




ARCHITECTURAL MOOD & MENTAL SPACE

A CATHARTIC JOURNEY OFF THE NORTH SHORE OF LAKE SUPERIOR



A Design Thesis submitted to the Department
of Architecture and Landscape Architecture of
North Dakota State University by Ty Englund.
In partial fulfillment of the requirements for the
degree of Master of Architecture.

May, 2018
Fargo, North Dakota



Primary Thesis Advisor



Thesis Committee Chair

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A CATHARTIC JOURNEY OFF THE NORTH SHORE OF LAKE SUPERIOR 3

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ABSTRACT

Most people think of architecture as a profession that is concerned with aesthetic beauty—designs that please the observer through visual perception of the harmony, symmetry, and good proportions crafted by the designer. But, architecture is more than just aesthetics. Well-designed buildings need to respond to the functional needs of the occupants, and ensure structural soundness for safety reasons. However, I believe Architecture is even more than that. True architecture can create feelings and emotions from within, and cause the users to self reflect on their own lives.

Furthermore, I suggest that we, as architects, can provide a healing environment for everyone, especially those who are affected by mental health diseases, such as depression and anxiety. In the duration of my thesis, I will examine the historical approach to health, and how we have progressed throughout time. I will be comparing the most recent neuroscientific evidence with that of ancient thought to gain a better understanding of the mental essence of architecture, in hopes to show the potentiality to redescribe our fiction and reality through the movement through space.

In comprising all my research, I intend to design a **Mental Health Retreat**, for those who suffer from mental illness, such as depression and anxiety, located off the North Shores of Lake Superior, more specifically, Wausaugoning Bay, MN.

UNIFYING IDEA

Buildings mediate between the world and our consciousness through internalizing the world and externalizing the mind. We must learn to confront buildings experientially as encounters between physical structures and our own existential sense through internalizing multisensory perception. This encounter turns physical and geometric space into existential and lived space, and we become an ingredient and measure of the experience itself. This understanding puts the experiencing individual in the very center of the experience.

The mental content and meaning of an architectural experience is not a given set of facts or elements; it is a unique imaginative reinterpretation and re-creation by each individual. The experienced meanings of architecture are not primarily rational, ideational or verbal meanings, as they arise through one's sense of existence by means of embodied and unconscious projections, identifications and empathy. Architecture articulates and "thickens" our sense of being instead of addressing the domain of rational understanding.

My intentions are for users to experience a cathartic journey that forces them to rethink about the way in which they see the world, provide a space for reinterpretation of perception, and a changed perspective throughout their lives. It is only through the conscious world are we able to gain access to the unconscious mind, being actively present, both physically and mentally. Similar to the Greek Theatre, the layers of depth and dimension within the spaces, the content, the architecture, environment, etc. will aid in the outcome of my thesis project, and hopefully change the way we approach mental health in terms of architectural design.

TYPOLGY

Facility for mental rehabilitation

Typology: Health Care Facility

Those who come to the Haven will embark on a physical journey as they progress through the spaces, as well as a metaphysical quest for truth within themselves, similar to a journey one might have through therapy or psychology as they transition from sickness to health, or the releasement from a prison like state within the mind. Light will be an instrumental role in the enhancement of the effects, since light has often been a metaphorical reference of visceral and intellectual movement, as well as a acknowledging the past that lay deep within our subconscious; a personal quest for inner wholeness.



THERME VALS

PETER ZUMTHOR | VALS SWITZERLAND

This spa, located in Switzerland, opened in 1996. Zumthor's concept behind this was to create a cave or quarry like structure. The spa is built into the hillside, making a connection with nature. The main material used was quartzite, deriving from the mountain. This was a driving force in the overall connection to the land. This space was designed for visitors to luxuriate and rediscover the ancient benefits of bathing. The combinations of light and shade, open and enclosed spaces and linear elements make for a highly sensuous and restorative experience. The underlying informal layout of the internal space is a carefully modelled path of circulation which leads bathers to certain predetermined points but lets them explore other areas for themselves. The perspective is always controlled. It either ensures or denies a view. The path is a designed negative space between the blocks, a space that connects everything as it flows throughout the entire building, creating a peacefully pulsating rhythm. Moving around this space means making discoveries. You are walking as if in the woods. Everyone there is looking for a path of their own. This is also a Pritzker Prize winner, 2009.

THERME VALS



Peter Zumthor is great example of an architect who puts emphasis on designing for feelings. This is exactly what I intend to do. According to Zumthor:

"A great Architect, a true artist, must first identify a feeling for the effect he/she wants to create"

I found this to be incredibly profound. This is the emphasis I intend to put into my design. I want to enforce the idea of designing for the intended user.







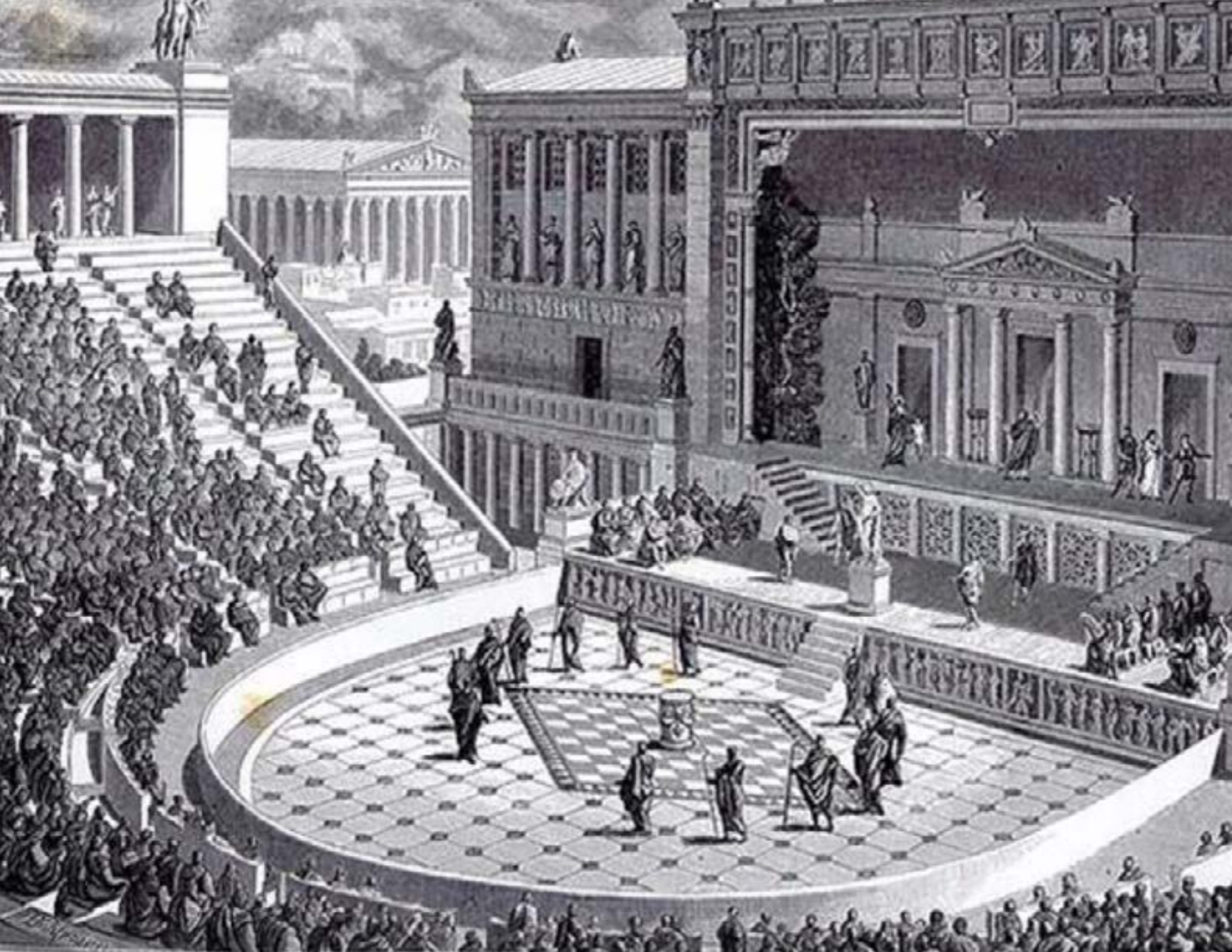


GREEK THEATRE

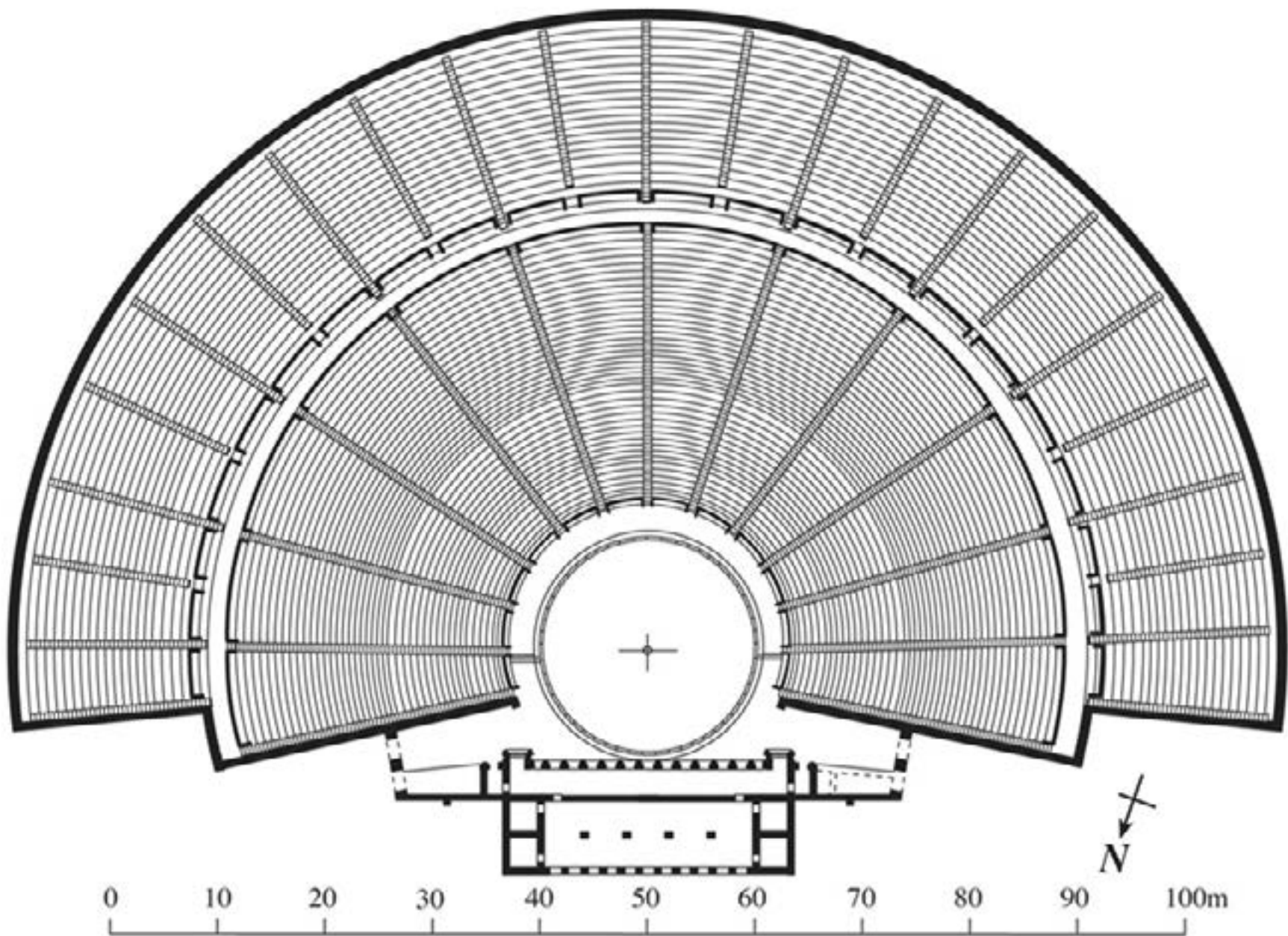
The Ancient Greeks were one of the primordial civilizations to comprehend the influential factors our built environment can have on our health. From philosophers like Aristotle to physicians like Hippocrates, the Greeks were able to develop holistic healing systems that treated the patient, rather than just the disease. With this knowledge, they began to incorporate these influences within their architecture. One example of this is the Greek Theatre.

The theatre, cut into the hillside, provided adequate views for each individual. Not only was the view to the "stage" important, but also what was happening behind the actors. The spectators not only looked down on the plays, up to the shifting skies and around at one another, but also out over the full sanctuary of the theatre and other familiar districts of the area. This layering of spatial dimension and depth expanded the overall reaction it had on the spectators.

We can see this throughout the Theatre of Epidaurus, built for Asclepius, the Greek God of Medicine, and was utilized as a healing sanctuary in ancient times. This theatre is also considered to be the most perfect ancient Greek theatre with regard to acoustics and aesthetics.







Epidaururs (modern Epidauros, Greece)

Cavea width: 119 m, orchestra width: 24.65 m; capacity: 11,750-14,700; ca. 300-340 BC..

Plan (T.H. after Gerkan)





GREEK THEATRE

This was an especially cathartic experience through the tragedies of the theatre. The plays and festivals containing tragedy allowed the spectators to participate, not physically, but mentally and emotionally. The viewers were able to place themselves within the context of the tragedy, thus discovering a transformation and re-lease-ment of emotions like fear and pity into pleasure or contentment, much similar to our personal feelings as we watch and participate through modern day movies, plays, orchestras, etc. The “chora”, or the space, and the viewer were in a dance, each giving and taking as the tragedy proceeded, allowing active engagement throughout the play.

Through the tragedies, spectators were able to make personal discoveries about themselves precisely because they were not physically participating. These plays allowed spectators an alternative way of seeing, which was often “more true” than normal vision. The distance between the viewer and the stage allowed for a space of interpretation, opening up a self recognition through the other.

PROJECT ELEMENTS

PERSONAL SPACE(S)

Within the program, there will be personal spaces that provide users an area to rest and recharge, within the comfort of their own space. This allows visitors a private and secure area to decompress, away from others. Each space will feature resting quarters, dressing areas and storage, and bathing areas, as well as access to the outdoors. Adequate views and access to the outdoors will allow occupants to experience the beauty of the site, as well as warmth and vitamin D exposure from sunlight, which has been known to reverse the effects of seasonal affective disorder, or seasonal depression, something that happens far too often in winter heavy area and states like Minnesota.

PUBLIC SPACE(S)

The more public areas will feature community spaces to gather with others. These spaces will promote communication through active participation, and areas that allow embodied interactions with users within similar instances. Transition spaces between private to public can provide an adjustment ease, allowing participants to mentally and physically cross a threshold. Meditation spaces, open to everyone, allow occupants a chance to utilize meditative thinking, focusing on the present and accepting things as they come, and these can range from full classes to one-on-one support. Because my design focuses on those who suffer from mental illnesses, some users may be taking prescriptions, or other medical treatments, therefore there will be spaces for the specialists for consultation or any specific needs of the person, such as a therapist or psychologists.

USER CLIENT DESCRIPTION

PEAK USAGE

The building will remain open during normal operating hours, year round. The journey for each individual will vary, allowing personal discoveries to be made.

USER/CLIENT FOCUS

The Haven is an inpatient medical facility intended for those who suffer from depression and anxiety. The users of the facility will include staffing, community members and patients part of the therapy program.

PARKING

Access to my site requires the journey off of Highway 61, into the native landscape, populated by a mix deciduous and coniferous trees. The pathway brings you to a spot where must leave your car, subjecting yourself to the mystery and uncertainty of where you are heading. From here, a shuttle will bring you to the destination

ADA REQUIRMENTS

Since this facility falls under the health care design typology, ADA requirements will be implemented in order to create a design that facilitates health care. These requirements will determine specific dimensions for hallways, restrooms, ramps, railings, etc. and will be defined in the code analysis section.



SITE INFORMATION

Providing separation and breaking everyday norms is crucial in order for my design to be successful. In doing so, I chose to utilize the land located off the north shore of Lake Superior, more specifically Wauswaugoning Bay. Similar to the Greek theatre, site played a crucial role in the development of my project, as well as the cultural context in which it is being placed. In digging into the areas past, I found a rich history and culture tied to the Native Americans, specifically the tribes of the Ojibwe.

Grand Portage was once a popular trading site, being located right off the waters, and the Ojibwe would often trade with the settlers. Since they would name their land and areas by the activities that they performed, Wauswaugoning Bay translates into "those who spear fish by torchlight." Being a semi-nomadic culture, they would travel around for their needs; wandering as a way of staying alive. The Ojibwe would inhabit further inland, closer to larger game (deer, elk, etc.) and travel to the bay (my site) for things like fish and water, returning back to their communities with the necessary requirements for survival and fresh resources. Through a modern day approach, I am proposing a similar experience; users who will detach from society, discover their needs, and return with a different perspective on life, re-entering public realms with an alternative mindset, much similar to our eyes adjusting when we experience a transition from light to dark.







SITE INFORMATION



Another influential aspect of my site is the native rock formations. The area is filled with diabasis rock, formed thousands of years ago, through integration of volcanic lava and natural site minerals. The linguistic origins of the word *Diabase* is Greek for "crossing over", which was a revelation that I stumbled upon, and informed the material pallet of my design. Within my site, there are (2) hills with a valley inbetween. My design focuses on utlizing these (2) separate entities, bridging them together through the pathways and journeys, "crossing over" and into one another, like the igneous rock formations.



EMPHASIS & GOALS

HEALING

Creating architecture that embodies the process of healing by creating pathways and journeys that are defined by cultural ideologies and a renewed connection to the site's natural surroundings. This thesis looks to redefine our current mental health care treatment facilities and processes in a way where the design solution serves as a template for a more complete way of healing.

TECHNOLOGY

This thesis is a critique of modern technology, and medical treatment. Modern technology will aid heavily in the creation of the building, and perceived experiences throughout, as well as the use of technology as a tool that aids in the healing process, rather than making technology the healing solution.

CULTURAL PRECEDENTS

The historical and cultural act of wandering as a way of survival is modernized through my design. This important aspect serves as an inspiration and a catalyst that will become one of the influential factors in this projects ability to redfine our mental healthcare facilities.

NATURAL INTEGRATION

Just like the Greek Theatres, the surrounding environment plays a vital role in the development of my project. By establishing a renewed reverence for the natural world, this thesis will envelope users with the natural site elements, creating a new understanding of the human relationship with the environment.

PLAN FOR PROCEEDING

THEORETICAL RESEARCH

Dating back to the ancient Greeks and connecting all the way up to modern research will be essential research topics in establishing a historical foundation to build upon. Also, modern philosophers research that deal specifically in the areas of health care, human interaction and perception, as well as the effects of our built environment will aid the outcome of this thesis.

SITE RESEARCH

The site plays a crucial role in the overall design solution. Natural elements will determine the building materiality, palette, building/site integration and will be an integral part of community interaction and therapeutic programs. A thorough investigation of the site will result in a building that becomes contextualized with its surroundings by being responsive to these elements.

THEORETICAL RESEARCH

Dating back to the ancient Greeks and connecting all the way up to modern research will be essential research topics in establishing a historical foundation to build upon. Also, modern philosophers research that deal specifically in the areas of health care, human interaction and perception, as well as the effects of our built environment will aid the outcome of this thesis.

HISTORICAL RESEARCH

This research will act as a binding agent by allowing ancient healing practices and traditions to be re-analyzed through modern day approaches. This will create a connection to healing that has transcended generations, redefining our perception on treatment facilities.

DESIGN METHODOLOGY

STAGE I

The preliminary stage will be to utilize available tools to research the topics previously listed. Compiling my findings from different perspectives will create a well rounded foundation that is rooted in many different ideologies, both old and new.

STAGE II

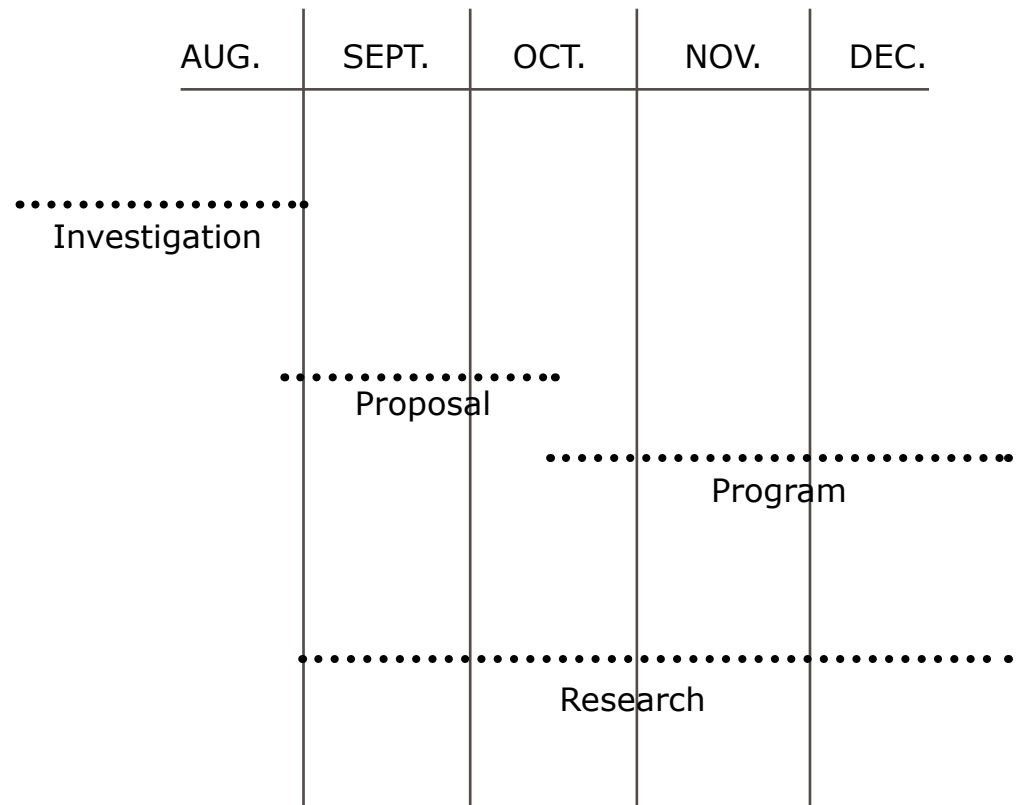
The second stage will involve the creation of an artistic expression, showcasing the ideas and metaphorical interpretation of my concepts. This combination will result in an expression that becomes a tool for the architecture to follow.

STAGE III

The final stage will focus on incorporating my findings through the design of an architectural expression, manifested from the experience and ideas integrated into the artefact. This will come from sketches and hand modeling in order gather a tangeable presence and understand spatial relations on a physical level. From this, I will be able to transition into 3D modeling software, resulting in the final design.

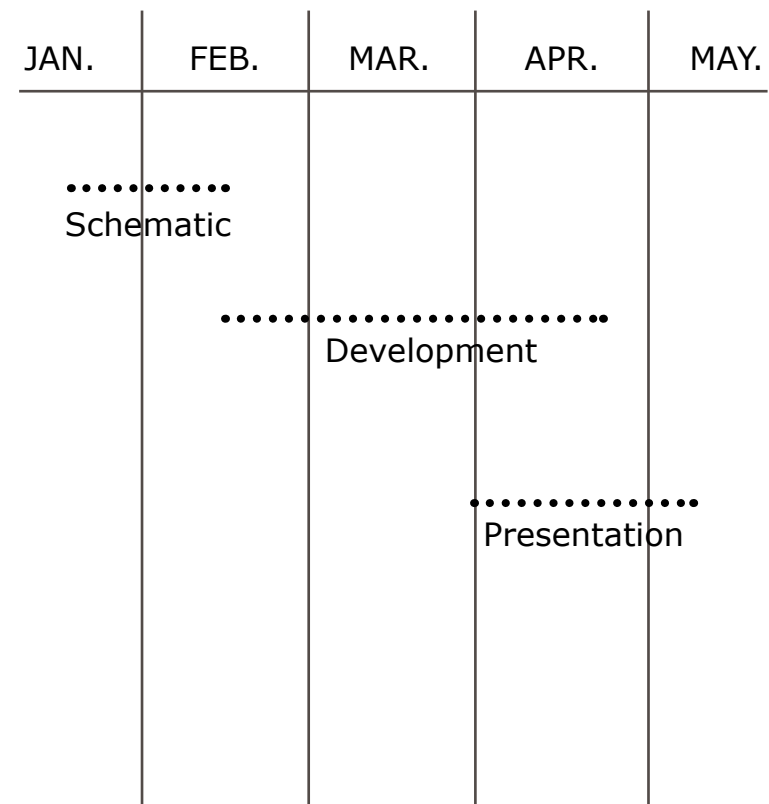
PROJECT SCHEDULE

Fall 2017

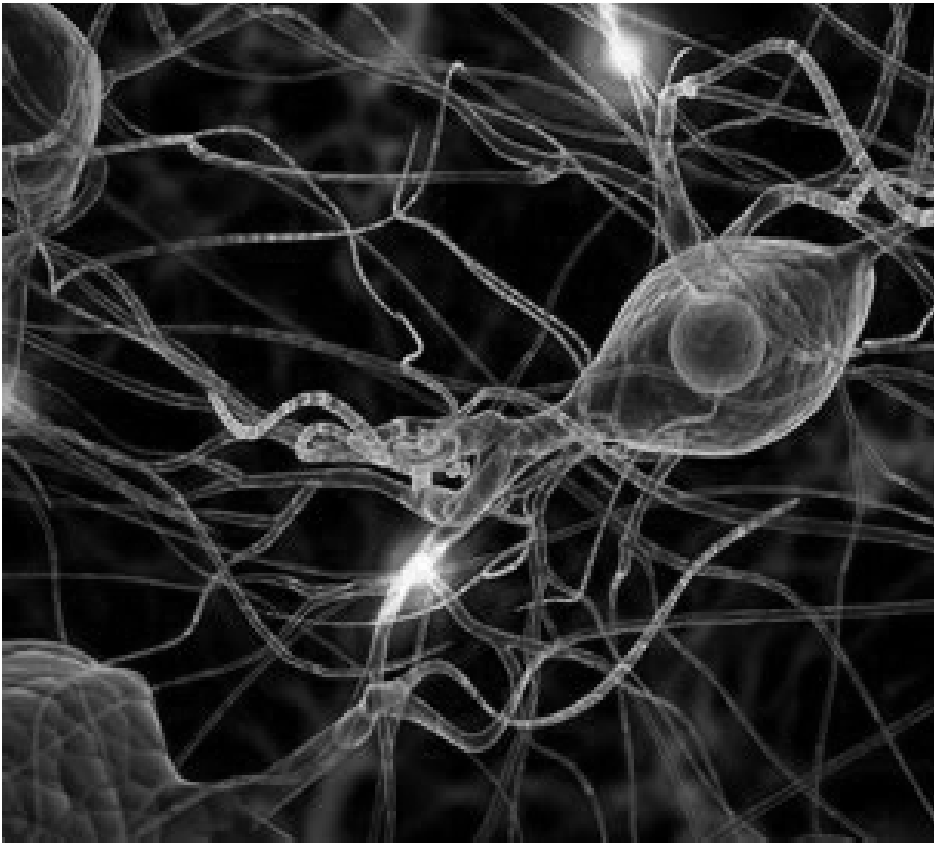


PROJECT SCHEDULE

Spring 2018



PRELIMINARY RESEARCH



Interestingly enough, the most recent neuroscientific phenomenological research validates what ancient philosophers and physicians theorized: to understand consciousness in humans, we must not look inward, but to the ways we go about living in and respond to our environment.

Rather than stepping on the specialized ground of neuroscience, I aim to elaborate on the specific mental essence of architecture - a realm that is deeply biologically and culturally grounded. It is my hope that the exciting doors that the biological and neurosciences are now opening will valorize the interaction of architecture and the human mind, and reveal hidden complexities that have thus far escaped measurement and rational analysis, and I believe that neuroscience can reveal and reinforce the fundamentally mental, embodied, and biologically essence of profound architecture against current tendencies toward increasing materialism, intellectualization, and commodification.



So, yes, our brains are important. However, there is more to human experience than neural activity, says Alva Noë, a professor of philosophy, who focuses on theories of consciousness and perceptions.

With modern day philosophers, like Noë, we are able to understand how the traditional view of perception as primarily synesthetic is justified by the recent understanding of the senses as “modalities” that cross over their functional determinations, and that a large part of the influences on our minds are in fact the environments we surround ourselves in. The importance of well designed spaces can be seen as a journey, from beginning to end.



MODERN MEDICAL

In modern medical facilities, our journeys are often focused more of the practitioner, and less on the patient. There seems to be little to no thought about how occupants truly experience the space, therefore allowing specialization to determine treatment methods and outcomes.

Most behavioral healthcare units are typically tucked away inside a hospital or various wards. This design decision creates a sense of isolation within the inhabitant, resulting in a flawed system of treatments. If perception is something we do, not something that happens to us, then it is crucial that we examine the spaces we place ourselves in, especially when it comes to our mental health.

When we begin to comprehend that our consciousness extends further than our skulls, we are able to understand that the emotive character of our constructed environment matters immensely; in other words, what matters is its material beauty; its power to seduce on one hand, and its capacity to open up a space of communication through intersubjective encounters on the other.





DR. JONAS SALK

The side effects from these mental illnesses can often leave us feeling hopeless and lost, with or without reason; like being tied to an anchor, struggling to reach the surface. I often wonder what the extent of our mental capabilities are if we are able to utilize architecture as a tool to disable the chains that depression and anxiety hold on our minds. Imagine what we are capable of if we release the stresses and tensions within our everyday lives. This is exemplified with Dr. Jonas Salk, who made a remarkable discovery that altered our health on a global scale.

Dr. Jonas Salk was convinced that architectural settings profoundly influence our mental and physical welfare, a conviction that stemmed from his personal experience.

In 1948, Dr. Salk set out to quantify the different types of polio, but soon extended his mission to develop a vaccine. For seven years, Dr. Salk and his team addressed one of the most frightening public health scares in our country, driving himself into a frantic pace, and soon developed brain overload. This resulted in Dr. Salk's decision to retreat to the basilica of Assisi in Italy.







DR. JONAS SALK

The basilica could not have been more different than the lab. The architecture is a beautiful combination of Romanesque and Gothic styles. White-washed brick covered the expansive exterior and dozens of semi-circular arches surrounded the plazas between buildings. Inside the church, the walls were covered with stunning fresco paintings from the 14th and 15th centuries and natural light poured in from tall windows.

His experience at Assisi left such a deep impression on him that many years later, Dr. Salk credited the architectural setting there with helping him make the intellectual breakthrough that ultimately led to the creation of the polio vaccine.

"The spirituality of the architecture there was so inspiring that I was able to do intuitive thinking far beyond any I had done in the past. Under the influence of that historic place I intuitively designed the research that I felt would result in a vaccine for polio. I returned to my laboratory in Pittsburgh to validate my concepts and found that they were correct."

-Jonas Salk







ARTEFACT

My artefact was inspired by a Natalija Subotincic, a professor of Architecture at the university of manitoba, lecture in which she studied both the objective and subjective arrangement of Sigmund Freud's office layout, and the spaces in which he practiced his Psychoanalytic therapy treatments. We often regard Freud through his written documentation and spoken linguistics, however, he was heavily influenced by the spaces he lived and worked in, and believed that particular arrangements, spatial constructions and configurations of certain items within these spaces can have potential influences on his patients, and within himself. Within his practice spaces, he had numerous artefacts, each containing a story or important significance, aligning the shelves of his studies. Freud was fascinated with these archetypal artefacts because he believed, that like the archeologist, the purpose of psychology and his psychoanalytic theory, is to excavate the unconscious mind, layer after layer, through our external experience within the world. These items allowed a different way of thinking; not through words, but through the visualistic images, physical objects, and spatial relationships, and often found that these artefacts provided a more influential way of expressing himself.







ARTEFACT

Architecturally, concrete and cement are often utilized to hold structures down, grounding them, and prohibiting them from moving. This is a direct representation of the side effects of mental illness; weighing us down, preventing us from transitioning beyond our struggles. That is why the cement pieces are broken, symbolizing the destruction of the binds that depression holds on our minds.

As you transition through space and move around my artefact, you mentally begin to make connections with what is in front of you, and what is behind you; relating the past, present, and future. Each time you move through the shelving system, you begin to continuously make associations, revealing and concealing what once was, and what has yet to come, in a cubistic way.





SITE ANALYSIS



SITE SELECTION

Selecting a site for my thesis was the most crucial aspect for my design. The most dominating aspect that drew me to my chosen site was the seasonal influences on our mental health, as well as the natural beauty of the North Shore. This opened the door for several unique design iterations that highlighted the natural and complete healing process taking place throughout my thesis.

SITE LOCATION

The Haven is located off the North Shores of Lake Superior, Minnesota. Providing separation and breaking everyday norms is crucial in order for my design to be successful. In doing so, I chose utilize the land located off the north shore of Lake Superior, more specifically Wauswaugoning Bay. Access to my site requires the journey off of Highway 61, into the native landscape, populated by a mix deciduous and coniferous trees.



(My site in relation to Duluth, MN)

Pigeon River

Canada
Pigeon River
United States

89

593

United States

Canada

6

61

61

61

73

17

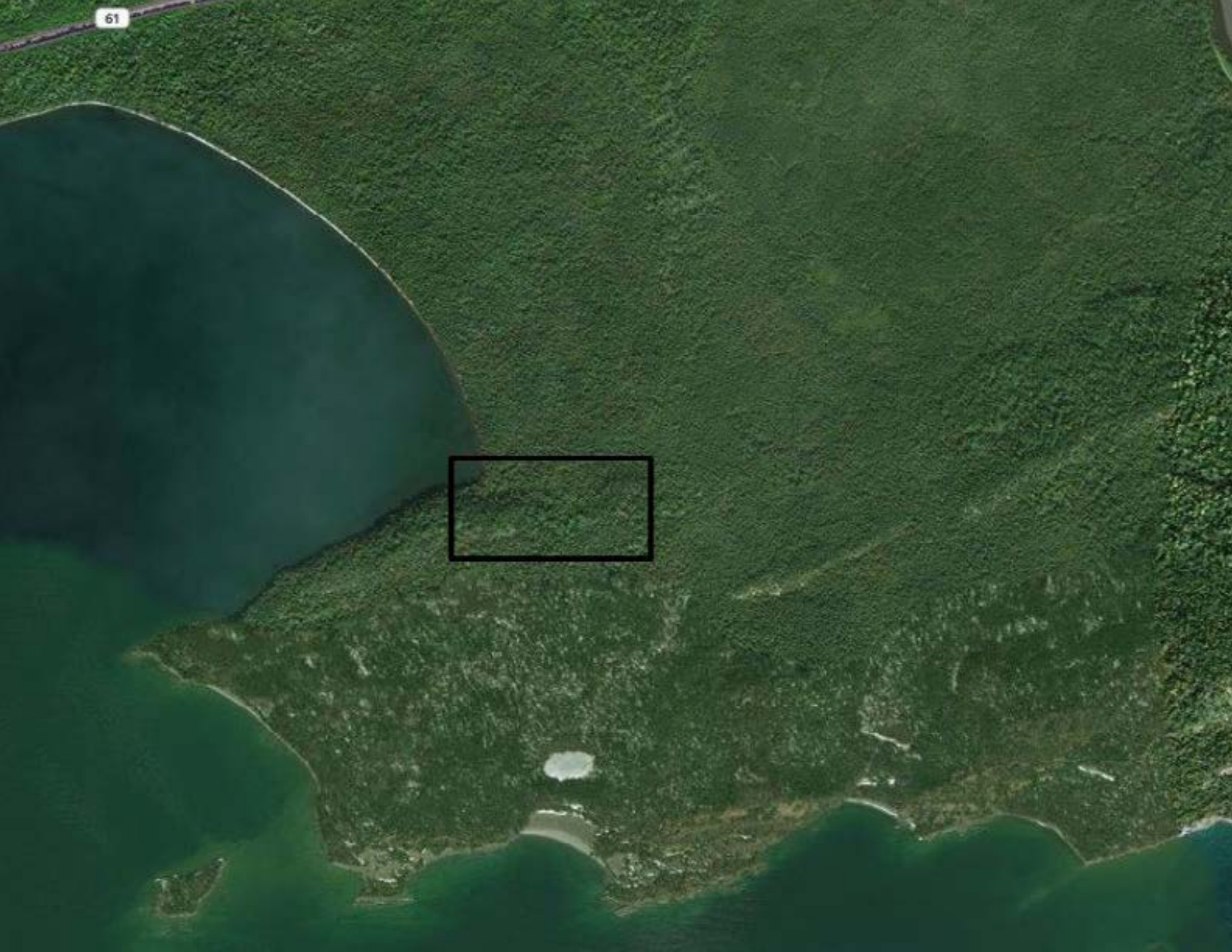
Grand Portage

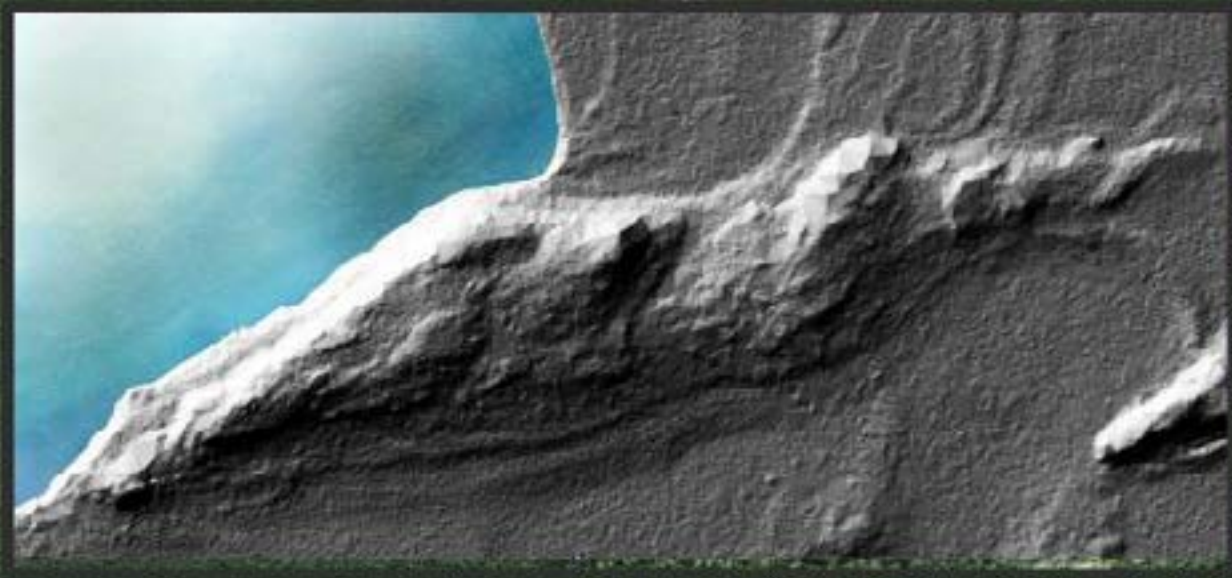
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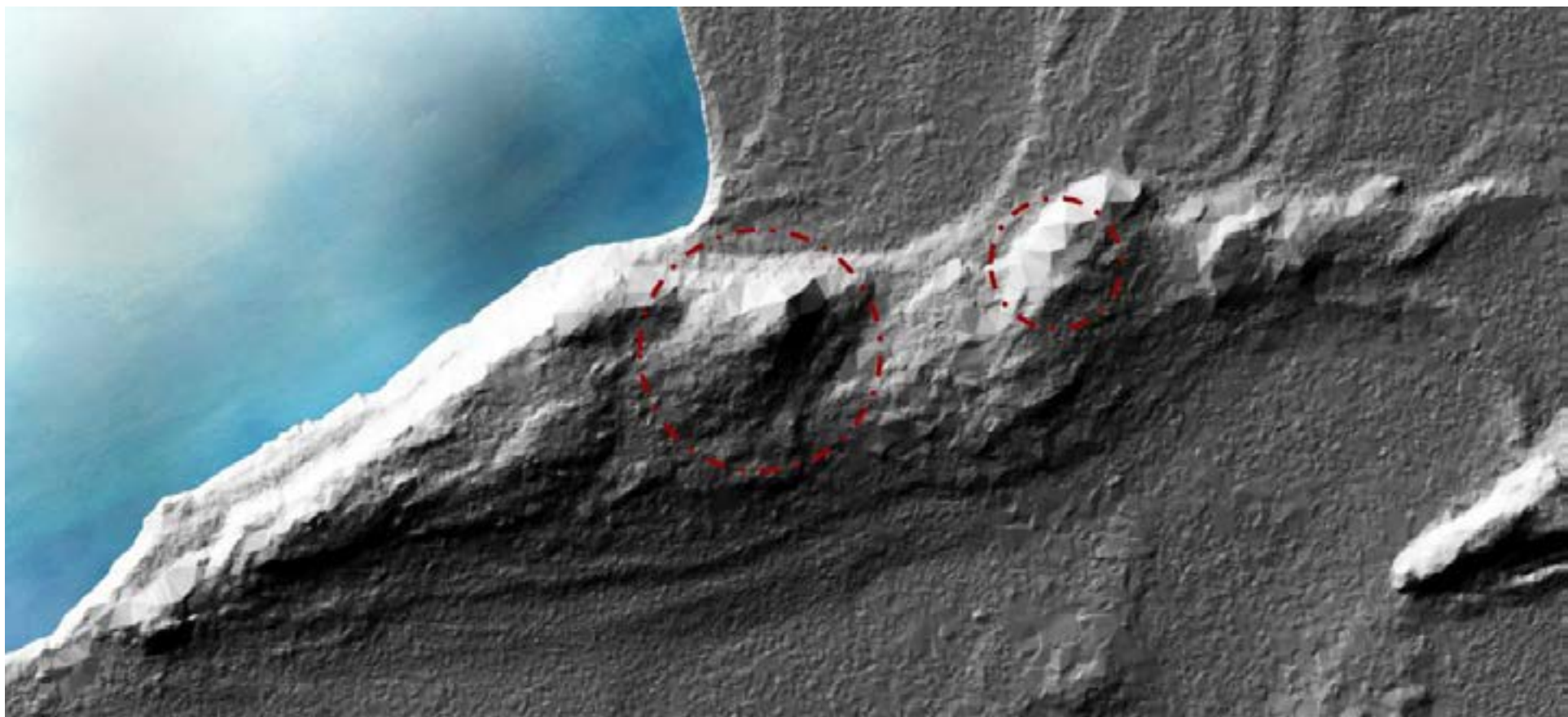
17

Wauswaugoning Bay









SITE ANALYSIS

AVERAGE TEMPERATURE

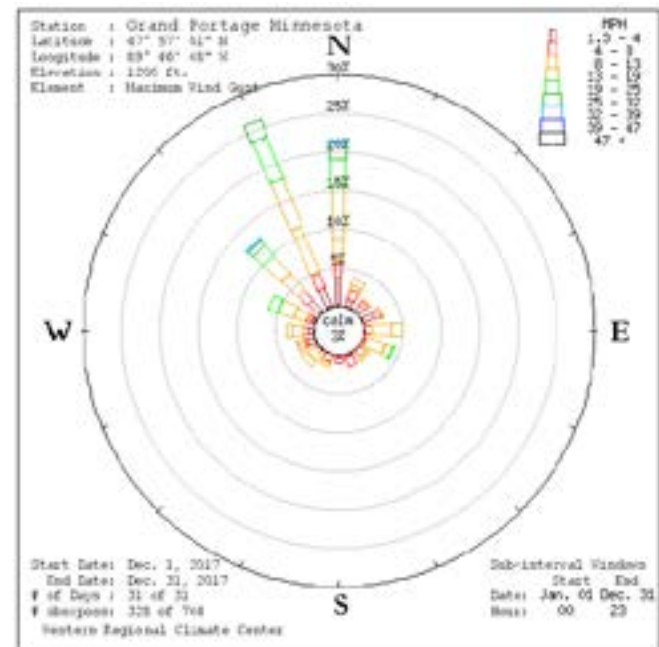
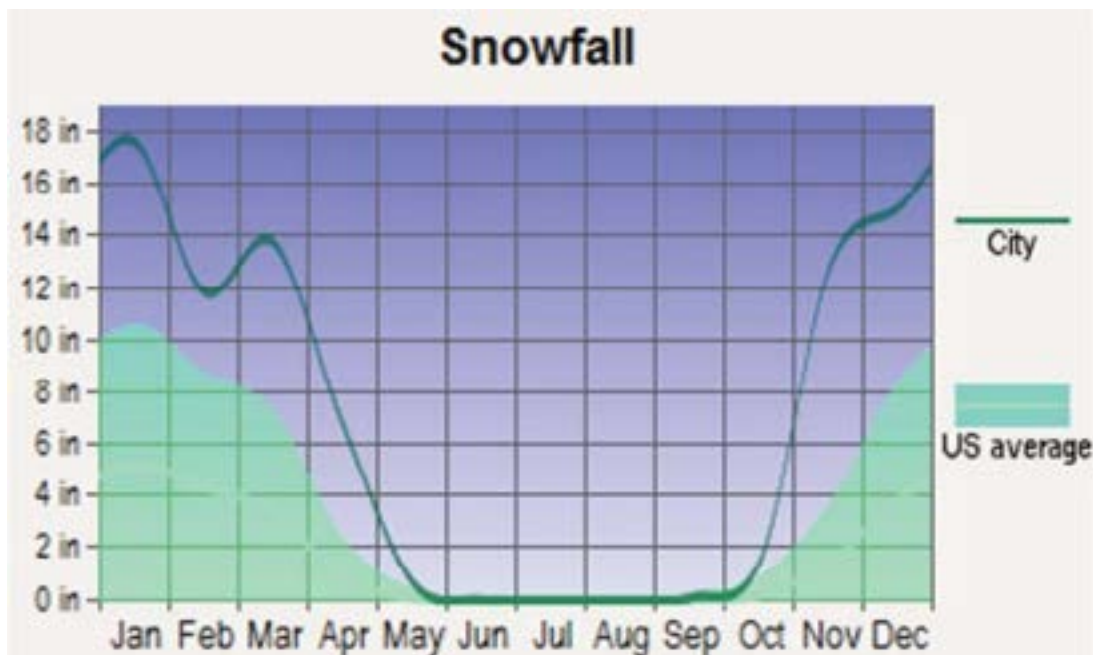
	Jan	Feb	Mar	Apr	May	Jun
Average high in °F:	21	25	35	47	59	68
Average low in °F:	-1	2	13	26	36	45
Av. precipitation in inch:	1.42	0.87	1.54	2.56	3.07	3.54
Days with precipitation:	-	-	-	-	-	-
Hours of sunshine:	-	-	-	-	-	-

	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °F:	74	74	64	52	38	25
Average low in °F:	51	51	43	33	21	7
Av. precipitation in inch:	3.62	3.5	3.5	3.39	2.44	1.73
Days with precipitation:	-	-	-	-	-	-
Hours of sunshine:	-	-	-	-	-	-



SITE ANALYSIS

WIND & SNOWFALL



SITE ANALYSIS

RAIN & DAYLIGHT



Rainfall



Daylight

DESIGN SOLUTION



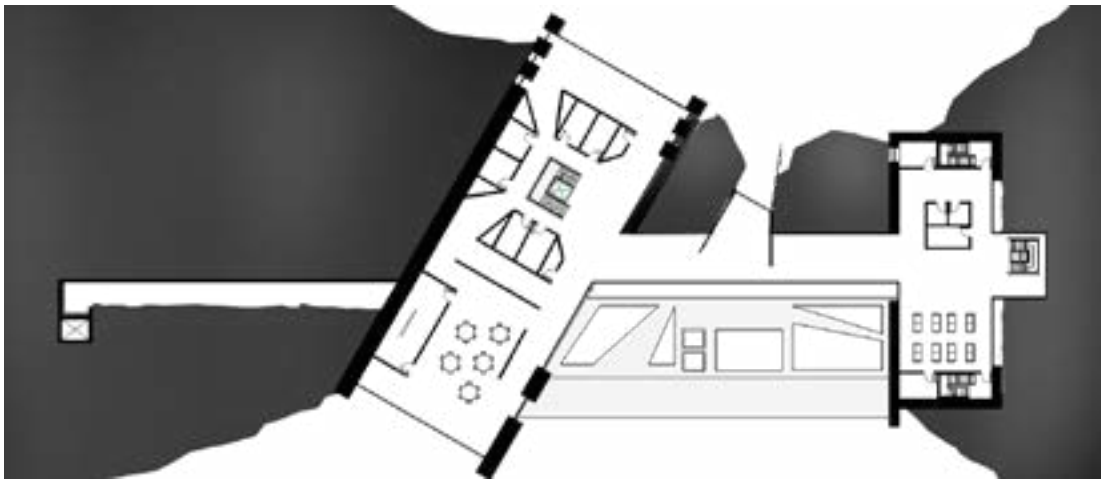


MATERIAL PALETTE

Materials chosen for the building reflect several aspects of the governing ideas embodied with the design. Board formed concrete is the main material used throughout the design. Much like the artefact, the tools utilized to form the concrete are always present, showcasing the impressions that once were. The concrete brings cold and heaviness into the spaces, allowing a self conscious awareness.

The diabase rock excavated from the earth is re-implemented throughout the spaces for the specialists.

LEVEL I

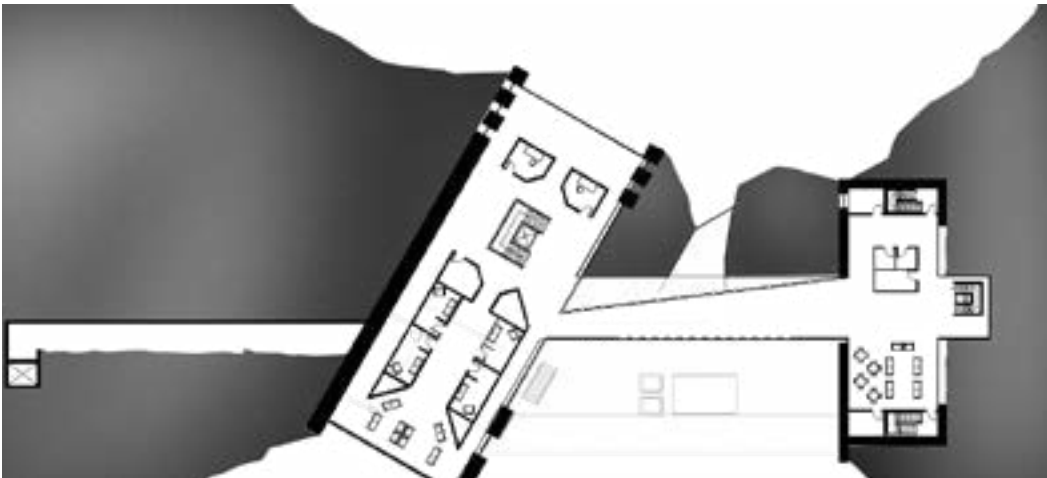


Upon entering my building, users are forced to stop along a curve into the ground, re-directing their focus and attention. This act of cutting into the earth allows our minds to imagine through the depths of below. To the left, or our right, is the pathway to the personal spaces. This tower features 6 floors dedicated to the personal aspect of each individual. The top 4 floors consist of the personal chambers, where the users will inhabit during their stay.

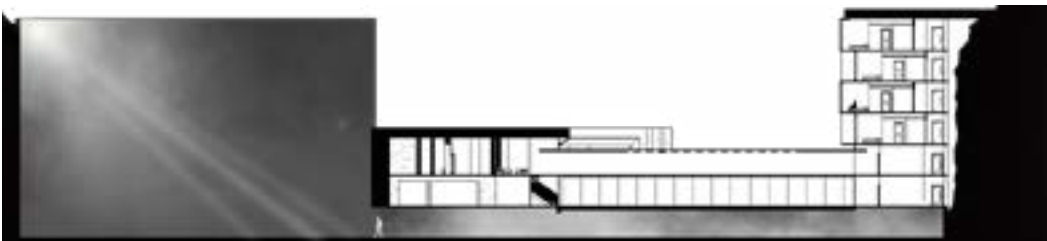


To the right, is where the user will find themselves being greeted by staff, offices, nutritional areas, and so on. As inhabitants make their way through the more public areas, they begin to acclimate themselves with others. This is where users will eat with one another, communicate, socialize, etc. The separation between promotes a feeling of security, providing each individual with their own space, as well as a opportunity to cross a transitional threshold from public to private, and vice versa.

LEVEL II



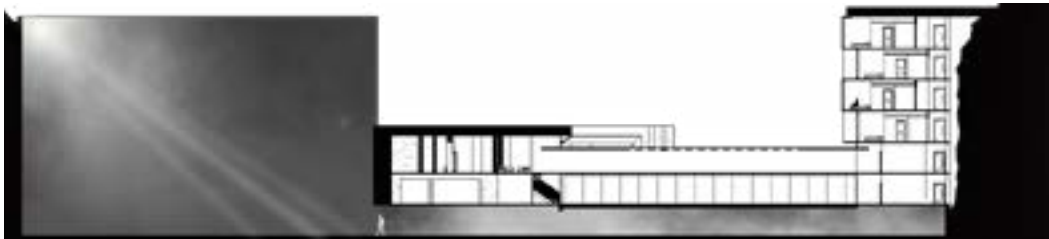
As you make your way to the second level, you are where the specialist is; a space where users can experience the benefits of therapy treatments. The diabasis rock, which was excavated from the hillside, will be implemented into these spaces. The domestication of the diabase rock will be utilized to form the spaces for the specialist. This represents taking what we pulled from the depths of below, and utilizing in a new and changed way; in a space where we are most personal and vulnerable.





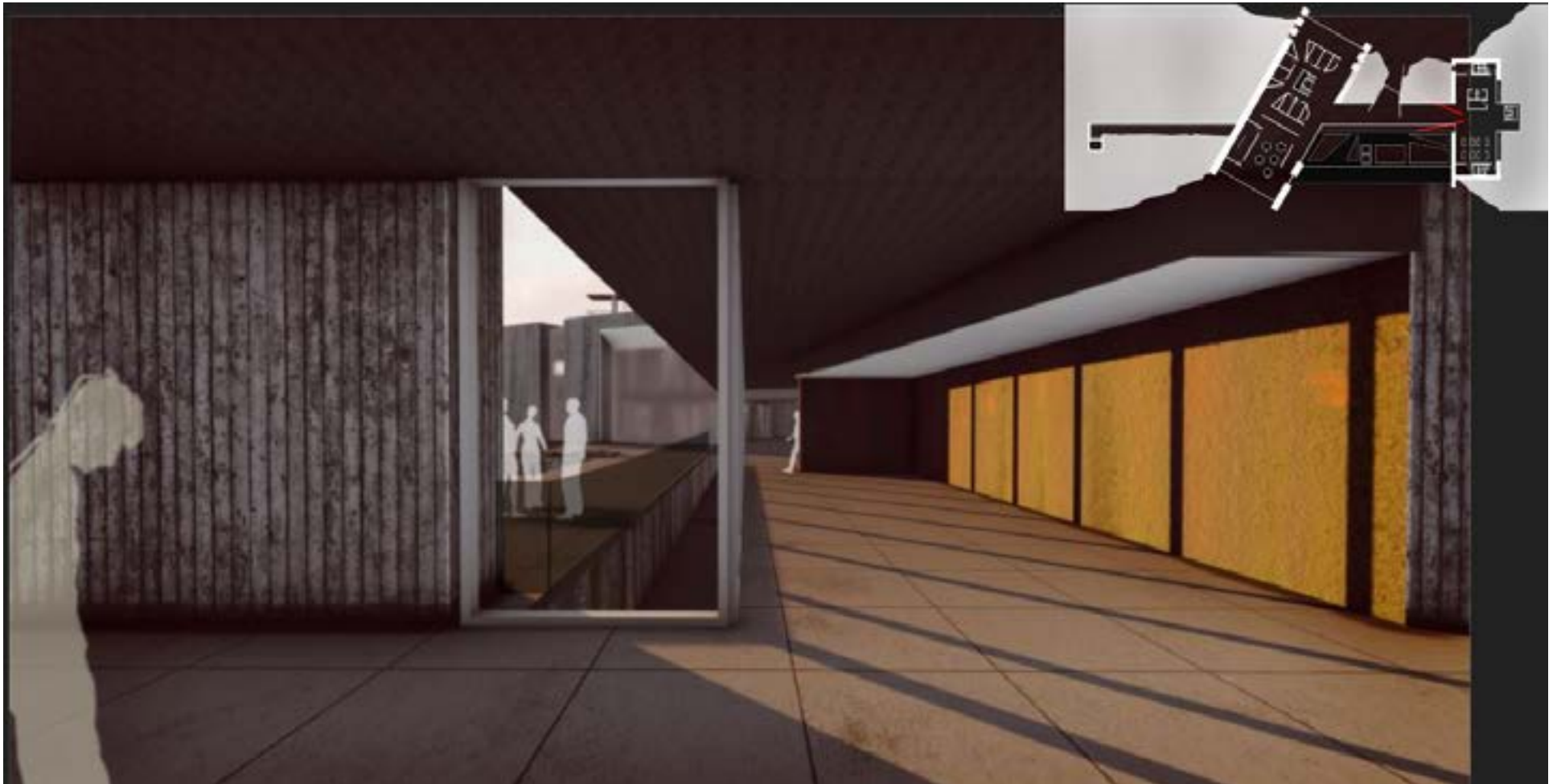
LEVEL III-VI

To get to their resting chambers, they must again follow this carve into the earth, always being aware of where it is, allowing it to direct them wherever they need. There are a total of 20 chambers, 4 floors with 5 units, each featuring areas to bathe, rest and re-charge, and dress. Each morning, users will transcend down, cross over into the public areas, experience the existential benefits of the architecture and the program, and transcend into their personal areas. This constant back and forth, crossing over and under, forces the inhabitant to be in constant motion, altering their mindsets and rewriting their perception through the engagement of the architectural setting.



LEVEL I

Looking from the personal chamber towers into the public areas



LEVEL II

Specailist waiting area



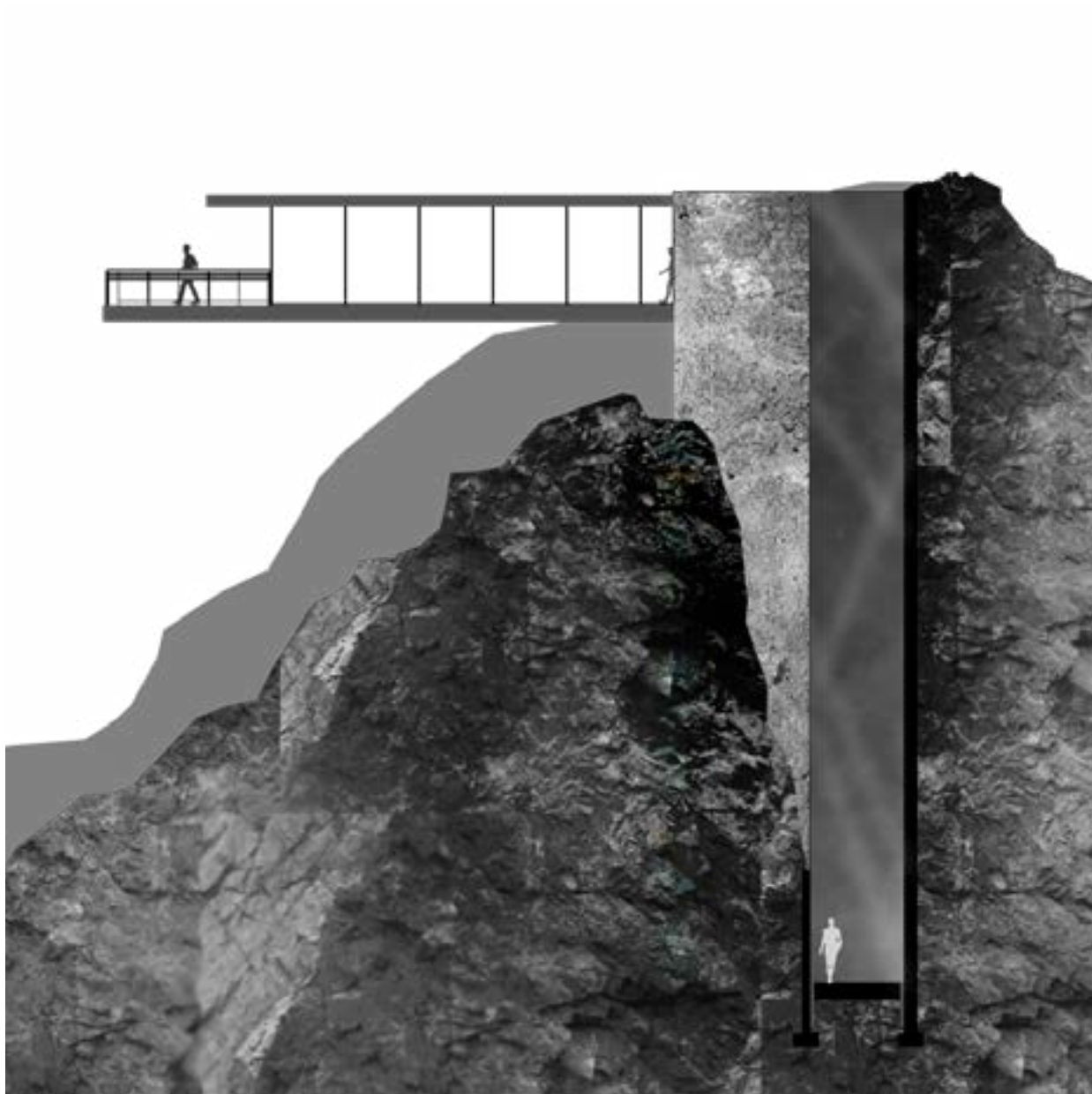
LEVEL II

Looking from the personal chamber towers through the skyway



LEVEL III-VI





LEVEL 0

A profound aspect of my design is the space where the sliced earth flows into the hillside. This underground, existential space provides a moment for users to be exclusive from the world, a true moment of peace and calmness, through the act of a metaphysical wonder. To access this point, you must travel into the ground where I have excavated the earth, digging deep into the ground to extract what is below. Through the act of wandering, users will find themselves being guided by the light from above. Amongst this slice, there are also numerous personal mediation spaces down below, allowing us to fully embrace this key moment.

Through further wandering, users will encounter the carve; viewed from every angle, stimulating our curious minds to explore. The pathway will bring users to a point of pure isolation within the hillside.

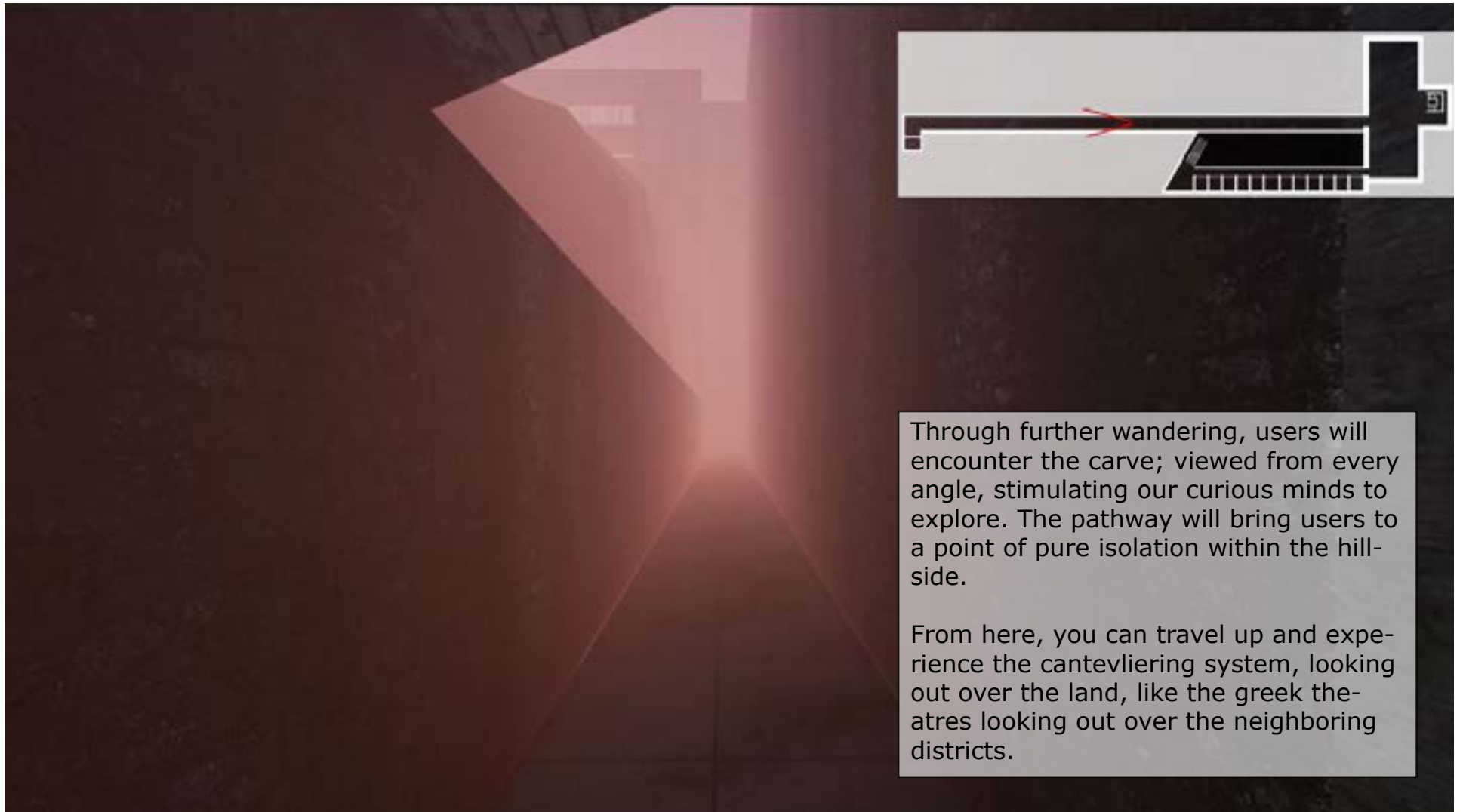
LEVEL 0



LEVEL 0



LEVEL 0



Through further wandering, users will encounter the curve; viewed from every angle, stimulating our curious minds to explore. The pathway will bring users to a point of pure isolation within the hill-side.

From here, you can travel up and experience the cantevliering system, looking out over the land, like the greek theatres looking out over the neighboring districts.

CANTELEIVER



CANTELEIVER



The cantilever is the final aspect in connecting the earth, the sky, and the water. I wanted to implement the use of a cantilever because of the ability to look out into nothing, to gain something. This projects and externalizes our thoughts, reaching out over the land, in hopes to gain a moment of true clarity.





PERFORMANCE ANALYSIS

The primary goal of this thesis was to create an architectural setting that promotes healing for those who suffer from mental illnesses, such as depression and anxiety, through historical precedents and cultural ideologies. The journey through space is intended to create a self awareness within the inhabitant, tying the ancient greeks to a modern day approach.

The design of my thesis succesfully integrates past and present components, intended to evoke a cathartic experience for each individual. In doing so, users will begin to comprehend the impact the built environment has on our mental health, and hopefully will aid in the hyper awareness of their own spaces.

THESIS APPENDIX

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IMAGE CITATIONS

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Exterior Shot 2 - <https://arkhitekton.files.wordpress.com/2012/06/the-therme-vals-by-peter-zumthor-02.jpg>
Exterior Shot 3 - <http://1.bp.blogspot.com/-QY6LBOwvZa8/US9-YhxpITI/AAAAAAAAADIC/sjNqQDpz5iE/s1600/therme+vals.jpg>
Exterior Shot 4 - <http://homeli.co.uk/wp-content/uploads/2014/05/Therme-Vals-spa-by-Peter-Zumthor.jpg>
Interior Shot 1 - <https://www.archdaily.com/13358/the-therme-vals/500f245228ba0d0cc7001d3d-the-therme-vals-image>
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Drama Heads 1 - http://world.greekreporter.com/files/greek_tragedy_mask.jpg
Drama Heads 2 - <https://www.armstrongeconomics.com/world-news/sovereign-debt-crisis/the-greek-tragedy-continues-to-set-the-tone-world-in-review/>
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Ojibwe Tribe - https://ojibwe.lib.umn.edu/uploads/collections/images/local_collection_image/236988/10083041.png
Grand Portage Bay - <https://img.apmcdn.org/c40f9035210dd5bc2c08ca2c69e617a51dddcf5e/widescreen/a0d52f-20160815-grand-portage-002.jpg>
Wauswaugoning Bay, MN - <http://static.panoramio.com/photos/large/29533014.jpg>
Wauswaugoning Bay, MN 2 - <http://static.panoramio.com/photos/large/29533145.jpg>
Diabase Rock 1 - <https://natureinquiries.files.wordpress.com/2008/11/road-cut-2-diabase-dike-b.jpg>
Diabase Rock 2 - https://c1.staticflickr.com/1/694/22291843141_ed20f23904_b.jpg

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Alva Noe - <https://static1.squarespace.com/static/549de813e4b0bc51a119f20f/t/549debd9e4b0fe85d8609d2d/1419635683154/alva-noe.jpg?format%5Cx3d1500w>

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Behavioral Healthcare Unit - <https://www.slhn.org/not-found>

Behavioral Healthcare Unit 2 - <https://www.centracare.com/app/files/public/417/MH12.jpg>

Behavioral Healthcare Unit 3 - https://tlcdarchitecture.files.wordpress.com/2015/05/dsc_0632_lg.jpg

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Dr. Jonas Salk - <https://www.thefamouspeople.com/profiles/images/jonas-salk-1.jpg>

Polio 1 - <https://i.pinimg.com/originals/32/86/97/3286971098a8516bd55866beaab6a236.jpg>

Polio 2 - <http://polioeradication.org/wp-content/uploads/2016/07/unspecified-4.jpg>

Basillica at Assisi 1 - https://upload.wikimedia.org/wikipedia/commons/thumb/d/d9/Assisi_San_Francesco_BW_2.JPG/1200px-Assisi_San_Francesco_BW_2.JPG

Basillica at Assisi Interior - https://media4.allnumis.com/74/assisi-basilica-of-st-frances-upper-church-inside-view_74_69783559e-288f779aL.jpg

Basillica at Assisi Exterior 2 - <http://worldsecretlocations.com/wp-content/uploads/2015/04/basilica-of-st-francis-15.jpg>

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Freud Office 1 - <http://www.thegorgeousdaily.com/wp-content/uploads/2013/08/Freuds-Office-by-Edmund-Engelman-in-1938-5.jpg>

Freud Office 2 - <http://joelsandersarchitect.com/wp-content/uploads/2015/06/01-Berggasse-19-Inside-Freuds-Office-with-Diana-Fuss.jpg>

Freud Office 3 - <https://meagainstiniquity.files.wordpress.com/2015/02/freuds-office.jpg>

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Map of Minnesota - Google Maps

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Site Analysis Information - <https://www.dnr.state.mn.us/climate/index.html>

PREVIOUS STUDIO EXPERIENCE

.....
2nd Year

Fall: Darryl Booker

Tea House | Moorhead, Minnesota

Incorporation of site and tea ceremony

Mpls Boat House | Minneapolis, Minnesota

Spatial relationships and design

Spring: Joan Vorderbruggen

Montessori Elementary School | Fargo, North Dakota

Utilizing parti for design inspiration

Bird House

Designing in terms of specific architect

Living off the Land | Cripple Creek, Colorado

Designing using what is there

.....
Fall: Ronald Ramsey

Orchestra Hall | New York

Utilizing existing building in history

Religious Temple | Fargo, ND

Designing a space for the minority

Spring: Bakr Aly Ahmed

NDSU Culinary School | Fargo, North Dakota

Utilizing concrete structure

Rec. Center | Fargo, North Dakota

Utilizing steel structure

.....
3rd Year

PREVIOUS STUDIO EXPERIENCE

.....
4th Year

Fall: David Crutchfield

High Rise Studio | San Francisco, California
Comprehensive Design

Spring: Ronald Ramsey

Architect Research | Fargo, North Dakota
Designing in the mind of an architect

IDENTIFICATION

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My passion for design has been a part of me for as long as I can remember. From playing with lincoln logs and legos, to constructing forts and tree houses, I have always strived for creative freedom through the implementation of design. Along with that, I crave the freedom to explore the world, traveling anywhere I can, and seeing some of the most incredible features, both natural and constructed.

