

UP ON THE RAMPS

HOW TO FILL A PSYCHOLOGICAL GAP WITH JOY THROUGH ARCHITECTURE

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GRADUATE PROJECT

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Abstract

In times of crisis, such as COVID-19 pandemic, architecture has the potential to play a crucial role of offering emotional and psychological repair to societies, but it is yet to be systematically investigated. This can be made possible by means of intentional (engineered) 'Affect' in design through synthesizing the form, material, scale, etc. to enhance our experiences of and provide resilience for our spaces. This project is about providing an opportunity for a playful and calming experience away from the routines and stresses of everyday life, especially due to lifestyle changes after COVID-19 outbreak. The goal is to take people who enter the structure on a journey where they leave a little calmer, a little more excited and fresher.

Movement is key to the project. The design takes people through a 3-dimensional labyrinth on intertwined ramps, giving them opportunities to have their unique adventure by changing paths and encountering enticing views and inspiring scenes of art while allowing them to take moments of respite in between and enjoy casual performances, as well. In addition to providing a framework around a physical-virtual journey, the project itself can be seen as a vertical garden of lights and colors, especially at nights when the building appears as a glowing beacon in a narrow lot in downtown Vancouver. While the project was inspired by the outbreak of the pandemic, it can be said that such constructs can still affect the society after the emergency is over.

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Further, I would like to thank my family who have always supported me and gave me the strength to push forward and even though we are physically apart, I have always cherished them in my heart. Last but not least, much love and thanks to my friends who bore with me and had my back whenever I needed them during challenging times.

I am thankful for everyone who had even the tiniest part in my journey directly or indirectly, and I am and will always be grateful to you all.

Dedication

Mom, Dad, this is for you guys.

Thesis Statement:

The experience of serenity and joy can be achieved through architectural manipulations to allow moments of respite in contrast to stressful events of everyday life.

This is a framework for multi-sensory and interactive installations in an urban setting.

Part 1: Framework (GP I)

Chapter I | What Is the Problem?

All beings, including us humans, are constantly using their survival instincts to sustain themselves and evolve. Architects have always dealt with human's need for shelter and comfort, therefore the idea of providing ease and tranquility is nothing new. However, as the world around us is changing -having COVID-19 and the "new normal" in mind- we are in need of something more than just shelter. In the age of fast machines and digital lives, we are missing an important piece of the puzzle which lies in our social and individual pleasures. In his book *Origins of Architectural Pleasure*, Grant Hildebrand (1999) argues that the aesthetics of pleasure derive from the aesthetics of survival which comes from nature. COVID-19 has also showed us the importance of nature and its healing powers (Megahed and Ghoneim 2020.) So, is architecture capable of evolving fast enough and in a way to understand our feelings and stresses under such a crisis and accommodate us and help our healing process? History shows that during pandemics such as the spanish flu, cholera, typhoid, etc., form and function both follow the fear of infection, therefore, many urban renewals and infrastructure have come to exist in response to past pandemics over the centuries (Megahed and Ghoneim 2020.)

"The use of 'affective' spatial qualities coupled with flexibility in design to tackle psychological trauma in critical times such as COVID-19 pandemic and promote long-term liveliness to the public realm" is the main focus of this graduate thesis project. This thesis project will explore the relation between architecture and the sentiment it triggers in

us when we are in contact with it. So how can architecture accommodate the emotional and psychological needs of society and provide resilience in times of crisis such as the one we are currently in, in a flexible and adaptable manner as opposed to the natural and gradual development of architecture in the course of history?

Attending online classes instead of in-person ones, being away from peers and co-workers, losing jobs, being forced to work from home, physical and mental preconditions are among top challenges people are facing in extreme confinement settings that resemble demanding exploration trips (Meléndez et al. 2020) but have never been recorded on such scale before. Consequently, this may lead to higher rates of mental health problems like anxiety and depression during and even after the pandemic.

Summertime and warmer weather allow us to easily spend time outside in open air with an easier mind about the transmission and spread of the virus in comparison to an indoor space. But observations and statistics demonstrate that in colder months of the year, higher infection rates and more and more restrictions are in place. It becomes more challenging to socialize outdoors due to low temperature or heavy rainfall and people demand shelter to be able to inhabit those spaces. On the other hand, gathering indoors has also become harder with the restrictions placed on public spaces due to COVID-19 in recent months.

Therefore, our mental health is under pressure more than ever and it is necessary to pay attention to emotional well-being as well as the physical.

Chapter II | What Do We Know?

In this section, I will look into how this research came to be and why is it important to investigate it.

As an architect, being able to convey a certain type of emotion or characteristic through the work itself is appealing and yet, in recent years, time after time we fail to do so as we choose sheer function or other factors such as environmental sustainability as priorities and let our creations slip towards being unfriendly, uncomfortable or soulless. This is not to say that it is wrong to pay attention to sustainability or function, but to say that emotional sustainability is also important and should be part of the discourse in order for an architecture to thrive. An early interest in COVID-19 and its direct and indirect impacts on our lives and what that means to architecture led to subjects around emotions, mood and atmosphere and how architecture can influence them. This viral disease -and the limitations it has caused- has raised important and long overdue questions about our daily lives and our environments and has forced us to address them. Obviously, tackling all those issues is beyond one thesis project, so I am directing its focus towards psychological challenges that I have seen to appear during or due to quarantine.

confinement state it produced has impacted every one of us and the way we live our lives; some more than others depending on where we reside and the state of emergency. Unfortunately, as there is very limited information on the psychological consequences of the previous pandemics, no precise speculations can be made about the after-effects of this pandemic. Furthermore, the impacts of the previous pandemics such as the Severe Acute Respiratory Syndrome (SARS) in 2003, Ebola in 2014 or the Influenza N1/H1 in 2009 and 2010, were not as severe as the current situation, thus making it difficult to compare or draw information from (Meléndez et al. 2020.) Moreover, according to the same research, the stressors to which people were exposed to during this time so far have been widely similar to extreme conditions of people on a polar expedition, a lengthy space flight, a submarine mission, etc. These situations are characterized by monotony and boredom, forced social interactions with the same small group of people, limited privacy and emotional and physical deprivation which are quite similar to the ubiquitous global problems we are currently facing. Studies on the mentioned situations marks depression, anxiety and stress as the main psychological distresses caused by a quarantine state (Meléndez et al. 2020.)

While waiting for a vaccine for COVID-19, we considered the repercussions of the disease to be temporary. However, even though a few different vaccines have been produced and started to be publicly used by some countries, we can still see that the mutated versions

of the virus are still active in other countries and are even more dangerous than the original one. We assumed that we would go back to the way we lived before all of it started, once the state of emergency ended. But what actually happens when we no longer consider COVID-19 a threat to our lives? Should we abandon our “new normal” and go back to our old habits? The reality is that COVID-19 has caused many physiological, economic, political, social and psychological challenges that are hard to recover from instantly. Plus, it is likely to exacerbate pre-existing mental health, neurological and substance use disorders (Adhanom Ghebreyesus 2020) that will not disappear right away and will continue to impact individuals in the future if we do not pay attention to their symptoms. Although this pandemic is the reason behind many new problems, one good thing arising from it is that the existing social and psychological problems in our societies have been pointed out and highlighted, forcing us to think beyond the conventional methods to find efficient and resilient solutions.

Consequently, we are learning to rethink our normal way of living, hoping for the effects of this virus to stop affecting each and every dimension of our lives, especially when it comes to its social aspects. Thus, if not cautious of the temporal aspect and not taking into account the future possibilities, any architectural move taken in the direction of our current normal might end up being useless and wasteful sometime in the near future. For this reason, it is necessary to pay attention to every part of the project’s life cycle, especially its afterlife. Moreover, the importance of the

project's afterlife is twofold in today's world, due to global warming related issues and the vitality of conceptual and physical sustainability. This is realized by flexibility considerations such as leaving room for different interpretations of a single space in the smaller scale (i.e., creating a space that can be used as a dance studio by an individual or as a working space for another) and open spaces to be occupied and utilized in a different format from the originally intended in the future closer to an urban scale (i.e., a theatre with mobile seats that are two meters apart as per social distancing rules during COVID-19 with consideration for additional seating in between.)

It is human nature to be social, so we seek support from our communities, now more than ever, yet establishing those connections have become much harder than before as gathering in enclosed spaces comes with a lot of risks. One of the reasons causing anxiety lately is people feeling unsafe being around others due to the high risk of virus transmission. The aim of this thesis is to look more closely at spatial techniques and architectural representations that could help ease people's minds in social settings. On the other hand, we sometimes need space to ourselves to reflect and calm our minds without any interruptions and the state of quarantine imposed all around the world has caused many to be trapped in their homes without a place to vent out stress and discomfort. Environmental features can help create the proper foundation for such atmospheres.

How Can Environmental Psychology Help Mental Health?

Environmental Psychology is defined as “the discipline that studies the interplay between individuals and the built and natural environment.” (Steg and de Groot 2018) examining the influence of the surrounding environment on human behavior, experience and well-being as well as the influence of individuals on their surroundings and encouraging pro-environmental behaviors. With emergence of sustainability issues and environmental problems in the recent years, architecture has paid a lot of attention to green architecture which is an important aspect of environmental psychology. However, modern era buildings have been criticized for being incompatible with their surroundings, sacrificing beauty and functionality and neglecting positive or negative psychological effects that buildings can have on their occupants, creating poor spatial experiences (Bica 2016.) In other word, critics accuse architecture of forfeiting aesthetics and emotional adaptability for the sake of environmental sustainability. Yet, they do not suggest any alternatives either (Akhavan Farshchi and Fisher 1997.) That is where environmental psychology comes into play and the objective of this thesis is to help fill exactly this gap between architecture and psychology, which is mostly neglected. This relatively new field of psychology was born as a result of research on the built environment and its effects on human beings. Particularly around that time there was an interest to organize people in large companies and increase their productivity and at the same time, a demand from

psychologists to explain the possible impact of environment on psychiatric patients (Tecson 2020.) Thus, environmental psychology has naturally had a close connection to architecture -and historically was even recognized as 'architectural psychology'- to ensure a correct and working correlation between the physical-spatial and psychological aspects of our built environment (Akhavan Farshchi and Fisher 1997.)

Not everyone reacts the same to an event or situation, especially where sudden changes in lifestyle or habitat occur, or in this case a disaster that could potentially alter the course of life for millions of people in a short period of time, pressuring them to adapt instantly. Despite the similarity in the physiological and psychological stresses forced on people by the recent pandemic, different people deal with their emotions in reaction to these stresses in many different ways. Restorative environments can help them in the process of recovery (Steg and de Groot 2018.) Exposure to these environments can promote well-being and reduce the chance of illness and disease. Roger Ulrich set forth what is called the Stress Recovery Theory (SRT) in his 1983 article *Aesthetic and Affective Response to Natural Environment* that is concerned with restoration from the stress that is caused by a situation that is considered demanding or threatening to well-being (Steg and de Groot 2018.) Zajonc (1980) argues that people's initial response to a space is a generalized 'affect' (i.e. like, dislike) that occurs without conscious recognition. Positive affective responses to an environment come when there are certain features

present in the space including natural content, complexity and structural features, depth/spatiality cues, deflected vista and absence of threats. Quick positive responses to these features start the restoration process as they provide a breather from stress and negative feelings such as fear (Steg and de Groot 2018.) But what exactly makes us consider a space peaceful, frightening, comfortable, Gloomy, relaxing, tense or joyful? Research shows that human-environment interaction is an organized activity. Environmental psychology searches for the meaning that people associate an environment with. Hall (1963) proposed a life changing 'proxemic framework' that sets the foundation of how people use and manipulate spaces. He identifies four distinct zones in the relationship between an individual and their surroundings, namely intimate, personal, social and public. Mehrabian and Russell (1974) also found pleasure, arousal and dominance as deciding dimensions in aesthetic appreciation. Other studies have similarly come up with different methods to catalog these determining factors (Akhavan Farshchi and Fisher 1997.)

How Can Architecture Be Affective?

Frank Gehry once said: "Buildings engender feelings ... Most of the buildings we see around the world ... are just buildings. They are containers, but no one thought about the[ir] feelings; that seems to be missing. So, I would like to see a world where that's considered, where people realize you are an actor on a stage in a place and the place can make it more exciting and better; make life a little bit richer."

When it comes to form-making, in order for a piece of architecture to be noteworthy, impacting its inhabitants is fundamental (Hopkins 1990; Duncan and Duncan 2004.) Architecture is marked as a discipline of code-making or controlling certain visual clues in order to use them as symbols for something other than what they are at the time and place of a building (Daniels 1993; Goss 1993). Whether these symbols are mere visual effects, or if they have deeper and meaningful connotations, is only in the hands of the architect. However, powerful architecture is not only conceived of symbolisms, rather it is shaped by ongoing and dynamic encounters between its elements, users, visitors, materials, events, emotions, affects, etc. (Kraftl and Adey 2008.) Thus, architecture is essentially a way of predetermining what we are “thrown together” with (Massey 2005). And being so, it can form or change our feelings not only about the space, but also about ourselves: it creates a mood, it inspires, or in other words, it produces an ‘Affect.’

In *Architecture, Affect and Architectural Practice*, Akari (2015) claims that affect as an after effect on the already built environment has been examined, but how the affective discourse can contribute to the creative design process is yet to be researched into. The concept of affect is often discussed in recent social and cultural context but in a vague and ephemeral manner, making it intangible difficult to understand. But when we talk of an affective space, what does it actually refer to? What does ‘affect’ mean? The term affect in its many forms *-affectus, affectio, l’affect, affect-* has a rich place in the history of philosophy.

Baruch Spinoza, Friedrich Nietzsche, Gilles Deleuze and Félix Guattari are some of the philosophers that have set the foundation for more contemporary dialogue about this subject. Affect combines the active senses of drive, will and desire and at times involves the more passive sense of passion (Spinoza 1982). It is not a personal feeling, nor is it a characteristic; It can engage a multiplicity of bodies through forms of capacities, processes and becomings. Here 'body' is described as a site for perceptual transformation rather than a definite entity (Nietzsche 1967) and is not automatically assumed as a human being, therefore, it can refer to any number of things including an animal, a body of sound, a social body, etc. (Deleuze 1988.) In this context, bodies and the environment are not fixed matters and are always changing, affecting or being affected, generating new forms of material and becoming more (Akari 2015.)

More contemporary views of affect by theorists like Massumi, McCormack and Thrift, describe it as what follows different logics and different orders, which differentiates it from personal emotion that can be put into words, such as 'I feel happy', while affect happens before we can explain how we feel; it precedes emotion (Akari 2015.) In other texts by researchers such as Pile, Anderson and Harrison and Shouse, affect is illustrated as autonomous and pre-personal, whereas feelings are described as automatic bodily responses and emotions are more cognitive. In this sense, emotions, feelings and affects connect in slippery ways. Meanwhile, Ahmed's theory about

affect to some extent contradicts the definition above as she tries to attend to 'emotional affect' by bringing in compassion and hope into the discourse (Akari 2015.) Using Ahmed's theory, the architect may be able to utilize affect to get close to producing or shaping emotions that has a comforting feature or can reduce psychological pressures.

What is too often assumed is that bodies are always active or ready to be in action. Thrift (2007) reminds us that bodies experience fatigue and exhaustion and are sometimes reluctant to engage due to negative affective forces like anxiety, obsession or depression, causing the bodies to be vulnerable and passive. However, what this also brings with itself is the opportunity for affect as a force to control our bodies in certain ways, bringing bodies together and creating 'affective bonds' as he calls it. This is where affect is deliberate or 'engineered.' Several other theorists have also talked about the engineering of affect including McCormack and Massumi (Akari 2015.) Interestingly, in contrast to the transient and unstructured nature of affect, architecture has often implied a sense of stability, permanence and structure and the participants in the making of it are frequently interested in function rather than human needs, desires and affects (Akari 2015.) What this thesis will try to investigate is, how affect can be engineered in the architectural design process and what are the architectural tools for creating spatial affectiveness.

Chapter III | What Has Been Done Before?

Given the nature of this thesis project, I looked at quite a large number of precedents. In this section I will introduce a few of those precedents that played a huge role in shaping the concept and design of the project. The chosen precedents can be divided into user-engaging installations and pavilions and psychologically affective spaces.

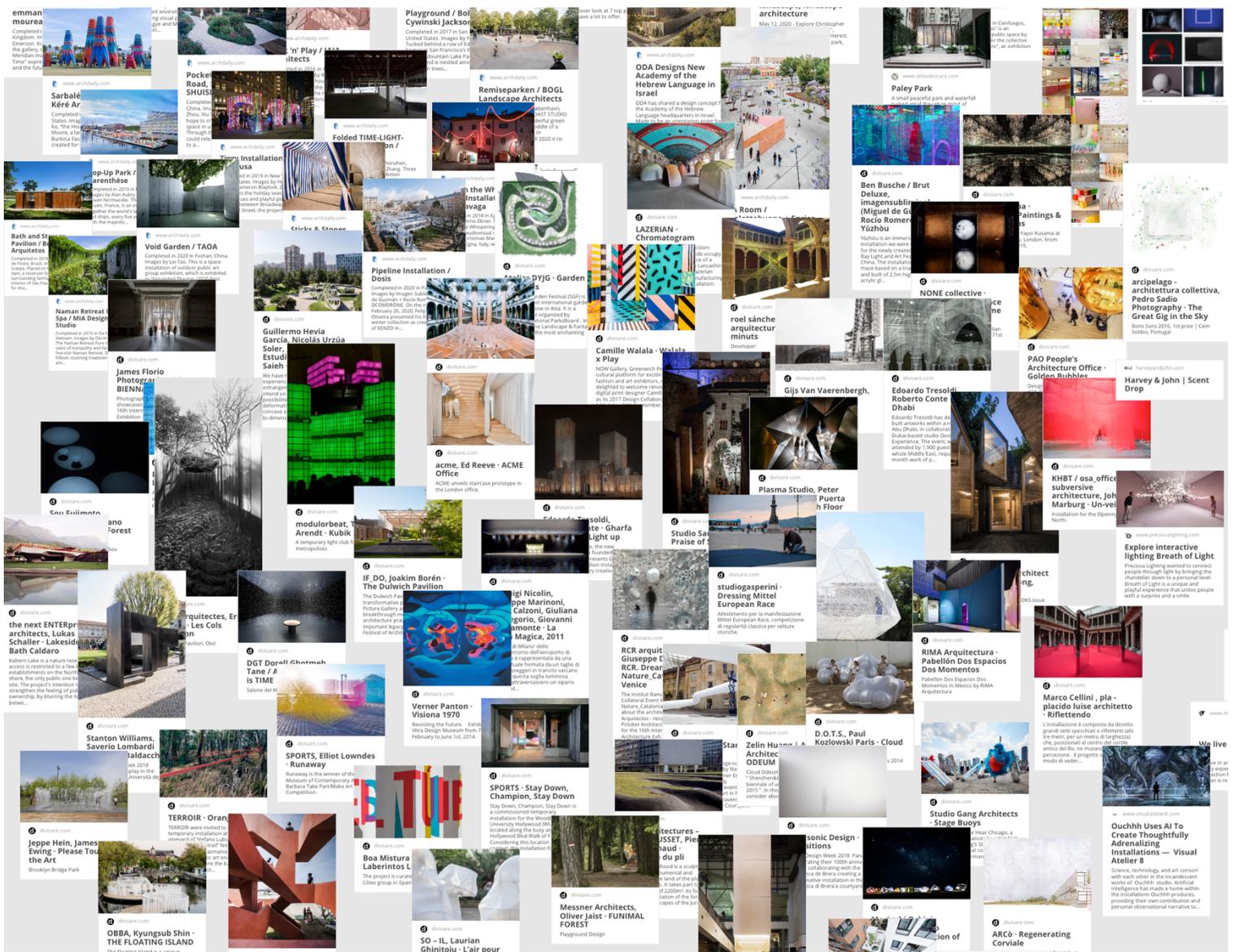


Fig. 2. Several precedents that informed this project

The first category of the precedents which can be described as user-engaging installations and pavilions, will inform the physical and formal aspects of the thesis while giving us a hint about its tactile and interactive intentions. All the projects in this category share a common theme which is that they are temporary and flexible in the essence. Here, I will also investigate and analyze the relation between the projects and their urban surroundings, uncovering their role as a public space. For this reason, I will be looking at *Dialogue* and *The Surface* which are both examples of interactive public art and in the second part I will look at *Rounds Theatre Pavilion* and *Your Reflection Pavilion* which are examples of multipurpose, ambiguous space design.

The second group of architectural projects, referred to as 'affective' spaces, have been chosen because of their experiential and emotional connection to their environment and users. The atmosphere and mood created by each one is what makes them qualified for this category. These precedents take us deep into the soul of what this project wants to achieve. For this part, a collection of Yayoi Kusama's *Infinity Mirror Rooms* and a temporary pavilion in Mexico City called *A Room* are selected.

The overall objective is to explore the relationships between the users and spatial qualities using the first category and between architectural atmospheres and emotional responses using the second category. The assumption is that using this approach, ultimately, I can develop an optimized model/framework and its metrics. Such a model/framework will embody the characteristics

and design innovations that can effectively contribute to the integrated, optimized design of public spaces taking users and emotional response considerations into account consciously and simultaneously. I may discover contradictory requirements of these three fields, as well. But it would be much beneficial to discover them at this research stage investigating the feasibility of an improved, working, compromise. Moreover, it would even be necessary to find out about them in order to successfully accommodate them in the practical design process.

Architecture to Discover, Architecture to Perceive

PUBLIC ART

DIALOGUE
JULIA JAMROZIK + CORYN KEMPSTER
2017



Fig. 3. DIALOGUE, a playful and interactive public art, Bob Perkoski, 2017

Located in the Eastman reading garden beside the public library of Cleveland, Dialogue is a public art. It comprises various pipes connected to one another ending in horn shapes in a circle inviting people to talk through the horns of listen for other people talking and finding where the sound comes from. The design is inspired by the historic role of a public space as a place where you might come in contact with people from different backgrounds and views and have conversations with. However, with the emergence of technology in the recent years, even though we might occupy such spaces with the opportunity to encounter friends and strangers, we spend our time there in solitary,

with company from our cellular devices. As a public art situated in a highly used public space, Dialogue challenges this setting by breaking the isolation bubbles of individuals and drawing their attention to a whimsical installation. Dialogue encourages passersby to interact with the art, directly, as well as each other, indirectly, through the playful and adventurous nature of the installation.



Fig. 4. Strangers engaging with the installation, Bob Perkoski, 2017

THE SURFACE
STPMJ
2020



Fig. 5. Visitors choose their path through The Surface similar to an adventure in nature, Bae Jihun, 2020



Fig. 6. View from under the installation as it grows in height, Bae Jihun, 2020

The Surface is an interactive installation situated in the grass fields in the perimeter of the National Museum of Modern and Contemporary Art where a natural setting is present and in visual reach in Gwacheon, South Korea. It constitutes 700 nylon mesh disks attached to flexible poles of varying heights, closely placed in the grass field. The

concept behind this installation is experiencing nature in a novel way. The Surface is highly sensible to seasonal and atmospheric changes. It sways in the wind and rain and it reflects the sun playing with the light and shadow quality of what is underneath, thus appears like a living creature. As individuals approach and walk through The Surface, they will encounter a multisensory experience. Starting from a medium height where the horizon is in view, The Surface acts as a body of water, the further they go in, the taller the poles will become, and visitors will experience getting lost in the woods where the poles represent tree trunks, and the nylon disk canopies. The playfulness of the installation allows for the visitors to take a break from the everyday life and have a moment to themselves to get lost in the moment.



Fig. 7. The surrounding natural environment, Bae Jihun, 2020

PAVILIONS

ROUNDS THEATRE
SPORTS
2016



Fig. 8. Rounds Pavilion used as for daily interactions, Nick Zukauskas, 2016

Rounds Theatre is the winning design for an international design-build competition and the recipient of the Adrian Smith Prize that can be found in a local park in the community of Lake Forest, Illinois. Surrounded by tall trees, the secluded location creates a perfect acoustic feature for the function of the pavilion. The project is a summer theater pavilion designed to accommodate different number of performance types, stage arrangements and seating options; from a center stage that allows for the audience to view the show from all sides, creating a dynamic relation between them and the performers to smaller sheltered stages that are suitable for more intimate performances. The pavilion has no front and back and

depending on how it is occupied at the time, the thresholds can be seen as entrances or stages. Furthermore, through a variety of surface undulations in different scales and forms, the design encourages visitors to use the pavilion how they see fit in the moment, whether it is as a quiet getaway to read a book or a group yoga class in the middle with the bigger stage indicating the instructor's place. For a fully encompassing experience, the concept engenders a precise ambiguity, a specific vagueness.



Fig. 9. Medium size performance event at Rounds theatre pavilion, Nick Zukauskas, 2016

YOUR REFLECTION
GUILLERMO HEVIA GARCÍA + NICOLÁS URZÚA SOLER
2016



Fig. 10. Concave and convex reflective surfaces of Your Reflection, Nico Saieh, 2016

Strategically placed in Parque Araucano, a public park in the city of Santiago, Chile, You Reflection is a pavilion for leisure. Reflecting in all directions with its mirrored convex and concave curves, the pavilion selflessly disappears and generates unique interactions between itself, its visitors and its environment. The artists aimed to build “an uncertain experience” reducing the architect’s control on the function while creating moments of surprise from one place to the next. This is achieved in two stages. First, a hilly man-made field covered with grass and spongy vegetation with wildflowers and a creek running along it and second 3 bi-dimensional aluminum planes placed on top of the landscape. With its inward and outward curves of different sizes, the pavilion engenders rooms that can be

occupied by visitors for different cultural activities such as live music or concert.



Fig. 11. Piano inside the installation for public use, Nico Saieh, 2016



Fig. 12. View of the man-made landscape from the top, Nico Saieh, 2016

Architecture to Feel

INFINITY MIRROR ROOMS
YAYOI KUSAMA
1965-PRESENT



Fig. 13. "Aftermath of Obliteration of Eternity", Cathy Carver, 2009

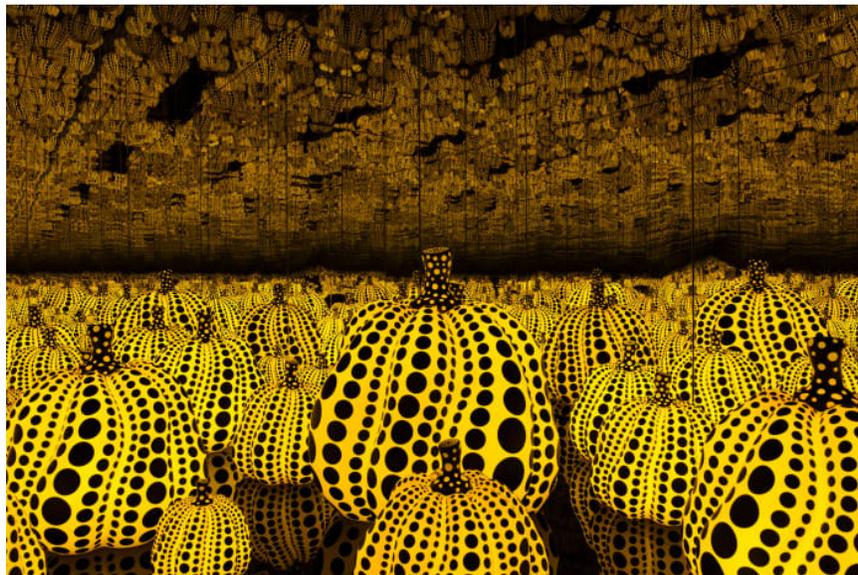


Fig. 14. "All the Eternal Love I Have for the Pumpkins", Cathy Carver, 2016

Over the course of her career, Yayoi Kusama has produced more than twenty distinct infinity mirror rooms, as well as paintings and sculptures, that are exhibited in famous cities all around the world such as Tokyo, London, Berlin, New York and Los Angeles. Each of Kusama's kaleidoscopic environments offer a different experience of stepping into an illusion or a dream to their visitors. Although every infinity mirror room has its own theme, the artist's celebration of life and its aftermath are recurring as the heart of her work. Kusama's passion for polka dots and her childhood obsession with pumpkins are also repetitively seen in her masterpieces. Perhaps her 1965 display of Infinity Mirror Room-Phalli's Field in New York, was the most important as it was a breakthrough in her work as she utilized mirror surfaces for the first time to produce repetition. The joyful, dream-like, brightly colored and polka-dotted atmosphere that Kusama portrays in her earlier creations can also be seen in Love is Calling, My Heart is Dancing into the Universe and All the Eternal Love I Have for Pumpkins that was displayed at the Venice Biennale in 1993. Other infinity rooms of hers such as The Souls of Millions of Light Years Away and Aftermath of Obliteration of Eternity are more dimly lit and focus more on the aftermath of life and its inevitability and engender a quiet and fantasy-like environment for their visitors to contemplate their existence and reflect on passage of time. The artist suffers from hallucinations that are inspirations for her work. Kusama works at her studio during the day, six days of the week and spends the rest of her time in a mental health facility.

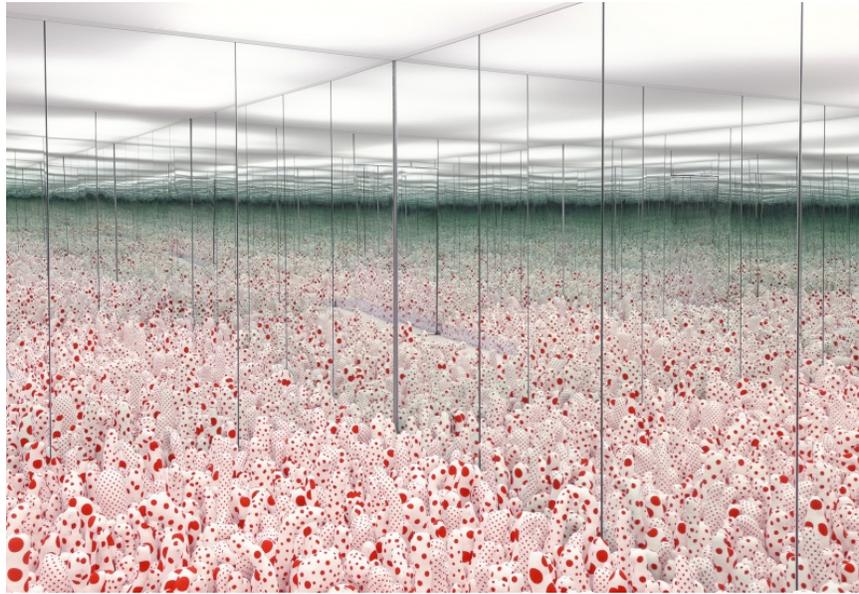


Fig. 15. "Phallie's Field", Cathy Carver, 2017



Fig. 16. "The Souls of Million Lights Years Away", Cathy Carver, 2013

LIGHT EXHIBITIONS
JAMES TURRELL
1967-PRESENT



Fig. 17. "Ganzfeld", Florian Holzherr

“My work is more about your seeing than it is about my seeing, although it is a product of my seeing. I’m also interested in the sense of presence of space; that is space where you feel a presence, almost an entity — that physical feeling and power that space can give.”

James Turrell

With a background in perceptual psychology and his childhood fascination with light, James Turrell started experimenting with light as a medium in southern California in the mid-1960’s. He exhibited his projection pieces at The Pasadena Art Museum created with high-intensity projectors and precisely modified spaces, in 1967 for the first time at the age of 24.

He has won awards for his body of work in architecture as well as in arts. He is most famous for his exhibitions of light. Currently, he has exhibitions in twenty-two different countries and seventeen US states which are accessible by the public. Turrell's medium is pure light. He claims himself that his work has no objects, no image and no focus and what you see is basically a reflection of yourself looking at the work. Using only light, he creates illusions and "rooms" that can be perceived differently. For example, his "Ganzfeld" exhibitions represent a total loss of depth perception similar to an experience of a white-out. In his "Wedgework" displays he uses light to create an illusion of walls and barriers. And in some other projection pieces he uses beams of light to create 3D objects.

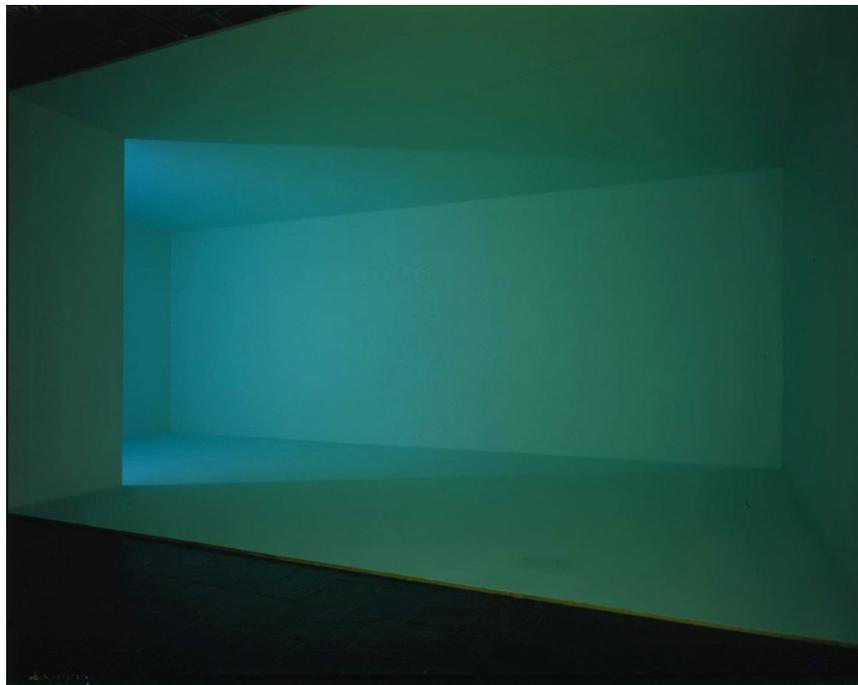


Fig. 18. "Wedgework", James Turrell Studio

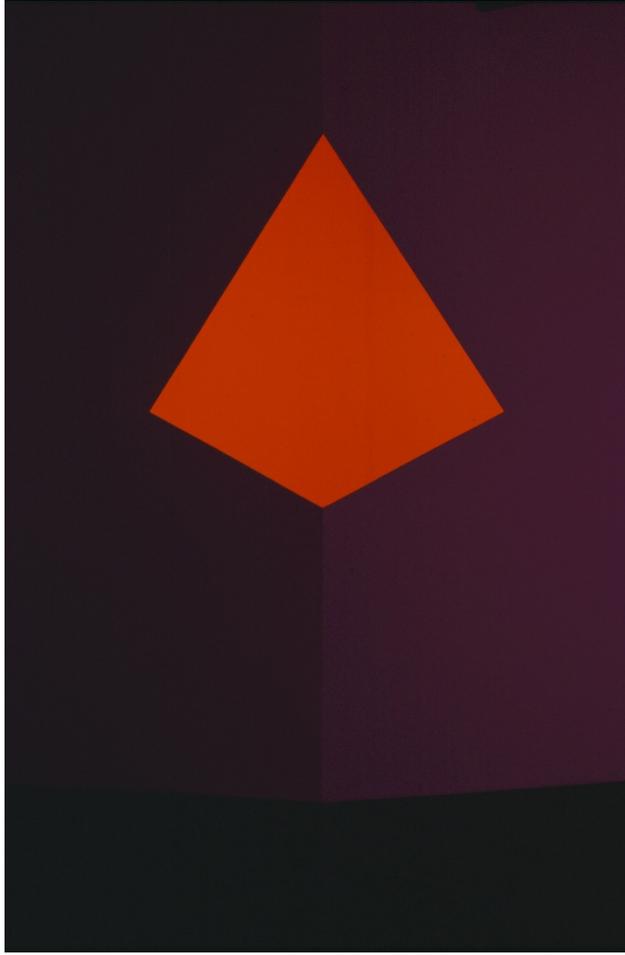


Fig. 19. "Corner Shallow Spaces", James Turrell Studio

Chapter IV | What Am I Proposing?

Where?

For the purpose of this thesis project, I considered a lot in Downtown Vancouver as my site. The site is located on the intersection of Granville street and Davie street.



Fig. 20. Cross section of Granville and Davie street

I chose this narrow parcel of land in the heart of Downtown Vancouver as the physical site for my explorations for various reasons: Historically, the site is rooted in the heart of the entertainment and arts district of the city. Formerly known as the “theatre row”, Granville street was home to several theatres along 3 blocks giving it the nickname. After closure of most of these theatres or conversion of some to nightclubs and bars, Granville is still known as the entertainment district but with a change of function.

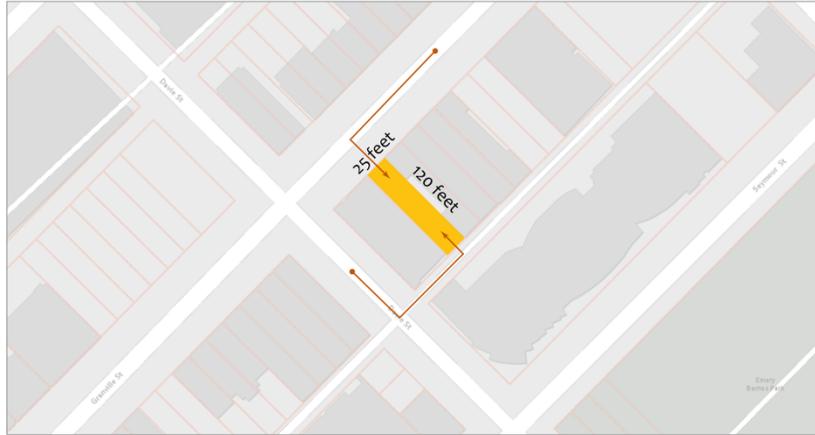


Fig. 21. Site dimensions and access

Furthermore, the dimensions of the lot, 25 ft. (36.5 m.) by 120 ft. (7.5 m.) creates strict constraints which makes it both interesting and challenging to design. The lot is accessible from the north side on Granville street and from Davie street into the back lane on the south side of it.

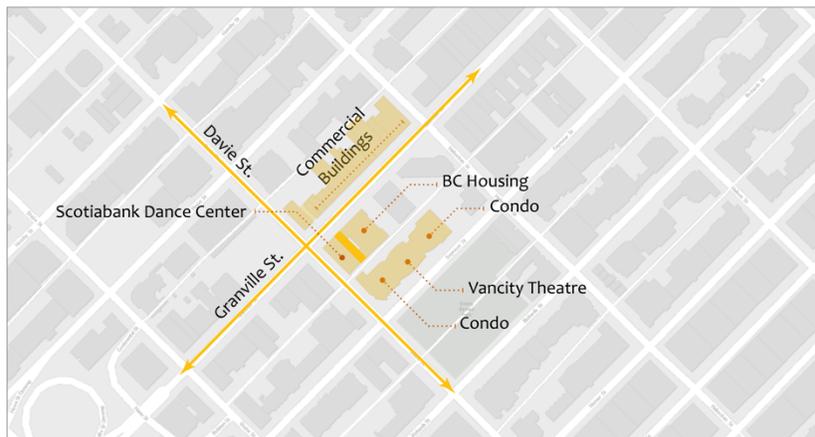


Fig. 22. Important buildings around the site

In addition, the location of the lot in relation to its surroundings is very strategic to the concept of the project. The lot stands in between two spaces of performance, the

Scotiabank Dance Center and the former Howard Johnson nightclub/bar/hotel which has now been purchased by BC housing and currently used as supportive housing as part of a long-term plan for affordable housing. Right behind it there is a 30-storey condo building which makes it a view gap for hundreds of apartment dwellers every day. And just beside the condo is where the Vancity theatre is located.



Fig. 23. View of the adjacent buildings making the site appear as a tall and narrow box

The most important feature of the site is its emotional content. Currently, the site is sometimes used by the housing complex's staff for parking but other than that, even though there are arts and performance venues located nearby, in terms of its usage and psychology, it has an unpleasant vibe.



Fig. 24. The empty lot



Fig. 25. The adjacent building's wall

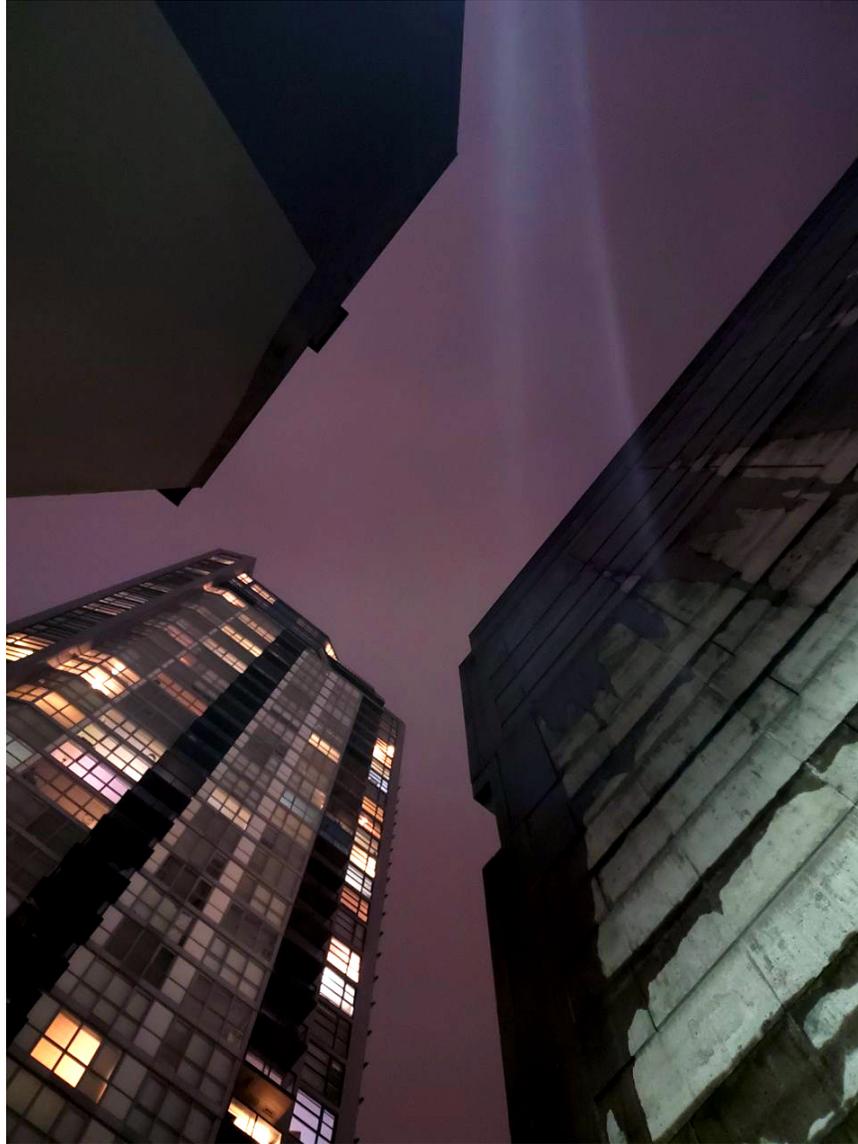


Fig. 26. View of the sky and the condo behind the site

It is mostly dark as it does not get much sunlight. It looks very abject and forgotten looking from the outside (from Granville street) and standing inside of it, all you see when you look around are walls. The only freeing view and worth checking out is the sky. Therefore, it engenders a massive opportunity to change the psychology of the land and turn it into an affective, positive and useful space.

What?

People tend to try different things to break away from the routines and stresses of everyday life and not everyone is the same when it comes to dealing with emotional challenges but my goal was to create a safe atmosphere that speaks to those issues. So, I decided that I wanted to create an atmosphere opposite to what the site currently had to offer and bridge the gap that exists both psychologically and physically.

In a nutshell, the goal of this project is to bring much needed joy and serenity to its visitors through the architecture itself. Thus, no particular program is defined. What is instead proposed are a series of emotionally affective atmospheres in which people are invited to interpret what they see, hear or feel on their own and then utilize the space as they want and finally leave with a healthier attitude towards life. A little less anxious, a little less bored. What I am more interested in, here, as demonstrated in my early sketches, is not the activities themselves but the quality of spaces that can create the right set of emotions and can be interpreted differently and lead to certain activities by different people and therefore be used for different purposes.

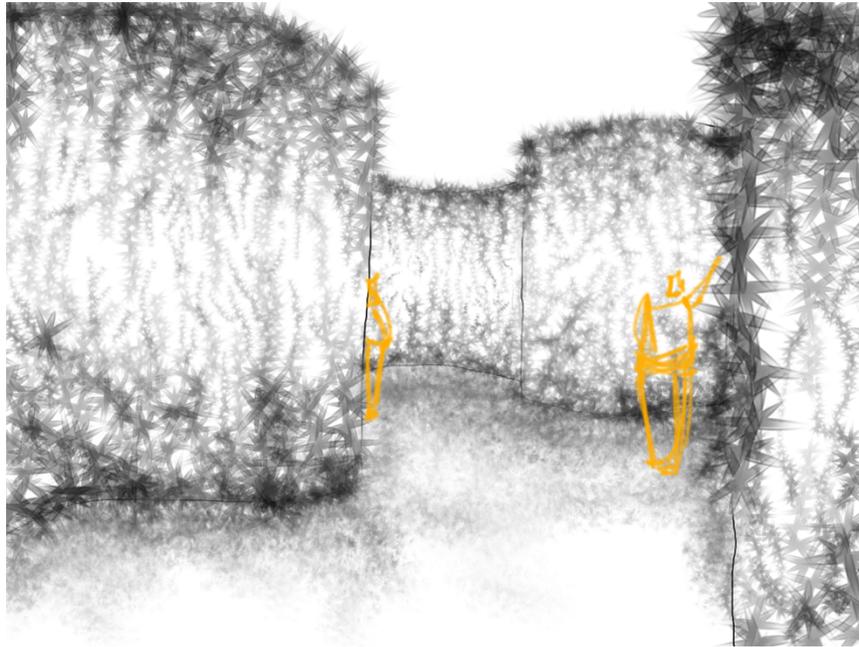


Fig. 27. Conceptual maze-like green space inspiring calmness and tranquility

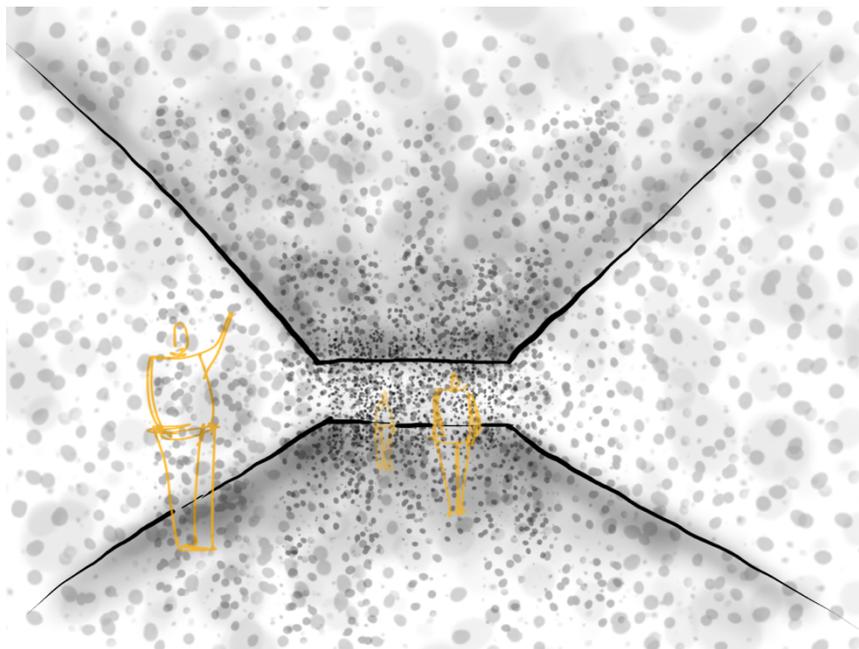


Fig. 28. Conceptual sheltered space that visitors can use while social distancing

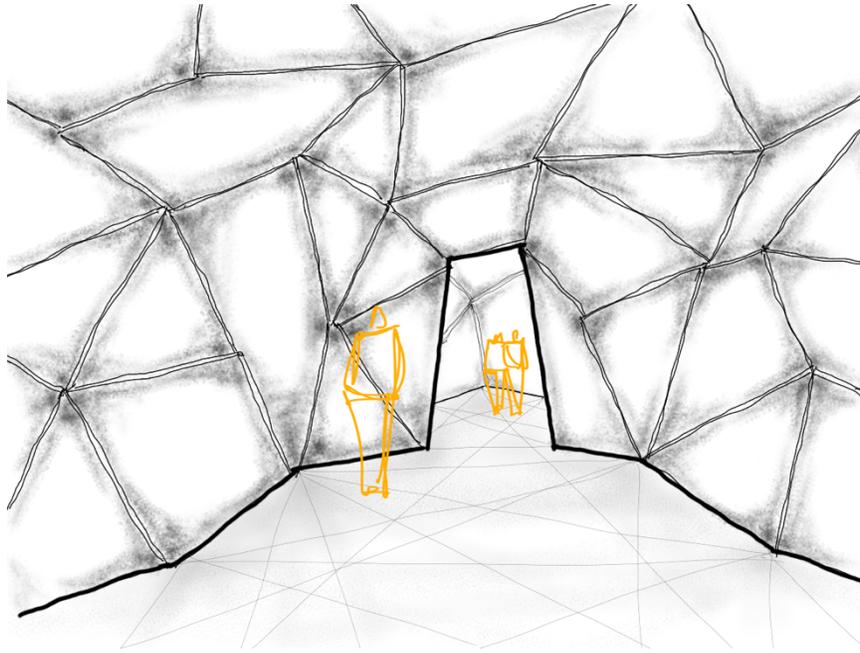


Fig. 29. Conceptual playful space that invites visitors to explore and discover

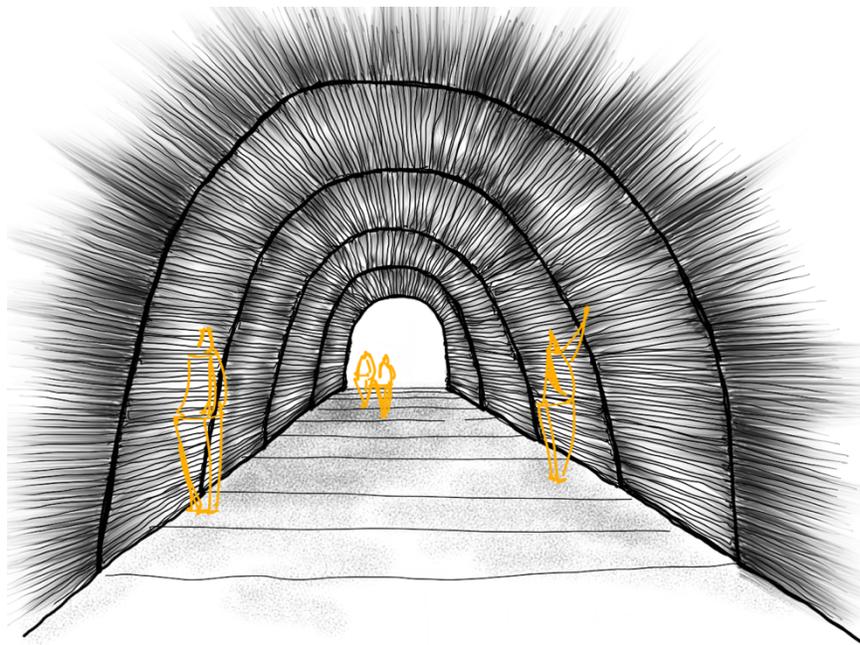


Fig. 30. Conceptual semi-outdoors space that could be used as a passage

This project is not intended to be an amusement park, but playfulness and excitement are desirable qualities, nor it will be a cultural center, but social engagement and community are key factors that I hope to improve with it.

For this reason, I wrote a list of five states that could consequently lead to the desired mood. The five states are namely, express, focus, connect, discover and reflect. For each state a certain type atmosphere would be applied to motivate people to engage in one way or another. Thus, two sequences of five curated spaces, each dedicated to a procession of moods, starting from the feelings of stress and loneliness and ending in serenity and joy, respectively, were created.

ANXIETY SEQUENCE



Fig. 31. Emotional sequence 1

DEPRESSION SEQUENCE

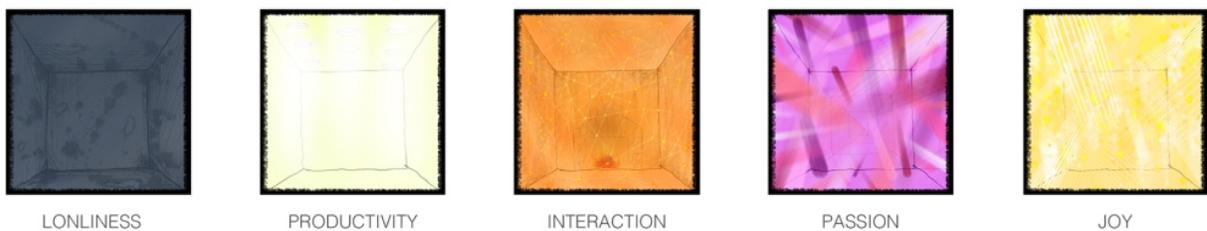


Fig. 32. Emotional sequence 2

How?

My goal was to create a space that can inject positive emotions into the community and my tools were light and color. Here, you can see some of my early explorations using those tools (light and color), creating spaces or “rooms” that could potentially convey certain positive emotions.

In these early explorations, I tried to imagine each of the five stages in each sequence and write down the corresponding environmental qualities and atmospheric features associated with them. Experimenting on color and lighting of a space and the emotional responses associated with them, starting from an empty room, I sketched - somewhat abstract, somewhat realistic- what I imagined each room to look like. My endeavor was to convey the desired psychology mainly through manipulations of lighting and color. The following diagrams are first sketches in this direction. Further experiments are required to explore other affective aspects.

This experiment showed me that a lot more than just colorful lighting is involved in shaping a pleasant experience, such as memories associated with those colors and personal preference.

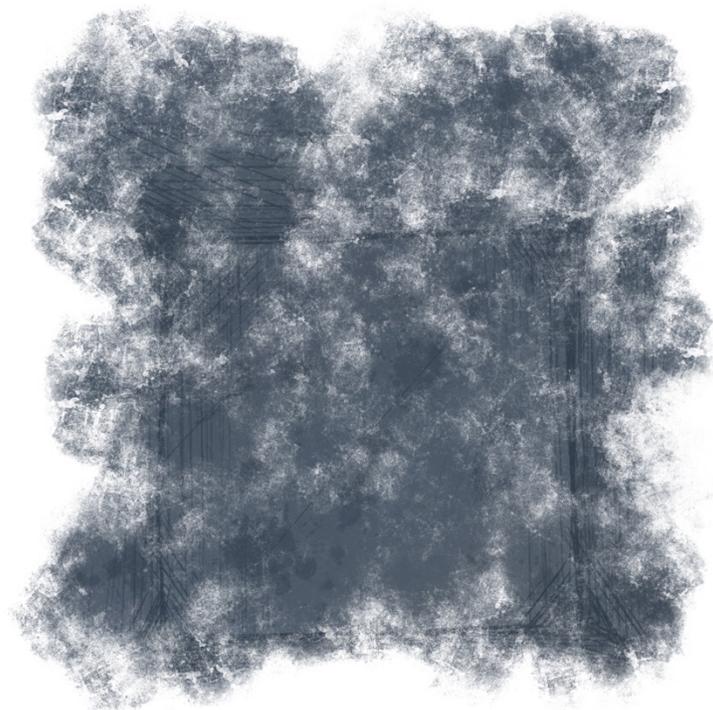
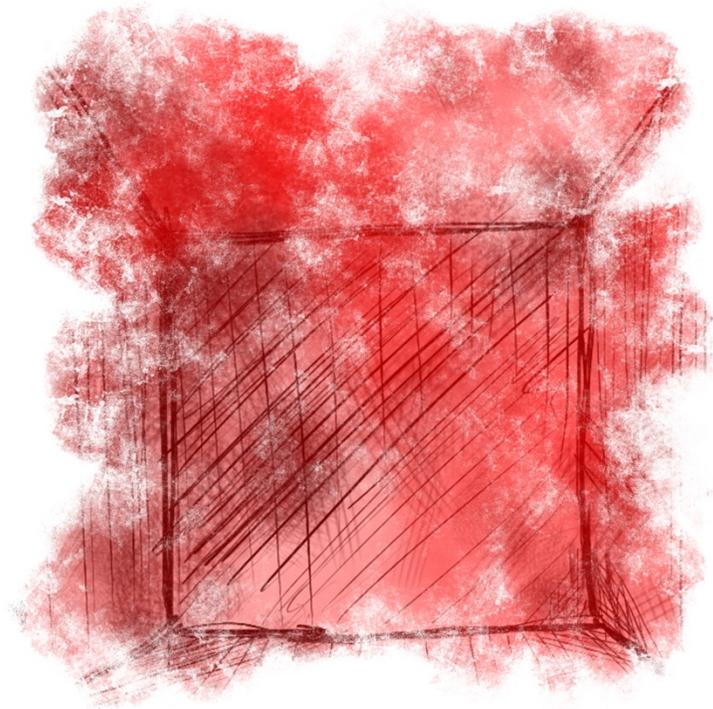


Fig. 33. Express - Stress (Upper), Loneliness (Lower)



Fig. 34. Focus - Hope (Upper), Productivity (Lower)

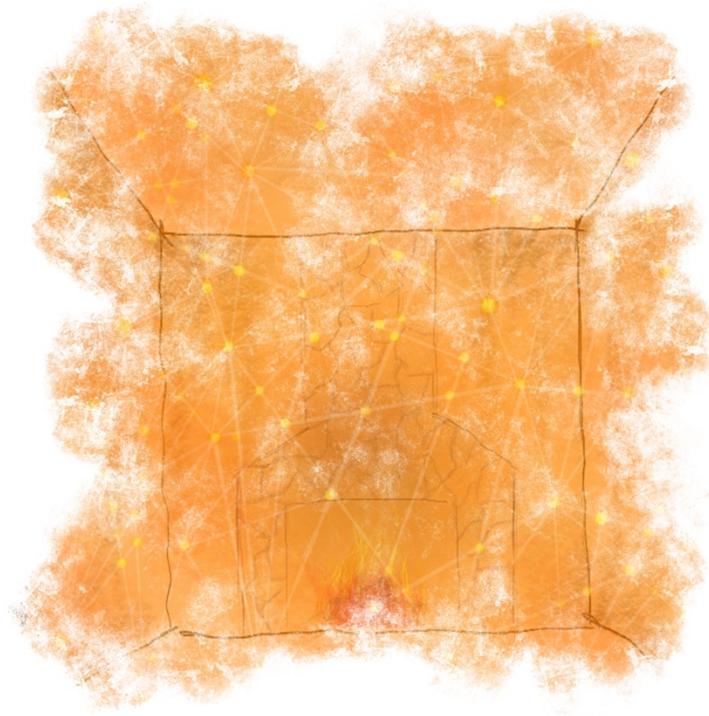
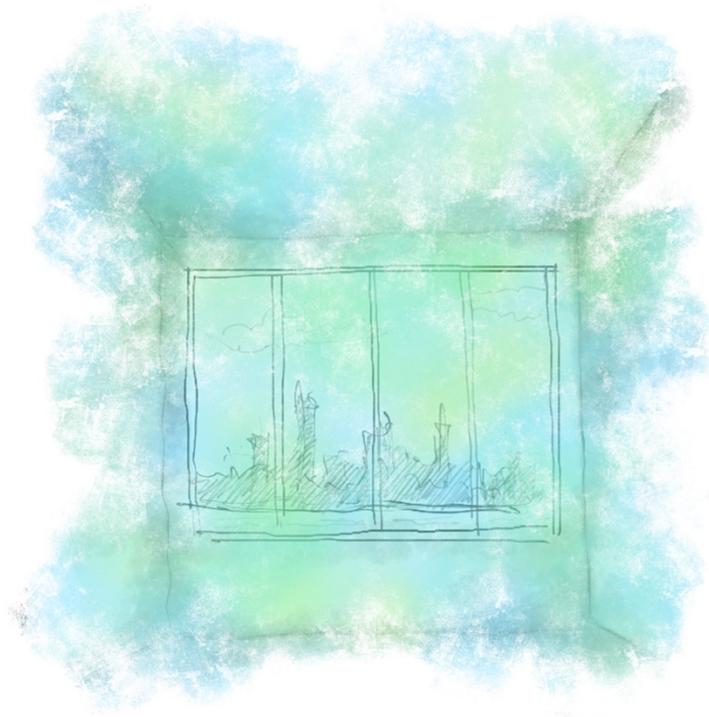


Fig. 35. Connect - Mindfulness (Upper), Interaction (Lower)

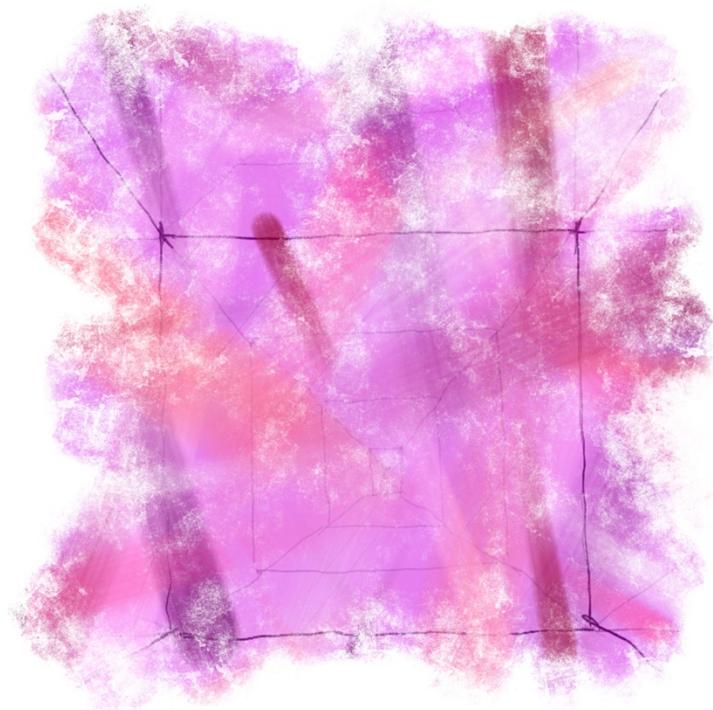
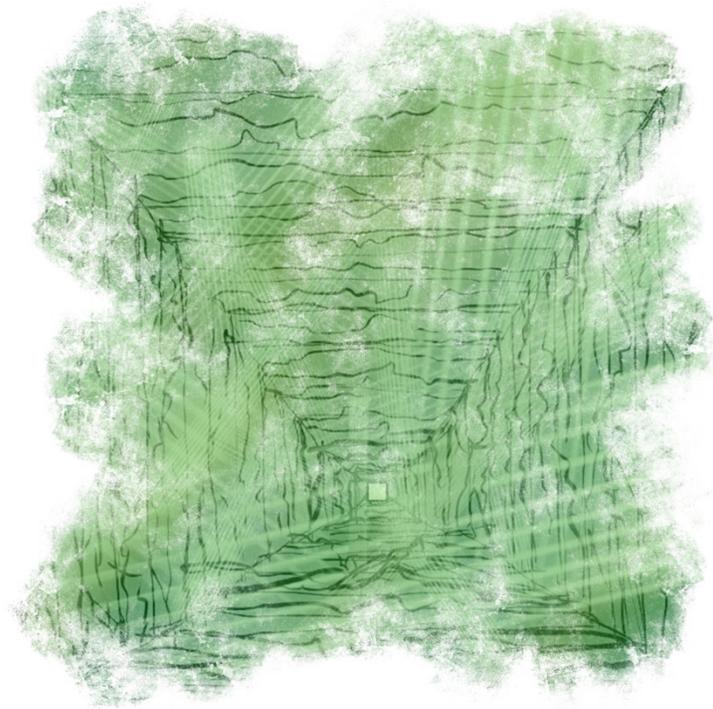


Fig. 36. Discover - Adventure (Upper), Passion (Lower)

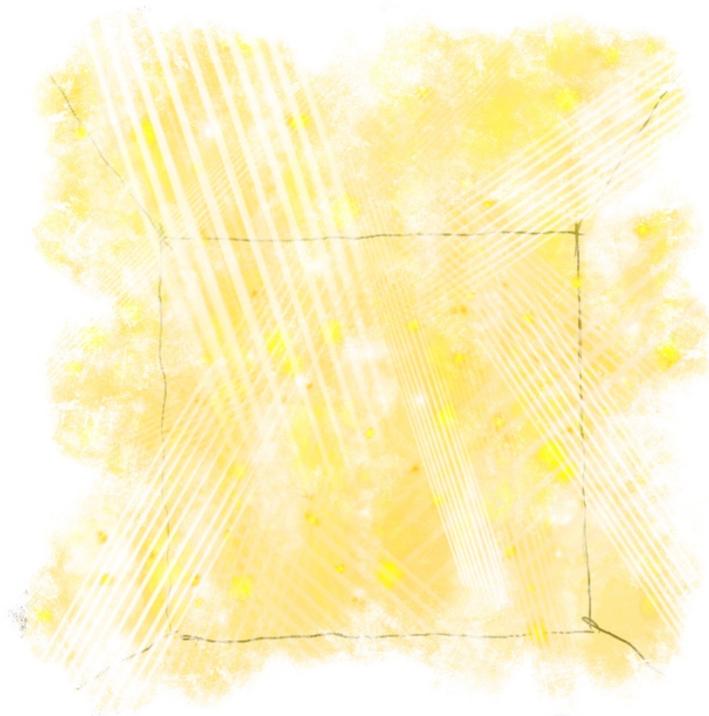
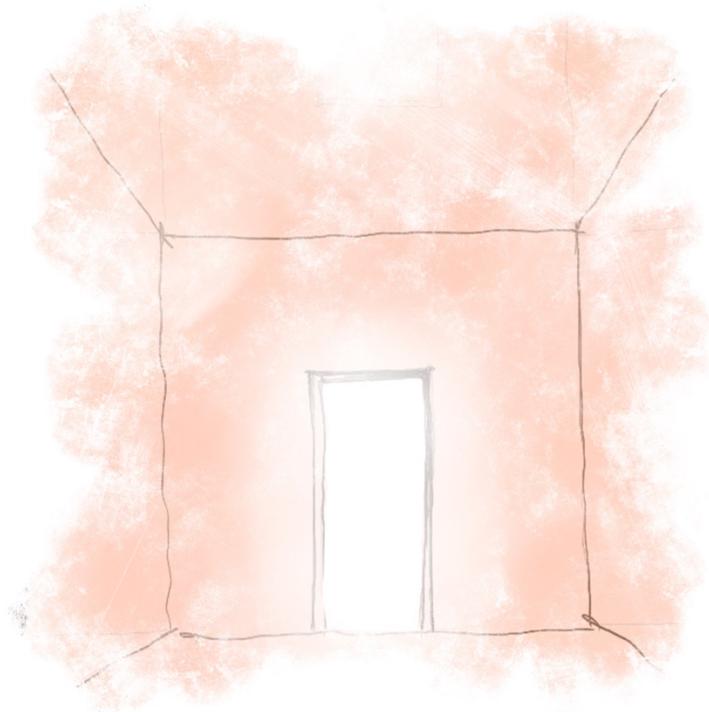


Fig. 37. Reflect - Serenity (Upper), Joy (Lower)

Chapter V | What Have We Learned So Far?

Architecture is -and will always be- evolving and searching for better answers to adapt to its socio-politico-economic context. However, this is not where architecture should stop. While we need to survive a pandemic and go back to normal conditions, we also need to thrive and surpass the normal to reach newer heights and achieve greatness. Architecture has the ability to help us get there by creating the right atmosphere for it. To address a diverse set of needs, the project shall be understood in the form of a multipurpose space distributed in a series of interconnected rooms designed to find respite or excitement in the chaos that is life.

Since COVID-19 started in late 2019, we have seen many pop-up plazas and patios emerge around the world. Governments' have closed off streets to set up temporary occupiable spaces (pop-up plazas) or pedestrian streets. However, temporary spaces are built with less care for their durability and survival and less concern for their aesthetics. Furthermore, in wintertime these solutions are less suitable unless upgraded and equipped with winter considerations. Therefore, a combination of semi-exterior-semi-interior interventions providing quality experiences for the public could be beneficial.

I am interested in creating a framework for such a calming atmosphere. Installations and pavilions as well as performance areas and hangout spots can be enticing and can contribute to the liveliness and usefulness of a less used or abject public domain. Therefore, a well-designed, dynamic and systematic framework that provides the

opportunity to circulate in a composition of interactive installations and performance platforms can be the answer to the current problem.

It is worth mentioning that while the psychological aspect of the situation is under focus, movement and physical activeness has a lot of importance as well, especially after the direct and inevitable effects of COVID-19 on immobility and laziness of people due to quarantines and lock downs, closure of public spaces or working from home.

Part 2: Design Project (GP II)

Chapter VI | Design Process

The concept of the project has two contrasting sides: the challenge and the respite. Each room would be a respite point and the journey to each respite point would be the playful challenge.

Respite

Moving forwards from the early sketches of atmospheric qualities of space, having in mind the dimensions of the site, and adding color and light to the sketches, I started to imagine a structure that would grow in height and distributed these rooms, and calling them respite points, vertically through the site. I then connected them with a core that would provide the means of circulation.

In addition to having a porous structure that allowed the site to be read as more open, transparent and accessible, imagining each space as an individual box in the space where both the interior and the exterior could be programmed, inside of each box would be used by the visitors while the exterior (i. e. the rooftops) could potentially bring an inviting scene of performance for the passersby as well as the people living in the condos.

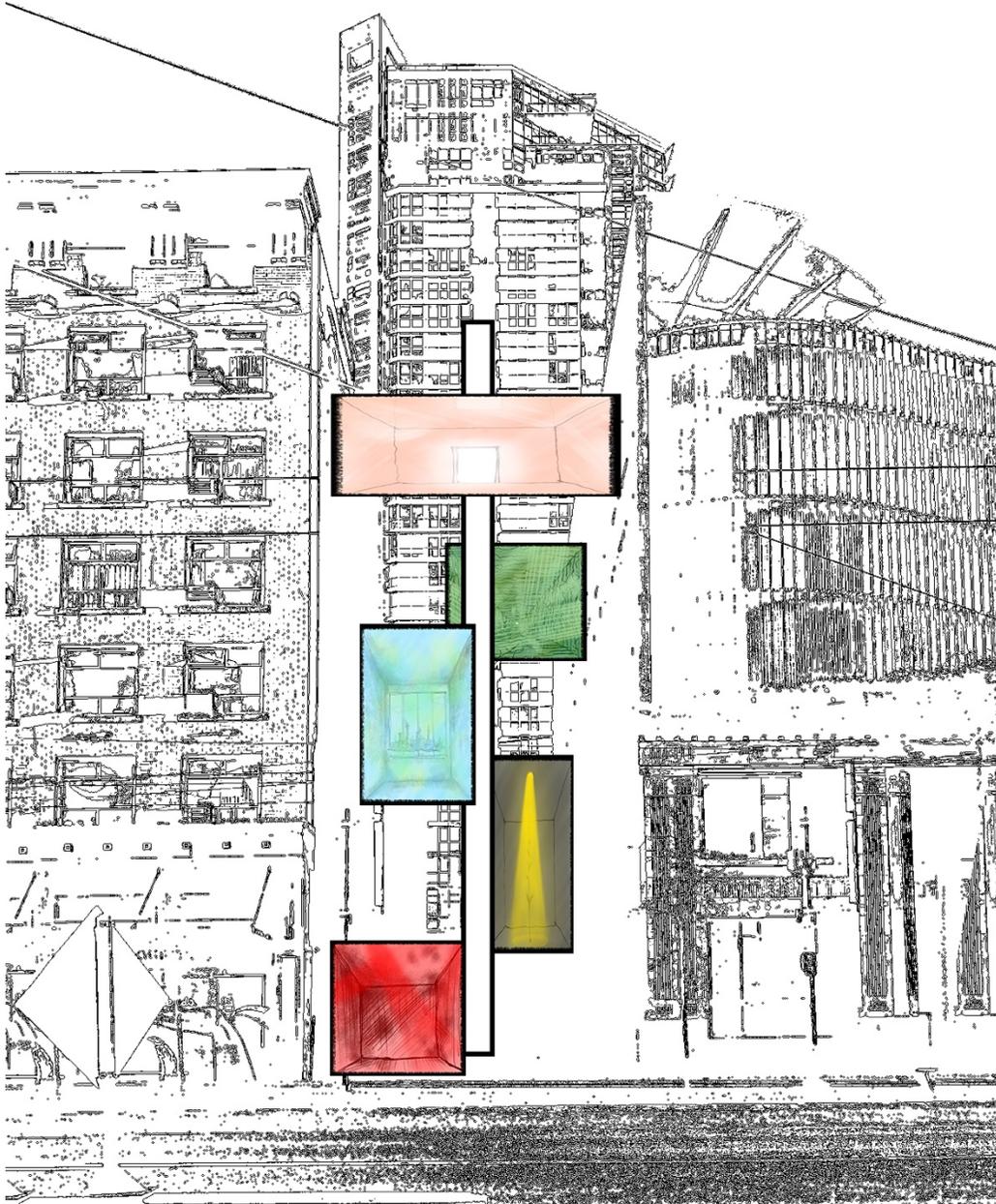


Fig. 38. Initial Esquisse

Challenge

As for the challenge, after lots of explorations, I decided that a physical challenge would be most relevant to my project as it promotes healthy activeness, especially with the stationary state COVID-19 has introduced into our everyday life. So, as mentioned before, movement is at the core of the project.

Here I was inspired by Monument Valley, the mobile game. In this game you have control on two levels: you can control the main character (Ida) as well as the architecture to guide her through the 3D puzzle on each level.

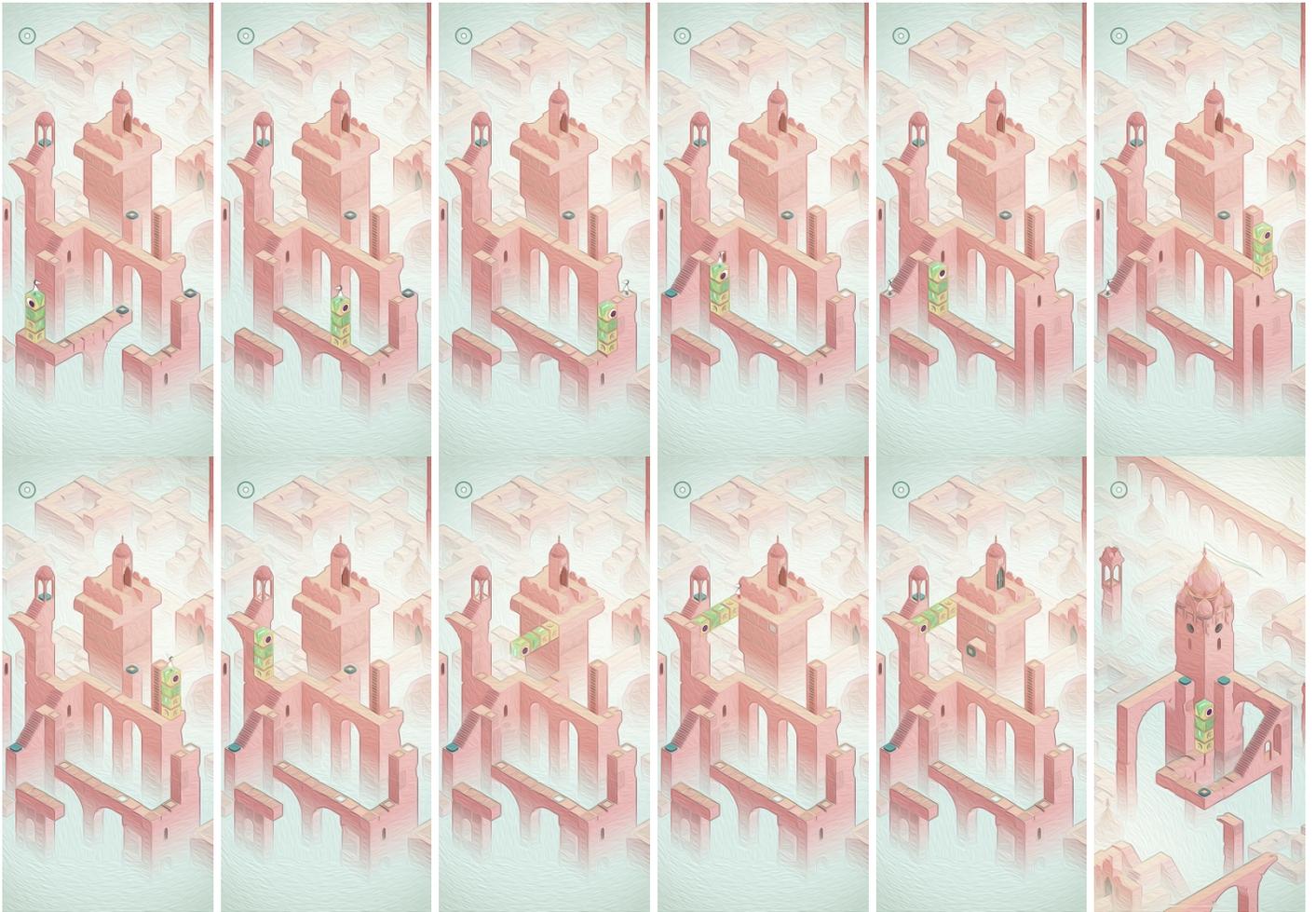


Fig. 39. Screenshots of Monument Valley 1, the game created by ustwo games ltd.

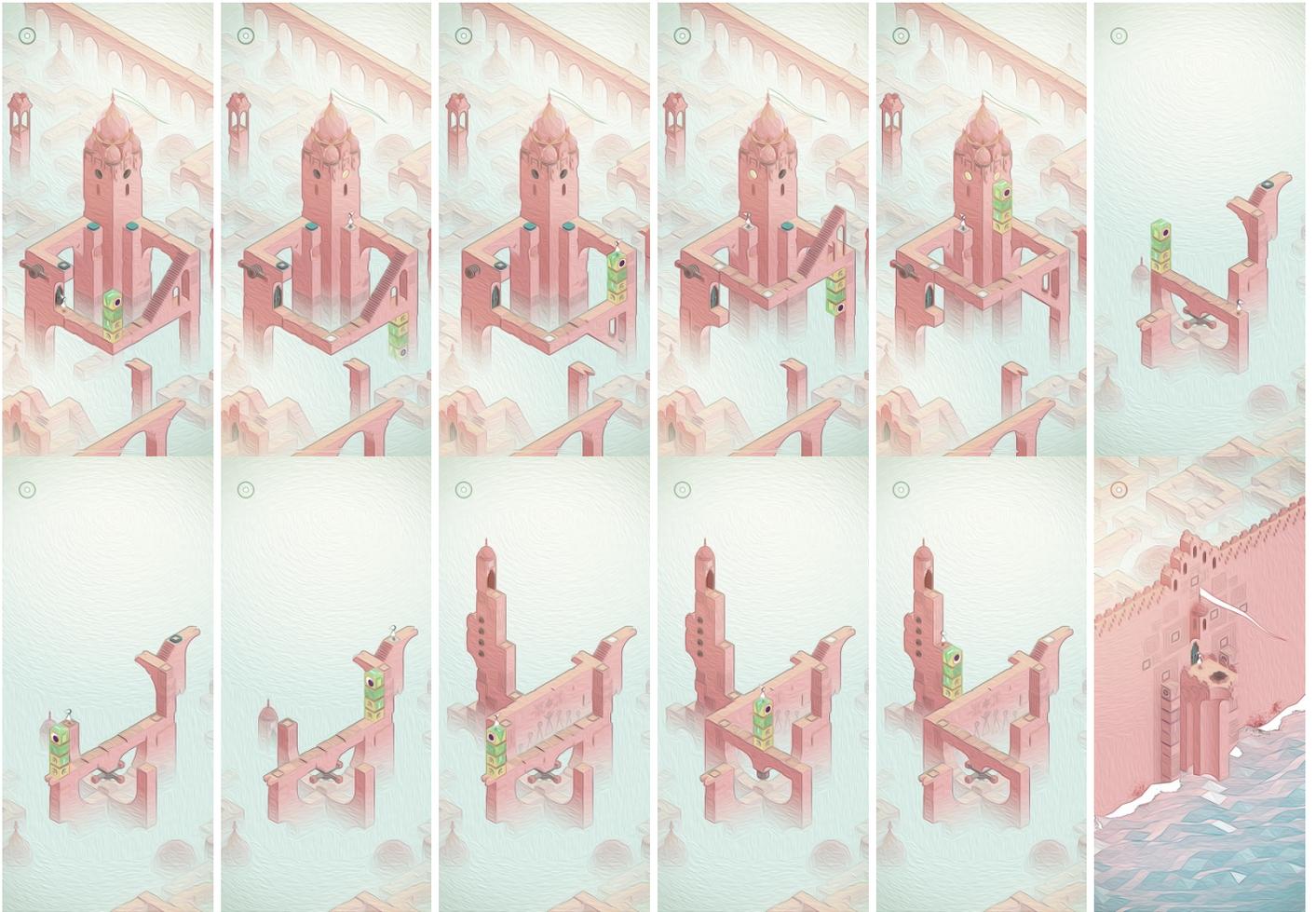


Fig. 40. Screenshots of Monument Valley 1, the game created by ustwo games ltd.

Having Monument Valley as a precedent, what I tried next was to create a 3D maze-like modular construction that started to address the entirety of the site.

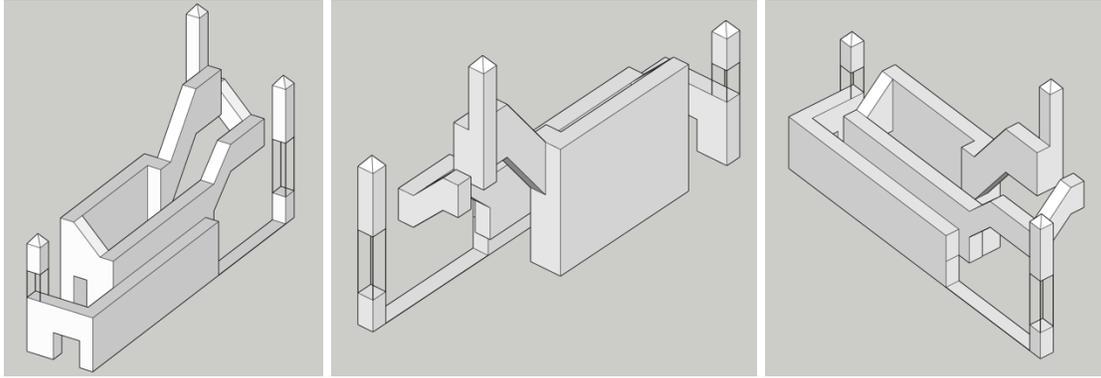


Fig. 41. Basic geometry based on Monument Valley

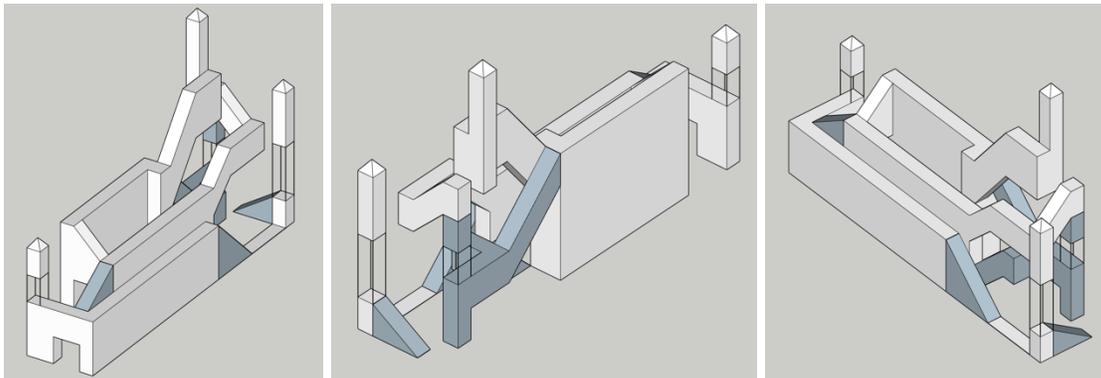


Fig. 42. Add-on circulation pieces

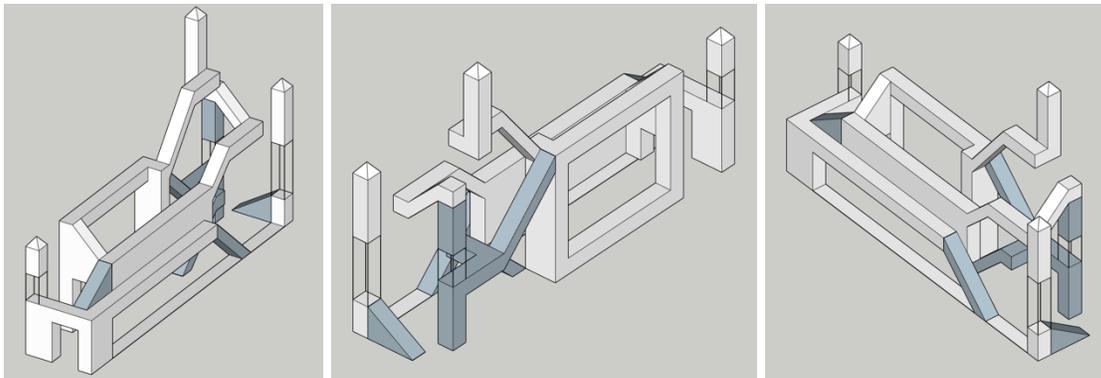


Fig. 43. Modified porous geometry based on site conditions

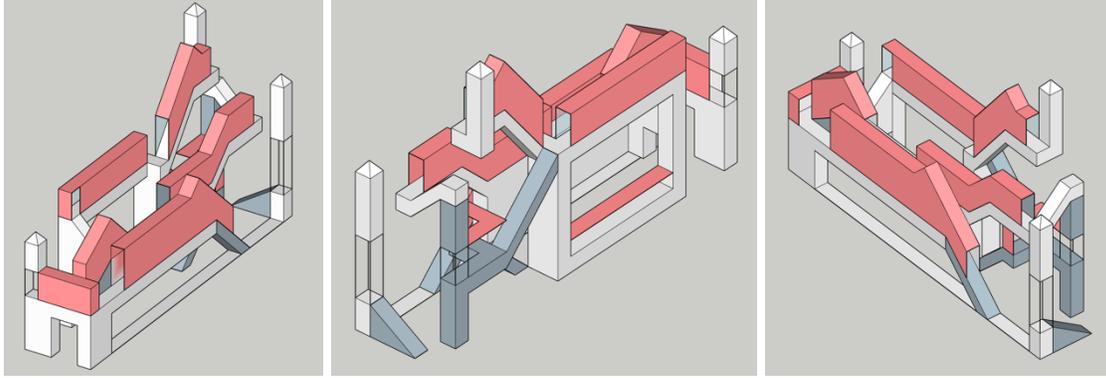


Fig. 44. Differentiating between open spaces and controlled spaces

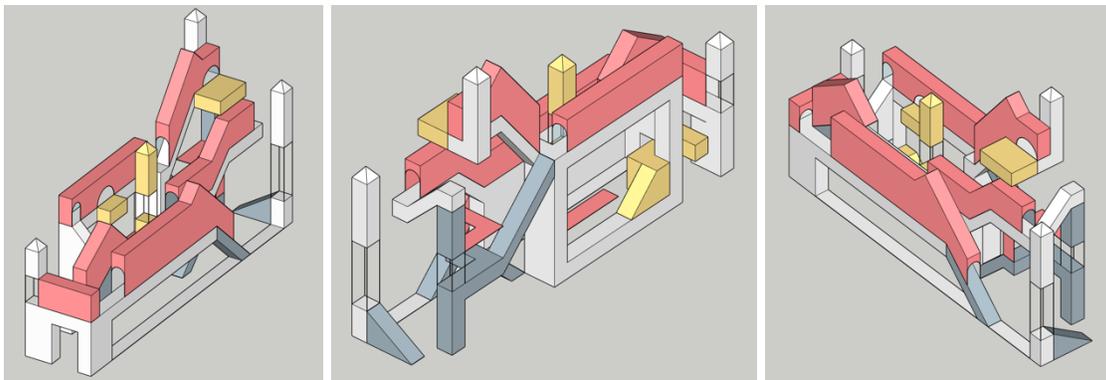


Fig. 45. Adding rest spots

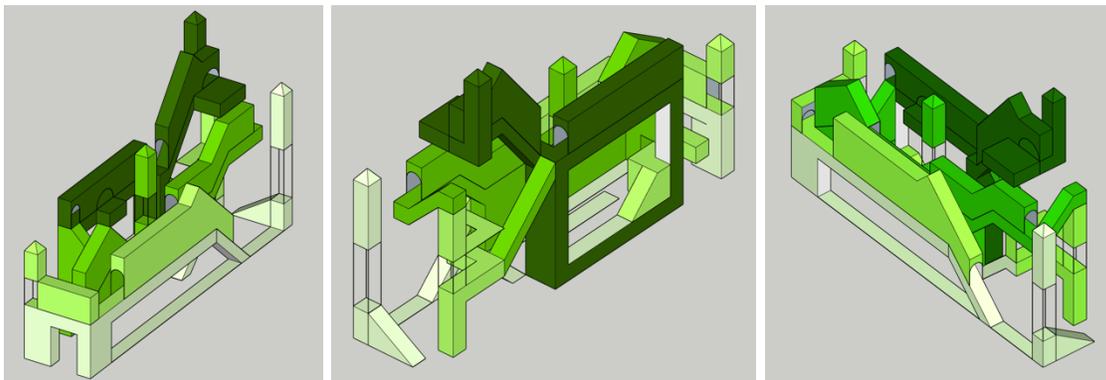


Fig. 46. Adding color for guidance

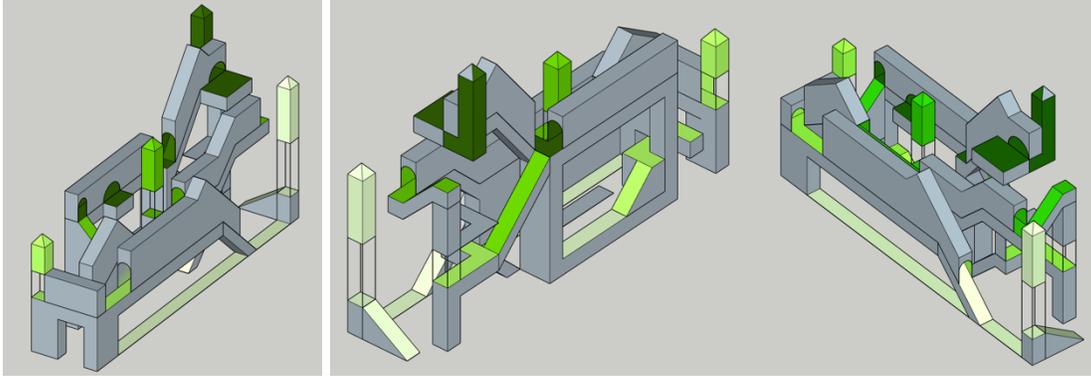


Fig. 47. Final maze iteration

The game made me realize the importance of circulation and from this point on circulation started to be the main focus of the project. These iterations were an attempt to challenge visitors to create their own way to their destination points using corridors, ramps and stairs.

What I learned from this, considering the dimensions of the lot, was that the site gets crowded with the circulation quite easily so a more systematic and vertical movement pattern would be beneficial.

Chapter VII | Final Design

Site Plan

symmetrical building is set in the middle of the lot. In contrast to the buildings beside it, the entrance of the building is pushed back from the sidewalk. The structure is accessible from both the front street and the back lane.



Fig. 48. Site Plan

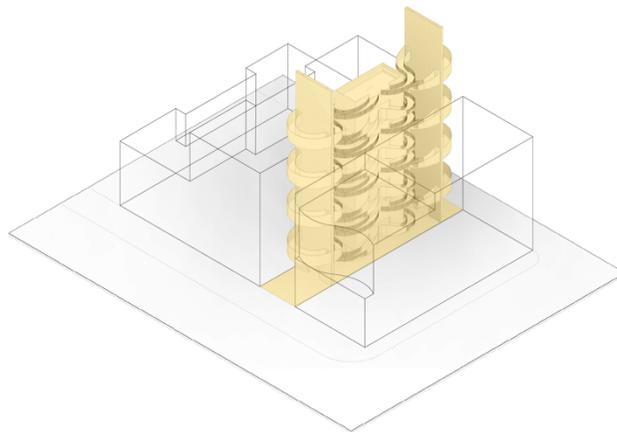


Fig. 49. Axonometric view of the building

Building Organization

The building is made up of:

1. Four identical boxes in the center; each box is programmed as a gallery space and the rooftop of each one is programmed as a plaza or rest stop. The gallery spaces are open to artists from all around the world to display their art installations.
2. Two sets of ramps in the form of infinity loops moving all the way up connecting the boxes. The ramps exit the facade and enter back in on each level. The ramps are designed in a way that visitors have a choice of which path to take but at the end it will take them through all the spaces. The sequence repeats itself four times throughout the entire building.
3. The front and back facade which are made up of two layers of translucent glass blocks held up by a steel structure and lighting in between. This material selection serves two missions: first, it creates a semi-transparent front making the building more inviting and accessible and second, as a medium for the playful lighting of the complex.

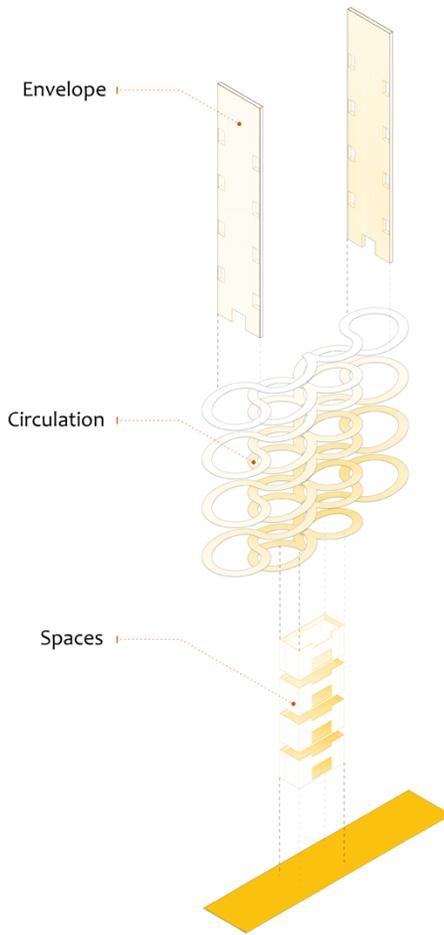


Fig. 50. Building components

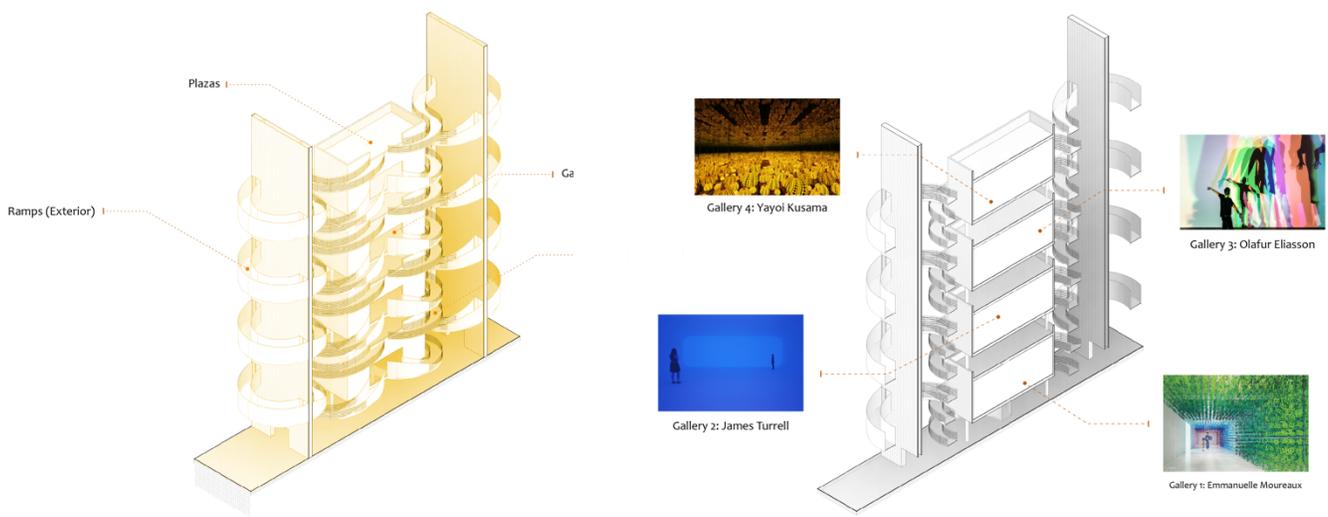


Fig. 51. Building organization and gallery spaces

Drawings

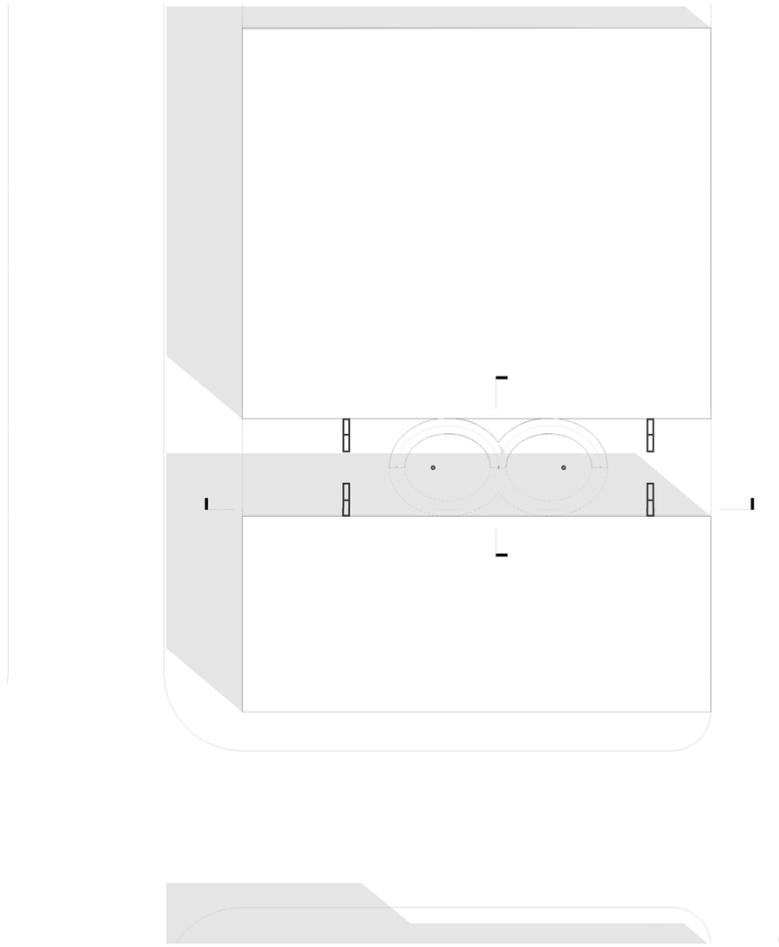


Fig. 52. Ground floor plan

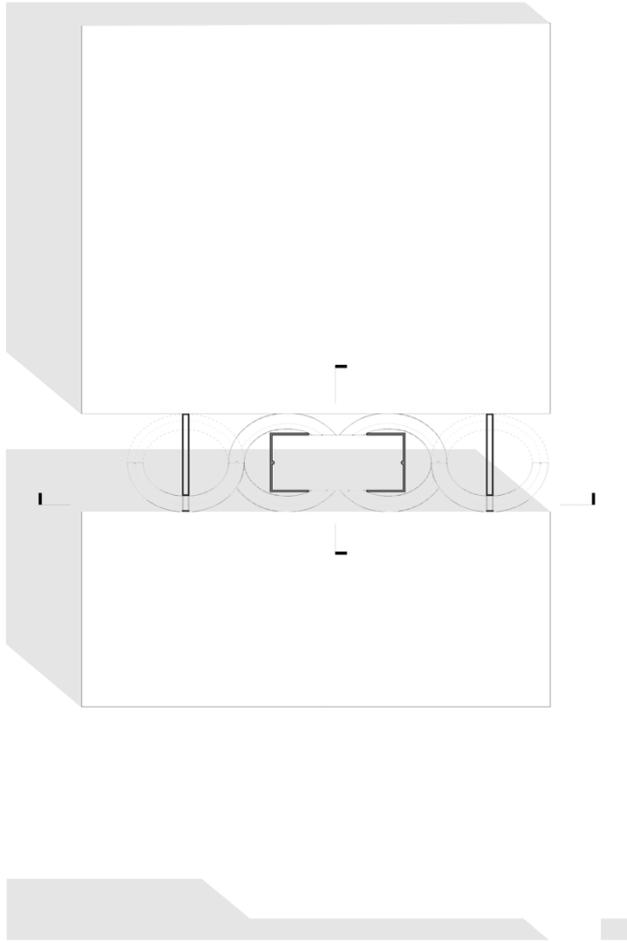


Fig. 53. Gallery level plan

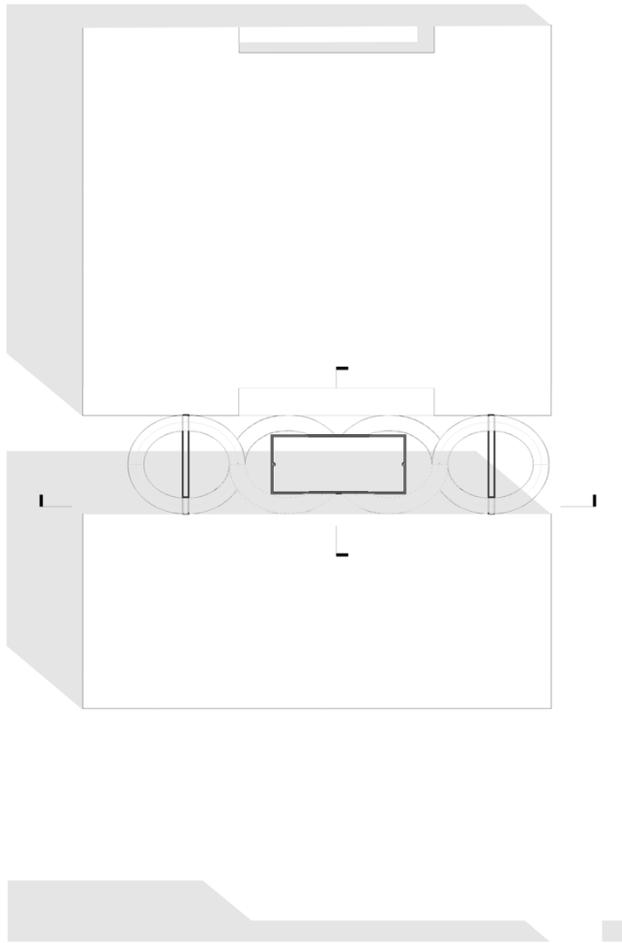


Fig. 54. Gallery level plan (higher cut)

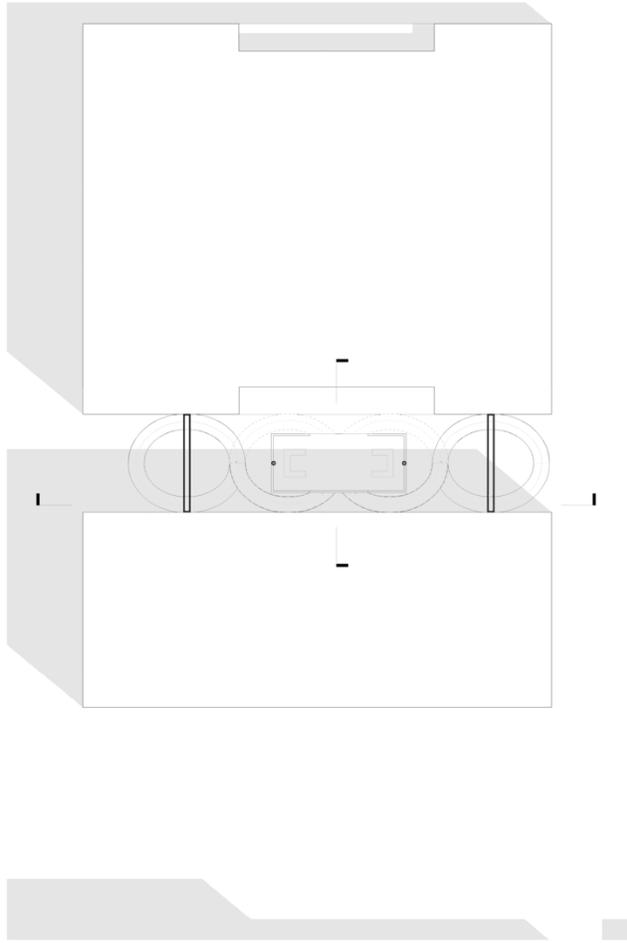


Fig. 55. Plaza level plan

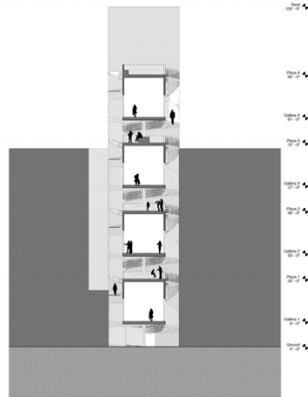


Fig. 56. Short Section: In this section you can see the gallery spaces and plazas more clearly. The galleries are designed as neutral as possible to let the installations speak louder. The plazas are designed for people to take breaks in between each exhibition and at the same time are meant to create a casual platform for street musicians and performers to perform.

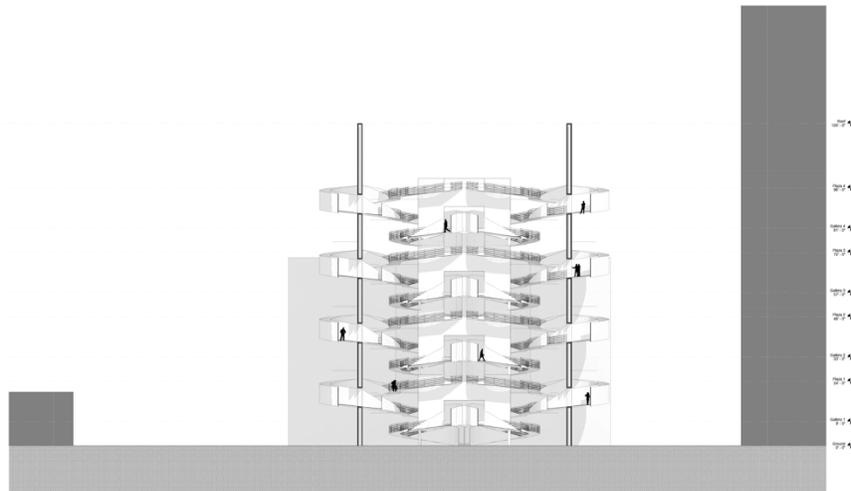


Fig. 57. Long Section: Here you can see the ramps as they circle the boxes and the facades. It is worth mentioning that the ramps change material from solid to porous when they go outside the envelope and the guardrails on the ramps change form and height during a cycle, starting from high solid metal sheets giving the sense of entering a tunnel changing into normal height handrails and back to high guards on the outer sides of the facade. This blocks the view to the sides while opens the views to above and below.



Fig. 58. Front Elevation (Granville Street): Shows the high guard rails and the facade and you can see that the building is quite taller than the ones beside it

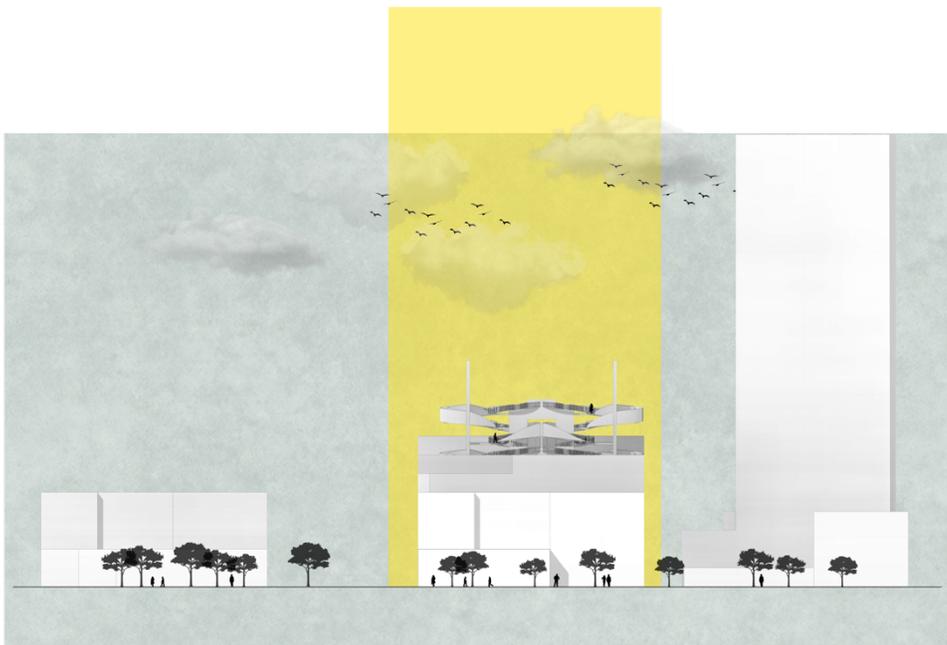


Fig. 59. Side Elevation (Davie Street): transparency of the building and how it invites people on the street to check it out

A Day Up on the Ramps

Ana works downtown. Every day after work she walks down Granville to go back home and yesterday, she noticed this new building where it used to be an empty lot.

“It looks kind of strange from a distance,” she thought to herself. “Why doesn’t it have a roof?” The only thing she could see from a distance was two tall glass walls that caught the eyes. She wondered what this building could be.



Fig. 60. View from a distance

“Why not have a closer look?” she thought, smiling, when she was now already close.

Curious about the building, Ana decided to see if she could go in. “Is it a public space even?”, but she didn’t have to think more as she saw families walking through a few meters above her level in the building. What is happening behind this huge glass facade?” She kept guessing as she crossed the street and walked up to the front. There she could see a big opening in front of her and she could see inside. Looked like people were roaming around freely.



Fig. 61. Front view from the sidewalk

So, she walked in. She looked up and all she could see were ramps! going around in every direction... “It looks like one of those amusement park structures that you got to find your way out...” she thought. She looked around to find where this journey starts. There was a tunnel right in the middle. Right at the start she had to choose between two paths. “Do I go left or do I go right?” She decided to go left as she could see where it would end up...



Fig. 62. Ramp Start

Walking on the path she got to the first indoor space that looked like a big box in the middle of all these ramps hanging in mid-air. There was something going on inside. Like an art show or an exhibition maybe. As she got nearer it started to look more like a mirror room of some kind...



Fig. 63. A gallery space

Coming out of that first room, Ana looked around. She could see there were more boxes like the one she just visited. She was now excited to see what was going on in those other ones. Then she noticed something new. The walkways went through the glass facade at points and people disappeared behind it. she continued to see what's happening on the outer side of the glass wall... The guardrails were getting higher as she was reaching the glass facade. Once she stepped out, the guards were taller than her so she couldn't see around but the floor was made of a porous metal sheet so she could look up and down. "It's kind of exciting." she thought. It felt like being in a tiny room up in the air. It kind of reminded her of being in a treehouse from when she was little. Except that this didn't have a roof!



Fig. 64. A plaza space

Lost in those pleasant memories, she suddenly realized she's back on the inner side of the wall. she could hear music coming from above. She was now on top of one of the boxes and some guy was playing music in the little plaza there. A few people were gathered around him to listen...

She thought she could sit down for a minute as well, so she found a spot on a bench somewhere to take a break from all the walking and enjoy the music while the sun was starting to set down... Sitting there and looking around she realized that everything in the building seems symmetrical and even though the ramps go different ways they seem to end up at the same spot. So this time she decided she would try going right instead. she wondered what she would find if she ended up on the other side of the back wall.



Fig. 65. Ramps and façade exit

By the time she visited all the galleries and checked out all the little performances on the plazas it was already sunset and the facade was starting to turn on with changing colors, casting light on the ramps. She walked onto the rooftop. It was a beautiful sunset and people were hanging around the rooftop plaza. She walked up to the edge staring out at downtown towers trying to spot a familiar building or two...



Fig. 66. Rooftop and the city

Then she decided to take a moment and relax on this lovely spring night. She sat down in the corner, rested her head and looked up. All she could see was the pink and orange sky getting darker. As it got darker the sky changed colors every time the lights changed. “I should check it out with my boyfriend next time,” she thought to herself as she started to text him!

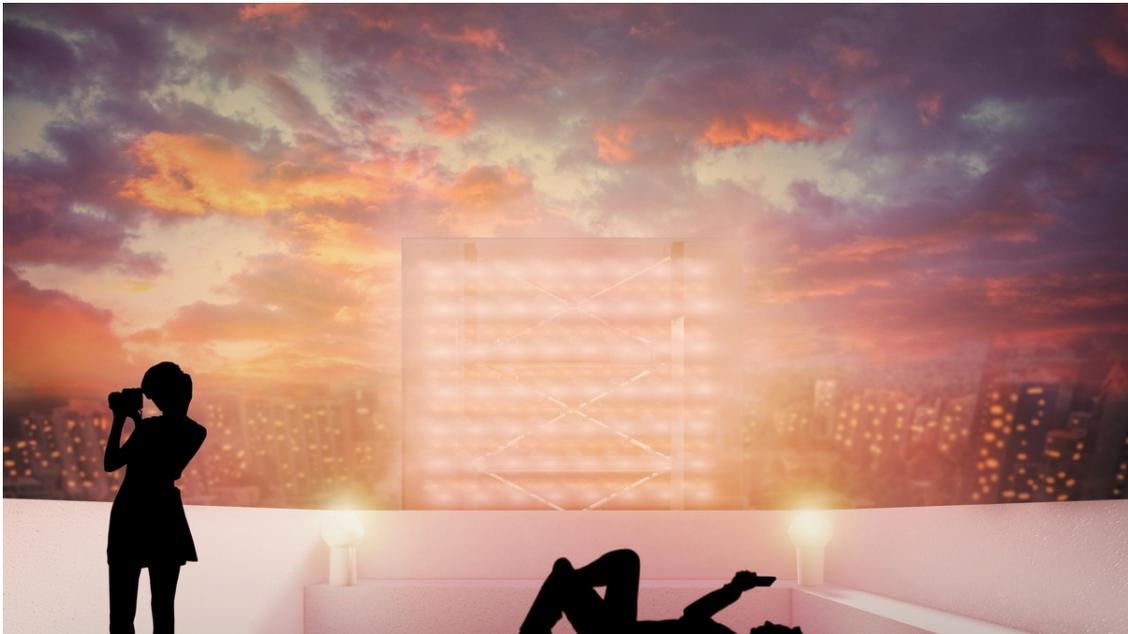


Fig. 67. View of the sunset

It was already dark when she decided to leave. The city was starting to light up. As she got up, Ana looked at the tall condo behind the building and wondered what it'd be like if she was looking down on the building from one of these apartments, perhaps a colorful glowing beacon...



Fig. 68. View from the condos at night

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