The Ritual of Healing:

Re-Imagine Hamilton's Asylum of
the Insane as a Site of Mental Retreat

by

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in fulfillment of the
thesis requirement for the degree of
Master of Architecture

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Author’s Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis including any required final revisions as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

For centuries, hospitals have been designed to prioritize efficiency, control, and cleanliness, over the lived experiences of patients. While these decisions support medical interventions and treatments, they often ignore the sensory needs and emotional aspects of healing, as well as a patient's relationship with their loved ones and the community that they are a part. As a result, patients, especially those undergoing long-term treatment or life-threatening illnesses, are subjected to an environment filled with noise pollution, disrupted sleep, rigid schedules, disconnection from others, and lack of autonomy and privacy. These conditions not only damage mental well-being of patients, but also slow recovery. The evolution of healthcare architecture in North America, from charitable organizations to highly standardized medical mega cities, has further distanced care spaces from interpersonal, communal, and spiritual aspects of healing.

This thesis argues that contemporary healing spaces must improve beyond this narrow focus on physical treatment and should introduce spatial qualities and arrangements that support the holistic well-being of patients. Learning from pre-modern healing traditions and studies on the environmental impact on patients' cognitive behaviours, this research proposes spaces and activities that enrich the mind's health and are capable of restoring meaning back to life. Through adaptive reuse of an abandoned heritage building in Hamilton, the design turns one of the most notorious places of confinement, to a retreat-like space where programs are arranged according to the process of ritual to help patients develop a better routine, connection with others, and confidence in themselves to fight against illnesses. By the integration of flexible spaces, spatial sequence, and life-like qualities, the thesis explains how these strategies could counteract the negative impacts of modern hospitals and provide environments that support emotional resilience and social connections. It positions holistic care as an integral part of healthcare environments, encouraging patients to recover without losing the sense of living and hope for a better future.

Acknowledgment

Having positive healing spaces are essential in life. I dedicate this writing to my future mother-in-law, who suffered from ovarian cancer and had to stay in hospitals for extended period of time. I wish no one will ever have to go through this, and I want to contribute in improving spaces where people in vulnerability need the most.

I completed my thesis under the supervision of Professor Tracey Eve Winton, who provided wonderful comments and suggestions on my research and design. Thank you for all your time and support.

Professor Marie-Paule Macdonald, who is my committee member, gave me a new perspective on architectural theory and design. Thank you for contributing to my thesis.

To my mom, and my dad, and extended families who loved me and supported me through this, I cannot express how grateful I am to have you in my life. Thank you all very much for understanding and cheering me up during the most difficult time.

Land Acknowledgments

As a student of Waterloo, I acknowledge that the school of architecture is located on the traditional territory of the Neutral, Anishinaabe, and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, Land Promised to the Six Nations that includes six miles on each side of the Grand River.

I further acknowledge that my thesis site, situated at Century Manor in Hamilton is on the traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee and Mississaugas. This land is covered by the Dish With One Spoon Wampum Belt Covenant, which was an agreement between the Haudenosaunee and Anishinaabek to share and care for the resources around the Great Lakes. I honour the ongoing relationships of Indigenous Nations, and am committed to supporting reconciliation through design practices.

Dedication

To my mom and my dad, who made the decision to bring me to Canada for a better life, and who supported me wholeheartedly without any complaints. And their bank accounts.

To my future mother-in-law, who inspired me to do this thesis, I really hope the research that I have completed will be meaningful and be beneficial to people in crisis.

To my friends and peers in architecture, and their companionship throughout this program. Life is hard, and I am grateful for the time they spent on long calls at 2am in the morning, listening to all my problems and promising me the results would turn out just the way I wanted them to.

To my thesis supervisor, Tracey Eve Winton, and my committee member, Marie-Paule Macdonald, for their incredible support throughout the process. Their feedback and suggestions were incredibly important to me, and the thesis wouldn't be as strong without their help.

To my partner, for giving me mental support during the hardest times.

To myself, for pushing through endless sleepless nights and putting all the materials together. Only I know how far I have come and how far I will go.

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1 | Introduction

1.1 The Hospital Context

Hospitals have been designed as containments for illness that maximize efficiency and surveillance for centuries. Patients do not encounter examinations and treatments alone; they experience them through spaces, sequence, atmosphere, and environment. The spatial qualities of hospitals, such as light, acoustic, space arrangement, access to nature, as well as privacy and patient autonomy, have been neglected to prioritise sterility and controllable spaces that improve the effectiveness of treatments. While this strategy aims to reduce the overall time patients require in a hospital, each stay becomes less bearable, especially for people who are going through life-threatening illnesses and must remain in a hospital for an extended period of time. As global health systems confront rising demands for clinical care, hospital environments become a primary site for care delivery, making spatial qualities a major concern. While healthcare architecture adjusts itself to the accelerated pressure in supporting patients' health and safety, it only addresses the physical wellness of patients, as a result, reducing them to treatable bodies without feelings or relationships with others. Patients often face stress caused by disturbed sleep, light/noise pollution, social isolation from families and friends, lack of salutogenic features, and/or being left in the hallway without any comfort or privacy. The lack of spaces dedicated to the emotional and social needs of patients contributes to loneliness, anxiety, and vulnerability, which impacts their mental health and slows down the healing process.

One example of this is the presence of noise in care spaces. Sound design is intended to improve the response time of care workers; however, this has its own disadvantages. Research shows that noise pollution in hospitals "is considered a health hazard as it can have various adverse effects on the human body… effects of noise exposure can be seen on various systems of the body and also on the psychological health of the individual".[1] Contrary to the design intention, noise pollution causes patients stress and disturbs their sleep, therefore slowing down recovery. Other similar examples include disturbances throughout the day, where medications and examinations are provided solely based on the requirements of treatment plans and have no respect for the patients' schedules. Patients are often woken

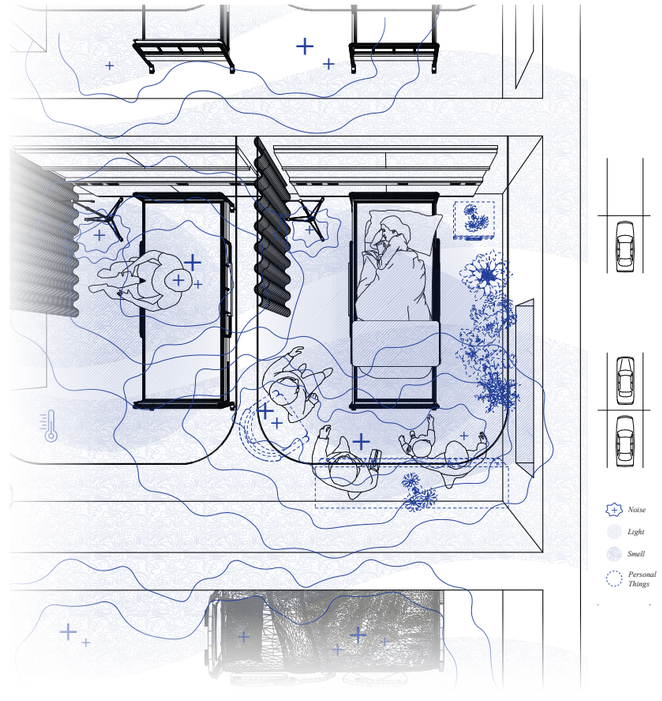


Figure. 1.1. Experience of a Patient Within Hospital Room

1. Joseph, Bennet Elsa, Haleem Mehazabeen, and U. Monisha. 2020. "Noise Pollution in Hospitals – A Study of Public Perception." Noise & Health 22 (104): 28–33. https://doi.org/10.4103/nah.NAH_13_20.

up very early in the morning or several times in the day to take medicines, and only offered food during specific hours, despite differing appetites. Visitors entering and leaving the room during the day also cause disruptions. These interruptions are constantly repeated throughout the entire hospital, contributing to the disturbances even more.

Hospital architecture in North America has evolved significantly from its original charity-based organization to the complex procedure/medically based institutions we see today. These facilities were not built only for charity; they provide basic care and were used for social control. Later in the mid 19th century, hospitals began the transformation towards scientific medical intervention, driven by strategies to maintain hygiene. As historian Jeanne Kisacky notes, "Hospitals underwent a transformation, from traditional charitable institutions that provided 'a place to be sick and die' to modern medical institutions that offered 'a place to live and get well.' … an increasingly impersonal interaction between caregiver and patient and between the hospital and the community it inhabited".[2] The rise of community hospitals after WWII reshaped the landscape of care, at the same time standardizing procedures of care and maximizing efficiency.

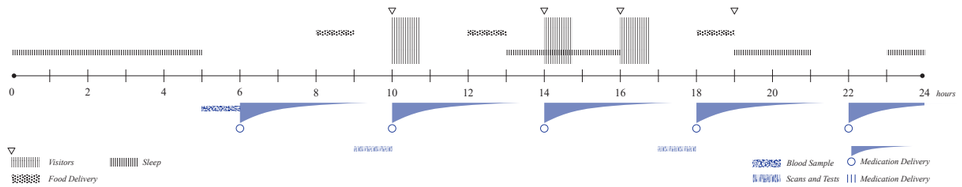


Figure. 1.2. Typical Schedule of Patient on the Day, Broken by Different Events

Studies on the environmental impact on occupants' mental states shows that the lack of sensory stimuli damages human brains, resulting in memory, emotional regulation, and spatial orientation. For example, certain governments use "white room torture" over extended periods of time to strip away their political opponents' sense of time and identity and cause irreparable physical and mental damage.[3] Prisoners are held in rooms without texture or colour, where lights are positioned strategically to avoid shadows, and no windows or views are provided that show changing weather and seasons. They are

2. Kisacky, Jeanne. 2019. "An Architectural History of US Community Hospitals." AMA Journal of Ethics 21 (3): 288–96. https://doi.org/10.1001/amajethics.2019.288.
3. Farrow, Tye. 2024. Constructing Health: How the Built Environment Enhances Your Mind's Health, an Exploration of Generous Architecture through the Neurological, Psychological and Emotionnal Benefits of Enriched Environments. University of Toronto Press.



Figure. 1.3. View Outside of Hospital Window, Pointing to Construction Site



Figure. 1.4. View of Hospital Corridor, Cluttered With Equipments and Beds



Figure. 1.5. More Beds and Wheelchairs being Left in the Hallways

restricted from social interaction, and the only sound they can hear is their own voice. The sense of loneliness from staying in this environment has long term effect on the prisoners, even long after they have been freed from the space. Hospital rooms are similar. Sterile white rooms are provided to patients to maintain a sense of cleanliness. Patients cannot move around freely (either due to mobility issues or a rigid schedule), therefore disconnecting them from their surroundings. Lights are placed directly on top of their beds, and no entertainment is provided. According to the examples of the white room, an impoverished environment damages the brain's health; therefore, the lack of stimuli in hospitals will harm patients' mental health and cause illnesses to progress.

Ritual has long been used as a medium that bridges the gap between the physical world and the spiritual world, meanwhile shaping how communities understand and practice healing and bring spiritual energy into everyday life. For example, in the Japanese town of Kakunodate and Shiraiwa, ceremonies and festivals were performed to strengthen community bonds and to maintain the Ke of life. The spaces within which these activities occurred were not set spaces designed after function, but could be understood as sequential, integrated, and participatory spaces. They are arranged by degrees of purification during festival time, only recognized



Figure. 1.6. Emergency Exit Plan at Juravinski, Large in Scale and Difficult to Find Ways Around



Figure. 1.7. "Back Room" Atmosphere in Corridors, no Access to Outside Views, no Texture, Dull Environment

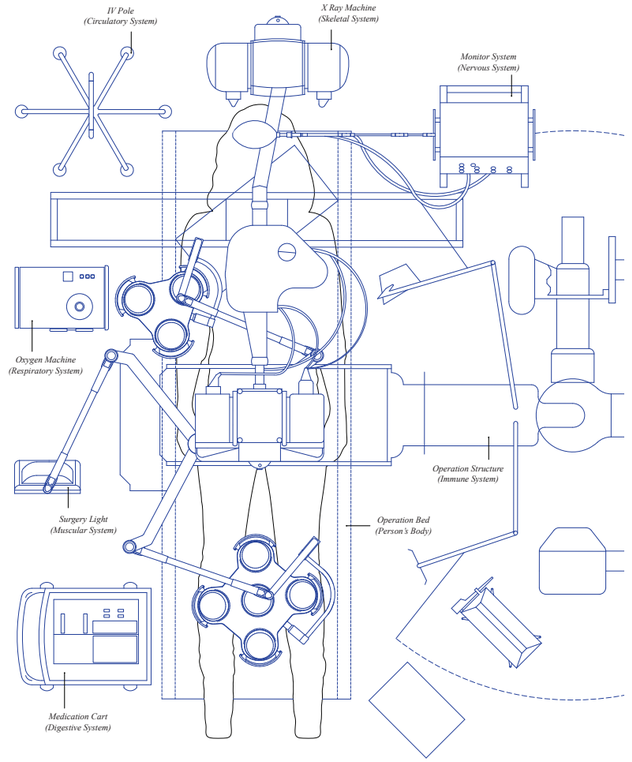


Figure. 1.8. Patient Reduced to Only Body, not Treated as a Whole Person

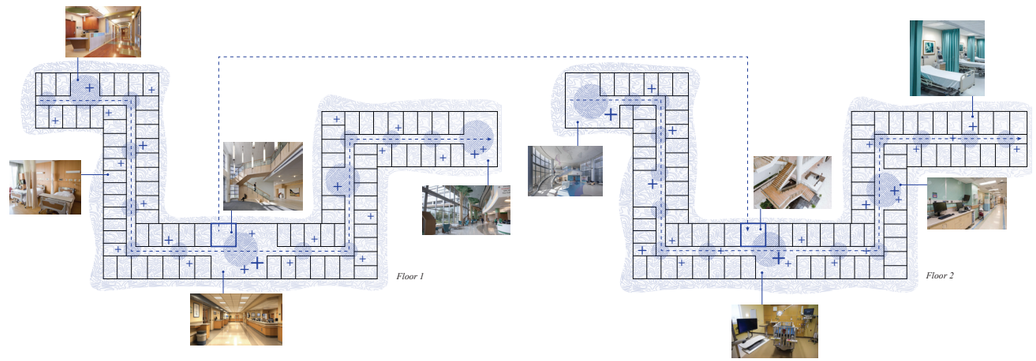


Figure. 1.9. The "Maze" Situation at the Hospital, Hard to Find Ways Around

in relation to other parts, and their nature over time during festivals. Across the world, ancient Greek healing sanctuaries known as Asclepieia had similar approaches in which ritual is used to transform space into a site of spiritual restoration. These temples offered controlled environments dedicated to spiritual and physical healing. Participants were asked to complete the purification process before the ritual, then sleep within the sanctuary to receive divine dreams believed to provide guidance to their recovery. Together, the rituals of Kakunodate and Shiraiwa and the temples of Asclepieia reshaped everyday spaces and spirit through symbolic actions. As a result, sacred ceremony became a medium to connect the community and create meaning in life.

Hospitals should be more than medical interference or physical treatment; they are built environments that influence the experience of patients recovering from illness. However, healthcare architecture is a developed industry with its own intricate rules and standards, and challenging its structure will contradict the existing design logic. Therefore, this thesis investigates how the positive environment impact and the procedure of ritual may provide a shelter for spiritual retreat, a community hub in which

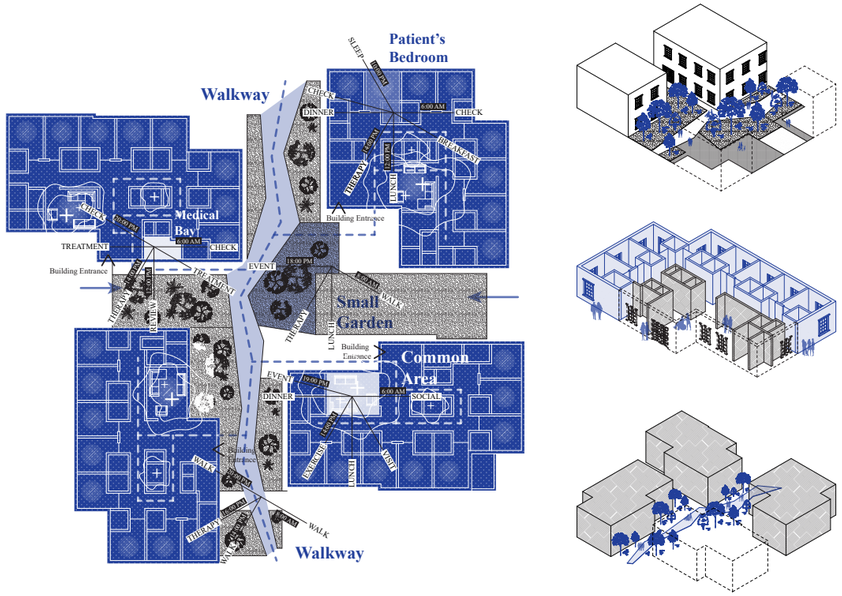


Figure. 1.10. Strategies to Descale Hospital and Give Patient Access to Nature

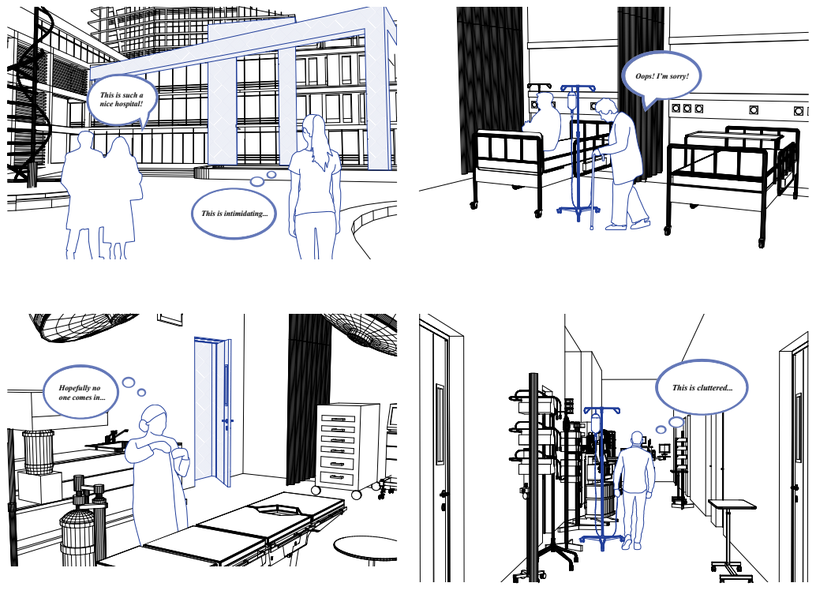


Figure. 1.11. Common Issues Within the Hospital Environment

patients feel connected with others, and a space that restores lost meaning to life. It proposes new interventions on a historical building that connects with the region's past, turning the heritage from a notorious confinement of madness into a place for spiritual regeneration, which supports patients' holistic well-being rather than focusing solely on the cure of physical bodies. Furthermore, it will incorporate spatial configurations, design strategies, and environmental qualities from other pre-modern healing spaces into the design. As Aaron Antonovsky stated, "… health not as the absence of disease, but rather as the process by which individuals maintain their sense of coherence (i.e., sense that life is comprehensible, manageable, and meaningful) and ability to function in the face of changes in themselves and their relationships with their environment".[4] Designing a retreat for the mind is essential for maintaining patients' mental health and preserving their hope for the future. This research investigates case studies of spaces that experiment with sensory design, flexible communal spaces, and the application of life-like qualities in care facilities, evaluating their impact on health practices. Through these strategies, hospital design will adapt holistic care and help patients recover faster without losing connections with friends, families, and communities. Through these strategies, hospital design will adapt holistic care and help patients recover faster without losing connections with friends and families.

1.2 Preliminary Strategies to Address Issues Within Current Hospital Environment

Within a hospital, patients often face a wide range of issues that affect their comfort, dignity, and sense of control. Some may feel intimidated by the scale of the building itself, with long corridors, confusing floor plans, and a lack of clear wayfinding making an already stressful visit worse. Hospital rooms are small, forcing patients and families into cramped spaces with little room to move or store personal belongings. Operation room doors often open directly onto waiting areas with strangers, giving no privacy and exposing patients already in vulnerable states. Hallways become temporary storage for spare beds and equipment, obstructing circulation and creating hazards for patients, visitors, and staff. Emergency rooms with notoriously long wait times are overloaded by

4. Antonovsky, Aaron. 1987. Unraveling the Mystery of Health: How People Manage Stress and Stay Well. Proquest Csa Journal Div.

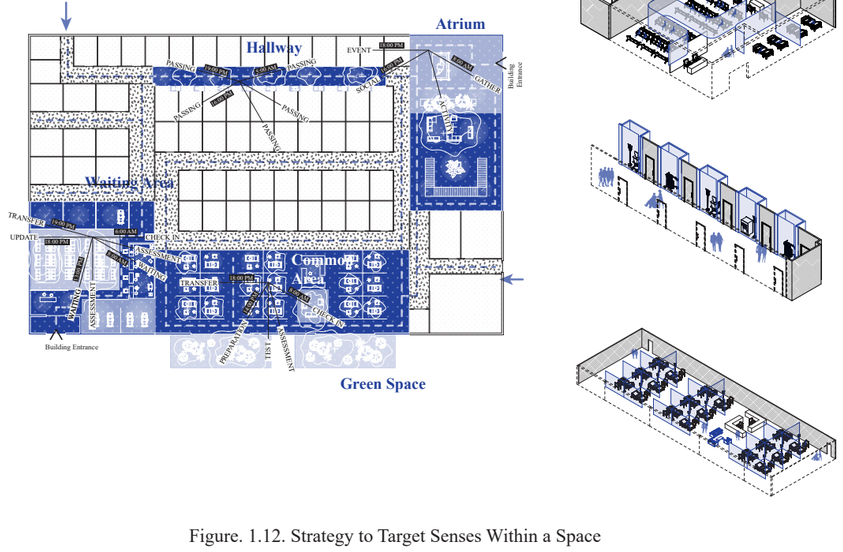


Figure. 1.12. Strategy to Target Senses Within a Space

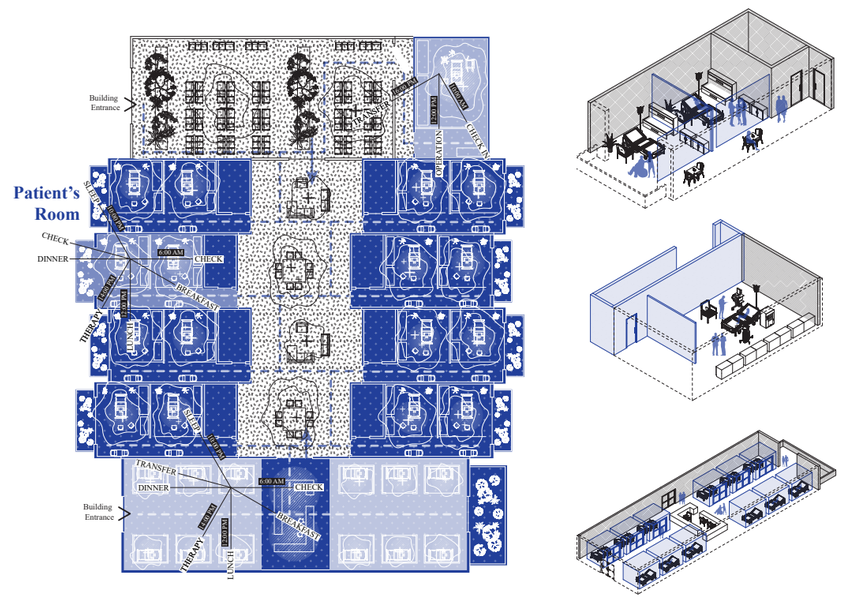


Figure. 1.13. Strategy to Provide More Privacy to Patients

harsh fluorescent lighting, constant beeping noise, announcements, and sounds of distress from other patients, which overwhelms someone already in crisis. There's often a shortage of social or communal spaces where patients can hang out with visitors, or if they do, the space is no more than a couple chairs in a room without any activities that patients can participate in. Patients being left in hallways is common; they endure disturbances and lack of privacy for days while battling with illnesses. And perhaps most dehumanizing, patients are frequently reduced to a number rather than being treated as a whole person with individual needs and emotions.

To categorize these challenges, these issues can be grouped into three overarching categories: 1. The extreme scale and confusing orientation of the building as a whole, which affects navigation to exam rooms and emotional comfort. 2. Sensory overload and disturbed rhythms within spaces, driven by noise, lighting, lack of texture in spaces, and unpredictable schedules. 3. A lack of privacy and insufficient space for meaningful interpersonal connection between patients and visitors.

Some strategies to target these issues include descaling the "mega city" structure that most hospitals follow today, reducing the negative sensory stimulations across environments, and adding privacy and connection with other people to support the recovery process. For example, instead of having a gigantic building that houses all the patient wards and exam rooms, the hospital could adapt a "village layout" where patient rooms are arranged in small clusters with exam rooms close by, with access to common spaces within the small cluster. This reflects the shift that many hospitals are already making from centralized to decentralized (or hybrid) nursing stations, which has linked to better staff patient communication. Clusters can also incorporate an "acuity-adaptable" model, where a patient can stay in the same room as their conditions change from intensive to step down care, reducing the number of transfers between wards. Additionally, villages are connected with pathways filled with nature and biophilia elements that bring a sense of coherence. Plants, water features, natural materials, daylight, and views to gardens lower patient stress and reduce pain perception.

On the other hand, targeting senses within a space can be done through providing acoustic/ privacy screens that divide larger zones according to activity and noise level, since excessive ambient noise from equipment, alarms, and conversations has shown to disrupt sleep, increase stress hormone levels, and interfere with communication. Designing smaller, dedicated storage in hallways helps keep mobile equipment (IV poles, wheelchairs, beds) out of the main circulation path, reducing clutter that can become a collision or fall hazard for patients trying to get through. In operation waiting areas, this can be achieved by adding more permanent screens between beds to separate patients and provide them with a safe, contained space to rest before or after an operation rather than being visible to other patients and passersby.

Lastly, the lack of privacy and space can be addressed by giving rooms more space and patients more control over their environment. Separation screens are useful for giving patients more privacy and defined areas for their own belongings, and extra beds or reclining chairs for overnight visitors can support family care, an approach to help rebuild the relationship patients have with their families and create a home-like space. For operation and exam rooms, adding buffer zones or angled entrances that obstruct direct line of sight into the space can help patients feel less exposed while in a physically and emotionally vulnerable state. Portable sleeping pods can also help to solve the problem of room shortage during peak hours, giving patients (or waiting families) spaces of their own and a safe, quiet place to rest without needing a full private room.

1.3 Research Questions

How can architecture translate the concepts of ritual into embodied experiences that support patients with life-threatening illnesses, as well as their holistic health, and construct a narrative of meaning in life?

1.3.1 Thesis Aim

The thesis is a critique of current design of healthcare architecture, shaped by centuries of prioritizing efficiency and control. The design focuses on transforming an existing abandoned mental asylum to patients' retreat using strategies such as senses stimulation,

environmental suggestions on the passing of time, self-autonomy moving through spaces, and the process of ritual to restore dignity and schedules back to patients. In doing so, patients are treated as a whole person with feelings and emotions, furthermore reconnecting them to the community and the world that has been separated for extended periods of time.

1.3.2 Thesis Outcome

- Analysis on the qualities of spaces, what emotions they provoke and what strategies are used in spaces that serve different purposes.
- Exploration into how festivals and ceremonies can restore the energy of everyday life back to spaces/people.
- Investigation into how revitalization of abandoned heritage buildings can be reused as a site of retreat, and how it reconnects community's memories of the past.

2 | Literature Review

2.1 How do Hospitals Fail Emotionally?

Modern hospital design situates itself upon regulatory standards of medical/technological interventions, evidence-based research on maximizing efficiency, and strategies to maintain a sterile clinical environment. Current guidelines, including Facility Guidelines Institute (FGI) Standards and CSA Z8000 in Canada, all provide comprehensive requirements for planning, designing, constructing, and operating healthcare facilities. These documents advocate for environments that are safer, more organized, and easier for hospital staff to manage. However, none of these documents considers the emotional needs of patients. As human beings, we are drawn to enriched spaces filled with stimulations. Elements such as natural light, plants, texture, acoustic sheets, privacy settings, and communal spaces to connect with other, all contribute to the patient's general well-being but are not incorporated because they do not contribute to efficiency. Proposals such as Maggie's Centres are beginning to shift towards incorporating feeling as design strategies, however it still has a clear separation between treating the mind and treating the body, and being in close proximity with the hospital does not give enough space for patients to exit from their original environment and heal. Standalone architecture that provides holistic treatment is still missing in this field, especially ones that provides a set of activities that restructures patients' lives.

2.1.1 The Architecture of Hope

In response to patients' mental health needs, designers have been proposing alternative design models that take into consideration the first-person experience of the patients. Programs such as Maggie's Centre in the United Kingdom are an example of this shift. Maggie's Centre commissions architects to explore how positive spatial strategies could provide emotional and practical support for people with life-threatening illnesses. This approach is different from the guideline method; it is supported by empathy, senses, and treating patients as people rather than purely scientific measures. For example, it is outlined in the design brief that the space needs "to feel safe and welcoming… need to be small, and domestic in scale… these little buildings should not pat you on the head, patronize you by being too cozy".[1] These requirements provide fundamentally different spatial quality than healthcare architecture. While hospitals focus on treating the physical body, Maggie's Centres are designed to be a place where people look forward to visit.



Figure. 2.1. Maggie's Centre, Dundee, Scotland

1. Heathcote, Edwin. 2010. The Architecture of Hope: Maggie's Cancer Caring Centres. 1. Frances Lincoln ed. Edited by Charles Jencks. Frances Lincoln.

Maggie's Centre provides great care for patient's holistic well-being, and an excellent initiative to move beyond the bare minimum. The design emphasizes on building spaces on a more intimate and domestic scale, with minimal administration office type atmosphere. The program requires a kitchen with several small/large rooms for gathering and consulting. While providing emotional supports to patient, Maggie's Centre does not have set activities for patients, plus the requirements for a desired environment are more prescriptive and are open to interpretation for designers. The interaction between the patient and the architecture is no different from any other treatment spaces, except for the kitchen space where patients can make themselves a drink. Furthermore, Maggie's Centre does not reconnect patients with their community. Even though it has a large meeting room, it does not provide setting for people to form the relationships they once had within neighbourhood, nor the activities that bring people together. In my design, this is addressed through spatial sequences that patients travel through. They are first greeted at the front entrance, then guided to different programs that provide individual/group activities that best fit for them. Activities include close contact with biophilia element, light exercise



Figure. 2.2. Roof garden of Maggie's Centre, London, England

with smaller group and larger events within communities. As a result, patients have higher engagement in the healing process which lead to enriched mental state and better emotions.

2.1.2 Stress Factor Within an Environment

Patient-centered design has been the trending topic over the past decade. There have been numerous studies on the stress factors within an environment and their impact on the healing process. Studies have shown that certain spatial qualities, such as access to natural light, presence of nature, and visual permeability, have measurable impact on patients' recovery, while granting occupants a sense of autonomy. However, current hospital design still fails to address user experience, or if they do, the strategies are not nearly enough. Patients frequently report negative experiences in these spaces, describing them as overwhelming, disorienting, and emotionally impoverished, which slows down their recovery. According to Volicer, Isenberg and Burns, isolation from family and friends, lack of familiarity with the environment, medical jargon, fear of procedures, loss of control, lack of privacy, and worries about finances are among the most stressful factors that contribute to anxiety in hospitals.

In current hospital settings, spaces designed do not address these feelings. Patients are forced to be in a strange, contained room with no privacy and they lose the ability to care for themselves. "Having strangers sleep in the same room with you," "Having to stay in bed or the same room all day," and "Being awakened in the night by the nurse" are some of the most stressful events

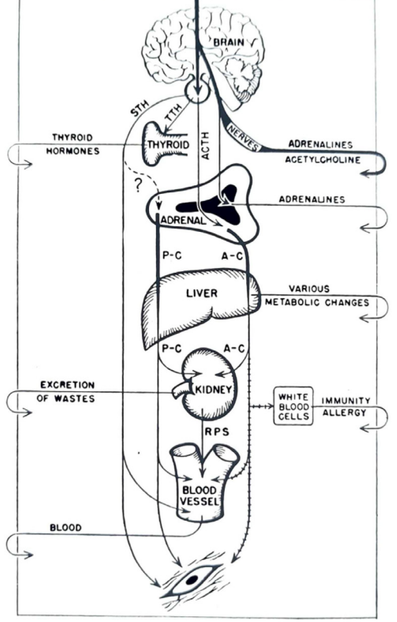


Figure. 2.3. Synoptic View of the Whole Stress Mechanism

that the patient has to tolerate. To mediate the negative impacts, a building must centre its design strategies around the experience of a patient. For example in my design, designing patient rooms that are more “home like” and have communal spaces in which the patients can visit during the day helps reduce stress. Accessibility design features such as grab bars and curbless/roll-in showers gives patients autonomy to complete tasks by themselves. Programs such as community kitchen and market create an atmosphere of the neighbourhood, and by participating in the activities, reconnect patients with the community they are a part of.

2.1.3 Psychoneuroimmunology and Therapeutic Potential of the Environment

Psychoneuroimmunology is a term referring to “the role that emotions play in the pathogenesis of physical diseases that are associated with immunological dysfunctions, especially autoimmune diseases thought to be associated with states of relative immunological incompetence, as well as cancer, infections, and allergic diseases”.[2] This field explores how stress, anxiety, and emotional difficulties can negatively impact hormone levels and nervous system activity, eventually triggering immune system responses. Rather than separating the body and the mind, Psychoneuroimmunology

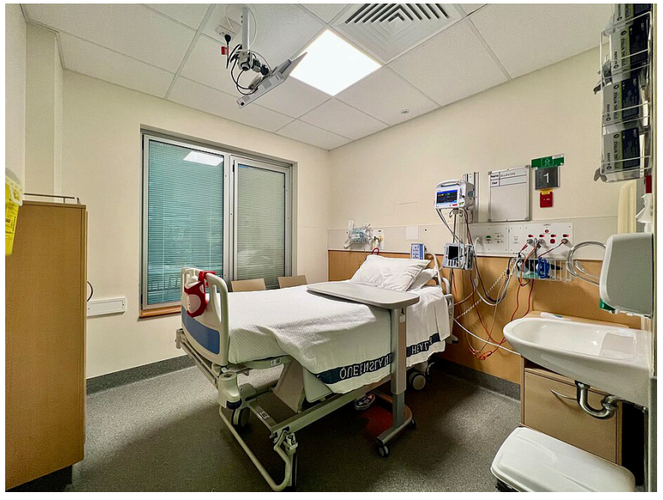


Figure. 2.4. Single Patient Room at Ipswich Hospital, Queensland

2. Malkin, Jain. 1992. Hospital Interior Architecture: Creating Healing Environments for Special Patient Populations. Van Nostrand Reinhold.



Figure. 2.5. Windows of the St. Ursula School, Germany



Figure. 2.6. Central hall of the Natural History Museum London, Evening Light Coming Through the Windows

sees them as an integrated system, not something entirely separate. As an example, chronic stress weakens the immune system, making the body more vulnerable to illnesses, infections, or even cancer progression. On the other hand, positive emotional states will strength immunity and treatment effectiveness.

Conventional hospitals may have a negative environment, even though architects and designers didn't intend for them to be this way. Local or national codes, minimum standards for spaces, the site, and the client's program, all inhibit the design of a welcoming environment. The many layers of requirements can lead to designers having less energy and space to design a therapeutic environment. Spivack believes that "Spaces can act as sociopetal vectors to bring people together, or sociofugal ones, to keep them apart".[3] Every space has its own "personality" that influences the occupant. Detailing, materials, and lighting affect a person's state, and prognosis for recovery. Hard architecture, bars on windows, concrete blocks, hard surface floor, or doors that cannot be closed, destroy the patient's self-esteem. To address this, healing environment should reach beyond the minimum and care for feeling. Soft surfaces, solid division between patients sharing the same room, sounds control all provide positive

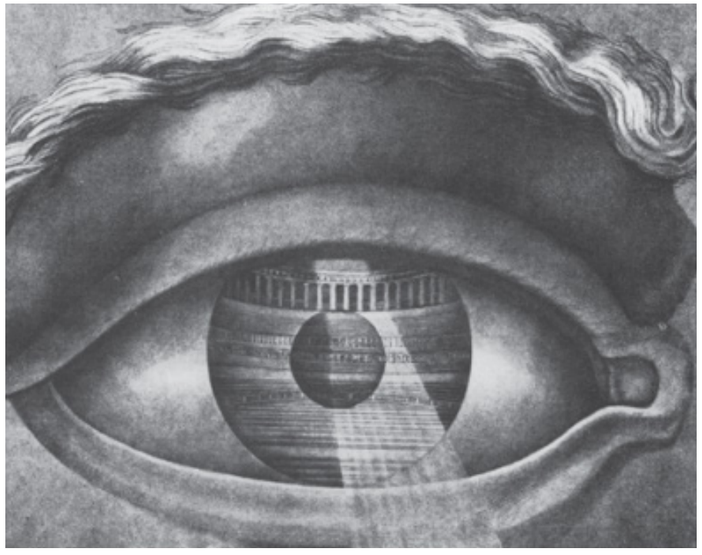


Figure. 2.7. Architecture Regarded as an Art Form of the Eye

3. Spivack, Mayer. 1967. "Sensory Distortions in Tunnels and Corridors." Psychiatric Services 18 (1): 12–18. https://doi.org/10.1176/ps.18.1.12.

impact on patients' recovery. In my project, spaces are built in a way that raises positive emotions. Texture, transferable spaces, natural light, access to nature all add "personality" to a space thus creating a special interaction between the buildings itself and its visitors. Positive environment support immune system responses, therefore contributing to the healing process.

2.2 What is the Role of Senses in a Healing Environment?

Designing for all senses challenges the long-standing idea in Western architecture that sight should dominate our understanding of space, a bias criticized by thinkers such as Juhani Pallasmaa and Gaston Bachelard. Human experience is inherently multisensory; it is combination of touch, sound, smell, and movement coming together to produce meaning. Architecture, as an extension of the natural environment, engages the entire body, shaping perception, memory, and imagination simultaneously. Enriched environments show how sensory diversity enhances well-being, while impoverished spaces diminish emotional and cognitive health.

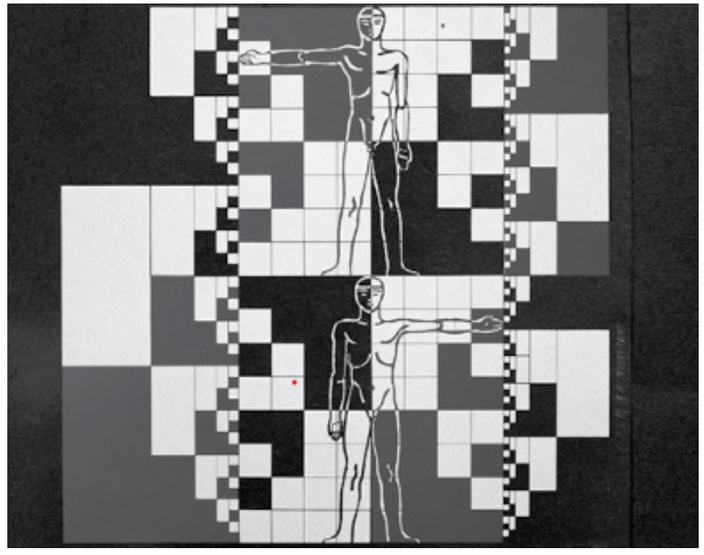


Figure. 2.8. Measures of the Human Body in Architecture

4. Sloterdijk, Peter, Michael Eldred, Andreas Huyssen, and Peter Sloterdijk. 2010. Critique of Cynical Reason. 8. print. Theory and History in Literature 40. Univ. of Minnesota Press.

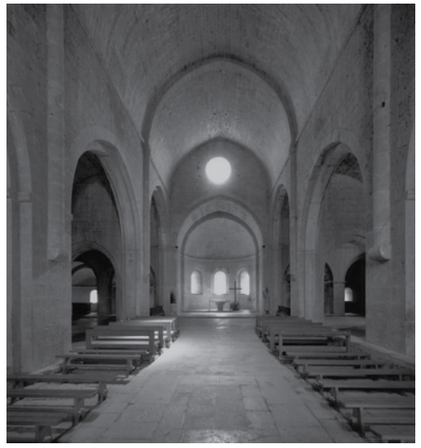


Figure. 2.9. Acoustic Experiences Reinforce and Enrich Visual Experiences



Figure. 2.10. The Multiplicity of Peripheral Stimuli Effectively Pulls us Into the Reality of its Space

2.2.1 The Eyes of the Skin

Vision has long been the dominant sense in architectural design. Even in ancient times, Heraclitus believed that the eyes receive more information than any of the other senses. This belief extended to the field of philosophy. As Peter Sloterdijk stated: “The eyes are the organic prototype of philosophy. Their enigma is that they not only can see but are also able to see themselves seeing. This gives them a prominence among the body’s cognitive organs. A good part of philosophical thinking is actually only eye reflex, eye dialectic, seeing-oneself-see”.[4] However, the dominance of vision and the suppression of other senses have also been observed by other philosophers. Levin argues “beginning with the ancient Greeks, Western culture has been dominated by an ocular centric paradigm, a vision-generated, vision-centred interpretation of knowledge, truth, and reality”.[5]

People’s eyes collaborate with the body and other senses to develop a perception of space, and this experience is strengthened and enhanced by this constant exchange of information. Bachelard discovered this concept and named it “The polyphony of the senses,” in which “All the senses awaken and fall into harmony in poetic reverie. Poetic reverie listens to this polyphony of the senses, and the poetic consciousness must record it”.[6] Architecture in nature is man-made extension of the natural environment in which we inhabit, providing space for imagination and the media for inhabitants to understand the world. Since every interaction with architecture is perceived by eyes, ears, skin, nose, muscle and frame, the quality of space, texture, scale, and sounds are taken into consideration in my design. For example, the materials used in the building are natural. Unlike the plain sterile environment inside a typical hospital, the mental retreat for patients offers stone wall and carpet to provide quality in a space, along with natural light that changes throughout the day. Buildings in this way enrich our experience of being in the world, providing a person the connections to construct meaning in life.

Architecture also provides spaces for memory and imagination. As human beings, it is in our nature to associate perception, memory and imagination of places together, and the present dissolves itself into the images of memory. It is the imagination that take us back to cities that

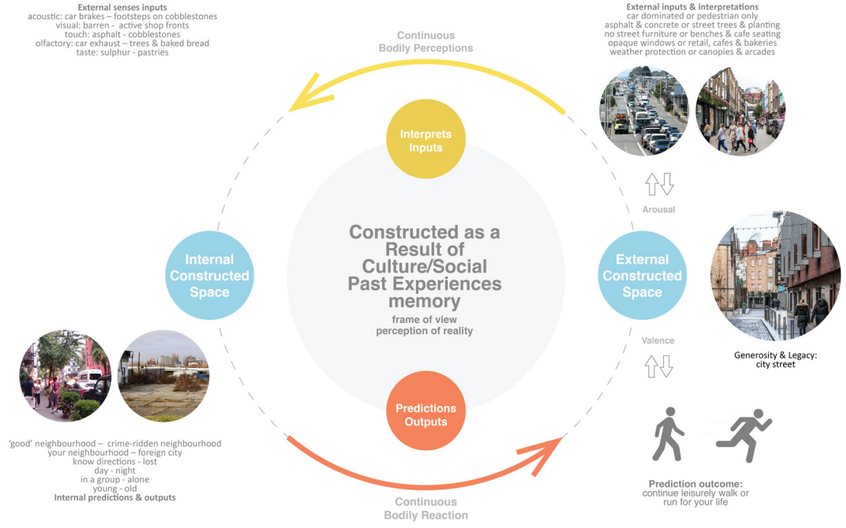


Figure. 2.11. “Person-to-Place” Relationship Using Example of City Street

5. Kleinberg-Levin, David Michael, ed. 1993. Modernity and the Hegemony of Vision. 2. [Dr.]. Univ. of California Press.

6. Bachelard, Gaston. 1971. The Poetics of Reverie: Childhood, Language, and the Cosmos. Translated by Daniel Russell. An Ariadne Book. Beacon Press.

are described through words, texts and paintings. “[The painter] makes [bouses], that is, he creates an imaginary house on the canvas and not a sign of a house. And the house which thus appears preserves all the ambiguity of real houses”.[7]

2.2.2 Enrichment Spaces and Person to Place Relationship

Enriched environment was first studied by Canadian psychologist Donald O. Hebb, where he situated lab mice in different environments to examine the impact of senses on the mice’s well-being. He found that mice living in larger enclosures with toys, materials, and colour lived longer, had less behavioural issues, and performed better on cognitive tests than the other group. Impoverished spaces damage not only mice but humans as well. “How you are has very much to do with where you are”.[8] These qualities of spaces collaborate with each other to create or amplify multisensorial experiences that define a place. On the other hand, person-to-places relationship can be understood as “safe spaces” where people can find refuge and develop a sense of coherence. Enriching relationships, whether person-to-person or person-to-place, emerge from interpersonal relationships that are generous, open, secured, natural, honest, and safe. Within these social dynamics, the most important contributing factors are feeling emotionally safe to adapt to process of growth, and activation of a person’s own energy resources to achieve success. Being emotionally safe usually results in the creation of spaces

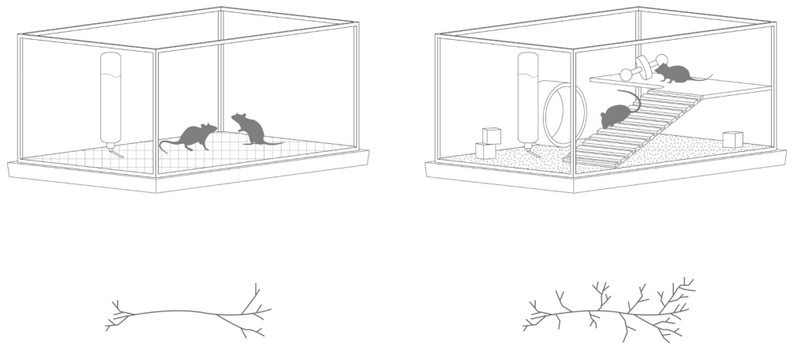


Figure. 2.12. How Bare Cage and Enriched Cage Affect Mice’s Development

7. Sartre, Jean-Paul. 1967. What Is Literature. Second Edition. Translated by Bernard Frechtman. With Wallace Fowlie. Peter Smith Pub Inc.
8. Robinson, Sarah. 2021. Architecture Is a Verb. Routledge, Taylor & Francis group.

where people feel safe enough to open up and express themselves freely and unconditionally.

Unfortunately, impoverished environments are very common in hospitals. This lack of stimulation and activity leads to deprived emotional needs and poor holistic health. However, in my design sensory stimulation and positive mood are provided in the spaces. First of all, sounds, view, touch, and atmosphere are carefully curated in these spaces. From the moment patients enter the building, they have visual permeability to the entire space. No view is obstructed or hidden behind walls. The building is geometric and symmetrical, so patients have a sense of orientation within the spaces. Sounds and touch play a big role in enrichment space, and in this building they are implemented through control of each individual space. For example, rooms for individual or smaller group use are more separated from the main spaces, with dimmer light more soft texture that contacts the skin. On the other end, space dedicated to bigger events have more natural light and uses harder materials.

2.2.3 The Architecture of Time

The aspect of time frames architecture into a temporal practice shaped by bodily movement, environmental change, and projection from the past into the future. Space is never experienced

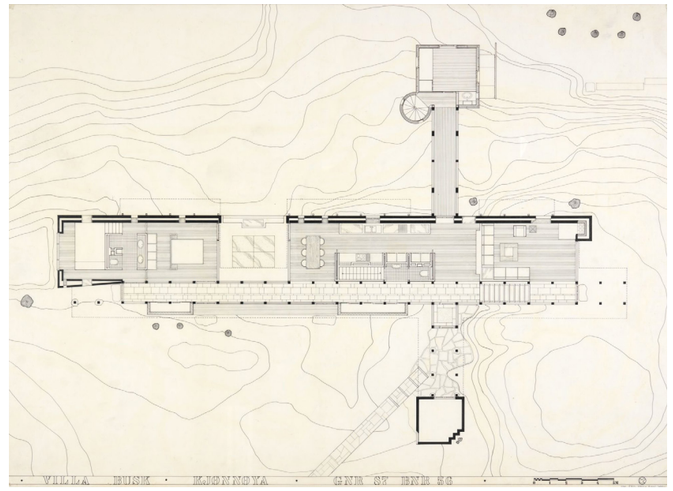


Figure. 2.13. Plan of Villa Busk, Showing Sequence of Space

in isolation, but through sequences of space, memory, and presence. The time of the body is the movement and pace of one's physical form through the passage of the works of architecture. Similar concept is also mentioned in Lordship of the Feet, where Hunt categorizes the movement through space as a procession or ritual; the stroll, and the ramble. He believes that the procession is "a ritual movement that follows both a preordained path and purpose, which is, on account of its prescription, repeatable on innumerable occasions; indeed, such reiteration is expected".[9] Spatial movement includes the anticipated pace of circulation, and the "still" and "passing" of bodies within a space. It creates an interesting phenomenon where "the settings behind the one we now see were experienced sometime before this moment, while those beyond this one are yet to be experienced".[10]

On the other hand, the time of the world is atmospheric change and influence, such as weather, wear-and-tear, use, and modification to existing surfaces, indicative of past events.



Figure. 2.14. Exterior View of Villa Busk

9. Hunt, John Dixon. 2003. Landscape Design and the Experience of Motion. Edited by Michel Conan. Dumbarton Oaks Colloquium on the History of Landscape Architecture. Dumbarton Oaks Research Library and Collection.
10, 11. Leatherbarrow, David. 2021. Building Time: Architecture, Event, and Experience. First edition. Bloomsbury Visual Arts.



Figure. 2.15. Decay on Building, Showing Passage of Time



Figure. 2.16. Stone Steps Going From Birmingham Road to Allesley Church, Showing Decay

These marks connect a place's past with its future, and the traces of previous usage suggest how it is intended to be used. For example, stone steps in old buildings bear centuries of imprints of paths that were once taken. As time passes, these element act as a calendar to record human interaction with this material. In this way, "we do not have evidence of my movement or yours, but ours; the past to which the building's physical body refers is a public or shared history".[11] Another example is Alvaro Siza's Swimming Pools at Leca da Palmeira, which concerns the time of the place. As the architect wrote a decade after the project: "Every year, with the spring tides, the sea takes away what is not essential. In that place, a rocky massif cuts through the three parallel lines: where the sea meets the sky, where the beach meets the sea, the long retaining wall of the street".[12] Changes are implied.

Lastly, the time of the project exists within project making and production, in which the process that "draws the yet-to-come of the project back into the now, placing the future in the grasp of the present".[13] When the finished product is precisely planned and executed from the design stage, unexpected errors and alterations will have less impact on the project. Leatherbarrow also believes that "the basic idea here is that architecture – designed and built – never offers more than the conditions under which something is likely to occur: more than a possibility, less than a promise".[14] This method partly adjust itself through self correction and involvement of other parties, people or things, living or not.

Time is another dimension that is important in the design of the retreat. In a traditional hospital, the materials used in the building is plain and does not show the indication of time. Corridors are long, and patient rooms look exactly the same without any variations. Patients staying in this environment long term often lose the track of time, since there's no difference between environment in the morning and in the afternoon, summer or winter. In my design, light and environmental changes are a huge part of design. The building itself is separated into summer and winter wings, where the side of winter receives more natural light and focuses on more energetic indoor activities whereas the summer side gets less direct lighting and more stationary activities. Light coming from above indicates passage of time during the day, and different wings of the building shows seasonality.



Figure. 2.17. New Structure on Old Ruins, Museum of Roman Art



Figure. 2.18. Templo de Garni, Armenia

12. (Siza, 1980)
13, 14. Leatherbarrow, David. 2021. Building Time: Architecture, Event, and Experience. First edition. Bloomsbury Visual Arts.



Figure. 2.19. Robert Wallis's Depiction of Stone Henge



Figure. 2.20. Teotihuacán in Mexico

2.3 What is the Role of Festivals and how can Architecture be a Host?

Built forms are mediums that implement the sacred in everyday life. Architecture is not merely physical enclosure but a symbolic place that mediates between human perception and the meaning behind cultural rituals and ceremonies. Through integration of sight, touch, sound, and atmosphere, spaces evoke memory, imagination, and a sense of belonging within a community, creating energy that people can bring back to their ordinary lives. Primordial acts of building, shaping the ground, creating thresholds, and orienting according to the direction of the sun and earth, transform the natural landscape into meaningful places. Sacred architecture in particular, creates an atmosphere that disassociates occupants from ordinary life through sequences of movement. Architecture in this way becomes a narrative of these stories, where materials, form, and perception come together to create moments of presence and connection.

2.3.1 Phenomenology, Hermeneutics, and Experience

Phenomenology focuses on how humans perceive and inhabit space. "Humans are sentient beings – from the Latin sentire, which means 'to feel'".[15] The senses are the interconnecting tissue that bridges the human and the physical world. "The senses don't just make sense of life in bold or subtle acts of clarity, they tear reality apart into vibrant morsels and reassemble them into a meaningful pattern".[16] However, senses are an organized structure that integrate it together to construct whole experiences. Gibson defines the basic five senses as "perceptual 'systems' capable of obtaining information about objects in the world without the intervention of an intellectual process".[17] Pallasmaa in his work mentioned the idea that "Architecture is the art of reconciliation between ourselves and the world, and this mediation takes place through the senses".[18]

My design utilizes active and participatory space, exploring its symbolic and spiritual value through embodied experience. The building is primarily understood though the body, the senses, and movement in space. Spaces follow a special

15. Barrie, Thomas. 1996. Spiritual Path, Sacred Place: Myth, Ritual, and Meaning in Architecture. 1. ed. Shambhala.
16. Ackerman, Diane. 2011. A Natural History of the Senses. Knopf Doubleday Publishing Group.
17. Bloomer, Kent C., and Charles Willard Moore. 1978. Body, Memory, and Architecture. 4. pr. A Yale Paperbound. Yale University Press.
18. Pallasmaa, Juhani. 2012. The Eyes of the Skin: Architecture and the Senses. Third Edition. Wiley.

sequence, where patients are guided through a series of activities that restore their mind's health. This is inspired by ritual practices in Japan, where spaces are sequential to the process of ceremonies. Throughout this journey, patients experience new connections between themselves and the physical world. Elements in the building, such as soft surfaces and seats that adapt to different postures, and light provide sensory experiences that give a positive experience of inhabiting a space.

2.3.2 Place and Primordial Architecture

The design and planning of primordial architecture isn't limited to the building itself but involves shaping the earth and giving it a meaning. Some of the early sites of sacred places were chosen carefully to be separated from the enormity of homogenous profane spaces and the act of building separates one place from another. Barrie believed "The earliest shared or civic architecture can be viewed as acts that served to articulate a place in the world and a



Figure. 2.21. The use of Stone and Concrete in Salk Institute

means to mediate its principal elements".[19] Dutch Benedictine monk and architect Hans van der Laan focused his research specifically on Stonehenge and concluded that placemaking is the primary method that connects the realm of earth and the realm of heaven. Sacred architectures were built as an eternal performance stage in a changing world. Monolithic materials were specifically chosen to create a sense of immortality. As Eliade mentioned, "The complexity of lithic symbolism and the religious variances of stones and rocks are well known. The rock, the slab, the granite block reveals duration without end, permanence, incorruptibility – and the last analysis a modality of existing independently of temporal becoming".[20]

In the design of mental retreat, the site is carefully selected so it's somewhat separated from the residential areas and hospital spaces. It creates a sense of secluded space where patients are taken out of their ordinary schedule and enter a realm of different meaning. Material choice inside the building stays monolithic however has variations across different programs. For example, walls are mostly made of stones, and the entire building follows the same principle

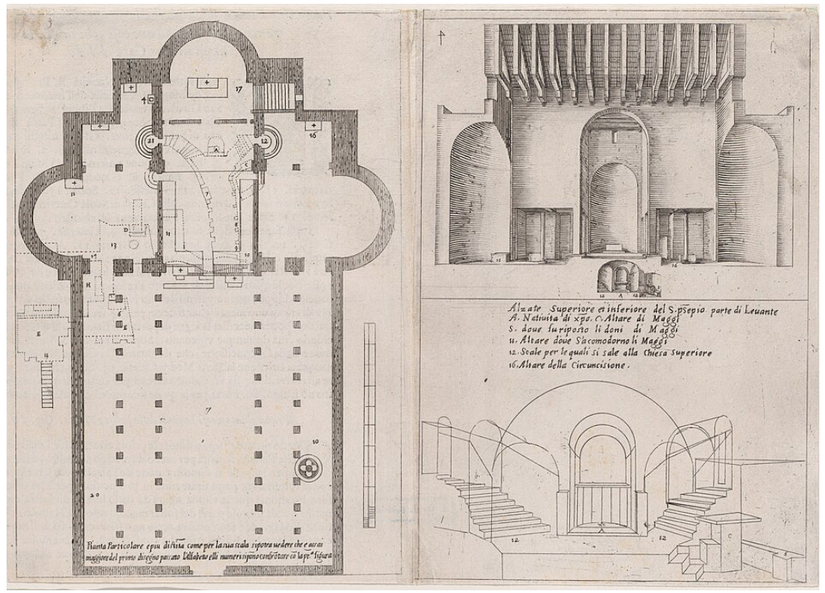


Figure. 2.22. From Treatise of the Plans & Images of the Sacred Buildings of the Holy Land

19. Barrie, Thomas. 1996. Spiritual Path, Sacred Place: Myth, Ritual, and Meaning in Architecture. 1. ed. Shambhala.
20. Eliade, Mircea, Willard R. Trask, Mircea Eliade, and Mircea Eliade. 2000. From the Stone Age to the Eleusinian Mysteries. 10th pr. A History of Religious Ideas / Mircea Eliade, Vol. 1. Univ. of Chicago Pr.

to achieve a sense of coherence. However, spaces that are dedicated to individual use are more geared towards touch, whereas spaces for community use are more focused on its round shape and its ability of bringing people together.

2.3.3 Sacred Sequences and Symbolism

Sacred architectures are not experienced all at once, the experience happens in sequence. It is sequential and participatory, where occupants progress by degrees of purification at festival time from one stage to the next, and each space is understood in terms of the relation of parts to the whole. The paths, thresholds, courtyards, and interior space, form a carefully designed passage from the outside (ordinary life) to the inside (separated sacred space). Some believe people celebrated the change in time and cycles of the season, the rotation of life and death. The location of the buildings centre was determined by path of entry. Often the path served as “a mediator between outside and inside – profane and sacred – and underlined the importance of entering the sacred place”.[21]

Thresholds such as gates, doors, change in light, or level, also have crucial role in sequencing, and they and carefully placed throughout the building. They mark a shift in meaning in space. They prepare the body and mind for a new state and symbolize transformation from one place to another. For example, when a patient enters from the front door, they encounter a threshold marked by natural elements in the front entrance. The space is small and intimate. After that, they enter a larger space with higher light level that allow them to open up to new activities and new people. Meaning emerges from interaction of the body with materials and objects, not just visual perception. Sacred spaces are designed similar to a story, there’s a beginning/entry, development/ passage, and eventually a climax/sanctum or celebration. This creates a unique narrative of a space, reinforcing cultural or religious ideas.

21. Barrie, Thomas. 1996. Spiritual Path, Sacred Place: Myth, Ritual, and Meaning in Architecture. 1. ed. Shambhala.

3 | Case Studies

3.1 Festivals and Changing Nature of Space

Shiraiwa and Kakunodate were two towns located in rural Japan with unique cultural traditions and spatial arrangements. Their village plan demonstrates a sequential and processional spatial order tied to festive rituals, and the house plan reflects the structure of a layered, onion-like structure that guides visitors through a sequence of spaces. Central to both is the concept of the continuum, or in other words, ma, which regards spaces not as fixed Western rooms with specific functions but as a void that gains its meaning through the activities performed in it. This concept extends to activity space, where ordinary streets and public areas transform into spaces for ceremonies from everyday use.

The notion of sacred everyday life situates itself among these spatial practices. Daily life is understood as gradual depletion of energy and needs to be restored through process of ritual. Similar to ceremonies in other cultures, the process of purification takes place in an area that's secluded from everyday lives, and the person performing this ritual needs to go through the purification process, embed themselves in the sacred space, then return with sacred energy that replenish everyday lives.

3.1.1 Village Plan and House Plan

The village plan is quite unique in the case of Shiraiwa. The plan is characterised by several unique spatial ordering: the sense of space is sequential, where one "progresses by degrees of purification at festival time from one stage to the next"[22]; each individual space is integrated, and they obtain meaning from bring a part of the whole; moreover the spaces change their nature over the process of ritual, adjusting itself to the

22. Fred S, Thompson, Blake Sheri, and Someya Yasumasa. 1988. Ritual and Space. University of Waterloo Press.

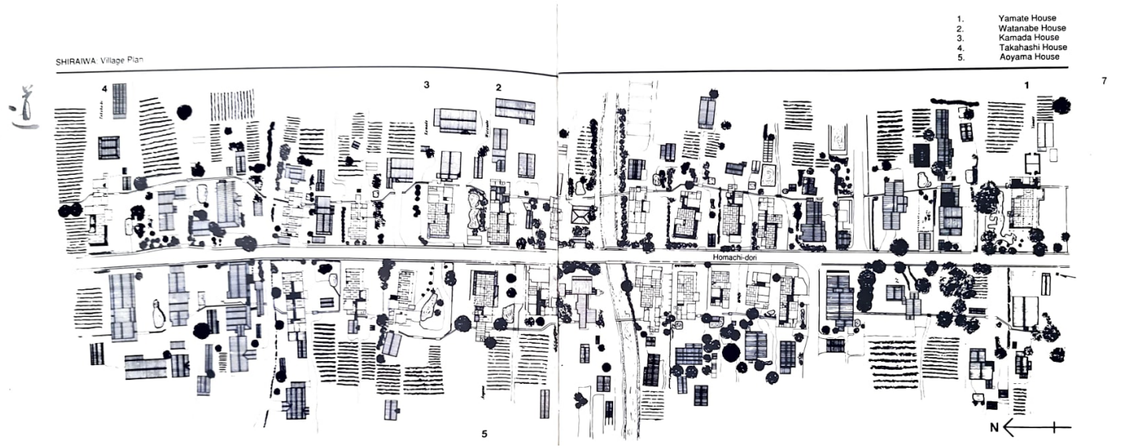


Figure. 3.1. Village Plan of Shiraiwa, Showing Sequence, Integration, and Participation

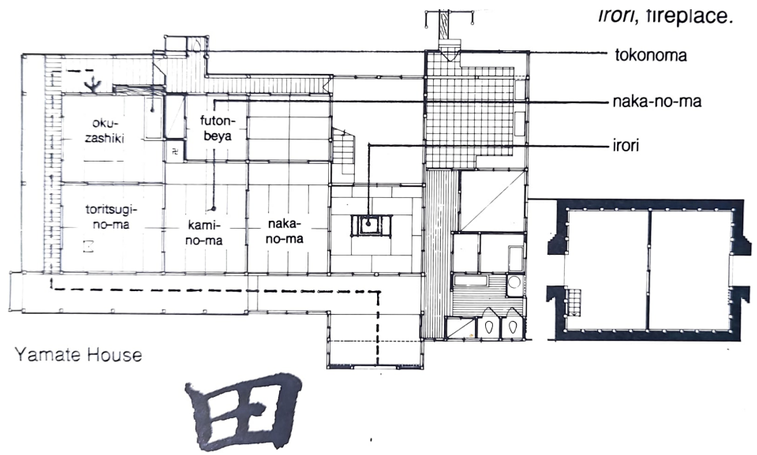


Figure. 3.2. Plan of Yamate House, Showing Onion-Like Layers of Spaces

functions present in each room. This precisely follows the process of ritual, where it occupies a sequence of exterior spaces and can only be experienced through participation and understood as part of the whole. On the other hand, the house of Shiraiwa forms an onion-like layers of spaces. The entry sequence first begins with a receiving area and corridor with a glimpse of the garden before entering the house. Then the guests are guided through corridors that wrap around interior spaces, where they receive a view of the garden before entering the sitting room. The interior rooms follow the rice field shape, with dividing screens in the middle. This arrangement allows spaces to open during special events. Spaces in the mental retreat are arranged in a similar manner to the village and house plan. Each individual space has fewer meanings on its own and can be experienced only as part of the whole journey. As an example, during the journey of the healing ritual, patients first enter the building, encountering a reception/waiting area that is filled with natural and changing elements that separate them from their daily lives. Then they are guided to participate in activities in the rooms in the middle, and then progress through a space that connects their individual/smaller group activities to larger community gatherings. This space also acts as a kitchen and small market that invite patients to be a part of a larger group. Lastly, they arrive at the ceremonial space, where patients, visitors, and staff all participate in the same event and make connections with each other. These spaces have no meaning on their own; they only function as part of the whole journey. This study provided a model for the spatial sequencing in my design intervention.



Figure. 3.3. Contemporary Map of Shiraiwa

3.1.2 The Continuum

The concept of the continuum (or on other words, ma) is the idea that space-time, is "not fragmented, labelled and contained like space in the West, but is rather an emptiness or void that gains its form only in relation to unseen boundaries created by the activities performed in it."[23] Therefore, the continuum can be seen as a type of spatial current, a combination of space and time, which allows spaces to be transformed to adapt different time and functions. Spaces are brought together and defined by objects, or artifacts in them. In this case form is "not merely the visible delineation of a space plus function."[24] The continuum of festivals in streets is similar. The streets themselves are void and only become hosts of dance and music during festive times. This results in kaiwai, or activity space, is "a space resulting from activities… not a district or zone… not necessarily established by buildings or walls."[25] The fundamental principle behind this arraignment is the quality of ma. The spaces themselves are empty however gain meaning when they are occupied by activities. Rooms in the mental retreat are arranged in a way in without any set function or built in furniture so they can transform into different functions according to activities, seasonality, and time.

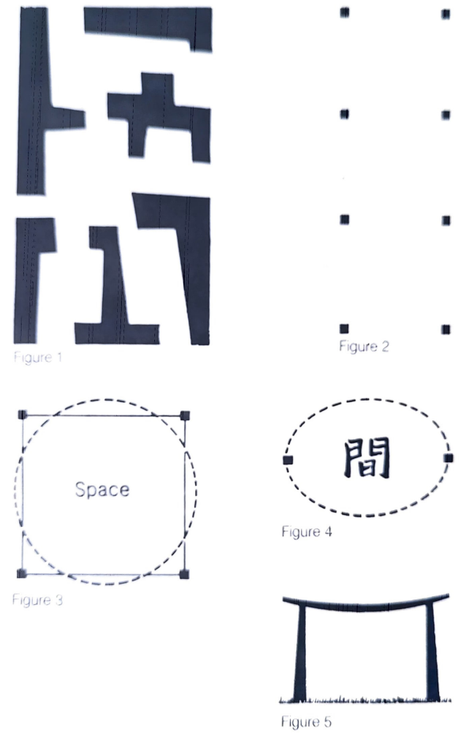


Figure. 3.4. The Concept of Ma, or Continuum

23. Fred S, Thompson, Blake Sheri, and Someya Yasumasa. 1988. Ritual and Space. University of Waterloo Press.
24. Kiyonari, Kikutake. 1965. (Tokyo), The Kentiku.
25. Itoh, Teiji. 1973. Nihon No Toshikukan. Shokoku.

For example, in the front entrance of the existing building, spaces are naturally divided into four sections, two in front and two in the back. To achieve transformable space, the horizontal walls are demolished and movable screens are installed, as a result occupants could decide on how much space is needed for each event and how much intimacy is needed in each space. During special time where programs such as exhibitions and community gatherings are needed, movable screens are removed and all four rooms join as one to accommodate more people, while in everyday life the space is divided into smaller rooms and programs such as workshops and therapy sessions.

3.1.3 Sacred Everyday Life

The concept of sacred everyday life comes from the idea that people believed that ordinary life are filled with divine energy, and they are consumed as time goes by. The practice of ceremonies provide enrichment to the dull and repetitive daily lives. Fading energy is also believed to be a result of accumulation of impurities, therefore needing purification. The act of ritual “purifies” the contaminations in life and restores the body to a state filled with energy. This ceremony of energy restoration is separated from the spaces that people inhabit each day. In

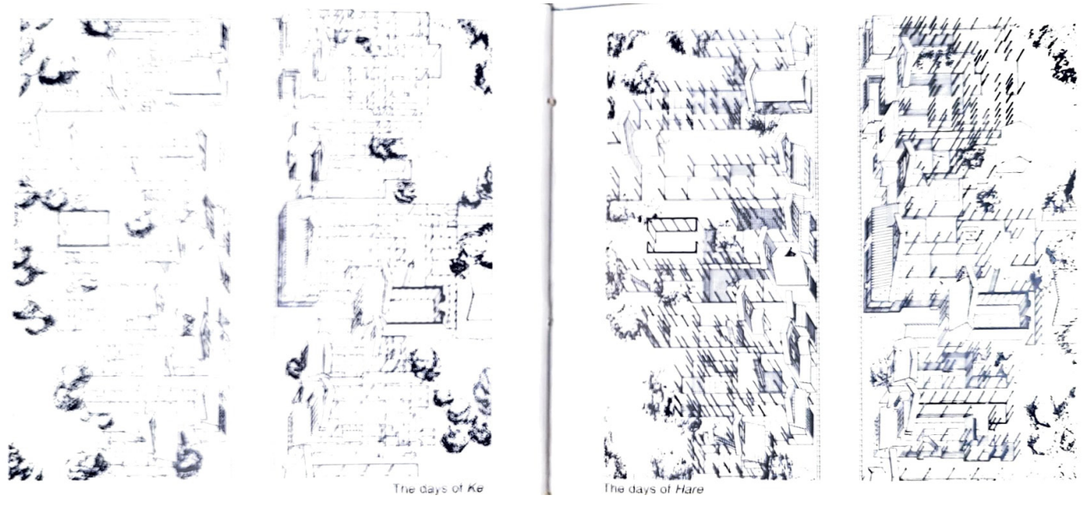


Figure. 3.5. Same Street on the Days of Ke and on the Days of Hare

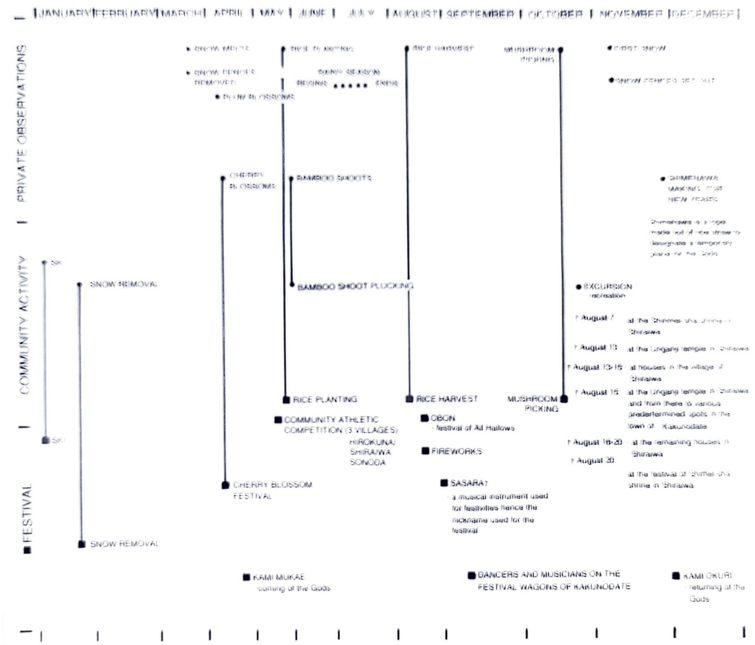


Figure. 3.6. Calendar Of Festival Observances In The Village Of Shiraiwa



Figure. 3.7. Two Trees in Front of the Village, Marking the Beginning of Ceremony

the case of Shiraiwa, the ceremony usually starts within the village, marked by the most visible local structure, then progresses towards the mountain that is separated from the town. The person would receive blessings from the god, then return to the shrine located in the village, eventually giving it back to the households.

During a patients' stay in a conventional hospital, life is boring and loses meaning over time. This aligns with the idea that life needs constant energy to maintain a purpose. To achieve this effect, the mental retreat itself is designed around the process of ritual. The spaces, programs, and activities in this building are a part of the ceremony, in which by visiting the building patients are already part of this process of participating in the restoration of daily energies. The strategies in designing the building is to make it the opposite of a typical hospital environment. In a hospital, materials chosen are sterile and dull without variation, often resulting in white walls in all spaces, including patients' rooms and common areas. However, in the mental retreat, materials chosen are more natural and has variation across programs. Stone, wood, concrete, textiles all take up surfaces that contacts patients' skin. On the other hand, programs in hospitals only focus on treatment. There are zones for treating every part of the body, but none for the mind when the energy is depleted. In the mental retreat, programs focus on the sensory experience and the participation of the body in the space and activities. Elements such as food, performances create special bond between people who prepared it and people who consumed it.



Figure. 3.8. Neighbourhood Organization for the Festival

3.2 Natural Environment's Healing Effect

Ritual architecture in the ancient world are far more than places for worship; they were deliberately constructed environments designed to shape the physical, psychological experience. In the case of Asclepios, a holistic approach of healing is used to treat patients. It combines sanctuary visits with purification process, as well as fasting, guidance from the priest, and belief in divine power to achieve therapeutic effects, also known as the psychological impact effect. On the other hand, Cult of Mithras takes place in natural caves with stream running near the site. Recognizable visual elements, such as the tauroctony, the figures of sol, are present in the enclosed spaces. Lastly, the Telesterion are built as a performance hall that hosts growing population of the cult. The large structures are built according to principles of acoustic controls, and optimize sound quality for large scale ritual performance, including chanting, drumming, and masked dances.



Figure. 3.9. Bath of Asklepios in Epidaurus

Together, these three examples suggest pattern in how ancient civilizations designed spaces for ritual and healing. The buildings are not dedicated to religious experiences only, they are the medias between human and nature, the physical world and the spiritual world. Sound, ceremony, and stories are strategies towards creating a desired optimal healing environment.

3.2.1 The Power of Holistic Treatment

The therapeutic ritual of Asclepios is tied with ancient oracle practices, intending to search for guidance from the divine which cures patient of the health problems that concern them. The ceremony of healing came from religious practices, starting with the cleaning of the body with fresh water, then continues to prayers and purification process. The patients are expected to strictly follow instructions from the priests who accompanied them throughout the journey, providing self suggestion to alter their mental and physical state. The power of Asclepios is mainly through powerful psychological impact effects and optimal healing environments. The healing power predominantly influenced by believing, ceremony of ritual, and interpersonal connection and care. As Jonas and Chez believed "healing is facilitated through the proper development of attitudes and intentions in both the provider and the recipient, use of personal self-care practices, creating healing relationships, applying the knowledge of health promotion and maintenance, and the appropriate integration of complementary and conventional medicine practices."[26]

The effect of environment has great impact on patient's mental health and their belief that the health conditions will get better. In a typical hospital, patients are surrounded by medical equipment, sterile materials and sounds coming from other patients in pain. The effect of negative environmental clues creates fear, resulting in stress and weakened immune system. However, the mental retreat provides environment that is free of anxiety and restores confidence in patients. The building itself is located near the escarpment, giving access to natural forests and running water. The landscape in the back consists of stimulus that activate brain's function to process information from the natural environment. Being in a place where patients feel safe, secure, and have connections

26. Jonas, Wayne B., and Ronald A. Chez. 2004. "Toward Optimal Healing Environments in Health Care." The Journal of Alternative and Complementary Medicine 10 (1): 1–6. https://doi.org/10.1089/1075553042245818.



Figure. 3.10. The Asklepion at Messene

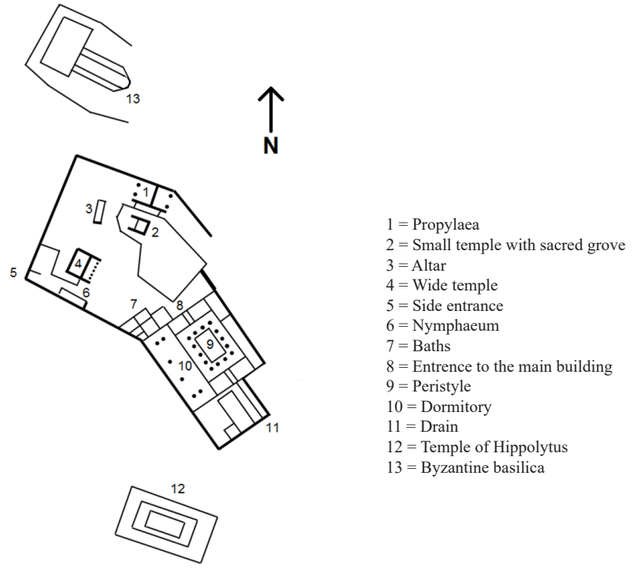


Figure. 3.11. Plan of the Asclepeion of Troezen

to others helps them to establish confidence, furthermore, regains the strength to treat illnesses.

3.2.2 Underground Healing Space

The cult of Mithras takes a slightly different approach in constructing their spaces. The space that the ceremony occupies are natural rock caves, which is drastically different from other typical temples that are more common on top of a hill. The structure of the space is constructed around a central aisle, which raised podium on each side. This natural cave is also located near a water source, often in the form of stream/springs. The temples of Mithras are usually set up in public buildings, rather than private properties. The spaces of Mithraeums often use the representation of Mithras killing a sacred bull, or in other words, tauroctony. The representation itself may take the form of a relief, a free-standing piece, and sometime the side details may not be present. On the side, a dog and a snake are attracted by the blood, and a scorpion snatches the bull's genitals. This event took place in a cavern, which is the place where Mithras eventually butchered the bull after chasing and hunting it down. The decision to build an underground healing space is quite different from other approaches. Underground spaces naturally form a sense of enclosed space, which has similar qualities as spaces with where ancient humans occupy as home. Access to natural materials, such as hard rocks, soft moss growing on the walls and running water, creates atmosphere that feels safe and less intimidating. In the design of mental retreat, similar strategies are used. For spaces that are more personal and intimate, ceiling height is drastically lower than spaces for gathering and celebrations. Light no longer come straight from the roof, indirect soft lighting are implemented in these spaces. Although indoor, patients still have access to natural elements such as stones and maintain a space that is dedicated to them without interruptions.



Figure. 3.12. The Mithraeum (Sanctuary of Mithras) in Halberg near Saarbrücken

3.2.3 Ceremonial Hall and Acoustic Design

Unlike other ancient temples, the Telesterion was built as a ceremonial hall dedicated to accommodating popularity of the cult. It is a squared shaped hall, around 51.1m per side in its final phase and had eight rows of amphitheatrical stone seating that accommodate around 5,000 people, six separate entrances, a curved rear wall,



Figure. 3.13. Bas-relief dedicated to the god Mithras

and a central anaktoron with the Hierophant's throne nearby. Its design emphasizes on acoustics: The stone/marble walls and seats reflect sounds, with columns strategically placed in locations that reduce echo, as well as the tall wooden roof absorbing sounds while reflecting in other areas. The combination of acoustic design and the process of ceremony create a special aural environment. Similar to the Parthenon, they are both successful buildings by famous architect. However, the Parthenon focus on the order of sequence of visual experience of reflected surfaces and opening to the sky, whereas the Telesterion is dedicated to music and performances during rituals. Chanting, metal drums, and dances by masked performers likely were presented in this space to evoke the underworld.

The ceremony space in mental retreat incorporates similar strategies. The space itself is rectangular, however, has a round wall where is second floor is, which reflects sound and brings participants together. Similar to the Telesterion, the main purpose of ceremony space is for performance, exhibitions, and community activities. The materials used in this space are ones that do not absorb sound; stone, concrete and wood form a circular shape and make sound



Figure. 3.14. Archaeological Site of Eleusis - Telesterion

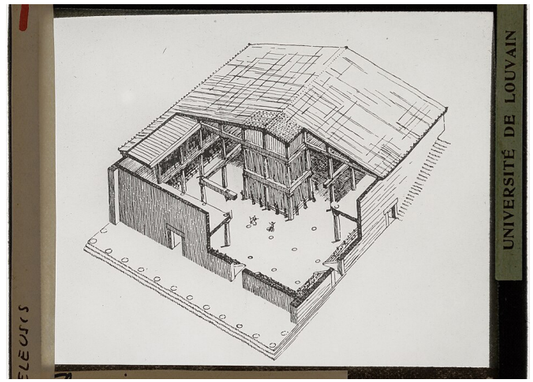


Figure. 3.15. Elefsina. Heiligdom: Telesterion: Perspectieftekening met inzicht

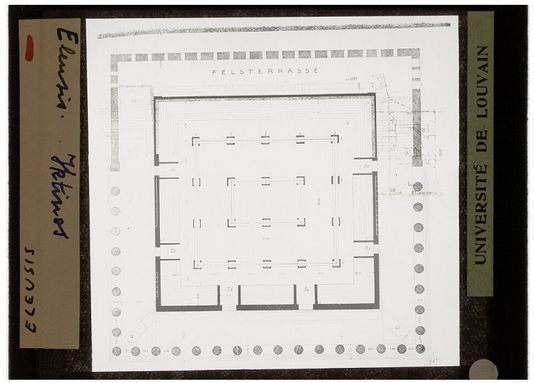


Figure. 3.16. Elefsina. Heiligdom: Telesterion: Plattegrond

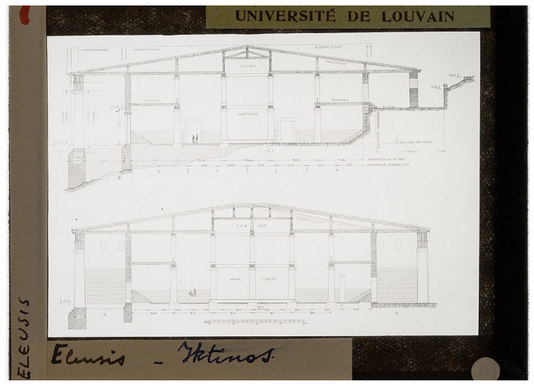


Figure. 3.17. Elefsina. Heiligdom: Telesterion: Architectuurtekening

echo, amplifying the effects to the audience. However, unlike the Telesterion, this space also prioritizes a sequence of visual experience and opening to the sky. The space utilizes direct lighting from the roof, which enhance the spatial quality that supports ceremonies.

3.3 Spatial Sequence and Infinite Views

Classical Chinese gardens are inspired by theories of harmony with nature through spatial sequencing and hierarchy of spaces, emphasizing on movement and transformation rather than singular views. This concept of following change in nature came from Taoism and is expressed in engagement with natural elements and sites. The bottle gourd metaphor of the garden is interesting in particular: it's characterized by a thin and discrete entrance, then the visitors are guided through narrow and enclosed corridors before arriving at the courtyard. This sequence responds to the utopian imagination of the Land of Peach Blossoms, where visitors must travel through a series of confined spaces before entering utopia. This spatial strategy extends to chronology of movement itself. The concept of "limitless vision, endless recurrence" is crucial to the design of a garden. The corridors are designed in a way that travelling clockwise or counterclockwise would not impact the experience of walking around the garden, and the

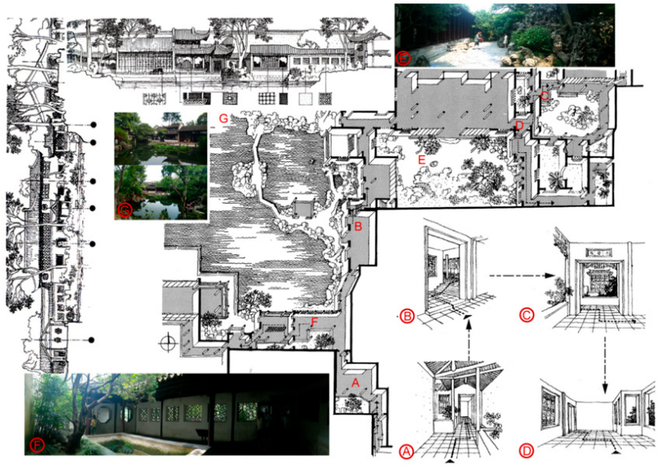


Figure. 3.18. Illustrations of the Varying Sceneries with Changing Viewpoints



Figure. 3.19. Waterfront railings in front of Mingse Tower



Figure. 3.20. Haopu Pavilion in Lingering Garden, Suzhou

sense of boundless depth is achieve through the rhythms of openings and closings throughout the corridors. The environment are not merely visual compositions but a multisensory experience. Scent, sounds, light, texture combined produce immersive atmosphere even for those who are unfamiliar with the cultural symbolisms.

3.3.1 Infinite Hierarchy of Bottle Gourds

Taoism provided traditional Chinese garden with the strongest conceptual framework. “The Tao inspired its followers to be profoundly conscious of the process of change in nature. Taoist humility in the fact of nature is clearly expressed in the design of landscapes and in the adaptation of buildings to their site. Taoist philosophers, motivated by a desire to obtain peace of mind, were the main advocates of the observance of nature.”[27] Through the bottle gourd model, the structure of the Chinese garden is apparent. There are three distinct types of gardens in China: the smaller private gardens for personal enjoyment, the enormous and often times excessive gardens in imperial palaces, and gardens built for temples. For example, the structure of Liu Yuan (a private garden) starts with a remote entrance connecting to long and narrow corridors leading to various enclosed spaces. More importantly, the spaces are enclosed with high, solid walls. This orientation of constructing restricted space before the actual garden experience has similarities to the ideal utopian Land of Peach Blossoms, standing away from ordinary urban experiences. This arrangement leaves special impression of the garden where “can feel a pure atmosphere around our table and chair; the common dust of the world is far from our souls.”[28]

The idea of bottle gourd can be found in numerous spaces, shapes, and forms throughout the landscape. In my design, contrast between narrow and open, stillness and movement, viewing and participating is achieved through this model. Throughout the walkway, there is a rhythm of openings and closings. Corridor shelters create a difference between the tunnel and open areas, making varied experiences. On the other hand, along the path (and in each sensory zone) has a small pavilion for resting. These stop points form a pause in the circulation, as well as acting as the entrance to each unique landscape feature. Path are designed in a way that intentionally guide the visitors towards certain scenes. Opening such as windows and peek holes on corridor walls often direct visitors towards other spaces, which further adds layers to the visual experience.



Figure. 3.21. Openings and Closings in the Garden



Figure. 3.22. Fake “Mountains” Inside Water Feature

27. Johnston, R. Stewart. 1991. Scholar Gardens of China: A Study and Analysis of the Spatial Design of the Chinese Private Garden. Cambridge University Press.
28. Chi, Ch‘eng. 1988. The Craft of Gardens. Yale University Press.

3.3.2 Sequential Views and Endless Visual Space

Chinese private gardens are centered around natural elements such as water features, rocks, and flora to create an environment that presents natural spiritual essence within confined spaces. The traditional gardens emphasizing the "harmonious coexistence of humans and nature reflects a deep ecological consciousness, aligning seamlessly with the green and sustainable concepts prevalent in contemporary landscape space design."[29] Many of its sequences are inspired by the concept of "limitless vision, endless recurrence" which produces rich visual layers and spatial experiences. Moreover, the sequential views are another important aspect of Chinese garden design. In the case of Xiaocanglang Water Courtyard, the circulation provides visitor with a choice of travelling either clockwise of counterclockwise along its courtyard, though different visual spaces, they have consistent rhythm of openings and walls. Enclosed corridors result in the increase of openings and closings, at the same time due to different angles between the paths and walls the corridors creates a sense of mystery in the same space. The combination of space time and difference in visual experience together establishes the spatial sense of "endless recurrence." Endless recurrence is achieved in the landscape through layering of senses. Even though each zone prioritizes one sensory experience, the zones are not separated completely, and the layering of sensations create endless sensory space. For example, once patients enter the garden, the first zone they encounter is the texture zone. In this zone they are free to see, touch, or laydown on different materials on display walls or on the path. At the same time, they are able to hear water running coming from the central sound area, and the smell of aromatic herbs from scent zone nearby. These senses work together to form a unique experience for each individual, and changing location, posture, or activities will alter the atmosphere, therefore constructing an endless sensory space.



Figure. 3.23. Human Working With Nature

29. Zhu, Haipeng, Yuhang Kong, Hong Zhang, Zongchao Gu, and Ryuzo Ohno. 2025. "Effects of Scenery Frame on Visual Depth Perception in Classical Chinese Gardens: A Case Study of the Lvyin Pavilion in Lingering Garden." Frontiers of Architectural Research 14 (2): 402–15. https://doi.org/10.1016/j.foar.2024.08.009.

3.3.3 Restorative Effects of Natural Environments

Exposure to nature reduces mental fatigue and lowers stress. Multisensory stimulation in particular, significantly enriches the environment and enhances nature's power to restore health. Liang and Feng believed that "the meaning of 'although made by man, it is like the sky opens' is reflected in life, that is, to integrate nature into daily life. Therefore, ancient Chinese gardens are a condensed and refined natural world, and plants, trees, mountains, and stones should show their original form of the natural world, rather than being pretentious and full of artificial trees."[30] Within the garden, sensory stimulation



Figure. 3.24. Design Oversight, Scottish Parliament Landscape

30. Liang, Zijun, and Youyuan Feng. 2023. "Promote Chinese Traditional Garden Culture and Explore the Beauty of Classical Gardens and Qinghui Garden." Highlights in Art and Design 2 (3): 53–58. https://doi.org/10.54097/hiaad.v2i3.7997.

doesn’t limit itself to visual clue. Elements such as the scent of flowers or the sound of water adds to layers of spatial experience. Different from visual only spaces, real world exposure provides greater attentional engagement, emotional balance, and physiological relaxation. In the research of comparing benefits of multisensory experiences in a classical Chinese garden to visual experiences, researchers found that “Participants’ spontaneous descriptions of the real-world garden as “poetic” and “painterly” appear consistent with the design principle of Yijing - a poetic and immersive atmosphere created through layered sensory experiences.”[31]

Landscape design needs to be as natural as possible, while protecting patients from the weather and threats of wildlife. With the multisensory stimulation, nature has greater effects on reducing stress and relaxes patients. Plants, trees, rocks mimicking mountains, and running water are all part of the landscape and remain in their original forms. The exposure to real world elements provides more engagement with patients’ bodies and their environment. For example, in the taste zone of the landscape, patients are responsible in the process of planting seeds, watering them, and harvesting the fruits and vegetable that grow in the garden. They also participate in the preparation and consumption of the food, in which this process strengthens their connection with the world and communities.

31. Cai, Yanning, Minkai Sun, Yudie Lu, Yuqin Wang, and Seiko Goto. 2025. “Restorative Benefits of Multisensory Experiences in a Classical Chinese Garden Compared to Visual Experiences Only.” Frontiers in Psychology 16 (November). https://doi.org/10.3389/fpsyg.2025.1663101.

4 | Methodology

The thesis utilizes a qualitative, practice-based research method. Rather than implementing quantitative measurement or clinical data, the research bases itself on iterations of drawings and physical model making a primary method for research. These drawings are not summaries from existing research done in this field. They are tests of ideas and representations of possibilities of healing environment on occupants. This approach supports that the thesis's central argument that space must be understood through embodied experience, sequence, and atmosphere, which is harder to grasp through data alone.

The main strategies of spatial arrangement come directly from research in the towns and houses of Shiraiwa and Kakunodate. Since modern hospitals lack holistic treatment, the models of pre-modern healing practices become important to restore patients' mental health. Programs in this facility are arranged in chronological order that follows the process of ritual in these towns, which focuses on patients' mental well-being more than the treatment of their bodies. On the other hand, spatial qualities in each stage are determined by research on enrichment spaces. Sensory stimulation, along with bodily engagement with elements in spaces, all contribute to better spaces for healing.

Drawings are used throughout the research as a form of analysis. Analytical drawings of case studies, including village plans of Shiraiwa and Kakunodate and the sequence of Chinese gardens, provide explanation to the spatial sequence and occupant's experience of going through these spaces. Drawings of these spaces expose patterns of entry, places of thresholds, paths of circulation that brings sensory stimulation to the people walking through the passages. Alongside drawing, 3d model shows a more precise representation of qualities of space, giving depth in design.

Through research on existing theories on enrichment spaces and case studies on pre-modern healing informs the design proposal to transform environment that has been notoriously terrible to the other extreme end. Drawings directly compare the design to findings from the research, then points out strategies that work and ones that don't.

5 | Design Project / Proposal

5.1 The Site

Hamilton is an industrial city situated along Lake Ontario and has long been shaped by the tension between economic decline and the pursuit of renewed urban vitality. While it had a history of manufacturing steel, the city faced significant decline after investment withdrawal in the city, resulting in abandoned infrastructure and a reputation of “unhealthy” place. However Hamilton’s landscape isn’t defined in industries alone; the Niagara Escarpment cuts through the city, providing residents with access to over 150 waterfalls and natural forests. Century Manor lives within this contested urban environment. Originally built as a psychiatric hospital, the building carries a troubled past marked by inhumane treatment and social exclusion. The building itself now is long abandoned and subject to demolition by neglect, its future remains unresolved. By reusing this heritage building, it connects residents of Hamilton with the city’s past while experiencing the result of transformed future.

5.1.1 City of Hamilton

Hamilton is a port city located along Lake Ontario and has a rich history of being “The Hammer” because of its rich industrial heritage. It was known for its heavy manufacturing sites and steel production. However, due to the shift in Canada’s economy towards healthcare, biotechnology, and services, the town has experienced rapid decline in its industries. As a result, many of its heritage buildings lack maintenance and is experiencing “demolition by neglect.” On the other hand, the city is divided by the Niagara Escarpment, a UNESCO world biosphere reserve that is home to over 150 natural waterfalls. The escarpment has the oldest forest ecosystem in eastern North

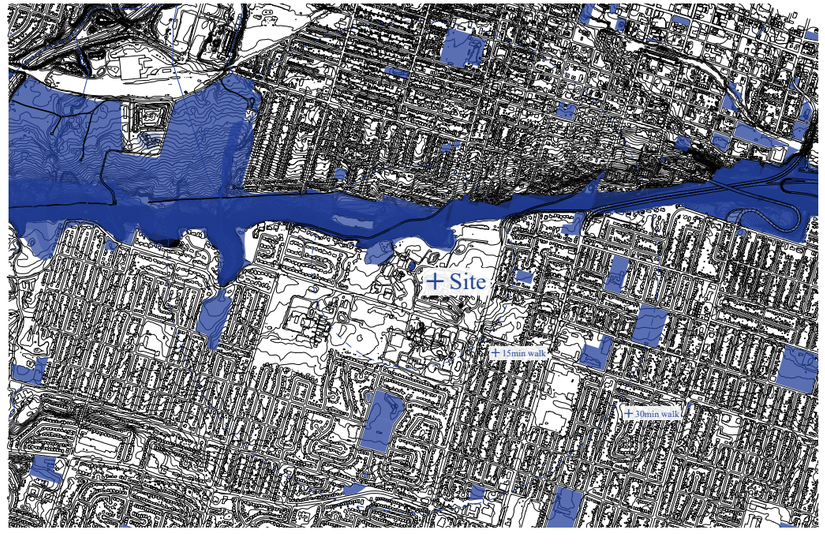


Figure. 5.1. Context Plan of Hamilton

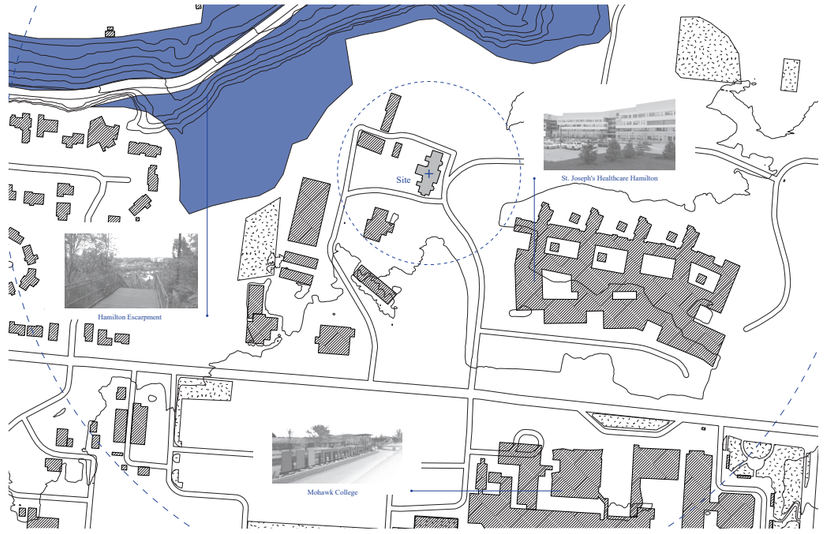


Figure. 5.2. Site Plan of Building Showing Surroundings

America, providing residents with opportunities to access nature and Canada's oldest marked trail directly on the edge of the escarpment.

The city of Hamilton has a reputation of "unhealthy" place, making it less attractive to investment, which damages their economy even more. However, residents are making efforts to recreate Hamilton, or parts of it, as a therapeutic landscape that provides a health maintaining setting for everyday life. According to Wakefield and McMullan, Hamilton's reputation of being an unhealthy city at regional level is challenged by politicians, planners, and journalists, and they are actively redesignating it as a natural inviting place. At the local level, residents have "(re)negotiated the dominant image of Hamilton by emphasizing the health-affirming characteristics of locally significant places, and by drawing imagined boundaries between the healthy and unhealthy neighbourhoods of the city."[32] However, this response isn't an active strategy to remove the stigma labeled on this city, but rather a psychological masking. Residents in more affluent areas have the tendency to disassociate themselves with places in Hamilton that has the reputation of being "unhealthy," while ignoring issues that are present in their areas. This strengthens the perception of Hamilton being a city with less ideal conditions to live. Boundaries between neighbourhoods serves as separation between poorer and wealthier area and contains "contaminated" places, while further isolate people living in these communities from amenities. This exclusion is justified by stereotyping these places and individuals living in them. Interestingly, the concept of "polluted" and "unpolluted" places rarely stays stationary, since individuals and communities are constantly readjusting themselves to dominant images. Similarly, individuals rarely associate their own neighborhood with pollution and stigma. This phenomenon is called "neighbourhood halo effect," in which "a worrisome situation is underestimated or otherwise distorted, to avoid feelings of personal vulnerability and/or the need to take action."[33]

In order to construct a healthy place, the local place image is the central piece to the maintenance of well being. More importantly, the process of healing happens at everyday spaces, and the interpretation of healthy places is central to being well. Unlike what most people believe, the problems can't be simply solved by humanism and structuralism alone. The central tension lies between the structure, which are the social, economic, and institutional forces that constrain people, and agency, which are individual choices, intentions, and actions.



Figure. 5.3. Sunset From Top of Escarpment, Hamilton



Figure. 5.4. York Boulevard Downtown Hamilton, West

32. Wakefield, Sarah, and Colin McMullan. 2005. "Healing in Places of Decline: (Re)Imagining Everyday Landscapes in Hamilton, Ontario." Health & Place, Special Section: Therapeutic Landscapes: An Evolving Theme, vol. 11 (4): 299–312. https://doi.org/10.1016/j.healthplace.2004.05.001.

33. Wakefield, Sarah, and Colin McMullan. 2005. "Healing in Places of Decline: (Re)Imagining Everyday Landscapes in Hamilton, Ontario." Health & Place, Special Section: Therapeutic Landscapes: An Evolving Theme, vol. 11 (4): 299–312. https://doi.org/10.1016/j.healthplace.2004.05.001.

Gesler believes that structure and agency interact in a recursive manner, and the attempt to reconcile these has "involved several interrelated dichotomies: structure and agency, society and the individual, hegemony and self-expression, cultural norms and individual biographies, social systems and everyday practice, mind and matter."[34] However, reconstructing a healthy neighbourhood in Hamilton requires image reconstruction of stigmatized area.

5.1.2 Century Manor

Originally built as a mental asylum, the Century Manor was the house for the insane. Therefore, it became a house for mentally ill people. The architecture itself functions more as a containment rather than a treatment place for these people, and unusual methods used on patients are more similar to torture than therapy. Morphine injections, salt rub simulation, alcohol, electro shock, lobotomies are performed in small, confined spaces. Inhumane treatment combined with impoverished environment leads to many suicides and murders happening inside the building. In the 1800s and 1900s, people would gather at the grounds to watch the patients for amusement. Patients are treated as objects and displays in the hospitals, not people with emotions and dignity.



Figure. 5.5. Century Manor, Fennell Avenue, Hamilton, Canada

34. Gesler, Wilbert M. 1992. "Therapeutic Landscapes: Medical Issues in Light of the New Cultural Geography." Social Science & Medicine 34 (7): 735–46. https://doi.org/10.1016/0277-9536(92)90360-3.



Figure. 5.6. Interior of Century Manor in Hamilton, ON



Figure. 5.7. Interior of Century Manor in Hamilton, ON



Figure. 5.8. Interior of Century Manor in Hamilton, ON

Century Manor was turned into a museum in 1980 after all the patients were relocated, then completely closed down in 1995. The building itself has been abandoned and has been “demolished by neglect.” In 2018, Mohawk College proposed to reuse the building as student residence however the plan never happened. In 2020, Infrastructure Ontario proposed to use the land for healthcare and educational use, though this plan didn’t materialize either. Later that year, security measures were implemented to the building because of its state, and the future of this building is still not obvious today.

5.2 Building Design Interventions

Situated in Hamilton near the escarpment, the mental retreat for patients with life-threatening illnesses follows the journey of a healing ritual, while providing positive sensory experience to enhance the healing effect. Patients first arrive at the parking adjacent to the building, mostly by vehicles. Then they enter the building from either side and are greeted and guided by staff at the entrances. To separate them from their previous monotonous environment, biophilia elements are incorporated in the waiting area. Patients gain close contact with water, fire, plants, and texture, and all these elements provide a sense of time passing and connection with the world that does not exist in a typical hospital. After the entrance, patients are invited to complete smaller group activities such as art workshops, yoga studios, sleeping pods, and library with reading areas. These are completed in smaller groups, connecting patients with interpersonal relationships that was lost in a separated environment without overwhelming them. After that they go in community space, where kitchen and smaller market are offered and they could prepare food or art as a community. Towards the end patients go in the greenhouse in the back of the building, where they learn about plants in the local areas and how they change in different seasons. The last space is the ceremonial space, where all patients and staff come together as one to participate in celebration.

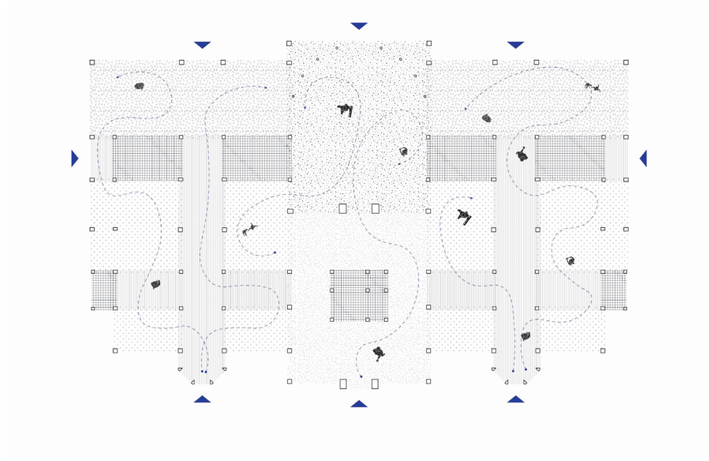


Figure. 5.9. Program and Circulation Inside the Building

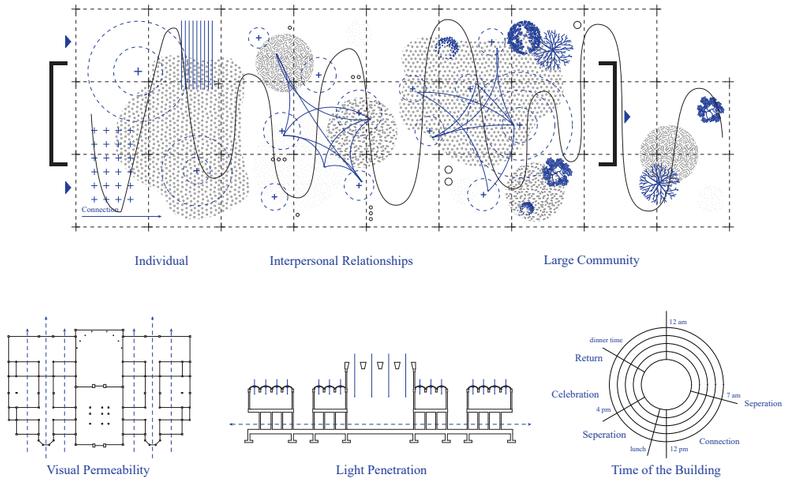


Figure. 5.10. Parti of Building, Showing Experience During the Journey

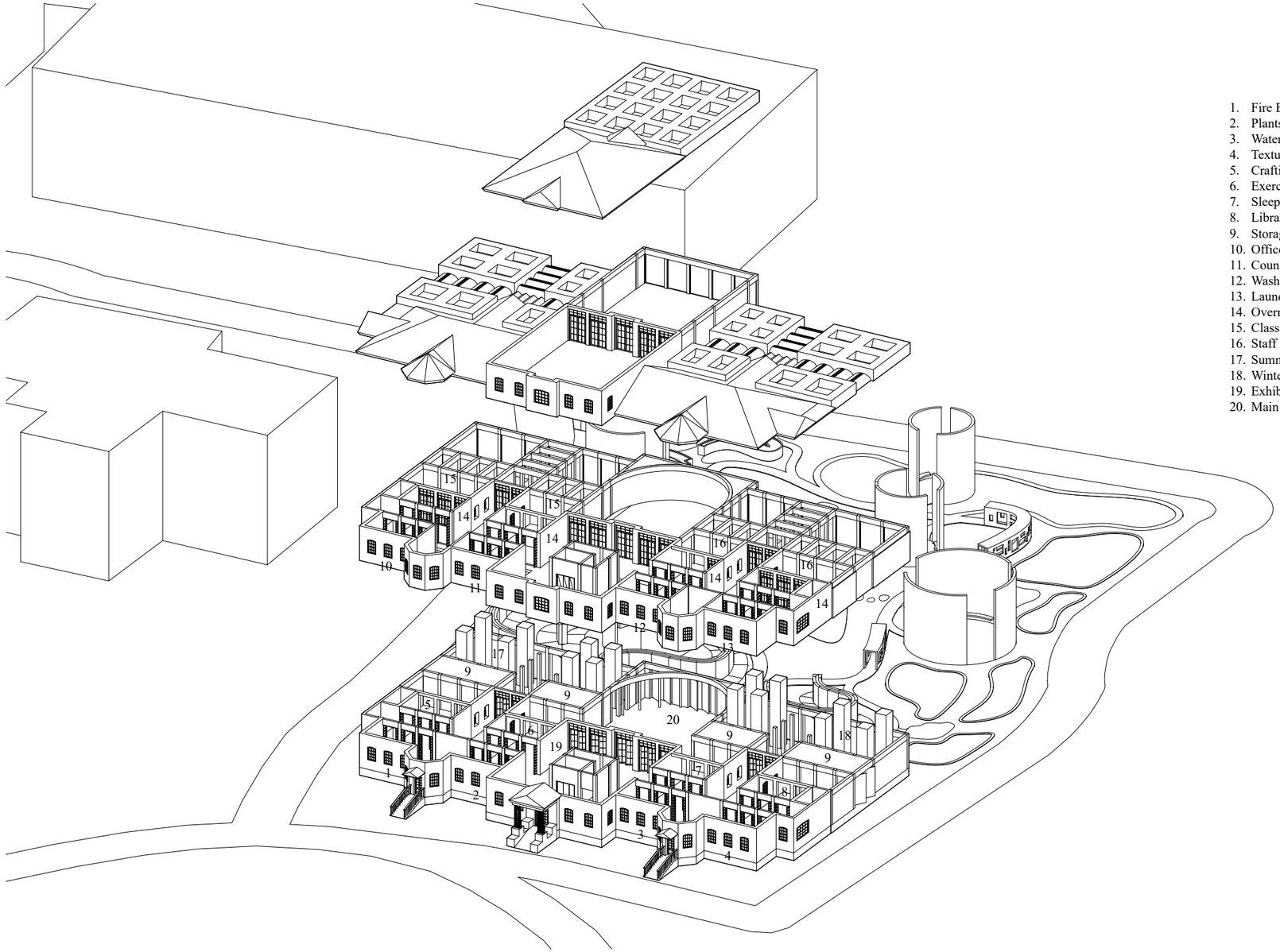


Figure. 5.11. Exploded Axonometric of the Building

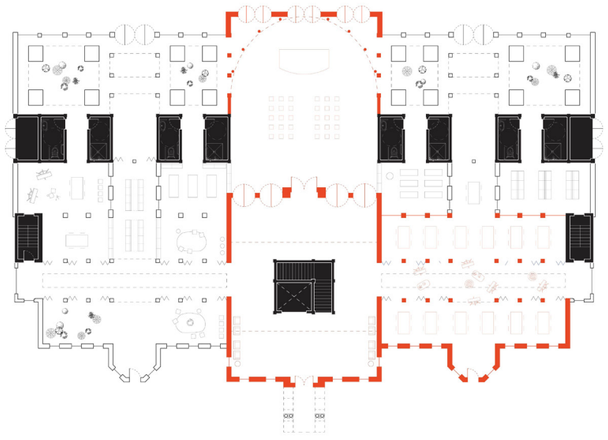


Figure. 5.12. First Floor Plan, Summer

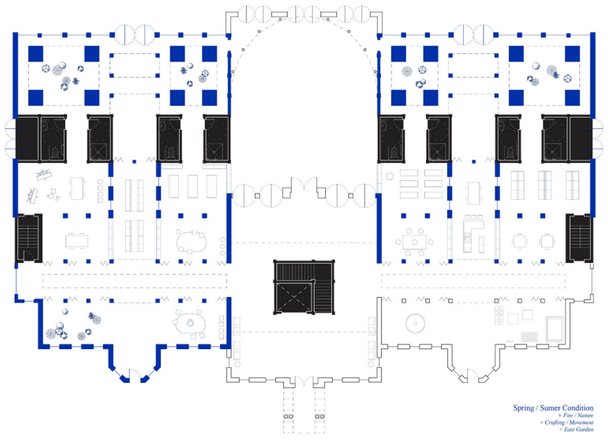


Figure. 5.13. First Floor Plan, Winter

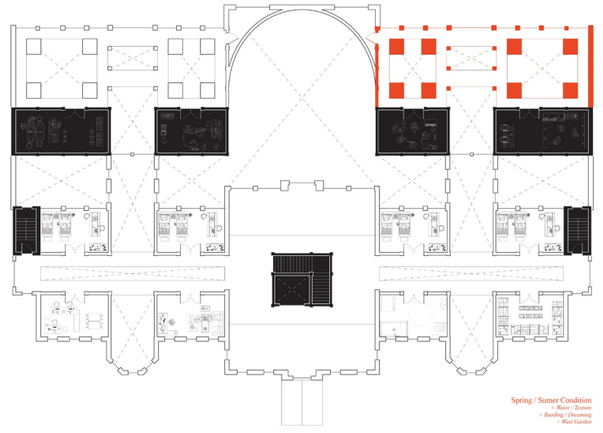


Figure. 5.14. Second Floor Plan, Summer

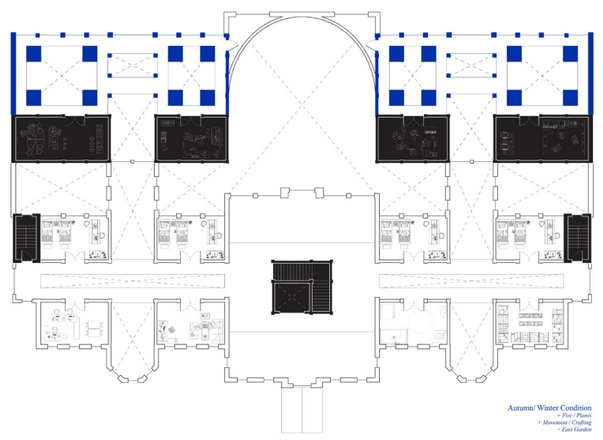


Figure. 5.15. Second Floor Plan, Winter



Figure. 5.16. View to Greenhouse

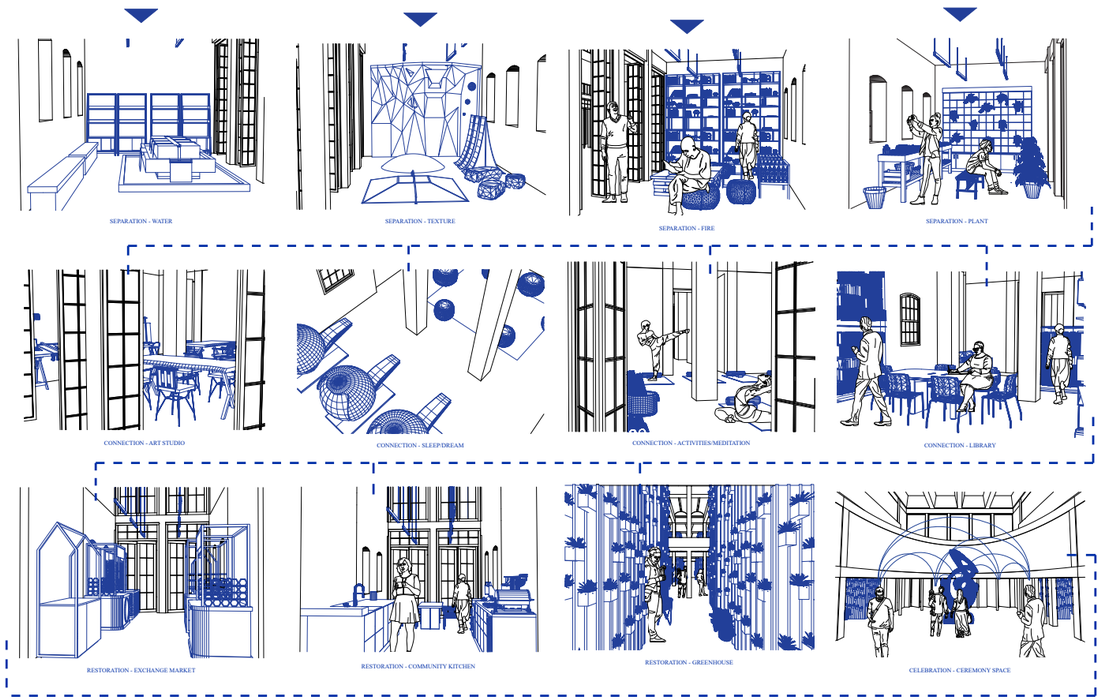


Figure. 5.17. Story Board - Journey of a Patient

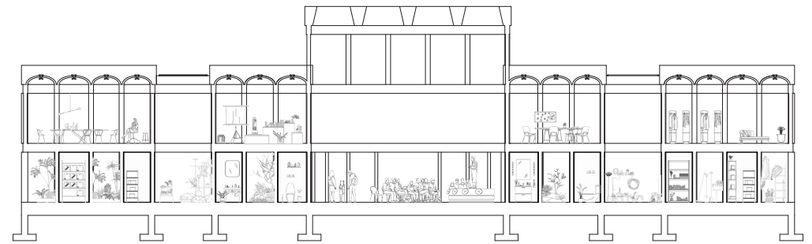


Figure. 5.18. Building Cross Section A

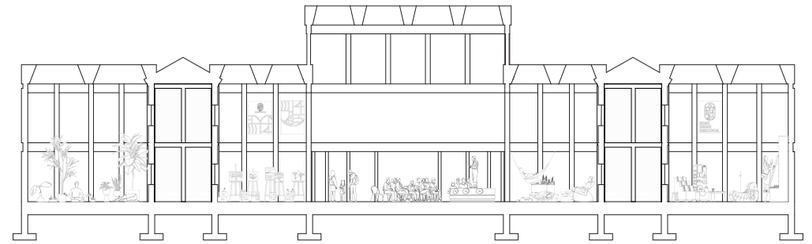


Figure. 5.19. Building Cross Section B

5.2.1 Designing Separation

Arrival at the mental retreat is quite different from other public institutional buildings. Unlike a typical hospital with a grand atrium designed to process large volumes of people efficiently, the mental retreat focuses on more intimate experience of the individual patient. Rather than entering into a megastructure with open spaces and numerous hallways leading to different directions, the mental retreat offers more private entrance to provide a space that is more adaptable to the scale of a single person. Within this space, light level is controlled to form a close, almost personal relationship between the patient and their surroundings. Soft, filtered, or gradually shifting light helps establish a sense of safety and psychological ease, reducing the sensory overload often associated with clinical environments. The careful attention to light focus on the comfort of patients, not treating them as bodies only. The entrance space is also fully accessible, giving patients autonomy to move through and complete daily activities on their own without relying on staff assistance. Independence restores dignity and self-determination in patients, reinforcing their confidence in handling illnesses.

Most importantly, biophilia elements are implemented to create a different atmosphere fundamentally from the hospital. Natural materials such as timber, stone, and textile replace sterile finishes in a hospital setting, introducing warmth and tactility. For example, living greenery, including indoor plantings, gardens, and view into landscape in the back, brings life and seasonal change into the building, countering the static and artificial quality of hospitals. Fire on the other hand, gives warmth and light for sitting during winter. When season change, patients coming to this facility prefer running water that they can hear, drink, and dip their hand into. Texture and shapes accommodate different posture of the human body, adjusting how patients choose to sit, learn, recline, or curl depending on their emotional state at the moment. Implementation of biophilia elements shows contrast between the dull hospital environment and the car ride to the mental retreat, presenting a different feeling that refreshes their mind before participating in activities.



Figure. 5.20. View of Separation Space With Plants



Figure. 5.21. View of Separation Space With Plants

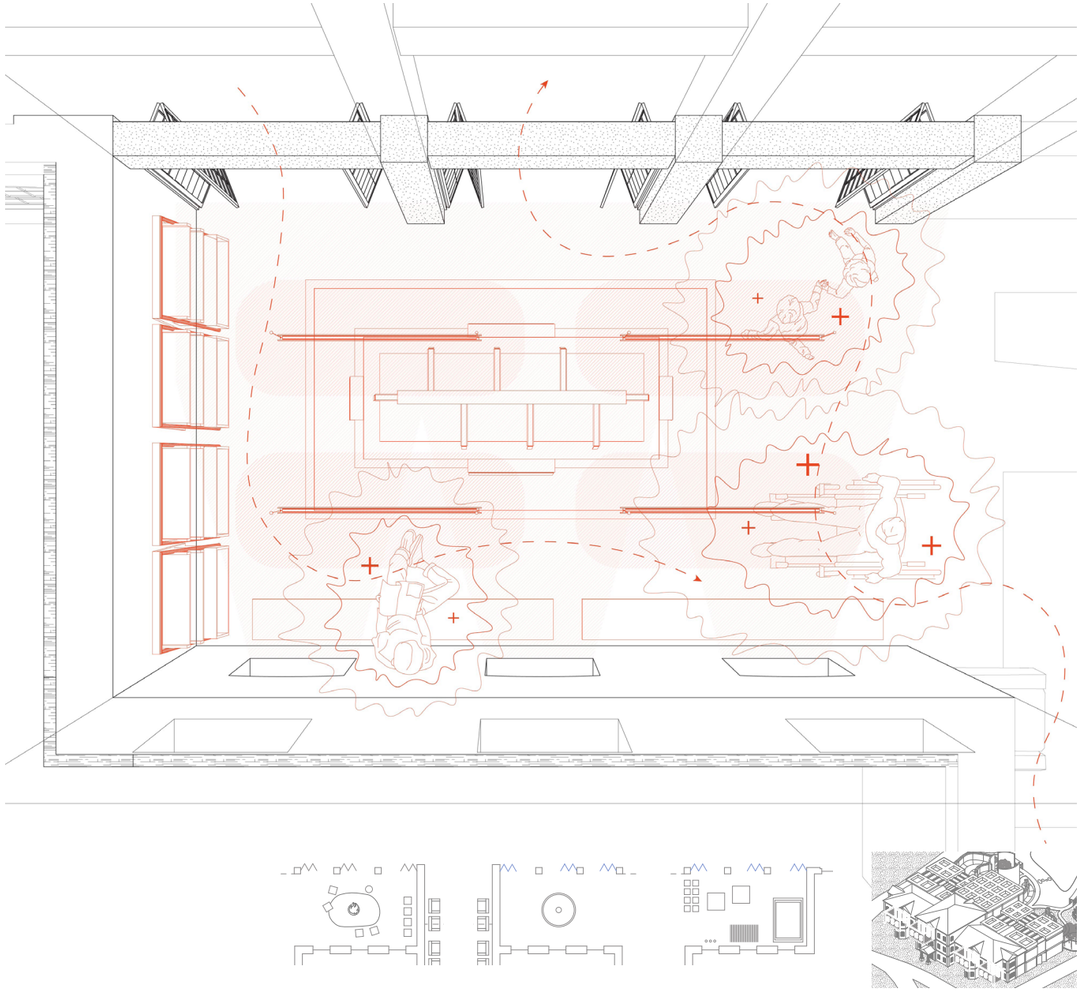


Figure. 5.22. Separation Space During Summer

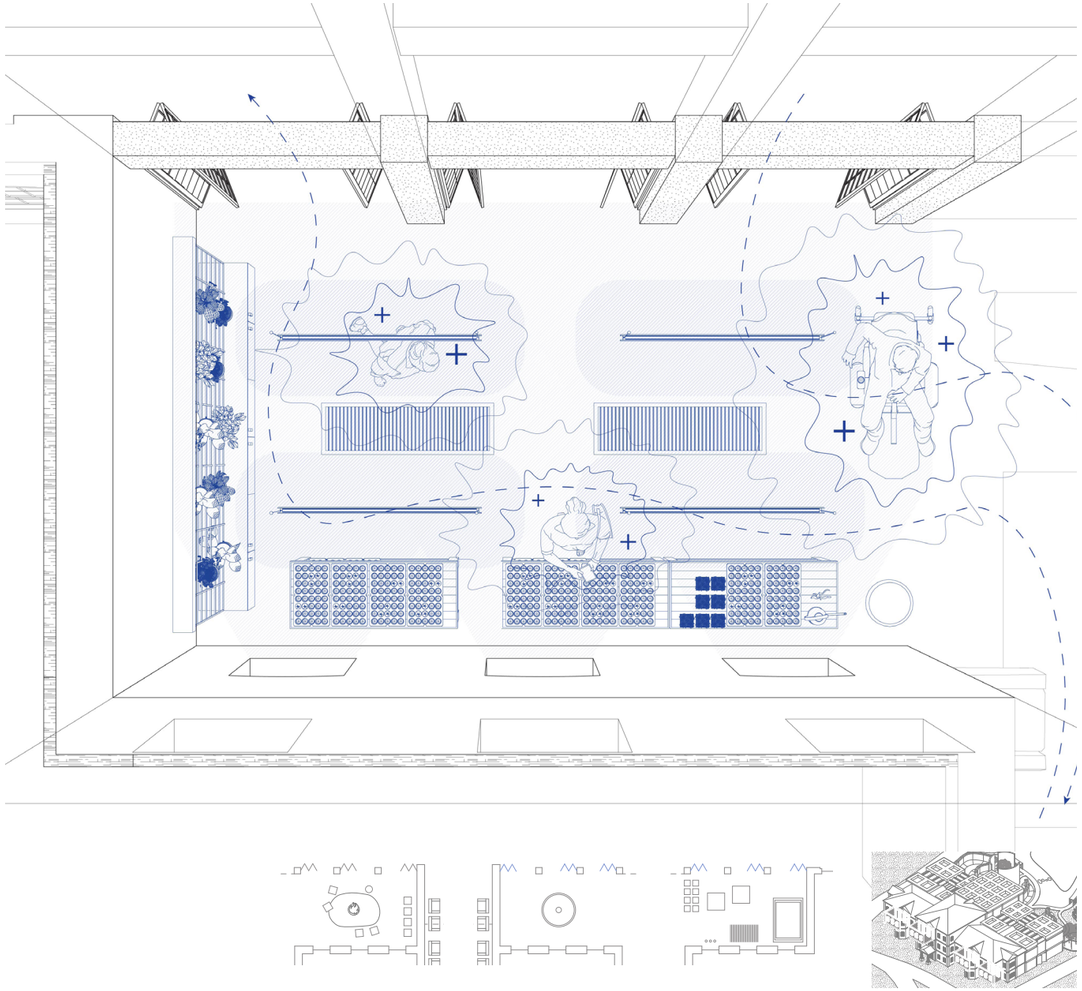


Figure. 5.23. Separation Space During Winter

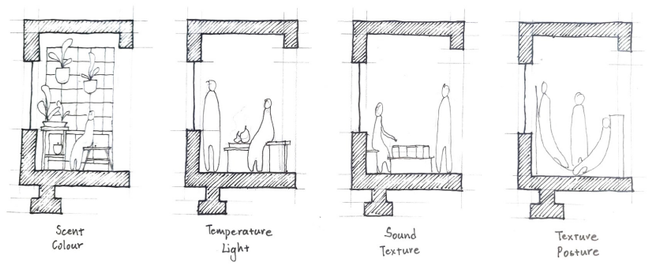


Figure. 5.24. Modes of Interaction in Separation Space



Figure. 5.25. Section of Separation Space During Summer

Figure. 5.26. Section of Separation Space During Winter

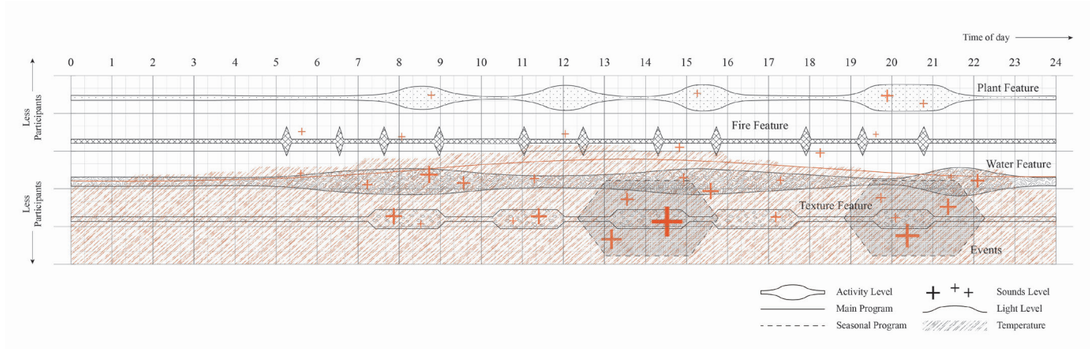


Figure. 5.27. Time of Activities During Summer

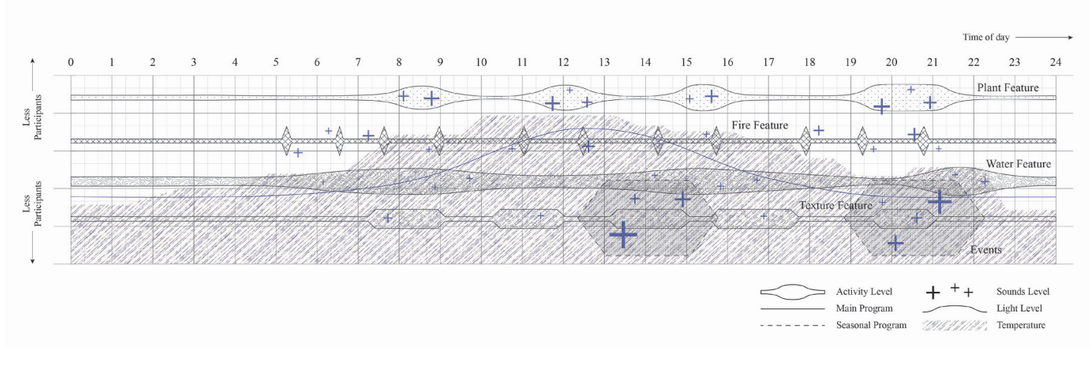


Figure. 5.28. Time of Activities During Winter



Figure. 5.29. Materials Used in this Space

5.2.2 Designing Connection

During a typical ritual, participants usually go through a process that separates them from their ordinary lives before making connection with the world, or the community. The same principle applies to the design of mental retreat. After patients are greeted at the entrance and spend some time alone with themselves, they are invited to participate in smaller group activities. The activity spaces are situated between the existing asylum and the new addition, occupying a threshold position that is itself significant. Metaphorically, this in between space functions as a program that reconnects patients with others, something that is lost in the confined hospital spaces. Completing activities in a group such as reading, crafting, dreaming, and exercising all contribute to the process of reconnection, allowing patients to rebuild a sense of belonging and shared experience that institutional settings strip away.

Light plays a central role in organizing this space, dividing activity space into two distinct areas: one that is darker, narrower, and has a sense of enclosure relying mostly on artificial light supplemented by some natural light filtering in from the adjacent open area; one that is taller, more open, and connects to the greenhouse and ceremonial hall. The dark side hosts lighter side of activities. For example, in the art workshop, individual working spaces are hosted in this area. On the other hand, lighter side hosts activities completed collectively. This space is two times as tall as the previous one and gains natural light directly from above. For example, while individual workshops are hosted in the darker side, this side has shared working tables for working together and hosting lessons. Texture is important in this space as well. Since it is located partly in the existing building and partly in the addition, there is a contrast between the old brick and new stones. Façade of the back side is preserved, maintaining the character and memory embedded in the brickwork. However, the openings are enlarged to make connections to the new, inviting patients to move fluidly between the two without feeling boundaries.



Figure. 5.30. View of Connection Space With Art Studio



Figure. 5.31. View of Connection Space With Library

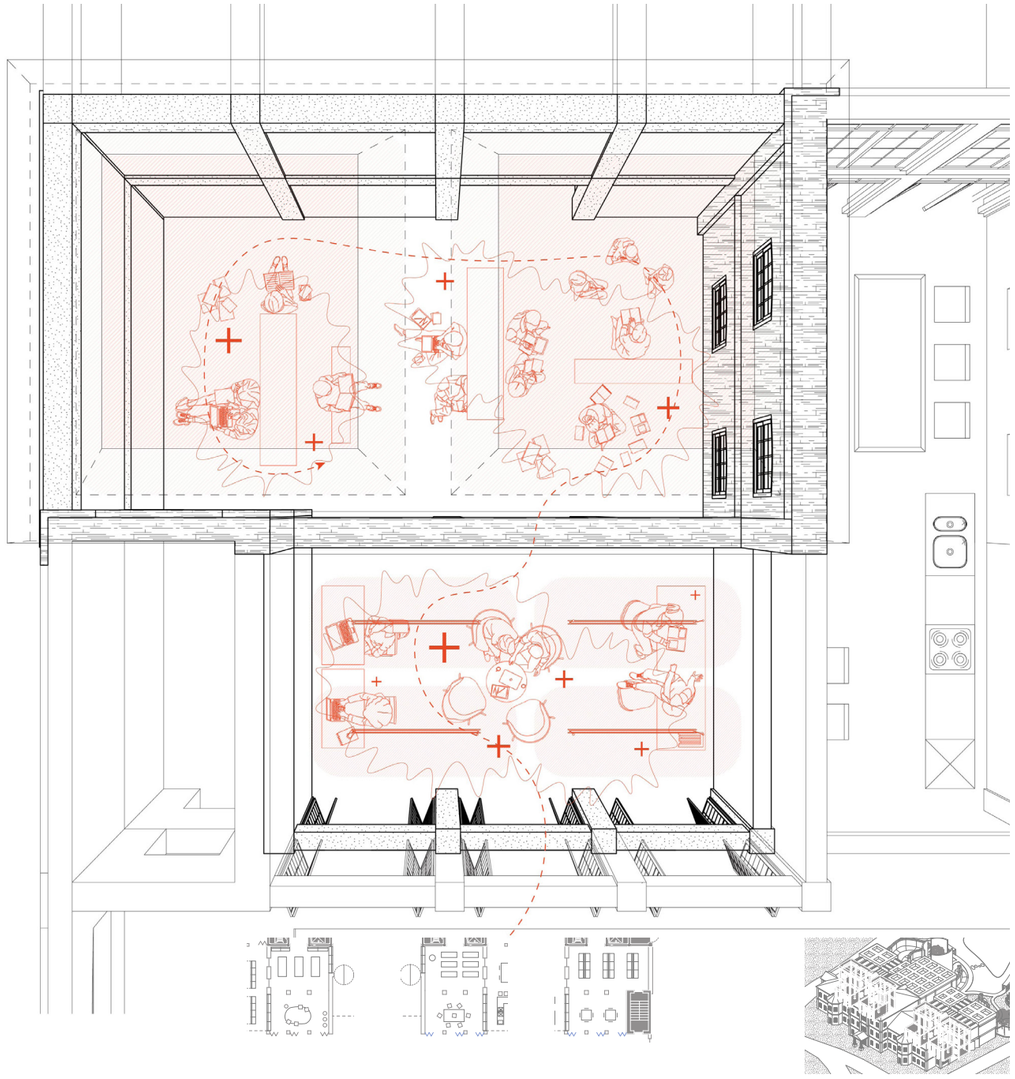


Figure. 5.32. Connection Space During Summer

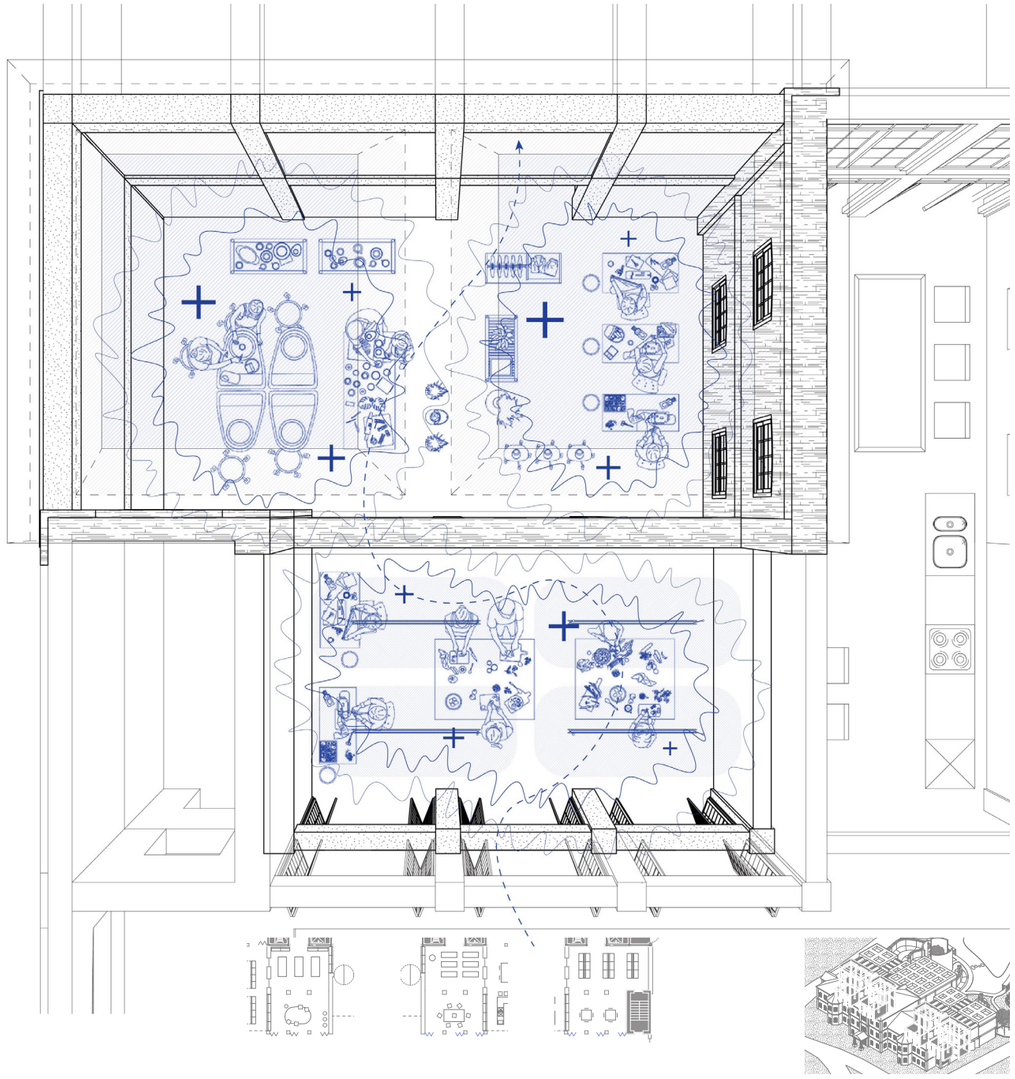


Figure. 5.33. Connection Space During Winter

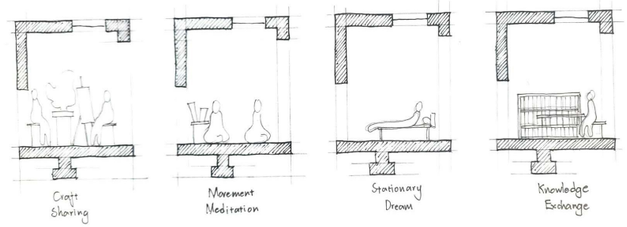


Figure. 5.34. Modes of Interaction in Connection Space

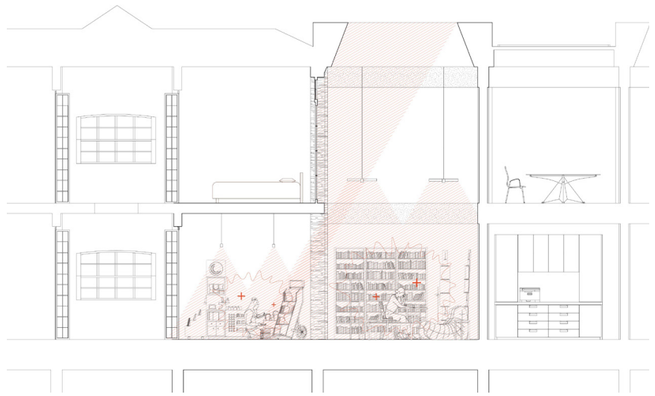


Figure. 5.35. Section of Connection Space During Summer

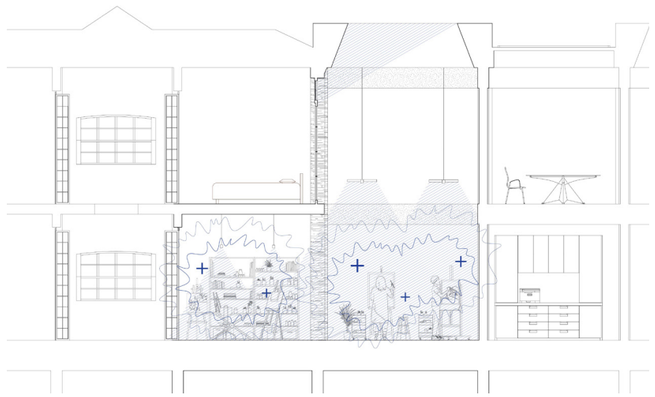


Figure. 5.36. Section of Connection Space During Winter

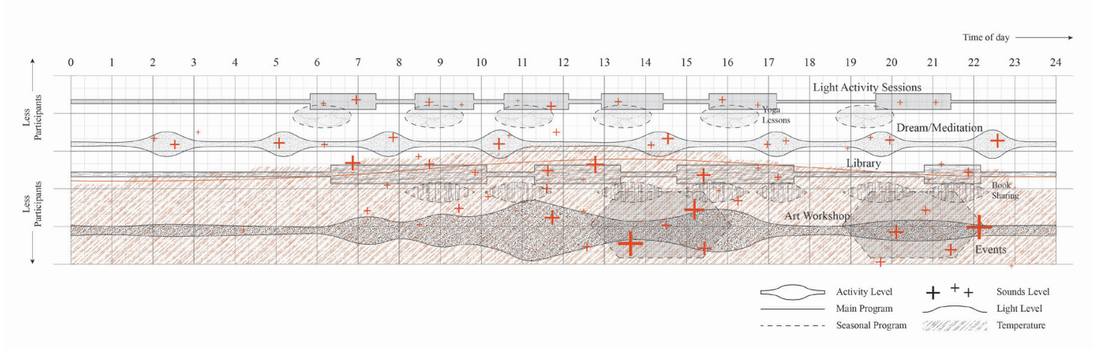


Figure. 5.37. Time of Activities During Summer

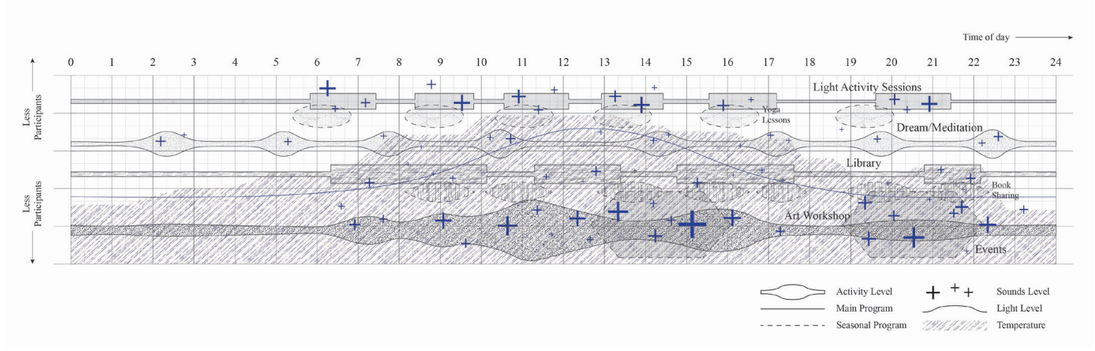


Figure. 5.38. Time of Activities During Winter

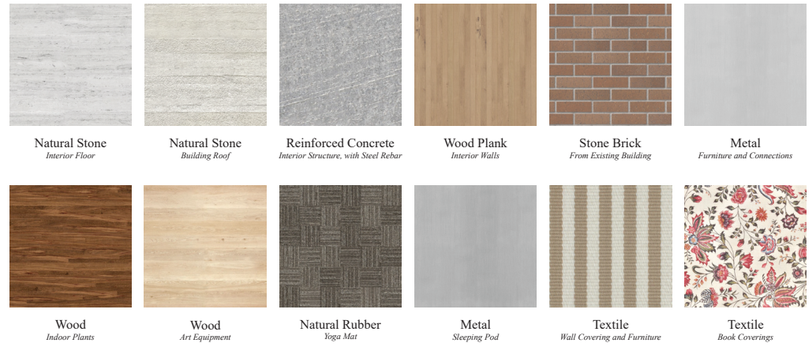


Figure. 5.39. Materials Used in This Space

5.2.3 Designing Restoration

Restoration of the dignity and sense of living in patient is achieved through community. Among a community, the two most important activities that bring people together are the act of cooking and eating, and the act of exchanging goods, stories, and ideas. These are activities from everyday life outside of institutional settings and reinstalling them into the space of care is central to restoring a sense of normality and agency for patients. Therefore, restoration area consists of a shared kitchen and dining area, with small market that supports interest, skills, and thoughts among patients, staff, and families. Connecting to the community area are the two greenhouses in the back, one responding to summer and one for winter. This interior growing space restores a sense of time in patients. Light coming from the ceiling indicates the time of the day, and the plants themselves represent the changing of seasons, grounding patients in a rhythm of changes that sterile environment often neglects.

The shared kitchen and small market occupy space in the existing building, positioned where the two wings at the rear emerge from the main massing. This location was chosen because it is at the threshold between the narrower, more intimate space and more communal areas, making the program a connection between the two. On the second floor, floor plates are removed to create double height space, expanding the ceiling to allow better light penetration and to make the area feel more open and less cramped. This strategy also creates visual access between floors, reinforcing a sense of being together across different levels. On the other hand, the greenhouse is connected to community spaces but located entirely in the new addition. Inside the greenhouse, there are four vertical gardens for plants to grow on. The main garden is located on the first floor, however there is a walkway on the second floor that give patients access to plants higher on vertical gardens. The ceiling gives enormous amount of natural light to the greenhouse, making the space more dynamic.



Figure. 5.40. View of Restoration, Kitchen



Figure. 5.41. View of Restoration, Greenhouse

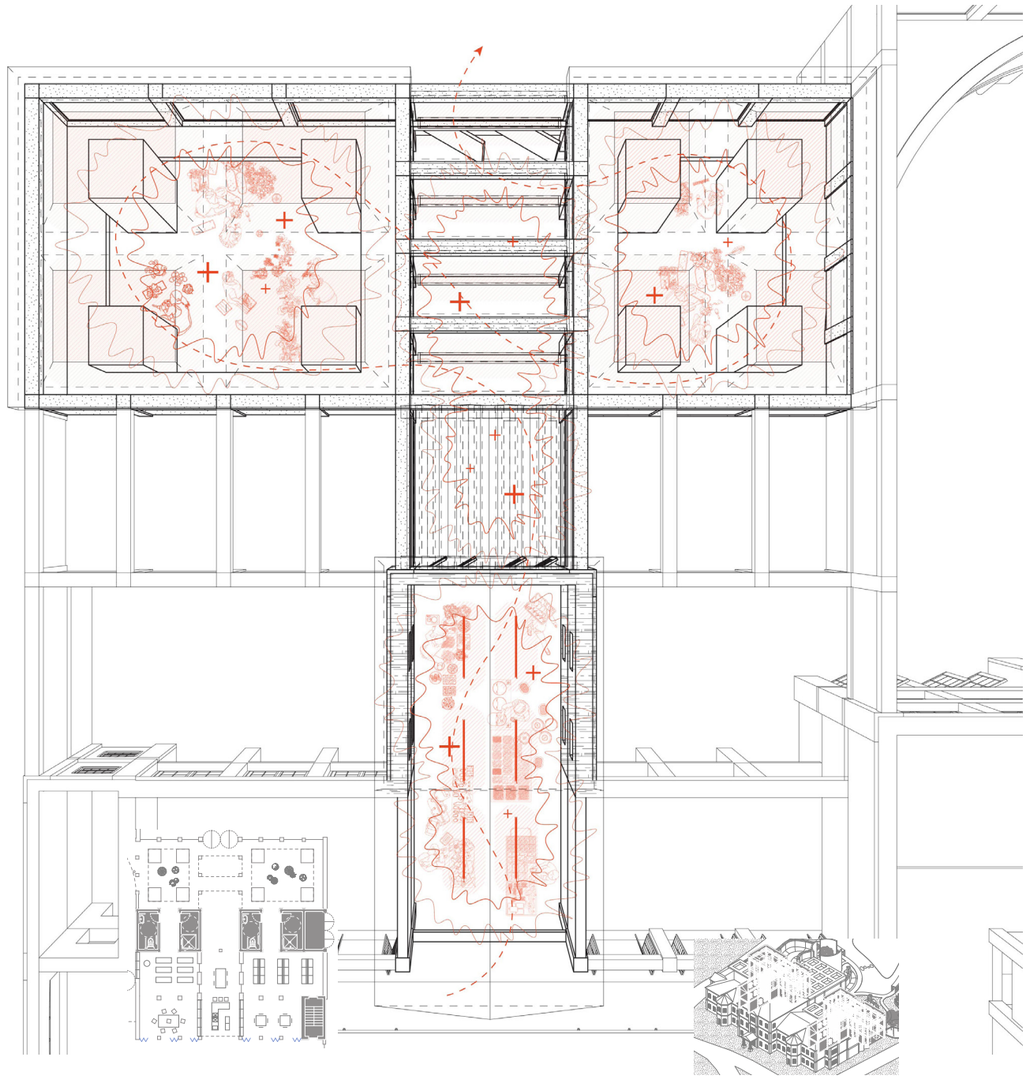


Figure. 5.42. Restoration Space During Summer

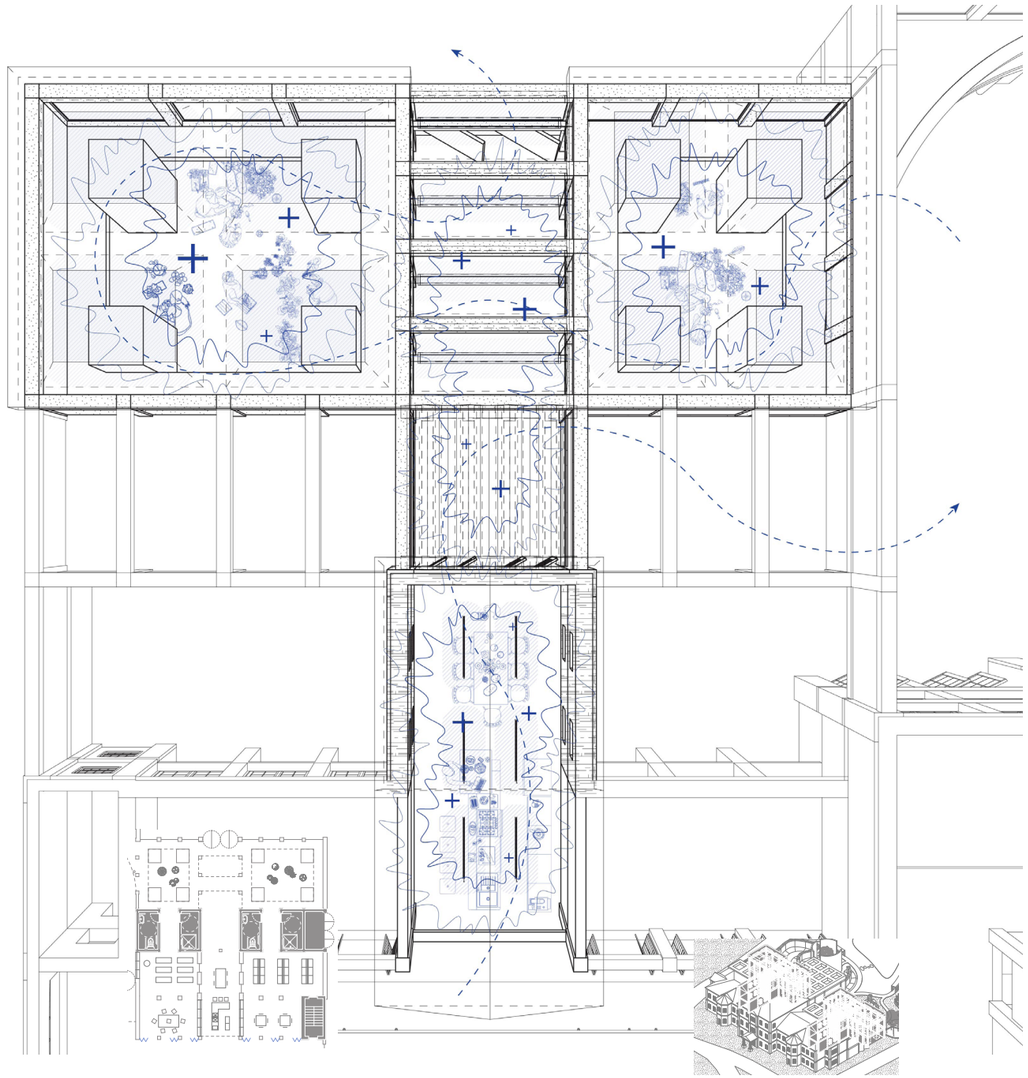


Figure. 5.43. Restoration Space During Winter

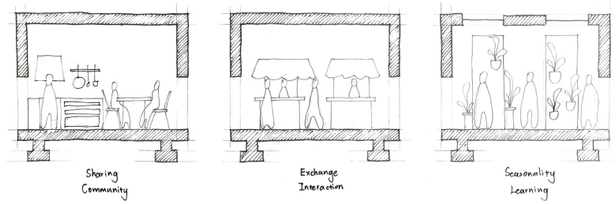


Figure. 5.44. Modes of Interaction in Restoration Space

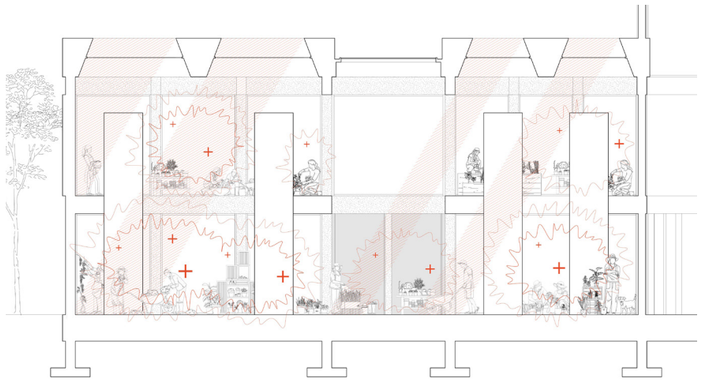


Figure. 5.45. Section of Restoration Space During Summer

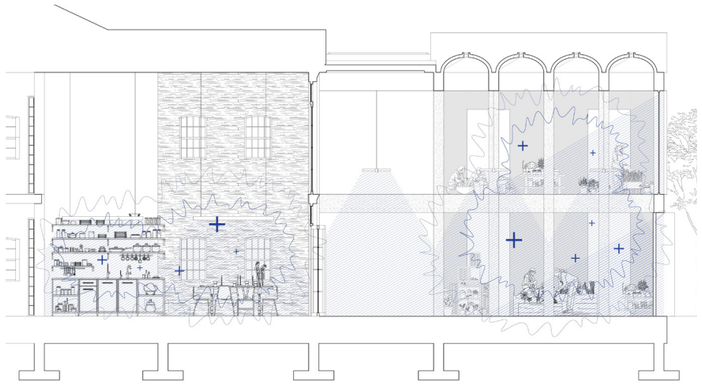


Figure. 5.46. Section of Restoration Space During Winter

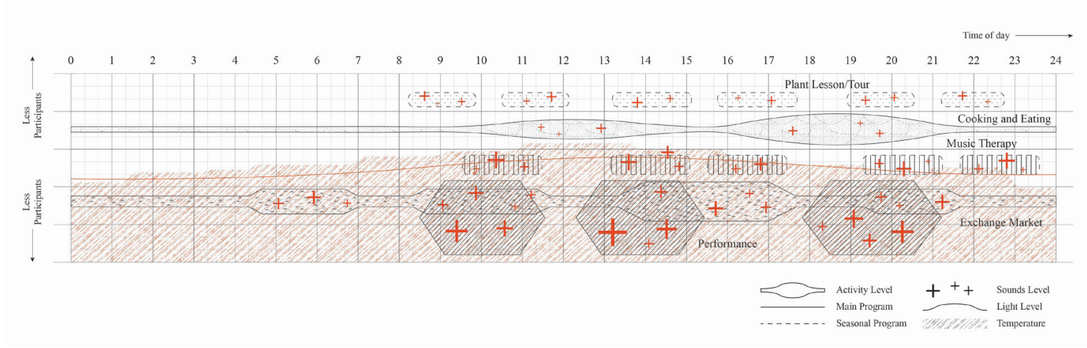


Figure. 5.47. Time of Activities During Summer

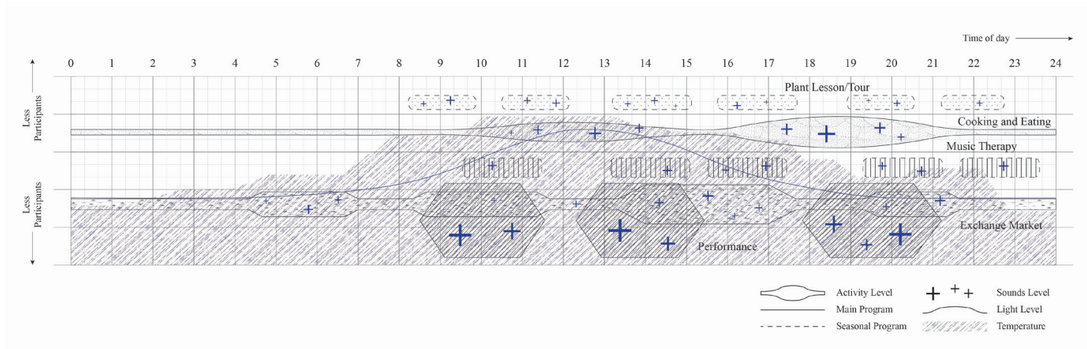


Figure. 5.48. Time of Activities During Winter

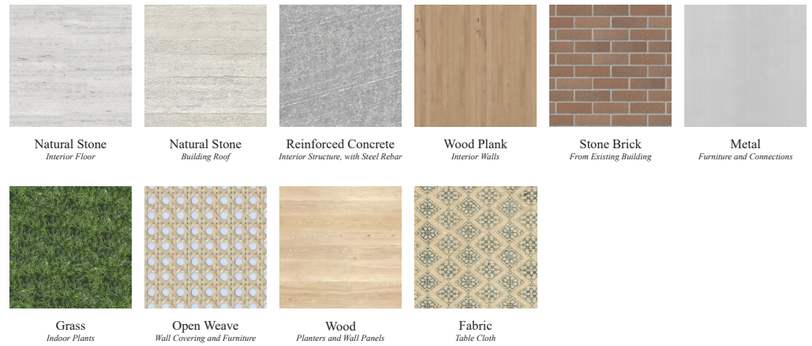


Figure. 5.49. Materials Used in This Space

5.2.4 Designing Celebration

The celebration hall in the building is where patients, staff, and families gather after completing all the processes required for the healing journey. The space is located at the center of the building addition, connecting to the exhibition/main entrance, activity space, community space, and two greenhouses on each side of the building. This central position symbolizes the climax of this journey, where patients celebrate after passing through processes of arriving, restoring, and gathering.

This space follows the idea of continuum, where the space only gains meaning from the activities performed in it. According to different time and different activities of the day, the celebration hall can transform itself to adapt number of people using this space. During a performance, all division screens are removed, and movable stage and seats are set up in the middle of the room to accommodate patients and families watching the show together. During a workshop or group therapy session, the same hall can be reconfigured, divided into smaller, more intimate sections, allowing privacy and focus without losing connection to its volume.

Spatial quality in the celebration hall is the most expansive and exposed among all spaces in the mental retreat. Its scale is generous, giving it a sense of openness that contrasts with the more enclosed, private spaces elsewhere in the building. Similar to the roof used in the greenhouses, the celebration hall has direct natural light coming through ceiling conditions light the entire space rather than side windows. This light from above changes the atmosphere of the room throughout the day, shifting in colour, angle, and intensity from morning to evening. Because of this, the passing of time becomes tangible within the space, reinforcing the hall's role as a place where transformation happens.



Figure. 5.50. View of Celebration



Figure. 5.51. View of Celebration

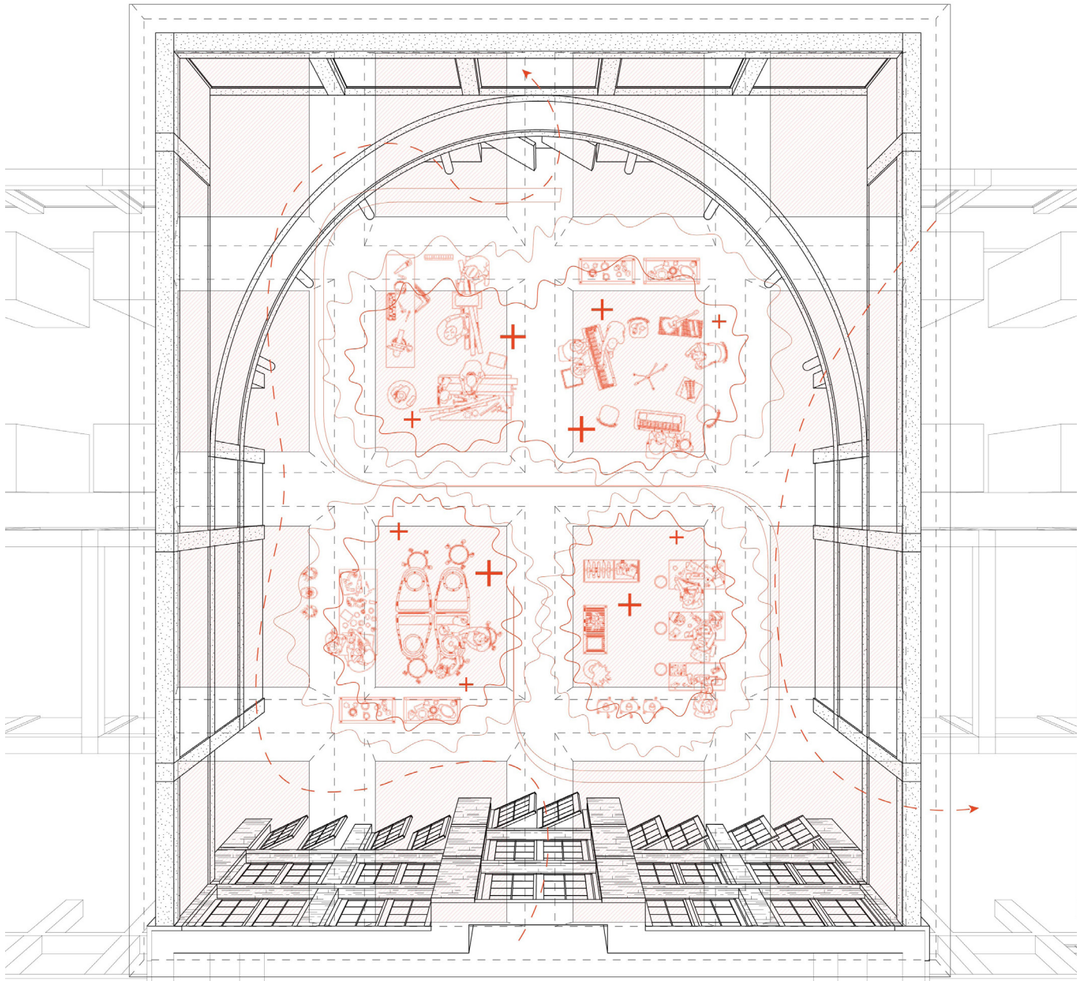


Figure. 5.52. Celebration Space During Summer

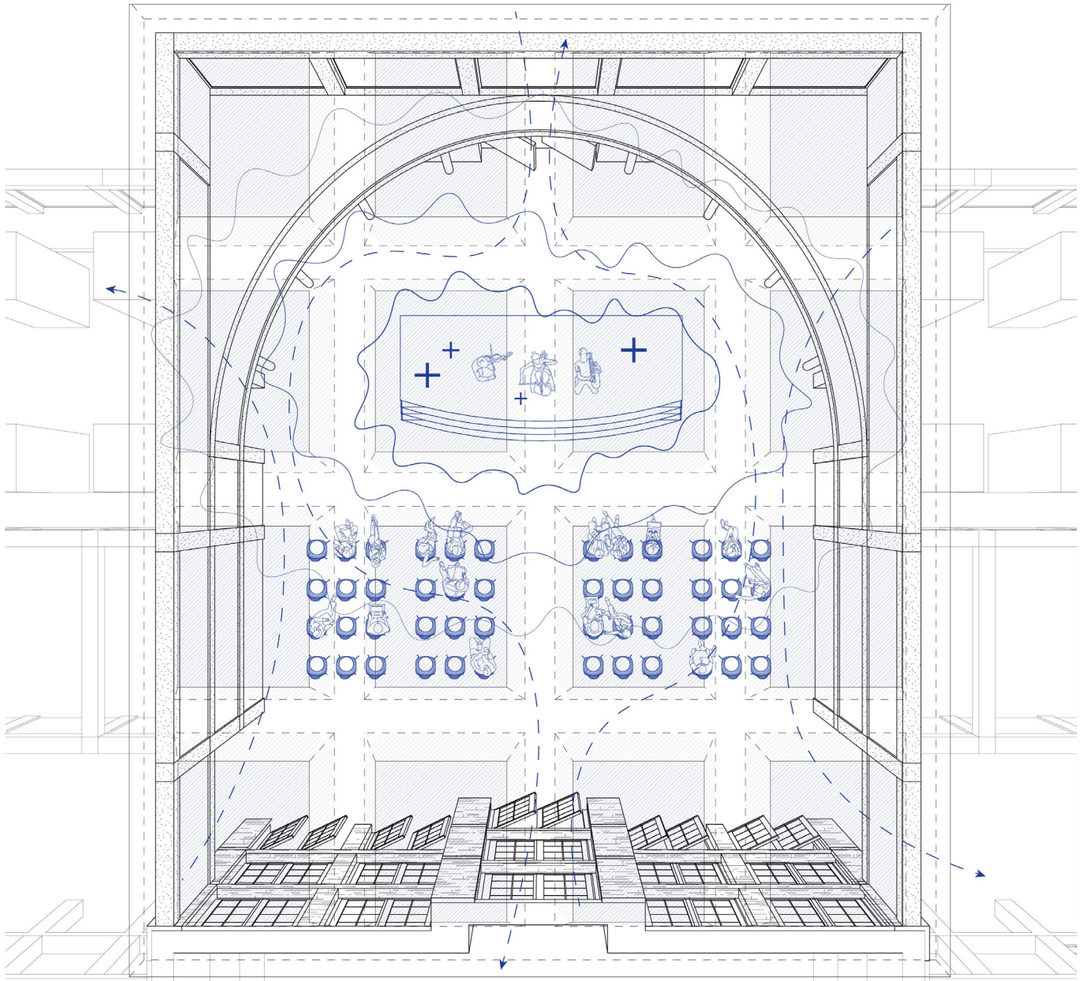


Figure. 5.53. Celebration Space During Winter

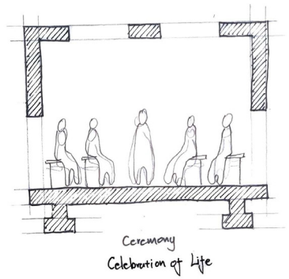


Figure. 5.54. Modes of Interaction in Celebration Space

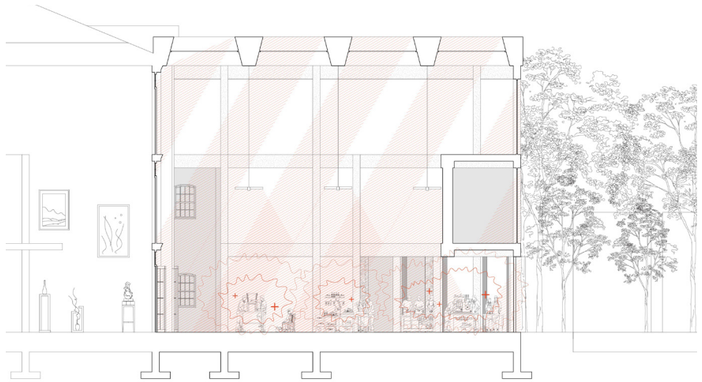


Figure. 5.55. Section of Celebration Space During Summer

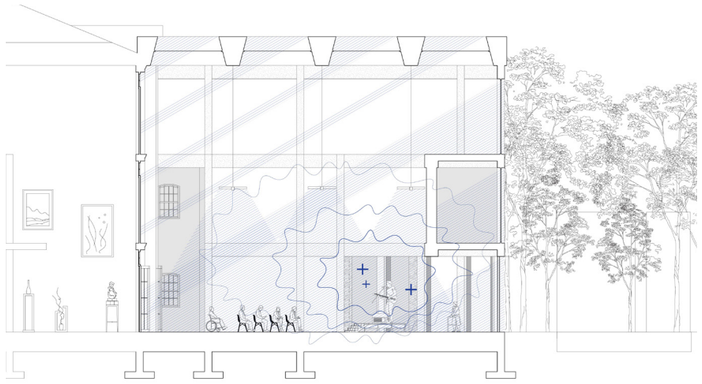


Figure. 5.56. Section of Celebration Space During Winter

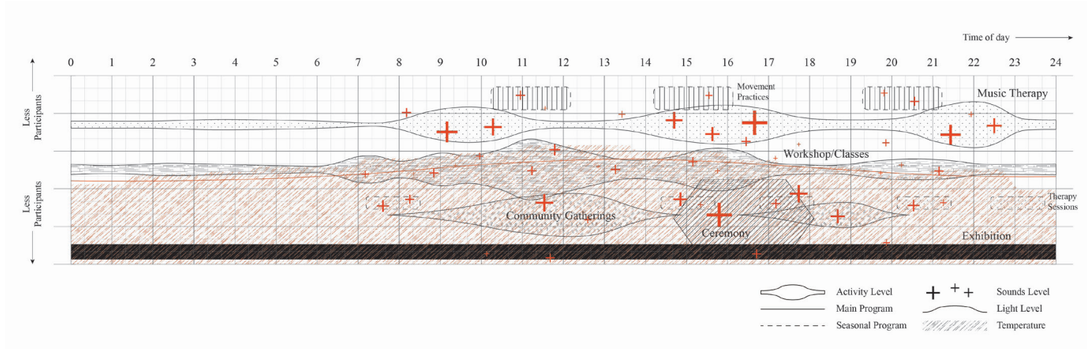


Figure. 5.57. Time of Activities During Summer

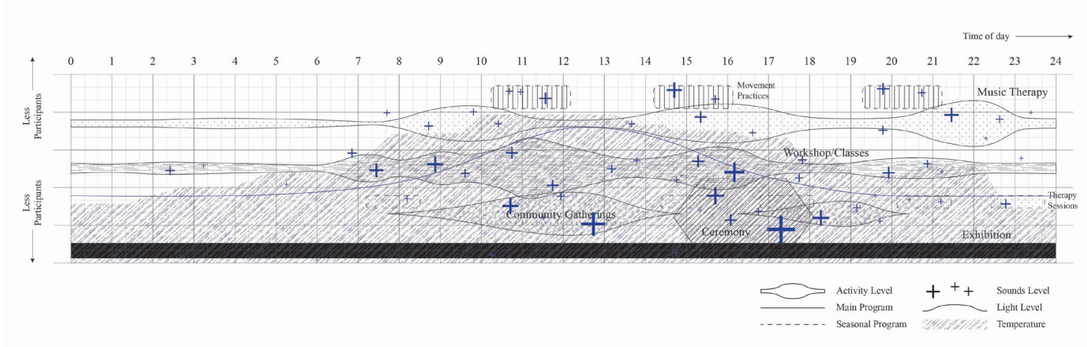


Figure. 5.58. Time of Activities During Winter



Figure. 5.59. Materials Used in This Space

5.2.5 Designing Return

Taking the restored energy from the journey of healing and returning it to daily lives is achieved through landscape. This process happens last, after the process of separation, connection, restoration, and celebration, marking the final stage where patients carry what they have gained throughout the healing journey. Unlike a determined path within the building, the landscape does not have a set path for patients. Instead, it has a ring structure that connects five sensory zones. Patients can choose to walk clockwise and counterclockwise along the ring, and pause points are provided at the entrance to each zone.

Natural environments change over time, and these changes are among the most fundamental rhythms that structure human experience. Flowers bloom in spring, the intense heat in summer, the fresh breeze in autumn, and the quiet stillness of snow in winter are not just indicators of passing of the seasons, they are markers for important moments in the year. These shifts in the natural word associates themselves to the moment of patients' lives, giving meaning to dull days that might otherwise blur together. The landscape design counteracts the tedious life within hospitals and brings time back to the patients.

One of the most notable principles to learn from the Chinese garden design is the creation of infinite views with a sense of boundlessness within a finite space. Rather than presenting the visitor with a single and immediately reachable space, the Chinese garden is designed to suggest spaces that are beyond what is visible. The deeper intention behind these techniques is the belief that the natural world is unlimited, and that the experience of travelling through natural spaces should reflect the limitless boundaries. As a result, the landscape is designed in a way that creates similar views. Along the main path in the landscape are tunnels that obstruct the patients' view. This strategy creates contrast between the narrow and the open, at the same time generating infinite views within limited space. Each hole on the tunnel acts as a window frame, pointing at different views. As patients go through the path, their relative location to the garden changes, all views transform with movement. The combination of view, sounds, touch, smell, and temperature adds more layer to the sensory experience. Although the traditional garden is



Figure. 5.60. View of Landscape Towards Textile Path



Figure. 5.61. View of Landscape Towards Taste Garden

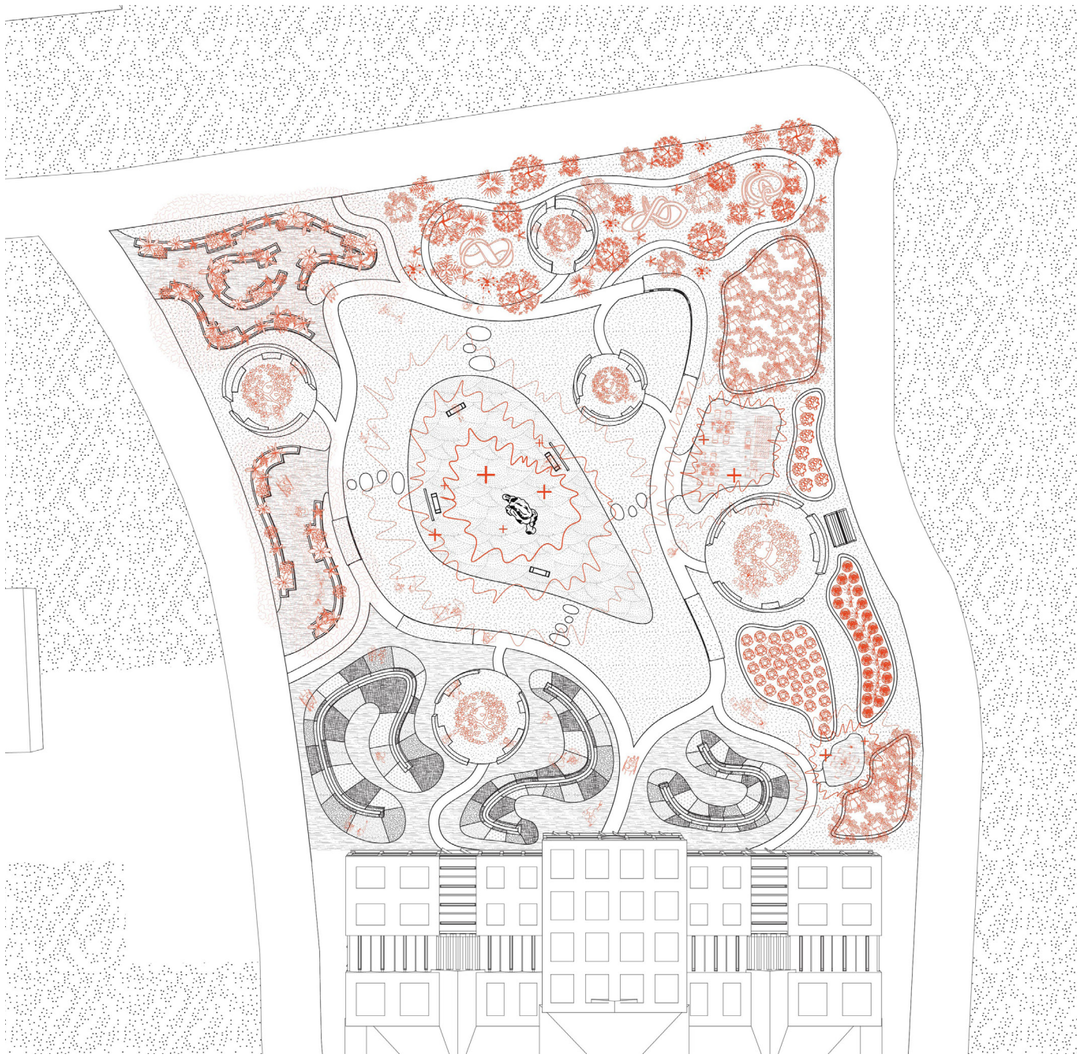


Figure. 5.62. Return Space During Summer

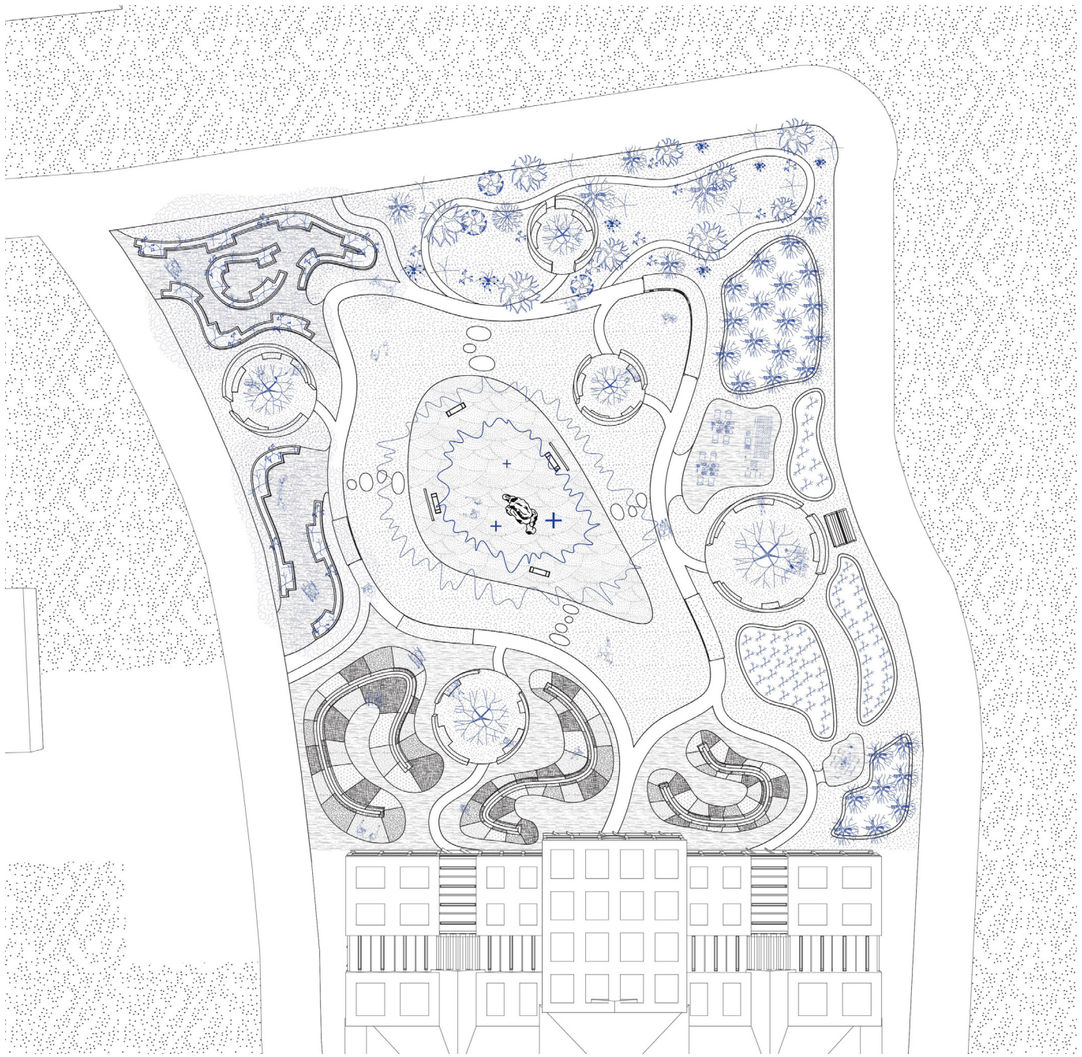


Figure. 5.63. Return Space During Winter

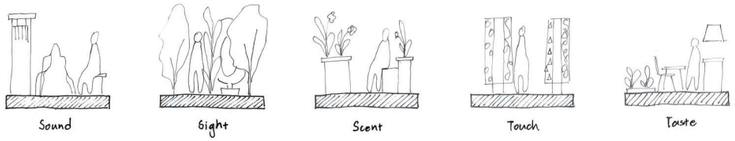


Figure. 5.64. Modes of Interaction in Return Space

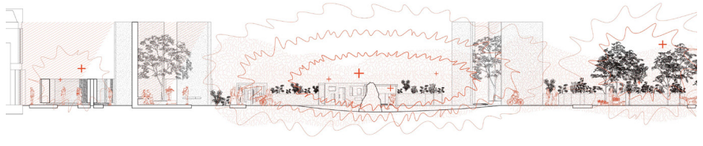


Figure. 5.65. Section of Return Space During Summer

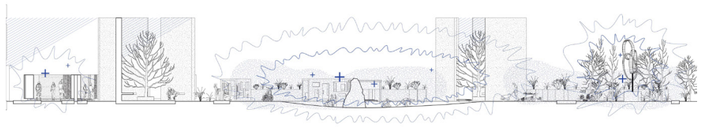


Figure. 5.66. Section of Return Space During Winter

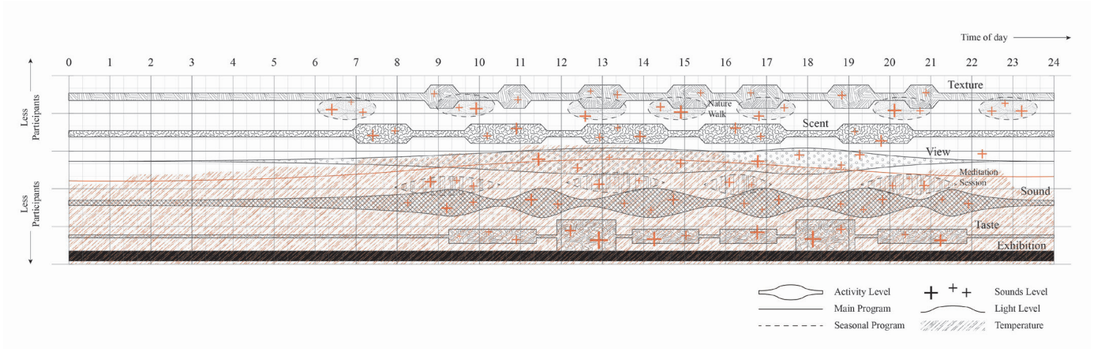


Figure. 5.67. Time of Activities During Summer

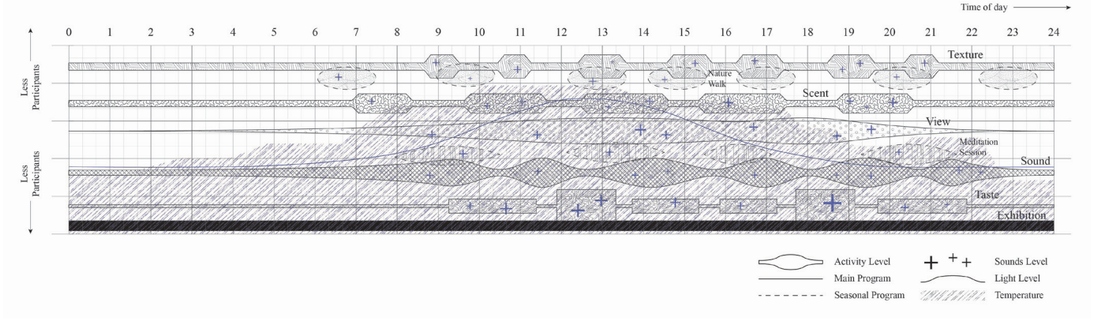


Figure. 5.68. Time of Activities During Winter

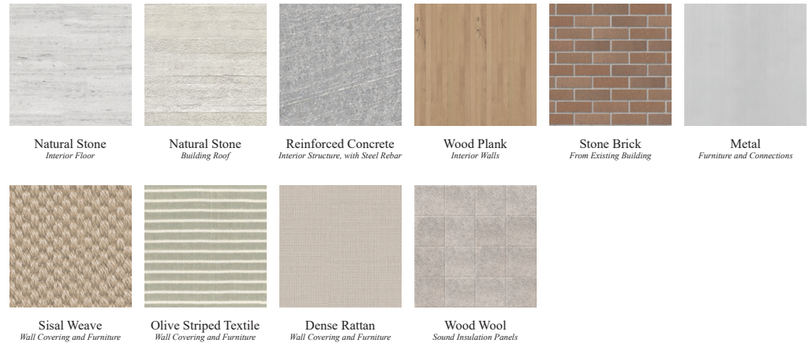


Figure. 5.69. Materials Used in This Space

navigated mainly through vision, the philosophy of boundlessness extends beyond sight, creating an environment of sensory perceptual discovery that mirrors its spatial inexhaustibility.

5.2.6 Adaptive Reuse

This building is strategically selected due to its connection with history of Hamilton and its proximity to the Niagara Escarpment. Though used as an asylum for the mentally ill, heritage buildings are crucial to this project since they symbolize and relate to the community's past period of time. While Century Manor will no longer function as its original intended use, proposing a new function is important to preserve the significance of the building. The building is designed as a "mad house" for the mentally ill people, while the proposed program focus on improving patient's holistic health and restoring dignity in them rather than the opposite. The design starts at the original plan of the building. The interior of the building is divided into smaller rooms with long hallways, and communal areas are concentrated in specific places that is only accessible to patients under supervision. Patients did not have the autonomy to move freely around the building, and access to grounds is highly restricted. In the new intervention, all horizontal walls are removed to ensure visual permeability. To adapt to the new program, an additional section is added to the back of the original building, similar in massing but different in materials. All vertical walls are preserved for structural purposes, however spaces are no longer divided into smaller rooms. Communal programs on the first floor features flexible space programs, where the spaces could transform themselves according to activities performed in them. Some floors have been removed from the existing building to create visual access across floor, as well as varying the experiences of each program. Century Manor was selected as a metaphor of transformation. Due to its notorious reputation for being one of the most inhumane psychiatric hospitals in Canada and being "demolished by neglect", the act of its physical transformation process is similar to that of a patient whose emotional needs have been long ignored, dismissed, or suppressed by the very treatment process that's meant to heal them. The transformation of the building begins with separation from its daily use and purpose. Century Manor is

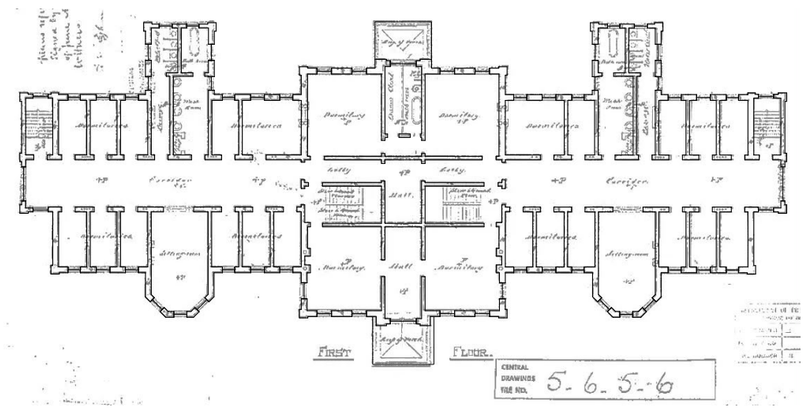


Figure. 5.70. Existing Plan of Century Manor

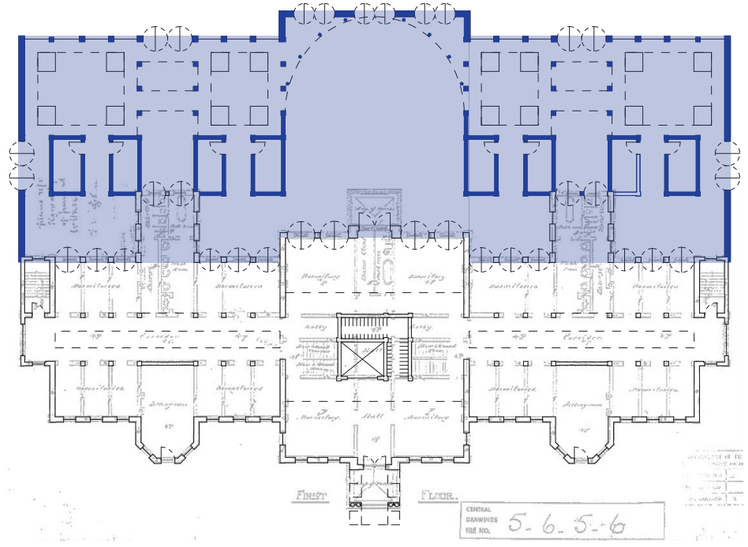


Figure. 5.71. New Plan of Century Manor

already in a suspended state, being abandoned, neither fully alive nor entirely gone. This mirrors patients' healing journey, where they are first removed from impoverished environments before any meaningful recovery could begin. The next stage is the purification process, which is the phase where unnecessary structures are stripped away. For the building, this means physical demolition of deteriorated structures, unwanted walls, and accumulation of decades of neglect. For the patient, this is the process of leaving the past behind and accepting a new identity and pattern of life. Following that is the stage of renewal. The building receives new materials, reinforcement on structure, and addition to add more programs to support healing. In the same way, a patient in recovery does not forget about the past but rather heal from it. The building itself becomes not just a setting but a metaphor of the possibility of transformation.

6 | Conclusion, Limitations, and Suggestions

This thesis began with the question: how does spatial quality and sensory experience impact patients' well-being? And how can architecture incorporate the process of ritual to offer patients with life-threatening illnesses a shelter for spiritual retreat? How can positive envoinrental cues restore meaning back to daily life? Across literature review, case studies, and the design proposal of a mental retreat, the design argues that healing environment cannot be reduced to efficient management of physical bodies or treatment. It also needs to account for the feelings and emotions, dignity in life, and social connection that conventional hospital design has long ignored.

The literature review provided the theoretical foundation and scientific proof for major design decisions in the retreat. First, it asks the question of why hospitals fail emotionally. Even though some initiatives such as Maggie's Centre are beginning to shift the focus from treating the bodies to treating the mind, it is still not enough for patients who need support and connections with their families to undergo tough times. Other existing research has shown stress factors and desired spatial qualities within hospitals; however, they are neglected to prioritize efficiency. On the other hand, psychoneuroimmunology suggests that the emotional state and the immune system are inseparable, providing proof that atmosphere, material, and light are therapeutic tools rather than decorations. Similar concept also includes phenomenology, where a space is understood by the body rather than sight alone. This research informs design decision to build a mental retreat that focuses on layered sensory variation. Other considerations also include person-to-place relationships, where a positive environment could foster a positive cycle of the place and its occupants. This is reflected through the spatial quality in community areas, where a welcoming environment naturally invite patients and families to gather, forming a strong relationship.

The case studies find precedence and pre-modern healing spaces that follow these principles. The village and house plans of Shiraiwa and Kakunodate follow the concept of ma, or the continuum, the idea that as room gains meaning only through activities performed in it. This became the main principle of spaces, where flexibility and division using movable screens are implemented to support programs such as therapy sessions, exhibitions, and gathering. The ancient healing sanctuaries of Asclepios suggest the powerful psychological impact effect could increase the efficiency of treatment, whereas the Mithraeum and Telesterion demonstrate how enclosure, material and acoustic control produce a psychologically safe environment that support recovery. This informs spaces in the retreat from narrow and enclosed space for individual reflection and tall and light-fill spaces for community gatherings. The Chinese garden's bottle-gourd contrast, space sequencing, and limitless vision within a finite space inspires the landscape design, where a ring shaped path is designed to bring that experiences into the garden and different sensory zones are placed to enrich the layers of sensory experience.

No space is neutral. Environments actively participate in the living experience. The spaces we inhabit shape how we feel, how to connect with other people, and ultimately how to heal. The design proposal for Century Manor in Hamilton, Ontario translate these insights into architectural design. The adaptive reuse of historically significant building itself symbolizes the healing journey for its future occupants. The Century Manor once was Canada's most inhumane psychiatric hospital, through design strategies this building transforms from the most horrible confinement of madness into a healing

space that brings hope to patients. Together, these design strategies function as a coherent system rather than individual solutions. The sequence of spaces inspired by ritual tradition across culture, lead patients through a journey of separation from ordinary, purification, communal activities, celebration, and reflection, isolating them from their previous state of the body/mind and restores health back to depleted emotions. Materials and light in each zone are determined by degree of intimacy and activities, restoring a sense of change of time that does not exist in institutional buildings.

The process of healing in the mental retreat is based on the process of ritual/degree of purification, and the change in stage is reflected through spatial qualities, from small to large, dark to bright, intimate to public. Programs dedicated to each stage are arranged in chronological order and are marked by distinct spatial qualities. Upon entering the building, patients are greeted by staff and led to an individual reception area where they are separated from their ordinary life. This space is located at the front of the existing building, is only one storey in height, and has limited natural light to the space. After this space, patients progress to the connection space, which is located between the existing building and the new addition. The connection space has two distinct spatial qualities: one part of it is in the existing building and has a similar atmosphere as the previous space, making the transition smooth. On the other side, the space in the new addition has natural light coming from the roof, and a two-storey-tall work room for people to participate in smaller group activities and make connection with others. After completing smaller group activities, patients then progress to the restoration space, where they meet a larger group of people and complete activities as a community. This space is located in the section that extends out of the existing building, while connecting to the back of the new addition. The restoration space is characterized by the darker side hosting programs such as a kitchen and exchange market, and the brighter side in the back that houses a summer and a winter greenhouse. Following restoration is the celebration space, which has the tallest ceiling height and the most natural light. In celebration space, patients gather as a community and participate in ceremony as a community. Through this process, patients are taken out of their ordinary life and rebuild the connection with other people.

Time in this building is managed through the process of ritual as well. Though there isn't a specific moment dedicated to patients who are in different stages of the healing process, patients are free to move through the building as they wish. Individual moments, such as the pause points in the landscape, become a point of retreat whenever the process gets overwhelming. Additionally, the massing of the new addition is an extension of the existing building, adding new spaces while preserving the history of this building. The exterior wall of the existing building is shown inside the connection space and restoration space, where patients are physically sitting in the added space while still have a view of the historical wall. Since Century Manor is historically notorious for its undesirable environment, the new design demolished most of the interior walls to create a new atmosphere; however kept its structure as a vessel for memories.

This thesis does not argue that holistic care could replace medical treatment, nor that beautiful spaces alone could cure illnesses. However, from the research completed above, environment of care is a form of care. While hospitals are designed to maximize efficiency of treatment, it does not consider patients as whole person. By integrating environment with positive impact in hospital design, it maintains a sense of hope, dignity, and the belief that life will have meaning even during the most difficult time.

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