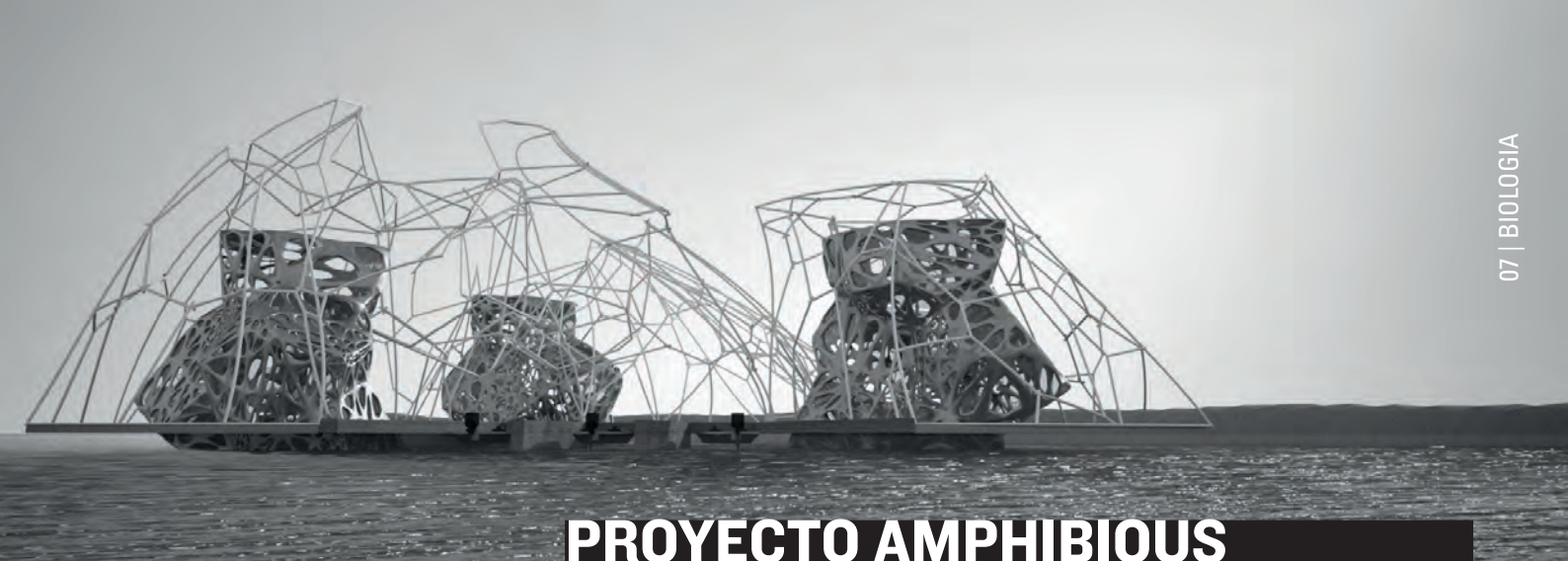




PROYECTO AMPHIBIOUS

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AMPHIBIOUS

An experimental incubator focused on assimilating the importance of creating a sustainable future through adaptive and generative solutions in response to forces of nature. The institute set on the coast line is placed on site for numerous factors that affect its working as an experiment itself. The transdisciplinary course invites students from age 18 to above and follows an open loop composition allowing students to experiment in projects at their own pace through the course of their years in the institute.

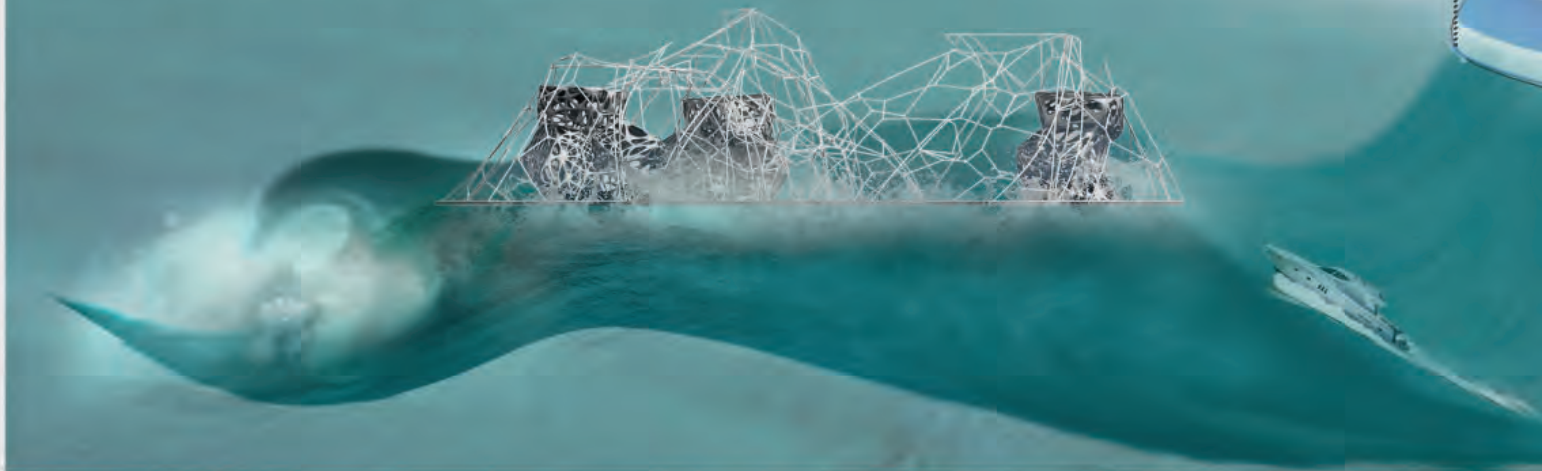
ANFIBIO

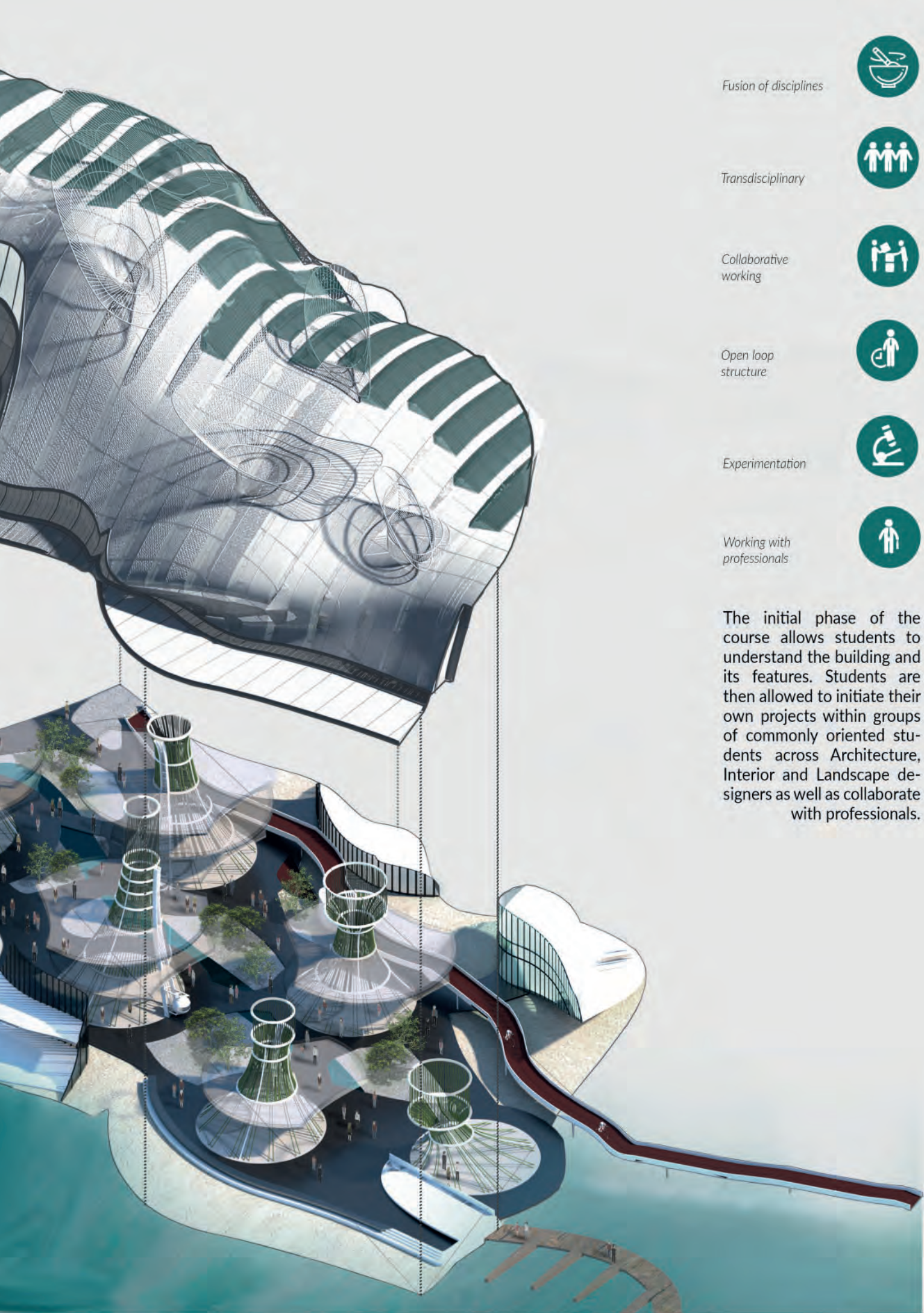
Una incubadora experimental enfocada en asimilar la importancia de crear un futuro sostenible a través de soluciones adaptativas y generativas en respuesta a las fuerzas de la naturaleza. El instituto situado en la línea de la costa se implanta en el sitio por numerosos factores que afectan su funcionamiento como un experimento en sí. El curso transdisciplinario invita a estudiantes de 18 años en adelante y propone espacios de ciclo abierto que permiten a los estudiantes experimentar en proyectos a su propio ritmo durante sus años en el instituto.

The course evolved through a personal reflection of architecture through the years; being a reflection of the past, brought about the need for an institution that provides a platform for challenging ideas; forms that are generative, evolving and enduring that can combat and withstand the ever changing climatic challenges of today and the near future, This notion also encourages students to understand how different ideas and concepts emerge from observing other disciplines, as architecture itself is the product of all factors affecting human kind itself. For this institute, the experimental architecture follows the principle of biomimicry.



Accessibility diagram





Fusion of disciplines



Transdisciplinary



Collaborative working



Open loop structure



Experimentation



Working with professionals



The initial phase of the course allows students to understand the building and its features. Students are then allowed to initiate their own projects within groups of commonly oriented students across Architecture, Interior and Landscape designers as well as collaborate with professionals.





LEGEND

- 1- Entrance
- 2- Point of entry Bicycle track
- 3- Estuary
- 4- Experimental incubator - Foundation year
- 5- Bicycle racks
- 6- Hydraulic lift to bicycle track
- 7- Virtual studio+Library for all
- 8- Common study space
- 9- Ramp to deck
- 10- Funicular lift
- 11 - Aquaponics hub
- 12 - Slope down of bicycle track
- 13 - Deck to and from the island
- 14 - Experimental incubator - Undergraduate year
- 15 - Reedbed system lining the estuary



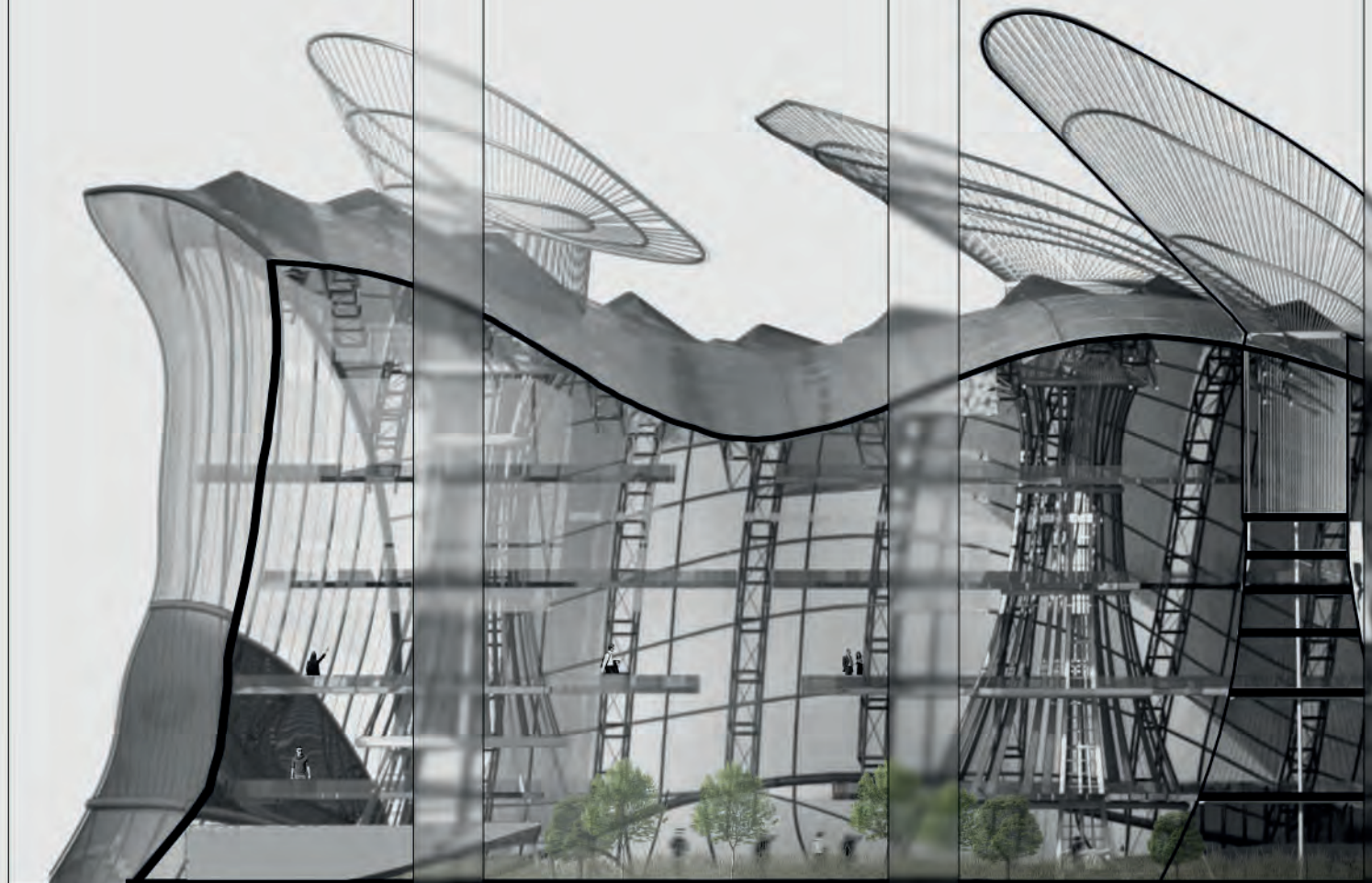
Sun



People



Wind



Increase of average temperature of 1.5-2 C by 2040
Emissions increase by 50% by 2030



Saharan silver ant

Located close to La Mer, a touristic spot and the Jumeirah Beach.



Water droplets

The average wind velocity in the region is 30m/s for averaging time of 10 min.



Prairie dog

The hair of the Saharan silver ant was closely studied to mimick the TIR observed that results in heat reduction of 5-7 C.

Located close to a touristic destination , accessibility is paid attention as well as innovative circulation.

The burrow formation crafted by the prairie dogs were studied to mimick ventilation strategies.



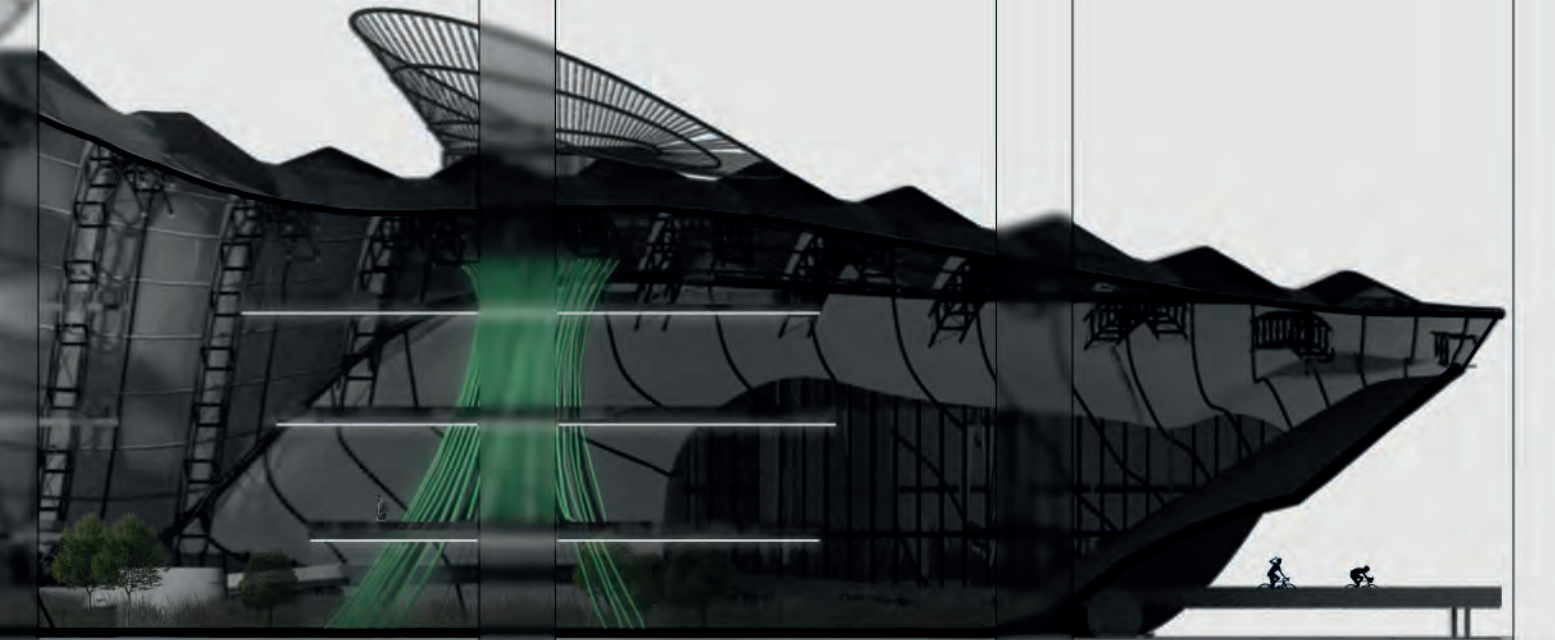
Humidity



Light



Water



The annual relative humidity is 59.8% felt more prominent towards the coast.

Around 12,500 kW/yr is consumed adding to the ever increasing energy demand of Dubai,

The estuary known as the Dubai creek meets with the saline and marine rich arabian sea.



Namibian beetle



Algae

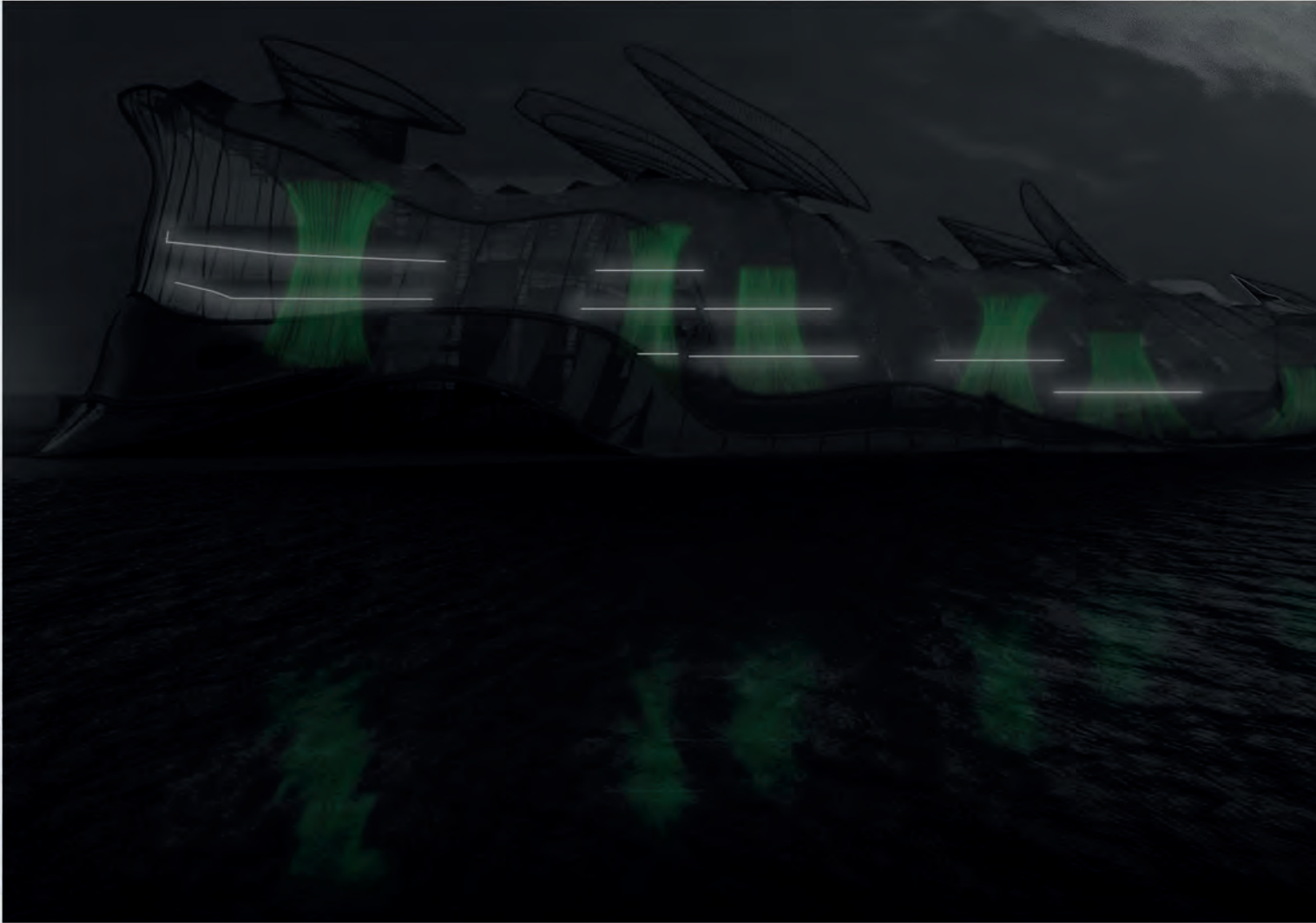


Dubai creek

Water harvesting properties are studied to utilize the humidity offered by the coast.

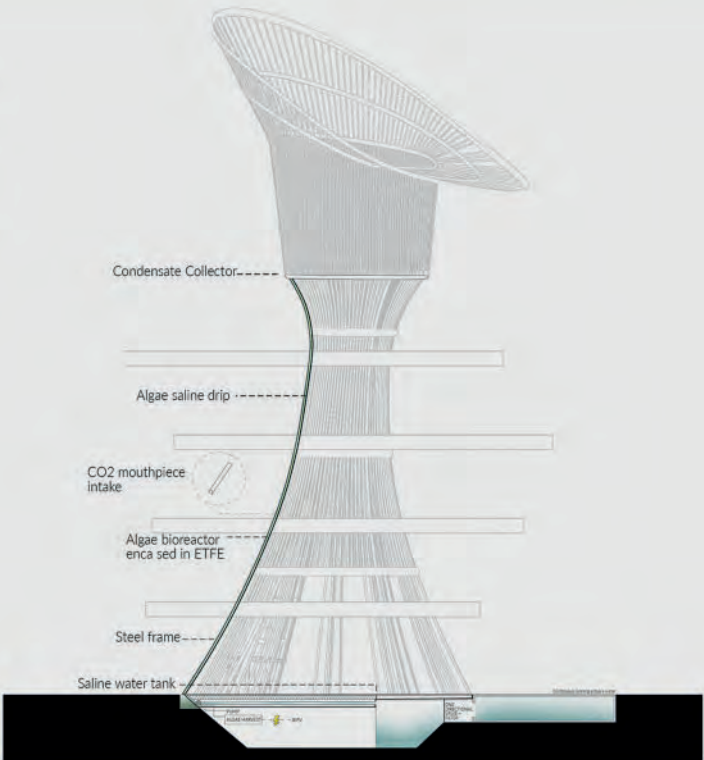
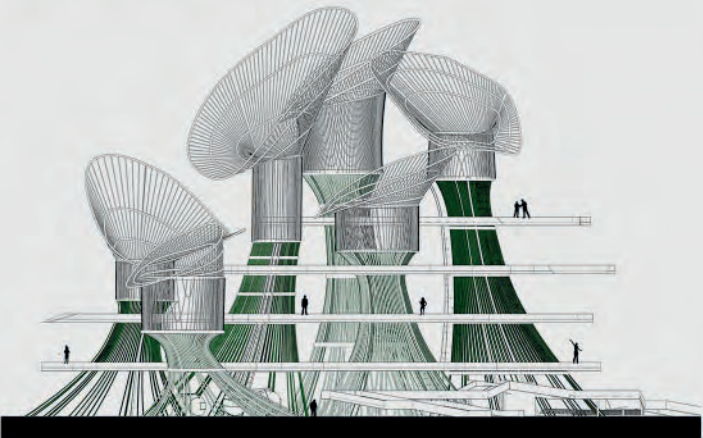
The potential of utilizing algae for its bioluminescence properties as well as harvesting for energy is explored.

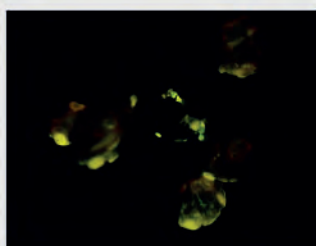
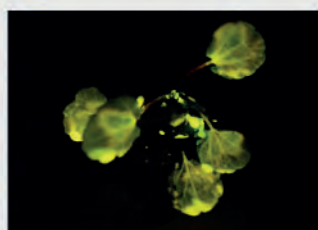
Mimicking the Dubai creek, the artificial estuary serves as the grey water and desalination route.



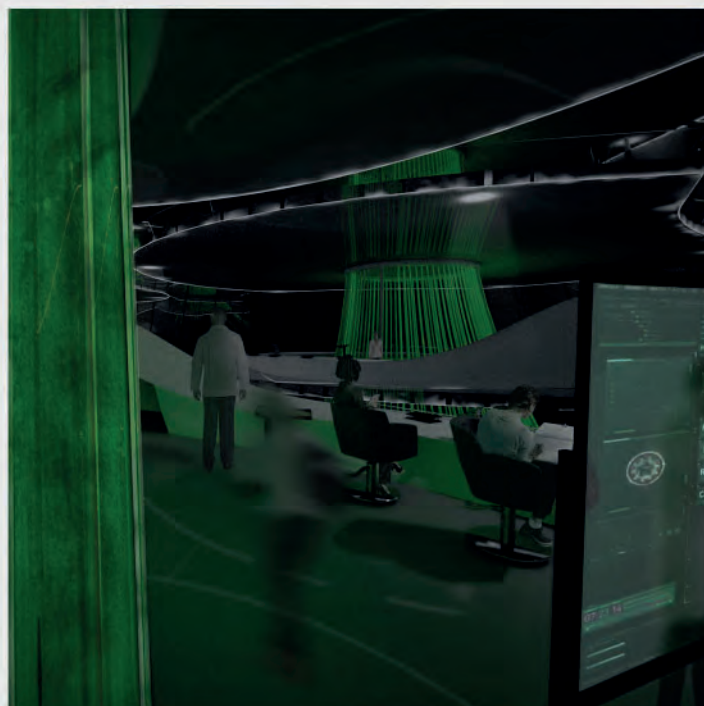
the ALGAE

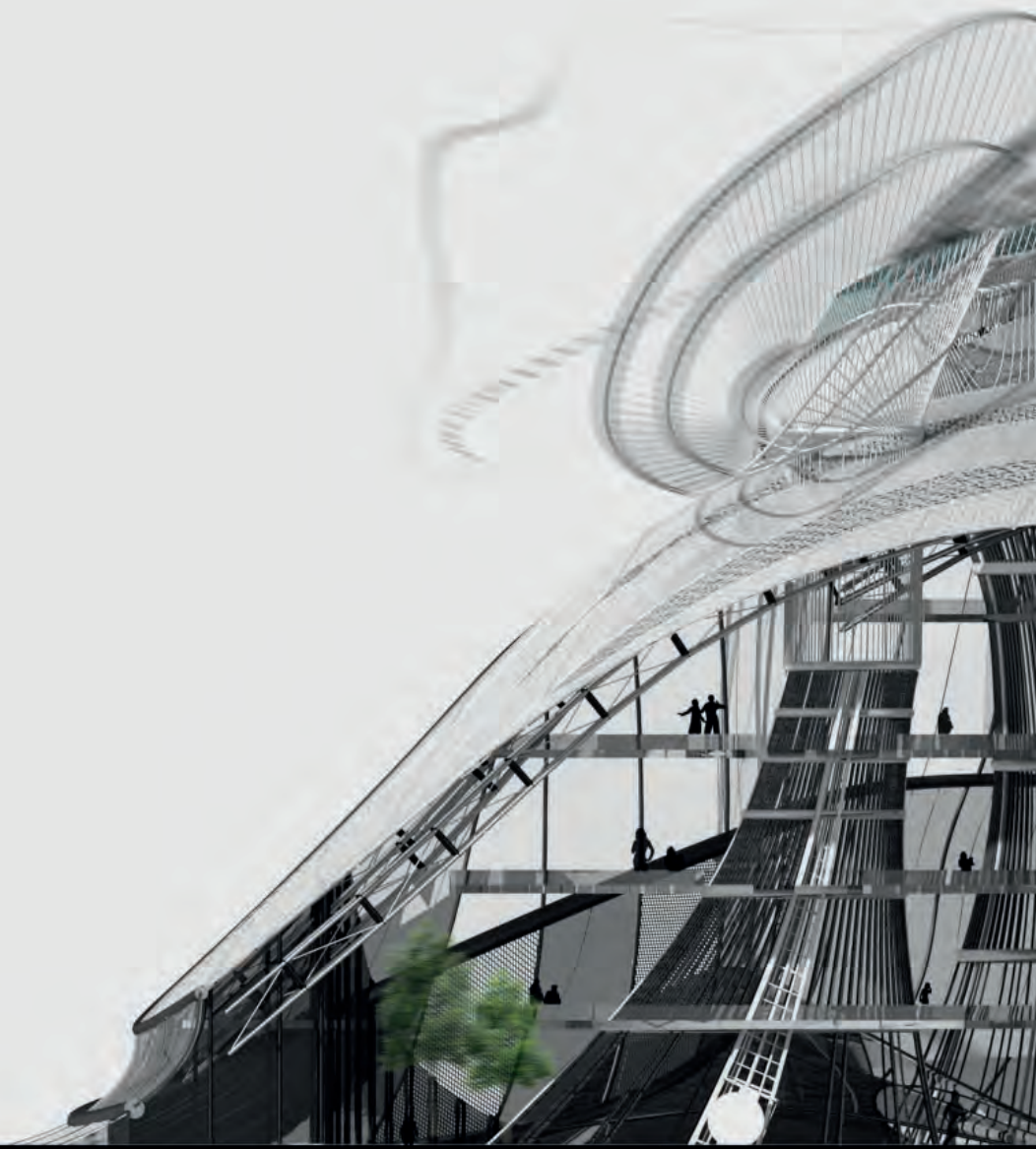
These indispensable organisms produce about half the oxygen in earth's atmosphere. Algae biofuels are a promising replacement for fossil fuels, this is adopted for the institute Amphibious, Researching ongoing experiments that experiment with the bioluminescence capabilities of Algae, this is one of the methods adopted at a larger scale that take on the role of interior lighting,





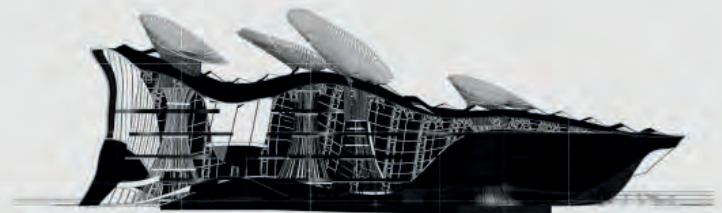
Based on the MIT research the enzyme luciferase has the potential to inhibit glow. By carrying silica nanoparticles that carry the enzyme the algae solutions showed properties of bioluminescence. This is a feature widely explored for the institute. The underground saline estuary has the right amount of salinity that promote the growth of algae, the water is stored in a tank below the experimental incubator and is pumped upwards through the ETFE tubes to feed the algae. The CO₂ mouthpiece attached to the tubes encourage the growth of Algae. The dying algae are then used for algae harvest to be sent to the BIPV,



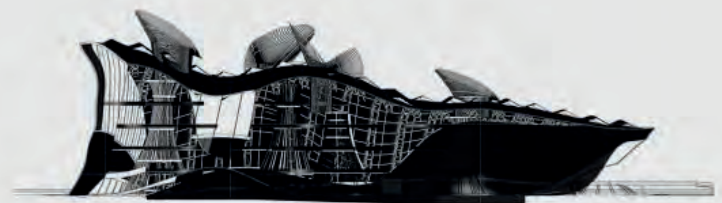
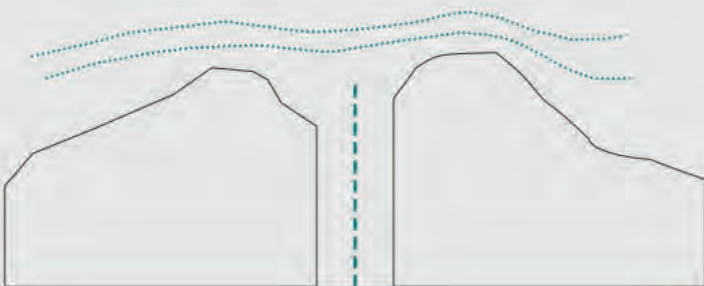


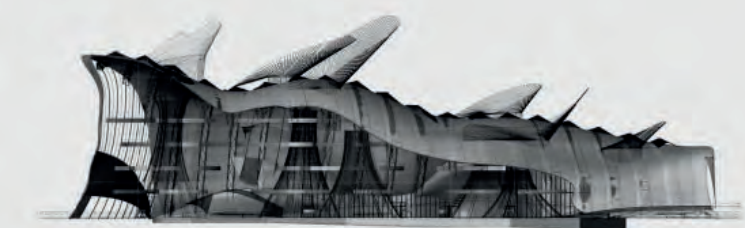
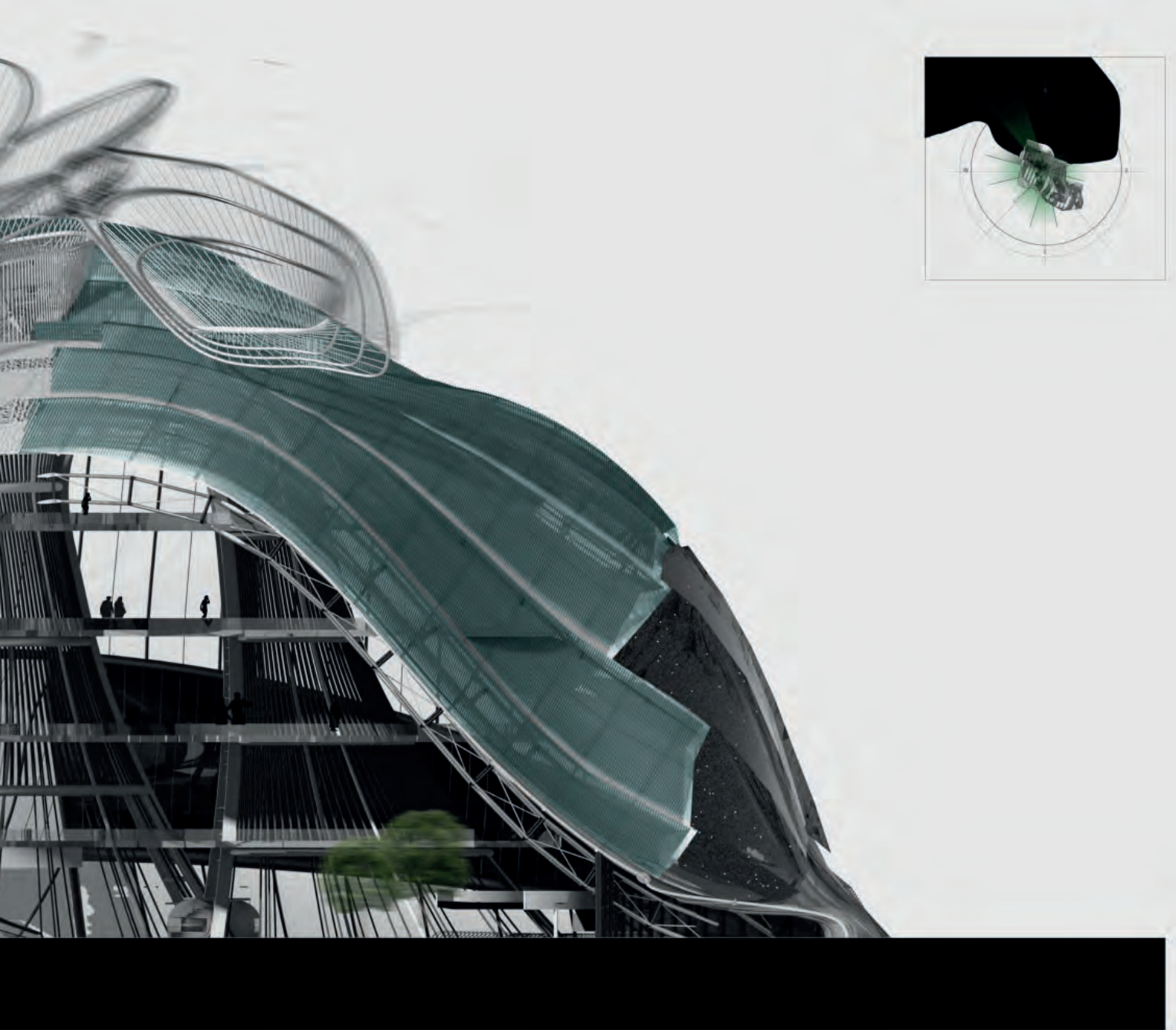
the PRAIRIE DOG

The animal famous for its efficient burrow formation is closely studied to translate its ventilation properties onto the massing of the institute. Furthermore, along with the help of the canopy the experimental incubators have wide discs orienting towards the prevailing winds of the region, the funnel shaped structure senses the leeward and windward side and orient accordingly. The captured wind is then passed along the experimental incubator. The funnel catcher is also equipped with the namibian mesh to capture moisture directed towards it.

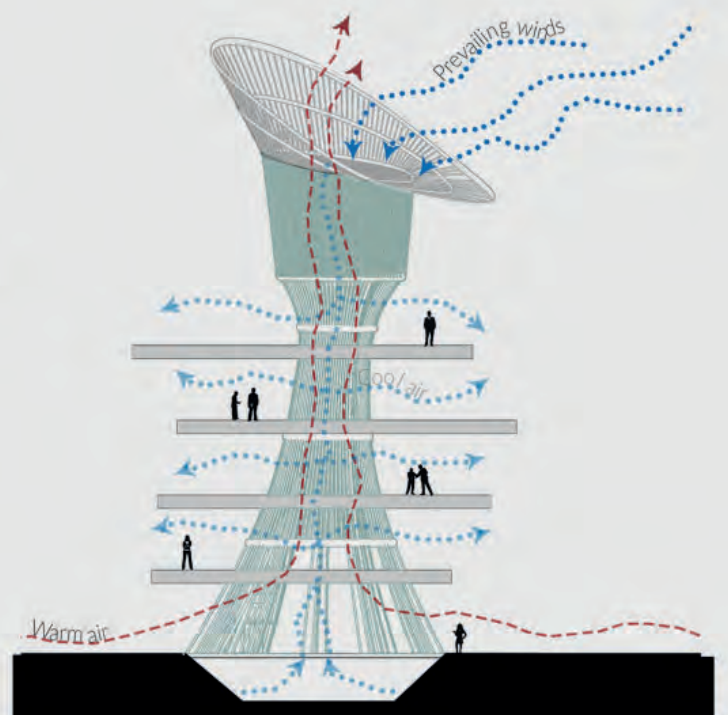
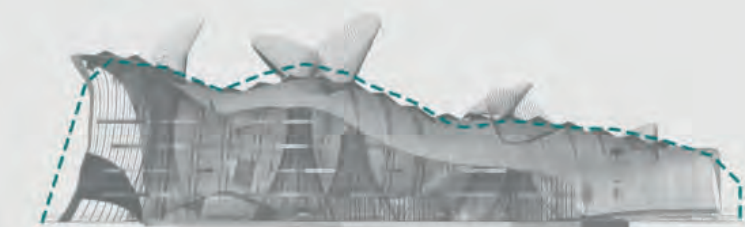


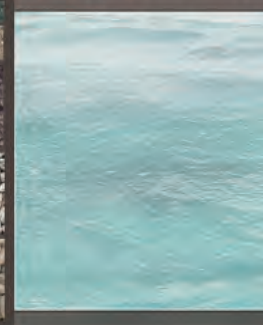
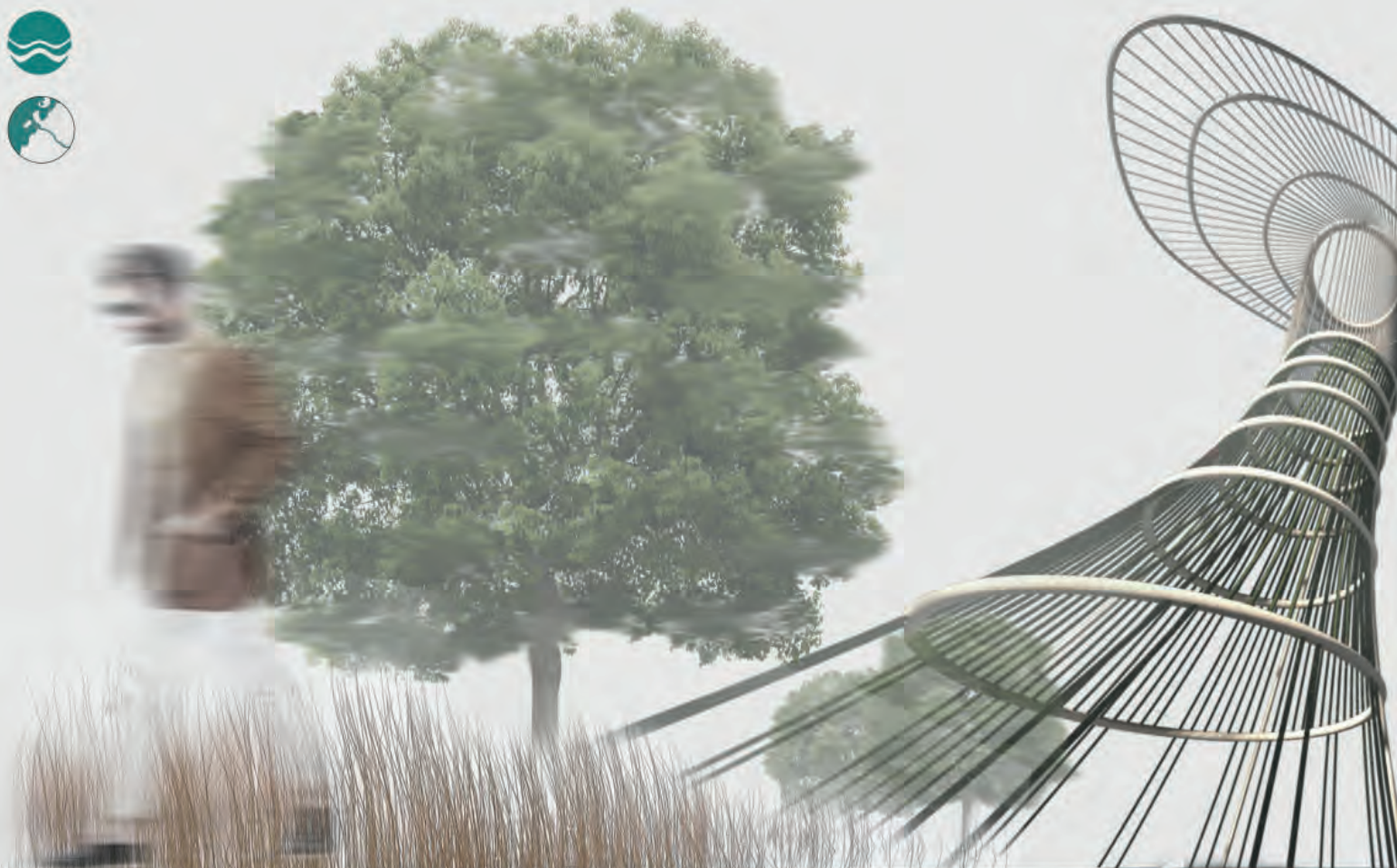
Illustrated are diagrammatic views of the funnel catcher orienting feed into the CO2 carried in while as the NASA graded toxin r and cooling the interior air quality of the institute.





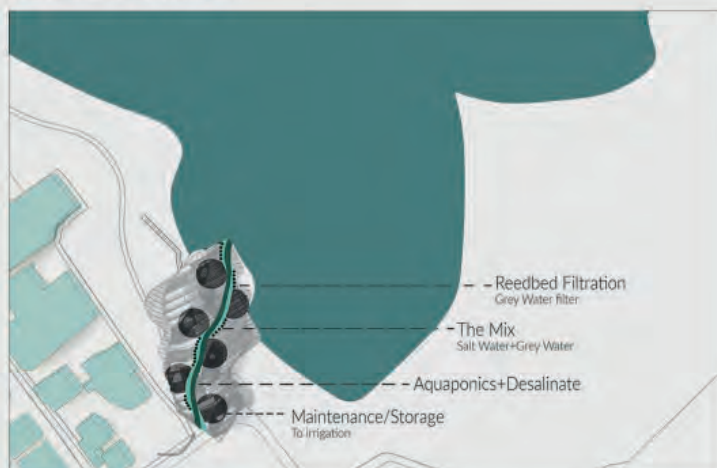
itself to oncoming prevailing winds. The CO₂ pipes of the algae removal plants on the experimental incubator help in improving





the ESTUARY

The estuary is an integrative system tackling innovative solutions to grey water filtration and desalination. "The Purge" is designed to mimicking the Dubai creek curve flow and is positioned in a manner to welcome the incoming waves from the sea. The system is an experiment within itself that offers biodiversity as well as scope to solve future waste water issues.

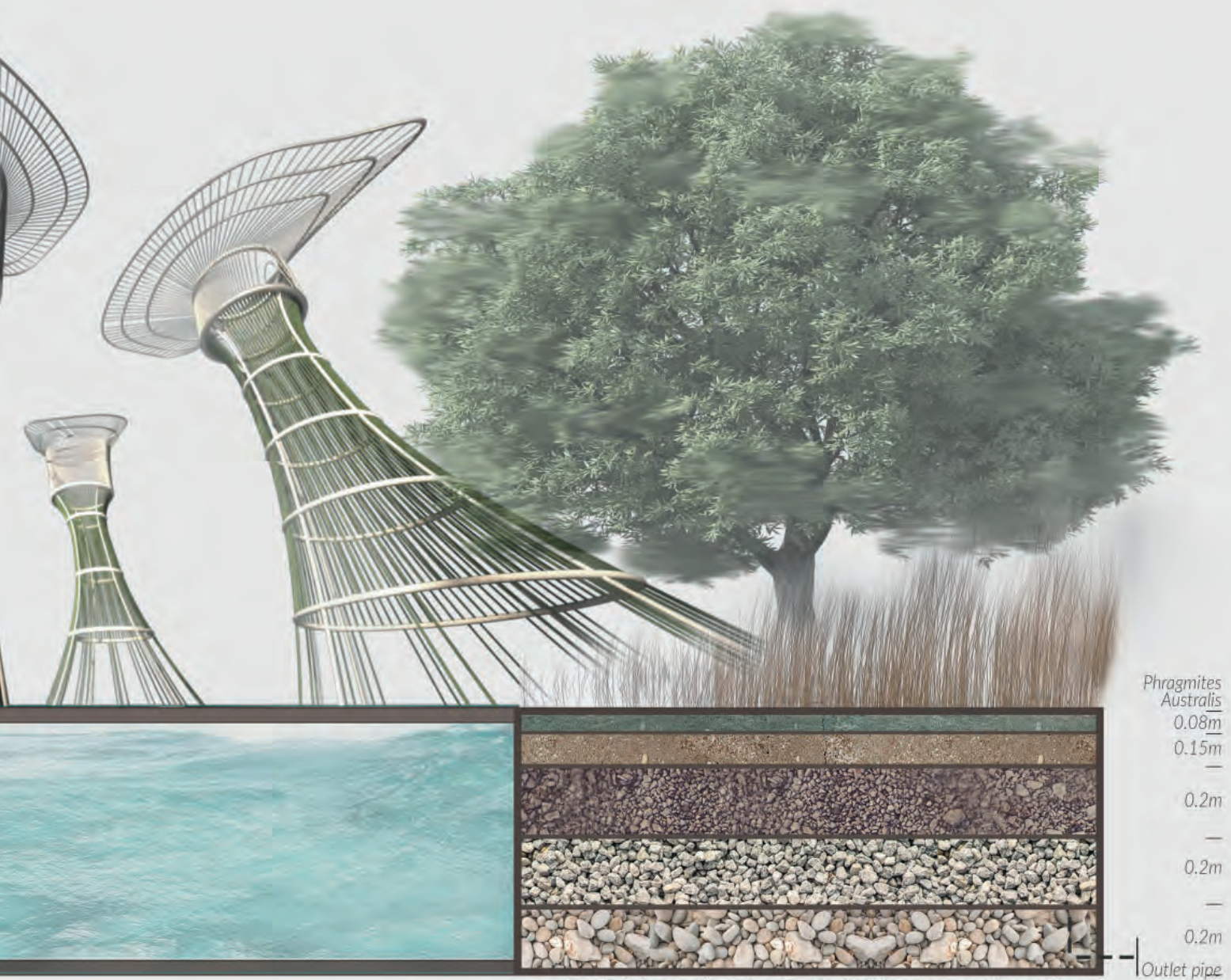


Wave direction study

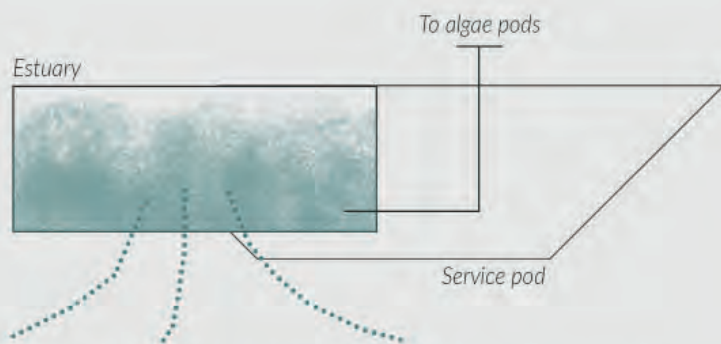


Seabed height study

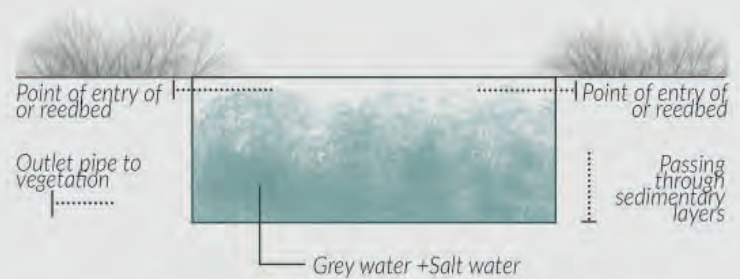
The above illustrates the close study of the sea. The wave direction displayed influenced the angle of orientation of the estuary being the defining element for the institutes placement. The height of the seabed was studied to design the section of the estuary and its entry point.



Reedbed diagrammatic section showing the different compositions and layers.

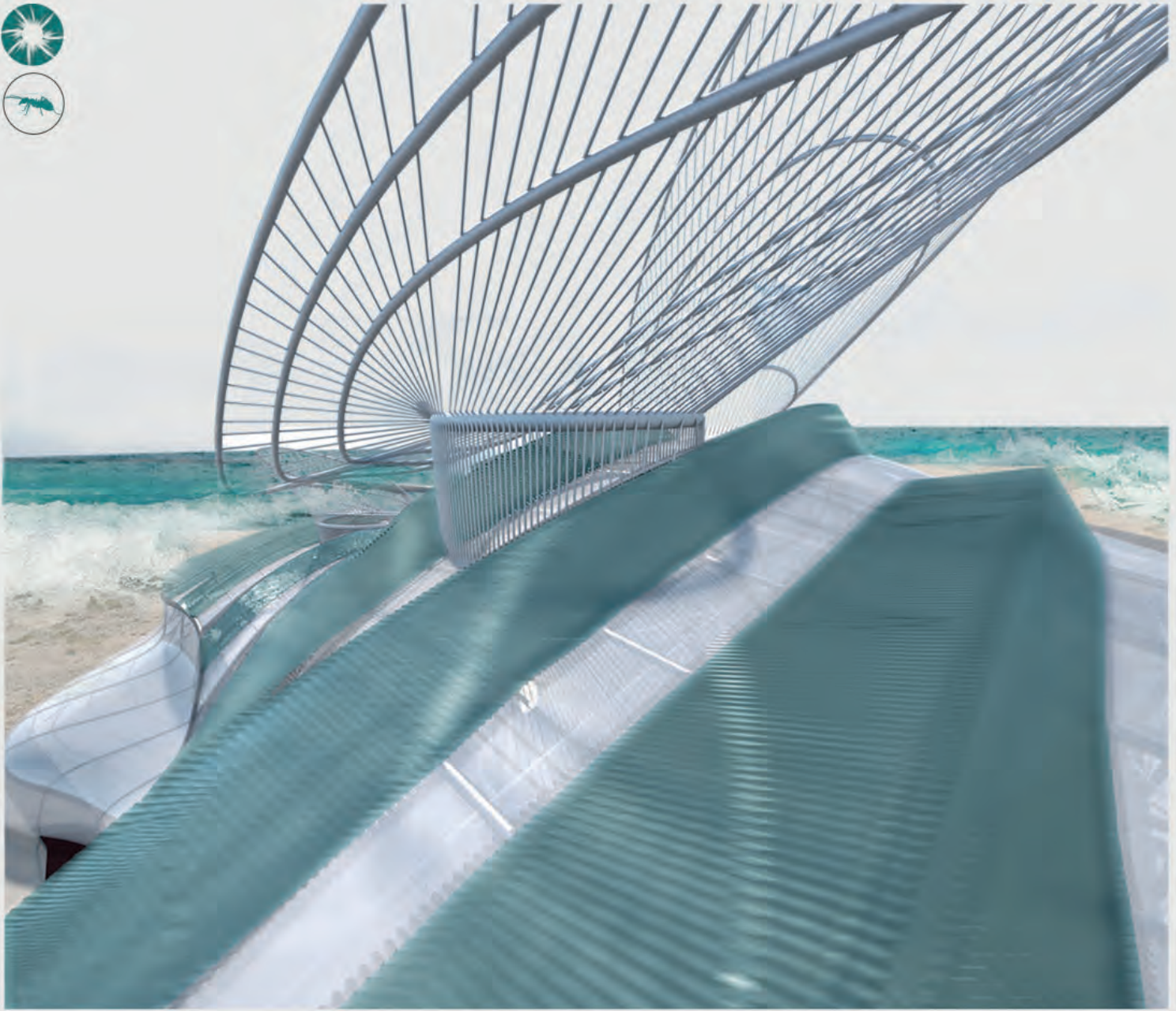


Saline sea water fit for algae growth passing through a one directional valve filtering sea water sediments.



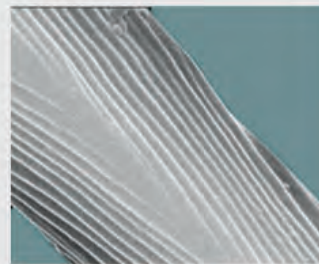
The mix up of salt and grey water are then treated by being pumped into the connected reedbed system wherein the water enters from the top passing through the filtration rhizosphere through the different sedimentary layers to be used for irrigation of vegetation.





the SAHARAN SILVER ANT

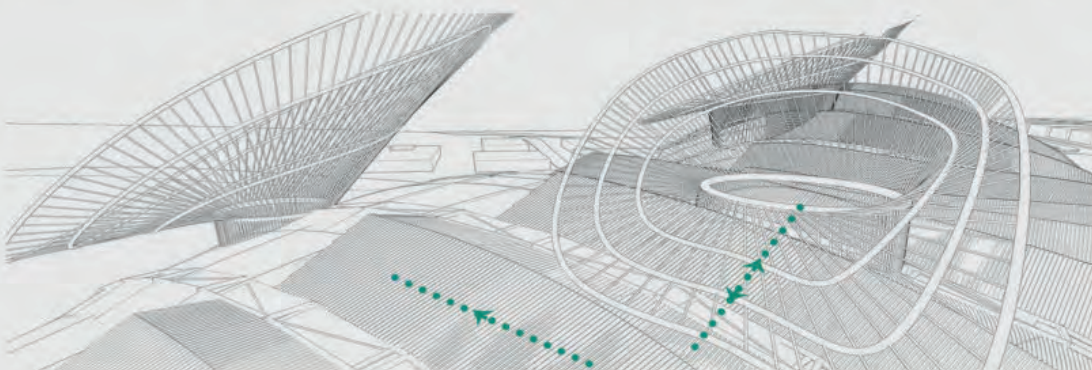
The ant is one of the best examples of terrestrial organisms that have evolved to have an efficient hair texture that aids in cooling of the body. The unique triangular hair structure with corrugated surfaces was translated into architectural elements. Utilizing the property of total internal reflection to keep the surface efficiently cool. In the case of the ant, this design results in 2C drop of temperature. Based on the solar study of the canopy the highest receiving exposed surfaces were treated with the unique prism translated surfaces.



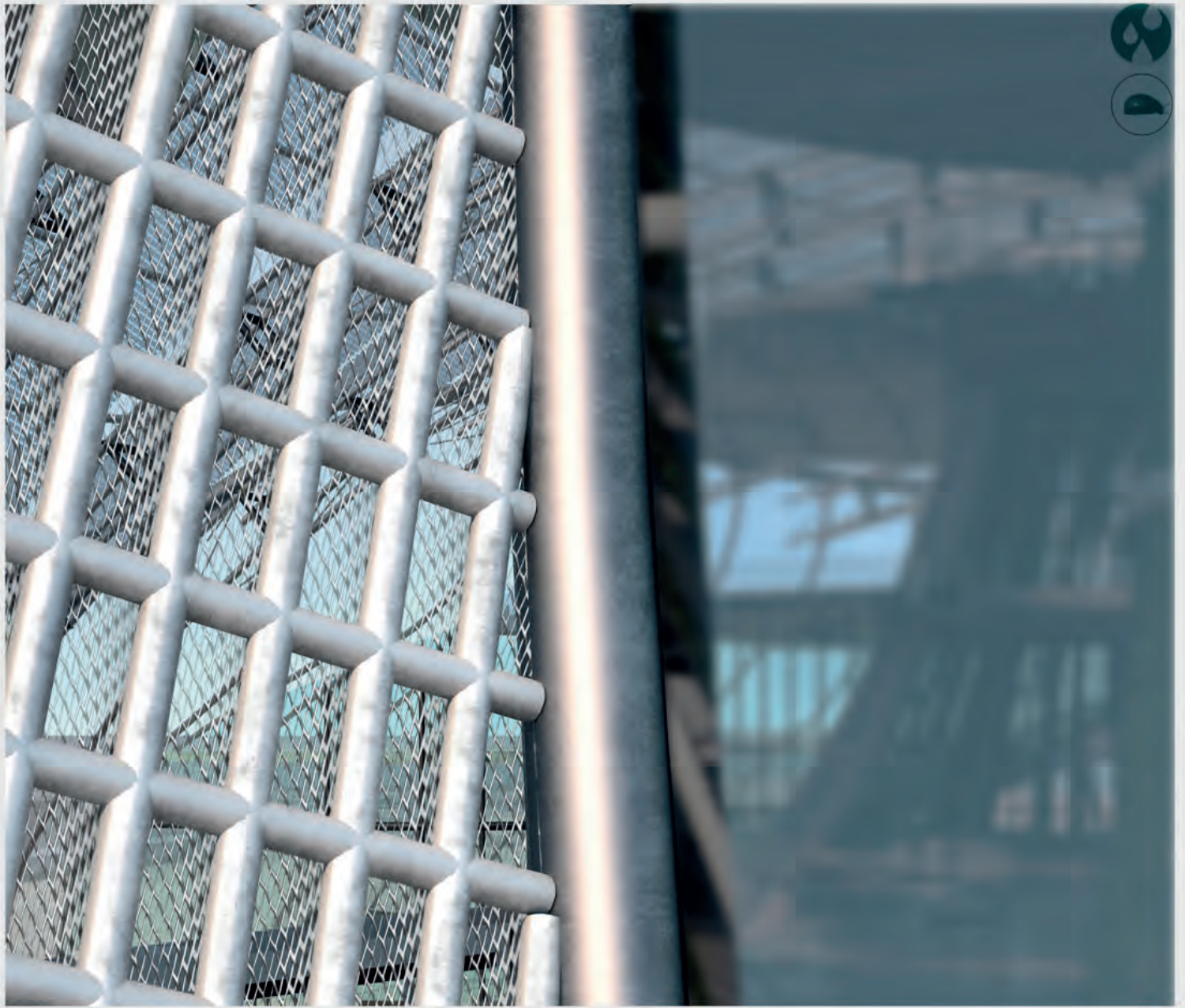
The prism hair structure of the ant



TIR phenomenon illustrated.



Solar radiation study



the NAMIBIAN BEETLE

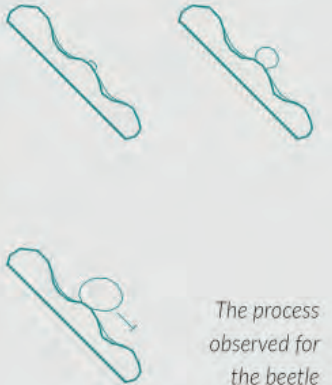
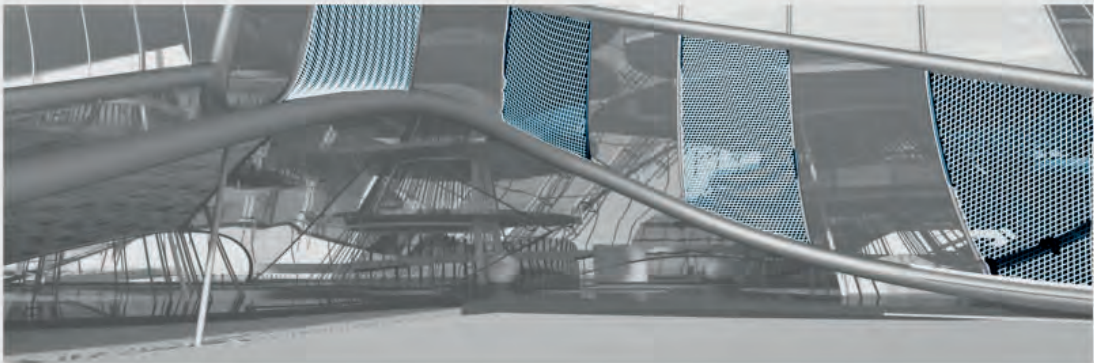
The namibian beetle one of amongst the few organisms capable of harvesting water in arid regions. The beetle is known for its shell structure composed of a hydrophobic and hydrophilic composition allowing the beetle to form droplets to quench its thirst. This phenomenon was closely studied. Further research into an MIT study influenced the position and design of the water harvesting meshes close to the beach, where the humidity is prelavant.



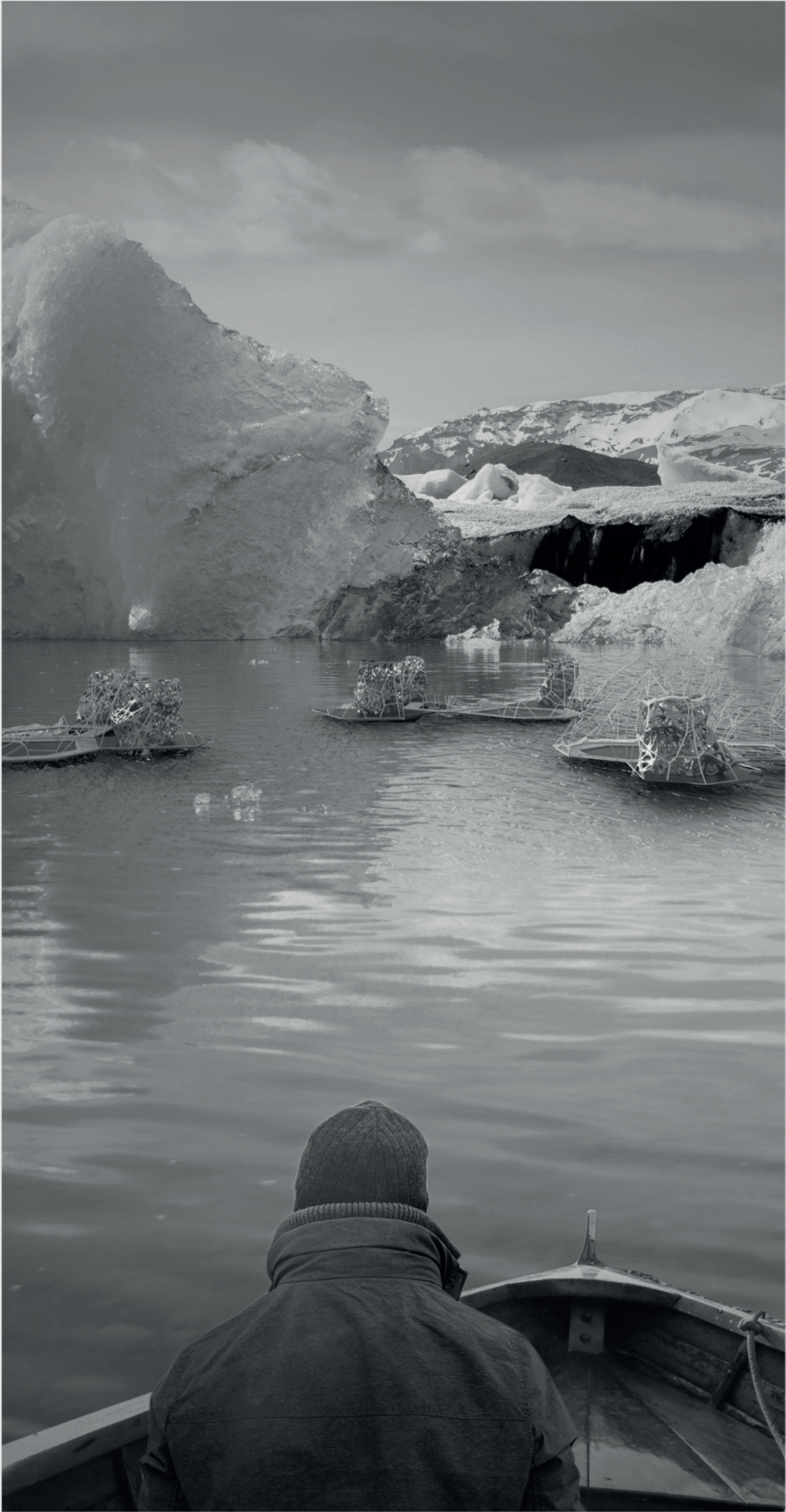
The namibian beetle with harvested water



The MIT designed mesh



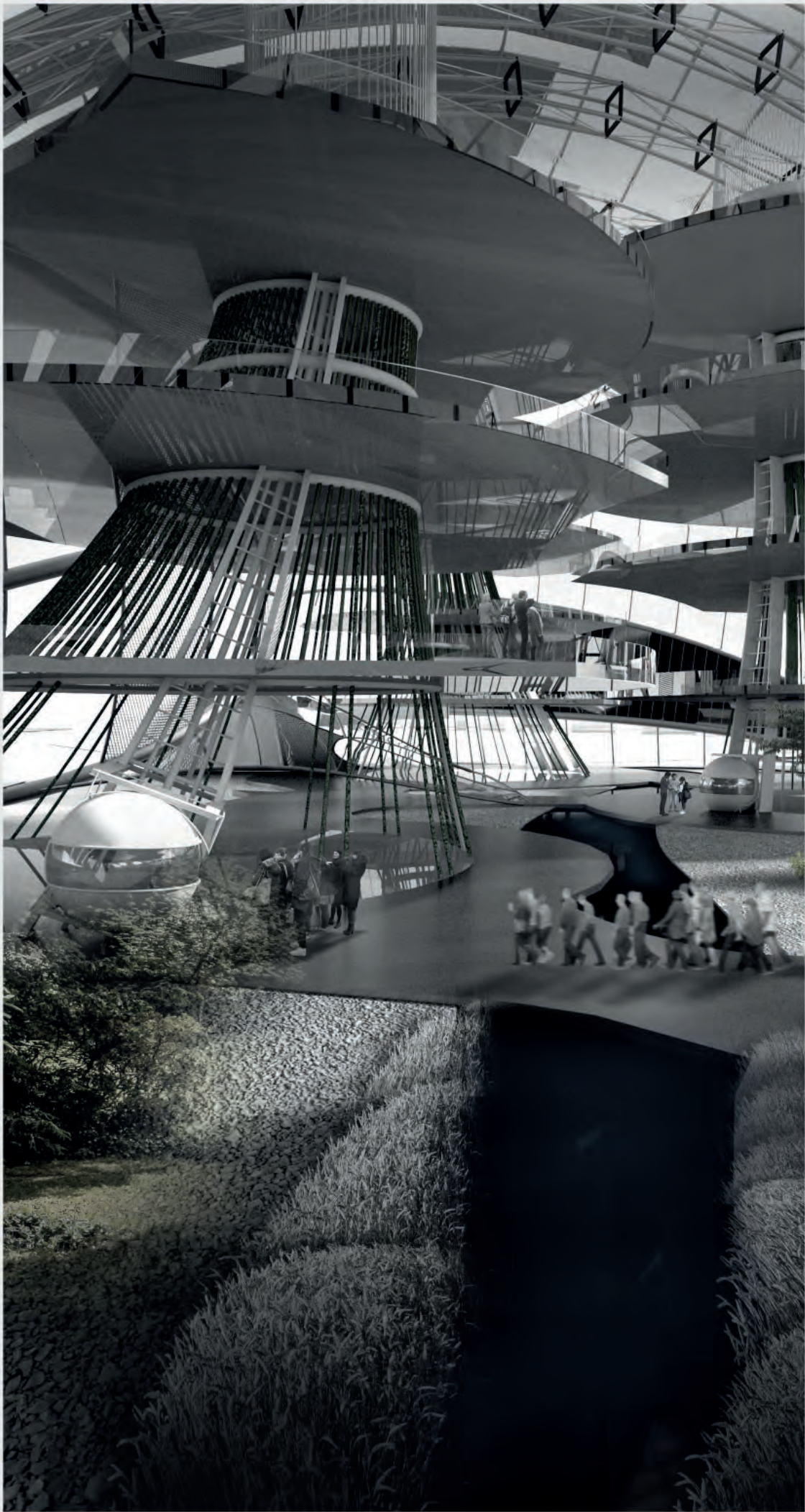
The process observed for the beetle





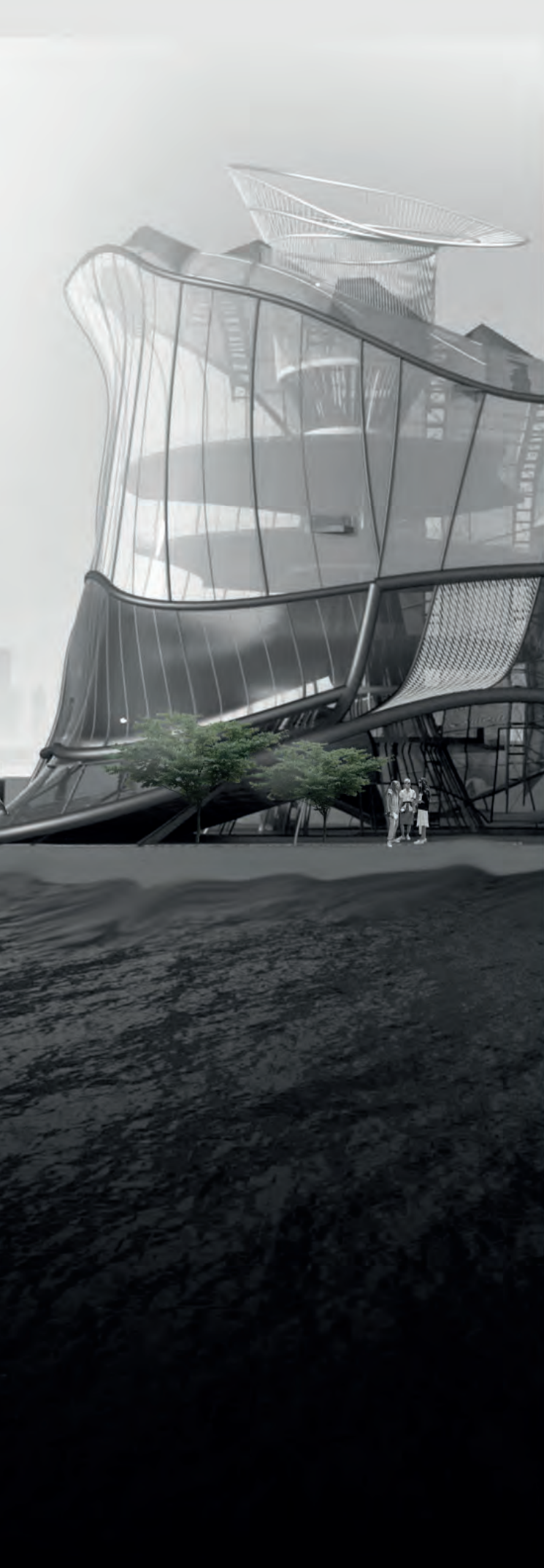
the ISLAND

The postgraduate island situated on the arabian sea is a different experimental stage of the institute. At this stage the students are required globally practice innovations and take actions. The mobile island is a conceptual transport of experimentation taking students across tackling climate change and world wide problems that could be solved with efficient design and experimental strategies.



Interior render of the Institute





Northern view of the institute interacting with the beach.

The design proposal challenges the conventional notion on research and learning. It begins to inform young minds to architecture on the importance of developing a unique language and a radical mindset to face the challenges of the present and the future. The project evolved from an experimental approach that involved 4 months of research and experimentation. Following are experiments embedded in the institute that serve as a platform for students.

The course birthed through a personal reflection of architecture through the years; being a reflection of the past, brought about the need for an institution that provides a platform for challenging ideas; forms that are generative, evolving and enduring, that can combat and withstand the ever-changing climatic challenges of today and the near future. This notion also encourages students to understand how different ideas and concepts can emerge from observing other disciplines, as architecture itself is the product of all factors affecting human kind itself. For this institute, the experimental architecture follows the principles of biomimicry.

Ranging from micro organisms such as Algae (Energy harvesting, Bioluminescence), to Prairie dogs (Ventilation inspired from burrowing formations), Saharan silver ants (Reducing solar radiation inspired from hair structure), Namibian beetles (Water harvesting inspired from shell structure), to the human aorta (Valve structure); the institute closely mimics their functions to bring about efficient, adaptive and responsive features integrated in the institute. The initial phase of the course allows students to understand the building itself and its features, keeping close track of their working and enhancing them where needed to be. Students are then allowed to initiate their own projects, within groups of commonly oriented students, or fusions with professional themselves, allowing them to leave the institute in the end with the number of projects and innovative solutions generated over their years in the experimental university.

The institute is also designed to withstand inundation, conceptualizing the idea of an island that serves as a climatic analysis data feed, through which groups of students travel to different zones across the world expanding their idea and building their solutions stronger for the future of architecture.

El curso nació de un reflejo personal de la arquitectura a través de los años; ser un reflejo del pasado, generó la necesidad de una institución que brinde una plataforma para las ideas desafiantes; formas que son generativas, evolutivas y duraderas, que pueden combatir y resistir los cambiantes desafíos climáticos de hoy y del futuro cercano. Esta noción también alienta a los estudiantes a comprender cómo pueden surgir diferentes ideas y conceptos al observar otras disciplinas, ya que la arquitectura en sí misma es el producto de todos los factores que afectan a la humanidad misma. Para este instituto, la arquitectura experimental sigue los principios de la biomimetismo.

Desde microorganismos como las algas (recolección de energía, bioluminiscencia), hasta perros de las praderas (ventilación inspirada en formaciones excavadoras), hormigas plateadas del Sahara (reducción de la radiación solar inspirada en la estructura del cabello), escarabajos de Namibia (recolección de agua inspirada en la estructura de la concha), hasta la aorta humana (estructura de la válvula); el instituto imita de cerca sus funciones para lograr características eficientes, adaptables y receptivas integradas en el instituto. La fase inicial del curso permite a los estudiantes comprender el edificio en sí y sus características, realizando un seguimiento de cerca de su trabajo y mejorándolos donde sea necesario. A los estudiantes se les permite entonces iniciar sus propios proyectos, dentro de grupos de estudiantes de orientación común, o fusiones con los propios profesionales, lo que les permite salir del instituto al final con la cantidad de proyectos y soluciones innovadoras generadas a lo largo de sus años en la universidad experimental.

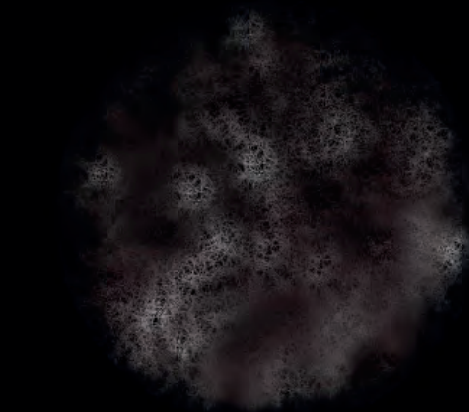
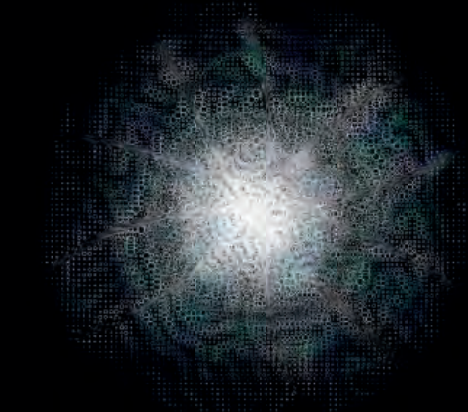
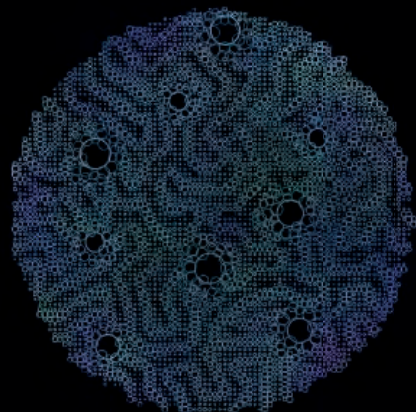
El instituto también está diseñado para resistir inundaciones, conceptualizando la idea de una isla que sirve como fuente de datos de análisis climático, a través del cual grupos de estudiantes viajan a diferentes zonas del mundo expandiendo su idea y construyendo sus soluciones más sólidas para el futuro de la arquitectura.

TRANSMUTING THE EXISTING ORDER

The project brief begins by first understanding the spatial adaptivity of the corals against the coral bleaching crisis. The Chaotic ordering system analyzed is then overlaid into the existing fabric of the human ecosystem to the site chosen as Sheikh Zayed Road, Dubai. The project consists of complimenting and contradicting functions such as the Hospice and the Stem cell research lab, these differ in terms of atmosphere, spatial occupancy, user groups and so on. The main aim of the project is to develop a generative behavior one that imitates the functioning of life itself. For this, the Conway's game of life algorithm that celebrates the notions of birth, survival and death are experimented with to iterate different massing's that lead to the articulation of the project. Just as the Coral consists of several discrete polyps, the project expresses the relationship of discrete to whole, and for this the articulation of the spaces are treated by adopting Discrete architecture. The discrete elements designed are placed strategically by aggregating densely in areas of high radiation and sparsely in areas of low radiation. The project manifests to represent a translated ordering system housing different disruptive functions that overlay and interconnect to the existing ordering system.

TRANSMUTANDO EL ORDEN EXISTENTE

El resumen del proyecto comienza por comprender primero la adaptabilidad espacial de los corales frente a la crisis de blanqueamiento de los corales. El sistema de ordenamiento caótico analizado se superpone a la estructura existente del ecosistema humano en el sitio elegido como Sheikh Zayed Road, Dubai. El proyecto consiste en funciones complementarias y contradictorias como el Hospicio y el laboratorio de investigación de células madre, que se diferencian en términos de atmósfera, ocupación espacial, grupos de usuarios, etc. El objetivo principal del proyecto es desarrollar un comportamiento generativo que imite el funcionamiento de la vida misma. Para ello, se experimenta con el algoritmo del juego de la vida de Conway que celebra las nociones de nacimiento, supervivencia y muerte para iterar diferentes masas que conducen a la articulación del proyecto. Así como el Coral consta de varios pólipos discretos, el proyecto expresa la relación de discreto a todo, y para ello se trata la articulación de los espacios adoptando la arquitectura Discreta. Los elementos discretos diseñados se colocan estratégicamente agregándose densamente en áreas de alta radiación y escasamente en áreas de baja radiación. El proyecto se manifiesta para representar un sistema de pedidos traducido que alberga diferentes funciones disruptivas que se superponen e interconectan con el sistema de pedidos existente.



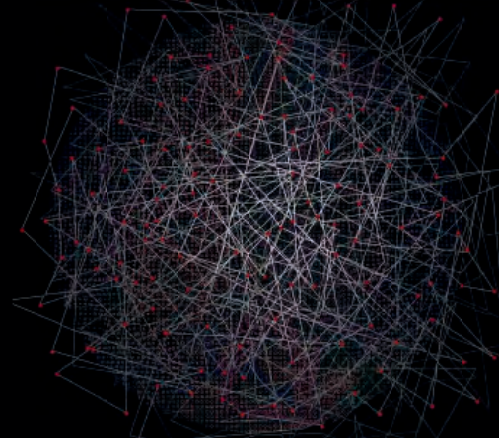
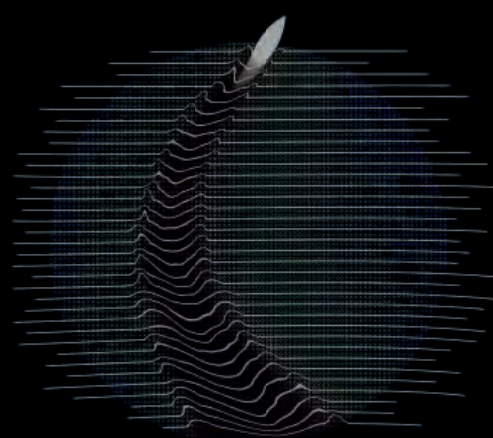
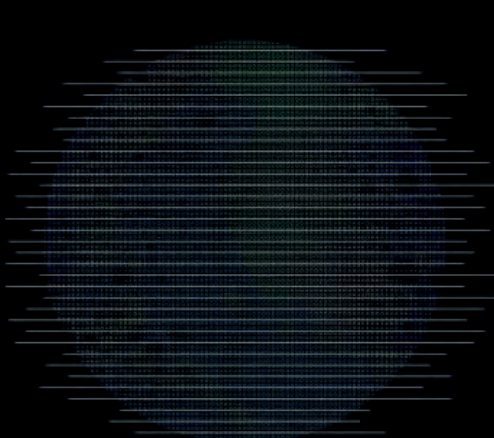
Illustrated above is the base for all illustrations to follow. The abstract work represents a Healthy coral growing and expanding its polyps as it evolves through time. The circles illustrated display the growing, evolving polyps of a coral. The 9 points of growth are exaggerated to display the attributes that characterize a healthy coral best. The attributes focused for this base include : *GROWTH, INTENSITY and MOVEMENT*

Illustrated above is the beginning of deterioration of the coral polyps. With rising temperatures the coral polyps begin to lose their algae, exposing the ecosystem it houses. The central point of infestation is represented to grow radially, bleaching the corals as time passes. The blurred streaks extending to the periphery of the abstract art work represent the negating impact of humans disrupting the growth, the health and vitality of the polyps. The Attributes focused in this piece include : *DEGRADATION, DISRUPTION, DEATH, INTENSITY and MOVEMENT*

The consequence of no action taken on our behalf in 10 years of a bleached coral would consequently lead to the death and decay of the coral. The colors used : reddish brown and black represent the death of the coral. The texture of the polyps are severely exaggerated to illustrate the effect of the crisis through the disintegrating texture of the polyps



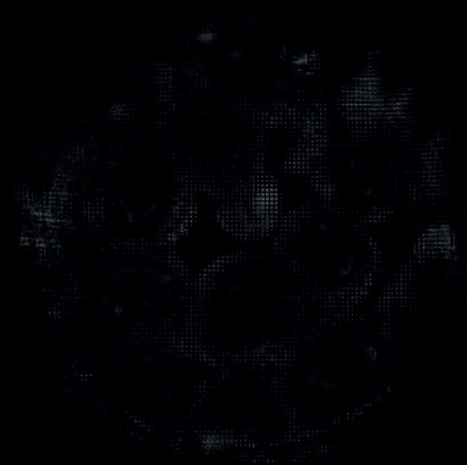
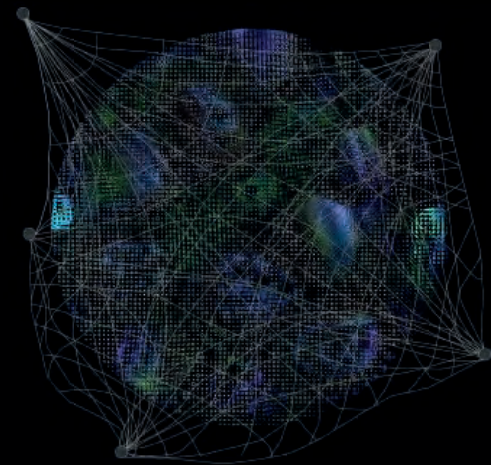
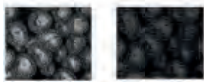
HUMAN IMPACT



Illustrated above is the base for the second series. The series constitute of lines representing the calm, stable ecosystem of the sea synchronized and in harmony with the polyps of a coral. This piece exaggerates the following attributes : *CALM and STABLE*. The ecosystem is dynamic with forces building it up and tearing it down, this illustration depicts the harmony within the ecosystem with each of its components in balance of one another

Showcasing the disruption of the coral polyps the boat disrupts the calm lines and polyps. On its path showcasing the disruptive and insensitive choices that we intentionally and unintentionally perform. The reddish hue following the path of the boat represent the corals dying. The healthier corals on either side illustrate the chance of recovery at this stage. The attributes focused here are : *DISRUPTION, INTERRUPTION, INTENSITY and DEATH*. Here the aspect of last chance tourism is depicted, one where people across the globe visit the dying coral ecosystem for their chance to visit its wonders, when in fact they are disrupting and increasing the pace of coral bleaching

Here the corals infestation points are identified and the infestation routes are thought of connecting the disruption points. The connection between the disruption points are blurred and disrupted to represent the string of consequences borne. The attributes focused here are : *DISRUPTION, INTERRUPTION, INTENSITY, DEATH and CONNECTIVITY*. The disruption points here are different activities that disturb the spatial ecosystem of the corals, from harmful fishing practices, last chance tourism, reckless placement of sewage discharge all of which lead to a string of consequences building up to the destruction of coral reefs



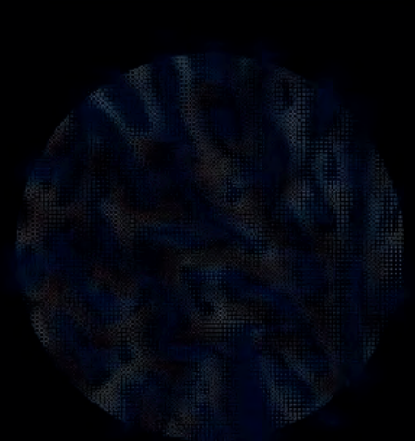
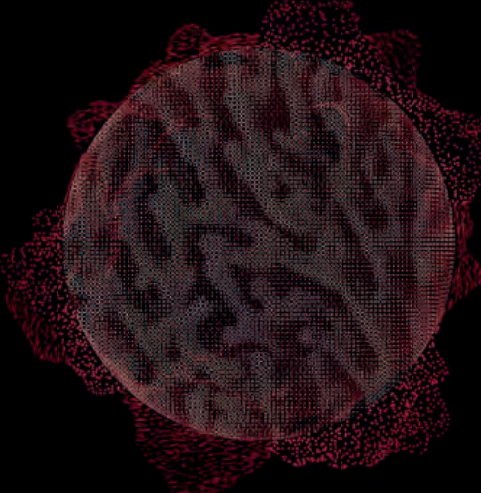
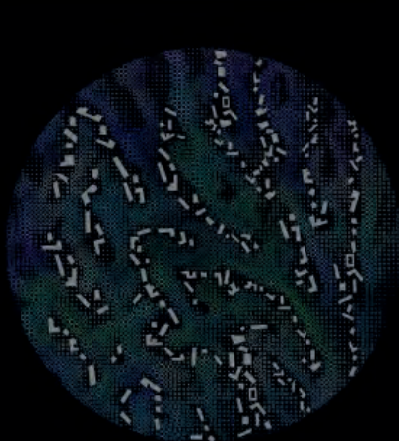
Illustrated is the base for this series that represents a healthy growth of the coral polyps. The intentional disruptive quality of the abstract nature negates any form of disruption on the coral polyps. Showing how our practices could be performed without a harmful effect on the coral polyps. But if such actions do continue, insensitively then this could grow to be a crisis. The attributes focused here are *DISRUPTION*, *INTENSITY* and *INTERRUPTION*

Continuing from the first piece, points of infestation are identified. Clusters of healthy and infested coral polyps are formed. This piece illustrates the bleaching process at specific points. The infestation are point based growing and decaying the surrounding polyps. The infestation represents specific clusters infecting and infesting. The scaled out polyps in the periphery represent the decaying situation of the coral bleaching crisis. Attributes focused here include : *DISRUPTION*, *INTERRUPTION*, *INTENSITY*, *DEATH*, *GROWTH* and *DEGRADATION*

Here the corals infestation points are identified and the infestation has gradually progressed into a dire situation with a loss of majority of the clusters that were once healthy. This leads to an imbalance within the ecosystem testing the spatial adaptivity of it. With several species migrating to healthier environments : *DEATH*, *INTENSITY* and *DEGRADATION*



THE CONSEQUENCE



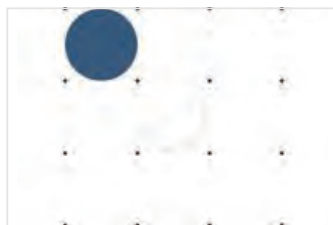
Illustrated is the base for this series that represents the protective quality of the coral. Coral systems are known to protect coastal cities from tidal waves, preventing flooding, tsunamis. Illustrated is an abstract version of houses nestled between the pattern of the coral polyps, safe and protected. The attributes focused here are : *MOVEMENT* and *GROWTH*

Continuing from the previous piece the safe haven is now disrupted due to the bleaching infection on the polyps. This piece illustrates the infestation stage. In this situation the coral polyps are strained due to the coral bleaching infection. Straining to protect coastal cities from wave energy representing in red over flowing and infesting the polyps. The blurred movement of the tidal waves represent the chaotic consequence the crisis could have. The attributes focused here are : *DISRUPTION*, *INTERRUPTION*, *INTENSITY*, *DEATH*, *GROWTH*, *DEGRADATION* and *MOVEMENT*

The second piece then leads to the devastating consequence. This graphic representation shows the consequence of no action taken place in the course of 10 years. With less corals protecting the coastal cities the chaotic consequences are *DISRUPTION*, *INTERRUPTION*, *INTENSITY*, *DEATH*, *GROWTH*, *DEGRADATION* and *MOVEMENT*

MANIFESTO EXPLORATION

The Game of life is a model devised by British mathematician John Conway in 1970. The voxels, in Fig. 1 can exist in two states of life or death. The state of the voxel is dependant on the states of the eight neighboring cells. A collection of cells on a grid in 2D starting as a pattern and evolving through a number of discrete steps according to a set of rules based on the states of neighboring cells. These cells progressing in the z direction form a voxel



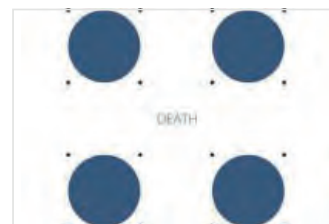
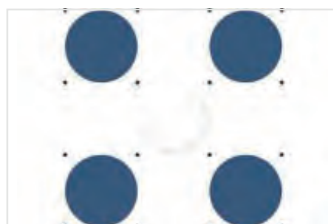
ISOLATION

Living cells die if they have fewer than 2 neighbors in the 8 neighborhood grid



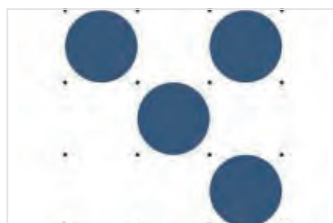
BIRTH

Dead cells with more than 3 neighbors give birth to a voxel in the next generation



DEATH

Living cells die when they have more than 3 neighbors due to density parameter



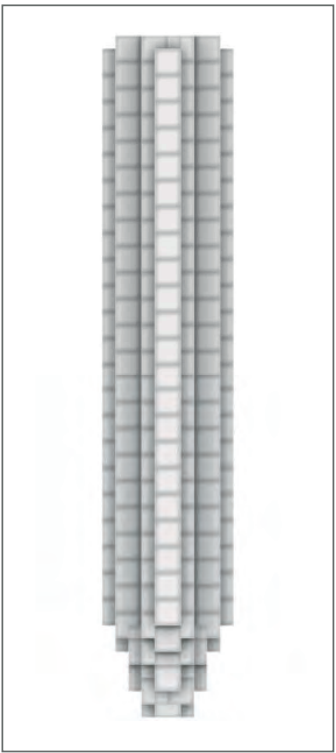
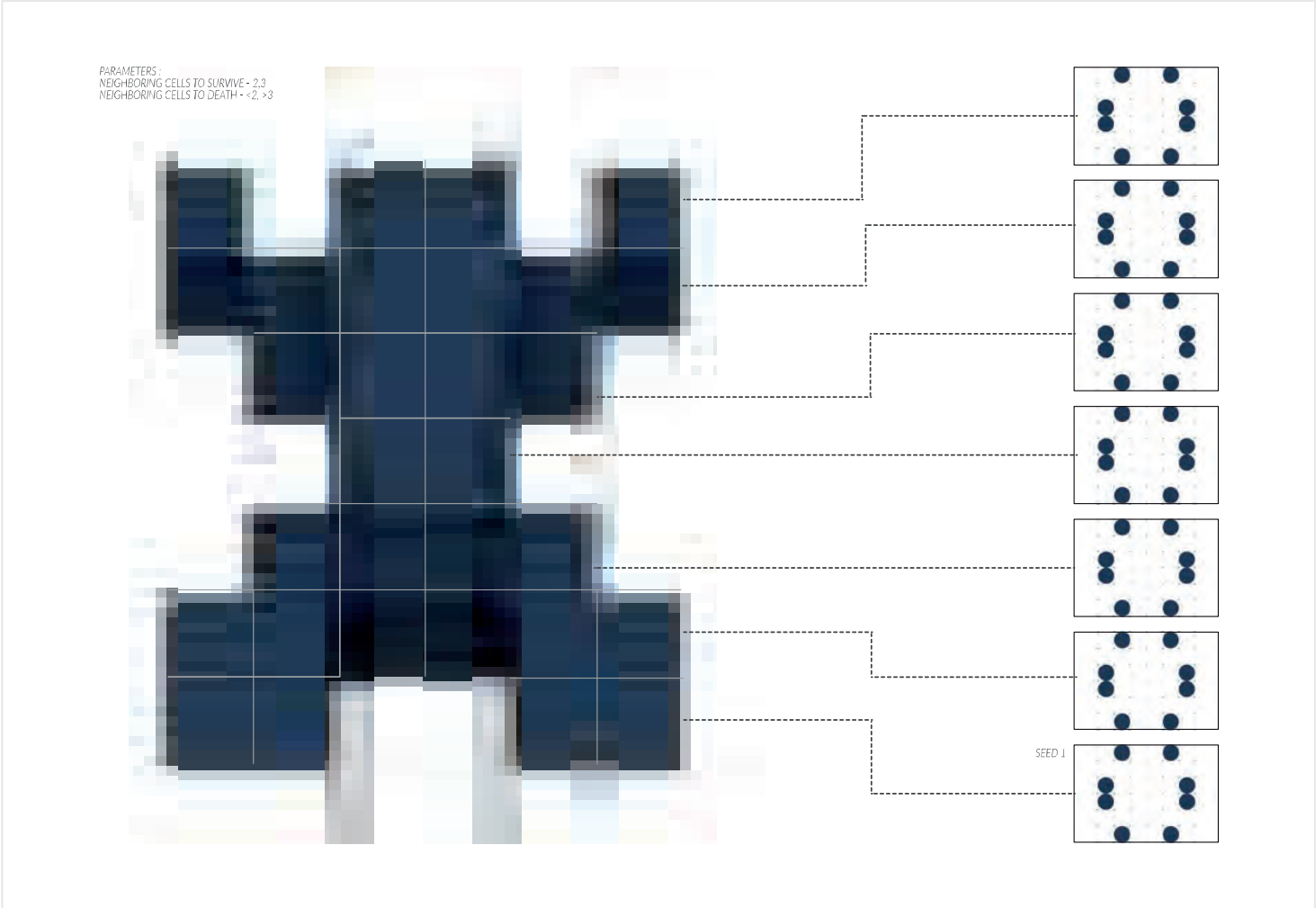
SURVIVAL

Following the parameters the cells would survive to the next generation

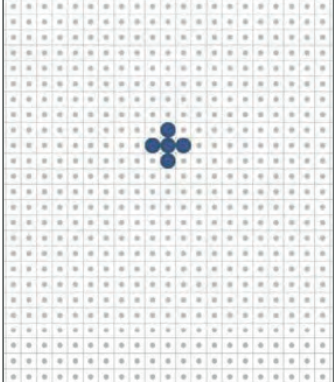
PARAMETERS :

NEIGHBORING CELLS TO SURVIVE - 2,3

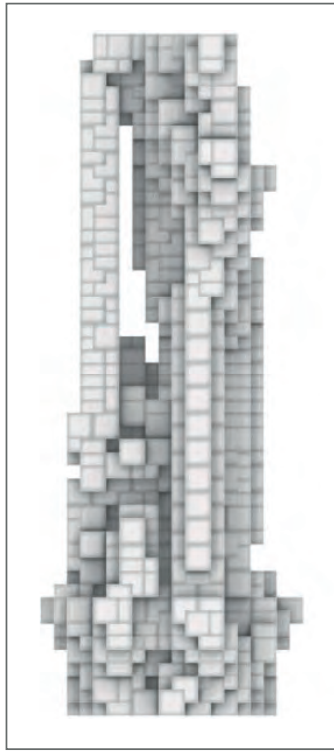
NEIGHBORING CELLS TO DEATH - <2, >3



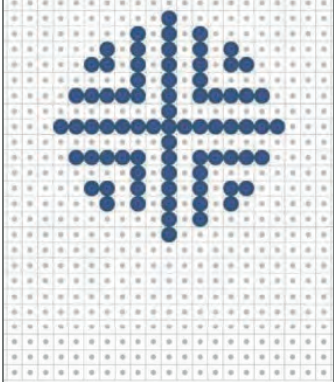
STABLE EQUILIBRIUM



PARAMETERS :
NEIGHBORING CELLS
TO SURVIVE - 2,3
NEIGHBORING CELLS
TO DEATH - <2, >3



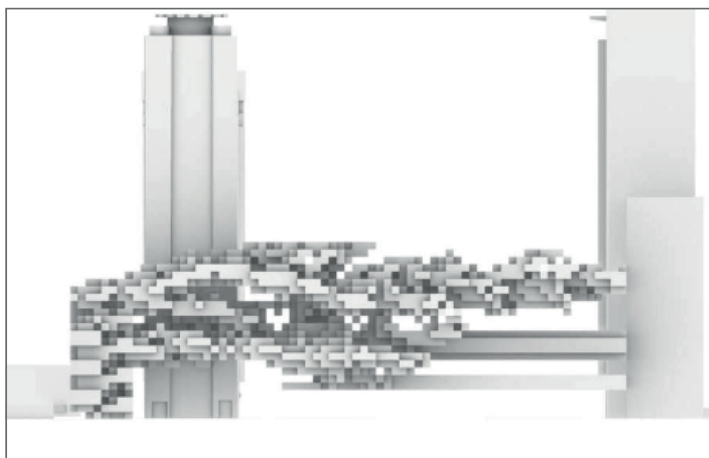
DYNAMIC EQUILIBRIUM



PARAMETERS :
NEIGHBORING CELLS
TO SURVIVE - 2,3
NEIGHBORING CELLS
TO DEATH - <2, >3

CONWAY EXPLORATION

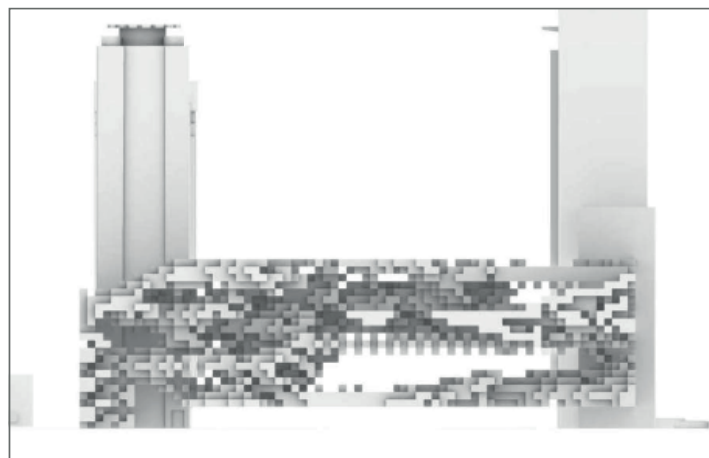
PARAMETERS :
NEIGHBORING CELLS TO SURVIVE - 3
NEIGHBORING CELLS TO DEATH - 2



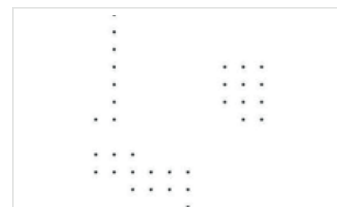
EXPLORATION 1



SEED
(Plan view, points extracted from site)

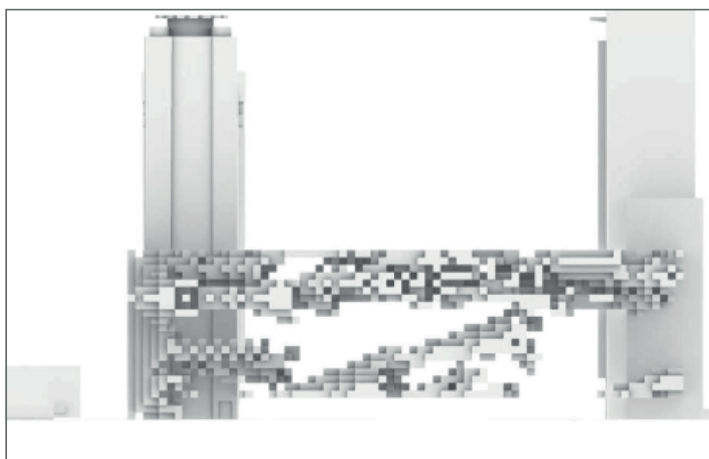


EXPLORATION 2

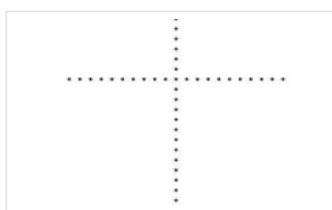


SEED
(Plan view, points extracted from site)

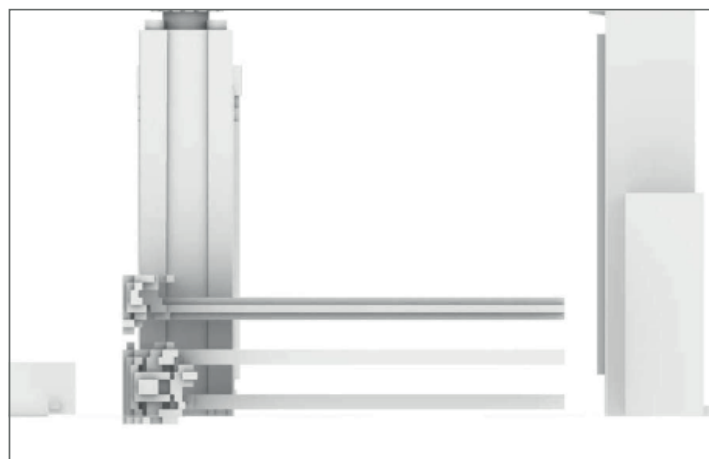
The 3mx3m grid is chosen so that each mass has the potential to house a connection/circulation possibility.



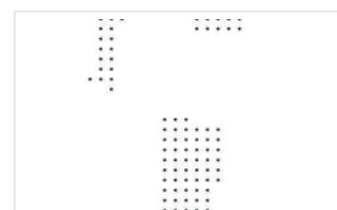
EXPLORATION 5



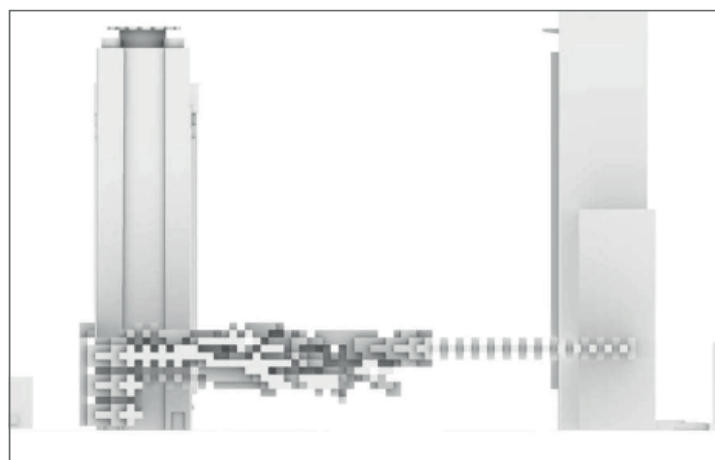
SEED
(Plan view, points extracted from site)



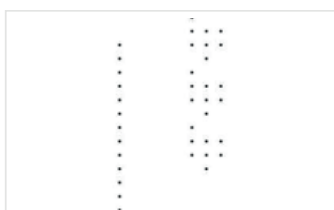
EXPLORATION 6



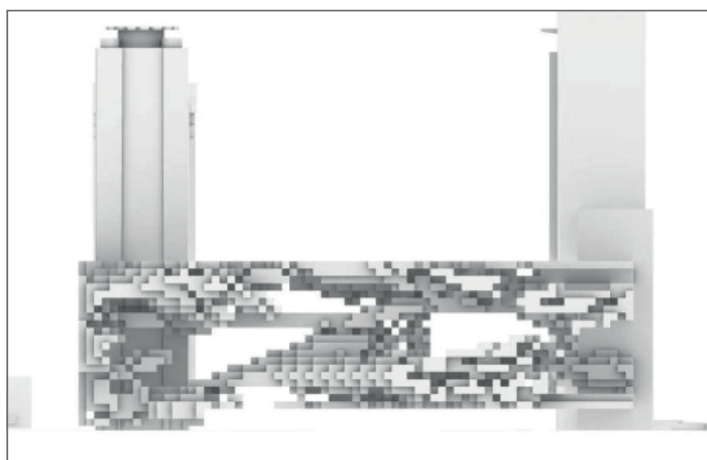
SEED
(Plan view, points extracted from site)



EXPLORATION 3



SEED
(Plan view, points extracted from site)

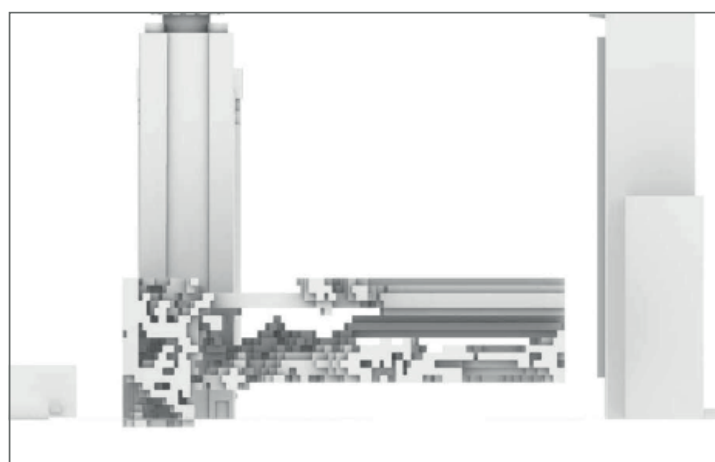


EXPLORATION 4

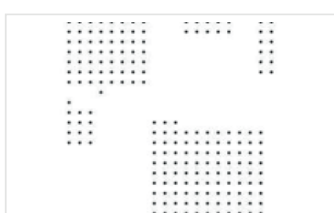


SEED
(Plan view, points extracted from site)

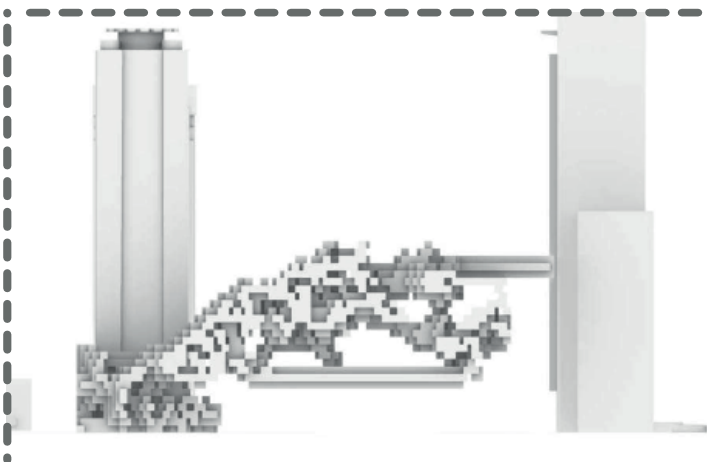
bility or to house a function. After several tests this grid spacing proved to the most efficient



EXPLORATION 7



SEED
(Plan view, points extracted from site)



EXPLORATION 8



SEED
(Plan view, points extracted from site)

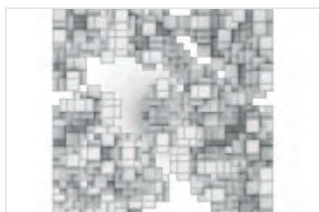
CONWAY EXPLORATION

Explored here are different parameters and growth sequences that inform the next explorations to come, parameters of isolation, growth, birth, death and survival are heavily explored to understand thoroughly the complexity arising from the simple rules

SEED

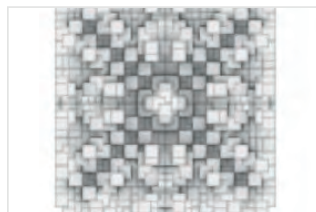
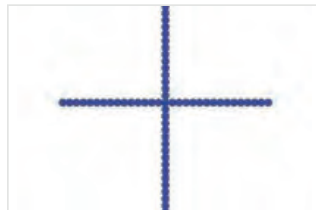
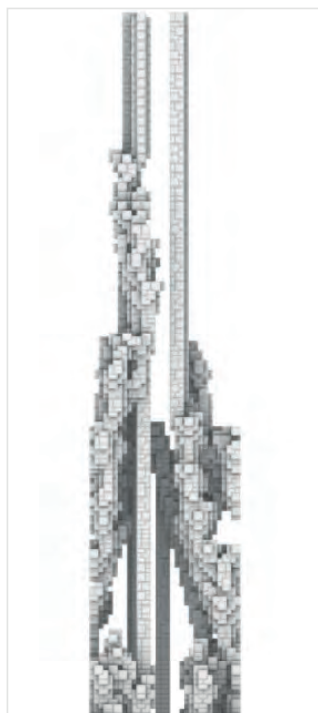


TOP VIEW



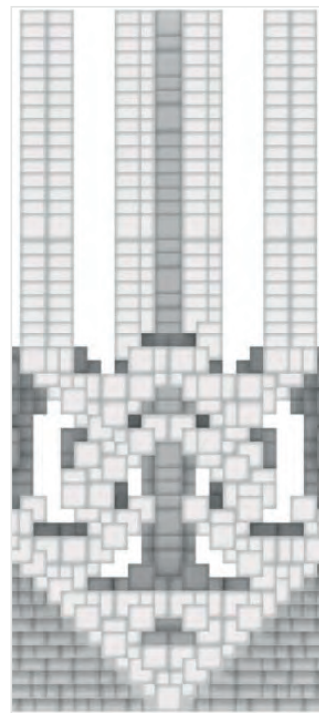
PARAMETERS :

Neighboring cells to survive
- 2,3
Neighboring cells to death -
<2, >3



PARAMETERS :

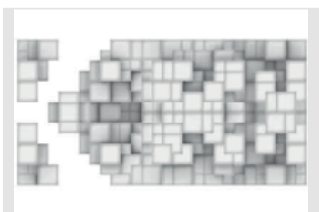
Neighboring cells to survive
- 2,3
Neighboring cells to death -
<2, >3



SEED

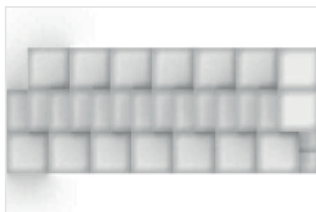
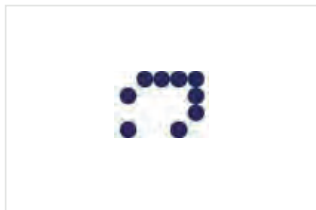
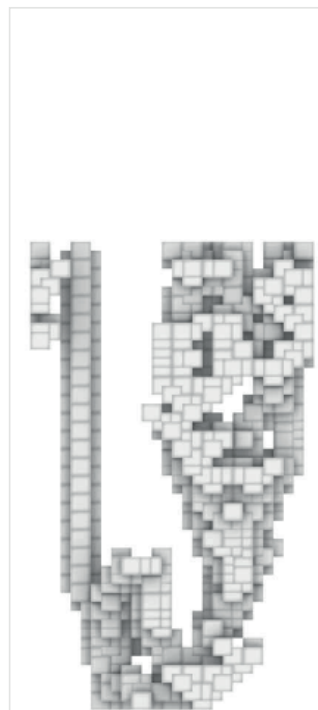


TOP VIEW



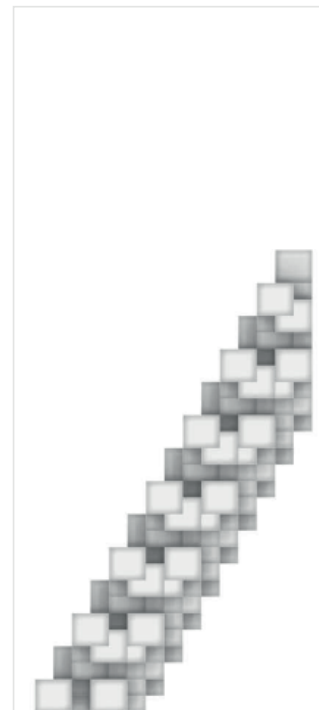
PARAMETERS :

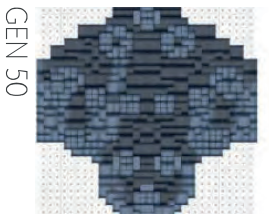
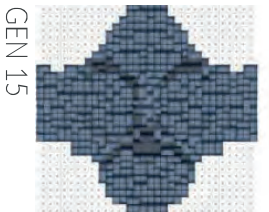
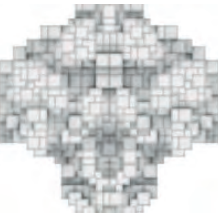
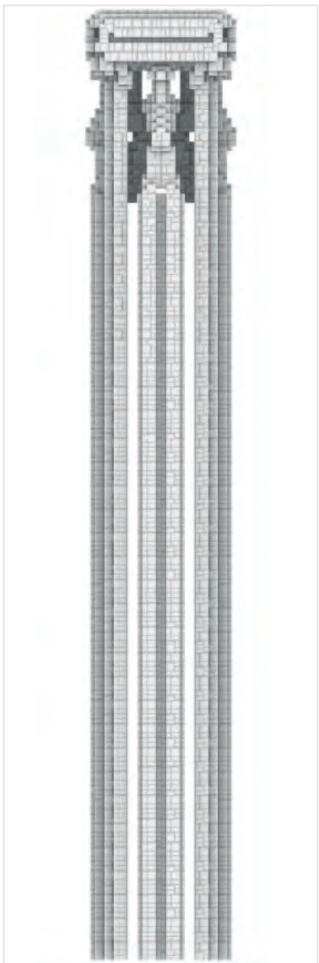
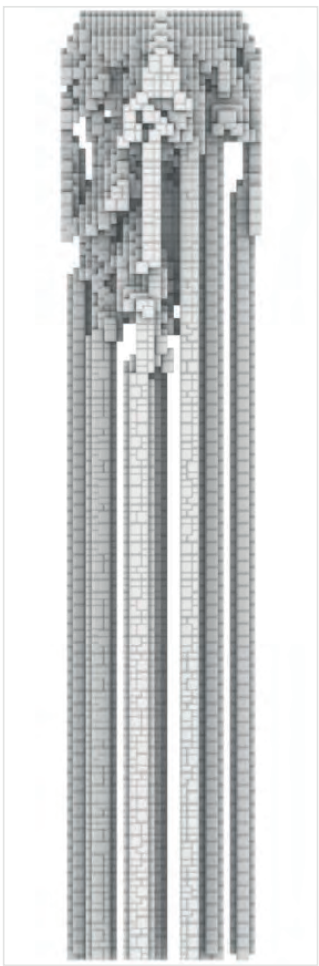
Neighboring cells to survive
- 2,3
Neighboring cells to death -
<2, >3



PARAMETERS :

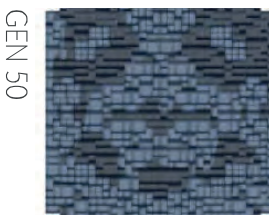
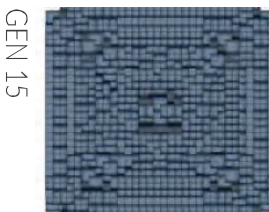
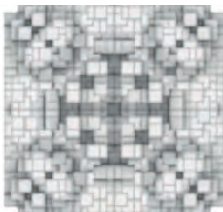
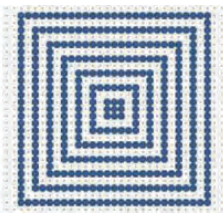
Neighboring cells to survive
- 2,3
Neighboring cells to death -
<2, >3





SEED

SEED

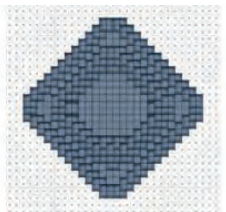
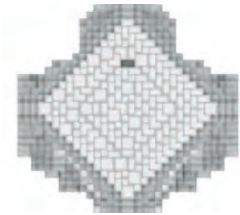


GEN 15

GEN 50

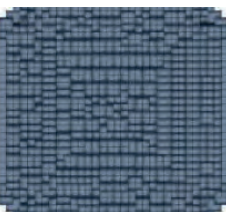
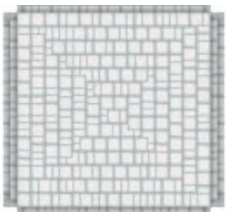
GEN 15

GEN 50



TOP VIEW

GEN 1.



TOP VIEW

GEN 1.

PARAMETERS :

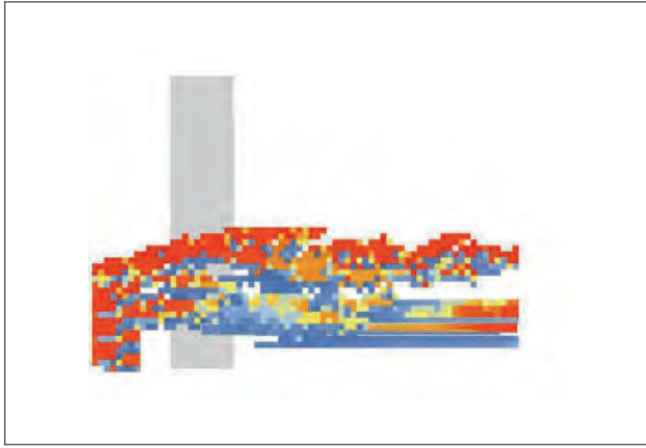
Neighboring cells to survive - 2,3
Neighboring cells to death - <2, >3

PARAMETERS :

Neighboring cells to survive - 2,3
Neighboring cells to death - <2, >3

RADIATION ANALYSIS

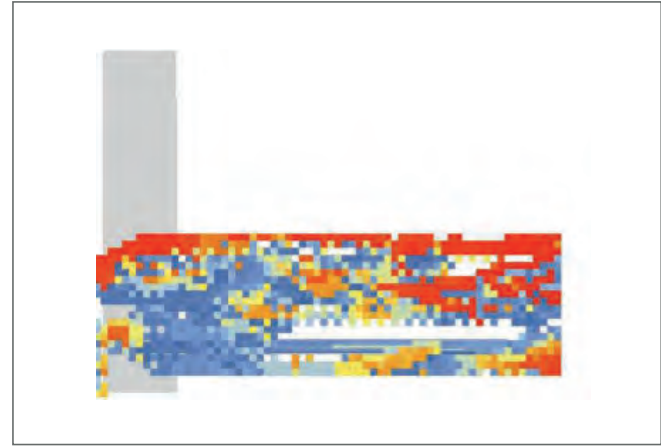
The iterations are then tested through specific environmental attributes of the site identified from the s
suitable for deploying of functions and for a less negative impact on the surrounding environment.



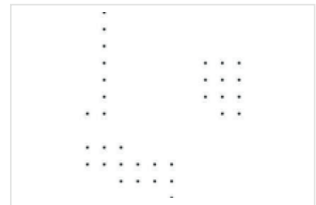
EXPLORATION 1



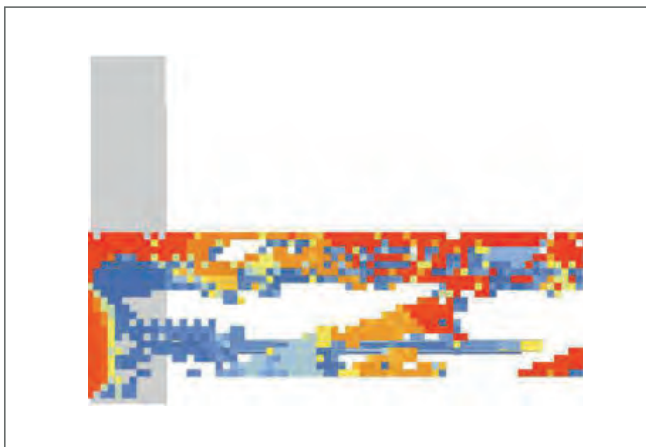
SEED



EXPLORATION 2



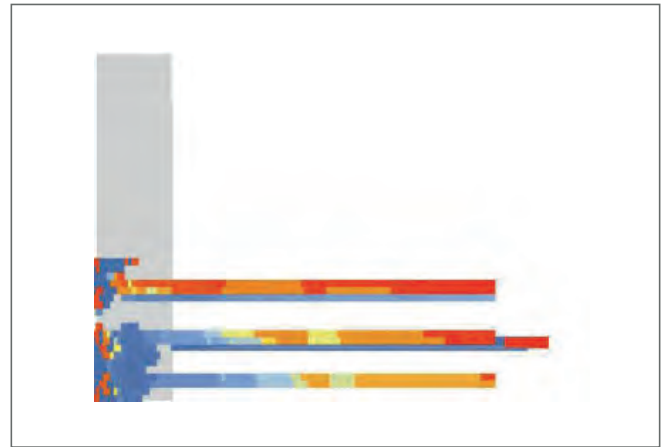
SEED



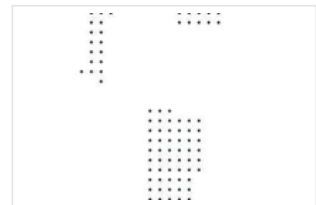
EXPLORATION 5



SEED

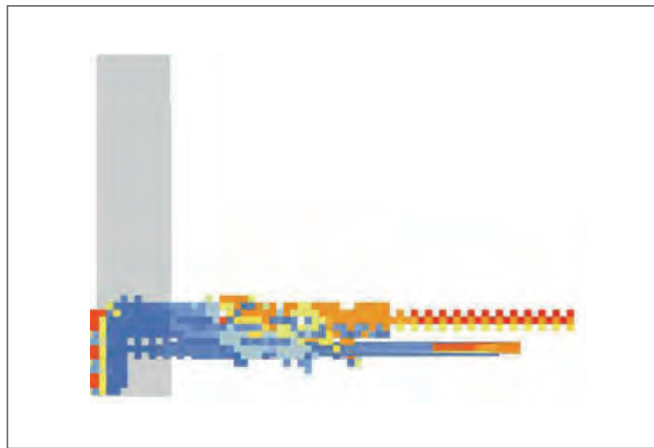


EXPLORATION 6

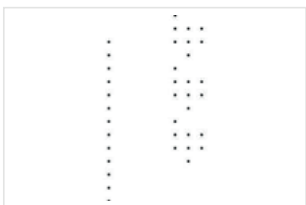


SEED

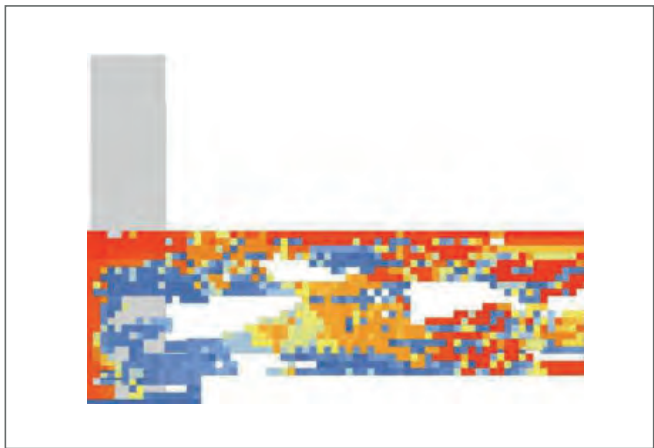
site analysis. Here each massing is testing for their radiation intake to identify which massing is most



EXPLORATION 3



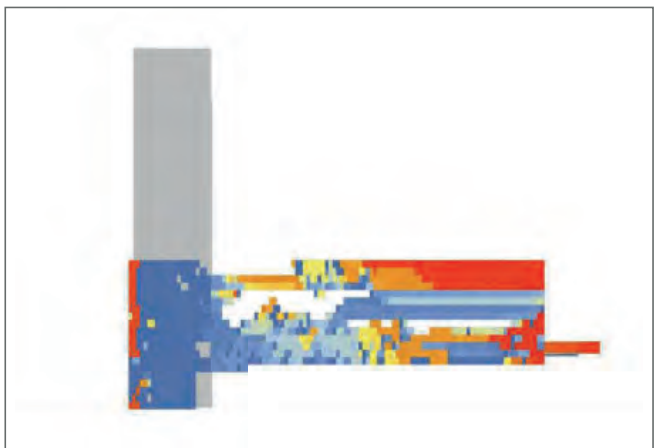
SEED



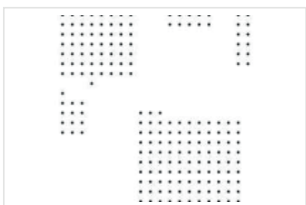
EXPLORATION 4



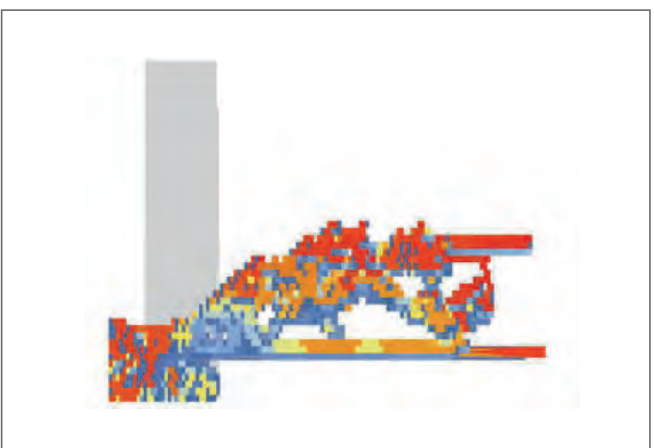
SEED



EXPLORATION 7



SEED



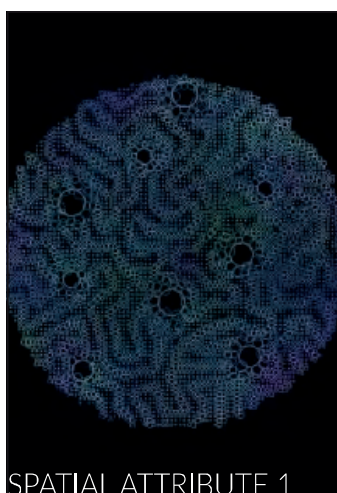
EXPLORATION 8



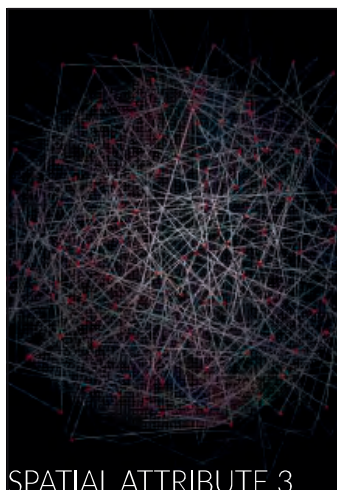
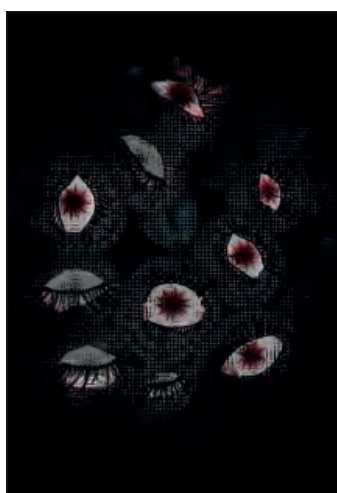
SEED

A NEW ORDER

Shown here are the Discrete units enveloped on their own connected through bridges, ramps and tra own and contribtutes to the entire working of the project. These units following the conways game of I Sheikh Zayed Road. Clusters of these discrete units are translated from Spatial attribute 2, wherein the project. These clusters were considered to be points of crisis wherein the third Spatial attribute comes elements creating a whole displaying the poin to line attribute. The breakdown of the facade to discret Attribute 4. The mutant zones that will be discussed in detail later are translated from Spatial attribute . lating the staggering effect of the Coral Bleaching Crisis. These steps ensured to understand the exist with the intent of being generative in nature, sustainable, efficient, disruptive to the existing order and



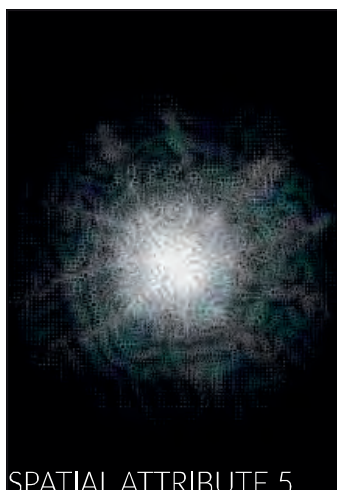
SPATIAL ATTRIBUTE 1



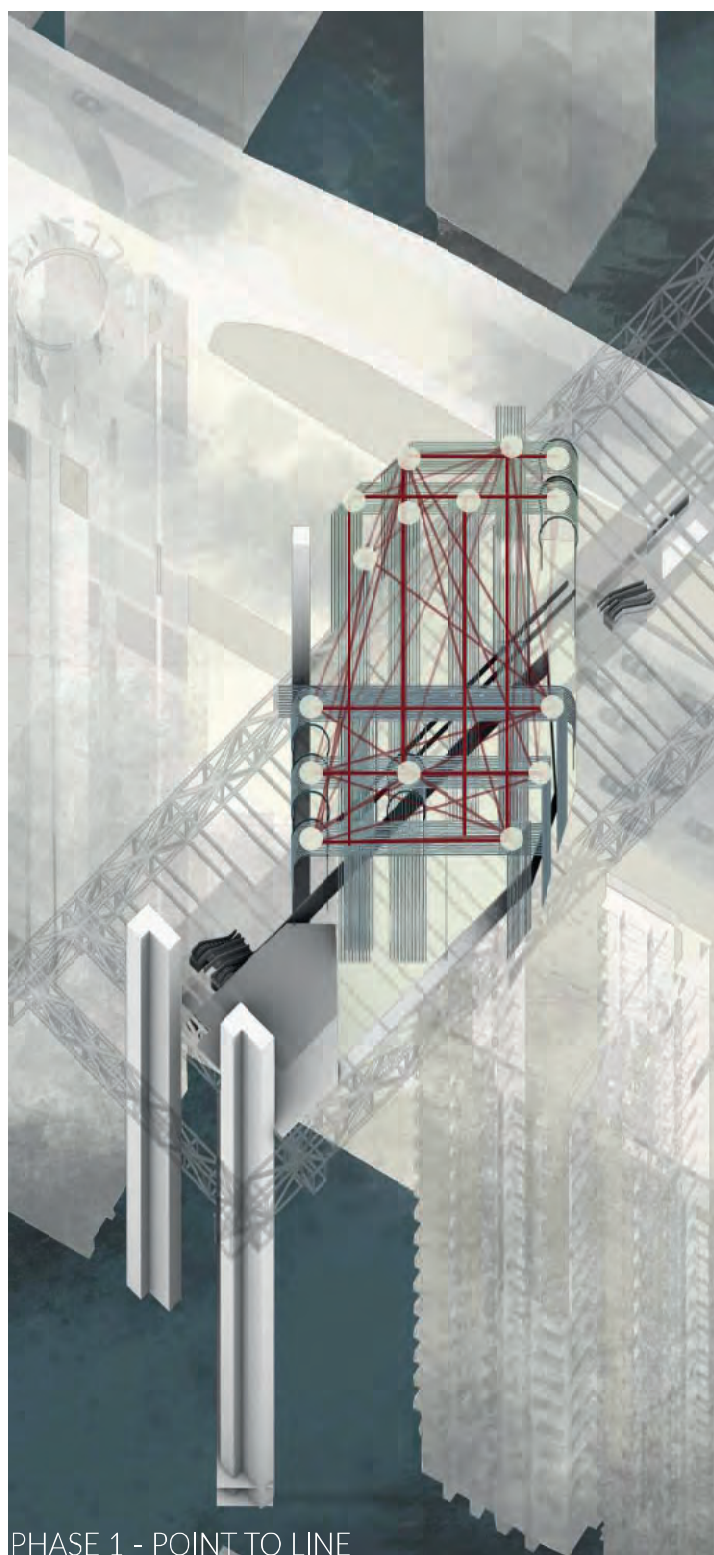
SPATIAL ATTRIBUTE 3



SPATIAL ATTRIBUTE 4

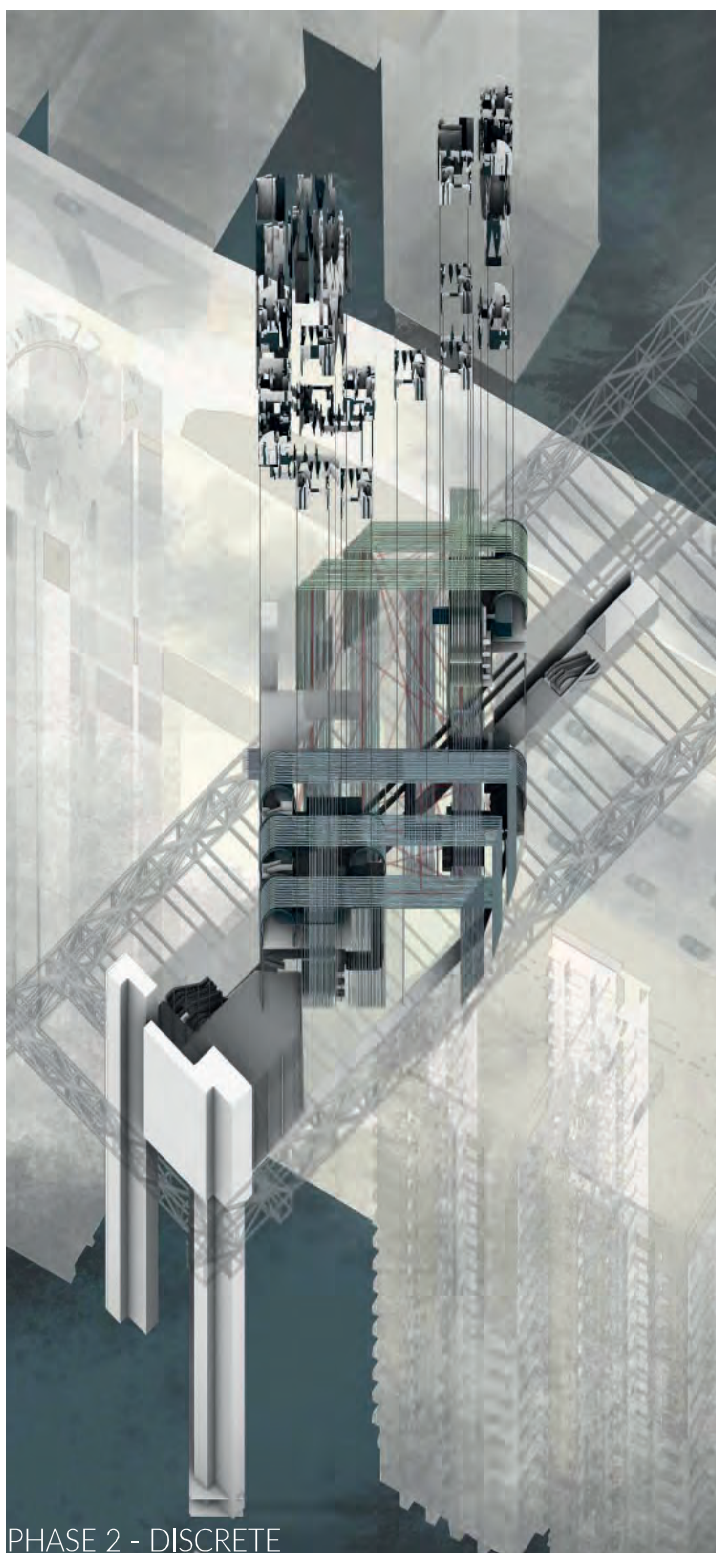


SPATIAL ATTRIBUTE 5



PHASE 1 - POINT TO LINE

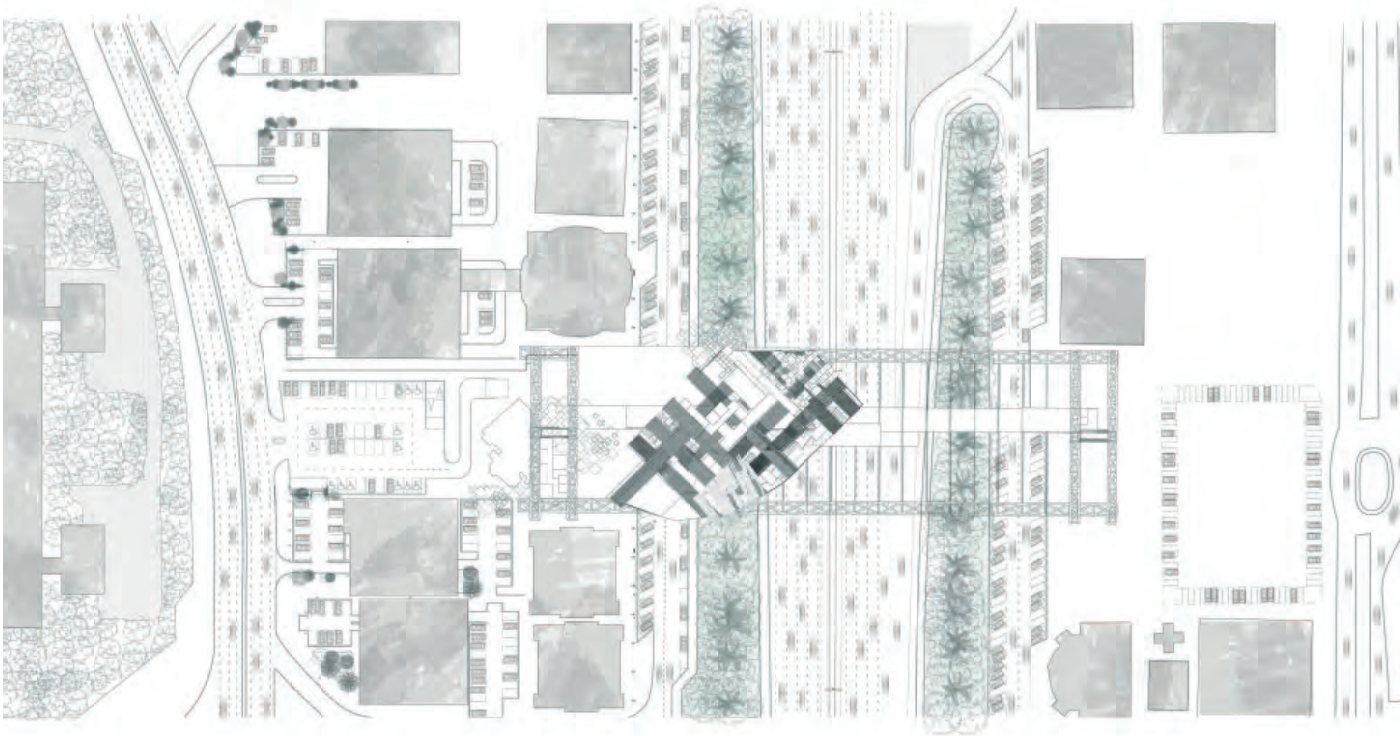
translated as discrete functions observed from the Spatial attribute 1 where each polyp functions on its own life multiply and grow to ensure the future growth of the project along the truss system spanning across the site. There is a strong functional zones within the cluster that fades away and reappears in another zone of the project into play shown in Spatial Attribute 3. Here the "the polyp" is connected and unified by specific discrete structural members forming the envelope is translated from the crisis of death and degradation seen in Spatial Attribute 5 wherein these zones house multiple functions and fade out and appear throughout the project translating methods and functioning of the typical order on the site and create a new ordering system driven by the project considerate to the wishes of its users.



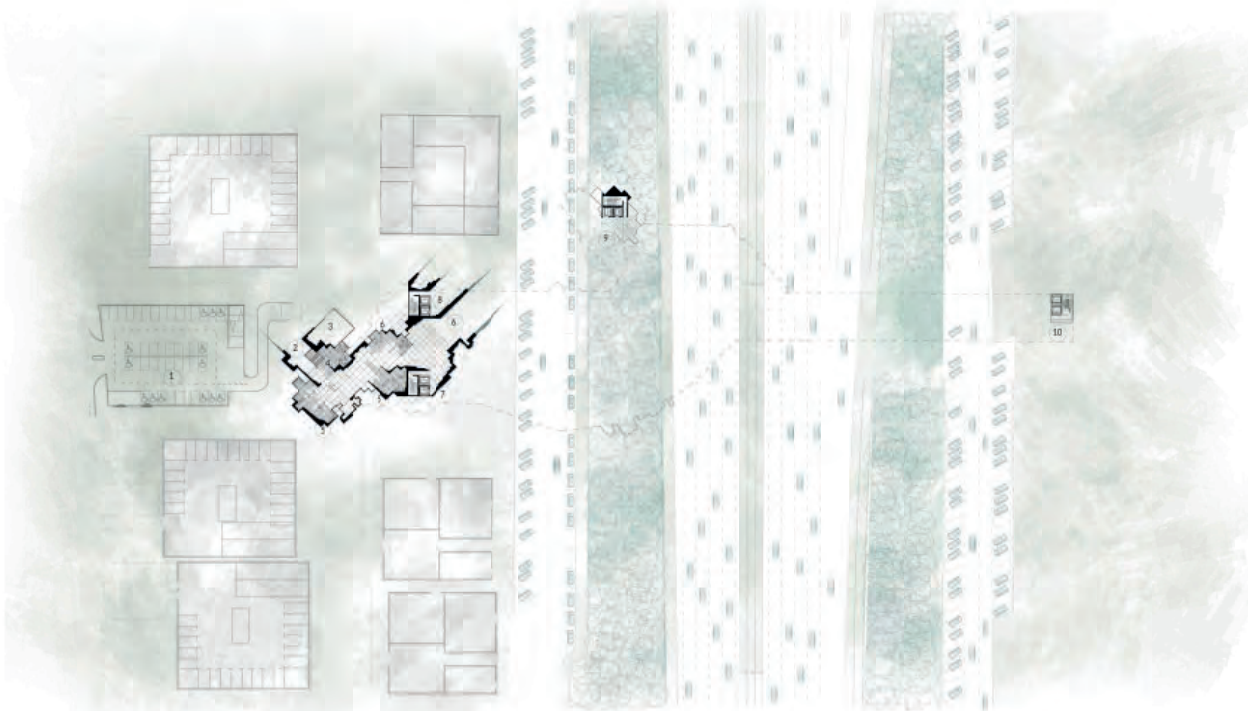
PHASE 2 - DISCRETE



EXPLODED AXONOMETRIC VIEW

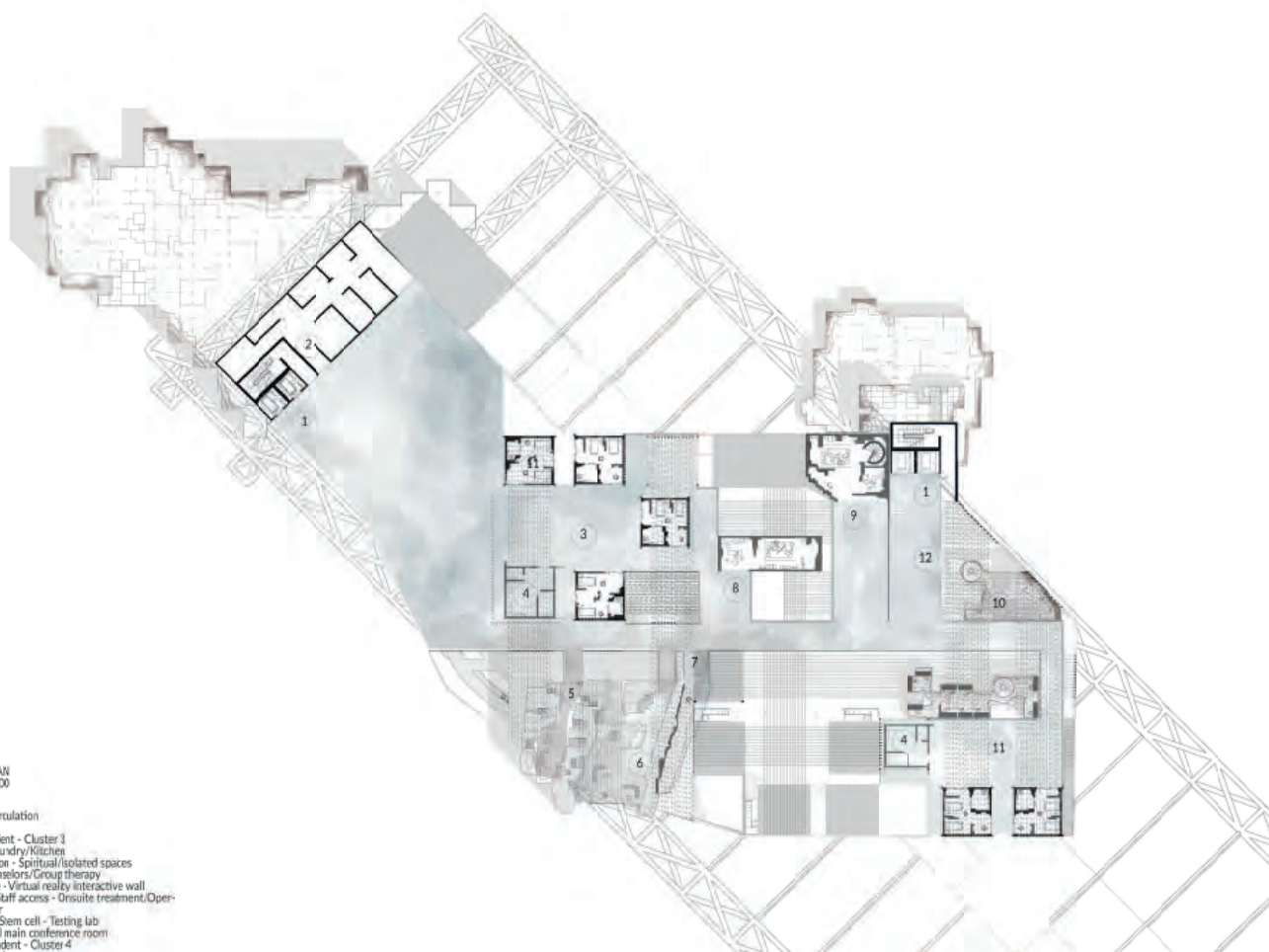
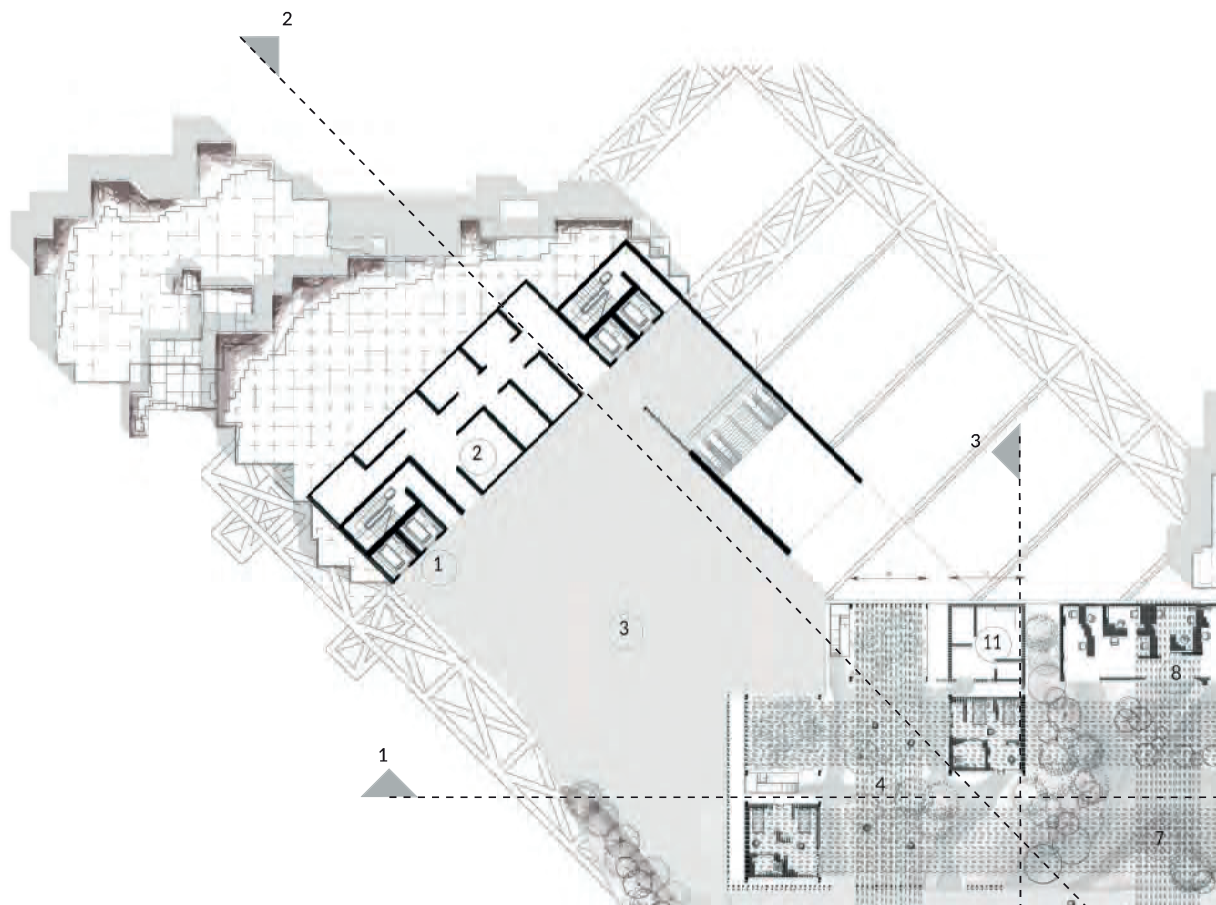


SITE PLAN
SCALE - 1:250



GROUND FLOOR
SCALE - 1:250

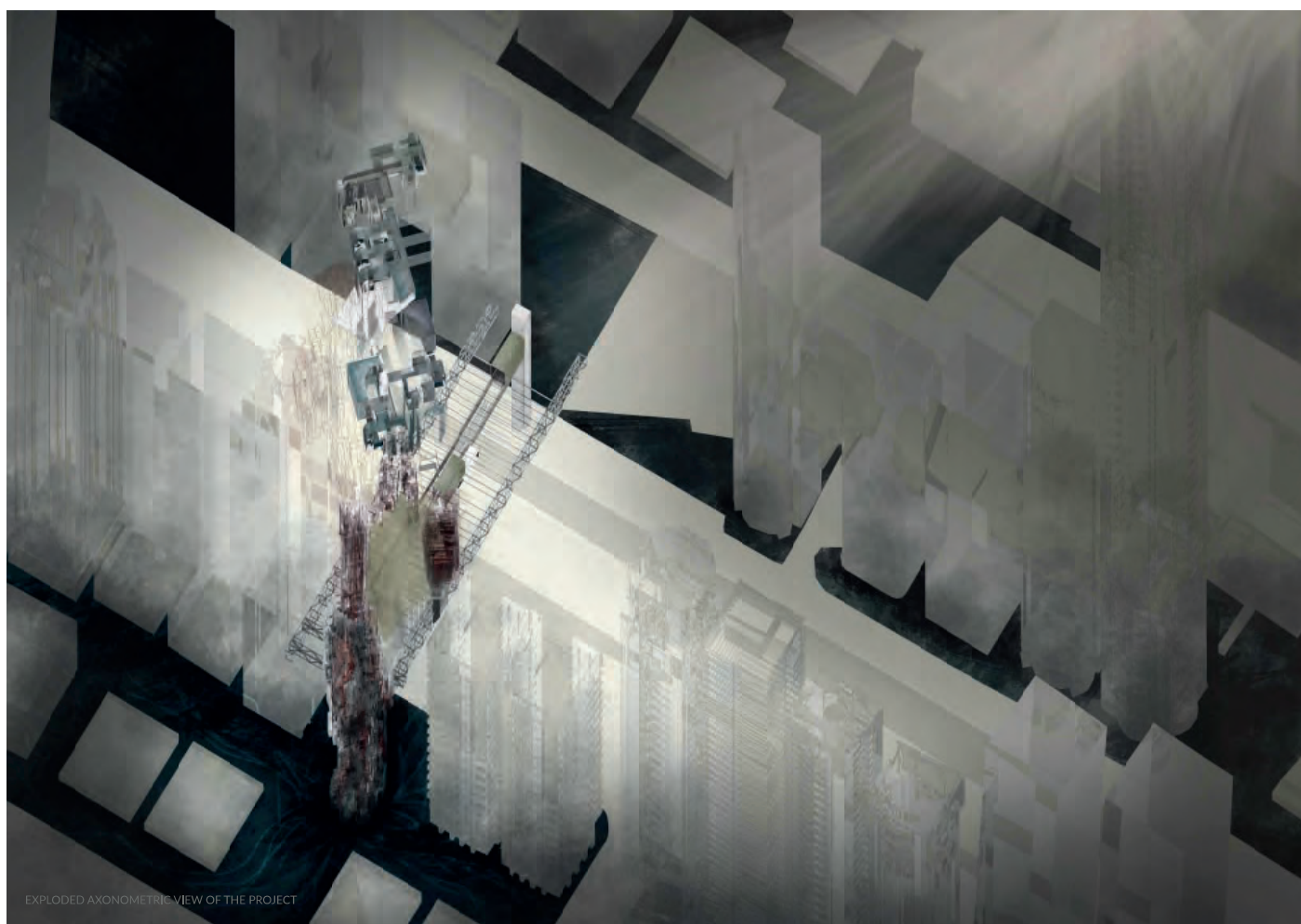
1. Parking
2. Entrance
3. Emergency service storage
4. Admin
5. Waiting
6. Courtyards
7. User entrance
8. Entrance to pedestrian bridge
9. Secondary entrance
10. Turf entrance
11. Main entrance



LEVEL 2 PLAN
SCALE - 1:200

- 1 Vertical circulation
- 2 Services
- 3 Transcendent - Cluster 1
- 4 Pantry/Laundry/Kitchen
- 5 Redemption - Spiritual/Isolated spaces
- 6 Grief counselors/Group therapy
- 7 Reminiscence - Virtual reality interactive wall
- 8 Silence - Staff access - Onsite treatment/Operation theater
- 9 Resolve - Stem cell - Testing lab
- 10 Stem cell main conference room
- 11 Transcendent - Cluster 4
- 12 Main entrance









Moving into Hospice palliative care can be a critical turning point for the patient and in order to fully understand the emotions a Research Article : Being a Nursing Home resident is closely studied to understand what a patient needs in their environment that helps maintain their identity. To fully comprehend the identity of the patients and their wishes, their narration is used to bring about how the project correlates to their needs.

"Now, that I have been institutionalized in the nursing home, everything is gone, here, you are in a waiting room for death, this is a new phase, tears are falling," (B2,98).

The project aims to negate the negative mentality of Palliative care by allowing autonomy of users and aiding them to cope during their stay.

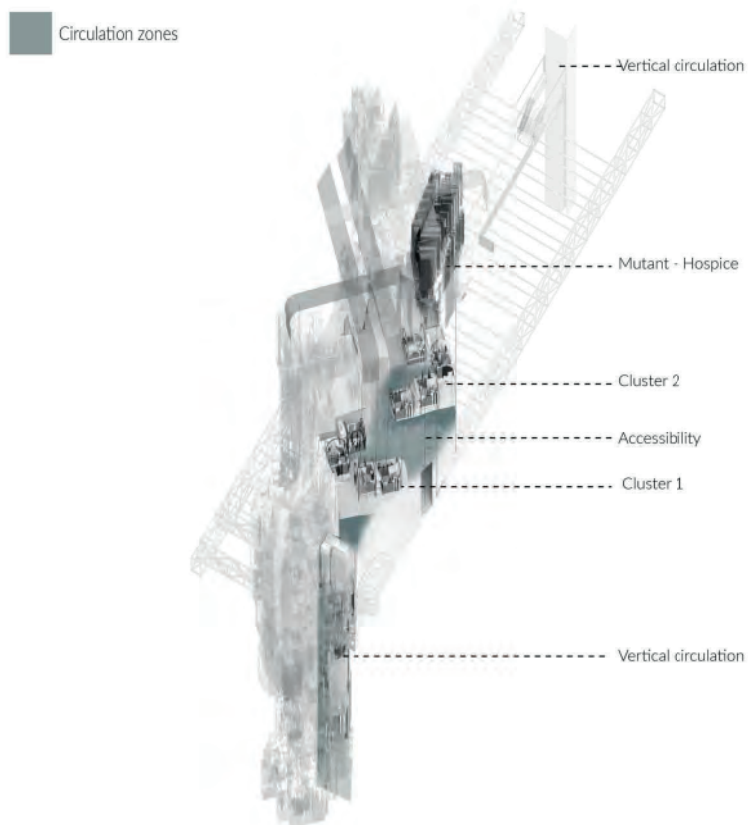


Collage of fears and challenges a Hospice patient

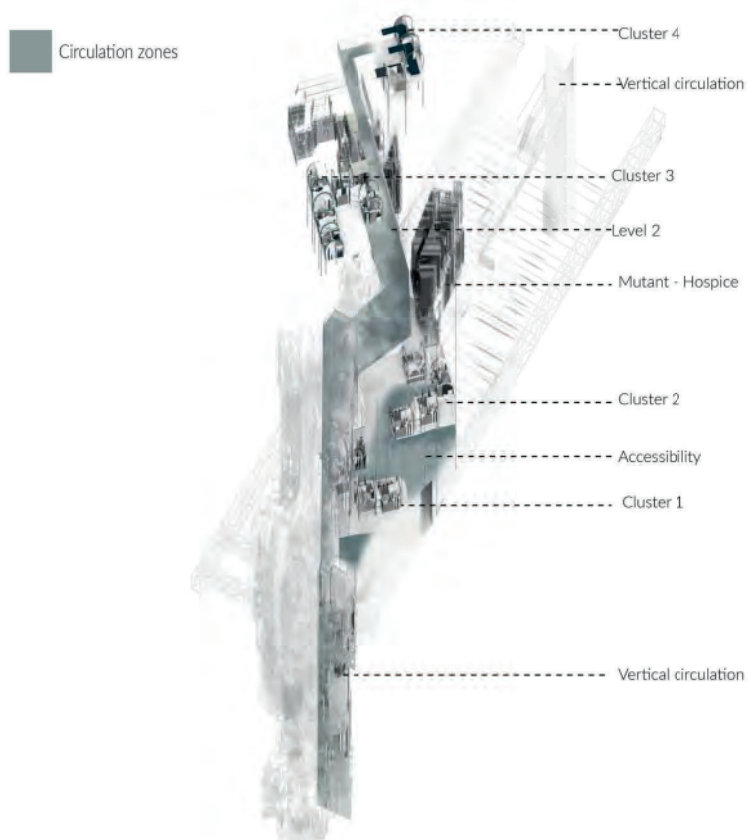




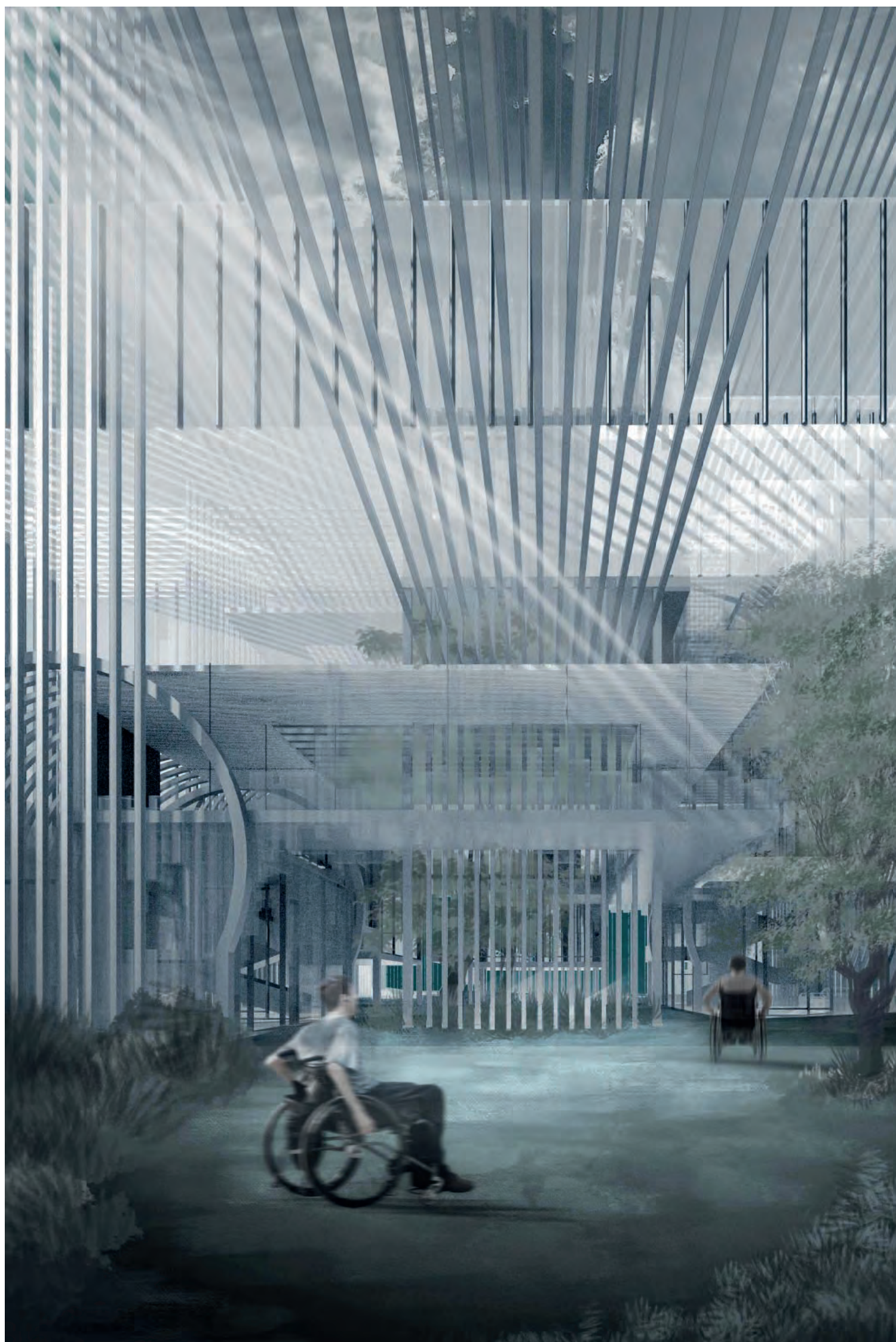
Interior Illustration 1



Exploded Axonometric view of Hospice functions showing the circulation in Level 1



Exploded Axonometric view of Hospice functions showing the circulation in Level 2



Moving into Hospice palliative care can be a critical turning point for the patient and in order to fully understand the emotions a Research Article : Being a Nursing Home resident is closely studied to understand what a patient needs in their environment that helps maintain their identity. To fully comprehend the identity of the patients and their wishes, their narration is used to bring about how the project correlates to their needs.

THE FEELING OF NO PLACE CALLED HOME

The impact on autonomy can be great and the project explores the concept of home by allowing the users to decide how their space is to be. As illustrated earlier the hospice units allow to bring about a balance between normality and foreign language within the architecture.



Exploded Axonometric view of the Hospice unit

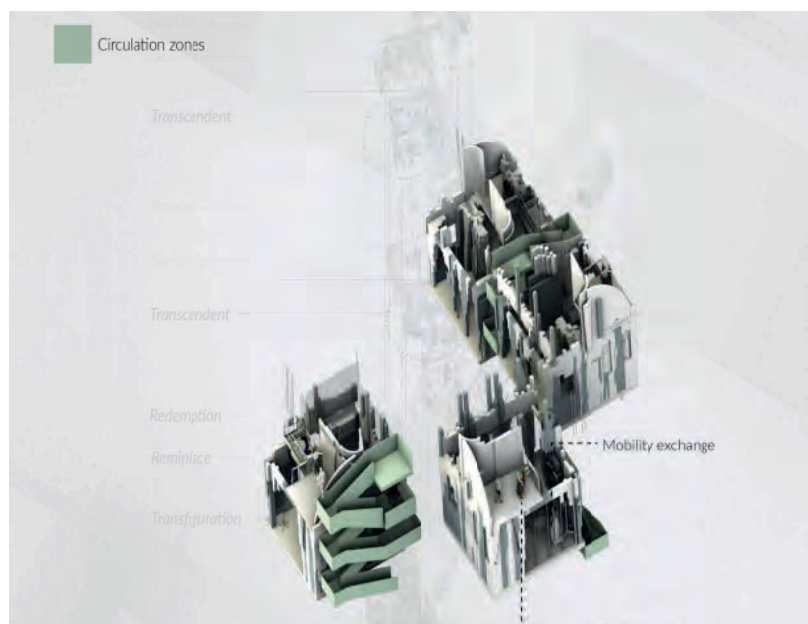


Illustration Showing the spatial relationship between a family user and a Hospice patient

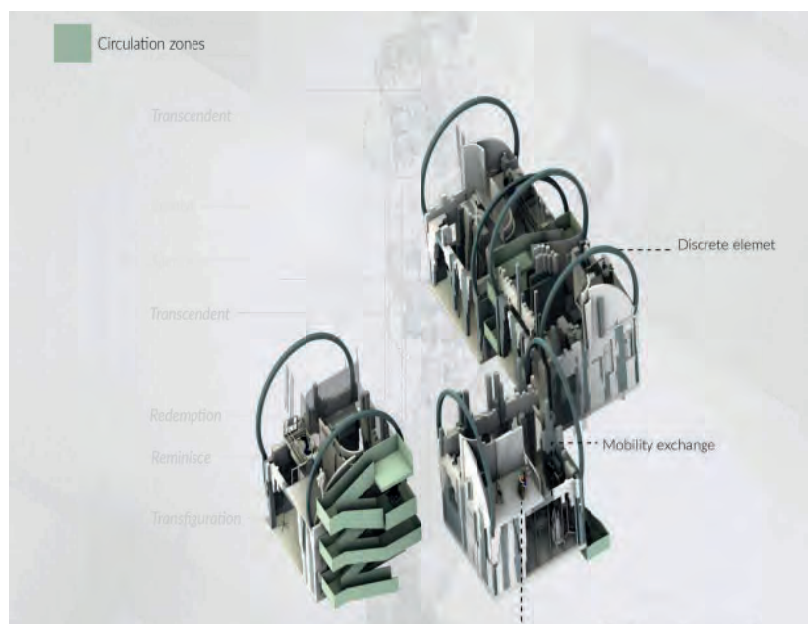
Withing this tense period of a Hospice patient it is often common for the person to experience a boundary between family and care, the project aims to balance this out my allowing the family of a patient to stay during difficult times and aims to slowly detach from the world by ascending into the project.

"Here I have someone to talk to. At home, i used to be alone because my daughter works", (J9, 33-34)

The Hospice clusters patients together and intetntionally based on their conditions to allow the patients to communicate and talk one another. The mutative zones include spaces for patients to rest, talk and enjoy view of their surroundings



Axonometric view of Family stay platform overlooking the hospice patient



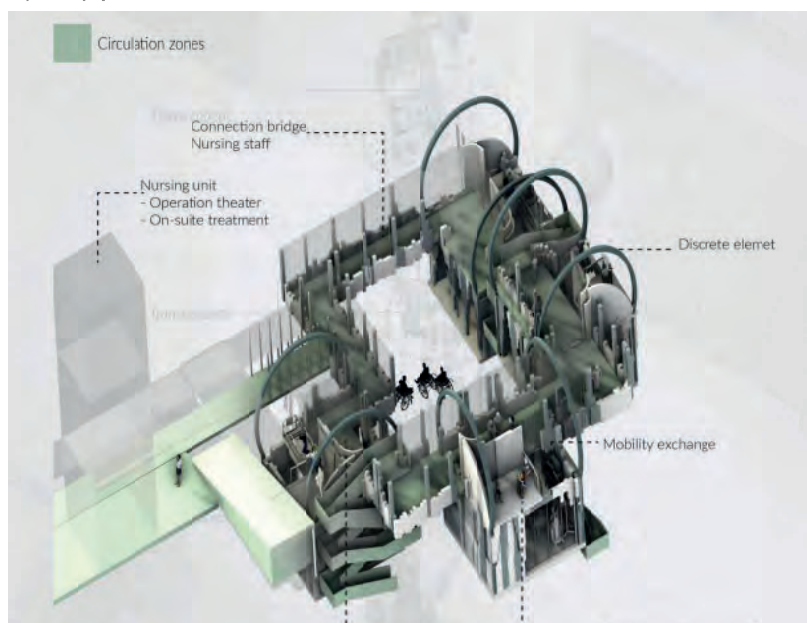
Discrete element completing the units within a cluster



Hospice care unit Connecting bridge from Care units center, Checkup on the patient



Concept proposal of mechanical connection extending to the Hospice bridge to aid mobility of the patient and connect with the Family stay platform



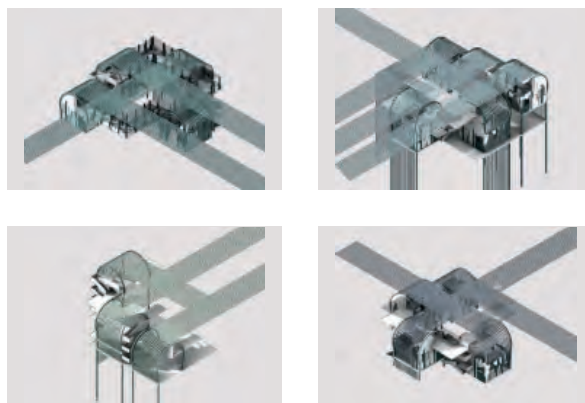
Connecting bridge between hospice care unit and Hospice unit



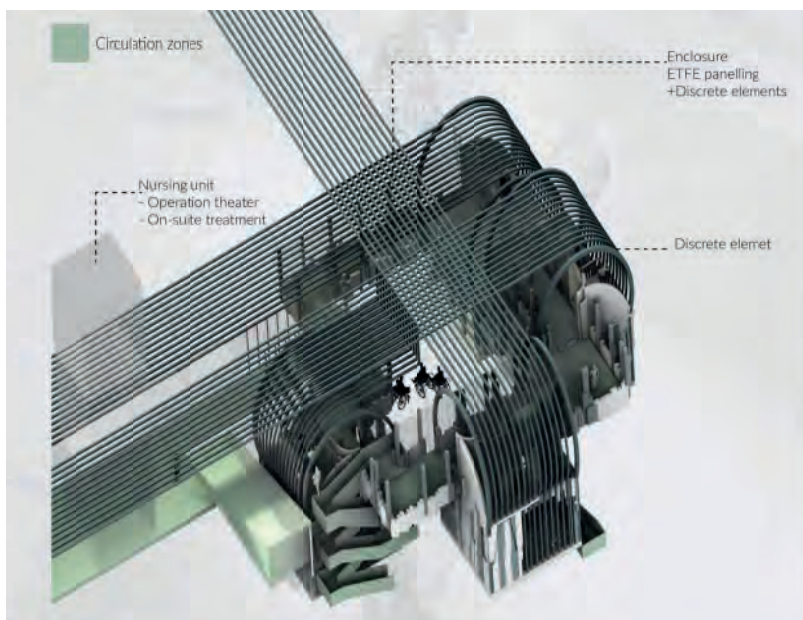
Vegetation at the Center of each cluster, allocated vegetative patches where patients water plants voluntarily

Narration by a real Hospice patients wishes in a study:

"Yes, that's quite nice. I have already done something that is quite nice, I am satisfied, I live with the flowers. I have done something, have a look, Carnations, I look after them. I water them and cut them"



Clusters



The last discrete element extending through the cluster and hosting vegetative patches on it.

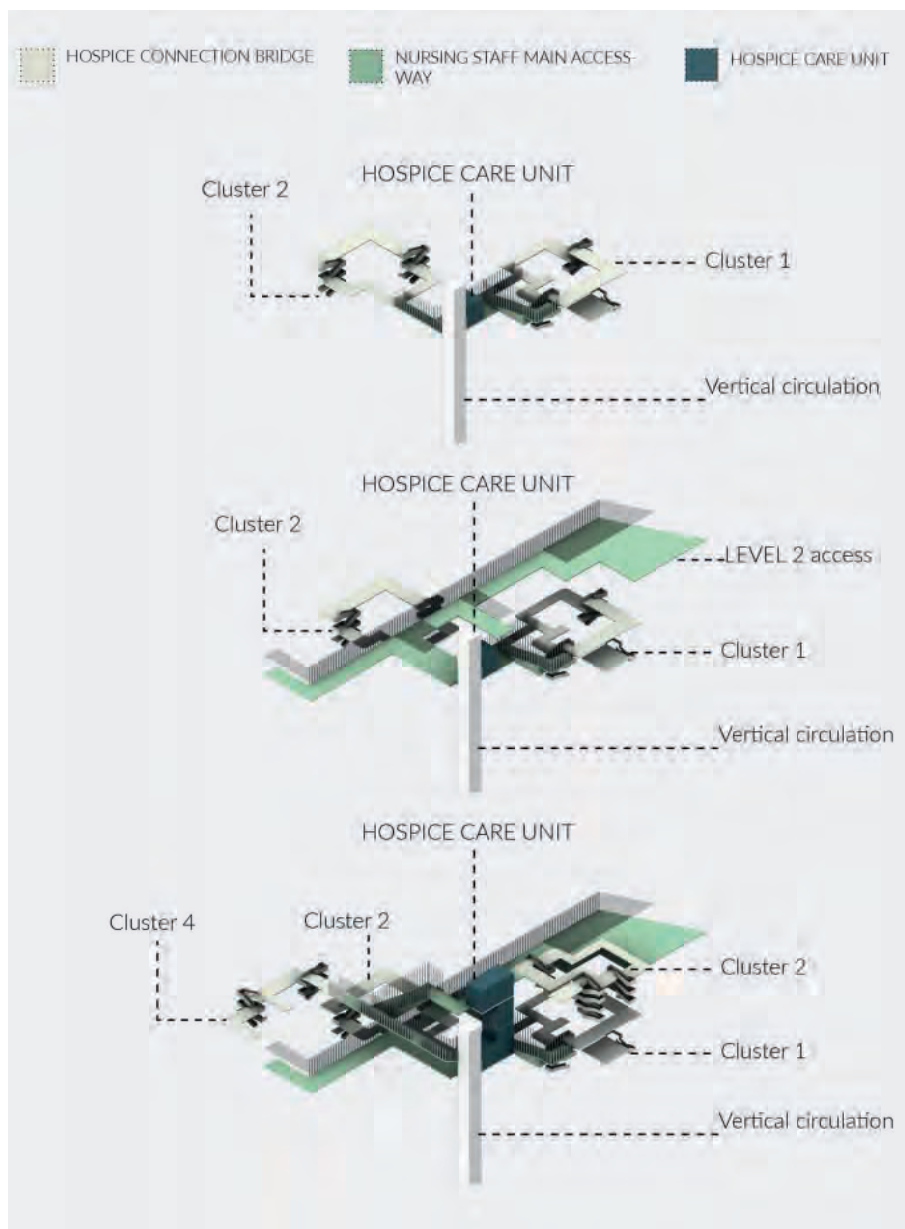


Mind palace, the project includes a zone in the Mutative function of the Hospice patient where they can share memories through. According to the research conducted this enables them to remember details and observe surroundings more improving their cognitive. the memory palace must be hyper real exaggerating the edges of normalcy in order to stand out in the mind connecting the dis



gh Virtual reality enabling them to relive moments,
gnitive abilities. In order for this technique to work
stinct mutative elements to the memories.

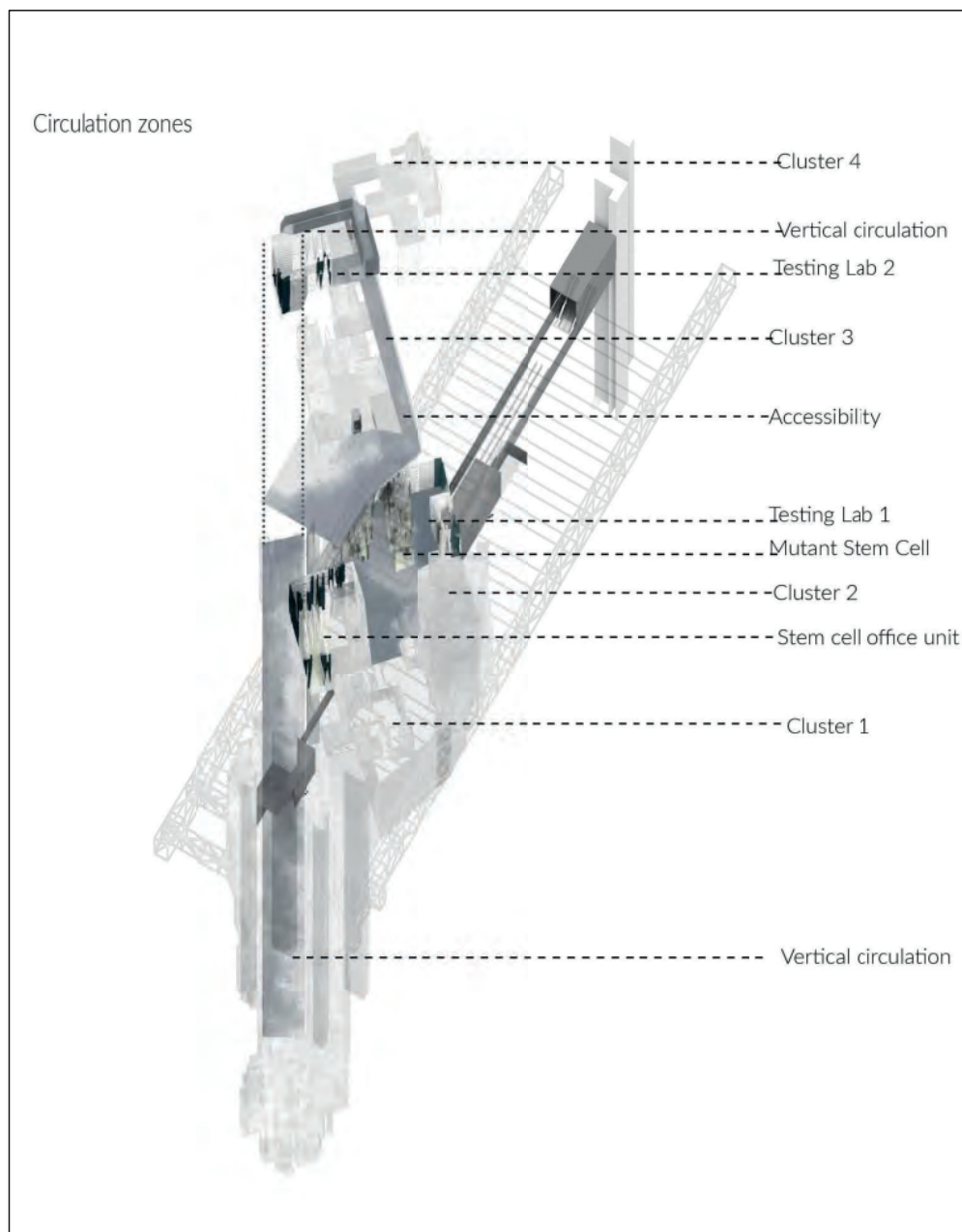




Hospice care unit centralized bridge connection ways to the clusters



The Stem Cell Unit Aggregated densely in sensitive zones, Connected through discrete means of connection



Exploded Axonometric Illustration showing the Accessways of the Stem cell User through the project