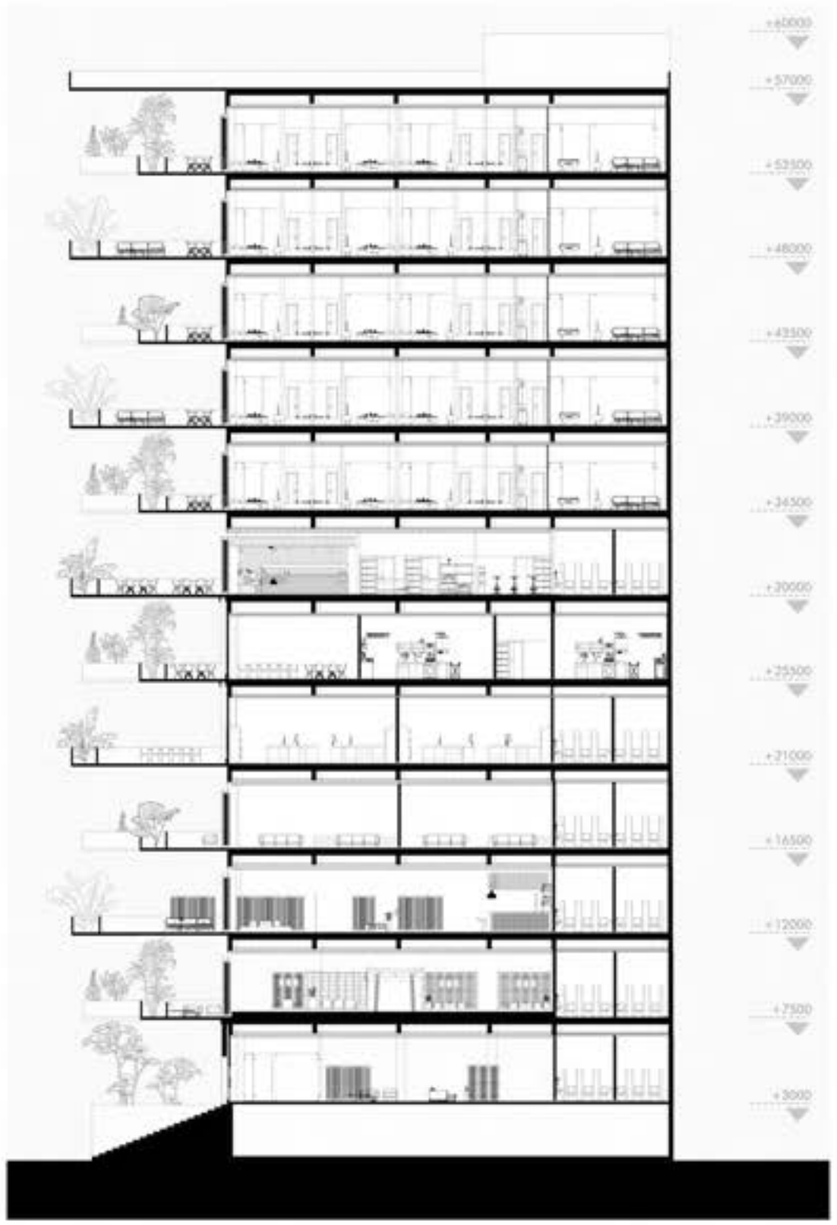
Second floor plan
bar and lounge core



1 room type A 1
2 room type B 1
3 room type B 2
4 room type C
5 room type D 1
6 room type D 2
7 room type A 2
8 public staircase
9 public lift
10 service lift
11 service staircase
12 service and supervisor room
13 outdoor garden sitout
14 outdoor common terrace

Seventh floor plan
residential core


Residential core
Residential core
Residential core
Residential core
Residential core
Amenities core
Services core
Kitchen core
Hall and banquet core
Bar and lounge core
Restaurant core
Reception core


+60000
+57000
+53500
+48000
+43500
+39000
+34500
+30000
+25500
+21000
+16500
+12000
+7500
+3000

Sukshm

सूक्ष्म //noun//

subtle/fine/delicate

Upcycled shipping container microhouse

type competitive	**participation** individual	**site** sunderbans India
citation third place	**time** seventh semester	**site area** 36 sqm.

III
3rd position

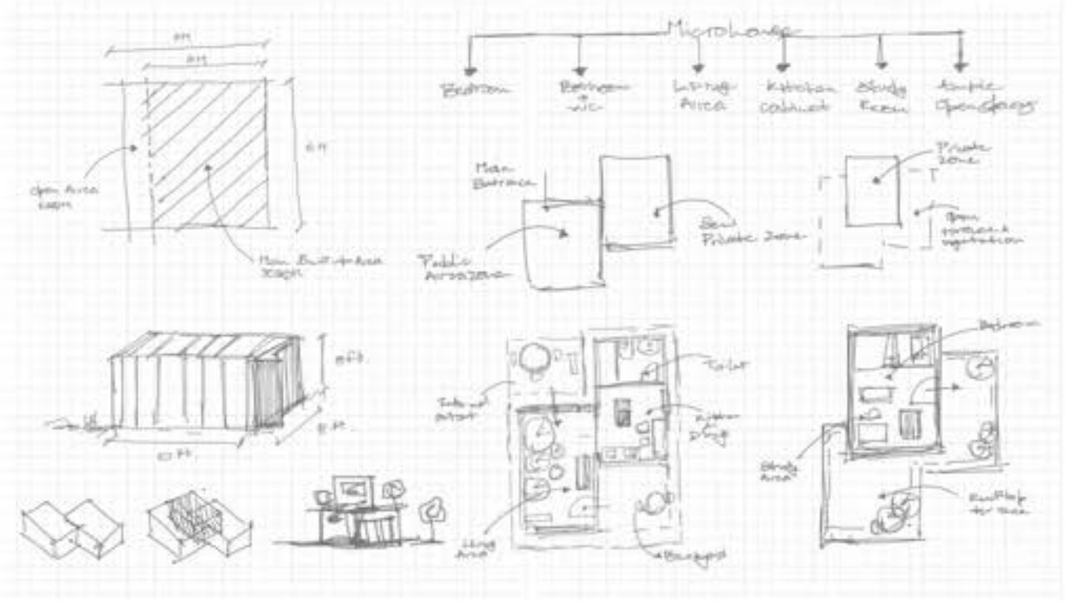
The competition brief demanded a microhouse living concept on site of 36 sqm. with basic living requirements for two people. Complimentarily, the brief was simple with inducing a sustainable yet practical design was the main challenge, demanding considerable amount of microhouse study.

Sustainable and modular design approach

As the result of ongoing situation, responding and giving solutions as an student architecture was the sole purpose, thus incorporating modular low-cost, off grid sustainable housing system for people in need.

Upcycled shipping container microhouse

The competition was a great medium to brainstorm and formulate a design concept of off grid modular housing system respoding to current situation. Following the framework, studies over off grid housing, shipping container housing, modular and sustainable design concepts was done. Resulting in a design concept incorporating ample residential spaces with extensive landscaping and vegetation provision, creating the overall design having core connection to the nature and immediate site context.



The plot of restricted built up area of 30 sqm. with additional 6 sqm. of landscaping area

Interation leading to stacking of two shipping container, purpose of usage as public and semi- public zone

Further through structure analysis, stacking of 3rd container, purpose of usage as private zone

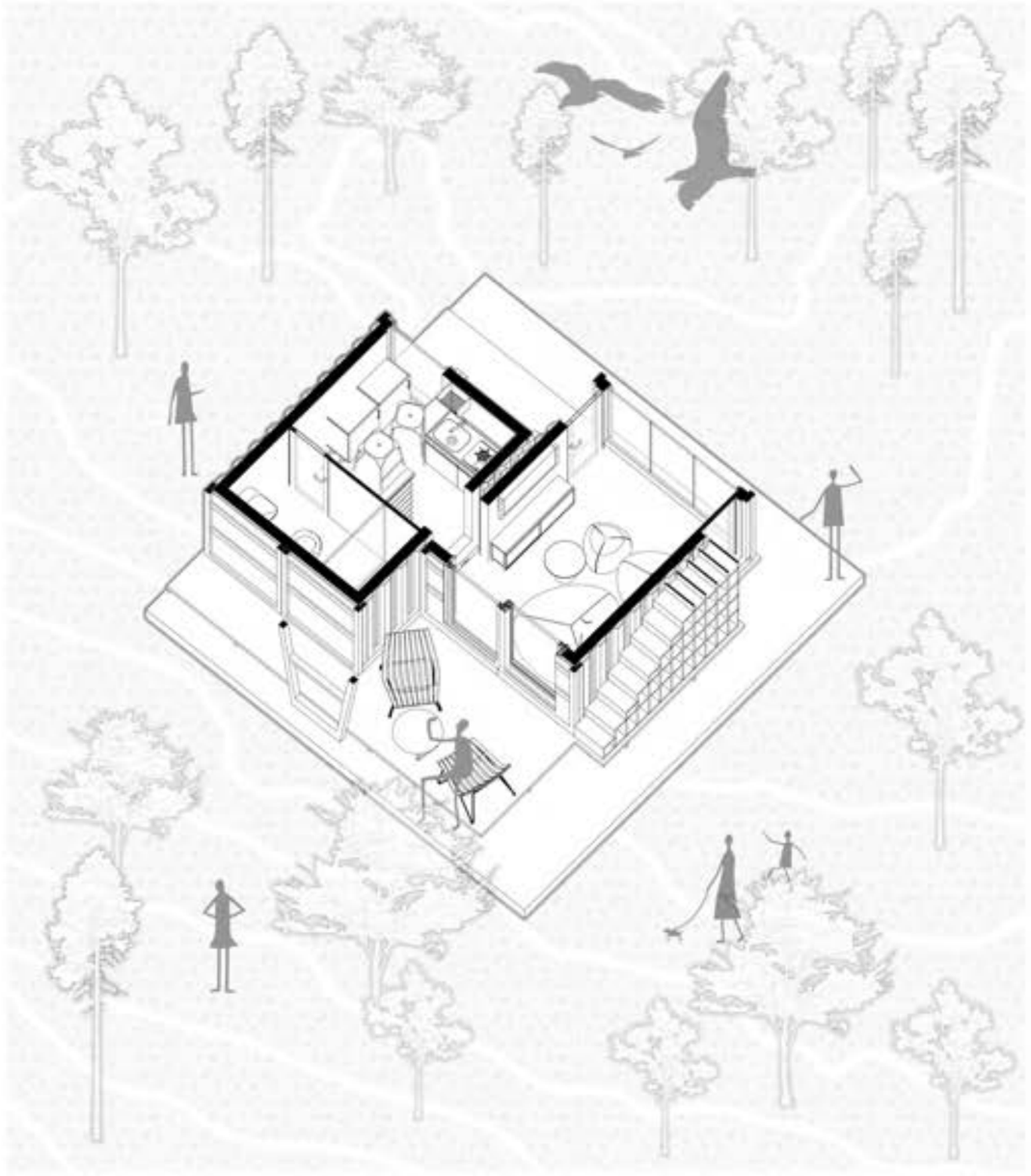
Finalizing the overall design with circulation, stouts, entrance lounge and landscape garden

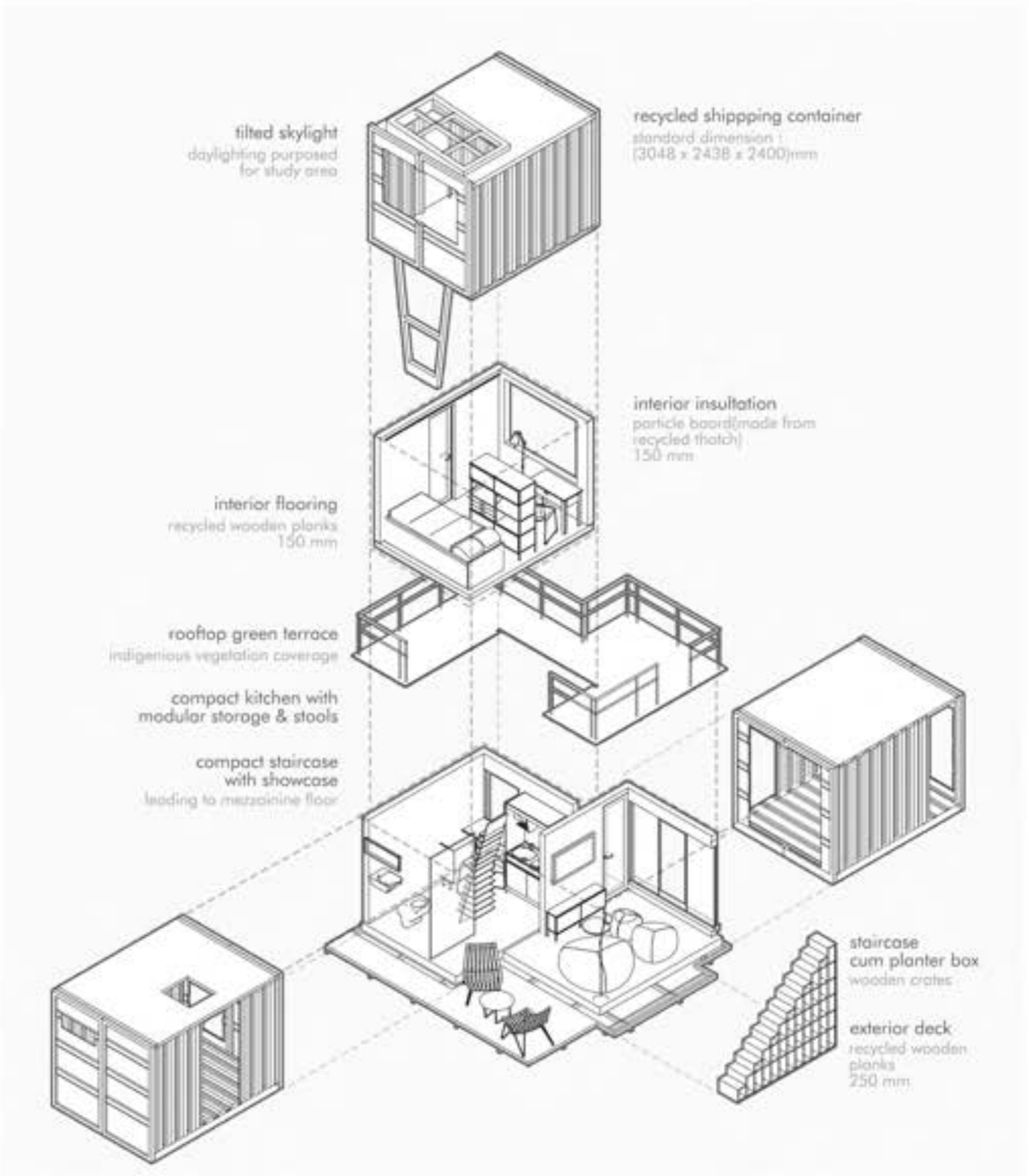
Index

1 informal sitout
2 main entrace
3 living area
4 compact staircase with showcase
5 compact kitchen
6 cabinet cum dining
7 toilet and shower
8 backyard space
9 staircase cum planter box
10 multipurpose garden

Index

1 compact bedroom
2 study area
3 compact staircase with showcase
4 terrace garden
5 external staircase




tilted skylight
daylighting purposed for study area
recycled shippping container
standard dimension :
(3048 x 2438 x 2400)mm
interior insultation
particle board(made from recycled thatch)
150 mm
interior flooring
recycled wooden planks
150 mm
rooftop green terrace
indigenious vegetation coverage
compact kitchen with modular storage & stools
compact staircase with showcase
leading to mezzanine floor
staircase cum planter box
wooden crates
exterior deck
recycled wooden planks
250 mm

Walmi

वाल्मी

//acronym//

water and land management institute

A coherence of learning and nature

type	**participation**	**site**
academic	individual	Ranchi India
citation	**time**	**site area**
jury's distinction	eighth semester	80000 sqm.

Water and land management institute, Jharkhand was the design brief for the provided studio. WALMI institute incorporated studies and research related to water and land, managing these resources integrated with the studies of social and irrigation management.

Preserving and integrating the rich exisiting flora and fauna of the design site

The design site is located near Dhurwa Dam in Jharkhand. Due to prolonged undeveloped land, in course of 10-15 years the site developed rich vegetation and forest coverage. Added to this, the site also had unqiue features, exisitng Sarna sthal sacred grove and a temple, which was used as design element in project.

Responding to context : integrating the exisitng flora and fauna as design element

Upon analysing the space requirement and usages, various iterations was developed, out of which a single concept was finalised which satisfied the space requirements chart and the preservence of rich flora and fauna. This concept resulted in a hierarchy of spaces sequenced from open to closed spaces.

Hierarchy of open, semi-open and closed spaces

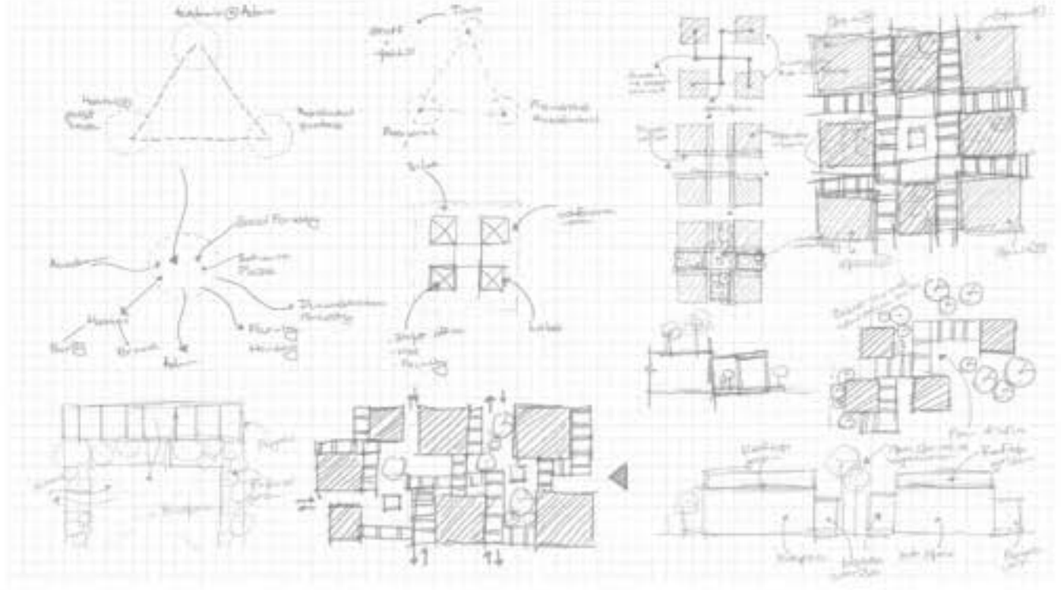
Upon further form development based on core concept,the design resulted in hierachy of spaces, a sequence of open, semi-open and closed spaces inducing nature in learing, hand in hand with preserving exisiting rich vegetation.

Semi- shaded pergola walkways

Taking inspiration from the prestigious IIM Banglore , to connect the scattered design approach, semi- shaded pergola walkways was used in the design, adding to design element of project as well. Covered with natural climbers and planters, connecting the overall design with the sourrounding vegetation rich site.

Nature induced learning space : A bazaar themed institution setup

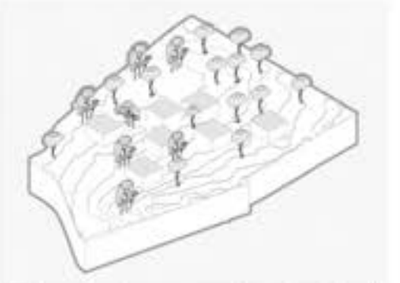
The WALMI institute design is based on bazaar theme. To create a learning system not limited to four walls but as a bazaar where one finds new spaces to explore, learn and unlearn, leading to lifelong learning experience.



Analysing the design site, understanding the slope, immediate context and typology of sourrouding buildings.

The design site having rich existing feature of deep forestery spaces. Added to this, the site also having sacred grove- sarna sthal and temple - both of religious importance in Jharkhand.

Through remote survey and satellite imagery, open non- vegetated pocket spaces were indentified in site free of any vegetation.

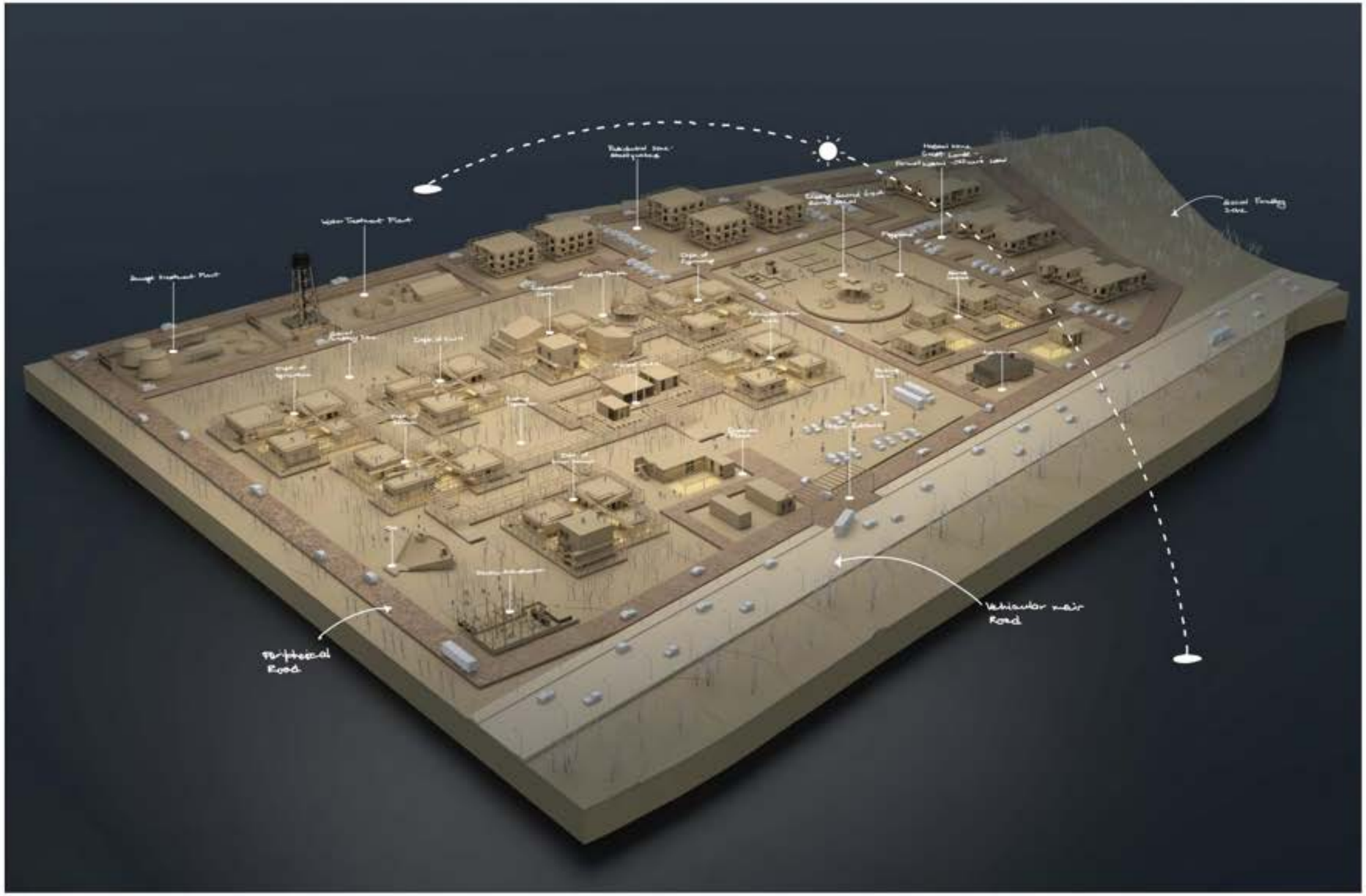


With the marked open spaces, through considerable iterations and brainstorming, design concept without harming a single tree was formulated.

The design concept resulted in hierachy of spaces, a sequence of open, semi-open and closed spaces connected with peragla walkways inducing nature in learing, hand in hand with preserving exisiting rich vegetation and features.

Diagram of the departmental module design, integrated with pergola walkways and rooftop terrace gardens, connected with open and semi-open spaces for practical classes, leading to an unconventional learning system.

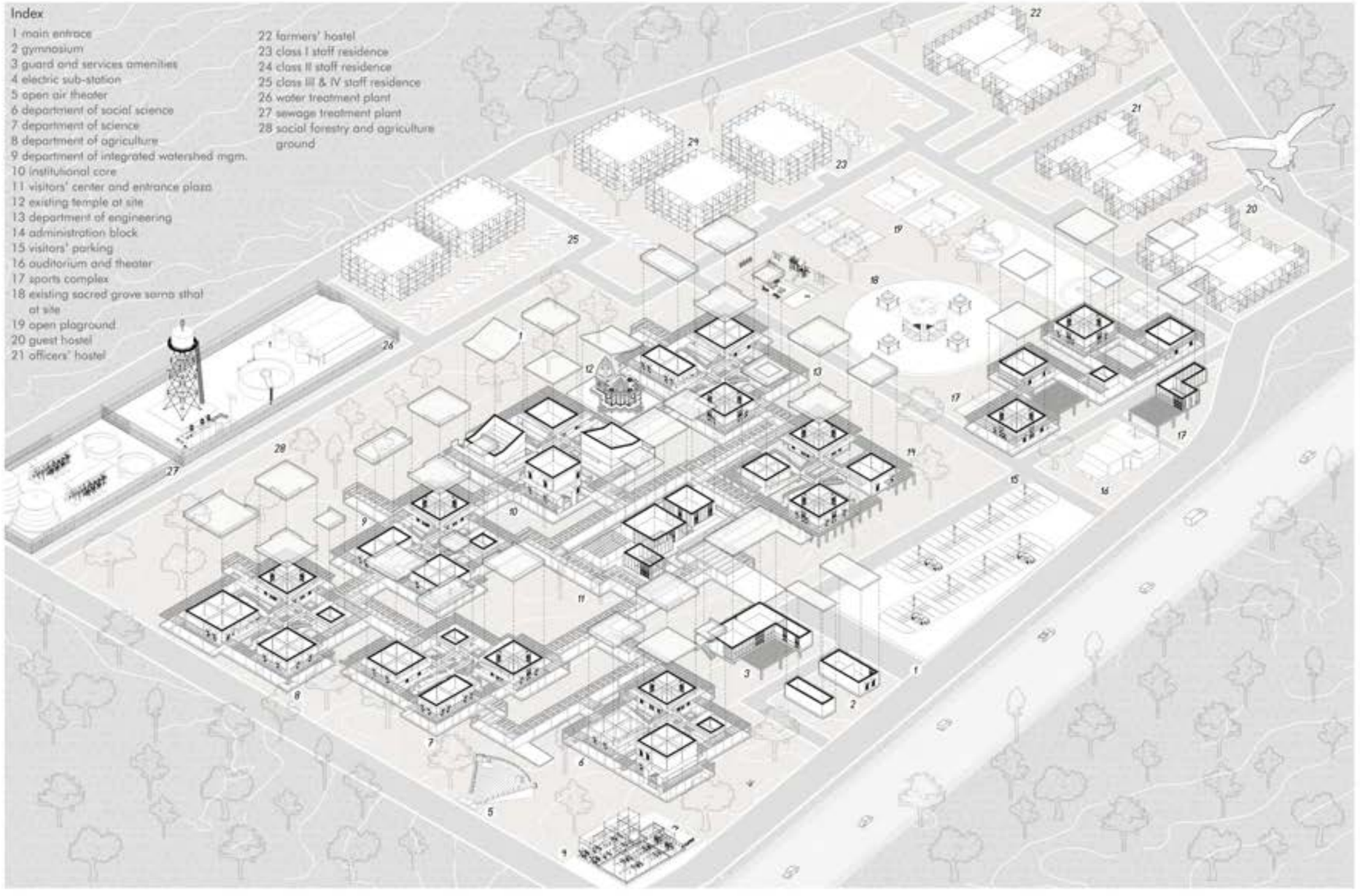
WALMI: Maquette model study

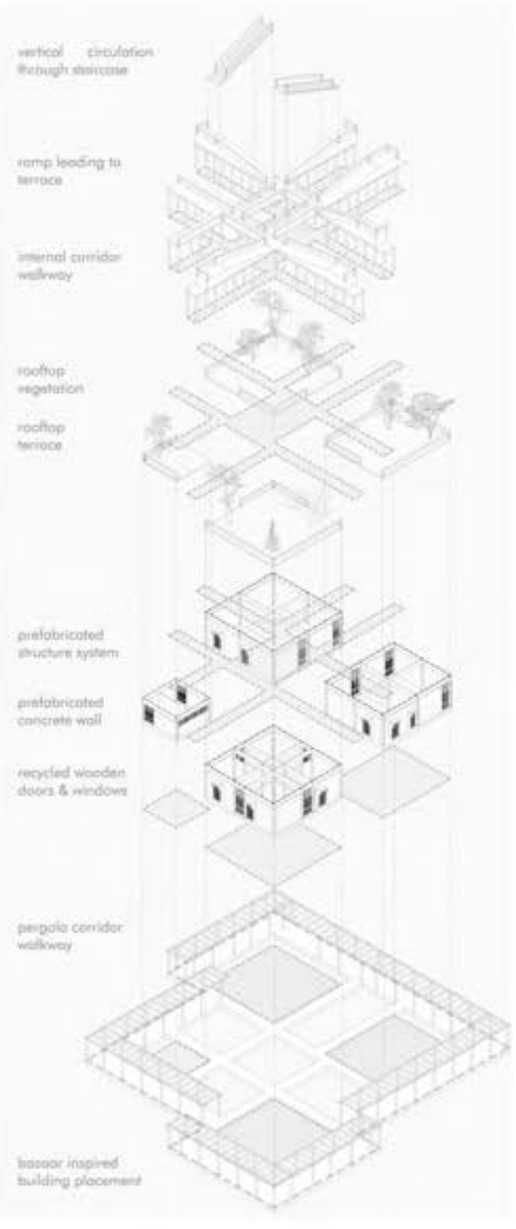


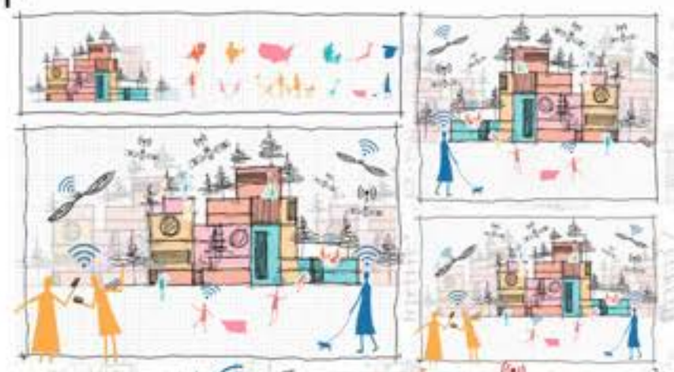
"A campus must be a place of discovery. A place of not knowing and then knowing. You can't know,but when you don't know then you know, you know something more than what other people think they know."

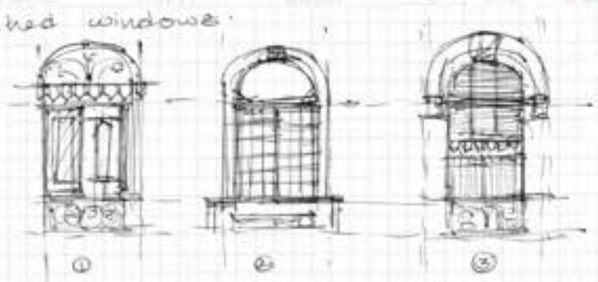
"I think the buildings change over time, they must also become like us. They must become part and parcel of nature, they must change their character, they must cool down and they must give you some kind of other messages."

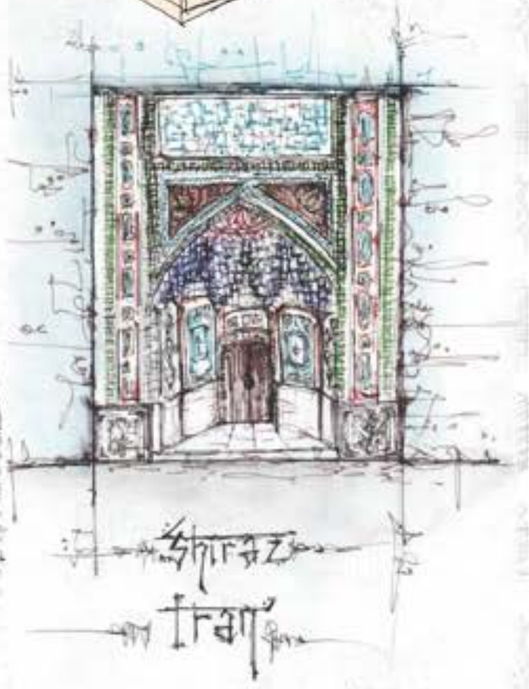
BV Doshi on
Indian Institute of Management (IIM)
Banglore

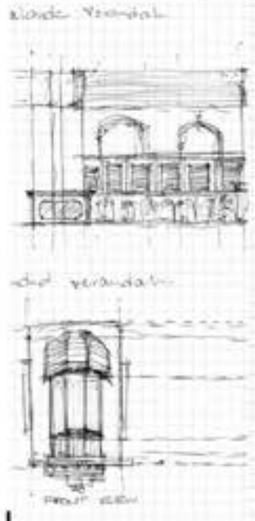

Index
1 main entrace
2 gymnasium
3 guard and services amenities
4 electric sub-station
5 open air theater
6 department of social science
7 department of science
8 department of agriculture
9 department of integrated watershed mgm.
10 institutional core
11 visitors' center and entrance plaza
12 existing temple at site
13 department of engineering
14 administration block
15 visitors' parking
16 auditorium and theater
17 sports complex
18 existing sacred grove sarna sthal at site
19 open playground
20 guest hostel
21 officers' hostel
22 farmers' hostel
23 class I staff residence
24 class II staff residence
25 class III & IV staff residence
26 water treatment plant
27 sewage treatment plant
28 social forestry and agriculture ground

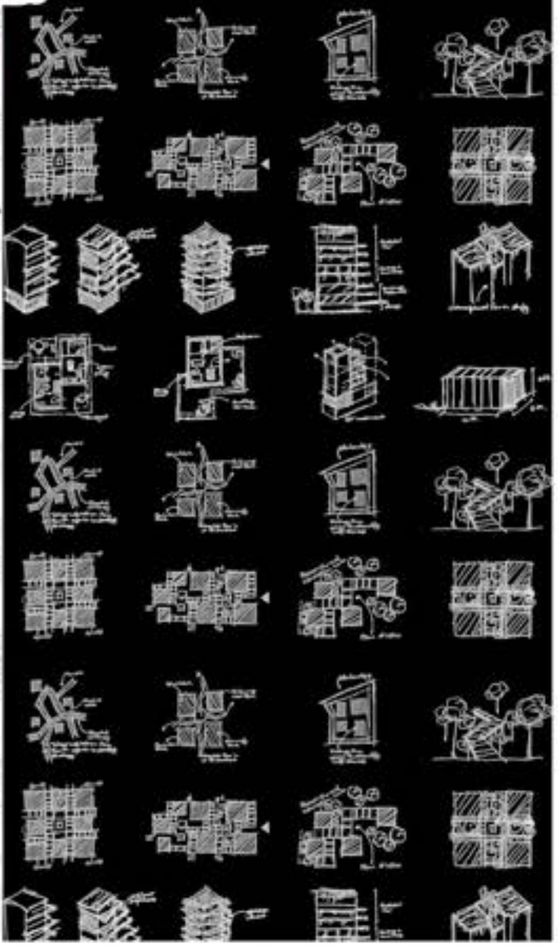

vertical circulation through staircase
ramp leading to terrace
internal corridor walkway
rooftop vegetation
rooftop terrace
prefabricated structure system
prefabricated concrete wall
recycled wooden doors & windows
pergola corridor walkway
bazaar inspired building placement









thank you

respecting your time and patience