

*International Undergraduate Program in Architecture*  
Final Architecture Design Studio 2022

Design of

# SENSORY-BASED COMMUNITY CENTER FOR VICTIMS OF SEXUAL VIOLENCE IN YOGYAKARTA

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# VALIDATION SHEET

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Design of Sensory-Based Community Center for Victims of Sexual Violence in Yogyakarta

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# Statement of Authenticity

I, **Nadya Agyanata**, hereby certify that all parts of this work are upon my own work, except parts referred to references. Any ideas in the working process are fully coming from the author with the supervision of the supervisor.

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Yogyakarta, July 31st 2022

Author,



Nadya Agyanata



# Foreword

Praise and gratitude I pray for the presence of Allah SWT, as well as our prayers and greetings to our lord Prophet Muhammad SAW and his family and friends. because only by Their grace and grace, the author was able to complete the Final Architectural Design Studio entitled “Design of Sensory Based Community Center for Victims of Sexual Violence in Yogyakarta” as best and as possible.

In the preparation of this undergraduate final project, the author received a lot of help, input, guidance and support from various parties. On this occasion, the author would like to express his appreciation and gratitude to:

1. Allah SWT for all His mercy and grace, the process of writing this Bachelor’s Final Project was given ease and blessing.
2. Parents who provide support, prayers, and motivation.
3. Dr-Ing. Putu Ayu P. Agustiananda., ST., MA as the supervor in this Final Architectural Design Studio providing her precious time, insighful knowledge, criticism, and suggestions, and also patience so that the author was able to complete the Final Architectural Design Studio.
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For all the prayers, support, and assistance that has been given, hopefully get a reply from Allah SWT. The author is aware that this work has still been far from perfect. Therefore, all constructive criticism and suggestions for the perfection of this undergraduate final project are expected. Hopefully this final project can help increase knowledge and experience for readers and become a reference also learning materials.

Yogyakarta, July 31st 2022  
Author,

Nadya Agyanata

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# Diving into Violence

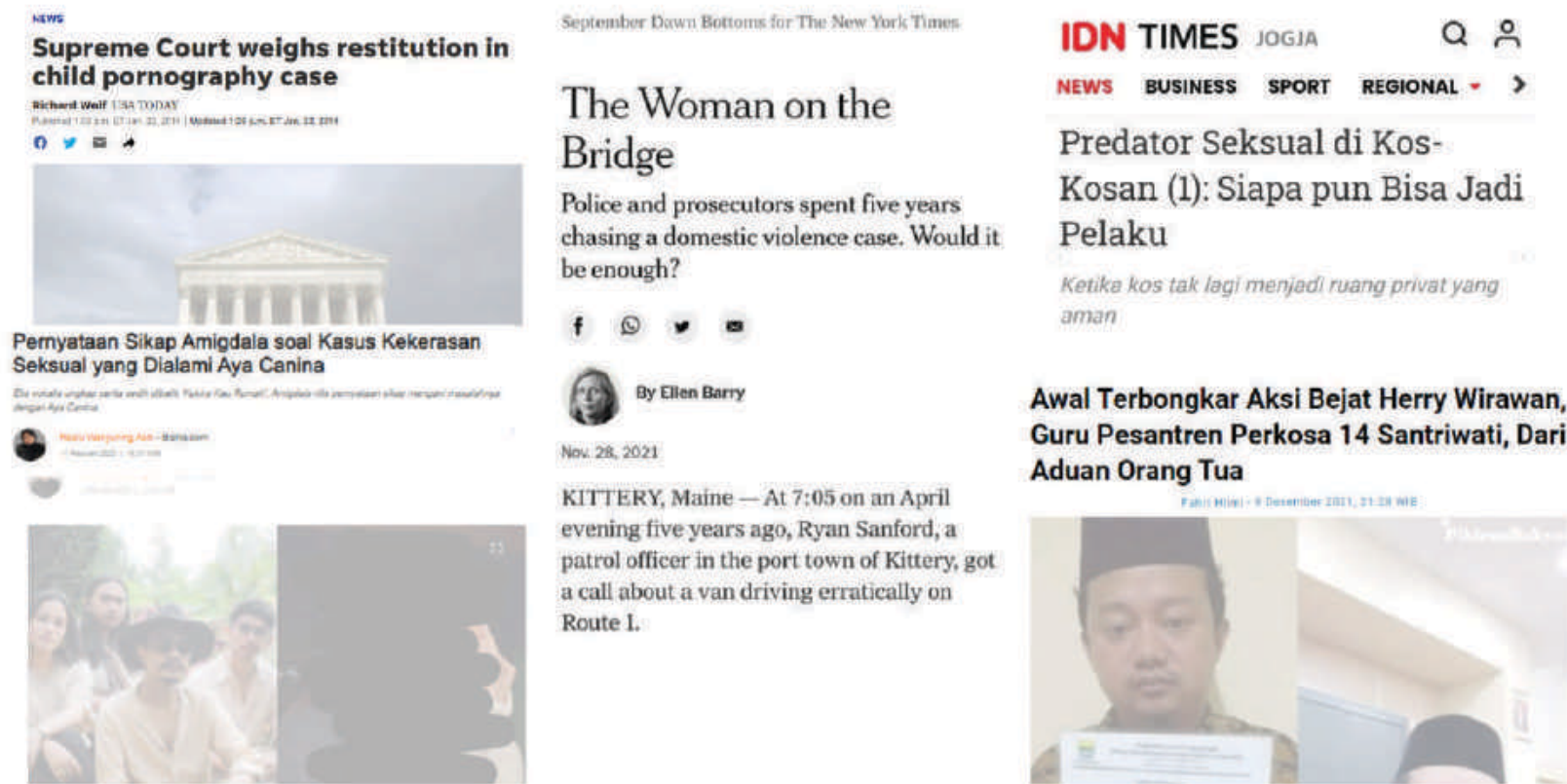


Figure 1. News Compilation in Relation to Sexual Violence  
Source : <https://jogja.idntimes.com/>; <https://www.pikiran-rakyat.com/>

## Background

Many cases of women being sexually harassed lead to the feeling of unsafety and traumatic. Moreover, not only are these type of crime possibly experienced by women but also children and men, basically anyone. The pictures above showing headlines related to sexual violence is just like a splash of water on a heavy rain. Taking one example when in the end of 2017, Federasi Buruh Lintas Pabrik (FBLP) made a documentary about various harassment that happened in garment production houses in Cakung, North Jakarta. The result showed that 56.5% from 773 women worker in 38 companies experienced sexual harassment in workplace with following types such as indifferent glance, body shamming, unpleasant comment, violent insult, physical aggression, and privacy invasion. To be remembered that this type of crime is mostly caused by the feeling of superiority among others and in the case of our society due to its patriarchal culture, women and girls are often playing roles as victims. Another intriguing part when talking about sexual violence, the perpetrator does not rarely come from convincing background (eg: activist, uztadz, a father) that people were deceived by the possibility of them doing such thing. Even when there is a clear evident that a man violates a woman for instance, it is not shocking at all when the one being blamed and gaslight is the woman. Indeed, It is just a proved that society are often tried to rule the way women live. Therefore, how are they supposed to feel safe?

The discipline of architecture is very dynamic. In the school of architecture, the way that spaces are perceived is by the analyzation of environment, human behavior in general and unspecific ways. But as the time grows, architecture needs to be adjusted with the condition where people start to give more attention towards human rights issues, environmental crisis, etc. If in the past there was no imagination of how the ideal workplace for women, what the type of park for low income people, it seems that now architecture has to discuss and develop the design based on specific context like the user classes and backgrounds. One of the topics that is not frequently discussed is how the space needs to be safe in a way women feel safe. There are many cases that women could not express their truest self when in public spaces because of the community that is not tolerant enough and many other reasons. It proves that indeed the space is not welcoming yet belongs to a specific class and certain background of people. The idea of making a safe space for women to feel validated, defending their rights and could explore and allow them to shine has been triggering this project. Making a community center that is perceived as safe space for women is one of the little steps to bring up this topic.

## How is sexual violence defined?

Any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work.

## What are the risk factors for sexual violence?

Research suggests that the various factors have an additive effect, so that the more factors present, the greater the possibility of being sexually violence. In addition, a particular factor may vary in importance according to the life stage.

## Factors increasing women's vulnerability

- being young
- consuming alcohol or drugs
- having previously been raped or sexually abused
- having many sexual partners
- becoming more educated and economically empowered, at least where sexual violence perpetrated by an intimate partner is concerned
- poverty

## Factors increasing men's risk of committing rape

- alcohol and drug consumption
- psychological factors; men raised in families with strongly patriarchal structures are also more likely to become violent, to rape and use sexual coercion against women, as well as to abuse their intimate partners, than men raised in homes that are more egalitarian

## Peer and family factors

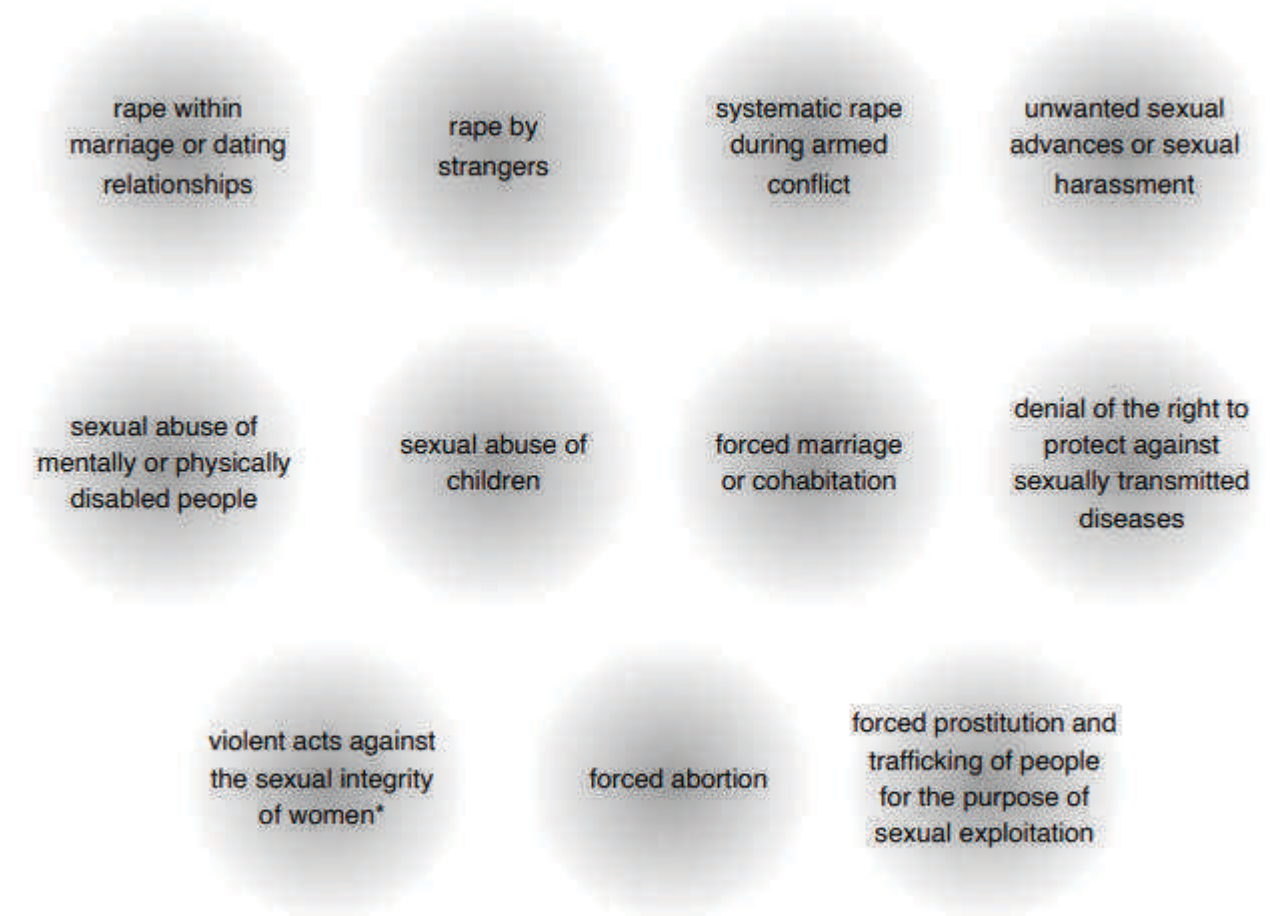
- gang rape; rape of a person by two or more perpetrators
- early childhood environments
- family honor and sexual purity

## Community and societal factors

- poverty
- physical and social environment
- laws and policies
- social norms
- global trends and economic factors

## Forms and Contexts of Sexual Violence

In various contexts and settings, a wide range of sexual violence can occur. World Health Organization (WHO) has summarized some that includes the following acts. However, the fluidity range of what categorized as sexual violence needs to be kept in mind.



\*including female genital mutilation and obligatory inspections for virginity



## Magnitude of Sexual Violence

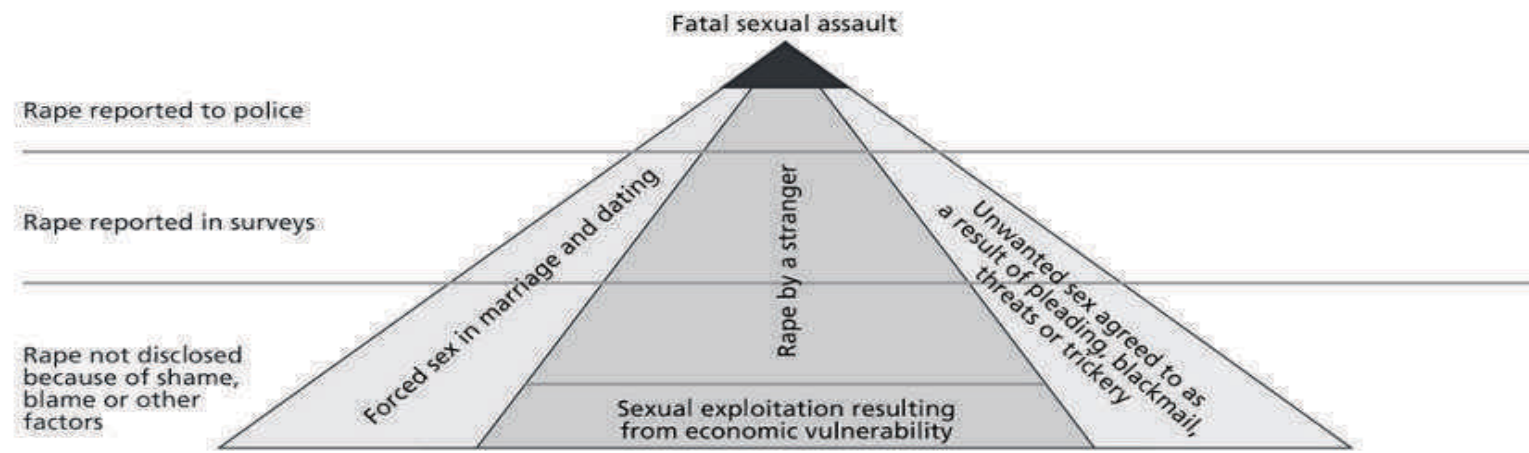


Figure 2. Diagram of Magnitude of Sexual Violence  
Source : World Health Organization

The reported cases of sexual violence could be pictured as a tip on top of an iceberg, that the unreported cases are on a bigger number. By the picture sourced from WHO, the unreported cases are caused by external pressures including blame and shame from others pointed mostly to the victims. Meanwhile, the reported cases to the police are used to the one with fatal level of assault.

Perpetrators of sexual violence could be anyone close enough with the victims since the forced sex in marriage and dating considered also as a violence. In this case, the patriarchal concept of one above the other is a triggering behavior for the perpetrators to justify their action. Economic vulnerability is also becoming a magnitude to be sexually violated due to the possibility of trickery, threats, etc causing unwanted sex.

## Preventing Sexual Violence

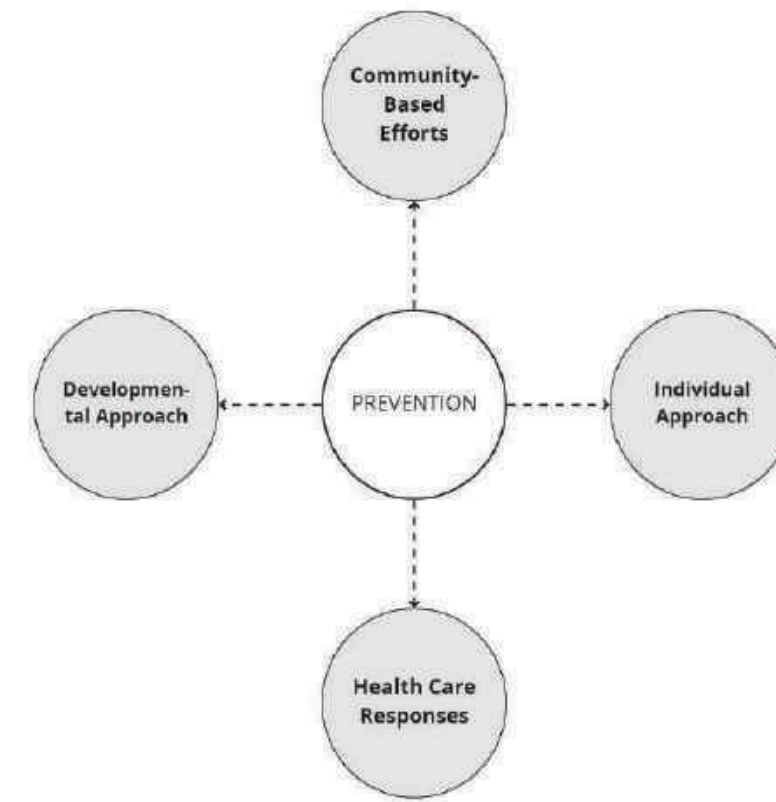
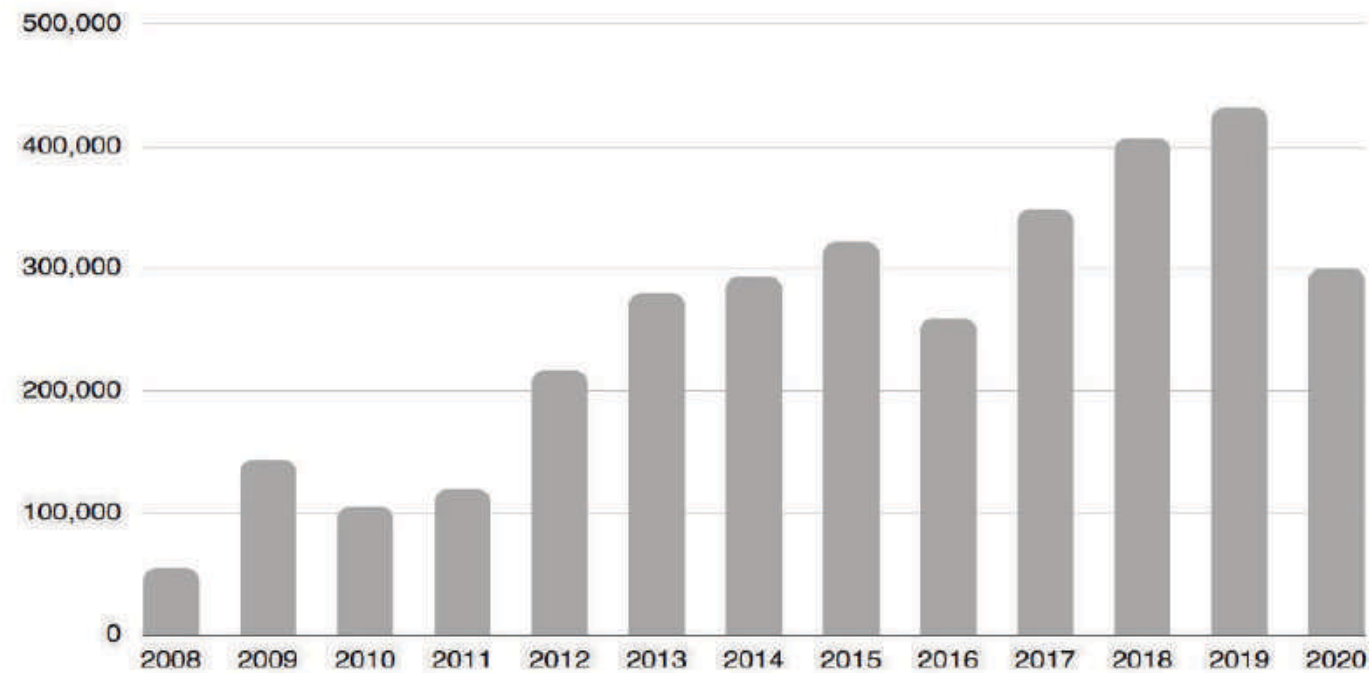


Figure 3. Diagram on How to Prevent Sexual Violence  
Source : World Health Organization

## How's Local Condition?

### National and Regional

As seen on the diagram, in 2020, the violence case was decreasing but it does not mean that the actual cases are also decreasing. There are several factors to point out related to the decreasing data collected; 1) Victims used to be closed with perpetrators due to covid 19 pandemic where people could not really go anywhere; 2) Tendencies to speak up to families that often ended up being shutted down or were not validated; 3) Lack of information accessibility; 4) Available services need to adjust with pandemic conditions. For instance due to pandemic Pengadilan Agama limits their services resulting decreased number on reported cases. Moreover, the number of quisioner distributed was rejected up to 100 percent. If only Pengadilan Agama opened their service normally, it would certainly be increased number instead of decreased number.

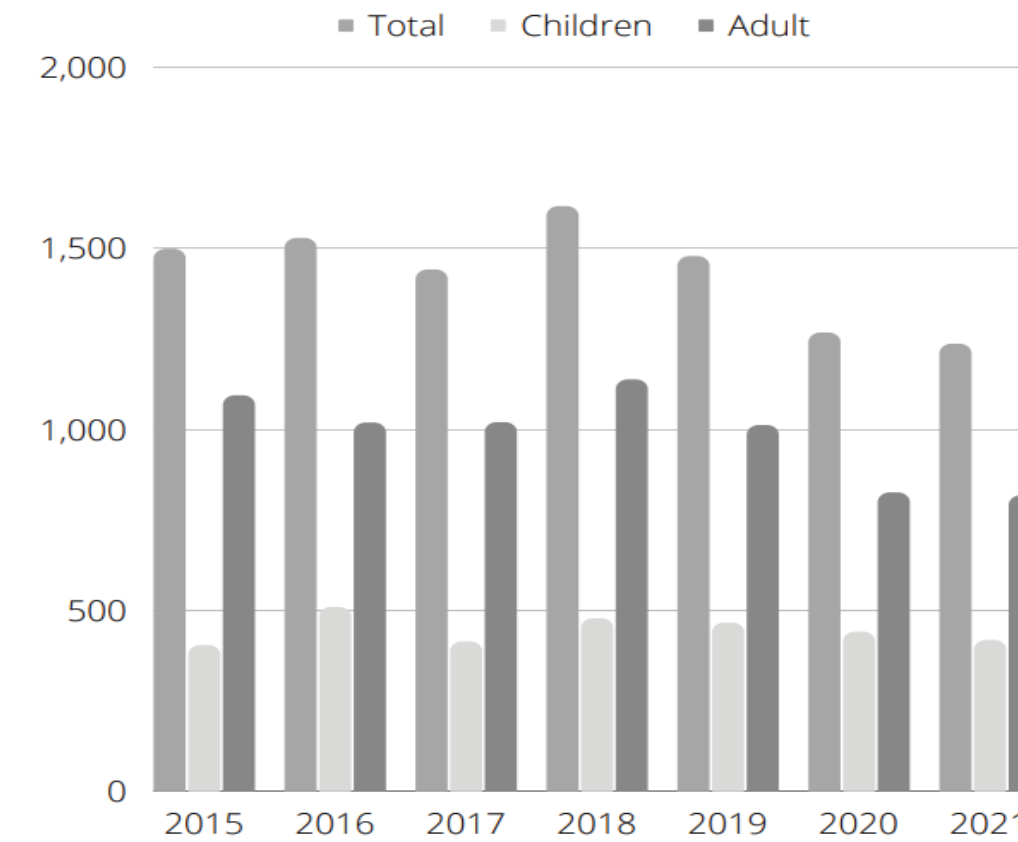


**Figure 4.** Diagram on Number of National Cases on Sexual Violence  
Source : Catatan Tahunan, PEREMPUAN DALAM HIMPITAN PANDEMI: LONJAKAN KEKERSAN SEKSUAL, KEKERASAN SIBER, PERKAWINAN ANAK, DAN KETER-

### Yogyakarta's Data

Based on the diagram below, the number of reported casses in Yogyakarta in 2021 monthly is around 60 cases. That number covers not only sexual violence but also domestic violence case.

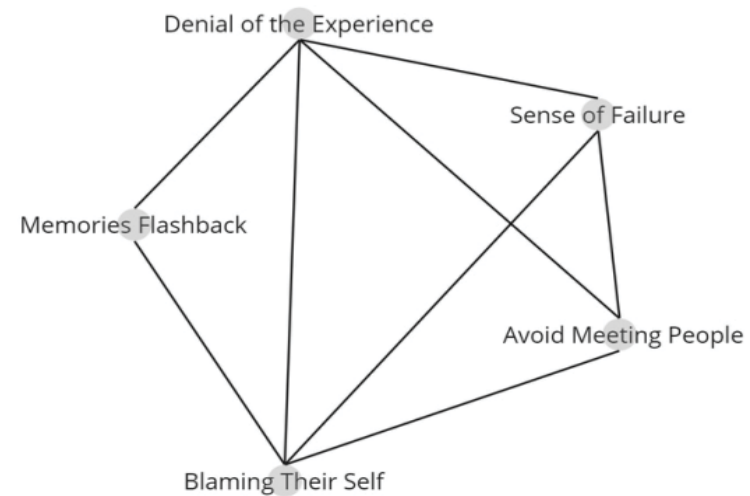
Meanwhile based on the interview with one of the stakeholder, Mrs. Antik from Rekso Dyah Utami mentioned, that in daily basis, there were days where there is no case reported but then there were also days where the number of victims came in a time was four until six in a day.



**Figure 5.** Diagram on Number of Yogyakarta Province Case  
Source : DP3AP2 DIY

## Reminiscing the Pain

About Trauma and Symptomp



A trauma could be divided into three types; acute trauma, chronic trauma, and complex trauma. It could be caused by an overwhelmingly negative event that causes a lasting impact on the victim's mental and emotional stability. After that negative event appeared, victims are used to having different reaction or coping mechanism. In the context of sexual violence there are including memories flashbacks, the urge to blame their self that trigger the negative event even though it is not at all their fault, avoiding people because of ashamed, sense of failure that their life is defined by only that negative event or that negative event defining their life, and denial experience that the victims them self do not want to believe what have happened.

## Healing

Must acknowledge the pain, when ignored it will come back and drag the symptoms back  
 Deepen the relationship with someone or connect with non-abusive allies, could be by writing or speaking  
 Do not be defensive to face the trauma but have some courage  
 Make a conscious decision to be well over times

## Stakeholders

Yogyakarta

Rekso Dyah Utami is one of the stakeholders in Yogyakarta that directly facilitate the victims. They offers services in collaboration with other supporting service such as temporary shelter, vocational school, hospital, etc.



Figure 6. Logo of Dinas Pemberdayaan Perempuan Perlindungan Anak dan Pengendalian Penduduk Yogyakarta  
 Source : <https://www.dp3ap2.jogjaprov.go.id/>



Rekso Dyah Utami

Figure 7. Logo of Pusat Pelayanan Terpadu Perempuan dan Anak Korban Kekerasan "Rekso Dyah Utami"  
 Source : <https://www.rdu.or.id/>



Figure 8. Logo of Dinas Pemberdayaan Perempuan Perlindungan Anak dan Pengendalian Penduduk Yogyakarta  
 Source : <https://www.dp3ap2.jogjaprov.go.id/>

## Criteria of Victims

- Women of sexually harassed victim
- Girls and boys victim of sexually violence
- Men of sexually violence victim, consultation only
- Victims (women and children) with domicile in Yogyakarta province
- For victims outside Yogyakarta province that report to P2TPAKK "Rekso Dyah Utami", they would be referred to local organization that can support them

## Type of Services

- Psychological Consultation
- Marriage Consultation
- Social Consultation
- Medical Consultation
- Legal Consultation

## Service Procedures

- Consultation is given to anyone within Yogyakarta province that seek and need legal advice for any kind of cases.
- For free services have to show KMS (Kartu Menuju Sejahtera) or letter from authorized RT/RW stating deserve to get free service. Normal administration would be at Rp. 100.000,00 and applied for two months.
- Willing to cooperate for any future summon.



## Case Study

The (supposed to be) Unrepeated Tragedy

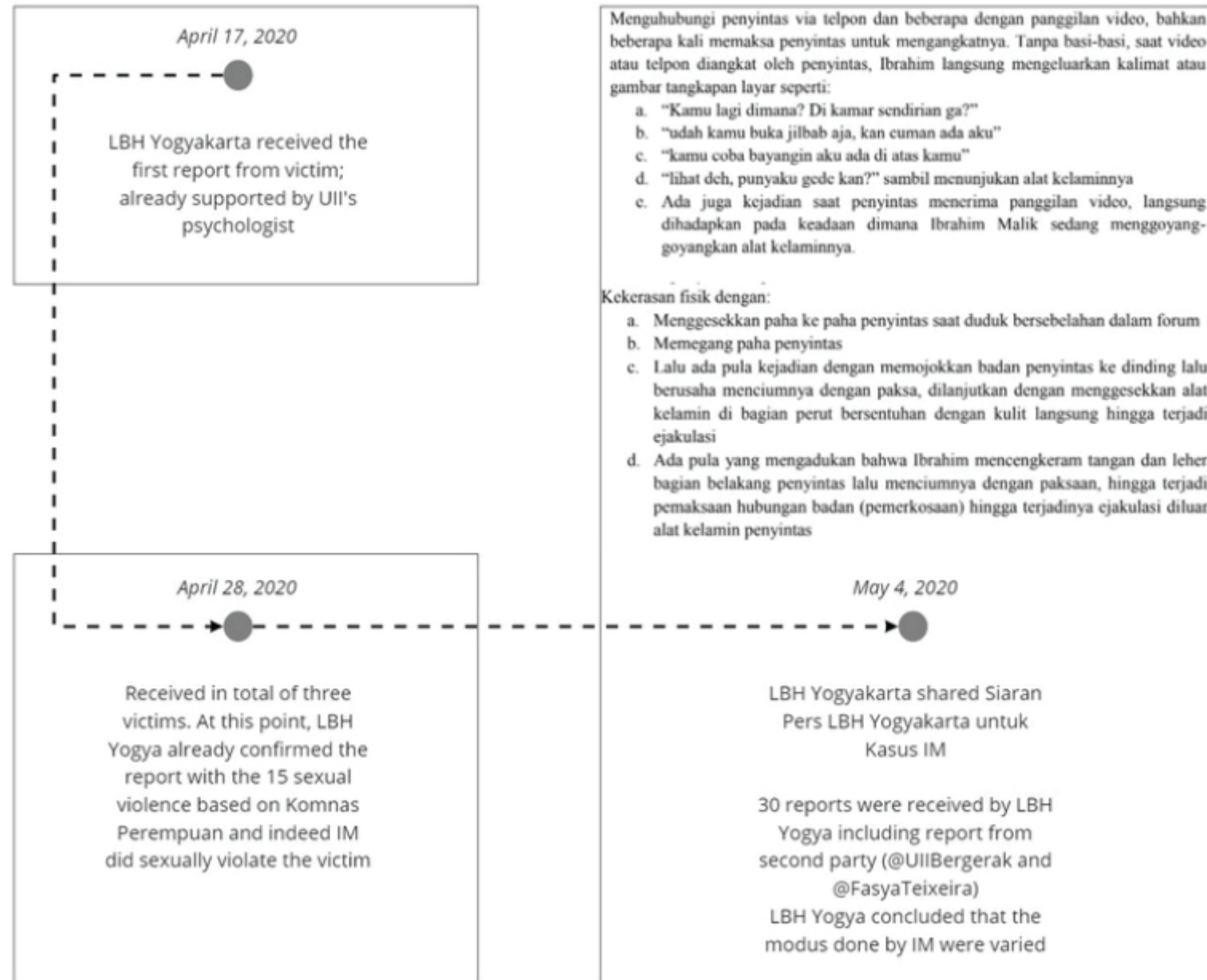


Figure 9. Flow Diagram of Selected Case Study

Source : author summarized from <https://lbhyogyakarta.org/2020/05/04/update-penanganankasus-kekerasan-seksual-yang-dilakukan-oleh-ibrahim-malik/>

## Lesson Learned from Case Study

What I learned from the case is that the perpetrator is used to having superior complexity making the victims being resistant to open up. And even in this case, to be able for the first report to be submitted on LBH jogja, it needs months, It means that there is still huge time gap in dealing with this type of case where victims tend to suffer alone.

Other tendency that were done by the victims is trying to forget the tragedy (being denial) whereas that kind of coping mechanism is not solve the trauma rather it will make it keep coming back.

## Healing


Must acknowledge the pain, when ignored it will come back and drag the symptoms back

Deepen the relationship with someone or connect with non-abusive allies, could be by writing or speaking

Do not be defensive to face the trauma but have some courage

Make a conscious decision to be well over times

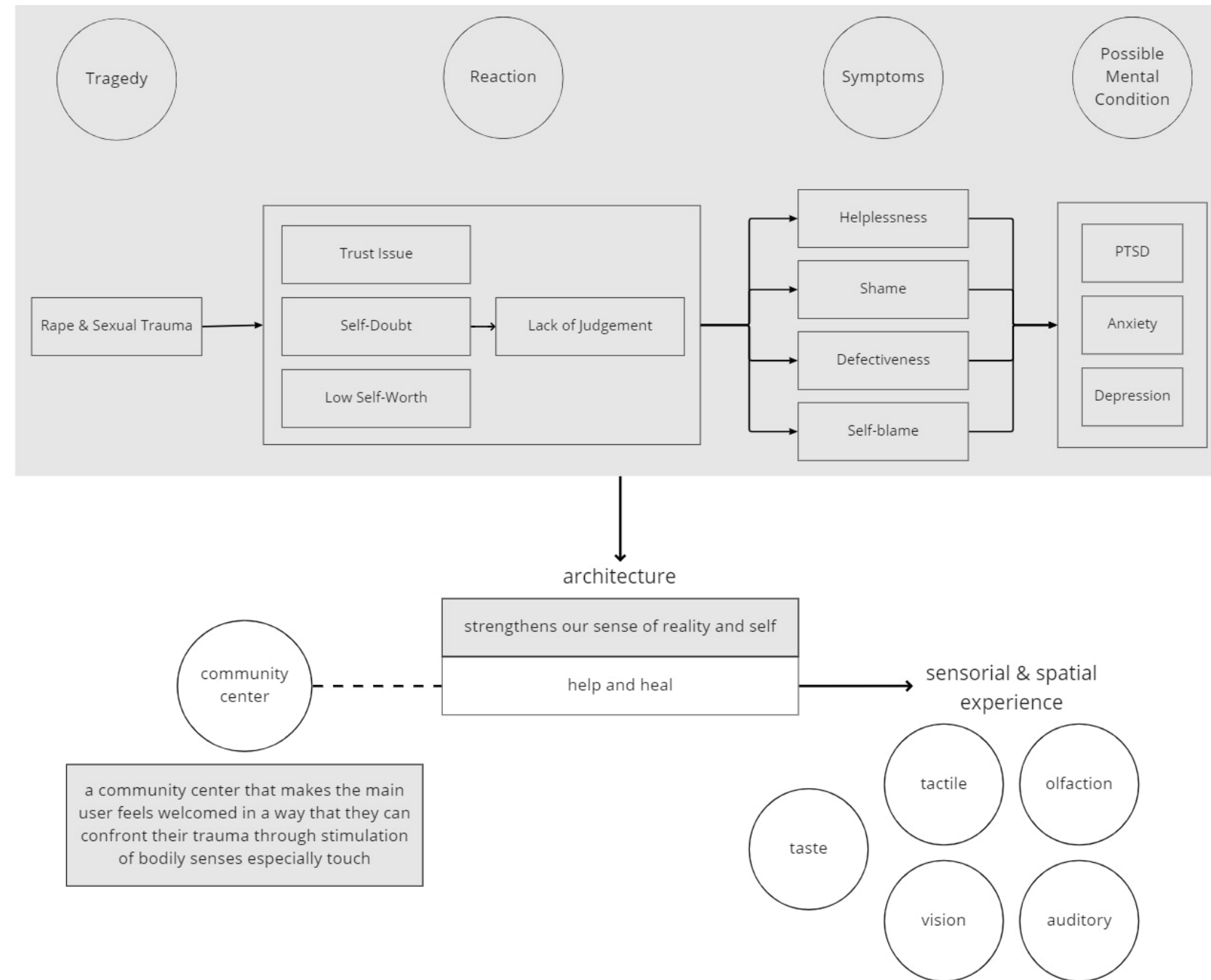




Problem  
Exploration



## Thinking Framework



## Problem Thinking

### ISSUES

Untreated trauma causing horrible effect for victims of sexual violence

Uncertain parameter for architecture quality that defined as safe space particularly for women

### CONTEXTUAL ISSUES

Safety environment is needed especially in Yogyakarta as the city welcoming students from all over Indonesia to study

Current available facility in Yogyakarta is located at a building that was not intended for its function (lack of architectural quality)

### ANALYSIS

A healing process could be enhanced by appealing bodily senses through architecture

### HYPOTHESE

Designing a one-stop-service community center by integrating sensory approach to help healing process of the victims of sexual violence through spatial exploration



## Problem Mapping

### Non- Architectural Issue

- Untreated trauma becoming a common source of depression
- An alarming number of sexual violence victims
- Yogyakarta as city with lots of students is still lacks of safe space proven by many unfinished reported cases hapenned

### Non- Architectural Issue

- Uncertain parameter of physical safe space for women
- Quality of healing facilities in Yogyakarta

### General Problem

1. How does a space make the user to feel safe and welcomed?
2. How to answer the architectural quality as a safe space for victim of sexual violence in Yogyakarta?

### Specific Problem

1. How to design healing facility for victims of sexual violence through sensory approach in Yogyakarta?

## Problem Formulation

### General Problem

1. How does a space make the user to feel safe and welcomed?
2. How to answer the architectural quality as a safe space for victim of sexual violence in Yogyakarta?

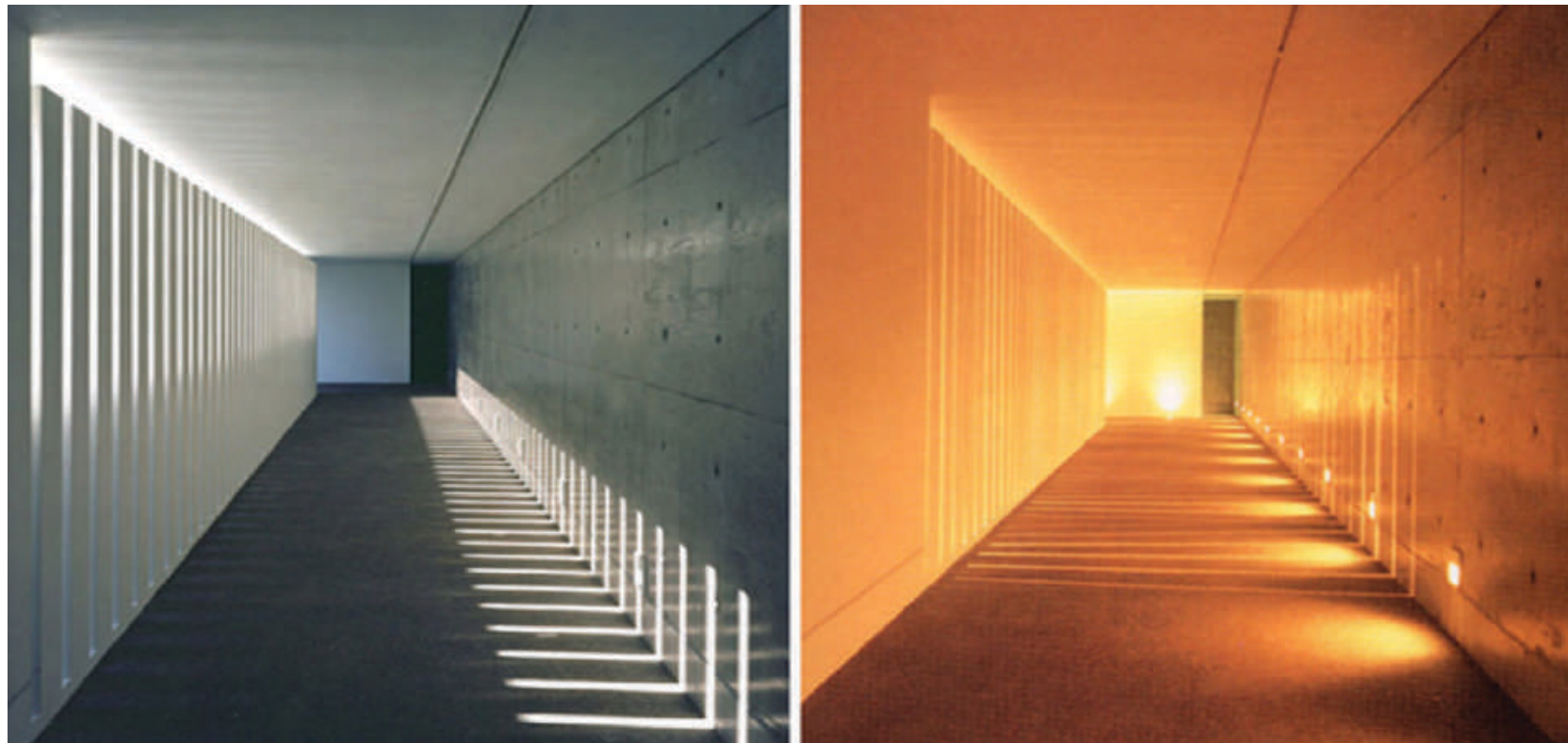
### Specific Problem

1. How to design healing facility for victims of sexual violence through sensory approach in Yogyakarta?

### Design Goals

1. Designing a community center that could help healing process of the victims through spatial exploration
3. Creating spaces that become a safe space especially for victims of violence

# Sensorial & Spatial Experience

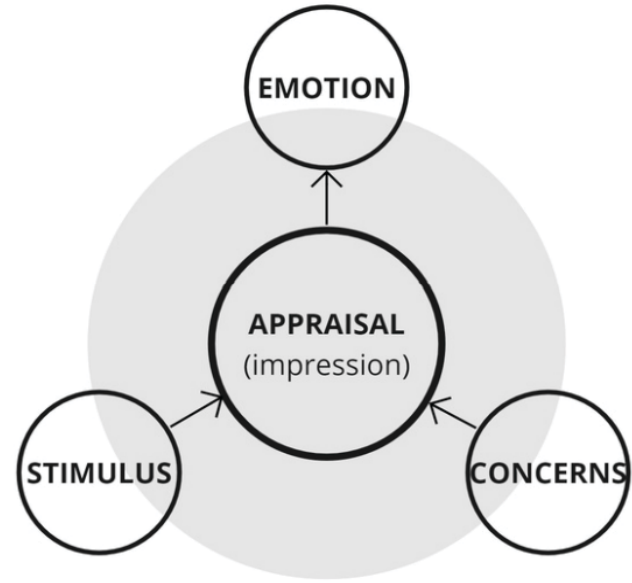


**Figure 10.** Example of Provision of Daylight Insight a Room - Phenomenological Architecture  
Source : <http://digicult.it/news/the-message-of-architectures-phenomenological-medium/>

**Juhani Pallasmaa**  
The Eyes of the Skin

[The skin] is the oldest and the most sensitive of our organs, our first medium of communication, and our most efficient protector [...] Even the transparent cornea of the eye is overlain by a layer of modified skin [...] Touch is the parent of our eyes, ears, nose, and mouth. It is the sense which became differentiated into the others, a fact that seems to be recognized in the age-old evaluation of touch as 'the mother of the senses'.

The Model of Emotion



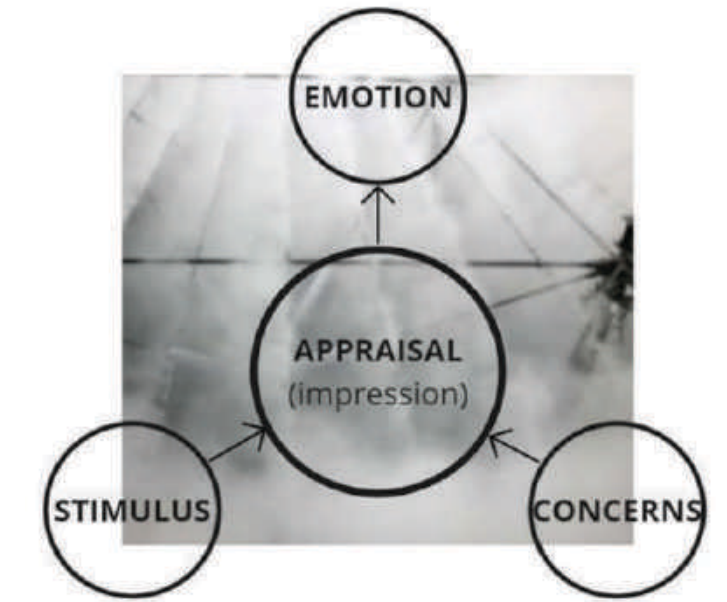
Source : Author

Architecture as a built environment (stimulus) triggers emotion when it is perceived as either inspiring or indifferent. The range of qualities to be examined in a built environment includes; sense, form, mass, void, movement, expression of form, material, tension and pressure, scale and proportion, rhythm, light, color, associations and conceptions.



Figure 11. The Blur Building - Swiss Expo in 2002  
Source : <https://dsrny.com/project/blur-building>

The Model of Emotion



Source : Author

White noise form water nozzles  
Depthless  
Scaleless  
Dampness on skin

Need to explore  
Uncertain orientation  
Blurred visual  
Dramatic situation



## Phenomenology Architecture

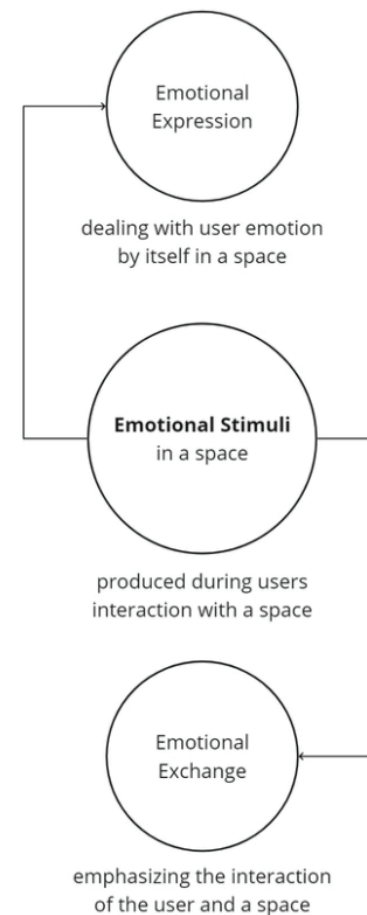
Phenomenology demonstrated in architecture is the manipulation of space, material, and light and shadow to create a memorable encounter through an impact on the human senses. Architecture is perceived as an atmosphere that resembles certain feelings lasting different impression to each persons.



Figure 12. Light & Shadow from Notable Projects  
Source : <https://id.pinterest.com/>

## Emotion Stimuli

During the architectural experience when there is interaction between imagination, body and environment, only then will one have memories of every place one has visited. The existential experience will be strengthened when there is multisensory experience of the architecture and all the senses experience equally the quality of the space.



It is inevitable that all senses are present in design - but these are not necessarily consciously designed for. It is imperative to realize that architecture is not merely the science of designing buildings but involves using all of the senses in a particular built space and leaves a lasting impression in the user's mind.

A space that is appealing to senses rather than only focus on one could enhance architectural experience and quality of that space.

## Multi-Sensory Design

Structurally in our history, sight tends to be specialized among the other. The fact that it is correlated with light and bearing roles as determining the truth. Moreover, the digitalized era has worsely driven these imbalance role including when coming to the design process which Pallasma called a retinal journey, flattening our magnificent, multi-sensory, simultaneous and synchronic capacities of imagination by turning the design process into passive visual manipulation. From those kind of design process, it produces the type of architecture that makes us outsiders.

When we see a tree, we does not then tell that it is nature. To practice architecture is to make, experience, and understand so that it contribute more of a peripheral vision rather than only focused vision. A peripheral vision integrates us with space, while focused vision pushes us out of the space.

Among other senses, the one that close to space is touch. With touch, it is impossible to think of a nihilistic sense, since touch carries unavoidable nearness, intimacy, and veracity.

A multi-sensory design could be define as a combination of a minimum of two different sensory modalities in a sequence. For example, touching an object involves haptic and visual modalities. Multisensory processes can be multimodal if they include an active motor input, such as turning head or moving hands (Oviatt, 2017). Using multi-sensory design enhances the possibility of stimulating perception and creating stronger space experience compared to only applying unimodal sensation.

Architecture as a built environment (stimulus) triggers emotion when it is perceived as either inspiring or indifferent. The range of qualities to be examined in a built environment includes; sense, form, mass, void, movement, expression of form, material, tension and pressure, scale and proportion, rhythm, light, color, associations and conceptions.



Figure 13. Yearning touch as sense  
Source : Instagram @zhonglin\_



## Haptic Space and Far Space

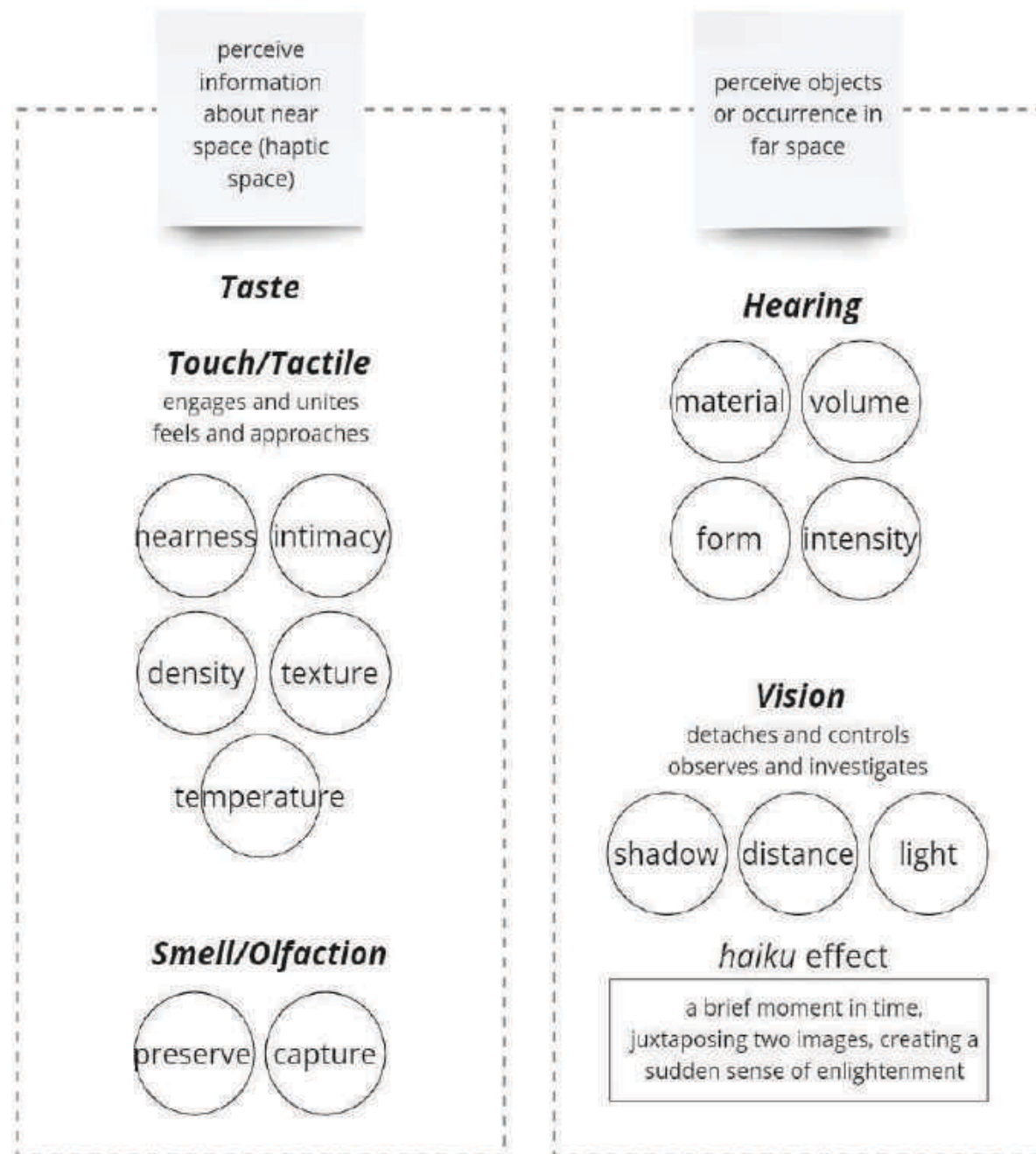


Figure 14. Haptic Space and Far Space  
Source : Author

## Visual & Auditory Experience

Taste and smell have an essential role in our everyday life to judge whether food, an object, a person, or space is safe and clean. On top of sensorial elements, the product experience must also take into account situational, cognitive, social, and cultural factors before the decision of goodness, pleasantness, and desirability can be done (Cardello & Wise, 2008). It is essential to understand that associations with smells are hypersensitive and because of that, the variation related to olfactory experience may have more variety in individuals and different cultural groups than any other attribute. It is practically impossible to design a pleasant odor for everyone.

Although odors can evoke a different kind of reactions, they have been used widely, especially in strengthening the product and brand identity. Integrating odors in a space could enhance the feels of safety and comfort in a general way possible.

Figure 15. A Building Captures Its Surrounding  
Source : <https://id.pinterest.com/>



Figure 16. A Space Appeals Visual Sensory  
Source : <https://id.pinterest.com/>





## Olfaction & Taste Experience

Humans use sounds often unconsciously (Egmond, 2008) but they are sensory messages in everyday life since they include an enormous amount of information, both practical and physical. In the realm of design, sounds should be focused on its totality so that it could draw attention towards more comprehensive qualitative perception, which might be different from its separate parts. Moreover, designer should follow the same principle and think incoming signals rather as a totality instead of separate signals.

The visual system operates mostly with the contrast of values such as luminance and color instead of absolute values (Nefs, 2008). As an example, if a product needs to draw attention, its contrast should be increased in relation to the environment. For that reason, things should be designed as a whole while considering the final environment. Visual information also includes hedonic qualities, but the competition among different visual information is often really high in the environment.



Figure 17. Olfaction Experience I  
Source : <https://id.pinterest.com/>



Figure 18. Taste Experience  
Source : <https://id.pinterest.com/>

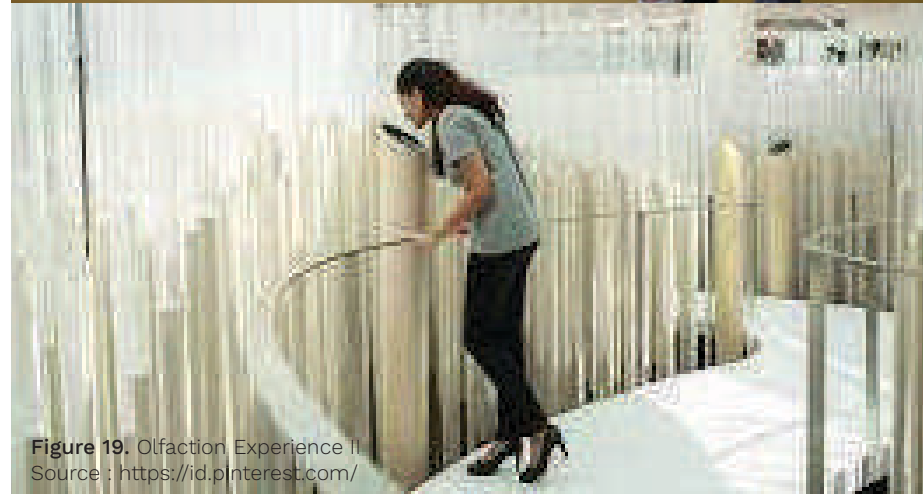


Figure 19. Olfaction Experience II  
Source : <https://id.pinterest.com/>



Figure 20. Tactile in Space I  
Source : <https://id.pinterest.com/>



Figure 21. Tactile in Space II  
Source : <https://id.pinterest.com/>



Figure 22. Tactile in Space III  
Source : <https://id.pinterest.com/>

## Tactile Experience

All senses are an extension of a tactile sense, and all sensory experiences are modes of touching and related to tactility in that way (Pallasmaa, 2005). Unlike any other senses, the haptic system helps the user to learn properties such as weight, temperature, humidity, texture, elasticity. Skin and muscle receptors can, for example, detect a brush of fur, breeze of wind, a droplet of cold water, bumps and vibration on the road, and even a subtle weight shifts of an object. Touching is not limited only to hand, but the whole body and touch makes one physically aware of oneself and the surrounding environment. Touch is also related to feelings of safety, affection, and intimacy.

Bargh and Shalev (2012) conducted a study, that social warmth can be affected by physical warmth; chronic loneliness was associated with sensitivity to take longer warm baths or showers. In another study, they studied physical coldness and how it affects the feeling of loneliness.

In a built environment, haptic experiences are not discussed much from the perspective of hedonic qualities. However, they are used in practice and, for instance, the change of material texture in the road is used to inform the car driver to slow down or get back on the lane. However, haptic qualities could also provide new ways to create more pleasurable experiences, or according to the study of Bargh and Halev (2012), even increase individual well-being.



## Typological Studies

### The Whole Building Design Guide by Smith and Watson

#### Key Design Factors

- 1) Reduce or eliminate stressor
- 2) Provide positive distracters
- 3) Give sense of control
- 4) Enable social support

#### Therapeutic Healthcare Environment :

- 1) Support clinical excellence in treatment of physical body
- 2) Support psycho-social and spiritual needs
- 3) Produce measurable positive effects on patience

### The Study on Behavioral Health Facilities by Shepley

#### Psychological Needs

- 1) Personal space and density
- 2) Control and choice
- 3) Sensory consideration
- 4) Spatial clarity and organization
- 5) Stress reduction
- 6) Comfort
- 7) Hominess

#### Shelter

- 1) Secluded place for safety
- 2) Residents can not go outside
- 3) Phones are not allowed
- 4) Residents feel at ease and comfort
- 5) There are accompaniment
- 6) Shelter just for emergencies but for further handling, there should be in hospital
- 7) For empowerment, it is networking with Dinas Sosial
- 8) Parking area is needed

#### Function Needs

- 1) Effective communication
- 2) Connection to the outside
- 3) Treatment and care
- 4) Safety
- 5) Maintenance

## Typological Studies

### (Tutty, 1999) Categories of Shelter Accommodation

- Emergency Shelter : short or medium accommodation having period of stay less than 90 days; services include provision of household and personal goods, counseling, referrals, individual advocacy, safety planning, and followups

- Transitional : long term stays; assistance upon transition from emergency shelter to permanent housingwith staying period within 90 days up to a year

- Third Stage Housing : permanent housing addressing those in needs (disabilities, substance abuse, mental illness); community-based resources: housing initiative, emotional and legal support

There are other form of shelter with more specific purposes such as safe homes or network with stay period one up to seven days, confidential private accommodation that often comes in apartment typology, emergency safe space that could be a hotel, hospital, faith based institution, and sanctuary scheme that incorporates security measures within the victims home by removing perpetrators and enabling victims to remain in their home.

- 1) A powerful sense of arrival, for instance by having a welcoming canopy that brings warmth to the facade
- 2) Robust security features that did not feel like institution
- 3) Balance between connection and privacy including sense of community and spatial means for privacy, for instance

in communal spaces such as kitchen, dining area, lounge, and children play, they have direct access to secure outdoor space and are able to create space to encourage peer support and break the isolation coming from abuse; instead of multiple beds or bunk beds causing vulnerable and distressed state, use single and double bedrooms with connecting door between selected rooms for multiple children case (room quality includes ensuring sound proofing between spaces and wall partition surround private domain); separating living area (dorms, kitchen, etc) from semipublic and public zones (privacy purposes); another point is that it is important to make sure there is autonomy to choose the level of engagement and interaction

4) Individual flexibility (\*to remind that the purpose of the shelter is to create new home); leave a room for personalization to help transition phase be more comfortable, reclaim sense of belonging by having ability to customize their environment, for instance giving control over lighting and temperature levels and movable furniture that can be arranged as wished “There is comfort that comes from having a place to call your own”

5) Physical and emotional security; try to redefine what kind of security that is relevant, create more of a passive security strategies, know the triggers that could make the residents feel at risk, encourage victims to feel empowered to find strength in moments of weakness and choose a path toward recovery

- instead of using physical barrier, create a warmth and straight forward space organization
- welcoming entrance
- predictable floorplan to reduce need of surveillance camera
- mechanical and electrical rooms can be accessed from outside to avoid stranger entering enclosed space
- placement of window not directly facing pedestrian
- high masonry wall on the backyard area
- lockable closet in bedroom

# Typological Studies

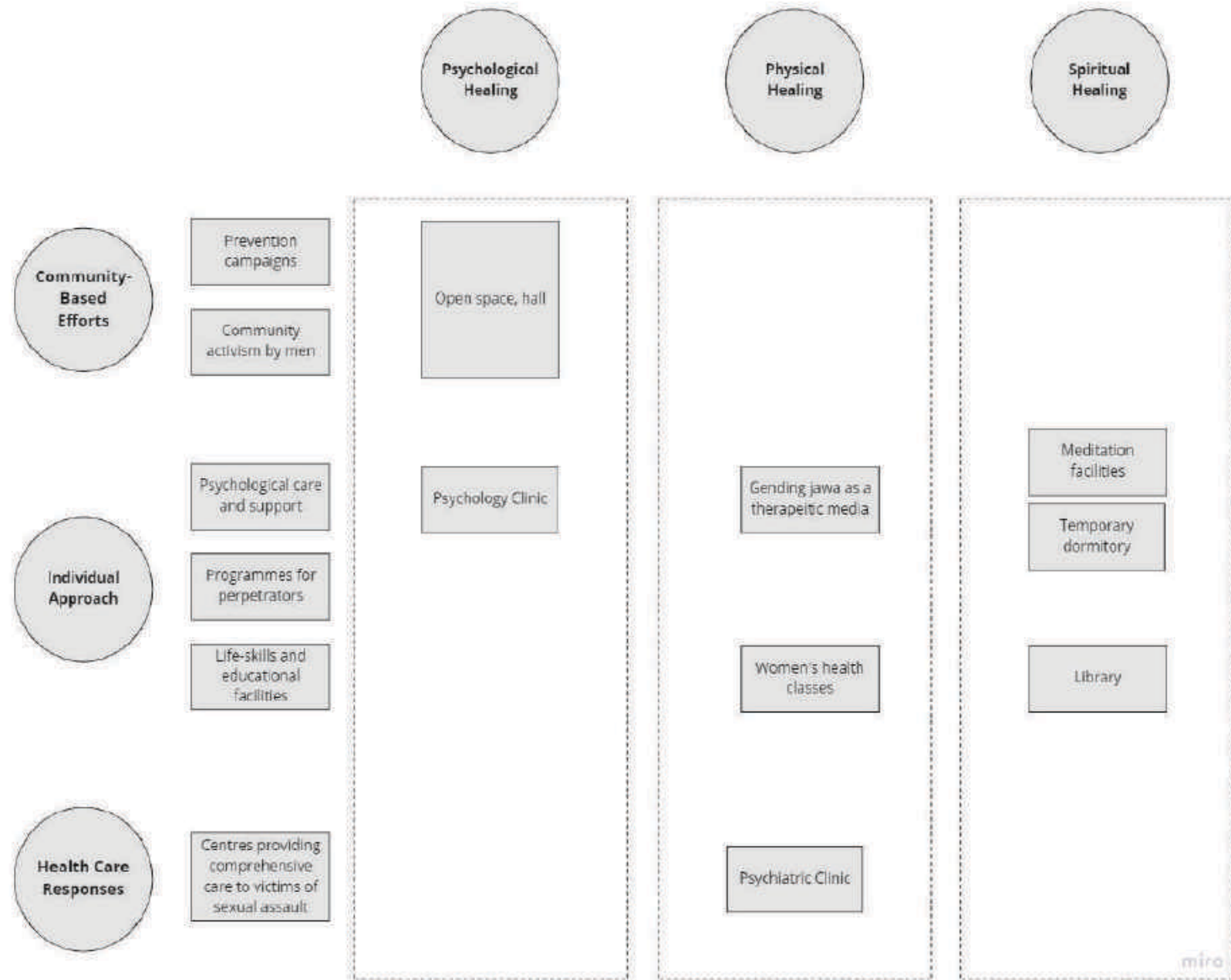


Figure 23. Design Guidelines Seeking I  
Source : Author

# Typological Studies

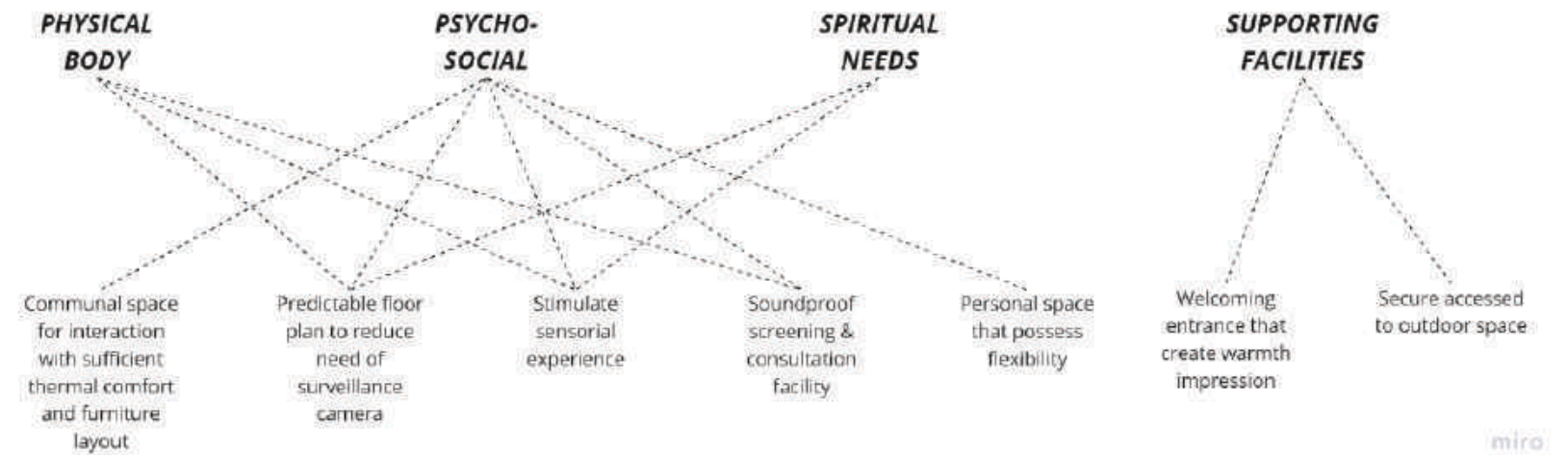


Figure 24. Design Guidelines Seeking II  
Source : Author

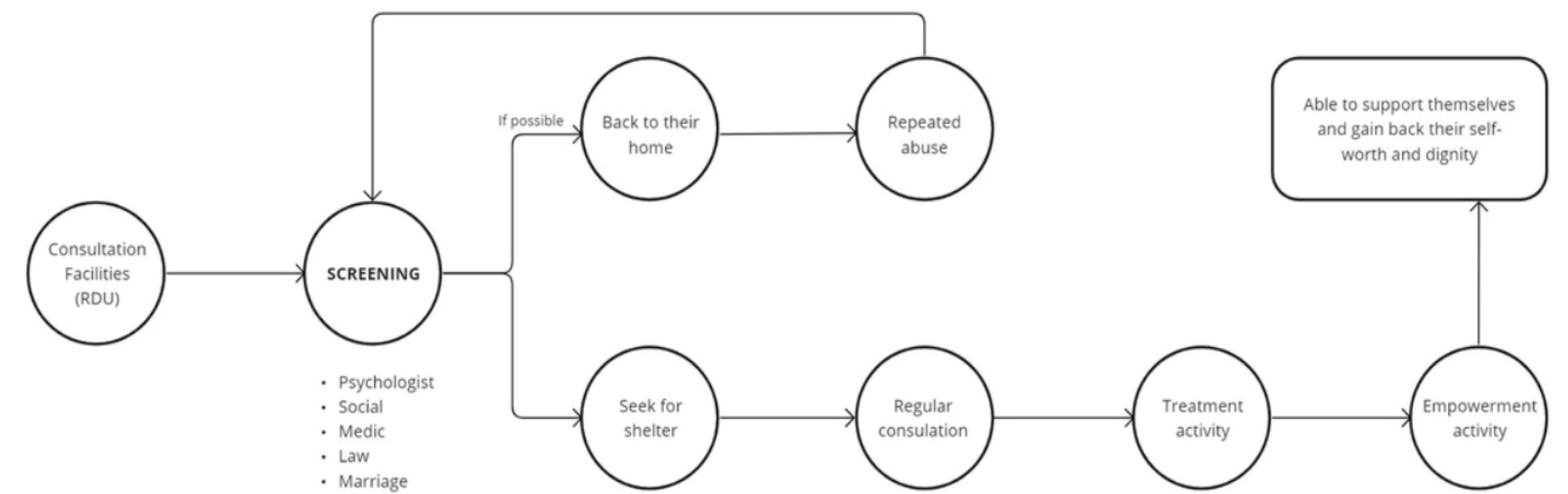



Figure 25. Activity Flow in Rekso Dyah Utami  
Source : Author





Previous Project  
Studies



## Serpentine Gallery Pavilion 2011

Peter Zumthor



Figure 26. Serpentine Gallery Pavilion 2011  
Source : <https://www.archdaily.com/>

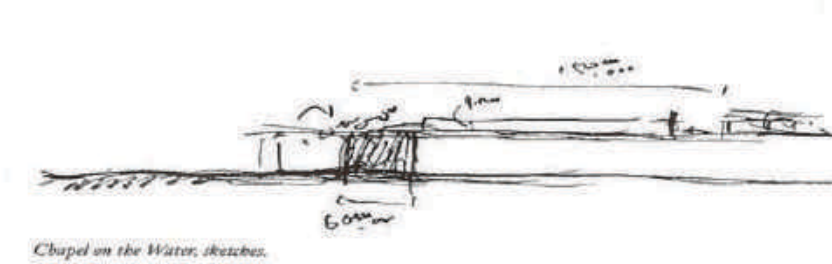
The hortus conclusus, a meditative space, a garden inside a garden, was the inspiration for the Pavilion. Visitors approached the building from the lawn and began the journey into the central garden, a place secluded from the world of London's noise, traffic, and odors - an indoor area within which to **relax, wander, and examine the flowers.**

The materials are important in supporting the design, which **emphasizes the importance of the senses and emotions** in the way to experience architecture. The design aims to allow its audience take the time to relax, to observe and then, perhaps, start to talk again.

Project Location  
**London, England**  
Completed Year  
**2011**

## Church on the Water

Tadao Ando Architect & Associates



Chapel on the Water, sketches.

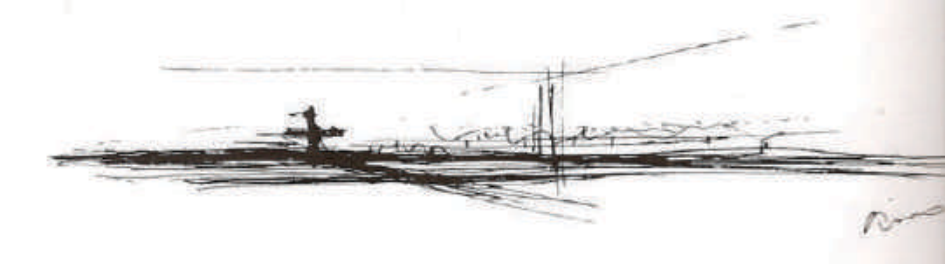


Figure 27. Church on The Water  
Source : <https://www.archdaily.com/>

Project Location  
**Tomamu, Shimukappu**  
Completed Year  
**1988**

Ando's objectives to create a holy place were realized through the ceremonial and tortuous approach route, as well as the L-shaped wall that separates the church as an isolated and protected location from the hotel behind it. The natural setting around the cathedral enhances the experience.





## The Holy Redeemer Church and Community Centre of Las Chumberas

Fernando Menis

Project Location  
TSAN CRISTOBAL DE LA LAGUNA, SPAIN  
Completed Year  
2021

### Lesson Learned :

- Concrete material is used to expressed several aspects including exterior, interior, structure, form, matter, and texture. For instance, there is a rough concrete that strikes a sharp contrast with the conventional residential context.
- Space organization integrated with skylights is aimed to achieve same effect on function, matrimony, and priesthood.

Figure 28. The Holly Redeemer Church and Community Centre of Las Chumberas  
Source : <https://www.archdaily.com/>

## Zunyi Memorial to the Body and Organ Donors

TJAD Atelier L+ Studio

Project Location  
TZUNYI, CHINA  
Completed Year  
2020

Zunyi Memorial to the Body and Organ Donors aims to provide a quiet public place to mourn and remember the donors of human organs (human body, corneal tissue, etc.) for their selfless spirit, and pay respect for their loving dedication. The new building is made as much as possible presenting a simple and low-key posture, maintaining a humble and open interaction with the local natural scene and the humanistic spirit of contemporary society. Architecture praises life: Those who volunteer their bodies or organs before the end of their lives must have an optimistic and brilliant life. The design is based on the concept of "Light/Enlightenment": the light of life, strong or weak, but spread out to illuminate a corner, beautiful and calm! (poetic, empty)

Figure 29. Zunyi Memorial to The Body and Organ Donors  
Source : <https://www.archdaily.com/>





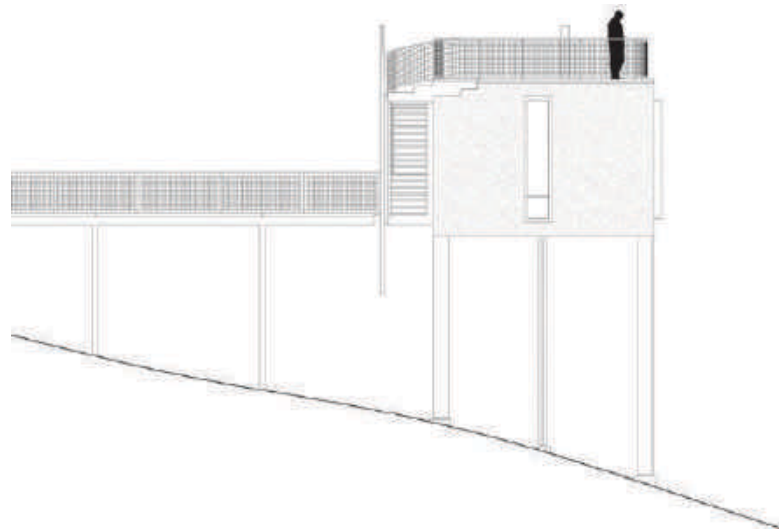
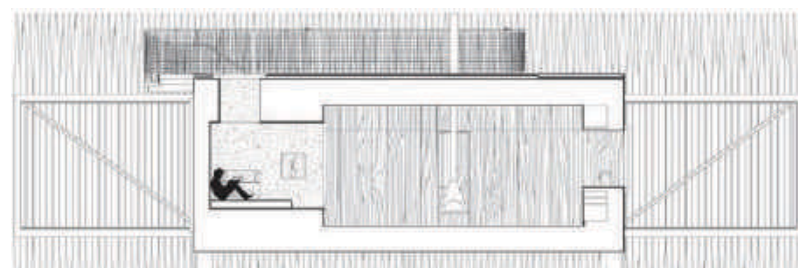


**Figure 30.** A Space of Contemplation and Sanctuary  
Source : <https://www.archdaily.com/>

**A Space of Contemplation and Sanctuary**  
WOJR

Project Location  
Ithaca, NY  
Completed Year  
2013-2018

- Lesson Learned :
- The way it exist not merely as a single building but instead an art that provokes inspiration seen by how it responds to the site
  - Unlike many other buildings, the space includes negative feelings such as grief as is its concept

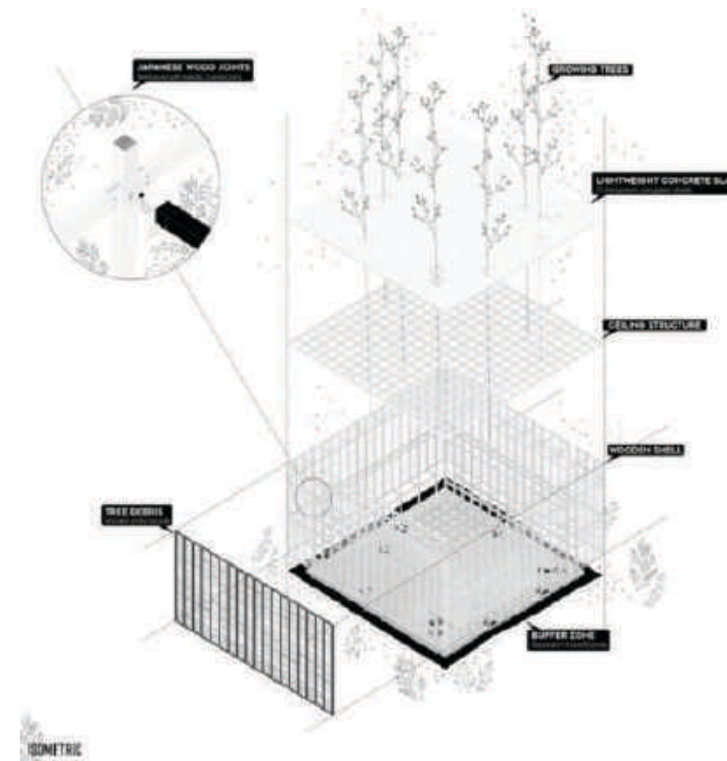


**Figure 31.** Zunyi Memorial to The Body and Organ Donors  
Source : <https://www.archdaily.com/>

**Architecture and Nature Come Together in Secluded Earth Chapel**  
JPAG Atelier (Jean-Paul Al Hachem)

Project Location  
Lebanon  
Completed Year  
2020

- Lesson Learned :
- With the concept of a retreat facility from the busy city life, the chapel embrace its site context by blending with the trees around and create unseperable being in nature experience inside the building
  - The goal is achieved through principles of simplicity and purity for instance the application of wooden facade







**Girl Move Academy**  
 ROOTSTUDIO + Paz Braga

Project Location  
 NAMPULA, MOZAMBIQUE  
 Completed Year  
 2019

An academy partner with local university. Beyond functionality, the building had to live up to the purpose of inspiring others, providing a new reference: innovation, sustainability and valuing local resources and knowledge.

- Use of locally resourced material
- Spatial organization to develop social interaction
- Enhance natural lighting
- Play with texture and shadow from bricks

Figure 32. Girl Move Academy  
 Source : <https://www.archdaily.com/>

**Haven Domestic Violence Shelter**  
 MAS Design Group

Project Location  
 Bozeman, Montana, USA  
 Completed Year  
 2019

Lesson learned :  
 - Mix use function, not only expanding education for the survivor but also helping to destigmatize the survivors experience  
 - Several function provided including playgrounds, psychiatry clinic, and private family suites or dormitory



Figure 33. Haven Domestic Violence Shelter  
 Source : <https://massdesigngroup.org/work/design/haven-domestic-violence-shelter>





## Shelter For Victims Of Domestic Violence

Amos Goldreich Architecture + Jacobs Yaniv Architects

Project Location  
 TEL AVIV-YAFO, ISRAEL  
 Completed Year  
 2018

Lesson learned :

- Spatial arrangement is created based on the safety issue like dormitory area is tilted
- Communal space is provided in the middle of the building so that it could be accessible
- Zoning of private and public realm in relation to its circulation



Figure 34. Shelter for Victims of Domestic Violence  
 Source : <https://www.archdaily.com/>



## Shelter for Women Victims of Violence ORIGIN 19°41' 53" N

Project Location  
ORIGIN 19°41' 53" N  
Completed Year  
2017

An academy partner with local university. Beyond functionality, the building had to live up to the purpose of inspiring others, providing a new reference: innovation, sustainability and valuing local resources and knowledge.

- Use of locally resourced material
- Spatial organization to develop social interaction
- Enhance natural lighting
- Play with texture and shadow from bricks

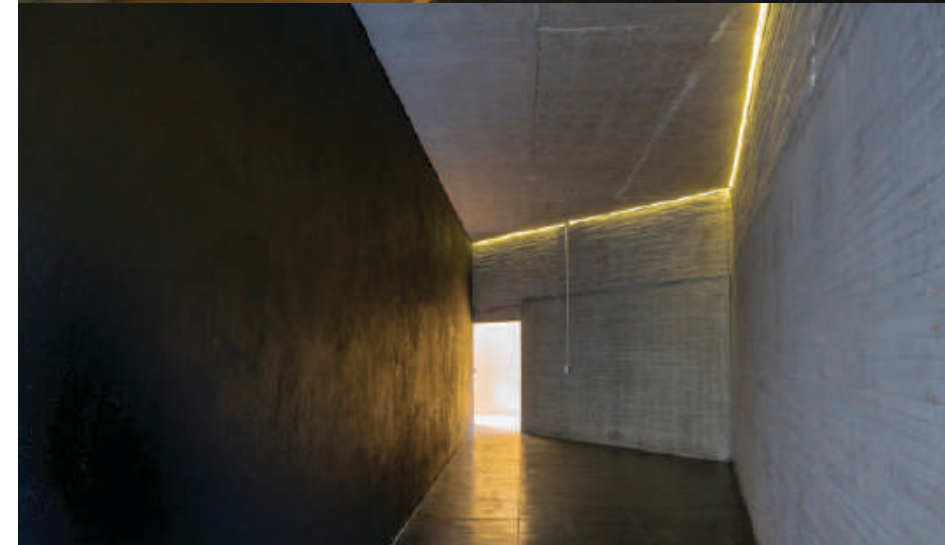
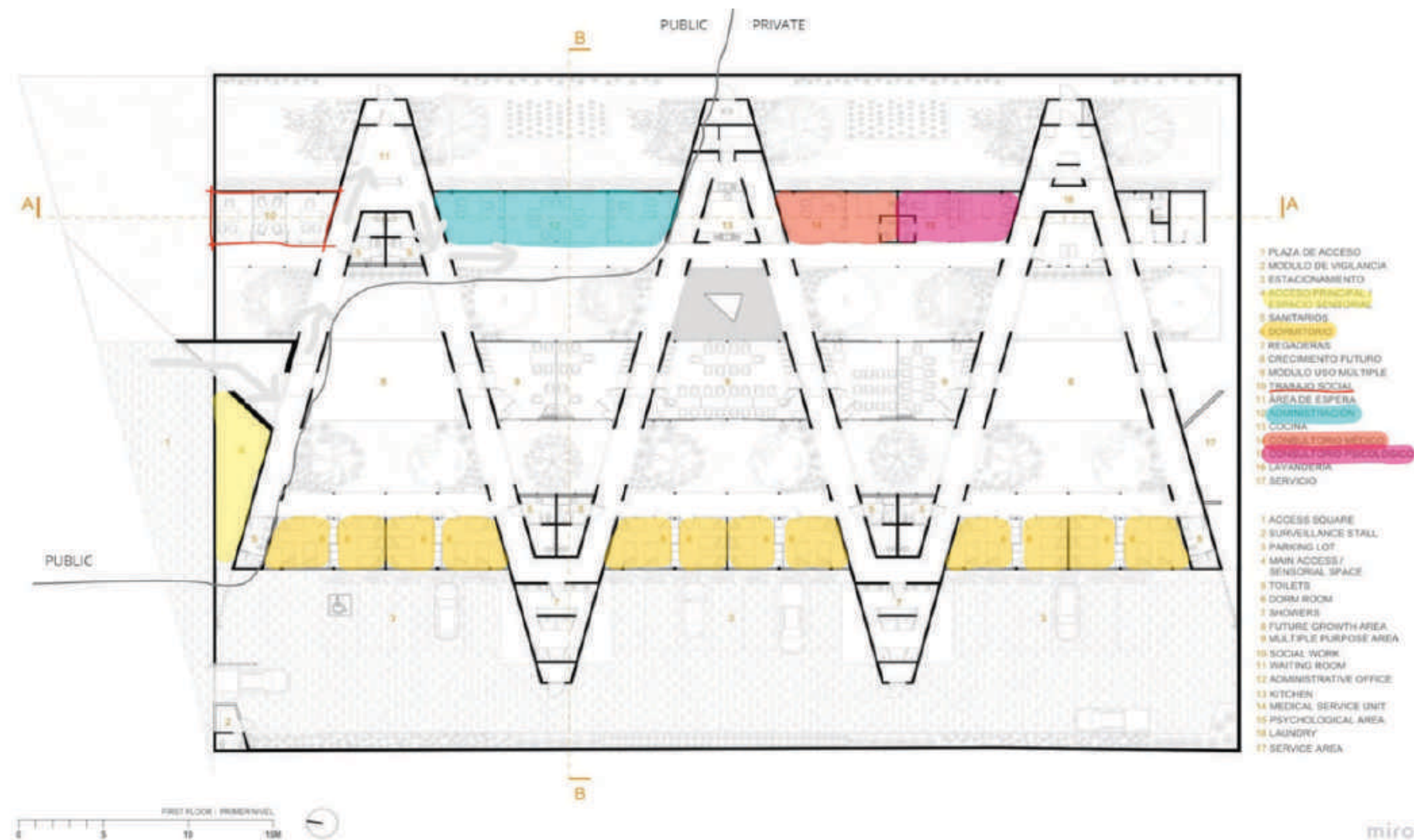
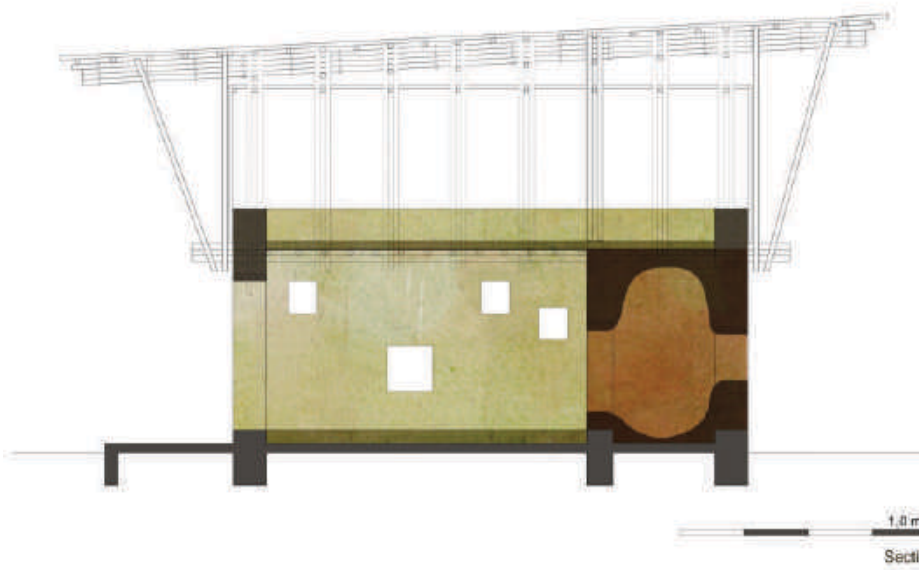
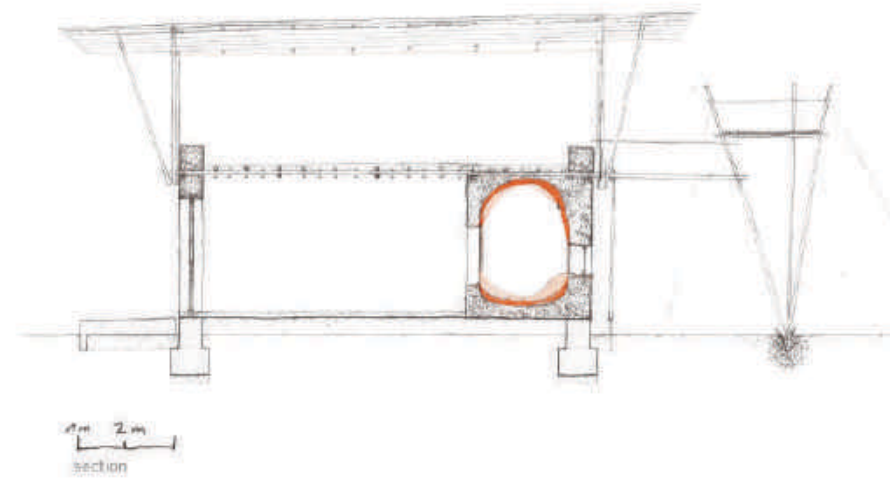


Figure 35. Refugio para Mujeres Víctimas de la Violencia  
Source : <https://www.archdaily.com/>





Figure 36. Handmade School  
Source : <https://www.archdaily.com/>



## Handmade School

Anna Heringer + Eike Roswag

Project Location  
DINAJPUR, BANGLADESH  
Completed Year  
2007

The goal of this project is to give the rural people access to high-quality, comprehensive education. Children and youth are encouraged to grow into responsible, motivated, and creative individuals who utilize their talents to enhance and develop their immediate rural area. Reading, writing, and arithmetic, as well as languages, are taught in a free and open setting. Meditation, dancing, and creative writing are all part of the METI School's daily curriculum, as are conversations, group learning, and self-critical and social behavior.



# Site Context & Features







Figure 37. Yogyakarta Province Boundary Map  
Source : Google Earth



Kutu Patran  
Sinduadi  
Kec. Mlati  
Kabupaten Sleman  
Daerah Istimewa Yogyakarta

Figure 38. Pin Point of Site Location  
Source : Google Earth

### Site Qualification

1. Could be accessed through multiple entrance
2. Has tranquil quality, secluded but still accessible
3. Nearby hospital in radius less than 5 km
4. Support sensorial quality



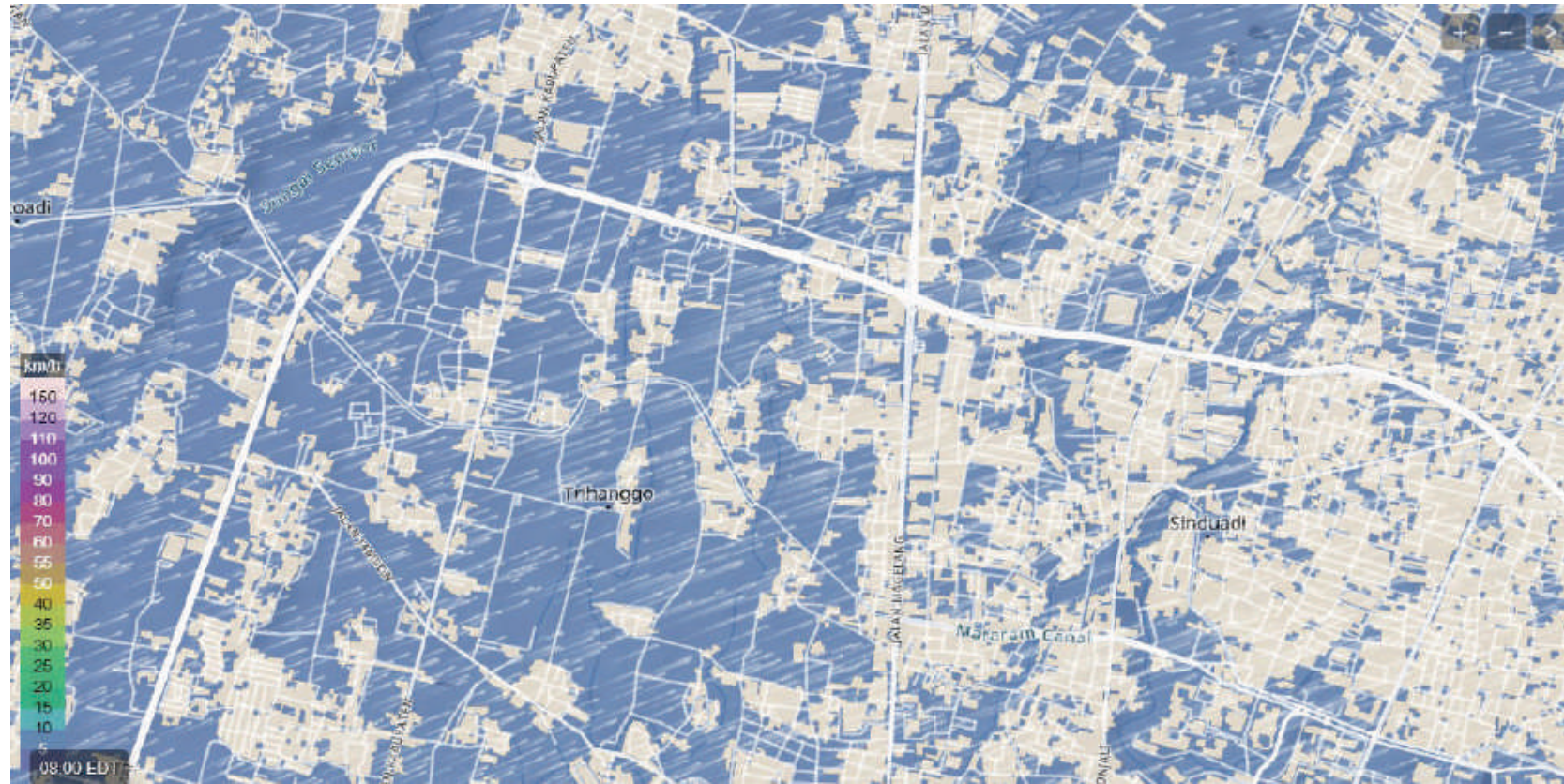


Figure 39. Sinduadi Wind Direction  
Source : Meteoblue

## Climate Condition Patran

Located in tropical climate condition, the site experience 2-5 km/h wind speed mainly from south-west direction. This is in relation to the integration of olfaction experience where wind could help spreading the smell. Meanwhile, temperature range from lowest 22°C until highest 34°C. By that fact, tactile experience could be explored through the scheduling of activity in particular function in certain period of time.

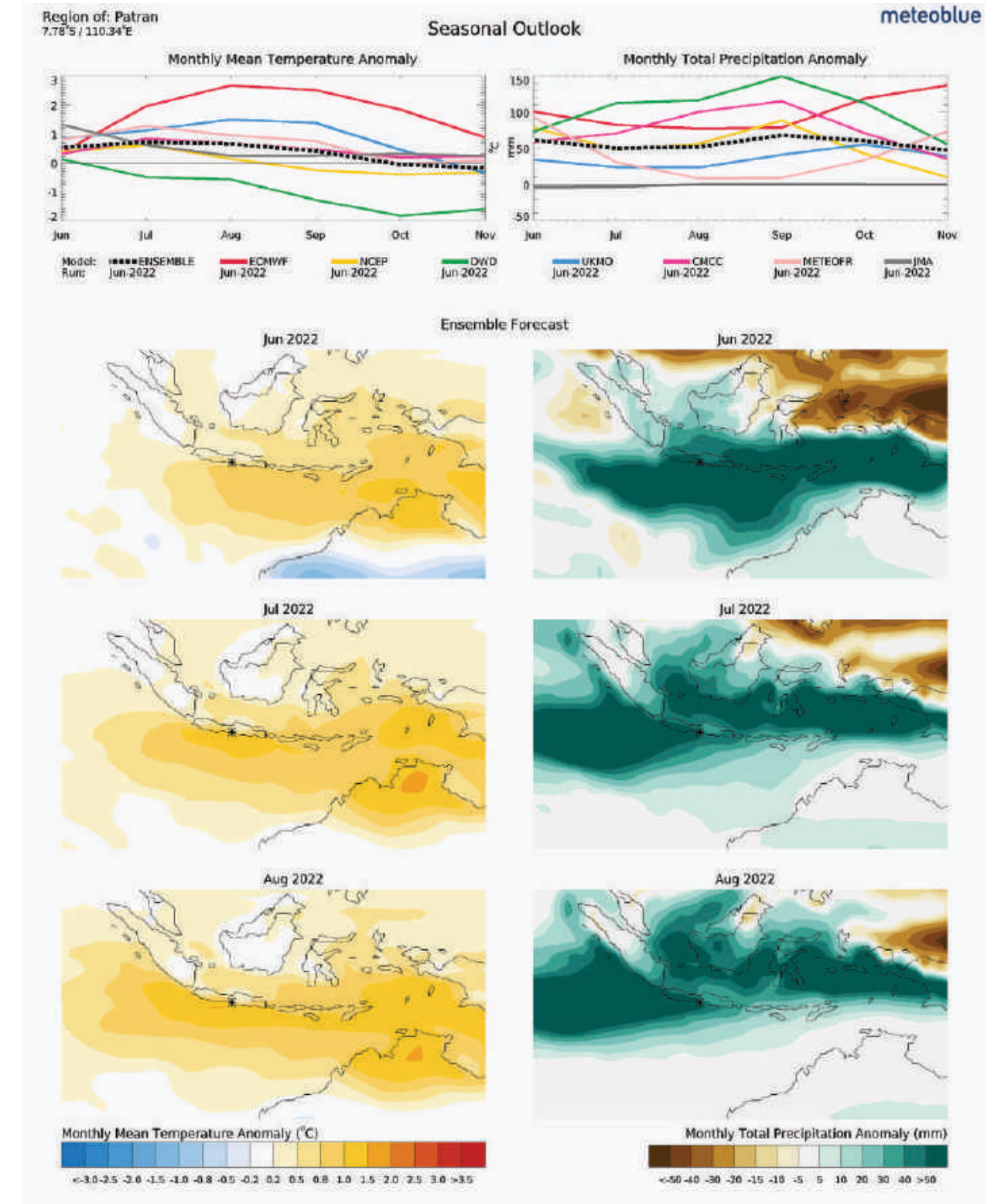


Figure 40. Sinduadi Climate Condition  
Source : Meteoblue



# Site Surroundings

Patran

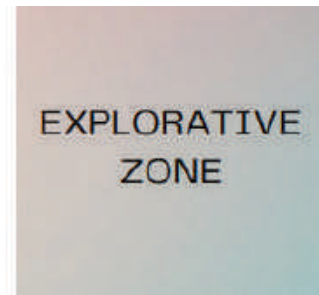
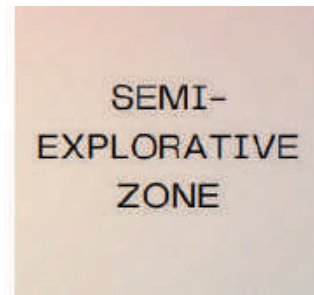




Design  
Analysis



## Design Response



Any area with lower needs of sensorial experience such as surveillance pos, administrative office, information center, medical service unit, etc.

Area having middle level of sensorial experience that in this area, a sensory stimuli would mildly explored.

Explorative area that appeal bodily senses in purpose to help releasing the stressor for the victims.

### TACTILE

Closeness and intimacy is created through the spatial organization and material selection. Temperature and humidity of the space will be explored by creating elevation and mass organization.

### OLFACTION

Integrate the scent to create comfortable and safety ambience through the material selection and space orientation.

### TASTE

Complementary drink when coming to consultation could reduce feels of worried.

### VISION

Integration of natural and artificial light on the space. Shadow to create depth and sense of comfort. A visual boundary applied to ceilings, floor, or vertical elements to distinguish space function or public or private realm.

### HEARING

Integration of calming soundscape through the use of water element and bird sounds that refers to nature sound, many open area.

## Spatial Quality

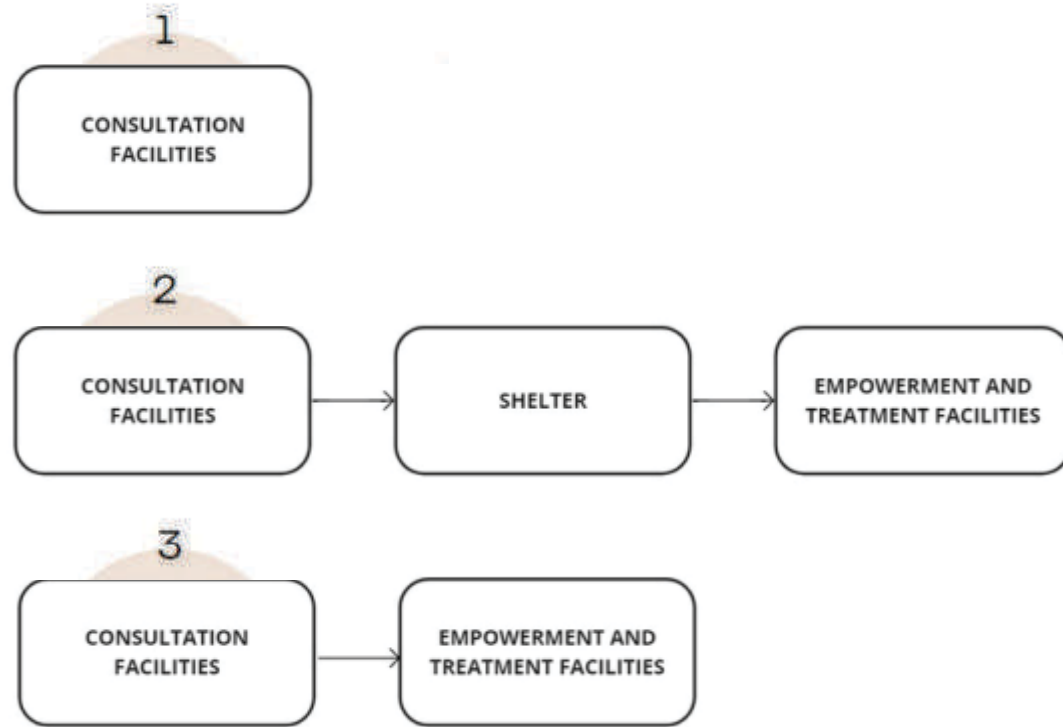
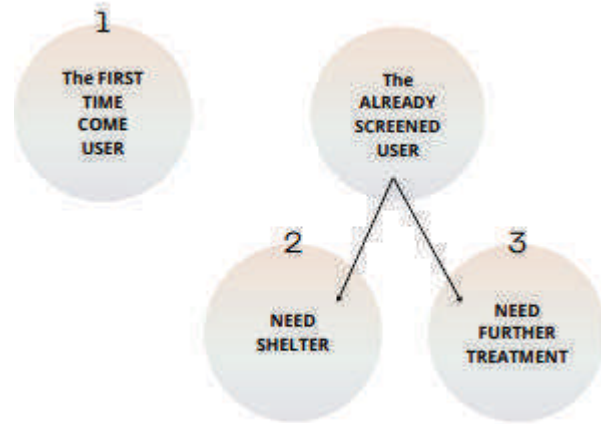
The community center facility should fulfill the requirement to be able to give strict privacy and safety services so that the facility differentiate the function based on three spatial zones based on the classified user. This zones is related to level of sensorial experience needed to deliver particular experience needed.

BUILDING FUNCTION	ROOM REQUIREMENT	SENSORIAL EXPERIENCE				
		Tactile	Olfaction	Taste	Vision	Hearing
CONSULTATION FACILITIES	SURVEILLANCE POS				✓	
	PARKING LOT				✓	✓
	LOBBY AREA/MAIN ACCESS	✓	✓			✓
	INFORMATION CENTER				✓	
	TOILETS	✓				
	WAITING AREA				✓	
	SCREENING ROOM					
	PANTRY		✓	✓		
ADMINISTRATIVE OFFICE				✓	✓	
SHELTER	CONTEMPLATION AREA	✓	✓		✓	✓
	TOILETS	✓				
	SHOWERS	✓				
	DORM ROOM	✓	✓			
	KIDS PLAY AREA/SOCIAL SPACE				✓	
	LAUNDRY					
	KITCHEN	✓	✓	✓		
EMPOWERMENT FACILITIES	FUTURE GROWTH AREA (LIBRARY & FLEXIBLE WORKPLACE)	✓	✓		✓	✓
	MULTI PURPOSE AREA	✓			✓	
	PSYCHOLOGICAL CONSULTATION					✓
	SPIRITUAL DEVELOPMENT ROOM					✓
	MEDICAL SERVICE UNIT					✓



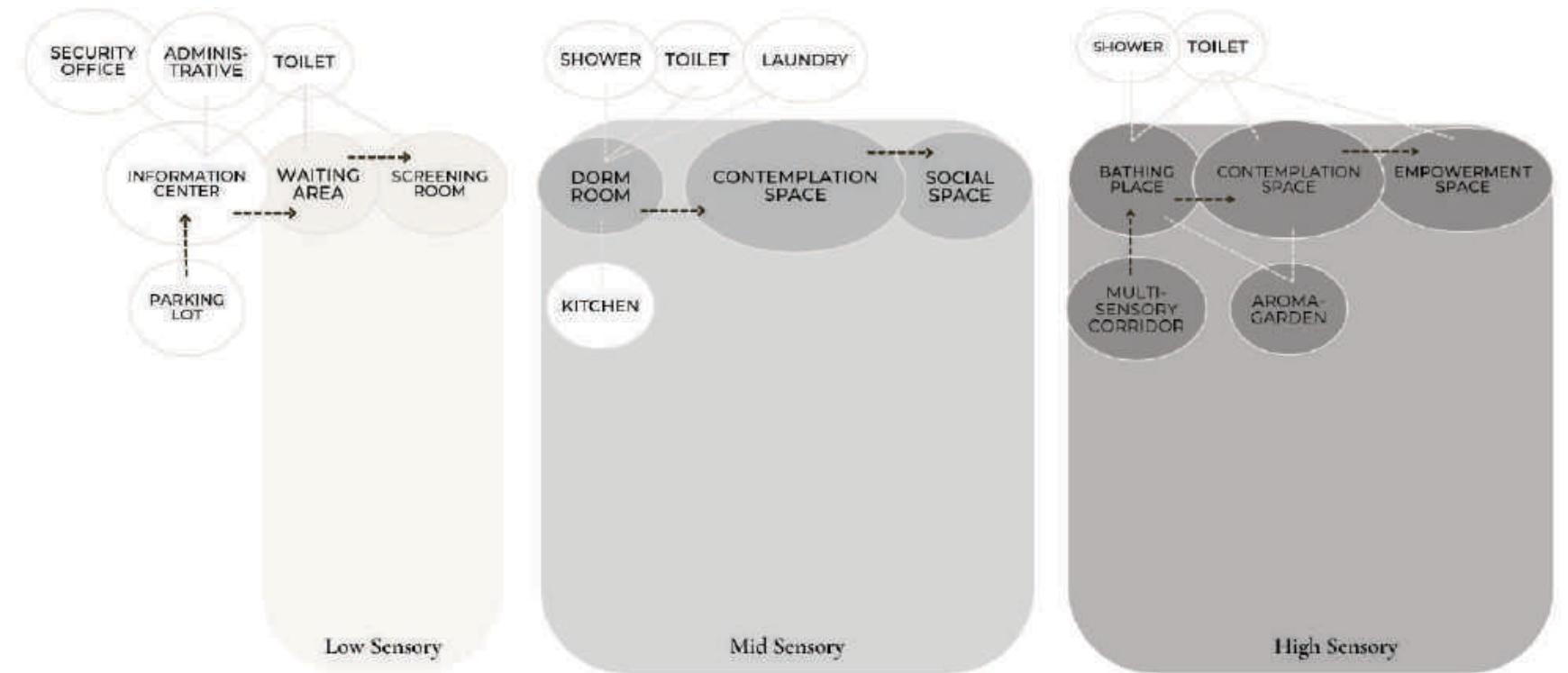
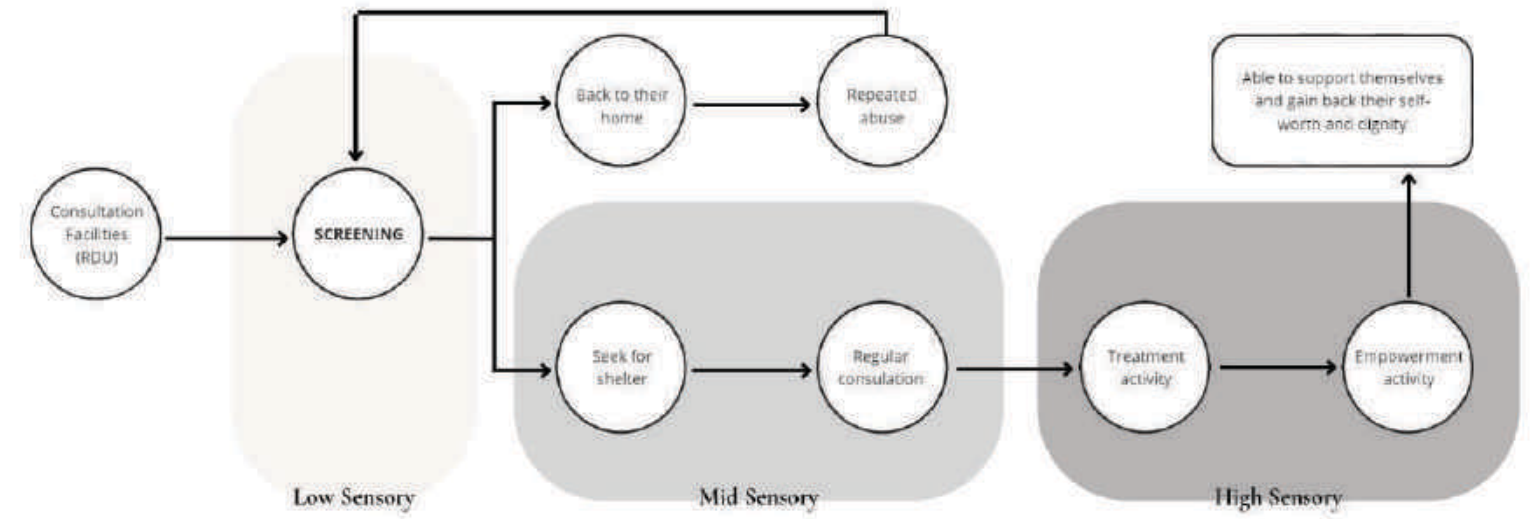
## User Activity

Following the strictly safety requirement, the facility needs to provide multiple entrance for the user. Excluding the staffs that include doctors, psychologist, etc, the following user explained will be the main user only which is the victim of sexual violence with guardian if any.



## Spatial Programming

Based on Sensorial Experience





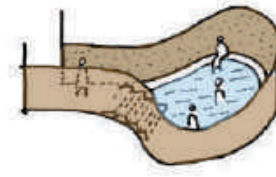
Sensory Level



Acknowledge the Pain & Trauma



Place of Remembrance



The Power of Breath



Meditate to Connect Body and Soul



Explorative Space



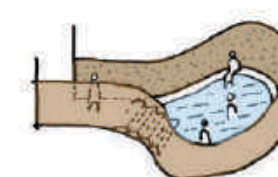
Rebuild Trust & Confidence



Acknowledge the Pain & Trauma



Place of Remembrance



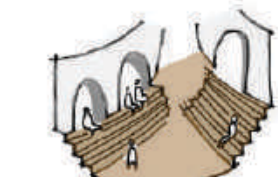
The Power of Breath



Meditate to Connect Body and Soul



Explorative Space



Rebuild Trust & Confidence



Tactile

Olfactory

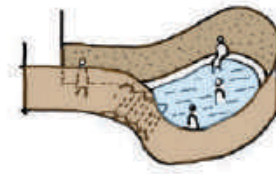




Acknowledge the Pain & Trauma



Place of Remembrance



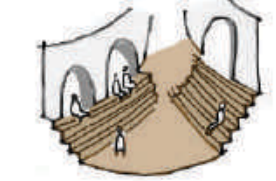
The Power of Breath



Meditate to Connect Body and Soul



Explorative Space



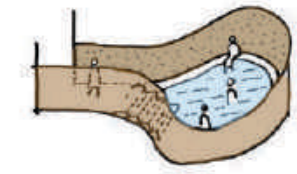
Rebuild Trust & Confidence



Acknowledge the Pain & Trauma



Place of Remembrance



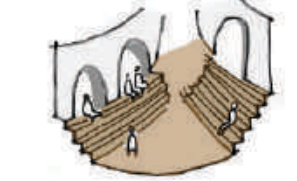
The Power of Breath



Meditate to Connect Body and Soul



Explorative Space



Rebuild Trust & Confidence



# Auditory

# Vision



## Acknowledging the Pain & Trauma

Highlighting visual and auditory stimulation with mild tactile experience

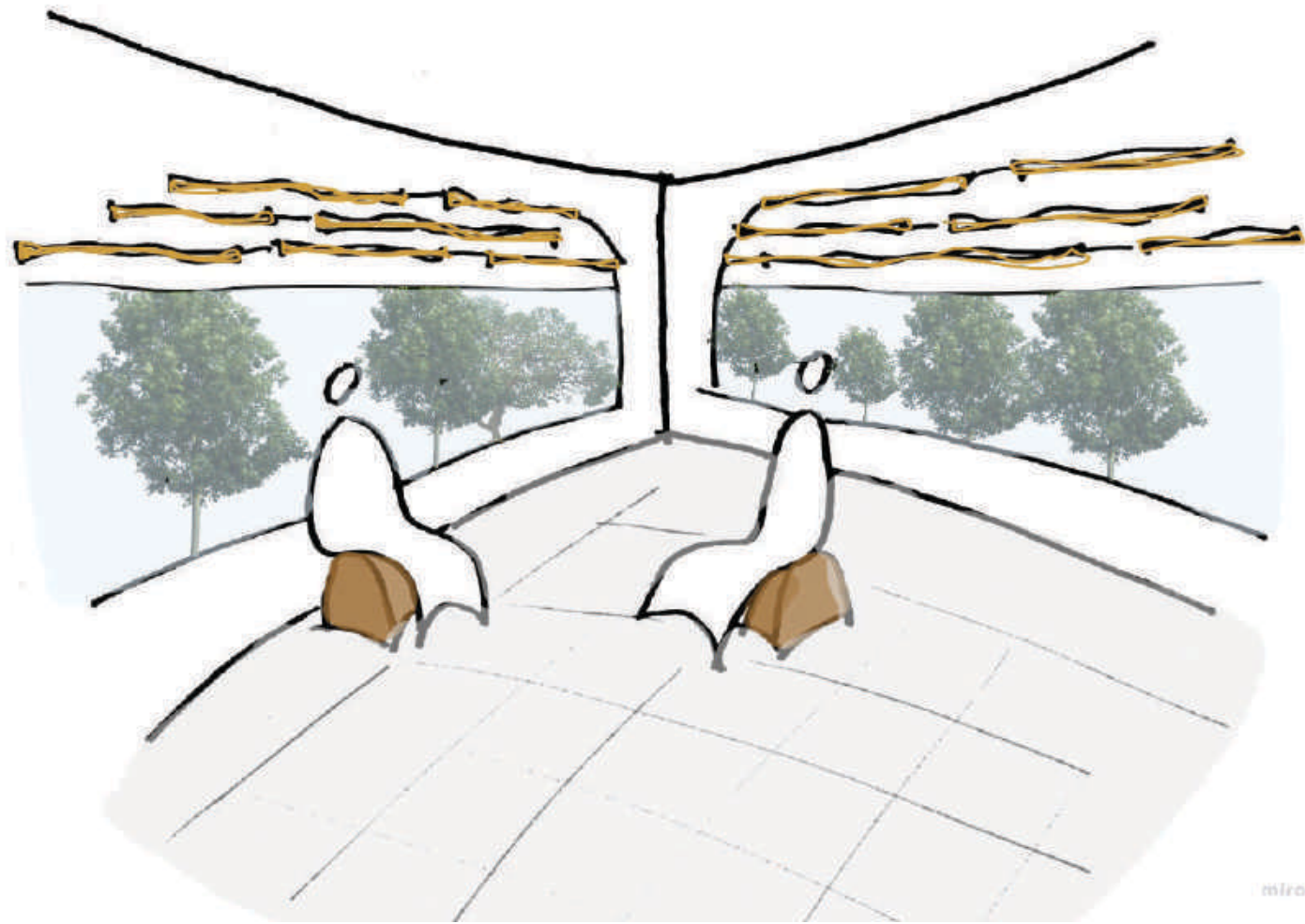


Figure 41. Acknowledging the Pain Concept  
Source : Author

In order to be able to heal, one should acknowledge or start dealing with the pain of their trauma. The calmness and purity of nature helps the victims to feel at peace. Here, the vision stimuli plays an important role to capture the nature's character.

The purpose of this first stage when coming to the facility is to slowly appeal the bodily senses. Then during the more or continued steps, the senses will become more complex and robust.

Level of sensorial stimulation in this facility is categorized as low sensory. The architectural exploration leads to the purpose of creating space that triggers emotion and creates **comfort**. Openness is the keyword that is most suitable to describe the space.

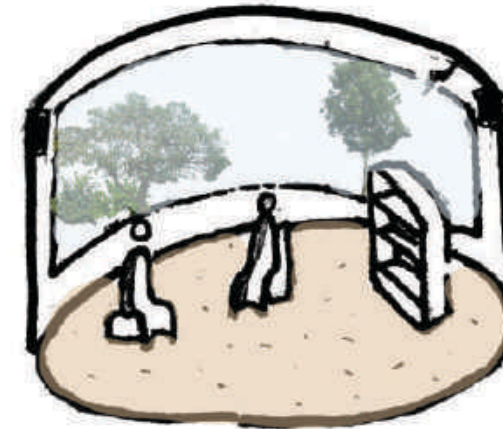


Figure 42. Acknowledging the Pain Concept  
Source : Author

### Visual

Drawing the eye to outlook the view of eye-level tree branches by using pale color palette for interior

### Auditory

Metallic installation placed above the openings that is stimulated by the wind flow coming through the space

### Tactile

Flooring texture allowing user to feel the breeze of natural stone that could bring out sense of comfort



## A Place to Recall

Exploring their stories through simulation of bodily senses

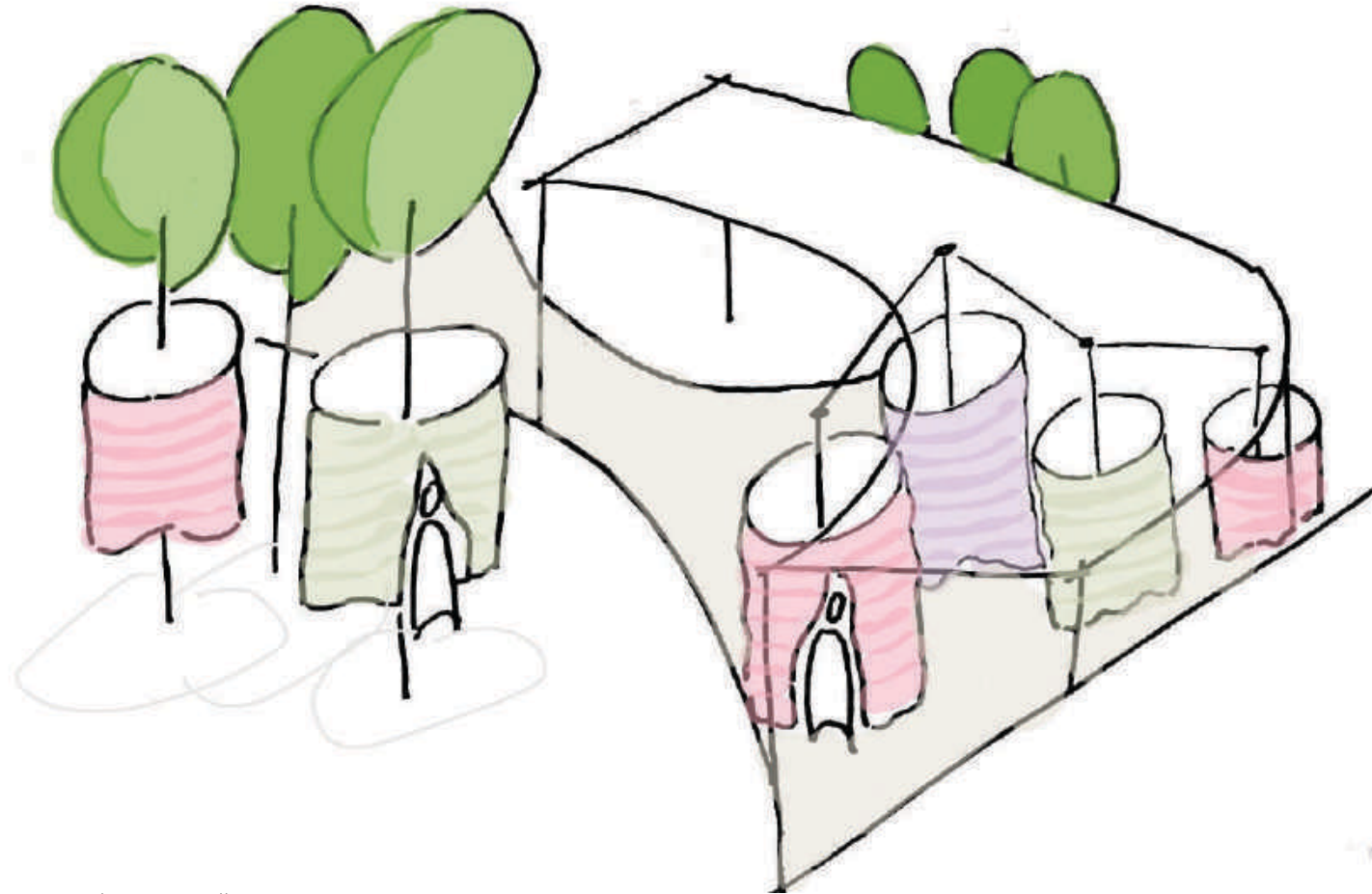


Figure 43. Place to Recall Concept  
Source : Author

To fully deliver the victims's story is impossible doing it on one session. Therefore, a place to recall is to give a safe space through mainly olfaction stimuli by creating pods of smell that what is trying to highlight here is the different preferences or perception of smell caught. In the pods they can write or paint their story in other words it allows them to have the time and space for themselves.

Level of sensorial stimulation in this facility is categorized as mid-sensory. Encouraging unusual activity, the architectural expression tried to be delivered is tender and intimate.

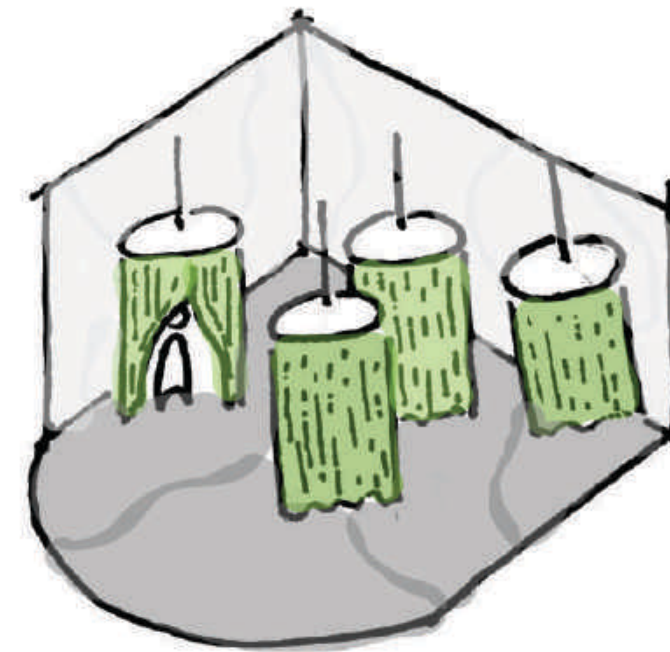


Figure 44. Place to Recall Concept  
Source : Author

### Olfactory

Pods of smell is curated through layers of vertical elements infused with characterized smell hanged in a circular metal rings

### Tactile

A subtle tactile stimuli from the nearness of each pods and texture of the ground

### Visual

Solid and void space experienced presented by placement of pods and sheltered-unsheltered space



# The Power of Breath

Practicing body mindfulness with series of sensorial explorations

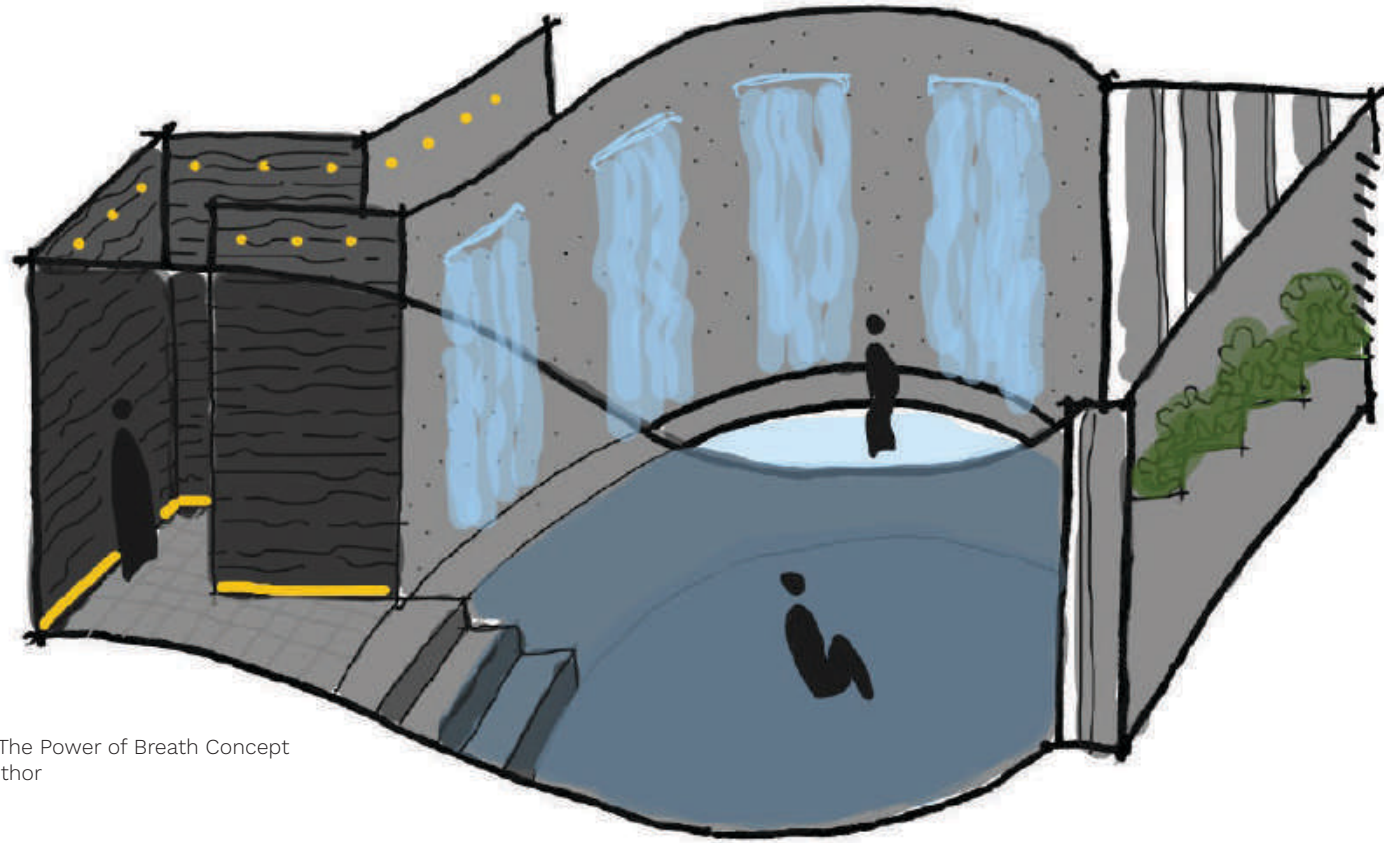


Figure 45. The Power of Breath Concept  
Source : Author

Bathing could be one of the activity to practice breathing. The hot water stimulation could enhance the feeling of warm and calm. By practicing body mindfulness, it means to release the trauma stressor and accept the feeling as it is.

Level of sensorial stimulation in the Power of Breath is categorized as high sensory. The architectural exploration leads to the purpose of creating space that is warmth and serene ambiance.

### Olfactory

Integration of Eye-Level  
Terraced Vegetation

### Vision

Warmth light ambiance directed to natural  
stones showing texture of natural stone

### Tactile

Water temperature stimulation and  
material roughness from natural stone

### Auditory

Vertical water splash running down on the  
rough texture of stones

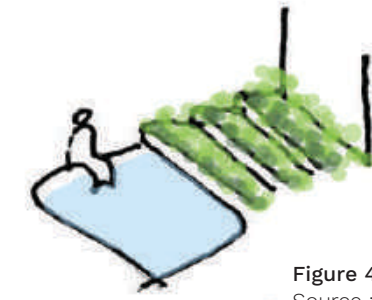


Figure 46. The Power of Breath Concept  
Source : Author

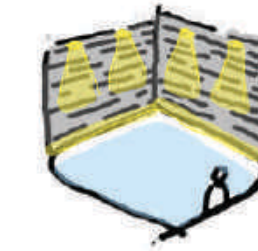
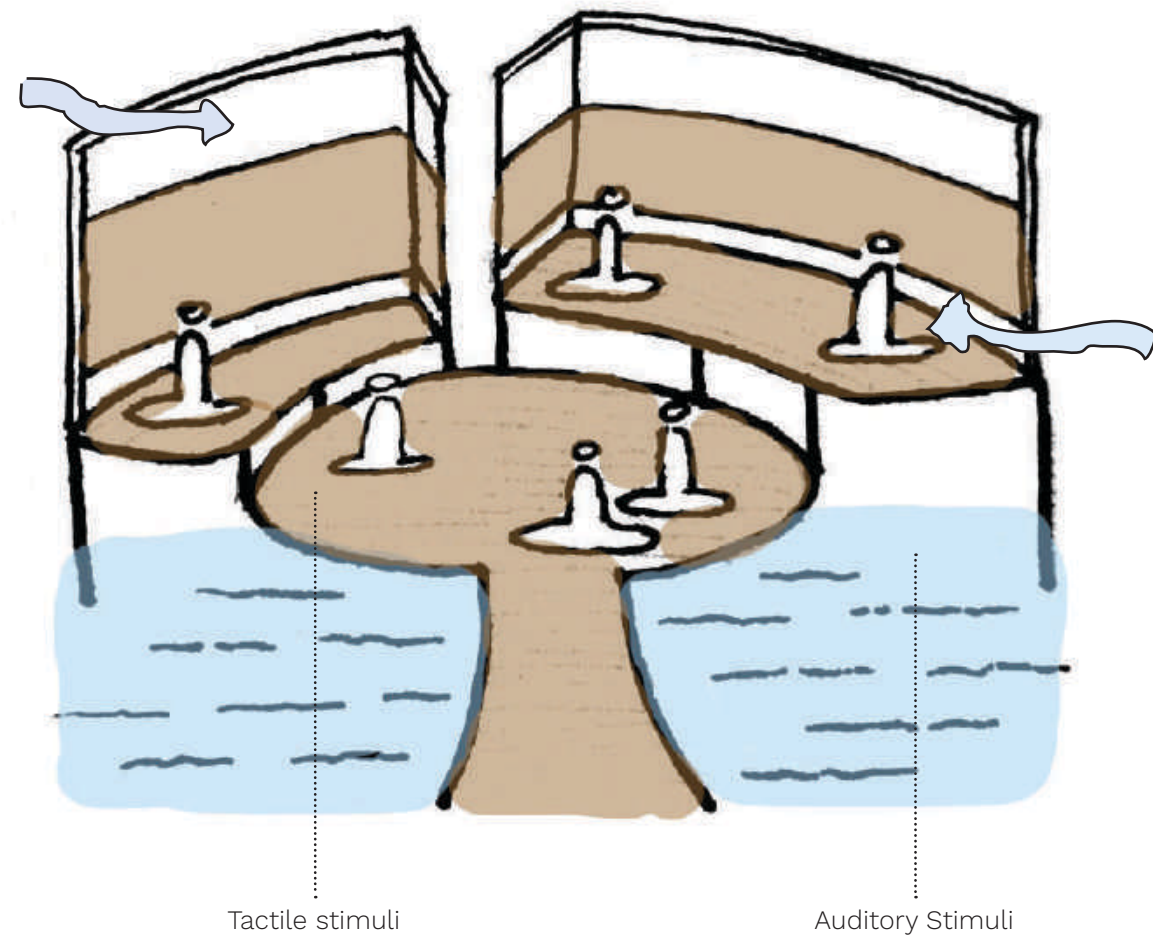


Figure 47. The Power of Breath Concept  
Source : Author



## Meditating to Connect Body and Soul

Spiritual development through intense sensorial exploration



Haptic experience by incorporating tactile from rough material, different elevation, and temperature from cross ventilation also water feature is presented to develop nearness and intimacy feeling so that bodily senses could be appealed and the mind could focus on oneself.

**Figure 48.** Meditating to Connect Body and Soul Concept  
Source : Author

Level of sensorial stimulation in this facility is categorized as high sensory. The function covers several activities including meditation, praying, discussion, and contemplating. Architectural expression tried to be delivered is quiet, focus, and calm.

### Tactile

Material roughness using combination between natural stone and timber

### Visual

Natural lights coming through patterned facade creating shadows for the interior

### Olfactory

Catching mild olfaction experienced from terrace vegetation

### Auditory

Surrounded by water pond, the sound of water slowly flowing beneath the space enhance calmness



## Empowerment Space

Discovering new identity and exploring the potential

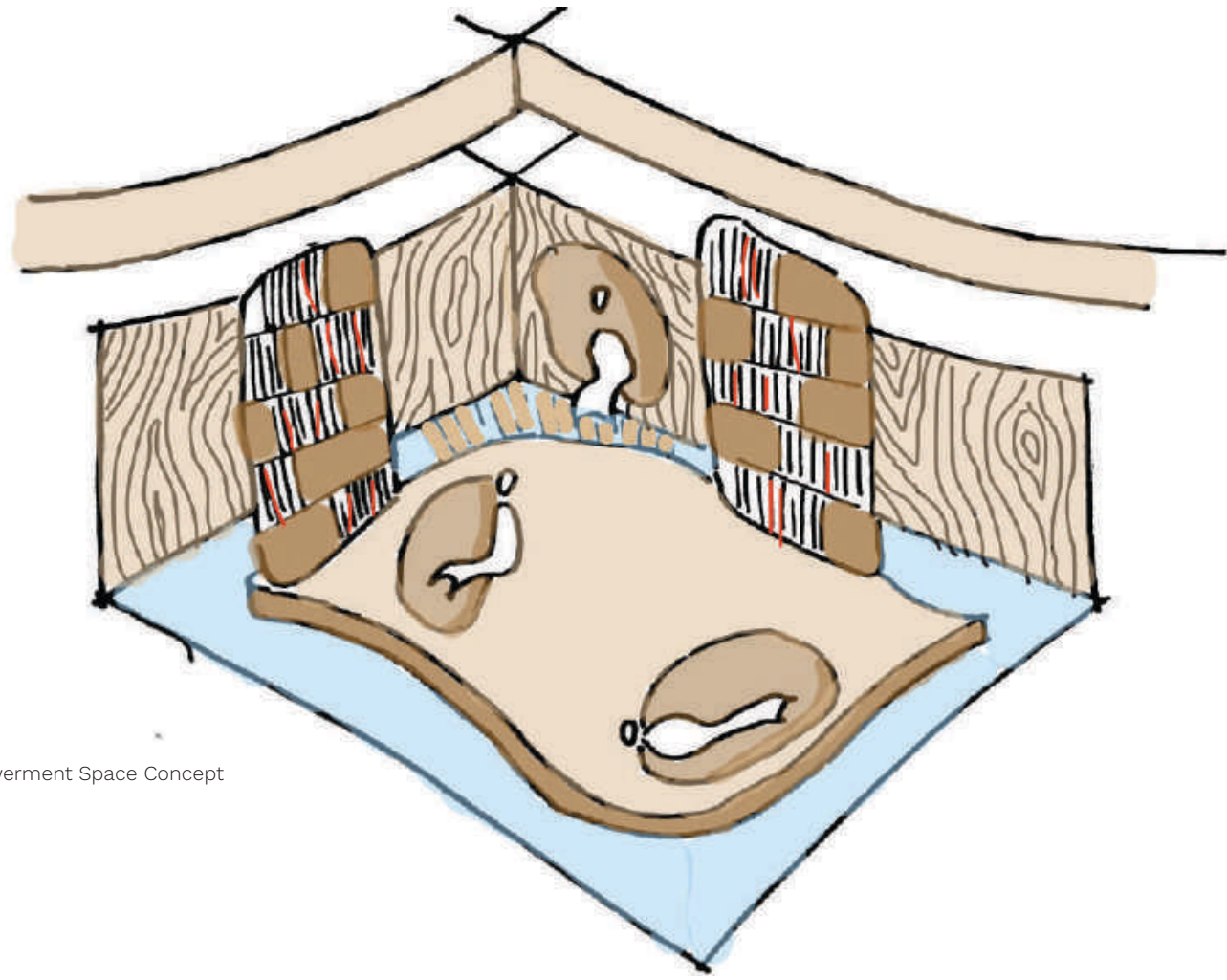


Figure 49. Empowerment Space Concept  
Source : Author

A healing journey does not define as one way journey but rather series of miraculous enlightenment that is leveled up. An empowerment space is intended to be a stimulation of creativity, knowledge making, and productive interactions.

Level of sensorial stimulation in this space is categorized as mid-sensory. The architectural exploration represents flexibility and unique.



Figure 50. Empowerment Space Concept  
Source : Author

### Tactile

Intricate timber texture represented on the vertical elements with a twist of cavity

### Visual

Penetration of natural lights surrounding the space above the timber texture as one of the function is a place to learn

### Auditory

Serene water flow surrounding the space represents fluidity of knowledge



## Reconnecting with Others

Induce collaborative relationship

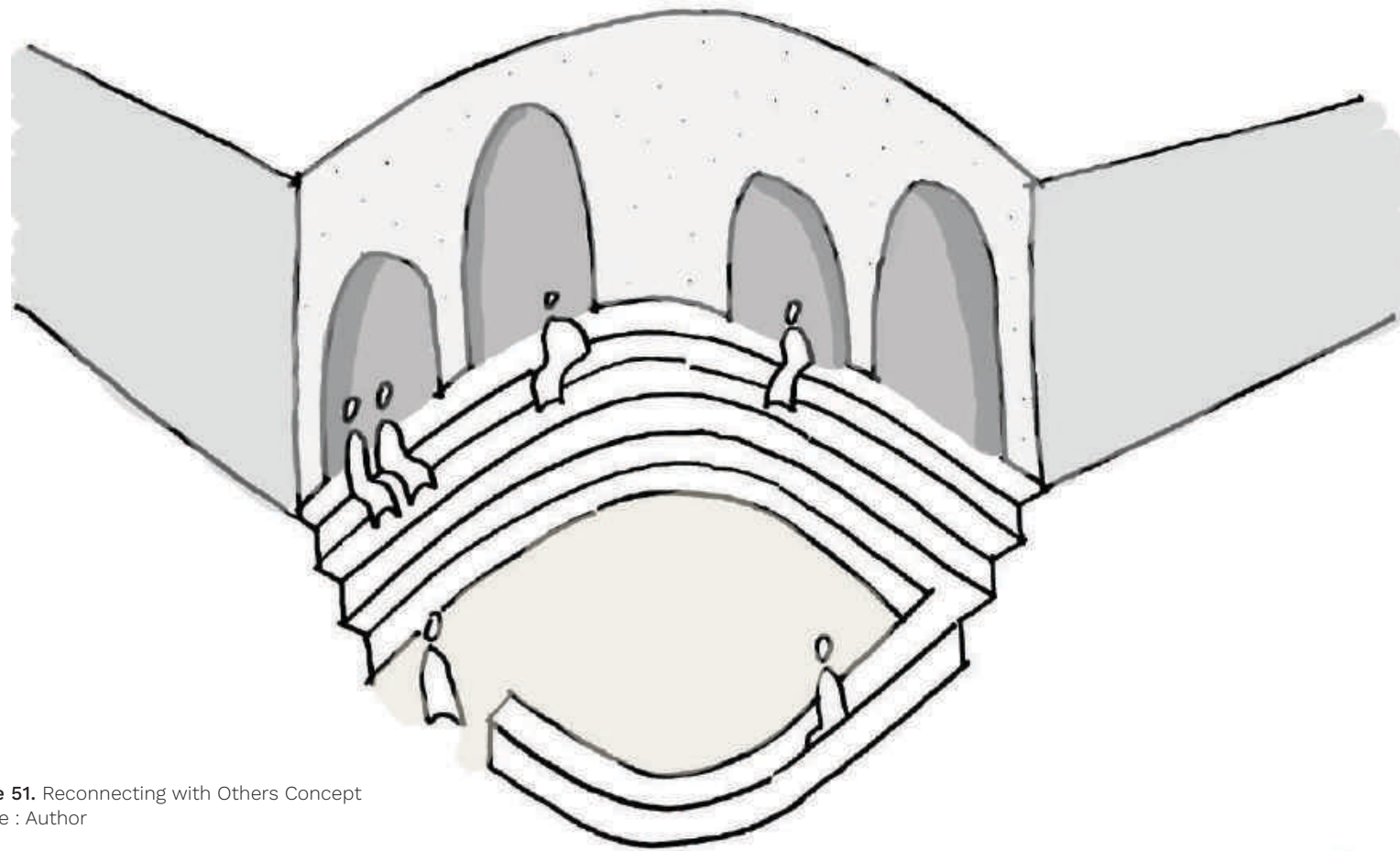


Figure 51. Reconnecting with Others Concept  
Source : Author

Impression of others could be the one important roles to rebuild trust and confident. A combination of haptic and far space stimuli including visual, olfactory, and tactile exploration from vertical elements are presented.

mira

Level of sensorial stimulation in this space is categorized as mid-sensory. The architectural exploration represents connection and comfort.

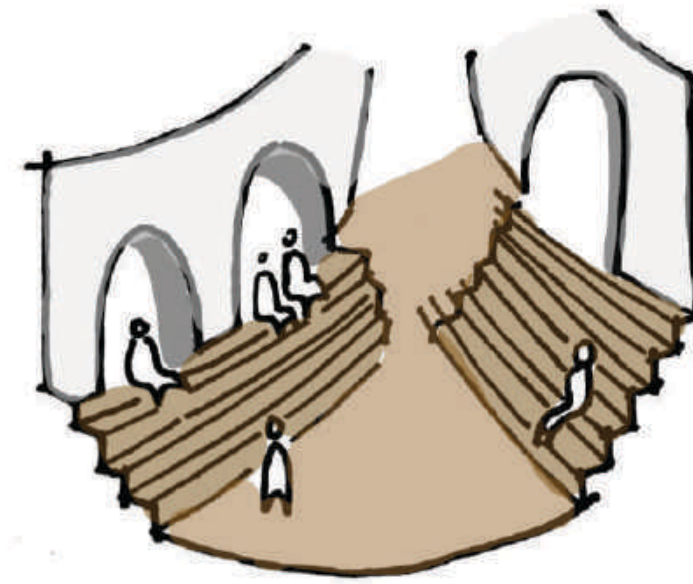


Figure 52. Reconnecting with Others Concept  
Source : Author

### Olfactory

The sunken concept create zones of smell in which higher elevation spaces are the nearest from the source of smell placed on each of the cavity encourage deeper bondings

### Visual

Circulated terraced concrete aims to create closure

### Tactile

Different roughness level of concrete presented to the space and the temperature level created by sunken

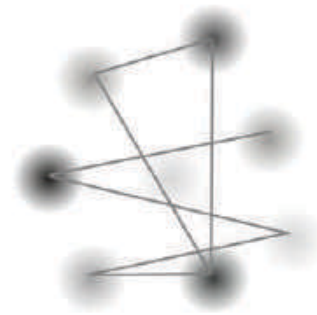


**Mass Concept**  
Building Form

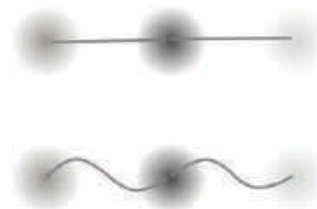


**Figure 53.** Mass Concept  
Source : Author

Trauma memories in the mind represented by spots that possess different depths of pain

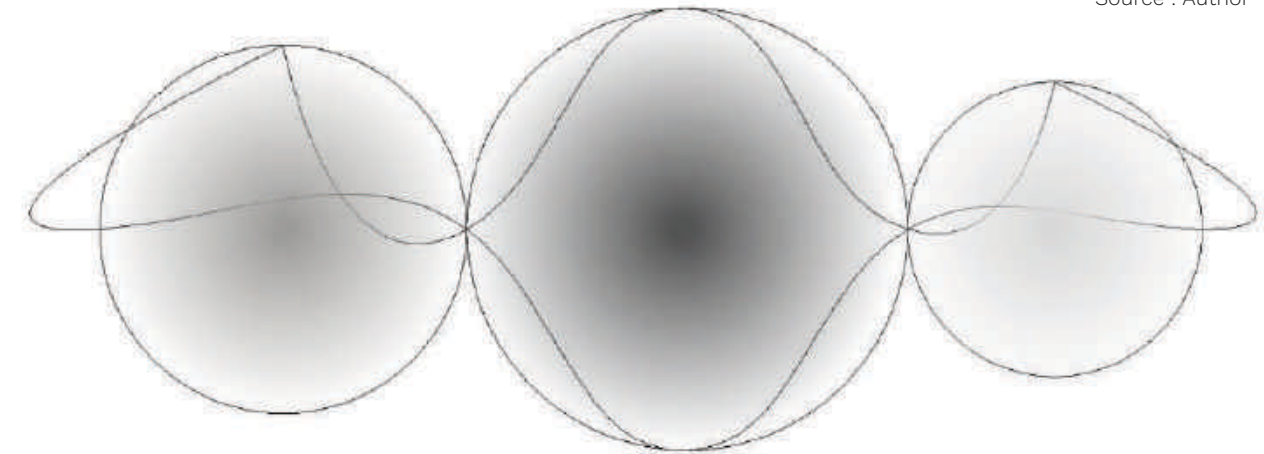


The pattern indicates how each memory is connected to each other



The way it is connected is transformed to be fluid so that it represents the up and down phase of facing the trauma

**Mass Concept**  
Building Form



Mid Sensory → High Sensory ← Low Sensory

**Figure 54.** Mass Zone Based on Sensory Level  
Source : Author

Each of the circle represents its role on the whole healing journey in this one-stop-service community center. The journey starts from the right on low sensory experience where main user starts opening up. On the first journey, all the main user experience what it is to dig in their trauma.

The flow of how their journey is is reflected through the fluidity of the circulation composition.

Then, the implemented-centralized composition with the highest sensorial experience on the center enhance the connection in between the facilities provided. Entering the high sensory part, here are where stimulation of sensorial experience is highly penetrated in accordance with most activities of the facilities would be conducted here. Tactility, olfactory, auditory, and visual experiences would be presented on this part. It is where the healing journey from trauma would be all explored.



## Mass Concept Building Form

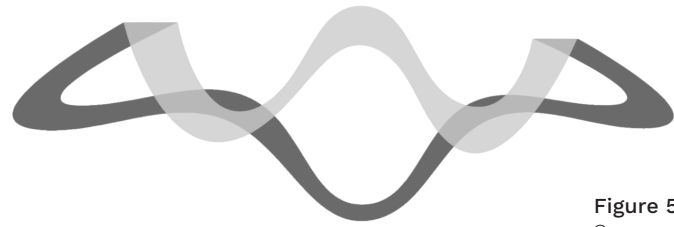


Figure 55. Mass Concept  
Source : Author

The case about trauma, it is not constructed by particularly-single memory. Instead, it is the combinations of painful or strange memory that collide. The pattern representing ups and downs of the healing journey is **enclosed**. Creating voids in between the "simpul".



Figure 56. Mass Concept  
Source : Author

Meanwhile, the facility sees a bright future of the victims, a hope that they can live excitedly though accompanied by their trauma. Since the healing journey is strated from the right part, on its end (on the left) its openness represents a sense of liberation .

## Mass Concept Building Form

If the openness flow represents hope, the contrast between the two mass represents a contradicting self-image experienced by the victims. Darker one is the less constructing and destructive image where they felt worthless while the lighter one symbolize empowered and confidence image. The two mass sits above an elongated site where the darker mass is beneath the lighter one.

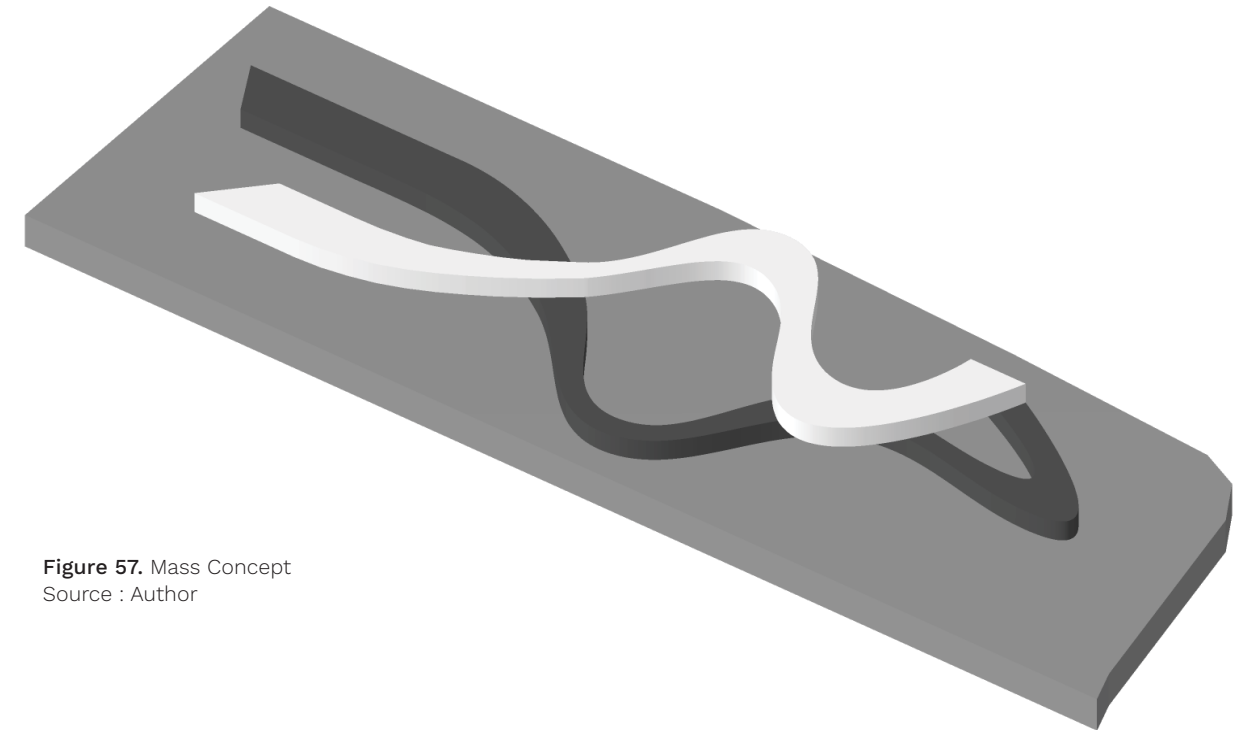
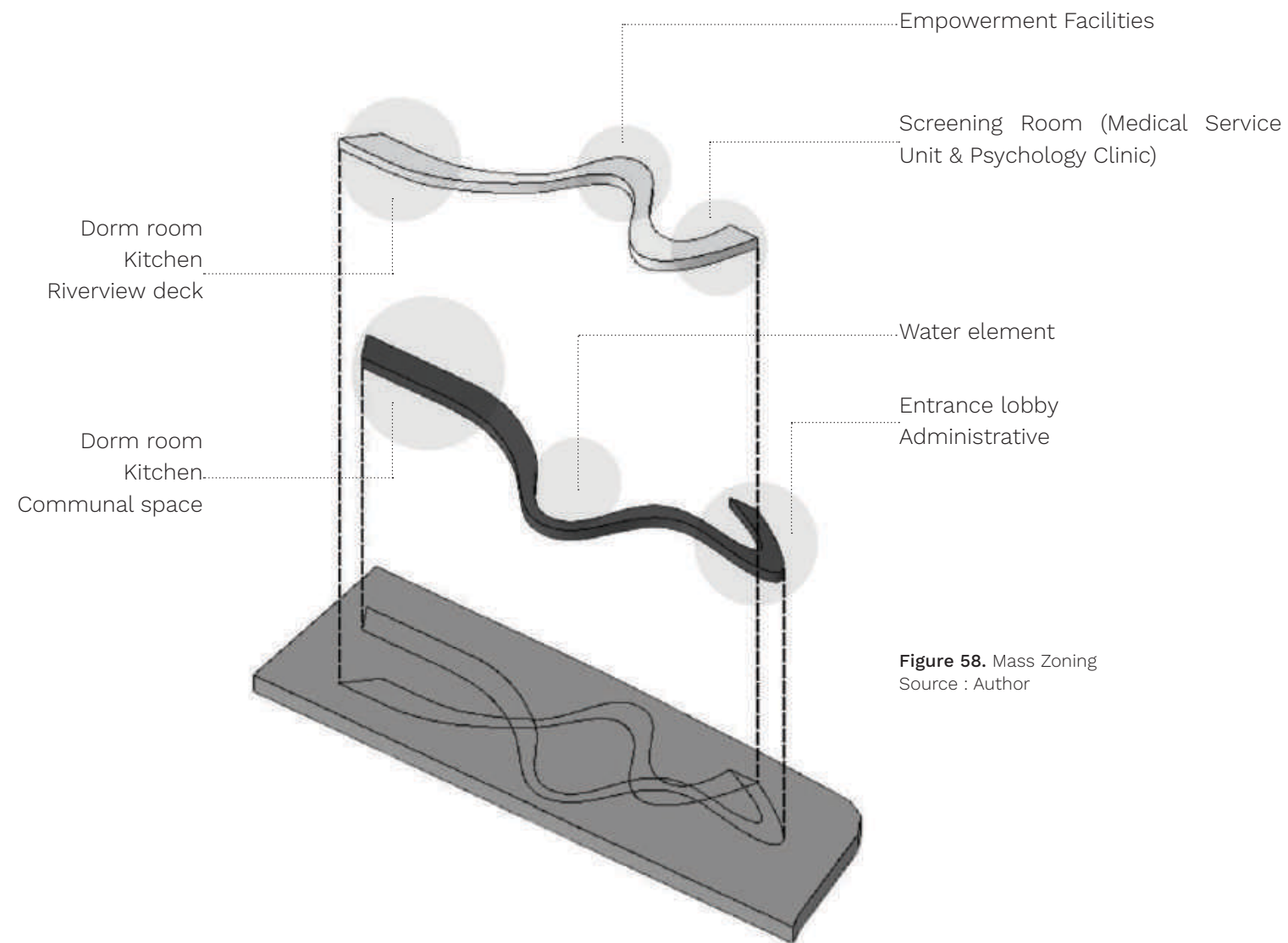


Figure 57. Mass Concept  
Source : Author

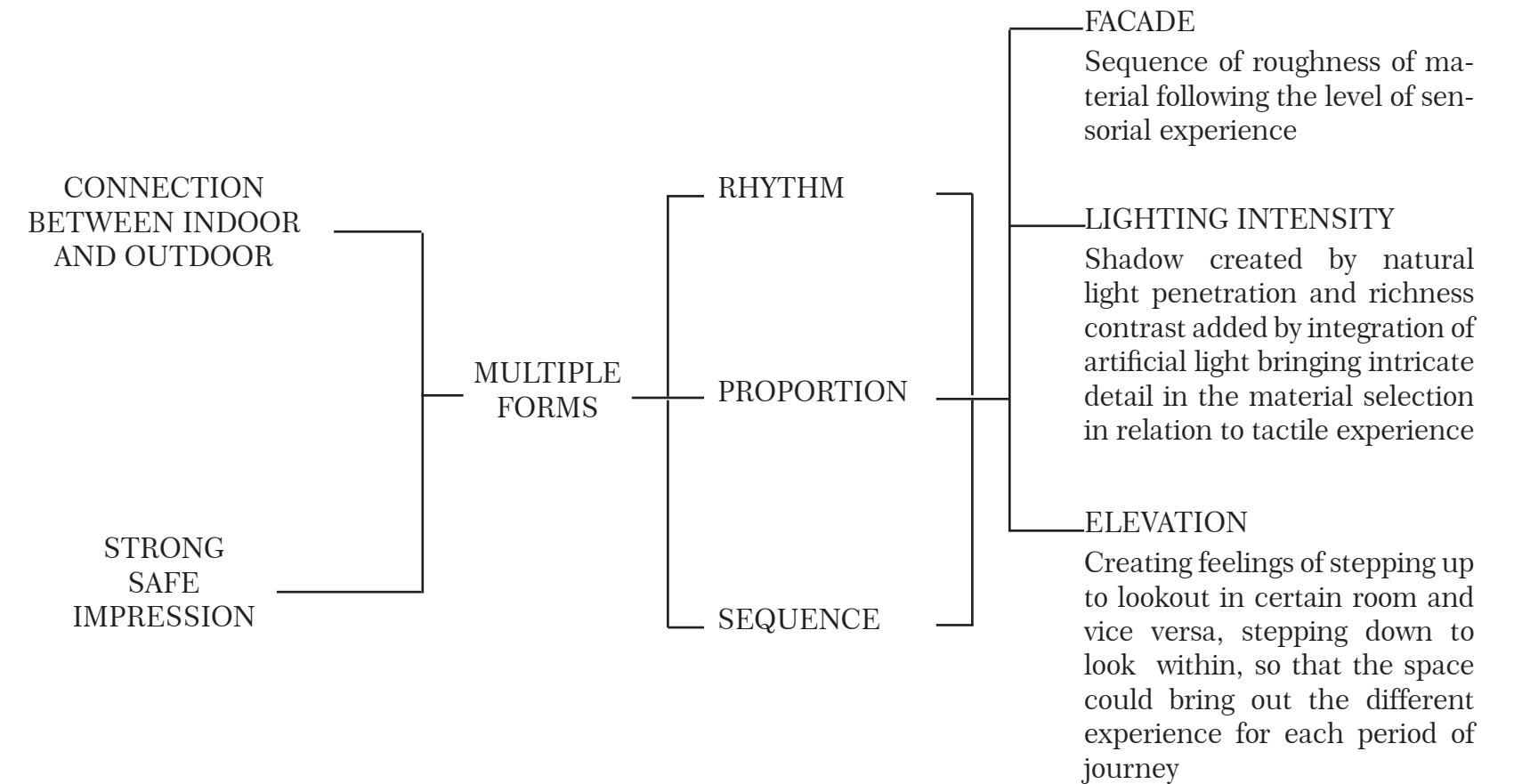


**Mass Concept**  
Building Form



**Mass Concept**  
Building Form

The form of the building was driven by a desire to create connection between indoor and outdoor space and strong safe impression. It leads to produce separated forms that craft proportions, rhythm, and sequence through the facade, material selection, lighting intensity, and level of sensorial experience.







# Temporal End

Final Design Results



## Site Plan

As in the concept, the facility is divided into three sections shown by the circles as boundaries. Spatial organization is arranged following the fluidity of the pattern. Entrance located in the east part.

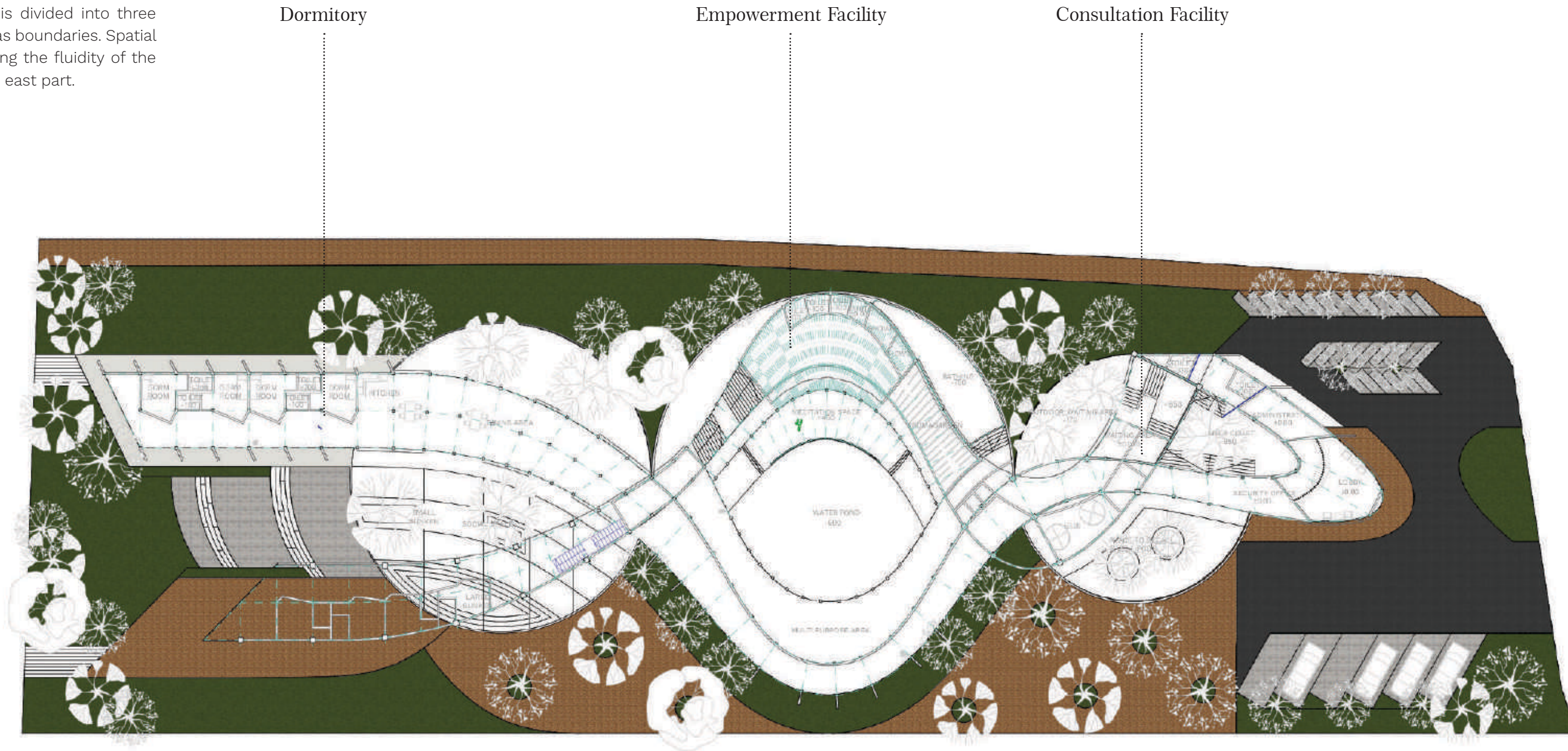


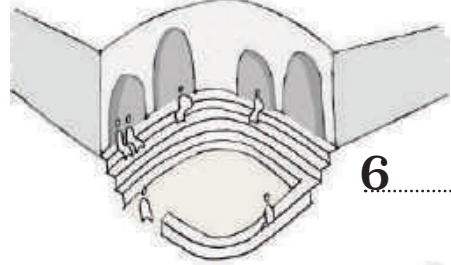
Figure 59. Site Plan  
Source : Author



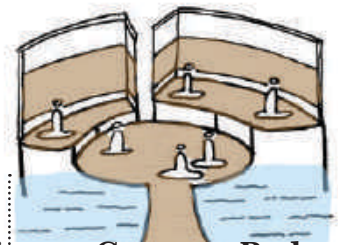
# Axonometric

Distribution of the conceptual flow in the axonometric view following the liberation journey

Reconnecting with Others



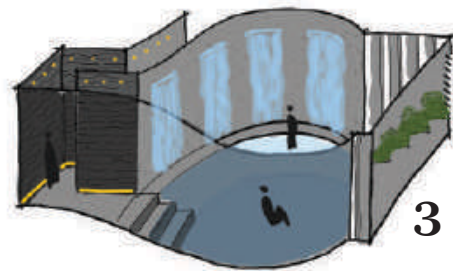
6



4

Meditating to Connect Body and Soul

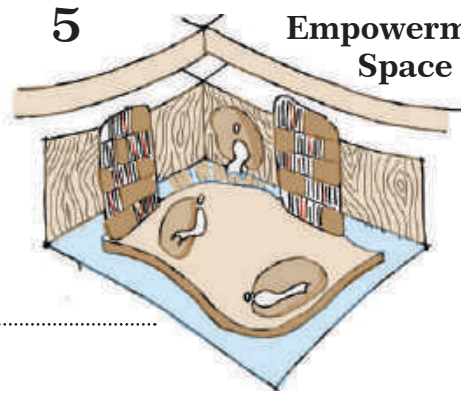
The Power of Breath



3

5

Empowerment Space

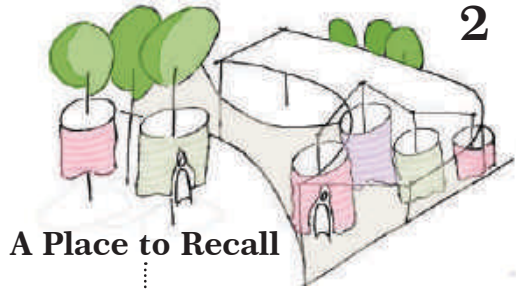


1



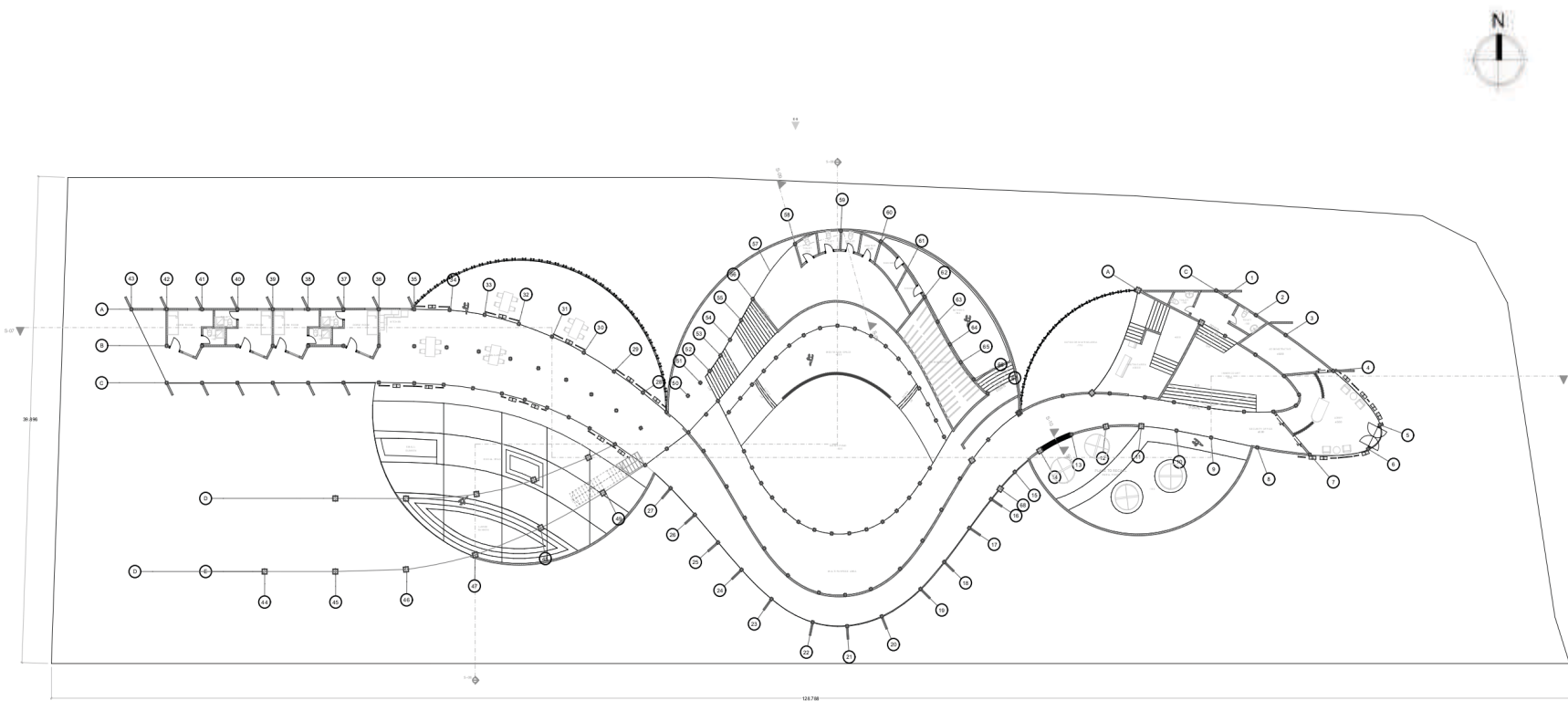
Acknowledging the Pain & Trauma

2



A Place to Recall

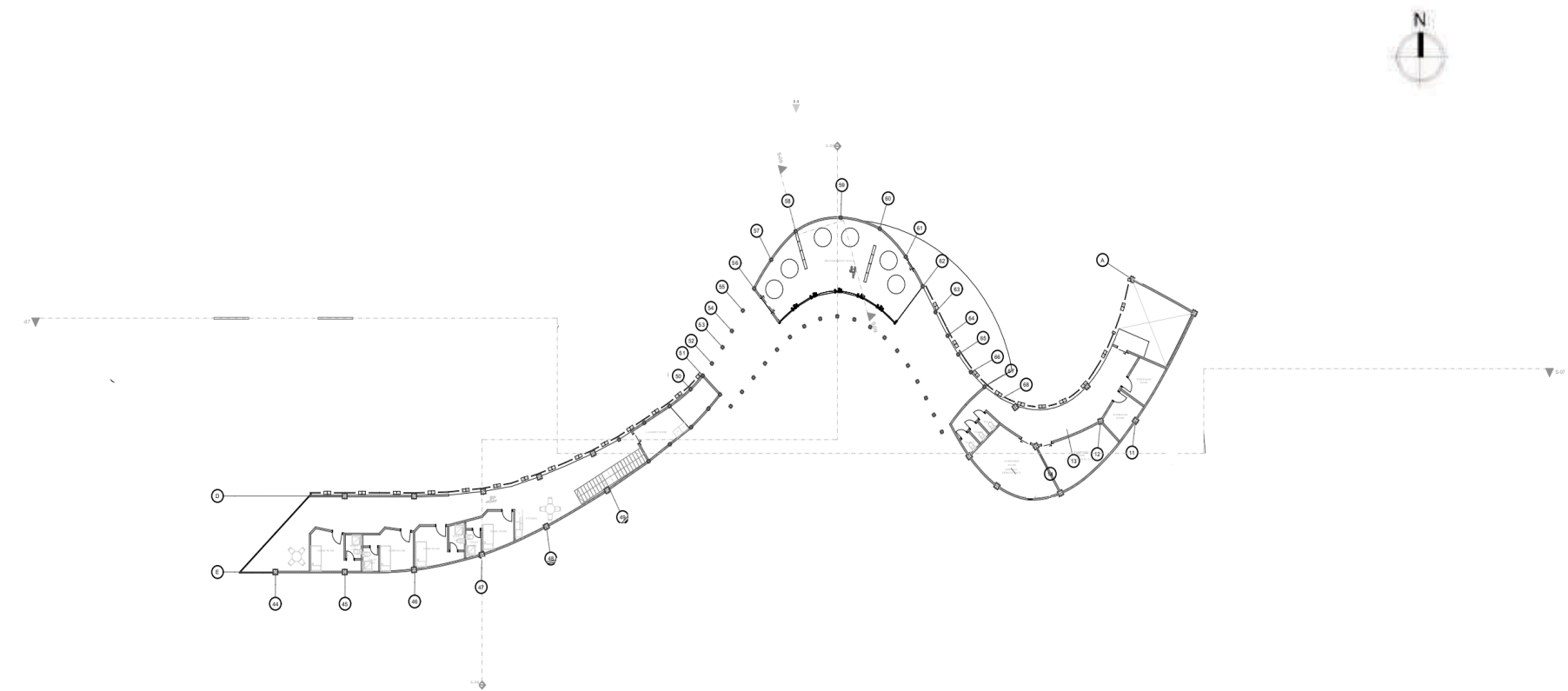




### Ground Floor Plan

As in the concept, the facility is divided into three sections showed by the circles as boundaries. Spatial organization is arranged following the fluidity of the pattern. Entrance located in the east part.

Figure 61. Ground Floor Plan  
Source : Author, 2022



### First Floor Plan

In the first floor, the three facilities have its own access differentiating experiences based on the sensory level.

Figure 62. First Floor Plan  
Source : Author, 2022



## Elevation

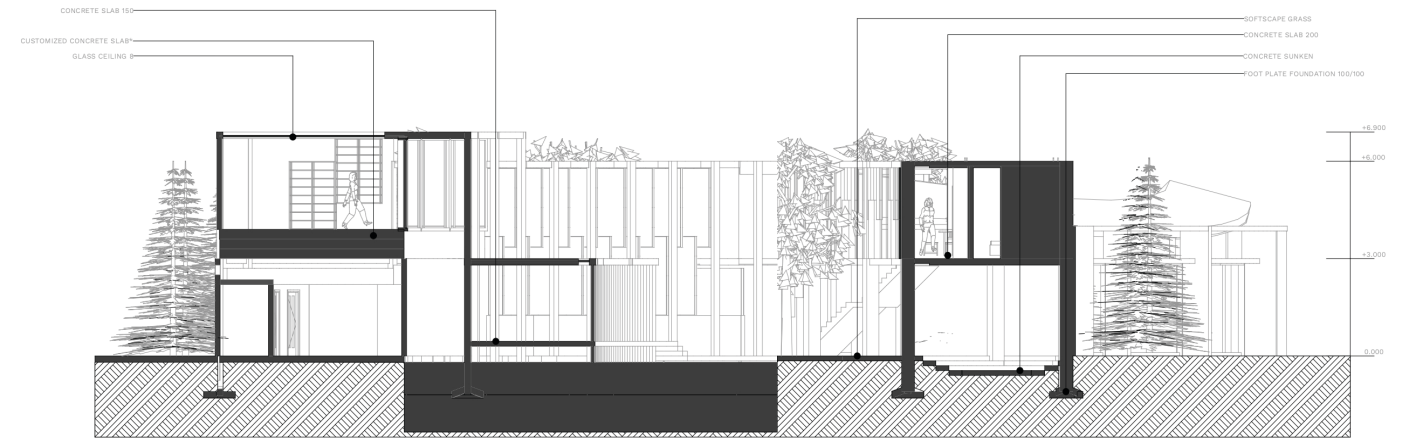


**Figure 63.** West Elevation  
Source : Author, 2022



**Figure 64.** East Elevation  
Source : Author, 2022

## Section



**Figure 66.** Section 01  
Source : Author, 2022



Section

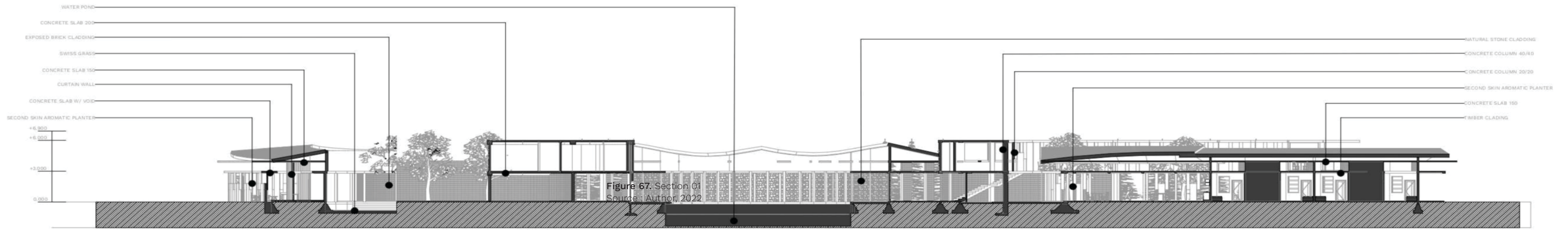


Figure 67. Section 02  
Source : Author, 2022



# Elevation



Figure 65. South Elevation  
Source : Author, 2022

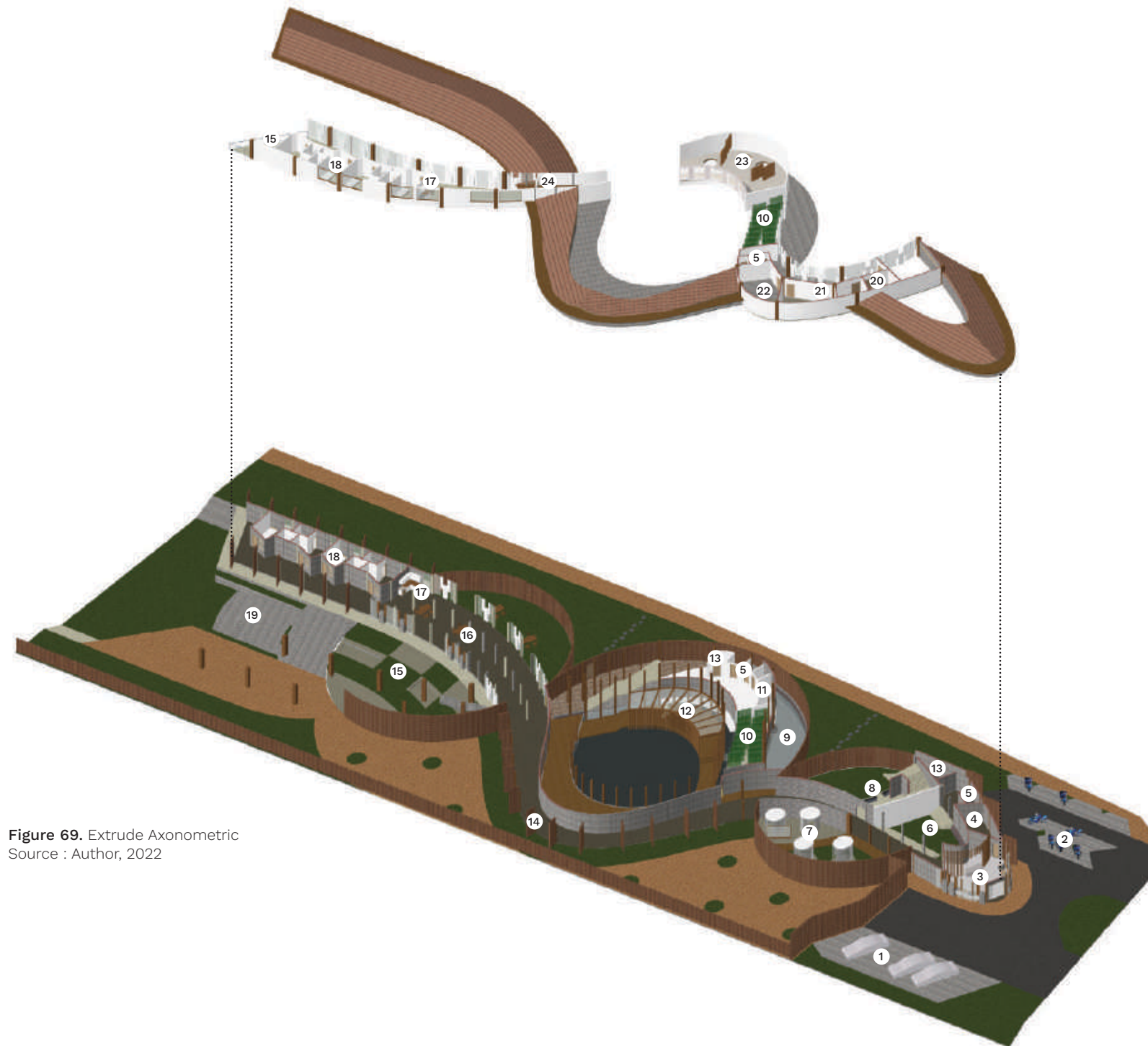


Figure 66. North Elevation  
Source : Author, 2022



## Interior Axonometric

Based on the concept of Liberation Journey, the space is translated into more specific function. A spiritual aspect embodies a meditation place like being on a bridge. The idea of psychological support comes into the smell pods as place to recall and also consultation place. An inner courtyard with combination of hard-scape and softscape as well as shaded non-shaded area with sunken seating tries to facilitate a social space.



**Figure 69.** Extrude Axonometric  
Source : Author, 2022

- 1 Car Parking
- 2 Motorcycle Parking
- 3 Lobby & Information Center
- 4 Office
- 5 Toilet
- 6 Inner Court
- 7 Smell Pods to Recall
- 8 Waiting Area
- 9 Bathing
- 10 Aroma Garden
- 11 Shower
- 12 Meditation Place
- 13
- 14 Contemplation Corridor
- 15 Social Space
- 16 Dining Area
- 17 Kitchen
- 18 Dorm Room
- 19 River Front
- 20 Medical Service Unit
- 21 Screening Room
- 22 Psychological Clinic
- 23 Empowerment Place
- 24 Laundry



**Welcoming Lobby**  
Low Sensory Zone



Figure 70. Lobby  
Source : Author, 2022

**Serene Waiting Area**  
Low Sensory Zone



Figure 71. Waiting Area  
Source : Author, 2022



## Screening Room

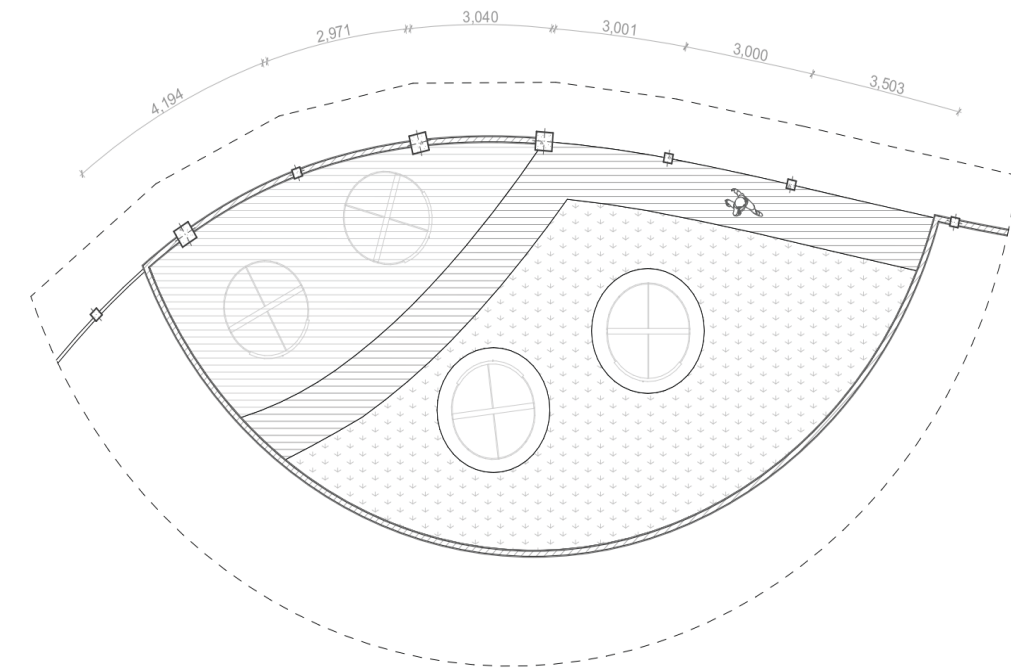
Low Sensory Zone

Distribution of the conceptual flow in the axonometric view following the liberation journey



## Olfaction Pods

Low Sensory Zone

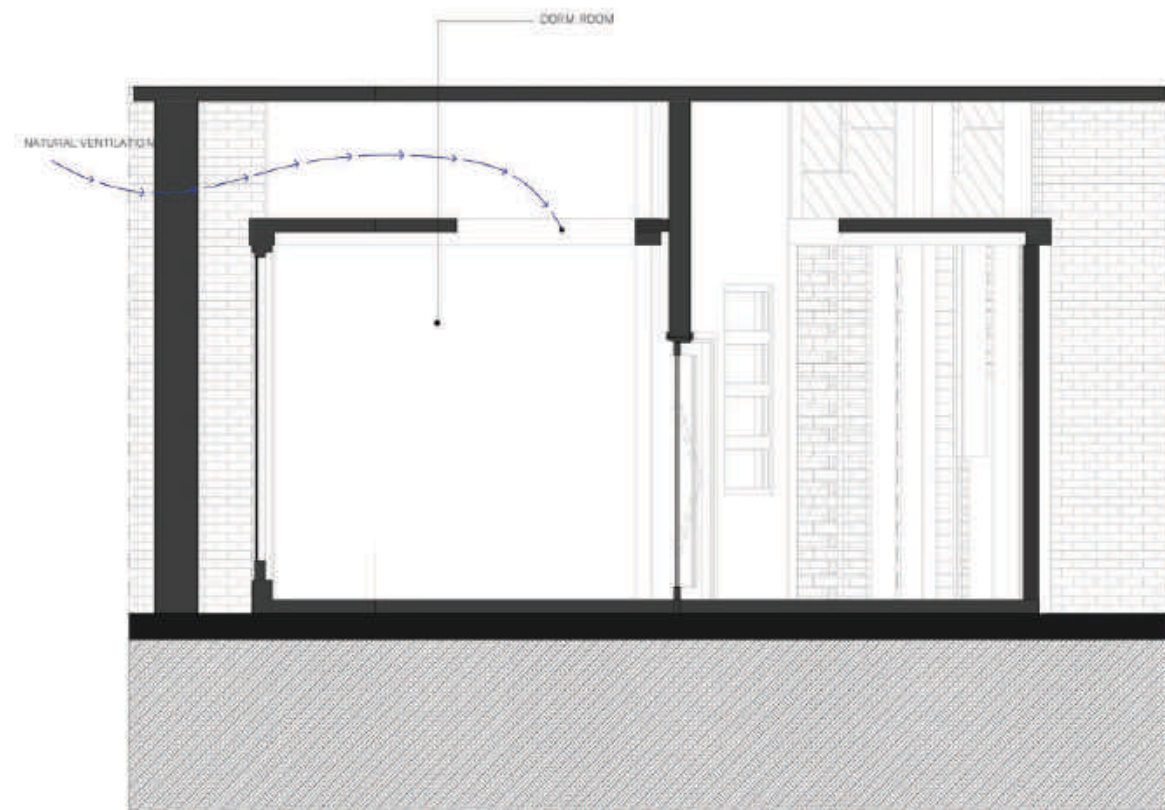
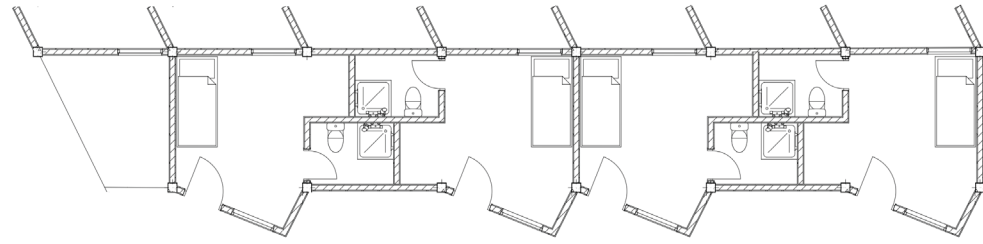




## Dorm Room

Mid Sensory Zone

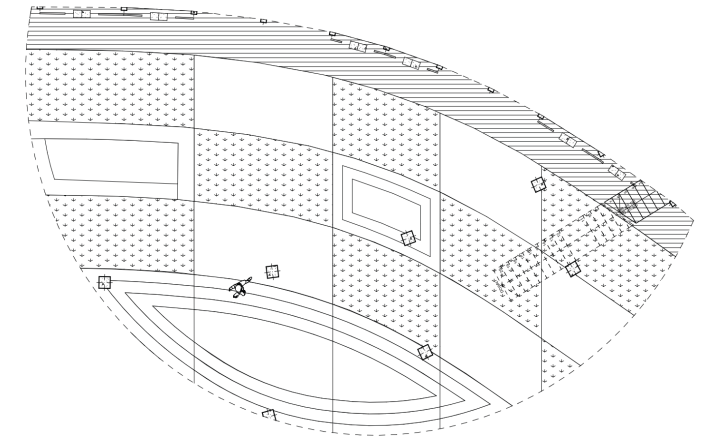
One person each room with toilet, the dorm room is organized to increase privacy by tilting wall orientation for where the door is placed. It is equipped with ceilings that allows air and light to penetrate the room.



## Social Space

Mid Sensory Zone

A shaded space with combination of softscape and hardscape creates comfortable social place with sitting arrangement varies, small and large group.

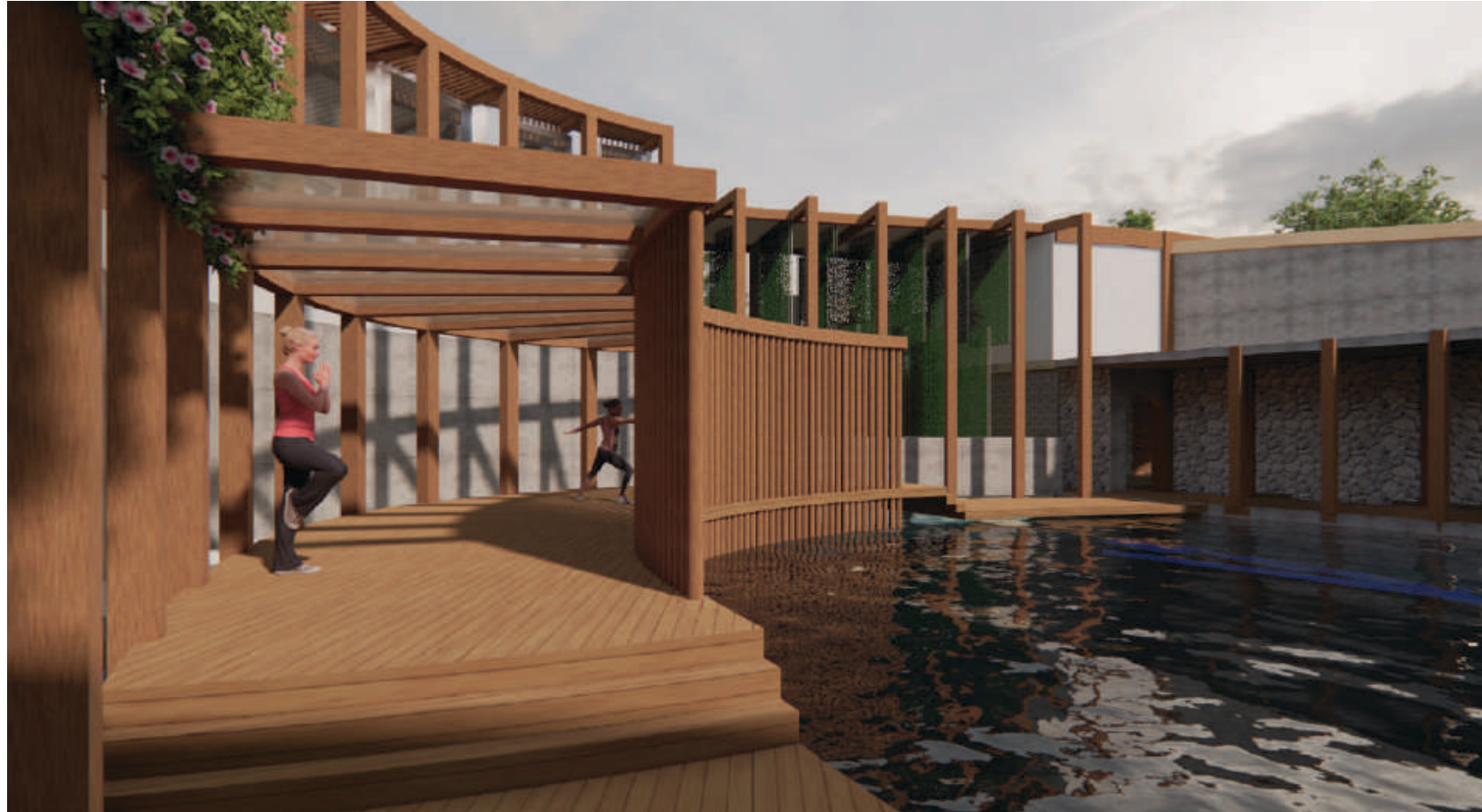




## Meditation Space

### High Sensory Zone

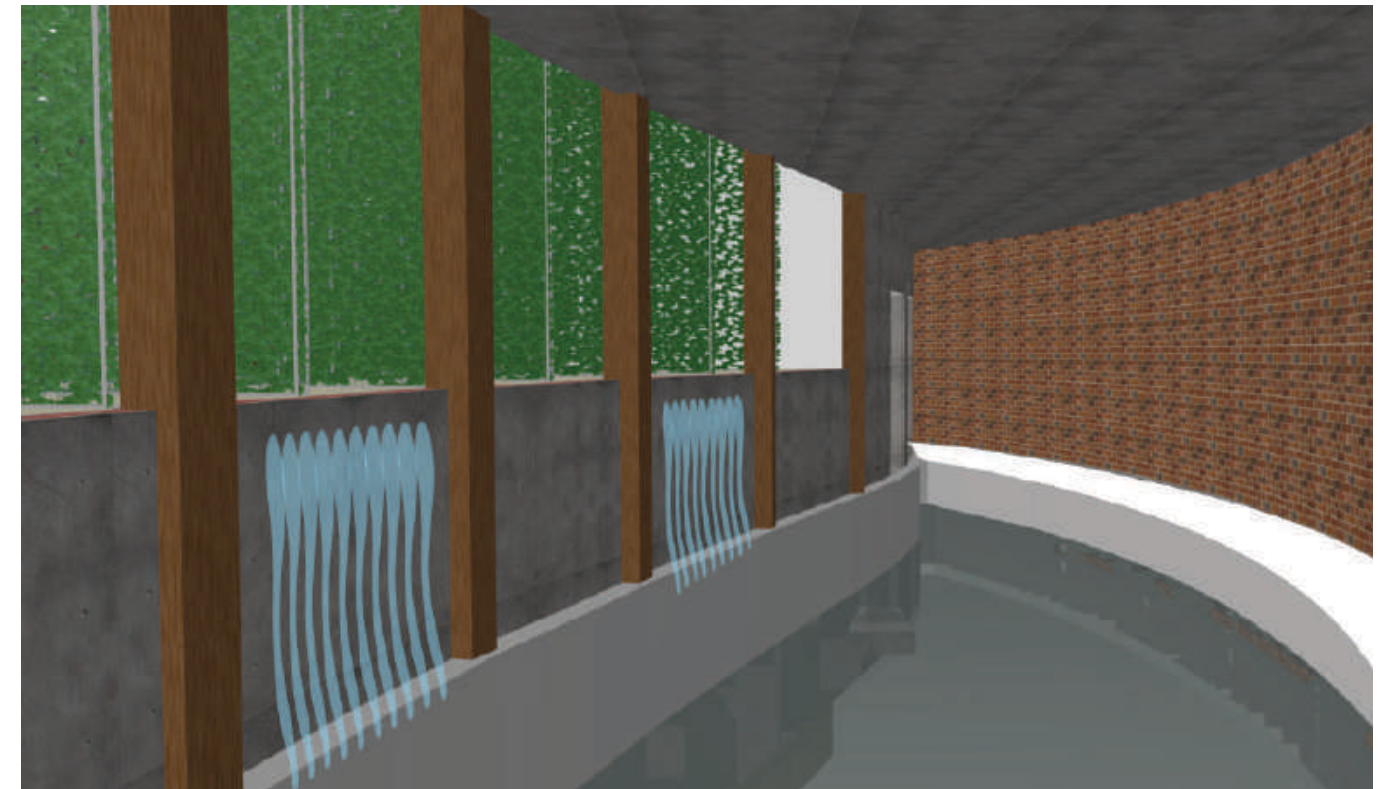
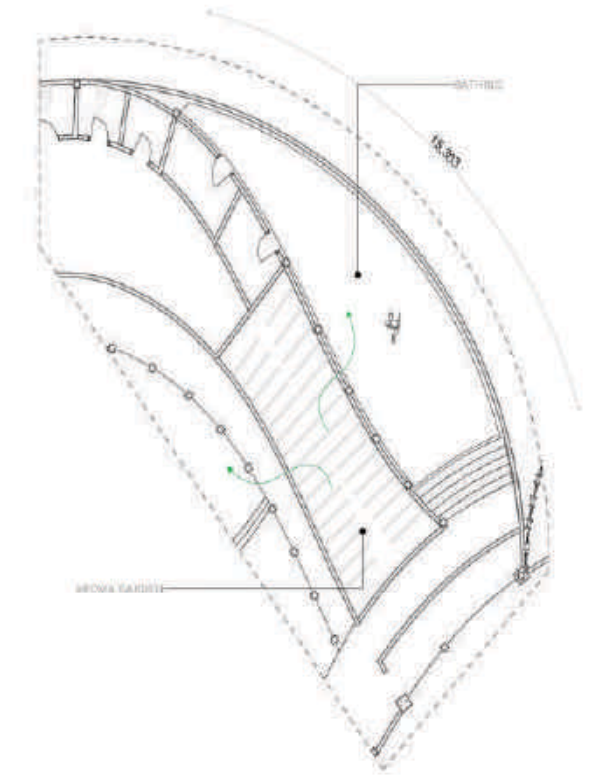
A wooden deck pergola floating above a water pond, the meditation space induce olfaction from aromagarden, visual from its surroundings, and auditory from water flow.



## Place to Breathe

### High Sensory Zone

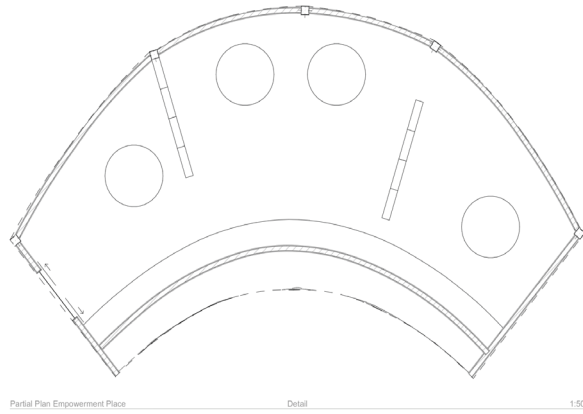
Privacy is achieved by lowering the elevation from ground level. Olfaction experience comes from the aromatic garden.



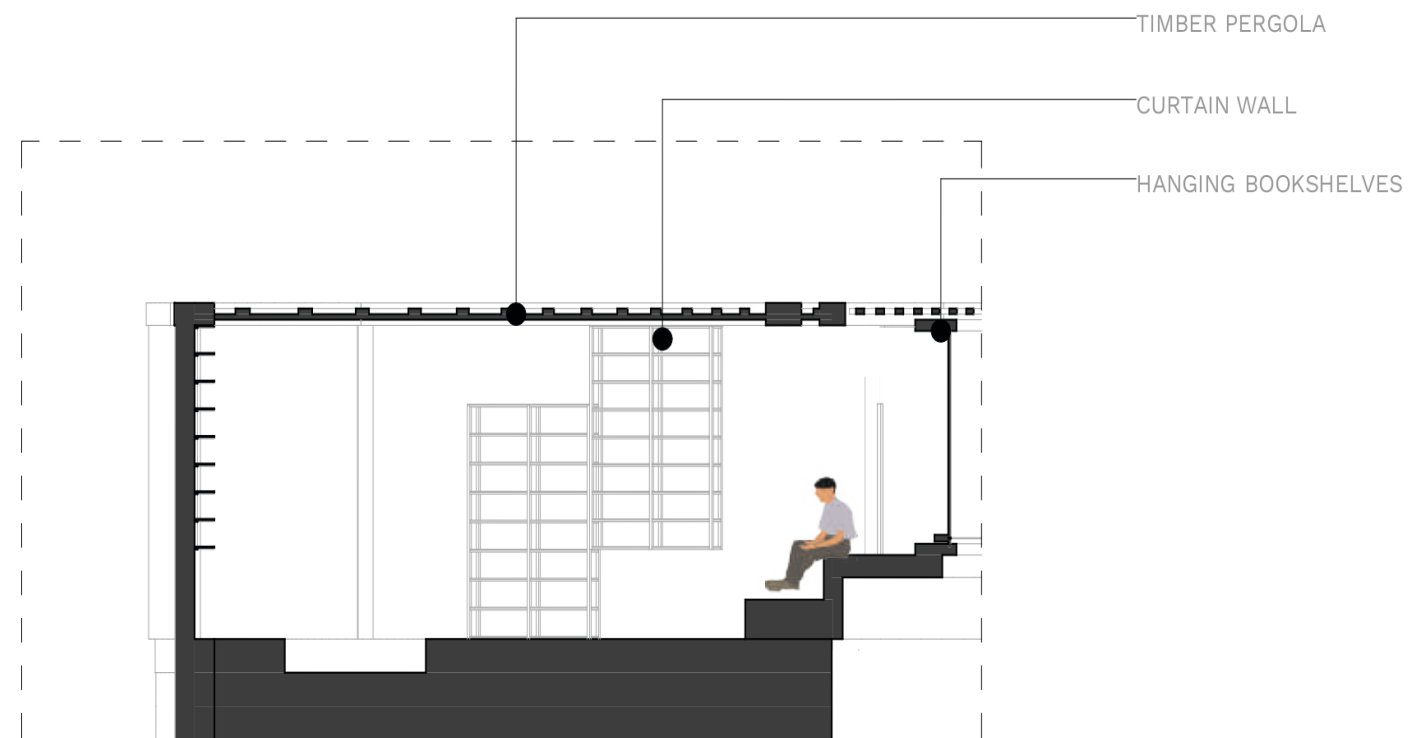


## Empowerment Space

High Sensory Zone



The empowerment facility is where the user could explore knowledge in a space with sufficient natural lighting and view towards water pond and aromatic garden. A hanging bookshelves and circular is the strategy to evokes their interest into this facility.



## Contemplation Corridor

Mid Sensory Zone



The contemplation corridor embodies a demarcated space for certain activity and here the activity is moving from the low to mid sensory. This corridor leads the path to dorm facility so that it does not disturb privacy on empowerment facility.







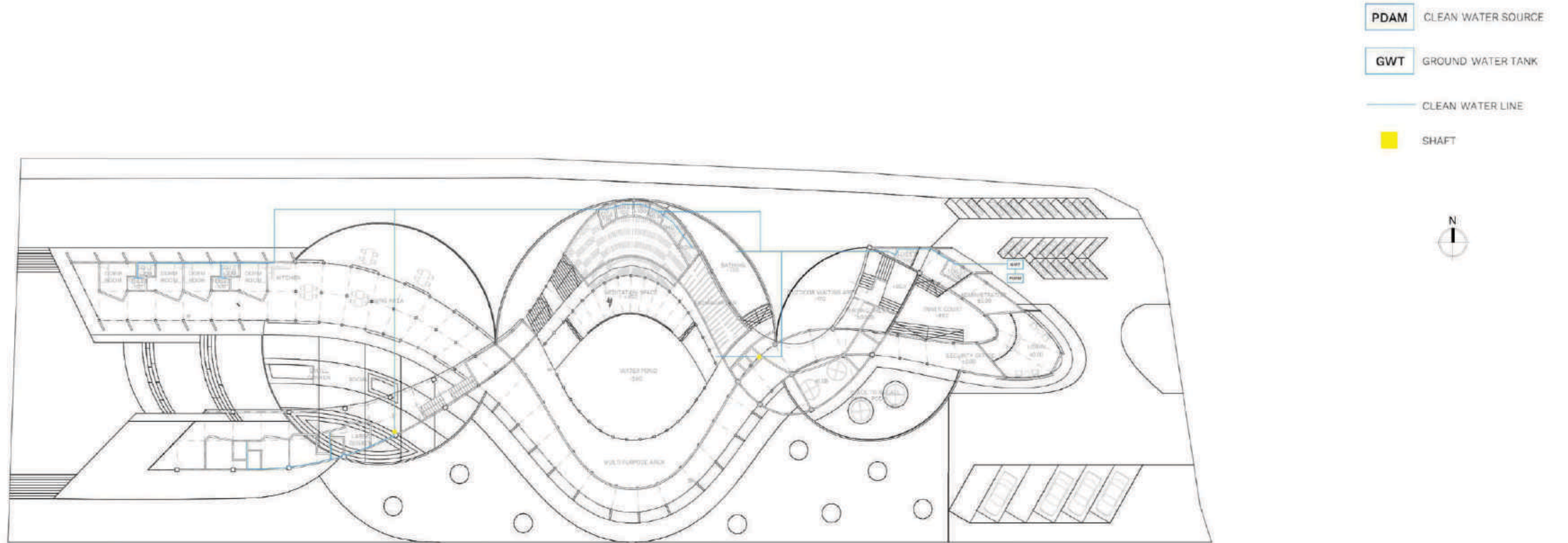
Figure 69. Extrude Axonometric  
Source : Author, 2022

### Axonometric Structure

Two storey mass uses footplate foundation while the one storey mass uses continuous foundation.

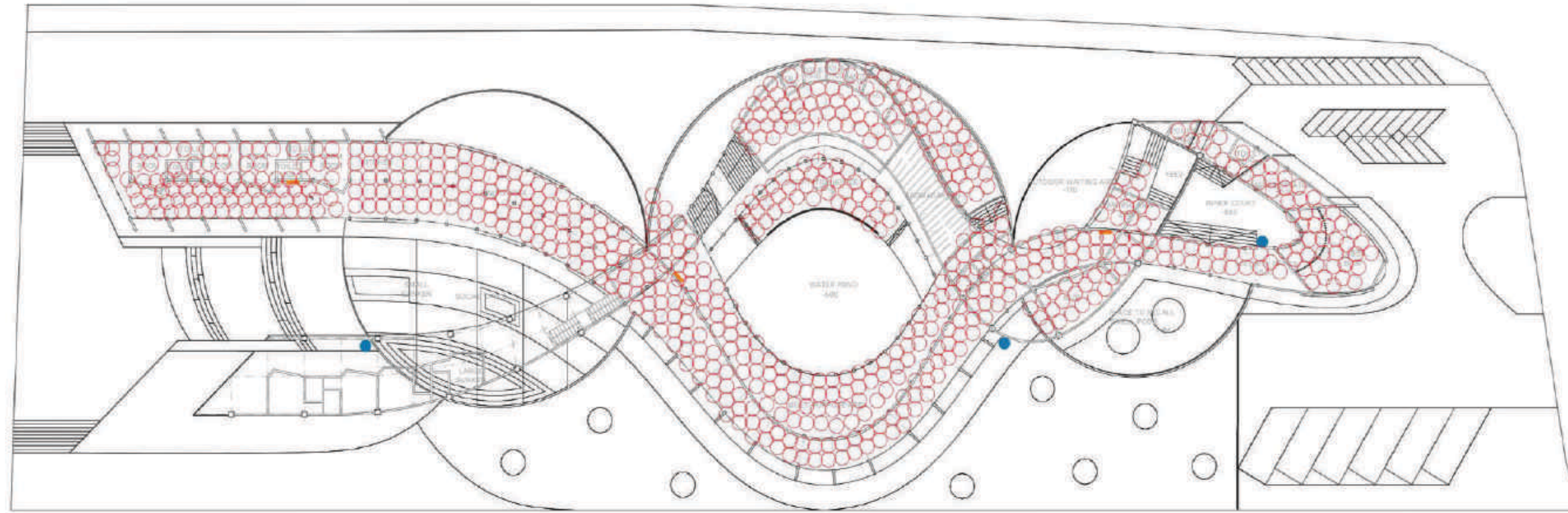


# Water Distribution Scheme



# Fire Protection Scheme

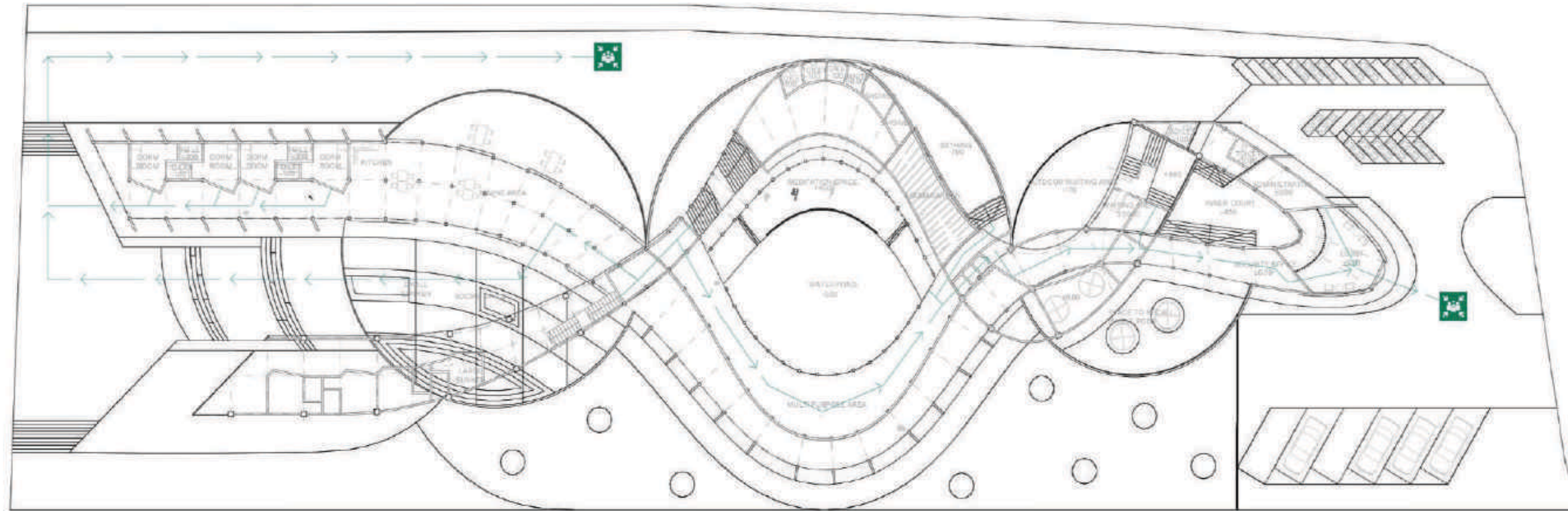
- SPRINKLER
- HYDRANT BOX
- HYDRANT PILLAR





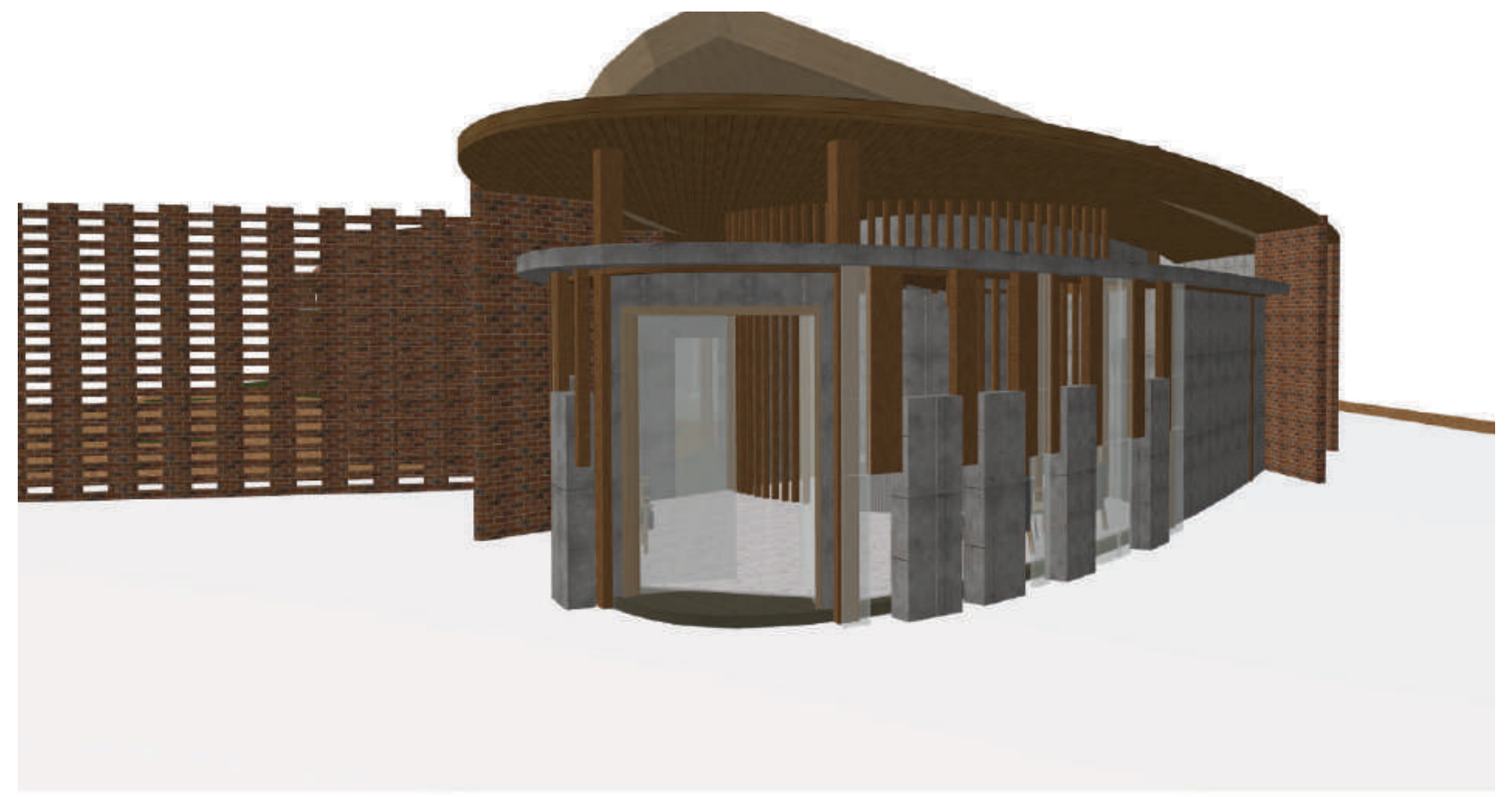
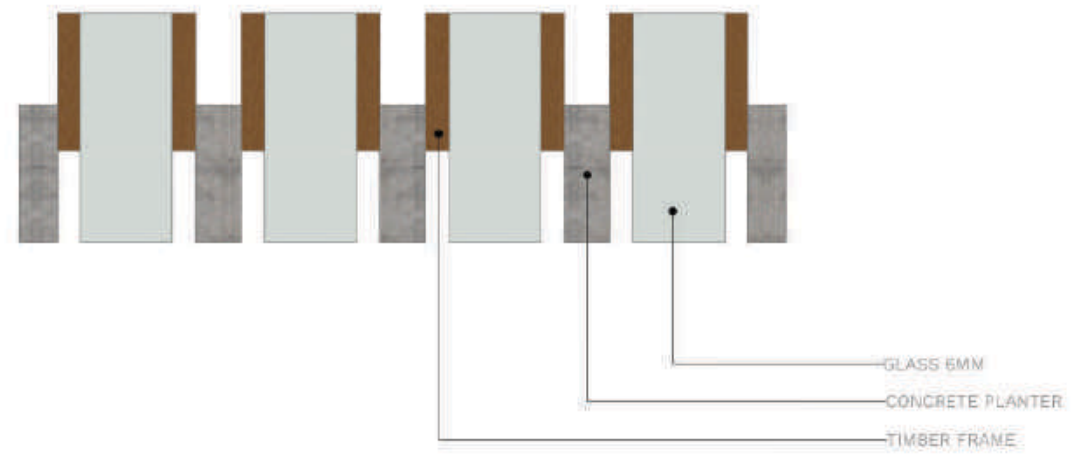
# Evacuation Scheme

- ASSEMBLY POINT
- EVACUATION ROUTE





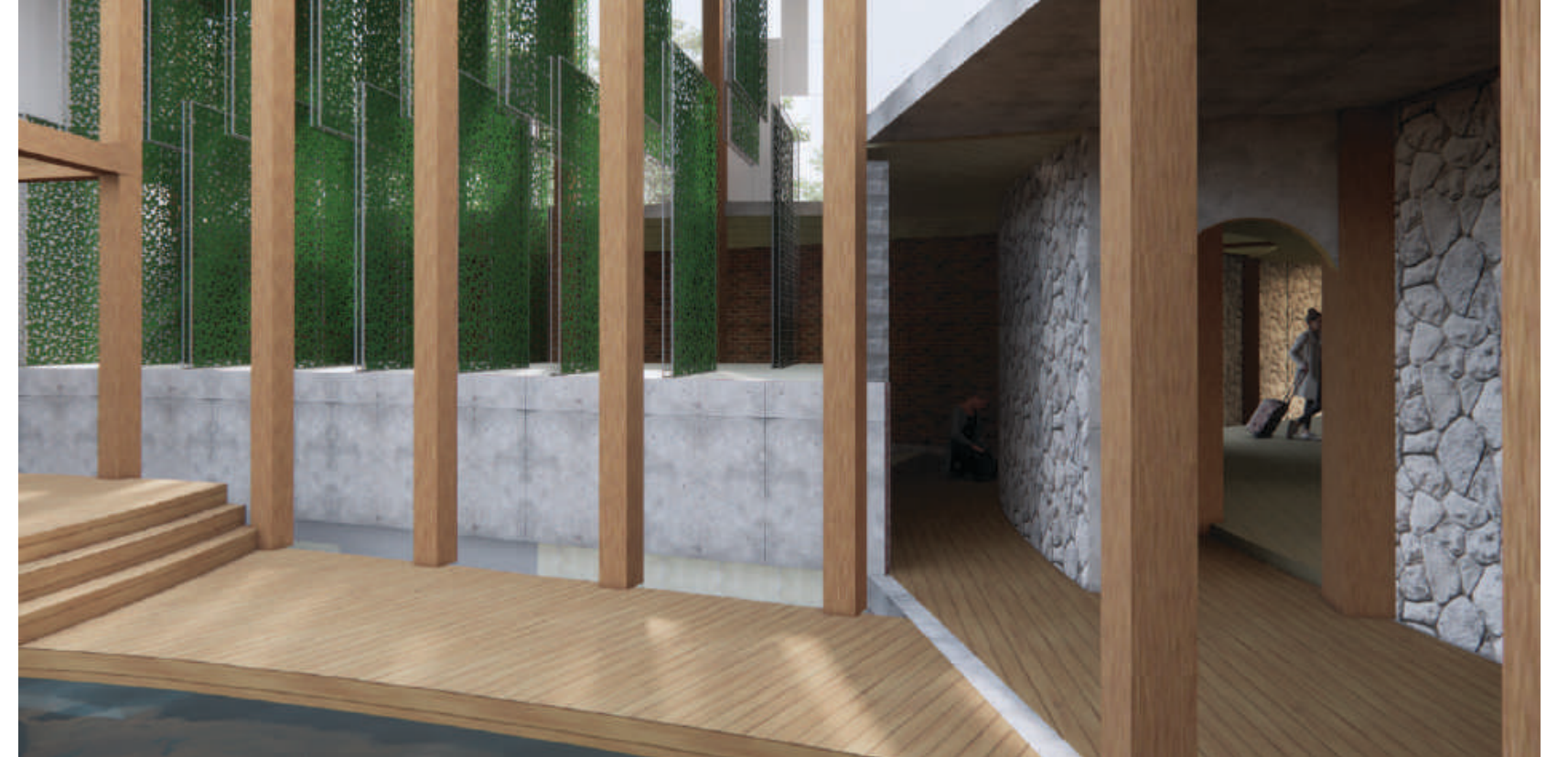
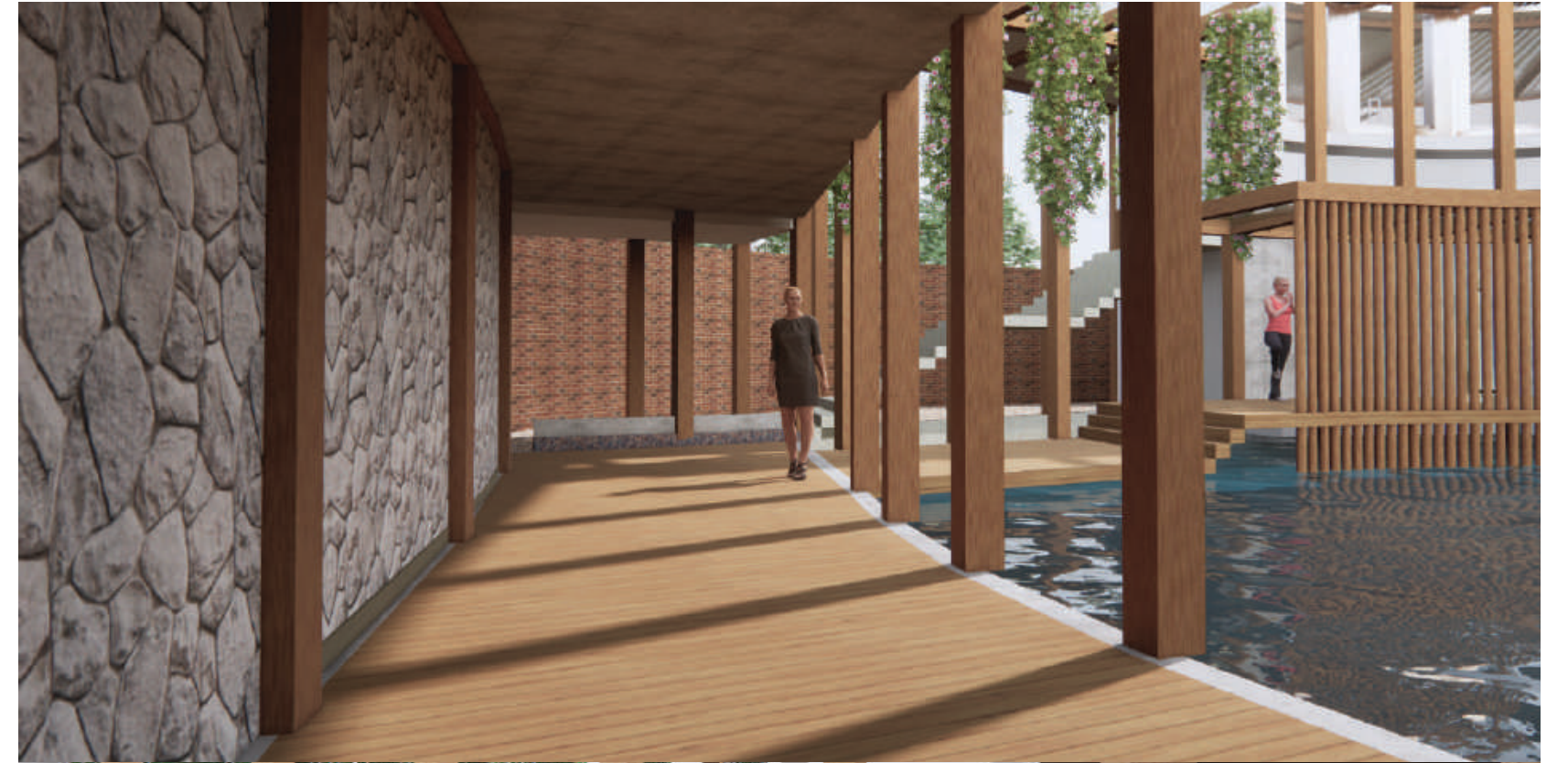
# Building Envelope



















# Design Evaluation

Summary of Juror & Supervisor Review



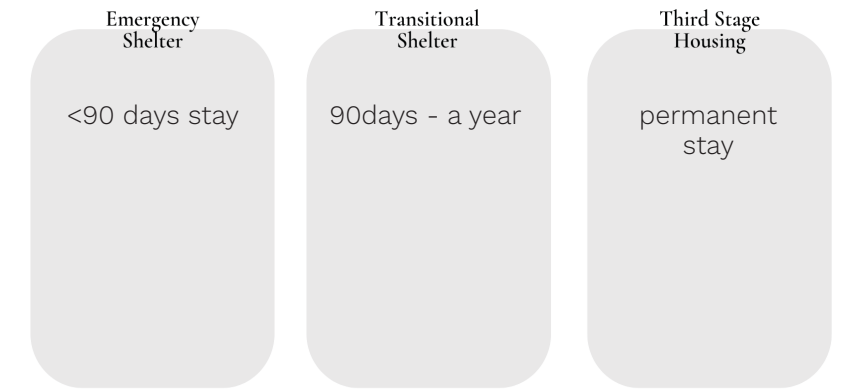
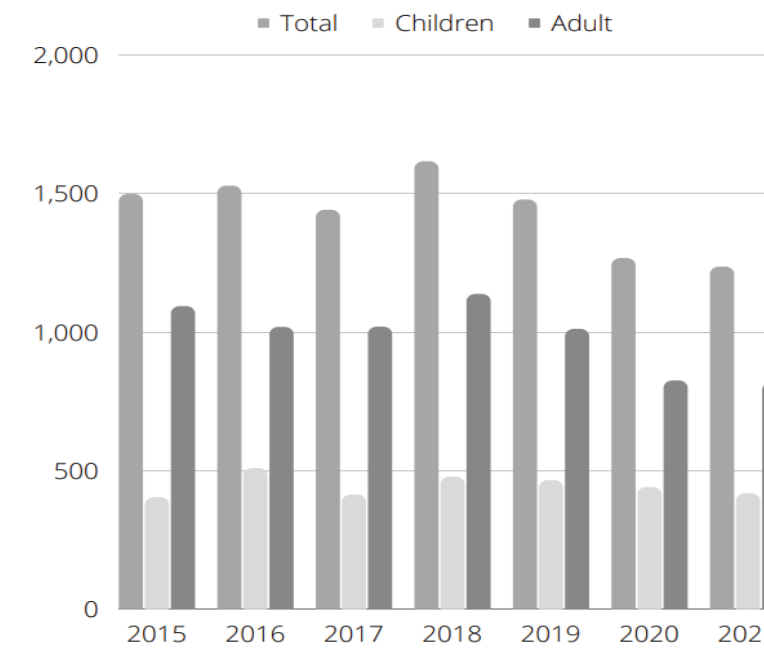
## Design Evaluation

### Review Summary

The design evaluation is intended to offer a further exploration and better design results. There are several points added by the juror and supervisor that need to be added including;

- 1 Provided number of dorm facilities for victims
- 2 Availability of side doors in relation to safety issue
- 3 Argumentation of central water pond triggers suicidal thoughts

## 1 Provided Number of Dorm Facilities



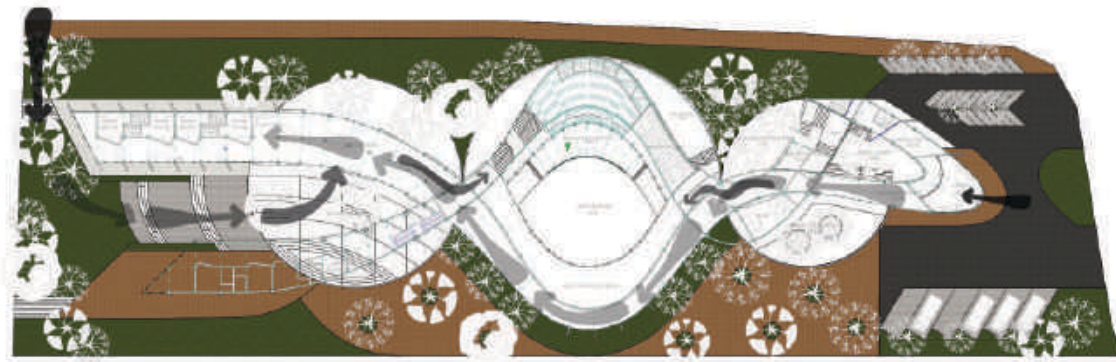
As seen on the diagram (top), the number of reported case in Yogyakarta province is around 60 cases per month. Meanwhile, the number of available dorm in the facility is 10 rooms so that the coverage of victims that could be sheltered is 16%. Moreover, the number, 60, covers not only sexual violence victims but also domestic violence victims. Therefore, a 10 room is adequate.

Based on the type of shelter above, this facility is categorized as an emergency shelter so that it only covers less than 90 days of staying in for the victims.



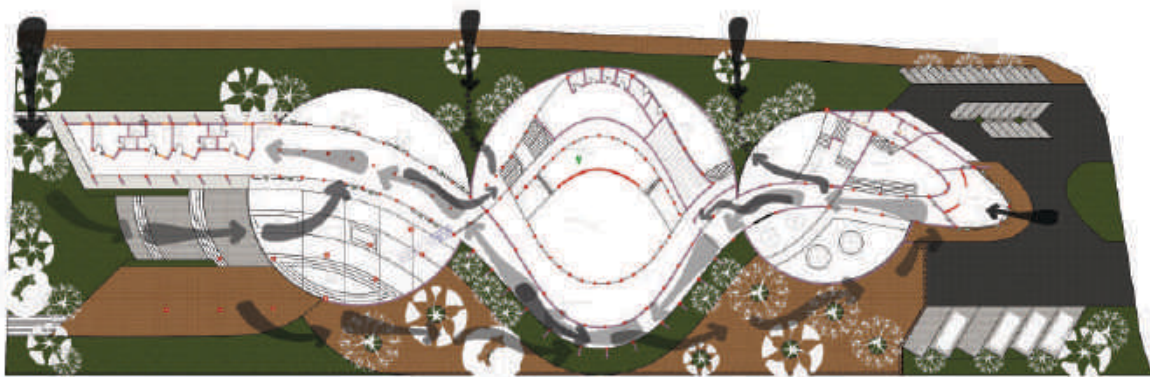
## 2 Availability of Side Doors in Relation in Relation to Safety Issue

### Circulation Before



Having only two entrance, one main entrance on east part for all types of user and side entrance on west part for victim's families or guardians. Circulation is linear as seen on the arrows. Main circulation is the lightest grey.

### Circulation After



By adding side doors to each of the zone of facility, it aims to encourage more safety for the main user. These side doors could be an alternative for supporting user such as technicians, staffs, etc. In term of mitigation, added side doors help to give shortcut to reach the assembly point.

## 3 Argumentation of Central Water Pond Triggers Suicidal Thoughts

Suicide is a complex and multidimensional phenomenon stemming from the interaction of several factors. (Gvion & Apter, 2012) According to the National Institute of Mental Health, risk factors include mental disorders (particularly depression and substance abuse); a prior suicide attempt; a family history of mental disorder, substance abuse, suicide, violence, or physical/sexual abuse; guns or firearms in the home; incarceration; and being exposed to others' suicidal behaviors (NIMH, 2015). Following the risk factors comes the survivor's warning sign, threatening or talking about killing oneself; suicidal ideation; hopelessness; rage or anger; reckless behavior; imprisoned feelings; increased drug abuse; social withdrawal; worry, restlessness, or sleep issues; extreme mood fluctuations; loss of purpose in life.

People who can communicate their problems with family, friends, or others benefit in a various ways. As a result, communication issues are a significant factor affecting suicidal behavior in general, and lethal suicide attempts in particular. Others may utilize suicidal behavior as a form of communicating.

### A Liberation Journey



Acknowledging the Pain & Trauma

A Place to Recall

On the first two stage of A Liberation Journey concept, it encourages the victims to open up since by opening up, they try to transfer or communicate their difficulties. Moreover, they are also stimulated by sensorial experience to feel certain emotion such as calm and focused.

Mental Disorder	Number of Architectural-Based Studies That Took in Consideration This Mental Disorder	Architectural Aspects Which Were Assessed in These Studies	References
Neurodevelopmental disorders	1	Light	(Grant & Egan, 2021)
Intellectual disability	0	N/A	N/A
Global developmental delay	0	N/A	N/A
Communication disorders	11	Space, light, visual support, auditory support, and environmental elements such as electrical fixtures and bathroom fixtures	(Zarek & Parvaneh, 2019), (Horton, 2016), (Vignati & Tisseret, 2019), (Mazzola, 2008, 2014), (Kivimäki et al., 2014), (Khalafpour & Goh, 2017), (Pachauer & Pagnier, 2012), (Anwar & Bhattacharya, 2016), and (Khan & Pratik, 2020, 2020)
Bipolar and related disorders	1	Light	(Benedetti et al., 2001)
Anxiety disorders	2	Space, visual support, auditory support, and environmental elements such as number of windows and doors, room layout, and floor colors	(Khanlou et al., 2018) and (Wong et al., 2016)
Schizophrenia-related disorders	7	Space, light, visual support, auditory support, and environmental elements such as number of windows and doors, room layout, and floor colors	(Gharib et al., 2020), (Nasrallah et al., 2020), (Khanlou et al., 2018), (Litch et al., 2018), (Borin, 2015), (Wagnerfeld et al., 2011), and (Gowdwin et al., 2013)
Dissociative disorders	0	N/A	N/A
Somatic symptom and related disorders	0	N/A	N/A
Feeding and eating disorders	0	N/A	N/A
Sleep-wake disorders	0	N/A	N/A
Disruptive, impulse control, and conduct disorders	0	N/A	N/A
Depressive disorders	3	Light, auditory support	(Wu et al., 2020) and (Sattari & Rydstedt-Kevi, 2016, 2016)

Architectural design features including windows, entrances and exits, walkways and hallways, open space, defensible space, and green space; interior design features including furnishings and color; and ambient features including light, air quality, and noise levels were identified as most influential design features.

Certain indoor and outdoor design elements such as sharp corners, narrow pathways, blind spots, etc. increase anxiety and leads to triggers while soothing features (e.g. open spaces, situational awareness providing features such as lack of clutter or open floor plans) can relax users.

In terms of security/privacy, the importance of demarcated spaces for particular activities and extra space provided where possible. Meanwhile, lights, the importance of light for controlling the circadian system thus reducing depression, agitation, sleep, eating patterns and also easing pain in some instances. Significant differences were found between natural and artificial lighting including for both staff and patients, for example, a lack of natural lighting can cause seasonal affective disorder (SAD), changes to hormonal body rhythms, glare and flicker, work disruptions, increased staff stress, and decreased staff satisfaction

The impact of architecture on mental health outcomes is that architecture can enrich the environment with complexity, order, and aesthetic considerations offering perceptual cues to assist and avoid confusion. Access to nature and sensory/salutogenic considerations (Golembiewski, 2010)



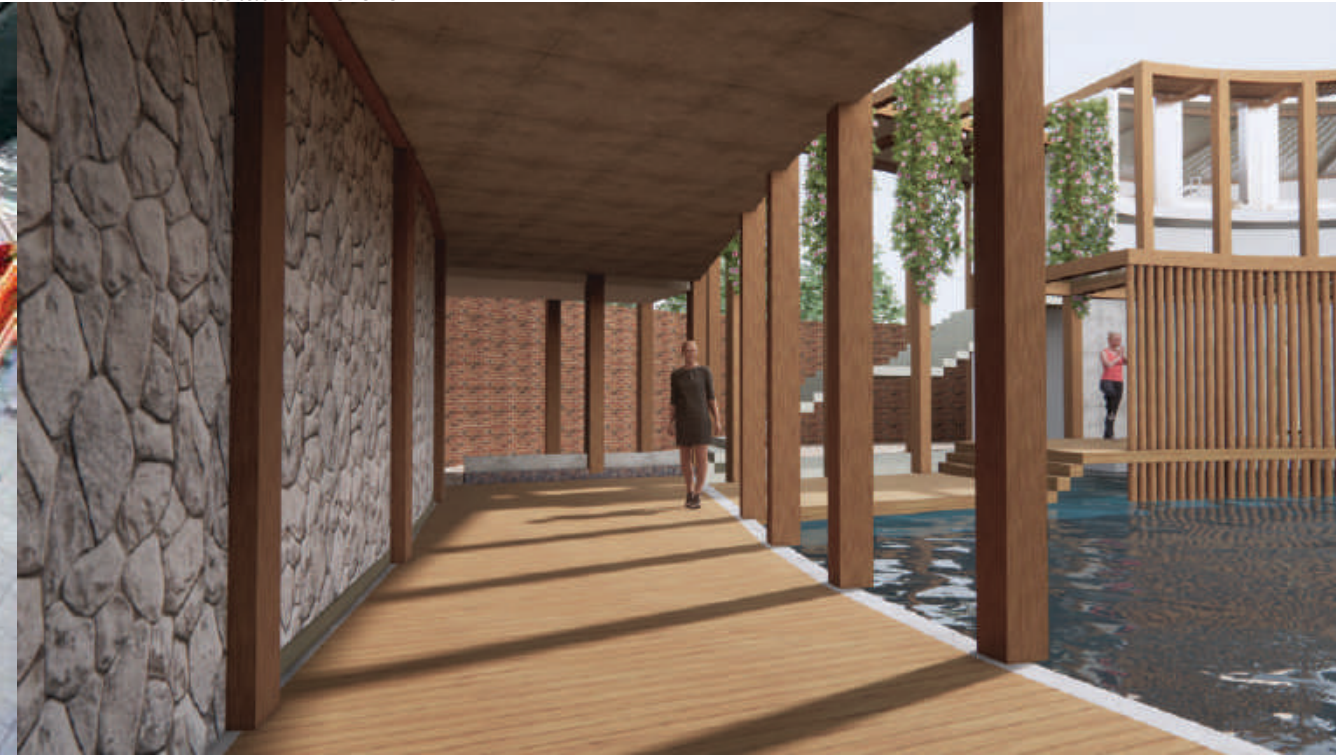
3 Argumentation of Central Water Pond Triggers Suicidal Thoughts  
*Lessons from the Vessel*



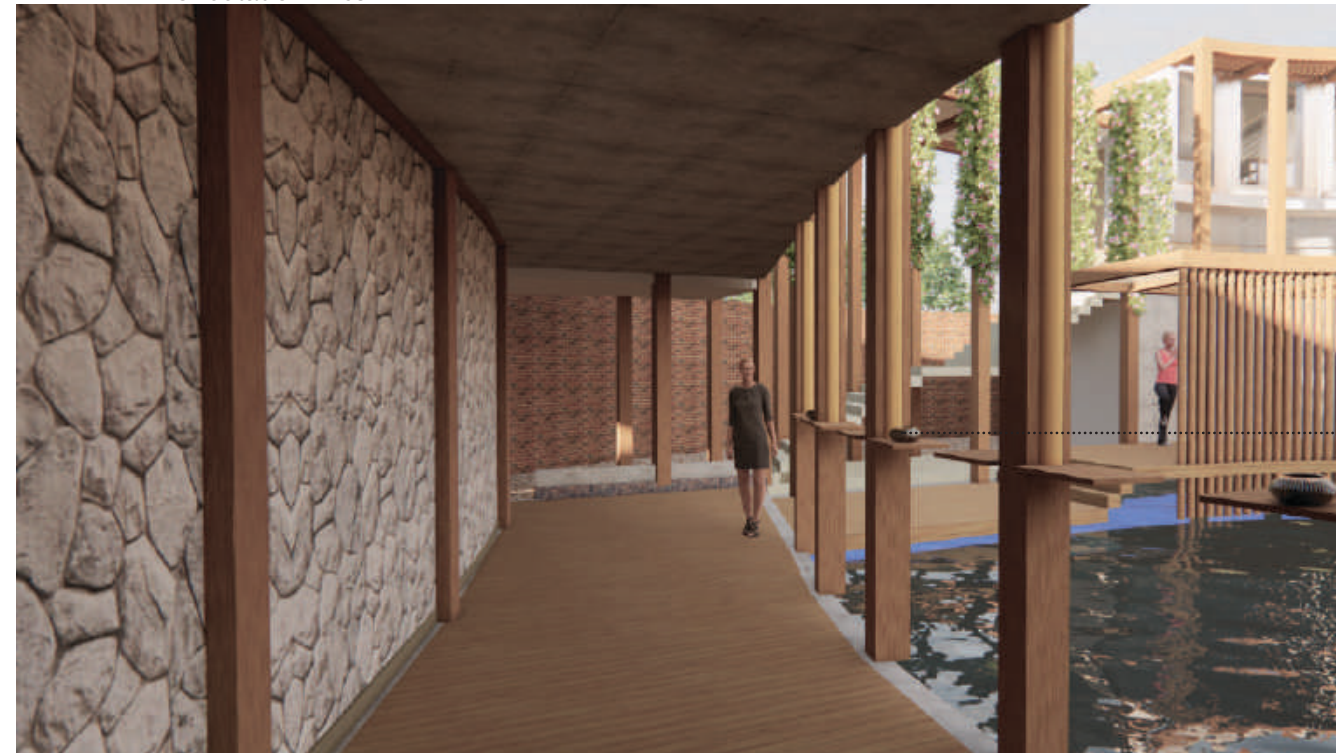
Suicidal thoughts among young people are typically impulsive and preventable, according to researcher Charlotta Thodelius in her PhD thesis on suicidal scenarios in outdoor public areas. While some studies demonstrate that installing barriers simply leads suicidal persons elsewhere, it has also been shown that installing barriers saves more lives, particularly among children and young adults who act on impulse. It is critical to find out how to create barriers without instilling fear or negative feelings. When addressing prevention and security, the framework idea is that it needs to be a harsh design, such as rough steel fences, but the most difficult issue is to maintain the usual functions of areas for everyday activities undisturbed while also avoiding suicidal occurrences.

People around the world, especially in urban environments, are feeling increasingly isolated and disconnected. Therefore, places should be built that slow the development of depression, anxiety, and other mental illnesses by designing for face-to-face interactions and increased mobility.

3 Argumentation of Central Water Pond Triggers Suicidal Thoughts  
 Circulation **Before**



Circulation **After**



A response to the possibility of triggering a suicidal thought, it incorporates the olfaction exploration by creating a place to place an offerings (like in bali-nese tradition, canang sari)



# Attachment

Plagiarism Check  
Architectural Presentation Board  
References  
Technical Drawing



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## **SURAT KETERANGAN HASIL CEK PLAGIASI**

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*Bismillaahirrahmaanirrahiim*

*Assalamualaikum Wr. Wb.*

Dengan ini, menerangkan Bahwa:

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Judul Karya Ilmiah : Architecture as Safe Space: Sensory Based Community Center for Victims of Domestic and Sexual Violence in Yogyakarta

Karya ilmiah yang bersangkutan di atas telah melalui proses cek plagiasi menggunakan **Turnitin** dengan hasil kemiripan (*similarity*) sebesar **16 (Enam Belas) %**.

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

*Wassalamualaikum Wr. Wb.*

Yogyakarta, 7/6/2022  
Direktur



Joko S. Prianto, SIP, M.Hum



# SENSORY-BASED COMMUNITY CENTER

for Victims of Sexual Violence in Yogyakarta

Many cases of women being sexually harassed lead to the feeling of unsafety and traumatic. Moreover, not only are these type of crime possibly experienced by women but also children and men, basically anyone.

To be remembered that this type of crime is mostly caused by the feeling of superiority among others and in the case of our society due to its patriarchal culture, women and girls are often playing roles as victims. Another intriguing part when talking about sexual violence, the perpetrator does not rarely come from convincing background (eg. activist, utradu, a father) that people were deceived by the possibility of them doing such thing. Even when there is a clear evidence that a man violates a woman for instance, it is not shocking at all when the one being blamed and gaslight is the woman. Indeed, it is just a proof that society are often tried to rule the way women live. Therefore, how are they supposed to feel safe?

There are many cases that women could not express their true self when in public spaces because of the community that is not tolerant enough and many other reasons. It proves that indeed the space is not welcoming yet belongs to a specific class and certain background of people. The idea of making a safe space for women to feel validated, defending their rights and could explore and allow them to shine has been triggering this project.



### Diving into Violence

#### About Pain and Trauma

Reksa Dyah Utami is one of the stakeholders in Yogyakarta that directly facilitate the victims. They often work in collaboration with other supporting service such as temporary shelter, vocational school, hospital, etc.

A physical facility that can be found within their office is such as kitchen, screening room, and/or consultation room.

On the program below, it shows how the sequence of help offered by Reksa Dyah Utami when a victim of sexual violence seeks help. At first they will be screened to decide what their needs and what kind of support that can be offered. The screening process is also analyzing the current state, both psychological and physical of the victims. If their condition prohibit them to go back home, they will be offered a shelter or a place to stay (shortly) within the period of their stay. They will have a psychological check up and/or if possible, a class provided in collaboration with the vocational school.

Based on the experience, each particular weakness is categorized into certain sensory level of experience. The higher the level, the more stimulation of multi-sensory experienced.

#### Sequence of Help

General Problem: How to design a healing facility that has quality to make the user feel safe and welcomed?

Specific Problem: How to design healing facilities for victims of sexual violence through sensory approach in Yogyakarta?

Low Sensory Zone: SECURITY OFFICE, ADMINISTRATION, TOILET, INFORMATION CENTER, WAITING AREA, SCREENING ROOM, PARKING LOT.

Mid Sensory Zone: SHOWER, TOILET, LAUNDRY, DORM ROOM, CONTEMPLATION SPACE, SOCIAL SPACE, KITCHEN.

High Sensory Zone: SHOWER, TOILET, BATHING PLACE, CONTEMPLATION SPACE, EMPLOYMENT SPACE, MULTI-SENSORY CORRIDOR, AROMA GARDEN.



## Site Context

Kayu Putih  
Sukoharjo  
Kec. Muli  
Kabupaten Sleman  
Daerah Istimewa Yogyakarta

The site possesses several aspects giving strength to the facilities to achieve safety and tranquility with sensorial quality.

1. Could be accessed through multiple entrances
2. Has tranquil quality, secluded but still accessible
3. Nearby hospital within a radius of less than 5 km
4. Has vegetation inventory
5. Has good air quality

Moreover, at the back of the site is a river that gives opportunities to appeal and explore sensory experiences.



## Mass Concept



Depths of trauma memories  
Connected one to the other



Transformed to fluid representing  
ups and down phase of dealing  
with the trauma



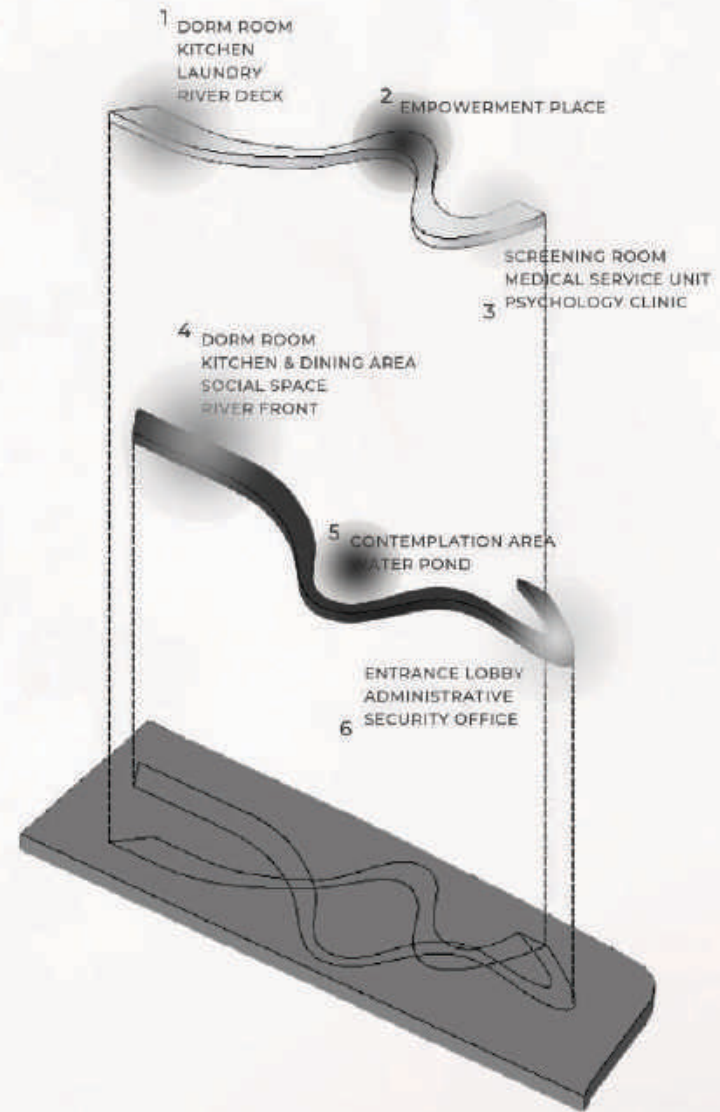
Implemented centralized  
composition enhances the connection  
in between the facilities



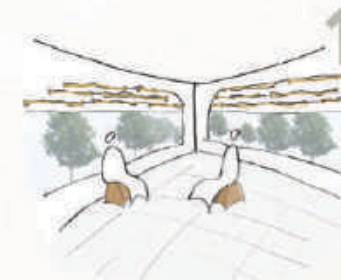
Respond to the river on the left part  
Contrast: contradicting self-image,  
dark (bottom) less constructing and  
destructive image, light (top)  
empowered and confidence image



Openness symbolizes a sense  
of liberation and hope



## A Liberation Journey

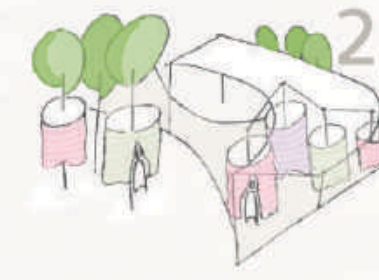


### / Acknowledging the Pain & Trauma /

In order to be able to heal, one should acknowledge or start dealing with the pain of their trauma. The calmness and purity of nature helps the victims to feel at peace. Here, the vision stimuli plays an important role to capture the nature's character.

Drawing the eye to outlook the view of  
eye-level tree branches by using pale  
color palette for interior

Flooring texture allowing user to feel the  
breeze of natural stone that could bring  
out sense of comfort

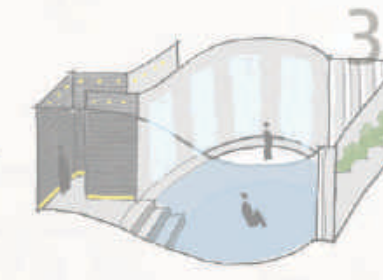


### / A Place to Recall /

To fully deliver the victims' story is impossible doing it on one session. Therefore, a place to recall is to give a safe space through mainly olfaction stimuli by creating pods of smell that what is trying to highlight here is the different preferences or perceptions of smell caught. In the pods they can write or paint their story in other words it allows them to have time and space for themselves.

Pods of smell are curated through layers  
of vertical elements, infused with  
characterized smell changed in a circular  
metal rings

Solid and void space experienced  
presented by placement of pods and  
sheltered-unsheltered space



### / The Power of Breath /

Bathing could be one of the activity to practice breathing. The hot water stimulation could enhance the feeling of warm and calm. By practicing body mindfulness, it means to release the trauma stressor and accept the feeling as it is.

Water temperature stimulation and  
material roughness from natural stone

Vertical water splash running down on  
the rough texture of stones

Warmth light ambiance directed to  
natural stones showing texture of natural  
stone



### / Meditating to Connect Body and Soul /

A haptic experience by incorporating tactile from a rough material, different elevation, and temperature from cross ventilation also water feature is presented to develop nearness and intimacy feeling so that bodily senses could be appealed and the mind could focus on oneself.

Surrounded by water pond, the sound of  
water slowly flowing beneath the space  
enhance calmness

Catching mild olfaction experienced from  
aroma-garden

Natural lights coming through patterned  
facade creating shadows for the interior

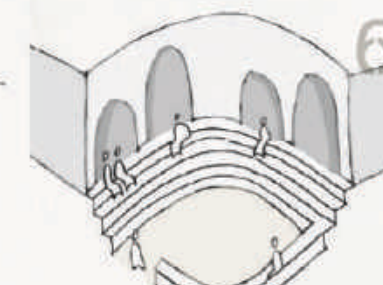


### / Empowerment Space /

A healing journey does not define as the way journey but rather series of miraculous enlightenment that is leveled up. An empowerment space is intended to be a stimulation of creativity, knowledge making, and productive interactions.

Intricate timber texture represented on  
the vertical elements with a twist of  
cavity

Penetration of natural lights surrounding  
the space above the timber texture as  
one of the function is a place to learn



### / Reconnecting with Others /

Haptic experience by incorporating tactile from rough material, different elevation, and temperature from cross ventilation also water feature is presented to develop nearness and intimacy feeling so that bodily senses could be appealed and the mind could focus on oneself.

The sunken concept create zones of smell  
encourage deeper bondings

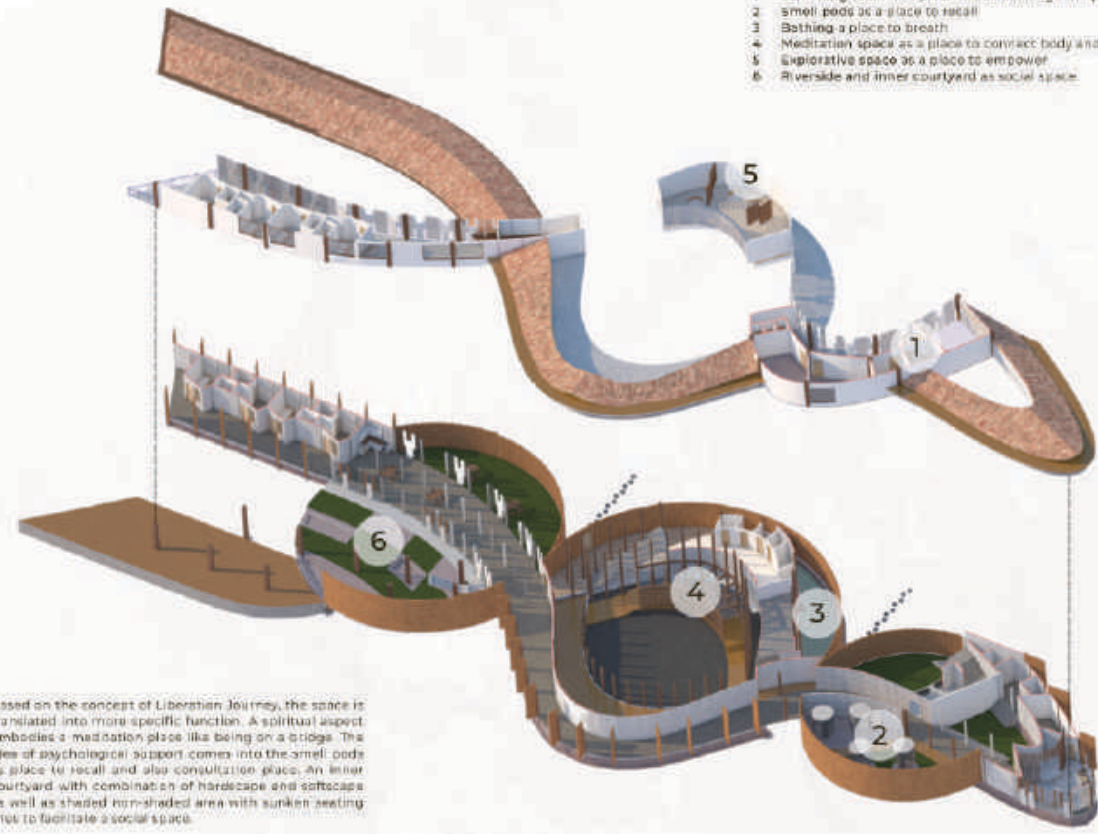
Circulated terraced concrete aims to  
create closure

Different roughness level of concrete  
presented to the space and the  
temperature level created by sunken



# Conceptual Implementation

- 1 Screening room as a place to acknowledge the pain
- 2 smell pods as a place to recall
- 3 Bathing a place to breathe
- 4 Meditation space as a place to connect body and soul
- 5 explorative space as a place to empower
- 6 Riverside and inner courtyard as social space



Based on the concept of Liberation Journey, the space is translated into more specific function. A spiritual aspect embodies a meditation place like being on a bridge. The idea of psychological support comes into the smell pods as place to recall and also consultation place. An inner courtyard with combination of hardscape and softscape as well as shaded non-shaded area with sunken seating (tree) to facilitate a social space.

**Screening Room**  
As an acknowledging the pain concept, sensory experience that is explored here is visual.



**Smell Pods**  
From a place to recall, it allows the victims to express their feeling in a more private way.



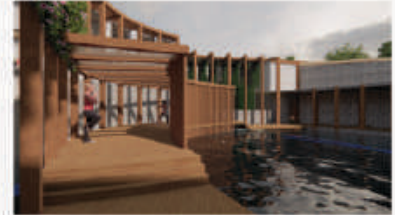
**Bathing**  
Privacy is achieved by lowering the elevation from ground level. Olfaction experience comes from the aromatic garden.



**A Riverside & Innercourt Yard**  
A shaded space with combination of softscape and hardscape creates comfortable social place with sitting arrangement varies, small and large group.



**Meditation Space**  
A wooden deck pergola floating above a water pond, the meditation space induce olfaction from aromatic garden, visual from its surroundings, and auditory from water flow.



# Consultation Facility



/ Welcoming Entrance /

/ Information Center /

# Empowerment Facility



/ Monitor Facade /

/ Empowerment Place /

/ Floating Contemplation Space /



/ Multi-Sensory Corridor /

/ Aroma Garden & Path to Bathing /

/ Contemplation Corridor /

# Dorm & Its Facilities



/ Social Spaces & River Front /

/ Dorm Area & Path to River Deck /



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