Ephemeral Auras: Mood Regulation through Mediated Waiting Transition

Thesis Brief by Andrew Scheetz

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i. The Thesis

Light has the potential to have a variety of effects on the spaces that it penetrates, whether it is natural or artificial. As one enters the space that the light is in, what effects do the light have on that individual? How is the individual drawn towards a certain space that grants them their own control in their own procession through an environment?

In this particular case, I am focusing on "auras" of light — auras meaning glowing objects or a field of light surrounding a given object. One particular area that I am connecting these studies to are the traits of differentiating anxieties that are present within people prior to getting onto their flights at airports. While being at the airport is stressful enough, the waiting period prior to boarding a flight can be naturally anxiety-inducing on varying levels per individual.

The goal of my thesis is to generate a lighting experience within the airport that individuals may go through to alleviate their own personal anxieties.

I will be venturing into the realm of auras of lighting in all aspects, such as form, color, and intensity; furthermore, these features will then be correlated with how each of the personas may circulate and process through the experience in accordance with their own anxiety traits.

Thesis Activation Phrase: Layered Translucency

ii. Literature Review

Introduction

I am intrigued by light, mood, and procession. Specifically, how the utilization of natural and artificial light can influence how an individual moves through space to transform their spatial journey. I want to define certain areas of light that individuals will be attracted to and then travel to. These attractions to light, or colored auras, will work in assisting the procession of these individuals through space.

An aura is a distinct atmosphere or quality that surrounds an object or is generated by a person, place, or thing. A broad spectrum of auras have been theorized and experimented with in the past, but have not had conclusive results based on scientific fact. The approach of auras in this thesis is quasi-science mixed with psychology-based research. To approach

aura differently, I will be creating a spatial journey using individuals' reactions to color based on mood. The attraction to these specific-colored auras becomes a defining moment for the visitor: a reflection of themselves based on their current mood. Is it possible to predetermine how an individual will move through a space, based on how they process through multiple paths?

Light and Shadow

The power of light is amplified through the use of shadow in Jun'ichiro Tanizaki's In Praise of Shadows. He articulates the importance of light and shadow as it pertains to a small alcove. "The beauty of a Japanese room depends on a variation of shadows, heavy shadows against light shadows – it has nothing else. Out beyond the sitting room, which the rays of the sun can at best but barely reach, we extend the eaves or build on a veranda, putting the sunlight at still greater a remove. The light from the garden steals in, but dimly through paper-paneled doors, and it is precisely this indirect light that makes for us the charm of a room." 1

Robert Irwin's installation, Dawn to Dusk in Marfa, Texas also encompasses the importance of the power of light. Craig Adcock, in his book, The Early Light and Space Environments of Robert Erwin, gives insight into this. "Irwin's light and space environments are conditioned by their basic attachments to their surroundings. They reveal the commonplace, but largely overlooked, richness of visual perception. By encouraging his viewers to open their eyes, Irwin wants them to engage in an act

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1 Mark Taylor, Julieanna Preston, and Jun'ichiro Tanizaki, "In Praise of Shadows," in *Intimus Interior Design Theory Reader* (Chichester: John Wiley & Sons, Ltd, 2011), pp. 335-338, 335.

of looking, one that manipulates the basic syntax of seeing." [2]

Figure 1. Robert Irwin's Installation titled Dawn to Dusk

A good example of this is Figure 1. "Warm and cool light splay out over every surface according to the time of year, month, and day, as well as the moment-to-moment weather, creating lit forms on both sides of the long scrim walls... Noting the nearness and likeness of each rectilinear shaped area of light creates a relationship, a connection, a pairing. The now-paired-together planes delineate and define the space between them, boxing it up into a block that is denser, filled, occupied, and resistant than what you find elsewhere." [3] Olafur Eliasson, an artist whose medium is light, explained that each one of us is crucial to the completion of the story of light that unfolds. "If each participant experiences a slightly different affect, it is through the negotiation of their perceptual disagreement that they manage to form a community of sorts." [4]

The Generation of Auras

The term "aura" for the purposes of this literature review, was first seeded in 1939 by Russian scientist Semyon Kirlian. "He accidentally discovered that an object placed on a photographic plate connected to a source of voltage produced an image of that object surrounded by what he thought, was a mysterious colored energy, or aura, that was not visible to the naked eye. This became known as Kirlian photography. In a more expansive process, Carlo Van de Roer, a photography artist from New Zealand, utilized what was known as the AuraCam. Van de Roer initially photographed people he knew well, whose auras which surrounded them, he thought he could predict." [5]

In an excerpt from Helene Frichot's interview with Eliasson in "Olafur Eliasson and the Circulation of Affects and Percepts", he expands his thoughts on auras, or in this case, glowing bodies of light. "A studio assistant arranged for a projection to be cast on to the wall, which displayed a circling ring of blue dots. By increments, it appeared that the blue dots transformed into orange smudges. Our optical apparatus This orange afterglow, is a mere perceptual illusion created by the passage of blue... Eliasson believed that when we learn to see ourselves in a different light, it becomes a self-reflective experience." [6]

Architect Steven Holl in his D.E. Shaw and Company Offices design, expands on the power of light. Holl explains that "...the walls are cool, plaster-coated white,

[2] Craig Adcock, 2010, 15.

[3] Adrian Kohn, 2019, 236-237.

[4, 6] Julieanna Preston and Helene Frichot, "Olafur Eliasson and the Circulation of Affects and Percepts," in *Interior Atmospheres* (Chichester: Wiley, 2008), pp. 32-35, 32-35.

[5] Pete Brook, "Aura Portraits Make Good Art, Bad Science," Wired (Conde Nast, February 25, 2011), https://www.wired.com/2011/02/aura-portraits/.

perforated by rectilinear openings. Natural and artificial light enter the space from concealed windows and fixtures, after being reflected from surfaces painted in brilliant colors. The painted surfaces themselves are invisible to an occupant of the space, so the diffusive colored light is rendered mystical in its sourcelessness, and the effect is of a cloistral anteroom to the realm of high finance." Furthermore, Holl's design uses light in some of its many manifestations, "...as projected diffused color and as an agent of lucidity, to impart the intangible nature of the client's business, which relies on computer links to telephone lines and satellites." [7] Refer to Figure 2 for an example associated with diffused color manifestations.
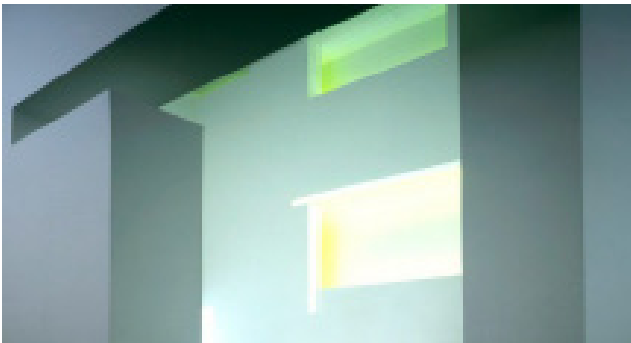

Figure 2. Steven Holl's D.E. Shaw and Company Offices Reception

Mood: How Light Makes One Feel and Act

How light and color are depicted may affect the mood of an individual thereby influencing how they feel and act. When referring to Sso-Rha Kang's The Mood of Nothing: Depictions of Extraordinary Banality, she discusses that "...works are united in their resounding moods – the essence of nothing

characterized by emptiness, plainness, banality, and absence. These seemingly unextraordinary characteristics are paradoxically capable of extraordinary beauty. It is the inherent plainness of the works that creates an erasure of imposed meanings, allowing works to be universally open to interpretation yet predicated on a singular aesthetic experience, which is very invested in the act of looking." [8]

In Eliasson's words, he argues that affects, the movements between emotional registers, must be understood not as mere emotions; I feel happy, I feel sad. Instead, affects are the transformative shifts in register that allow the subject to recognize his or her subjectivity in transformation or, as he puts it, "We learn to see ourselves in a different light." [9] Refer to Figure 3 for an example of Eliasson's work in action.
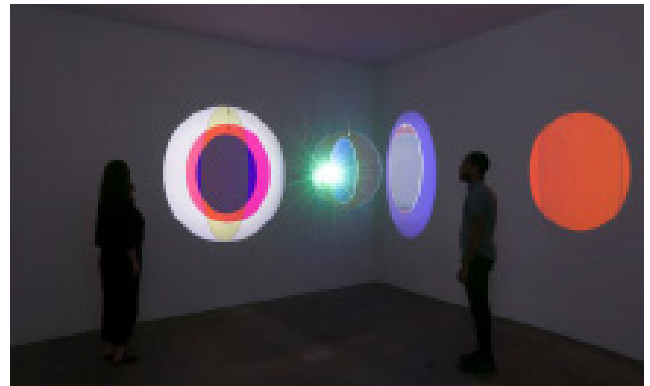

Figure 3. Olafur Eliasson's Installation titled Art and Cake

Going further into auras (color and its connection with light and mood), according to Lois Wexner, author of The Degree to Which Colors (Hues) are Associated with Mood-Tones, it can be determined that some colors were more often chosen to go with

[7] Terence Riley and Steven Holl, "D.E. Shaw and Company Offices," in *Light Construction* (New York: Museum of Modern Art, 1995), pp. 68-71, 68.

[8] Sso-Rha Kang, 2016, 2.

[9] Julieanna Preston and Helene Frichot, "Olafur Eliasson and the Circulation of Affects and Percepts," in *Interior Atmospheres* (Chichester: Wiley, 2008), pp. 32-35, 32-35.

certain groups of words describing mood. "In a conducted experiment of 94 students in a general Psychology course, twelve words were chosen: exciting, secure, distressed, tender, protective, despondent, calm, dignified, cheerful, defiant, powerful, and sensuous. Then a list of 164 adjectives was prepared, including moods reported in the literature, such as synonyms of the twelve words, and other words the writer believed might be useful. According to results, reds were often associated with exciting-stimulating, orange with distressed-disturbed-upset, blue with secure-comfortable, purple with dignified-stately, yellow with cheerful-jovial-joyful, and black with powerful-strong-masterful.

Inasmuch as there was general agreement among studies concerning mood and color association, the influence of cultural, biological, and education could also be factors. J.P. Guilford, an American psychologist, states that experimental results point very strongly to a basic communality of color preferences among individuals. This communality probably rests upon biological factors, since it is hard to see how cultural factors could produce by conditioning the continuity and system that undoubtedly exists." 10

The Embodiment of Atmosphere

How light and color make us feel is only part of the equation. "Eliasson suggests that the atmospheric pressure is such that it demands the visitor's engagement beyond that of a mere onlooker; it is an interaction that encourages the mutual transformation of both the visitor and the artwork." 11 Architect and theorist, Juhani Pallasmaa supports this idea. "When a person encounters any work of art, it implies a bodily interaction, how humans interact with said atmospheres. A work of art functions as another person, with whom we converse." 12

Procession

"The Ancient Greeks used a path of approach to the sacred enclosures of their temple sites. This heightened the emotional effect of the experience. The most pertinent studies here seem to be those of Rex Disten Martiensen, a South African architect, who describes the space-defining role of the propylaea, the entrance-portico to the temenos, or sacred enclosure. It prepared, and helped the spectator adjust for what came next." 13 Such a long-sustained approach induces a mounting sense of climax. "It is in the arrangement of Delphi that one sees a parallel to the construction of the Greek Tragedy. Both in architecture and drama the end is in sight, the spectator is familiar with all the elements that make up the particular unity to which they subscribe. The outcome of the plot cannot be influenced, nor can he modify the arrangement in the other, but in each he is subject to a form of compulsion that renders the end more vital and more moving than if the suspense had been built up of elements, which he had no previous knowledge." 14

In Processional Architecture, in an abstract from Philip Thiel, an architect teaching at the University of Washington, he

10 Lois B. Wexner, "The Degree to Which Colors (Hues) Are Associated with Mood-Tones.," *Journal of Applied Psychology* 38, no. 6 (1954): pp. 432-435, https://doi.org/10.1037/h0062181.

11 Julieanna Preston and Helene Frichot, "Olafur Eliasson and the Circulation of Affects and Percepts," in *Interior Atmospheres* (Chichester: Wiley, 2008), pp. 32-35, 32-35.

12 Juhani Pallasmaa and Juhani Pallasmaa, "An Architecture of the Seven Senses," in *The Eyes of the Skin: Architecture and the Senses* (London: Academy Editions, 1996), pp. 46-47, 47.

13-14 Philip Thiel, "Processional Architecture," Processional Architecture on JSTOR, 1964, http://www.jstor.com/stable/43613406, 410-411.

states that movement forms the context of our spatial experience. "The challenge of the art of architecture lies in the structuring of this time-based pattern of experience so that it will be of value and significance to all those who will perceive it in their own time and their own way. In practicing his art, the architect has the possibility of building in this control (for example, by a means such as what are known as standard steppingstones), or of developing an art-form independent of a single ideal sequence. The architect's success depends on understanding the factors involved, on the tools available for use when dealing with these factors, and on the sensitivity to the whole issue of contemporary processional opportunities." 15

       Another example of procession within a controlled space is presented by Sarah Luria in The Architecture of Manners: Henry James, Edith Wharton and The Mount. She states, "...within this home, James and Wharton centered their domestic plan around an innermost room, a space of reflection and writing. The rest of the house served to provide a sequence of increasingly private spaces, which led to this protected sacred chamber. The chain of rooms both encouraged and deferred consumption by guardedly inviting the visitor to keep moving deeper into the house." 16

Future Directions

       I am invested in designing an interior where the user experience must be analyzed over long periods of time. Does an individual gravitate toward the same light (aura) with each visit, or is their experience different each time? If so, why? Does their experience shift based on time of day, or their mood when they enter the space, or even where they were at in their lives at the time of the visit? Analyzing the people traveling through the installation over 'x' amount of weeks, months, or years, is the way I would ultimately like to understand how light affects user experience. For the time being, I wish to develop an installation which connects users to light, mood, and procession, to form a cohesive, diverse and atmospheric experience.

[15] Philip Thiel, "Processional Architecture," Processional Architecture on JSTOR, 1964, http://www.jstor.com/stable/43613406, 410-411. [16] Mark Taylor, Julieanna Preston, and Sarah Luria, "The Architecture of Manners: Henry James, Edith Wharton and The Mount," in *Intimus: Interior Design Theory Reader* (Chichester: John Wiley, 2006), pp. 213-219, 213.

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Pallasmaa, Juhani, and Juhani Pallasmaa. "An Architecture of the Seven Senses." Essay. In The Eyes of the Skin: Architecture and the Senses, 46–47. London: Academy Editions, 1996.

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Taylor, Mark, Julieanna Preston, and Jun'ichiro Tanizaki. "In Praise of Shadows." Essay. In Intimus Interior Design Theory Reader, 335–38. Chichester: John Wiley & Sons, Ltd, 2011.

Taylor, Mark, Julieanna Preston, and Sarah Luria. "The Architecture of Manners: Henry James, Edith Wharton and The Mount." Essay. In Intimus: Interior Design Theory Reader, 213–19. Chichester: John Wiley, 2006.

Thiel, Philip. "Processional Architecture." Processional Architecture on JSTOR, 1964. http://www.jstor.com/stable/43613406.

Wexner, Lois B. "The Degree to Which Colors (Hues) Are Associated with Mood-Tones."
Journal of Applied Psychology 38, no. 6 (1954): 432–35.

iii. Precedent Study

D.E. Shaw and Company Offices

Location: New York, NY
**Founder:** David E. Shaw
Founded: 1988
Size: 10,561 square feet
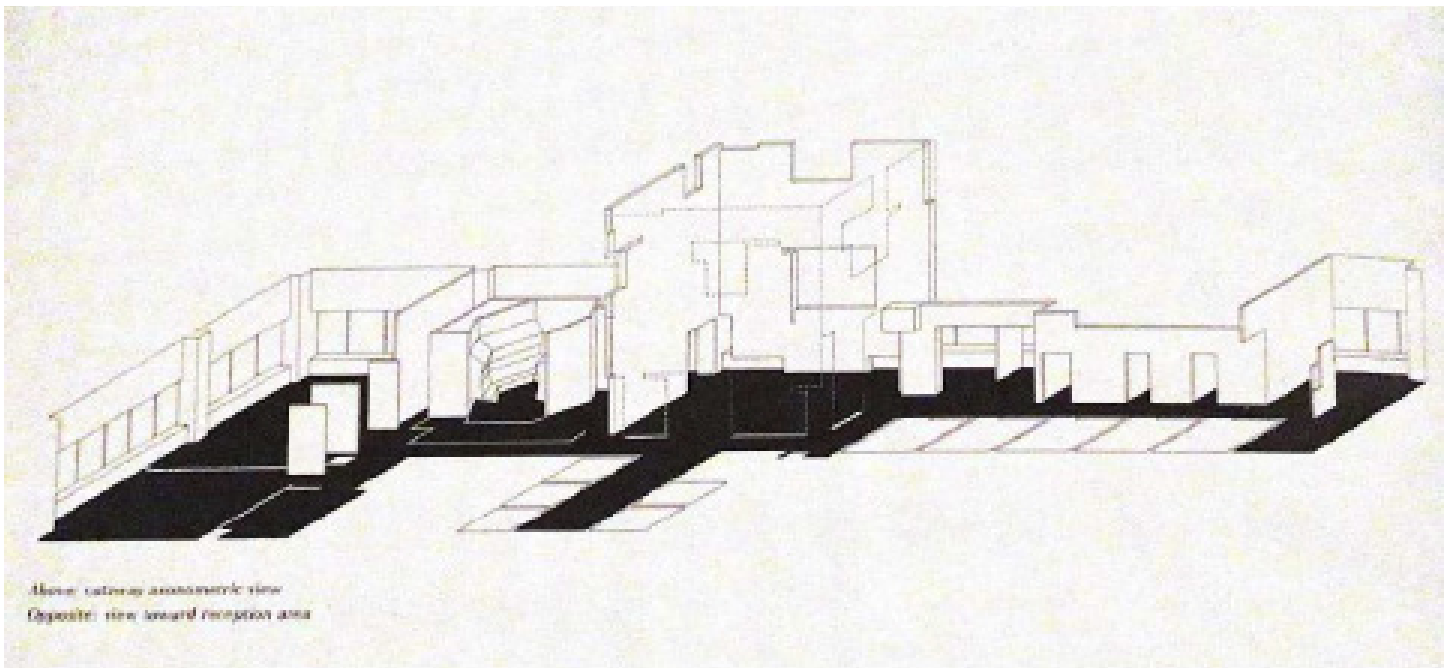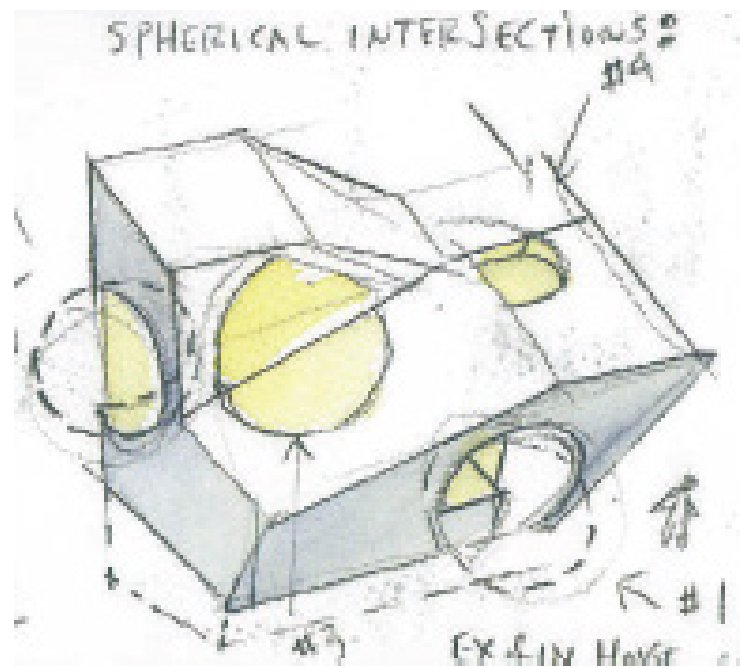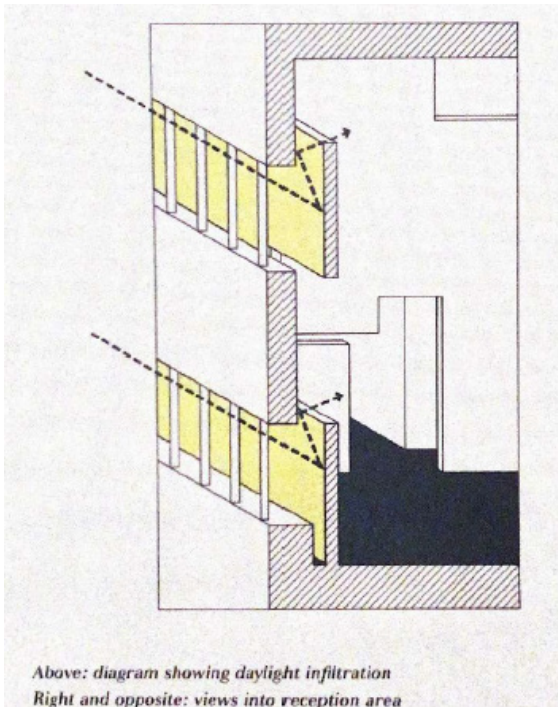**Program:** Reception, offices, conference rooms
Designer: Steven Holl Architects

The top two floors of this building are the site of an experimental project exploring the phenomena of spatial color reflection, also known as "projected color."

This business program has a parallel in the design concept of the interior. The floor is glossy black and the walls are cool, plaster-coated white that are perforated by rectilinear openings. Natural and artificial light enter the space from concealed windows and fixtures, which results in a reflectance of the chosen paint colors on the walls in the space.
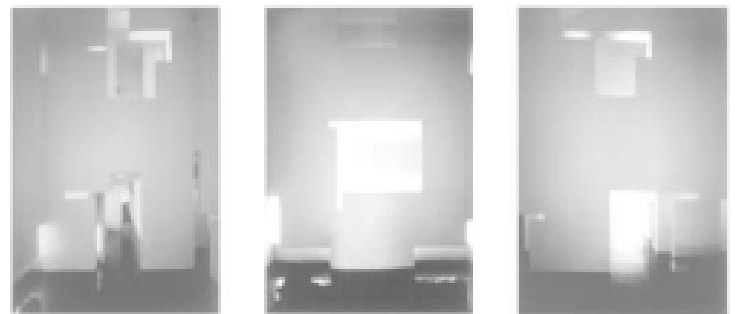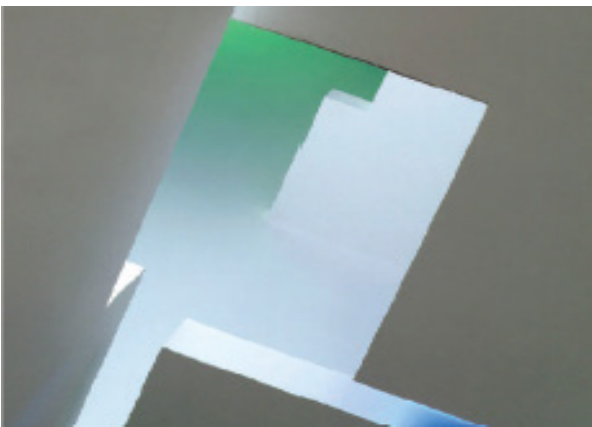
Color is applied to the back or bottom surfaces of these walls, which are entirely invisible to the viewer walking through the space. These moments occurring illuminate diffused color and symbolize the aspect of the privacy of their client's business.

Above: diagram showing daylight infiltration
Right and opposite: views into reception area

SPHERICAL INTERSECTIONS #
EX 4 IN HOUSE

Above: cutaway axonometric view
Opposite: view toward reception area

Connection Summary:

- Utilization of sunlight for circulation
- Highlighting different areas at different times of day
- Generating an atmosphere that encompasses the notion of scale

Through this precedent, I am seeking to connect the concept of this design to how circulation in spaces can be controlled through the utilization of sunlight and skyspaces.

Some ways of potentially achieving the direction of circulation are through color coordination, light intensities, and exploring the realm of shadowed areas.

In accordance with these elements, they will work together to form an atmosphere; within this realm, it can be paramount that the notion of scale plays a crucial supporting role in assembling the space in regards to circulation and lighting.
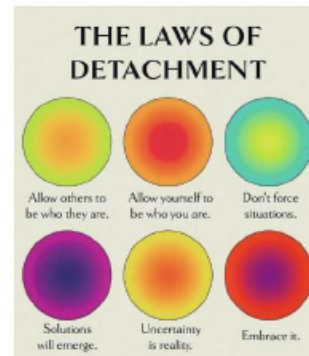
Subtopics:

Mood Changes through Color

Through this precedent, there can be a connection from mood changes to color, which will be evaluated and studied throughout the ongoing process. The Laws of Detachment are elements that can be utilized to achieve desired moods within the scope.

Sun Orientation

Sun orientation will be a factor within some parts of the space. As this is the primary source of creating an ambient atmosphere in the D.E. Shaw and Company Offices, it will serve as an additional energizer in the thesis to bring specific elements to life.

THE LAWS OF DETACHMENT

Allow others to be who they are. / Allow yourself to be who you are. / Don't force situations.

Solutions will emerge. / Uncertainty is reality. / Embrace it.

WINTER — SUMMER

Shaded area represents the sun's path throughout the year
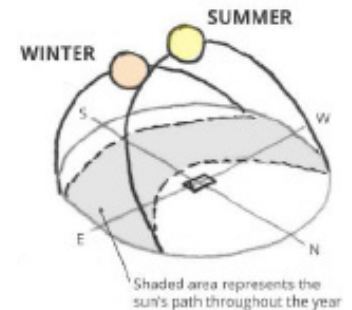
The Laws of Detachment:

- Allow yourself and others to be who they are
- Don't force situations, solutions will emerge
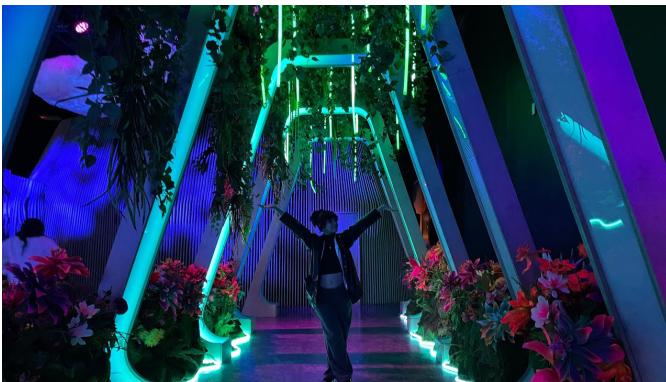- Uncertainty is reality, embrace it

iv. Case Studies

#1: INTER_IAM Experiential Installation

Location: New York, NY
Founder: Zach Blutner
Founded: 2022
Program: Screening rooms, interactive hallways, mirror rooms, contemplation rooms, isolation zones, connectivity areas

INTER_IAM is a combination of a variety of environments that are both interactive and individualized. It is described as "a way of being" and encourages self-exploration and aims to guide people on their inner and outer journ. The exhibition includes a plethora of artistic elements, such as innovative uses of multi-sensory art and digital technologies that bring people together in a physical space, but connect them in the world beyond.

The experience was an installation that I had gone to for the purpose of obtaining a grasp on what kinds of experiences could be provided in the thesis. As the thesis is focalized around providing an environment for a vast amount of people, it was crucial to understand different opportunities within design as to where that could be achieved.
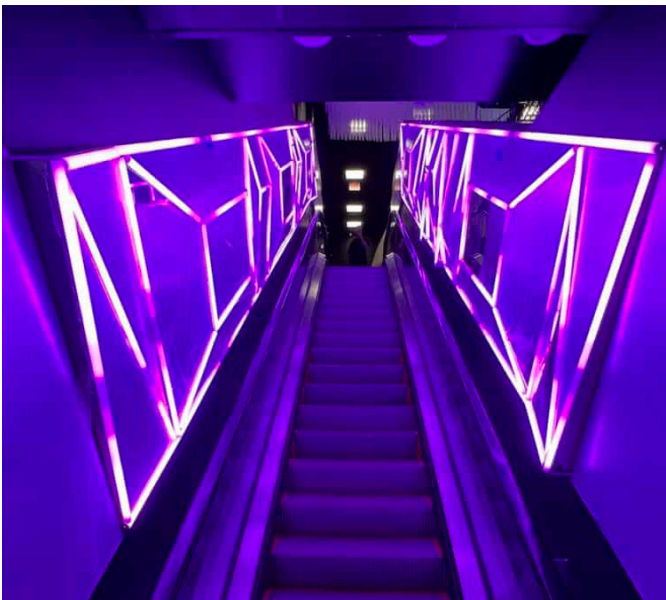
The experience was immensely personalized and had opportunities for individuals to travel where they wanted, when they wanted. It granted them the freedom and control to move throughout the space in accordance with their own feelings and emotions. Additionally, it permitted the extensive list of opportunities for the user: privatized vs. public experiences, brighter vs. darker spaces, and smaller scaled elements vs. 1:1 ratio implementations.

#2: Individualized Interviews

After molding and obtaining inspiration for ideas regarding the potential programming of the space, the knowledge and understanding of people would also play an important role.

Three interviews were conducted and they were each asked a set of questions:

1. Have you ever been in an environment where lighting made you feel comfortable?
   a. If yes, why?
2. Have you ever been in an environment where lighting made you feel uncomfortable?
   a. If yes, why?
3. Have you ever been in an environment where lighting made you feel something, but you could not understand how, why, or what you were feeling?
   a. If yes, why?

The interviewees were asked to give as detailed answers as they could to promote the utmost functionality for the intentions of understanding human behaviors. Given that the goal is to generate an individualized experience for all, it is crucial that a vast amount of participants are having their personalized journeys explored.

The results for the questions are as follows:

Individual A:
1. "Yes. There is something about the dark that comforts me. I like the mystery behind it. While I don't necessarily know what's there, I am comfortable and accepting of that."
2. "Yes. I was always a hermit. I would always close my shades during the daytime because I could not stand the sun coming into my room."
3. "Not really, but I'm sure if I encounter a situation like that in the future then I will be able to point it out because it was now just mentioned to me."

Individual B:
1. "I tend to like warmer lighting settings. I hate whenever I have to go to bed. It doesn't bring me back to a good place; normally I always sleep with a night light on."
2. "In darker settings. It reminds me of the past and I associate certain events with the dark. I rarely am ever in an environment that isn't lit."
3. "Absolutely. That's the thing that I love about lighting. It can make you feel warm and fuzzy, but the next moment it could make you feel scared and isolated."

Individual C:
1. "Yes, I actually love when I can clearly see what area that I am in. Not knowing what is happening, I guess you could say the dark, freaks me out. I hate not knowing what is going to be in front of me or what is about to happen."
2. "For sure. I can't recall, but there have definitely been instances where I didn't feel comfortable. It gives me the vibes of nightmares coming to life."
3. "I guess. I'm not really sure. I haven't truly thought about it that much."

After asking the three questions to each of the individuals, a follow-up question at random was asked of them:

4. Can you tell of an experience where you felt anxiety?

The responses are as follows:

Individual A:
> 4. "I feel like any situation I was in when I was in high school has made my social anxiety so much worse. I can barely enter social settings like conferences, meetings, and even talking with my colleagues in the breakroom because of it. Whenever I am in close-knit situiations, my stress levels just skyrocket and I never know what to do. It's a constant battle that I'm still getting over."

Individual B:
> 4. "When I was in my late 20s, my friends and I wanted to go clubbing for the first time, but when I went in, I immediately had to leave because I felt triggered. When I was younger, it was that traumatic experience that happened that I associate with darkness. I can never be in dark spaces, I need the lightness and automatically cling to it subconsciously."

Individual C:
> 4. "The funny thing is that I feel like whenever I am in a situation where I don't know what is coming next, I panic. I feel like I am a control freak, needing to know what is happening every single second. When I'm not aware of what is about to happen, that's when I feel my heart beat faster. It's unnerving, but I guess over the years I've just learned to deal with it, even when it makes me feel like I'm going stir-crazy."

v. Probes

Material

   An idea on materiality that may be used to produce auras of light would be the utilization of sheer products, such as wool or mesh, to promote airiness and varying degrees of transparency.
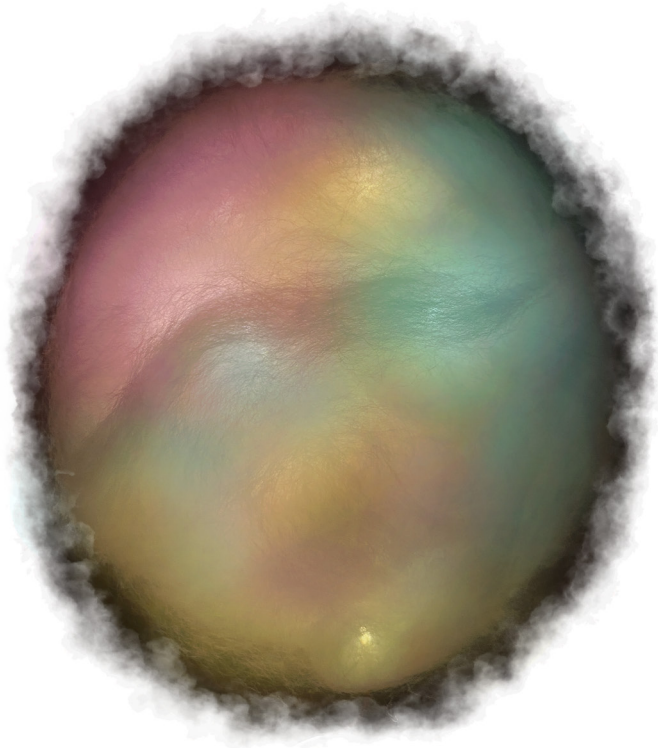
   The above image represents a study on materialization. Within it is wool meshed together with firefly LED lighting illuminating underneath the material.

Atmosphere

To obtain a general understanding and grasp as to what the space could contain, an atmospheric collage had to be generated. Through this collage, it opens up for a variety of interpretations, which is meant to be intended for this lighting experience.

Within the image, there are a variety of colors (reds, blues, pinks, purples, and yellows) to represent the differentiation of emotions, moods, thoughts, feelings, and personal experiences within the space.

The clouded fog around the individual's heads is to represent their own personal anxieties within the space and how each person's mind is taken over by their own internalized thoughts.

The design elements within the space itself, such as the aura cutouts in the walls, are meant to represent areas of lighting that people have the opportunities to interact with, get lost in, and to achieve a regulated mindset connecting with something that brings them comfort or familiarity.

While the collage does not represent an accurate depiction of the space, it assists in understanding the user's purpose in the space, what they will be doing, their movements, and how those elements combined can assist in their anxiety alleviation.

II. Programming

Philadelphia International Airport (PHL)

Parking

Parking

Terminal F

Terminal E

Terminal D

Terminal C

Terminal B

Concourse A-East

Concourse A-West

N
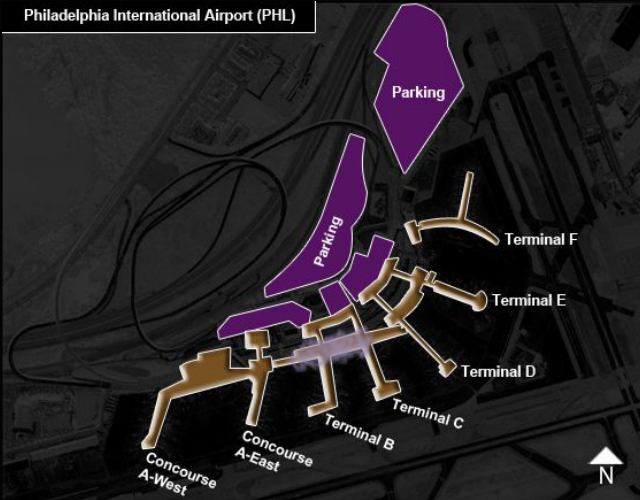
i. Site

**Philadelphia International Airport**

Location: Philadelphia, PA
Internal Location: Combination of four retail spaces between Terminals B and C

The Philadelphia International Airport was chosen as the site for this lighting experience for a multitude of reasons:

- Mass public outreach and connection
- Variety in demographics
- Exposure to differentiating personal experiences
- Applicable traits from plethora of anxieties
- Attempts to solve an issue for 40% of the world pop.

Having individuals from all over the world come to walk through this experience while they are waiting is one way that can tremendously test the efficiency of the space and its intention. While travelers may just be coming off of their flights, it is still something that they are able to walk through if they need any regulation due to coming from another city, state, or country.
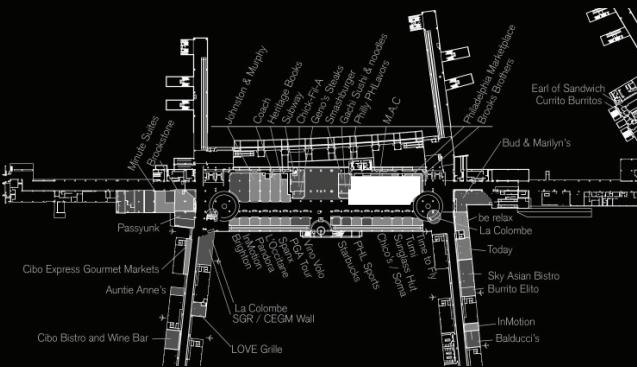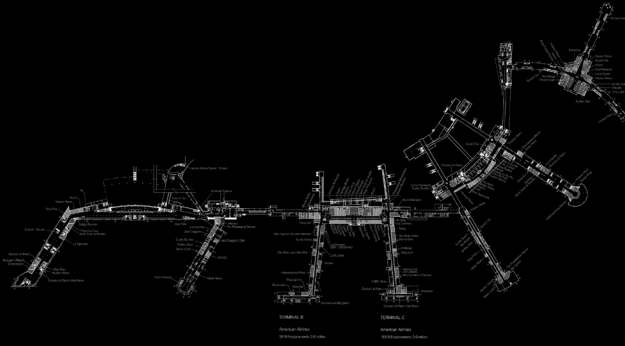
ii. Programming Elements

When thinking about the people that would be permeating throughout the space, it was a key factor to keep in mind that peoples' movements will affect how they perceive the space, therefore impacting their experience.

The usage of verbs is an implemented design tool for this particular part of the process. Specific verbs were chosen by those with different anxieties, verbs that they associate in alleviating their anxiousness. Attaching these actions to a space assisted in developing the programming, as this would then define what each space needs, who will be interacting with the implementations, and how they serve as alleviating factors.
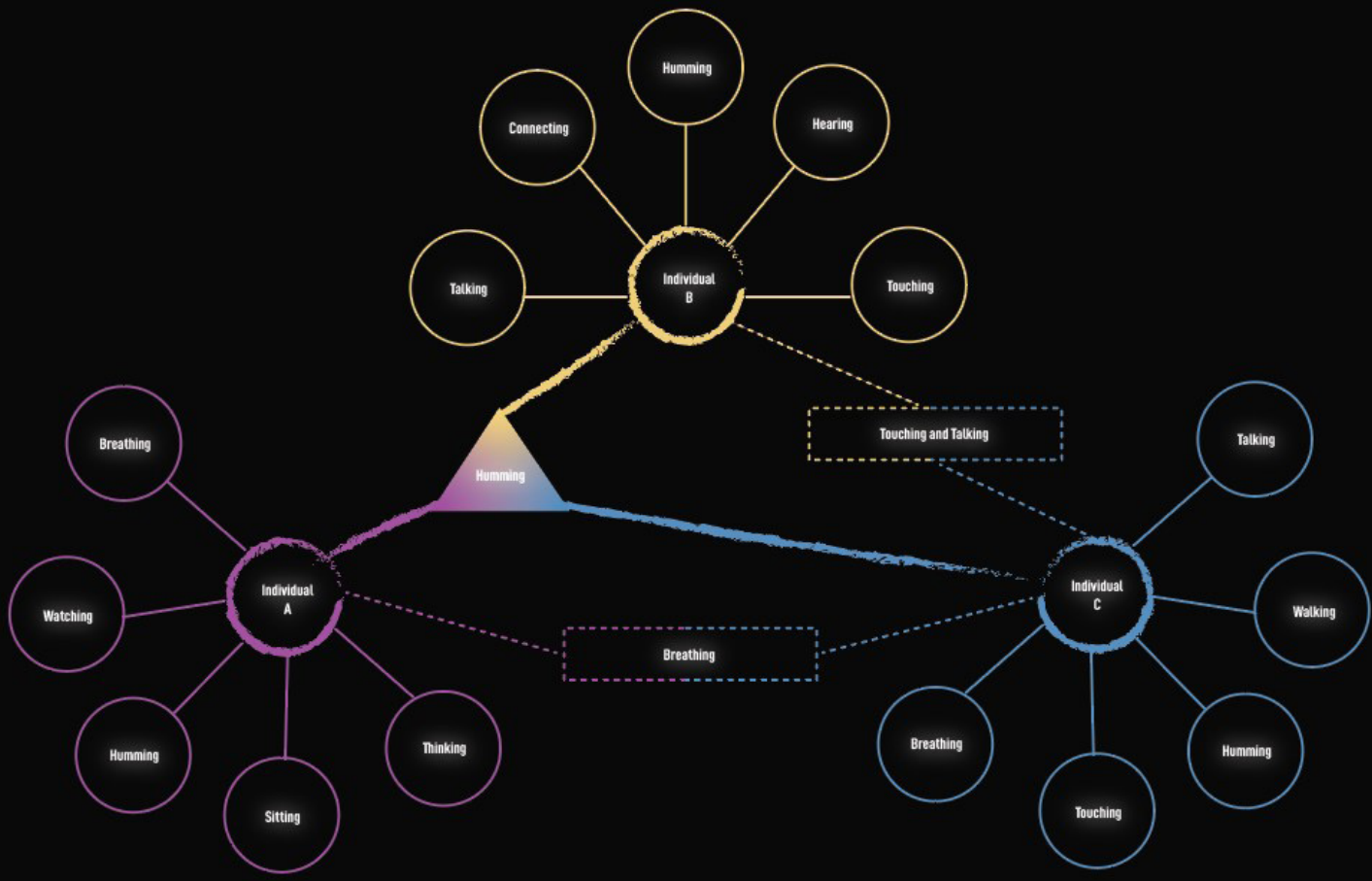
iii. Preliminary Diagramming

The bubble diagram created is to obtain a general understanding of where the verbs are in adjacency with one another and how they intertwine together.

With certain traits of different anxieties overlapping, it allows for opportunities where contrasting anxieities may have points of crossovers in their own personal journeys.

Defined Activities/Zones

Sitting and Watching:
- Elevated pods at varying levels looking into primary central space
- Bench Seating
  - Offering both public and private versions

Thinking:
- Private contemplation rooms for relief
  - Acts as a 'decompression chamber'

Hearing and Connecting:
- Skylight zone for connection to outside world (observatory aesthetic)
- Opportunity to connect to the environment

Breathing:
- Privacy pods that allow for concentration and relaxation
  - Spacious qualities to promote 'room' for breathing

Touching and Talking:
- Coffee bar and lounge
  - Promotion of socialization
- Material Exploration Zone
  - Smooth and rough materials suspended
  - Sculptured artifacts (hard vs. soft)
  - Temperature differentiating surfaces

Humming:
- Interactive sound absorption zone
  - Suspended acoustical elements
    - Cones, spheres, etc.
    - Ability to walk through, into, or underneath
- Each element is a different material, allowing for differentiating sound qualities within each space
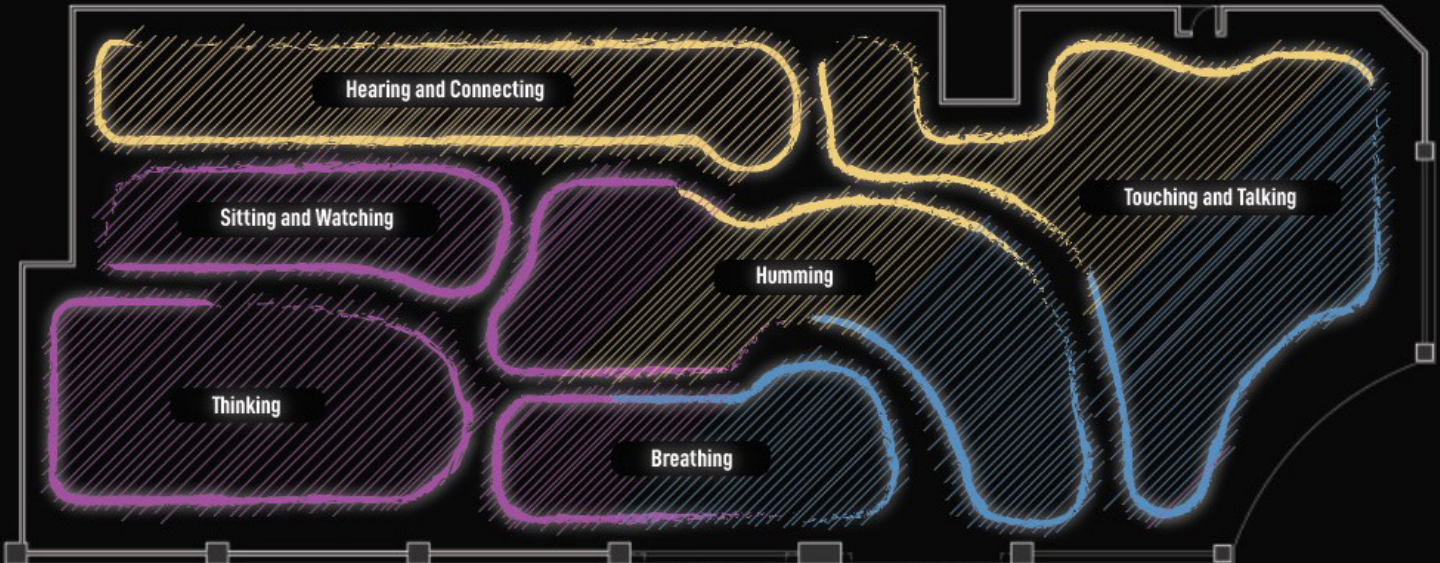
III. Design Development

i. Process

Throughout the design development phase, a series of studies needed to be conducted to fully understand all elements within the space: lighting qualities, intensities, and colorways, analyses on the different anxieities and their moods, material explorations, and mapping circulations and processions of the differentiating personas of potential users in the space.

Lighting Studies on Aura

The lighting studies on aura were conducted to obtain an understanding of the glow of the object or the field of glow surrounding an object. Within these studies, the hues, shadows, lighting intensities and qualities were analyzed for a transfer into the lighting experience.
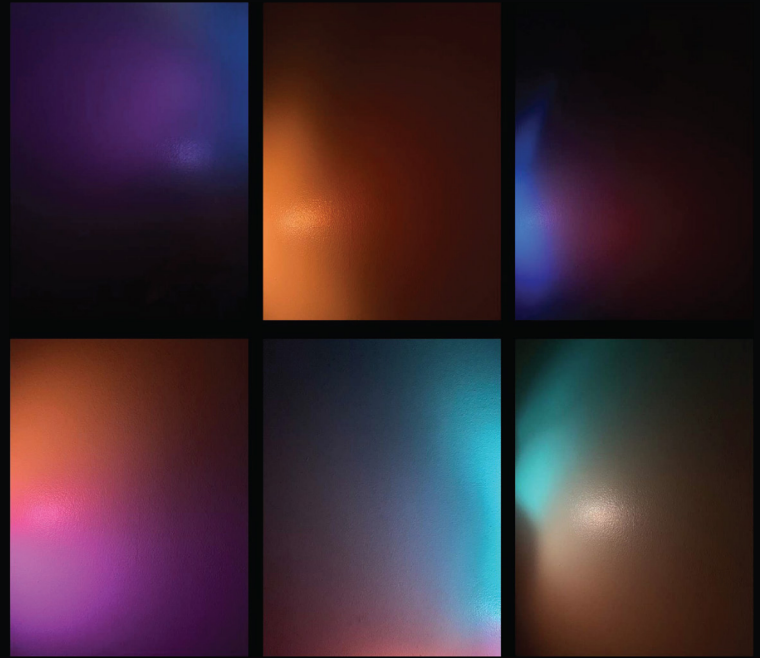
Lighting Studies on Concealing and Revealing

These lighting studies were put to the test to see the intensities of shadows and what the effects would be if objects were placed in front of light sources. Indicated to the right, the books that were utilized could act as partitions within a space that would allow for a glow to appear behind a wall, leaving the user curious as to what is beyond; in turn, this allows the individual to become okay with the unknown and less afraid of what is ahead.

Lighting Studies on Mood

Along with understanding who will be in the space, it is important to know that not everyone will be within the same mindset. These studies allowed for mood differentiation through the usage of color. These studies were conducted by having acrylic film in front of a phone flashlight that would project the colored light onto the individual. A black backdrop was used to enhance what the colors could potentially look like once shown on the user.

Mood Collage

The collage was generated to formulate the cohesion of what all of these anxieties have in common. Each of them have fluctuating levels of anxiety, all represented by varying colors that fog their minds; however, they are one in the same due to the fact that each person is coming into the experience with their own personal experiences that they have been affected by.

Anxiety Collages

To further comprehend the varying anxieties that may be present within the space, collages were created to help visualize what could be within each of the users' minds.

The first collage represents social anxiety; starting on the left side, the individual is clouded with the fear of being overwhelmed by individuals and yearns for that time with oneself. To the right, it transitions into a euphoric and much more appealed mindset for the user.

The second collage represents PTSD; the inspiration behind this collage was a dark, traumatic past showcased on the left, but then transitioning into a brighter experiential atmosphere that the individual should obtain after going through the lighting experience.

The third collage represents generalized anxiety, pictured in black and white, having a scrambled, frantic-like mindset to the left, but achieving bliss and tranquility to the right.

Each of these have differentiating characteristics that are reflected through each person's own experiences; these were developed as a framework to assist in the programming of the space and to understand movements of individuals through their chaos and what they could be drawn towards.
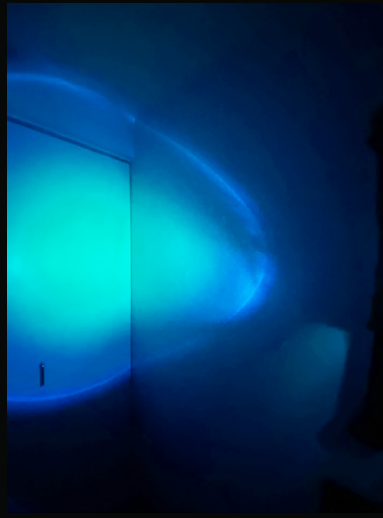
Satin Brushed Aluminum

Layered Mesh
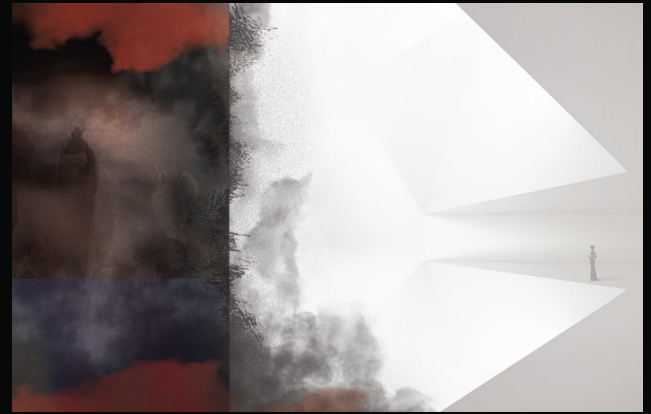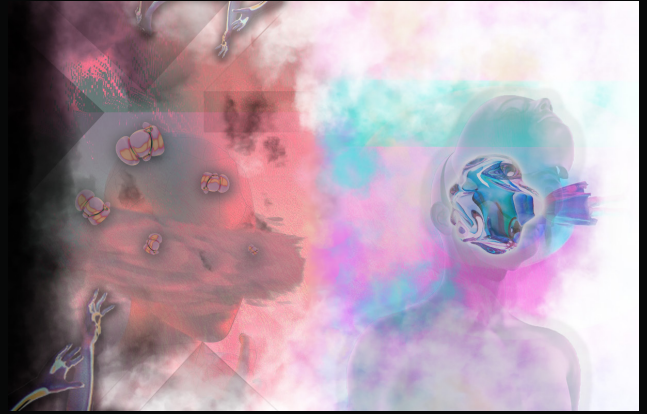
Materialization Studies

Within the space there is the opportunity to experiment with a vast amount of materials that may absord, reflect, or shine light. With the utilization of these, a general understanding of potentials for applications was utilized and incorporated into the design.
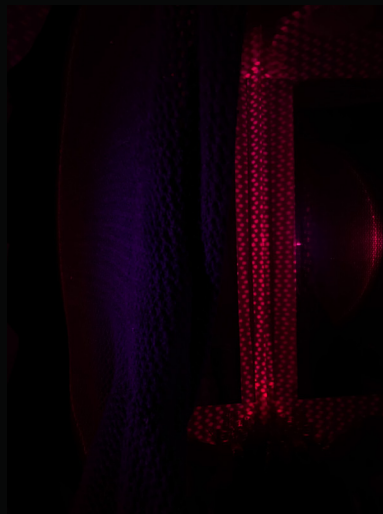

Oil in Glass Bottle

Fishnet
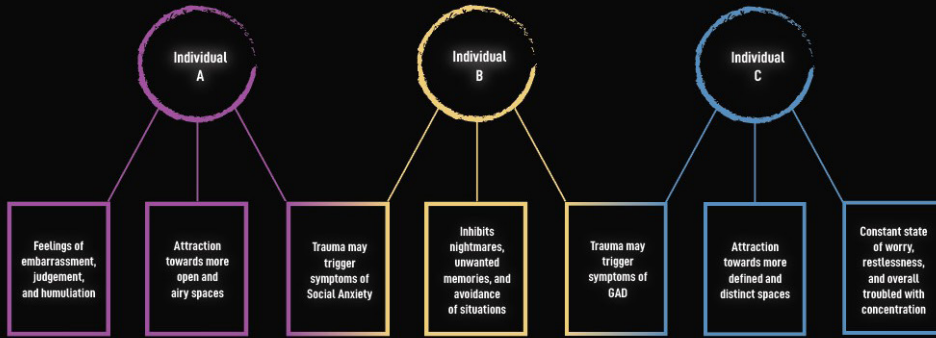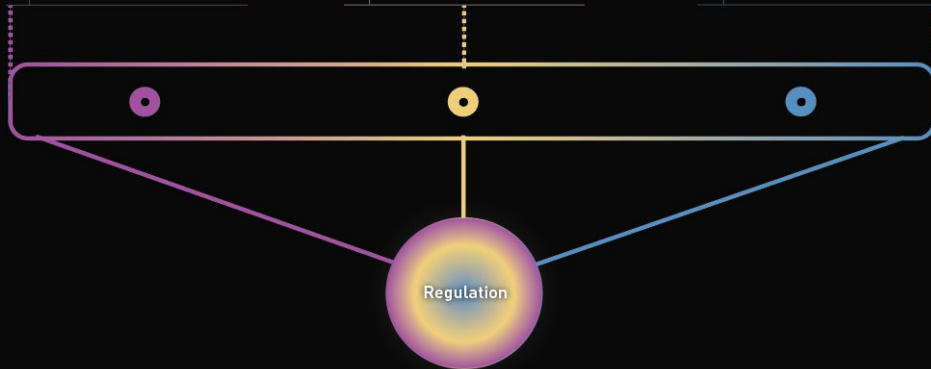
Persona Mapping

Along with recognizing the traits within people that will be in the experience, it was crucial to develop realistic personas of who these individuals may be and to figure out exactly what they may need.

Individual A

- Feelings of embarrassment, judgement, and humuliation
- Attraction towards more open and airy spaces
- Trauma may trigger symptoms of Social Anxiety

"I feel like any situation I was in when I was in high school has made my social anxiety so much worse. I can barely enter social settings like conferences, meetings, and even talking with my colleagues in the breakroom because of it. Whenever I am in close-knit situations, my stress levels just skyrocket and I never know what to do. It's a constant battle that I'm still getting over."

Individual B

- Trauma may trigger symptoms of GAD
- Inhibits nightmares, unwanted memories, and avoidance of situations

"When I was in my late 20s, my friends and I wanted to go clubbing for the first time, but when I went in, I immediately had to leave because I felt triggered. It was darkness. When I was younger, it was that traumatic experience that happened that I associate with darkness.
I can never be in dark spaces, I need the lightness and automatically cling to it subconsciously."

Individual C

- Attraction towards more defined and distinct spaces
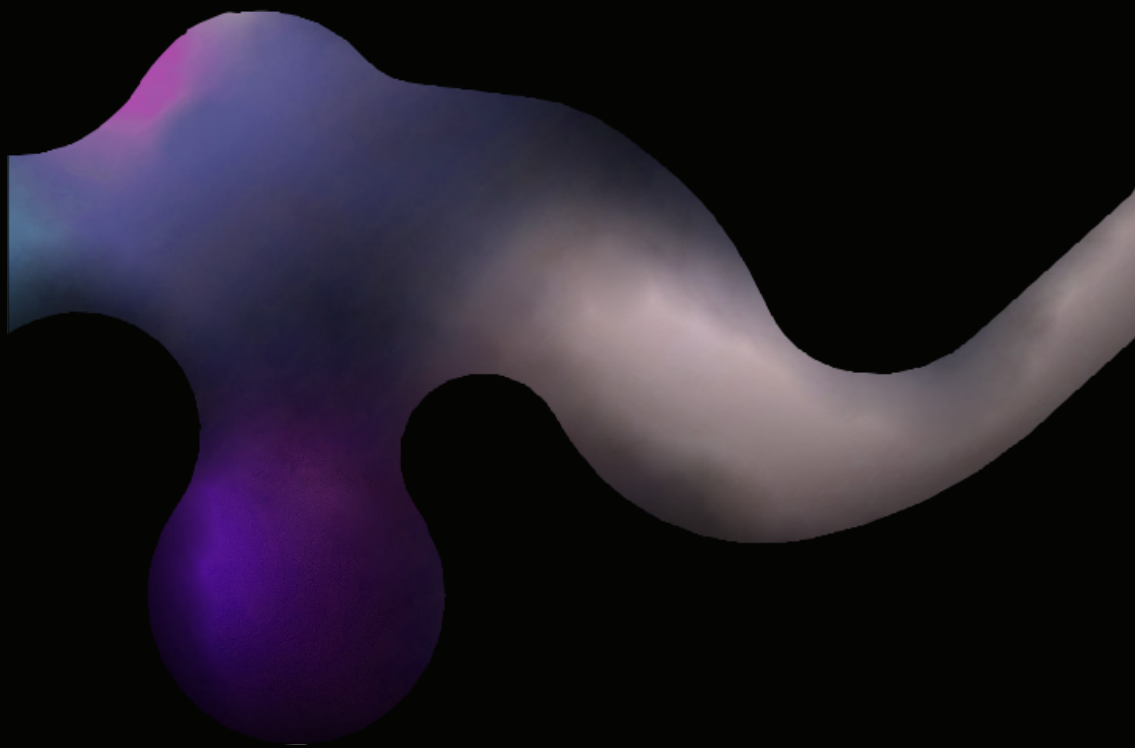- Constant state of worry, restlessness, and overall troubled with concentration

"The funny thing is that I feel like whenever I am in a situation where I don't know what is coming next, I panic. I feel like I am a control freak, needing to know what is happening every single second. When I'm not aware of what is about to happen, that's when I feel my heart beat faster. It's unnerving, but I guess over the years I've just learned to deal with it, even when it makes me feel like I'm going stir-crazy."

Individual A

Light	Lightness	
	Darkness	
Shadow	Softness	
	Harshness	
Space	Smallness	
	Largeness	

Individual B

Light	Lightness	
	Darkness	
Shadow	Softness	
	Harshness	
Space	Smallness	
	Largeness	

Individual C

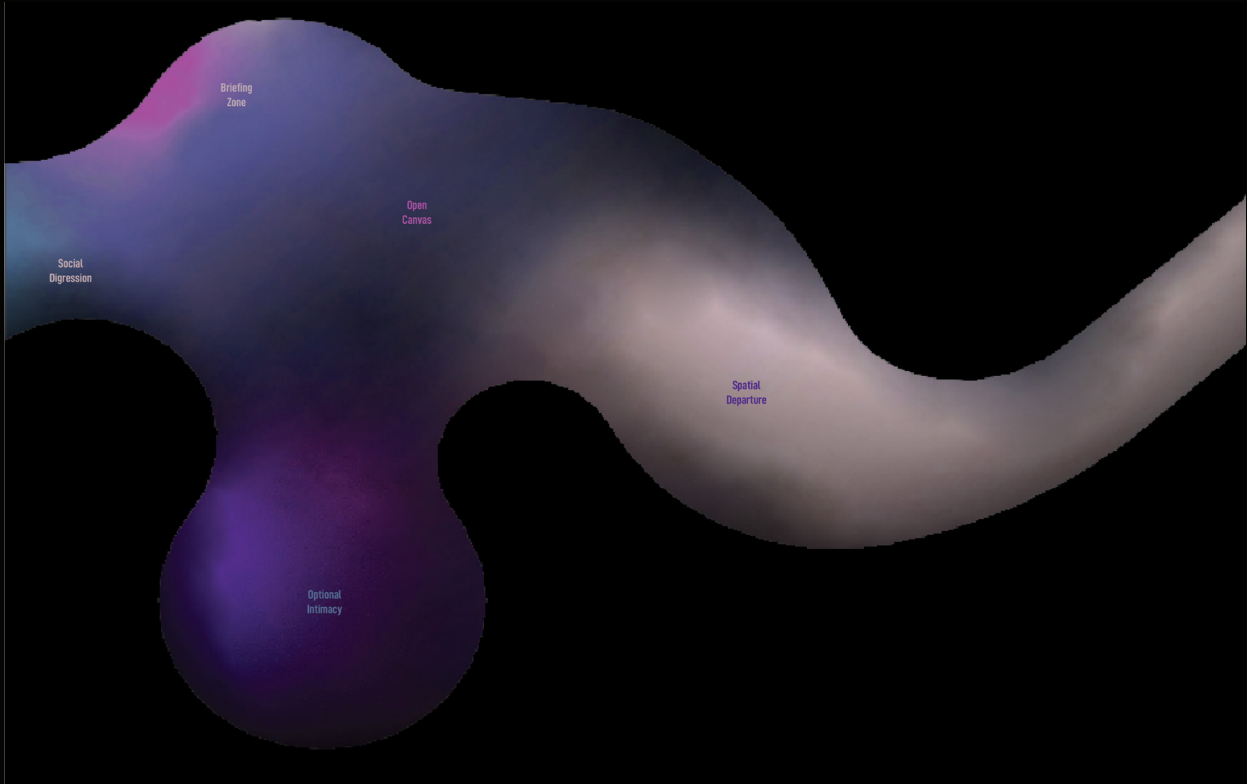|		
Light	Lightness	
	Darkness	
Shadow	Softness	
	Harshness	
Space	Smallness	
	Largeness	

Regulation

ii. Schematic Design

During the schematic design process, the need to conceptualize floor plans came as a handy accessory for formulating the space.
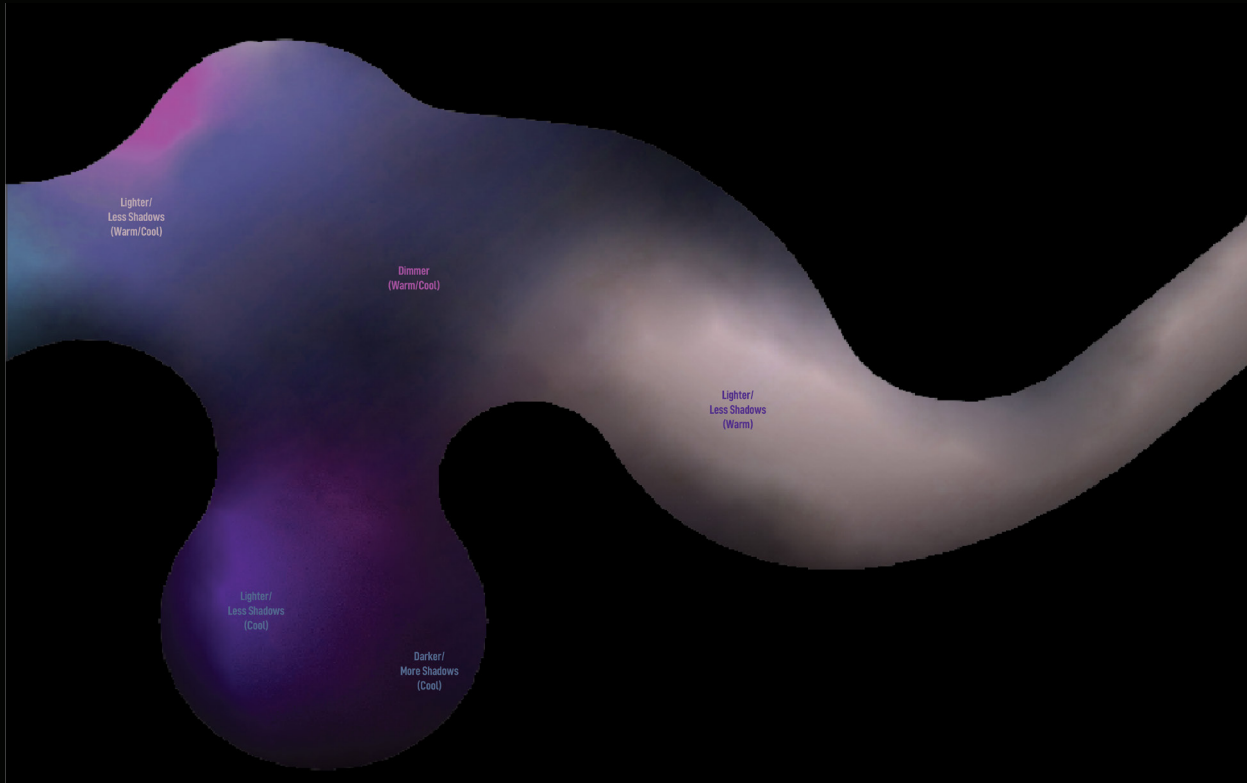
The conceptual floor plans were derived from the lighting studies done on Aura and Concealing and Revealing. Cut outs were made from the shadows portrayed in the images and morphed together to generate a floor plan for each of the anxieties. From these conceptual floor plans, elements such as lighting placements, areas of bright vs. dark lighting, harsh vs. soft shadows, and small vs. large spaces could be determined.

Social Anxiety Conceptual Floor Plan

Briefing
Zone

Open
Canvas

Social
Digression

Spatial
Departure

Optional
Intimacy

Social Anxiety Spatial Qualities

Lighter/
Less Shadows
(Warm/Cool)

Dimmer
(Warm/Cool)

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Cool)

Darker/
More Shadows
(Cool)

Social Anxiety Lighting Qualities

PTSD Conceptual Floor Plan

Comfort Zone

Positivity Realm

Eased Entry

Personal Journey Zone

Content Release

PTSD Spatial Qualities

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Warm)

Dimmer
(Warm/Cool)

Dimmer
(Warm/Cool)

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Warm)
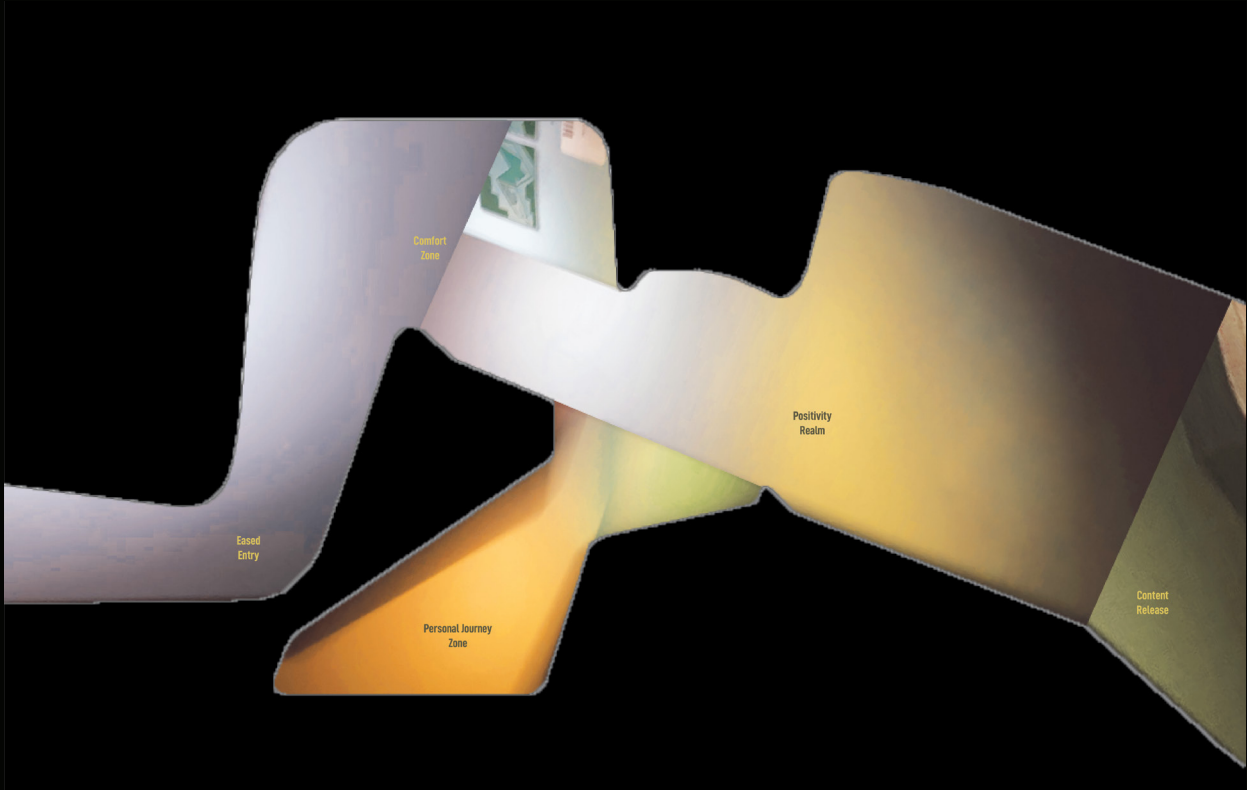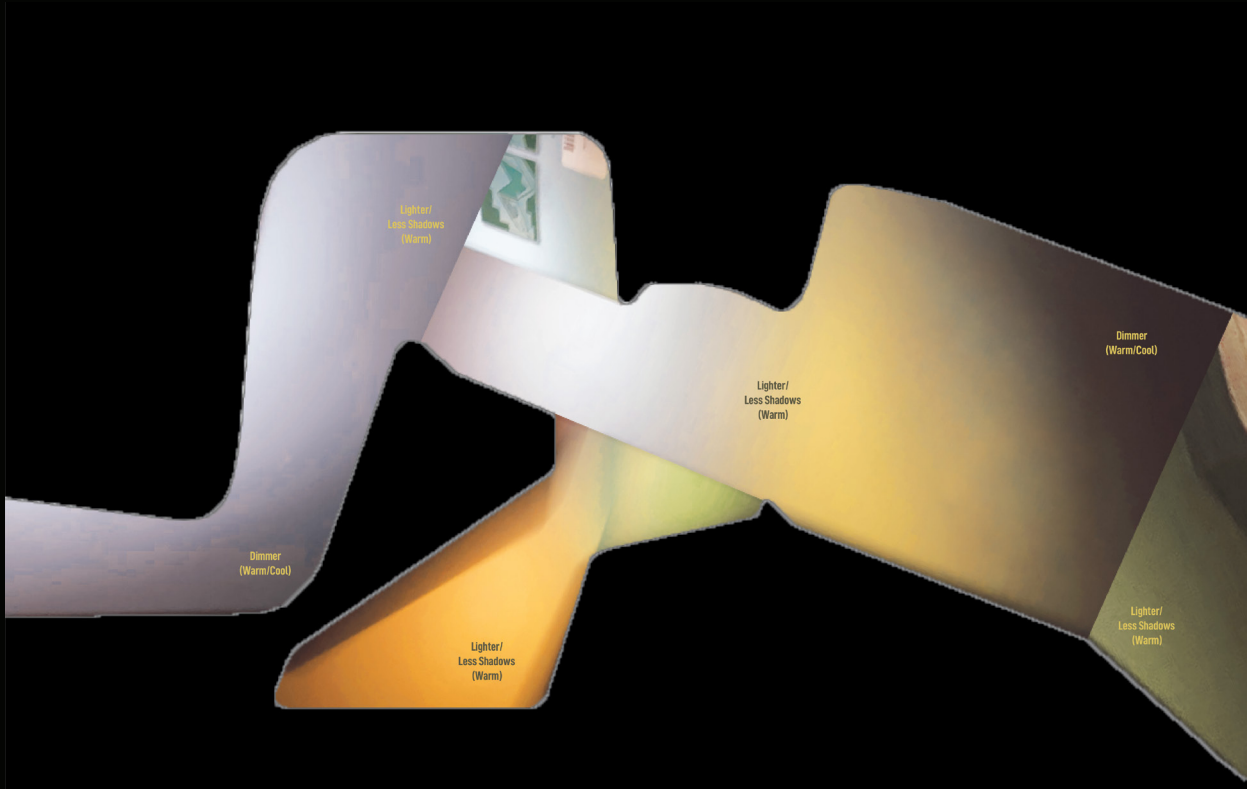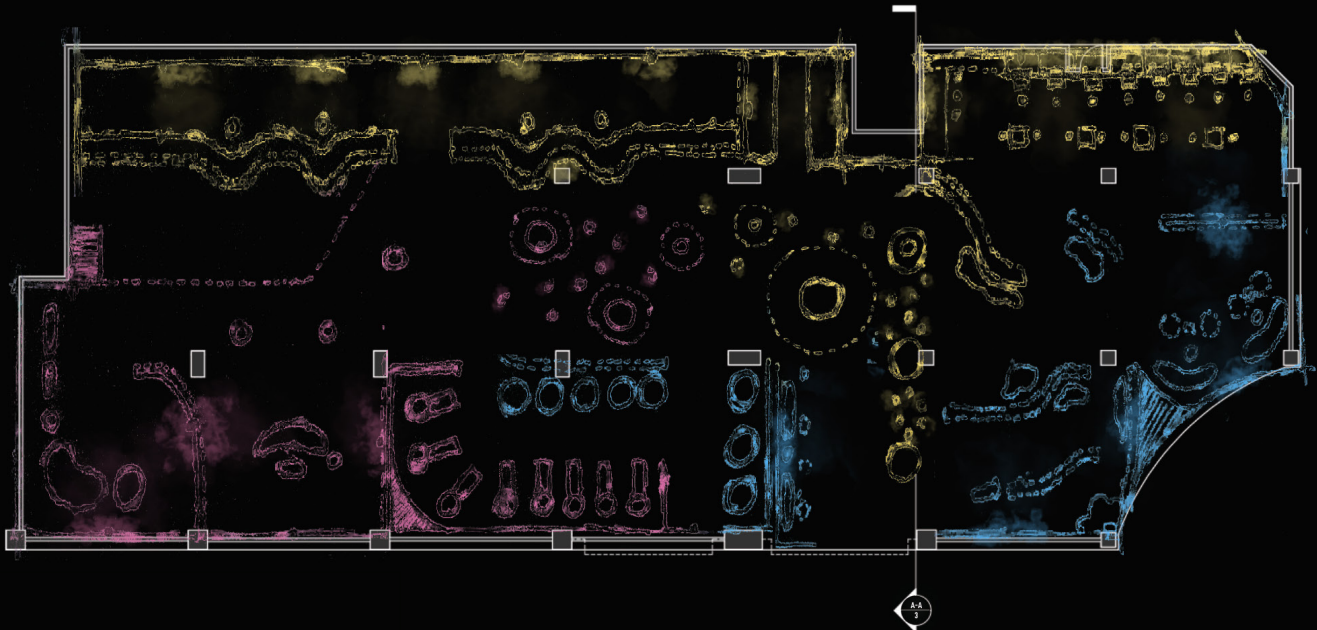
PTSD Lighting Qualities
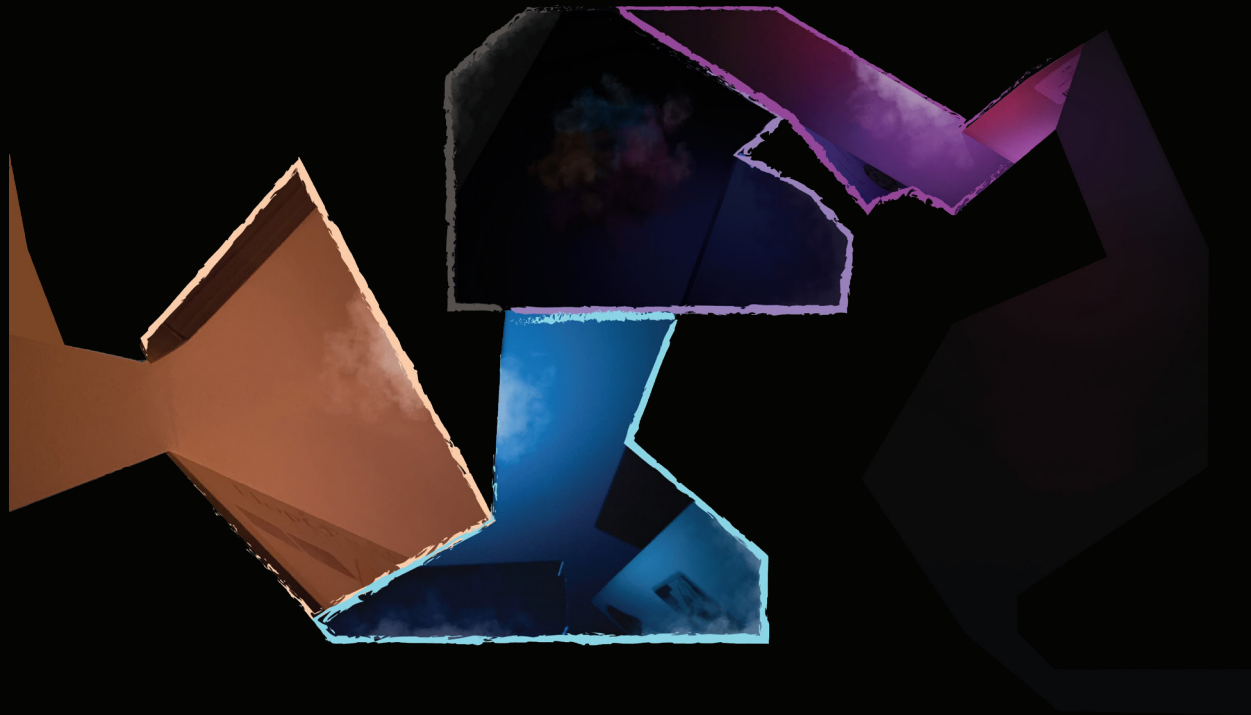
Generalized Anxiety Conceptual Floor Plan
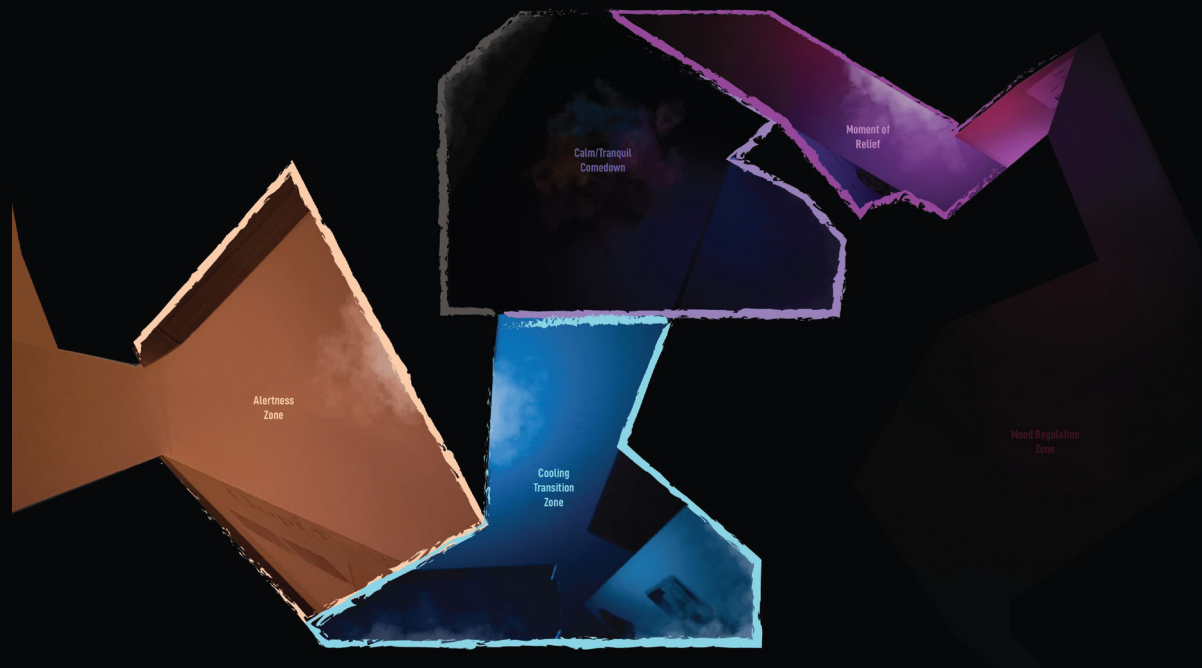
Generalized Anxiety Spatial Qualities

Darker/
More Shadows
(Cool)

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Warm)

Lighter/
Less Shadows
(Cool)

Dimmer
(Warm/Cool)

Darker/
More Shadows
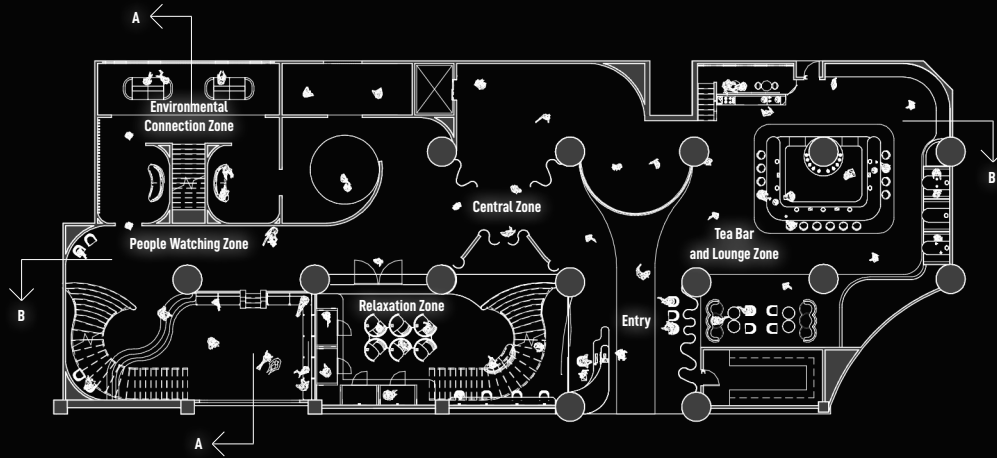(Cool)

Lighter/
Less Shadows
(Cool)
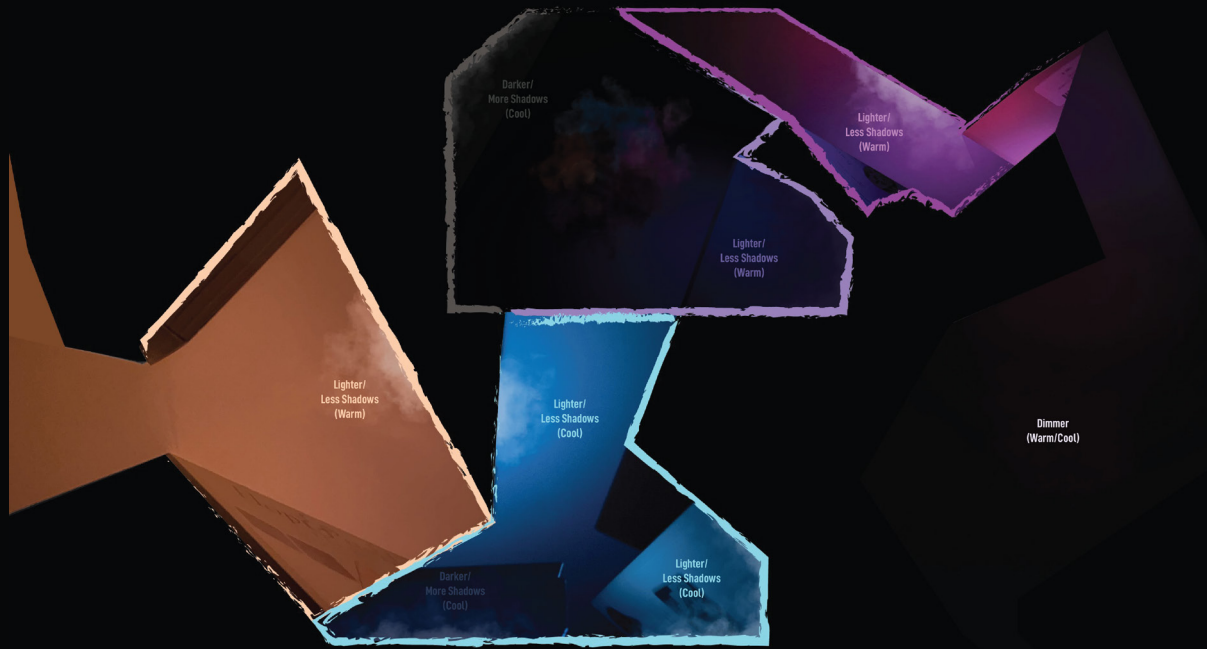
Generalized Anxiety Lighting Qualities
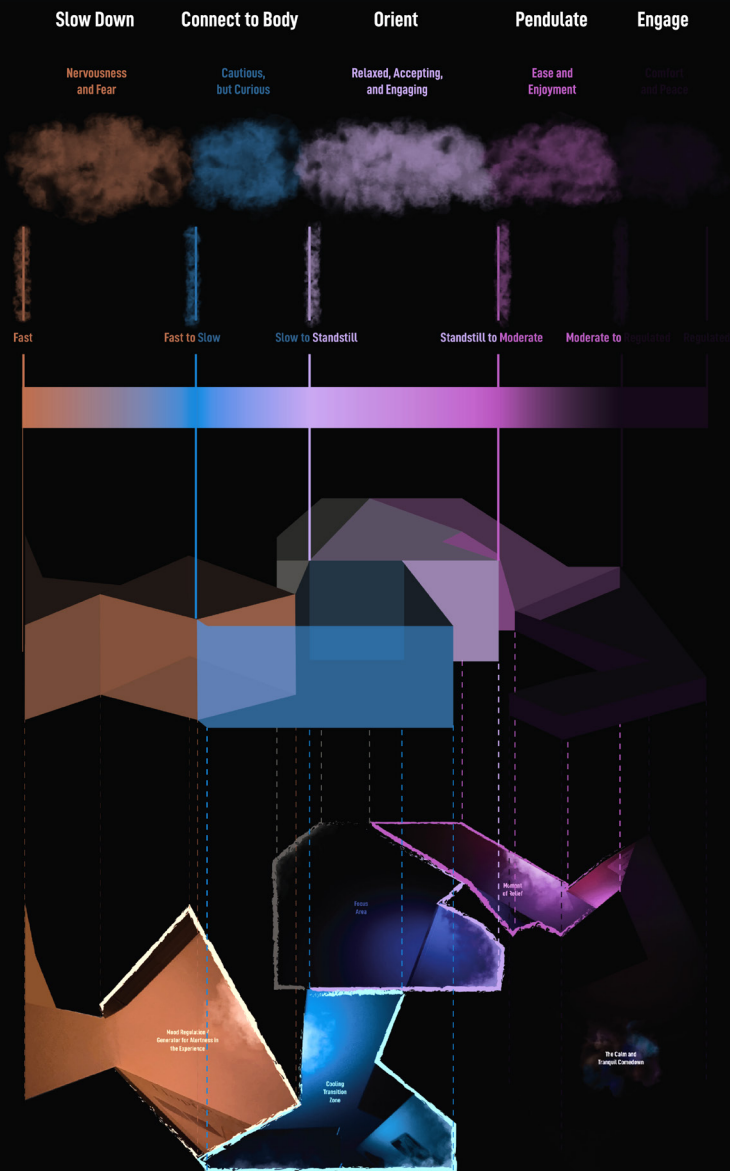
Generalized Anxiety Extended SCOPE Study
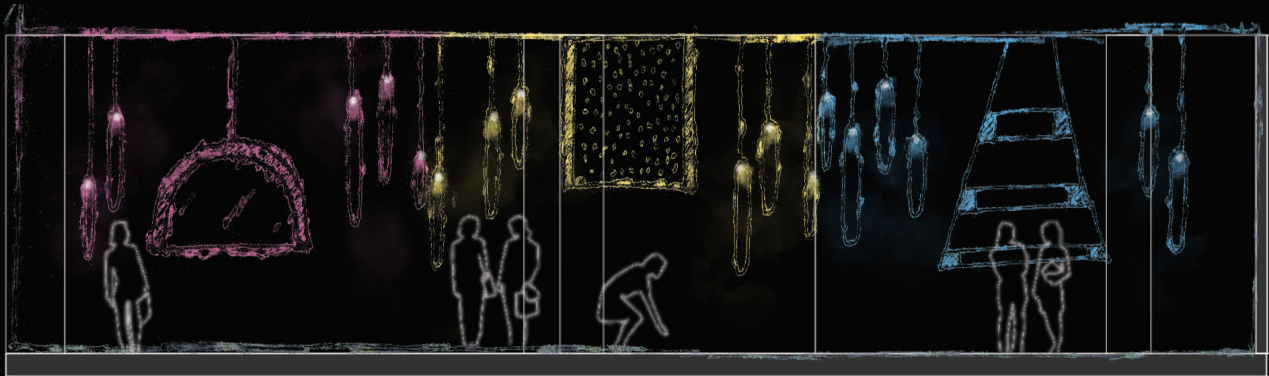
Preliminary Conceptual Floor Plan and Section

IV. Final Design

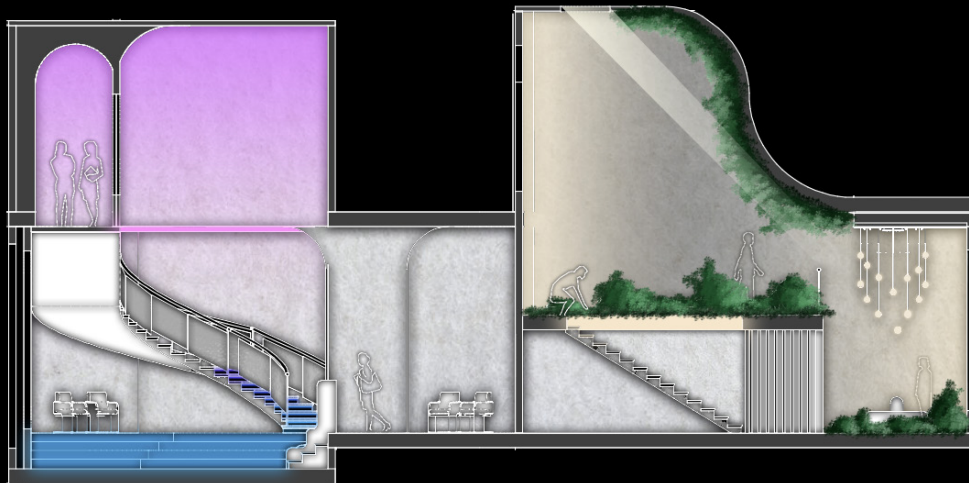Environmental
Connection Zone

People Watching Zone

Central Zone

Relaxation Zone

Entry

Tea Bar
and Lounge Zone

A

B

B

A

First Floor Plan
Scale: 3/64" = 1'-0"

A

Environmental
Connection Zone

B

B

Privacy
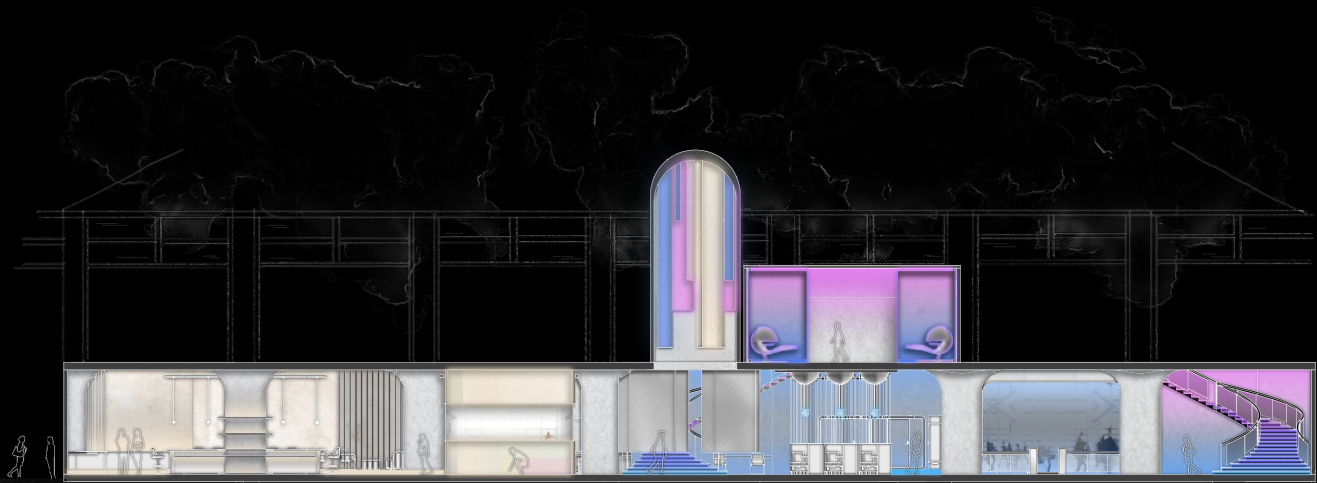Pod Zone

A
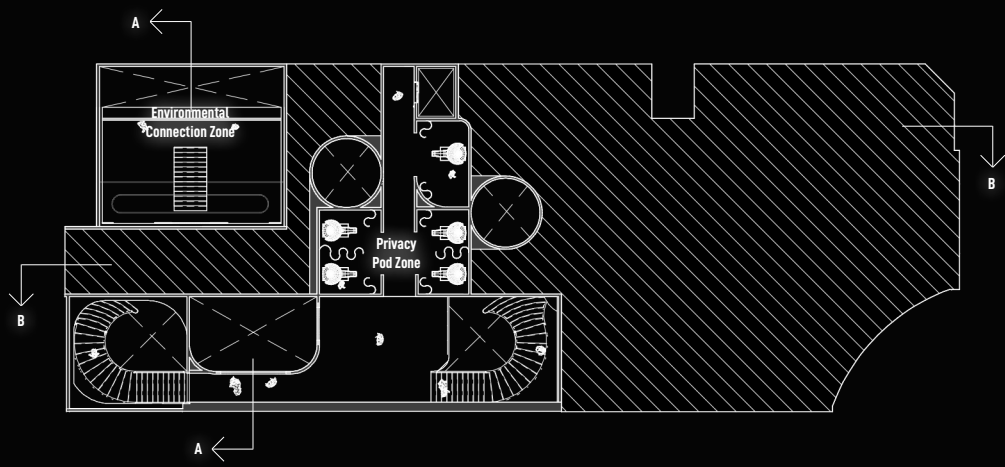
Second Floor Plan
Scale: 3/64" = 1'-0"

Section A-A
Scale: 3/32" = 1'-0"
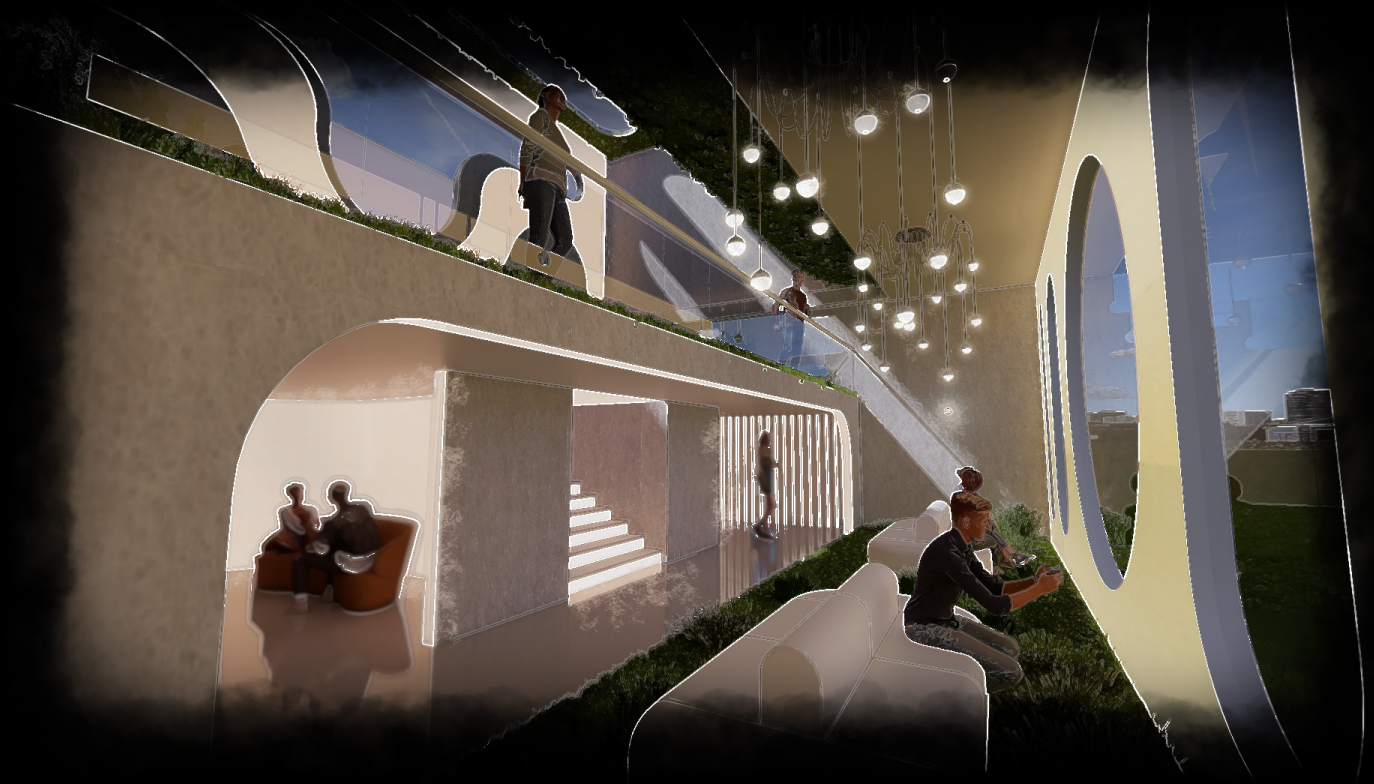
Section B-B
Scale: 3/64" = 1'-0"

Entry

Relaxation Zone for Social Anxiety

Privacy Pod Zone for Social Anxiety

People Watching Zone for Social Anxiety

Environmental Connection Zone for PTSD

Tea Bar and Lounge Zone for Generalized Anxiety

Axonometric Floor Plan Legend:

Social Anxiety Zones (Primary Disassociation from Environment)

PTSD Zones (Connectivity and Association with Environment)

Generalized Anxiety Zones (Connectivity and Association with Environment)

Standing Points for Perspective Views

Typical Paths of Travel for Each Form of Anxiety

Miscellaneous Potential Paths of Travel Dependent Upon Individual
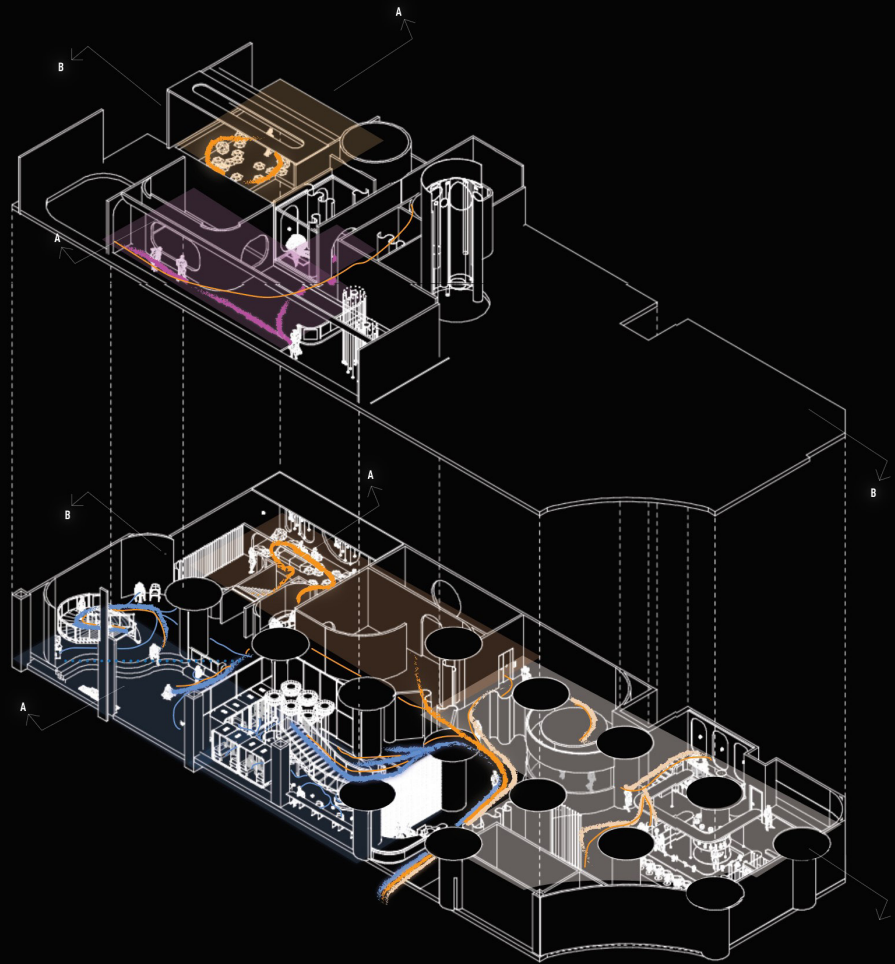
Axonometric Floor Plans
Not to Scale

V. Appendix

i. Podium Presentation

The podium presentation offers a glimpse back at where the project was at in December of 2022. Needless to say it has come a long way since then.

Andrew Scheetz

Atmosphere Collage

Mood Collage

Procession Collage

ii. Detailed Sections/Vignettes

For a more informational approach at some of the content and design elements that are present within the lighting experience, featured in this section are close-up detail drawings of a few particular areas.

The first area is a privacy pod, the next is a green ceiling, and the remainders are elements of procession into a space.
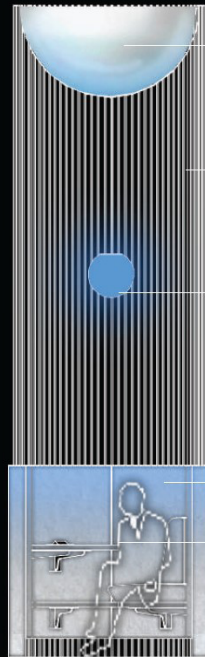
Mounted mirror ball to the ceiling; the element allows the individual to see everything that is happening around them without leaving the pod

Felt spindles suspended from ceiling ; permits the individual the opportunity to see a better view of the things around them while also being utilized as a sound barrier

Light source mounted to ceiling above; power is run through cord that travels through an opening in the mounted mirror ball

Caccoon-like seating to further emphasize privacy

Work surface for user's own benefit

Privacy Pod
Scale: 1/2" = 1'-0"

Sunlight penetration for promotion of a healthy, regulated
mindset during the experience

Moss paneling adhered to curved galvanized steel sheet

Sound-absorbing polyester fiber mattress built in behind
perforated steel panel

Moss system mounted to structure with provided profiles

Moss located within reach of the user to enhance the
engagement with the individual's external environment
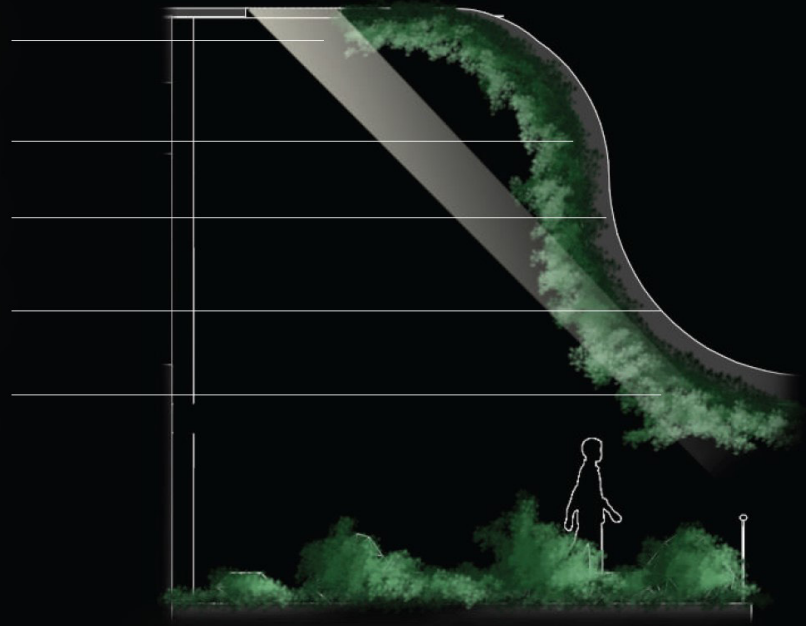
Green Ceiling
Scale: 1/4" = 1'-0"
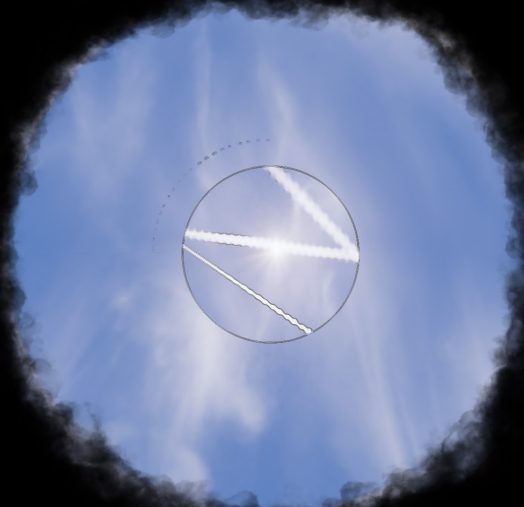
Procession of Sight for Environmental Connectivity for PTSD

iii. Final Presentation

For the last few pages, take a look at what this all looks like compiled together for the final thesis presentation.

Ephemeral Auras: Mood Regulation through Mediated Waiting Transition

Light has the potential to have a variety of effects on the spaces that it penetrates, whether it is natural or artificial. In this particular case, I am focusing on "auras" of light - auras meaning glowing objects or a field of light surrounding a given object. One particular area that I am connecting these studies to are the traits of differentiating anxieties that are present within people prior to getting onto their flights at airports. While being at their airport is stressful enough, the waiting period prior to boarding a flight can be naturally anxiety-reducing or varying levels per individual.
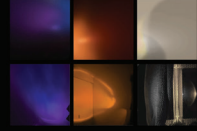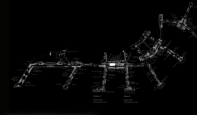
The goal of my thesis is to generate a lighting experience within the airport that individuals may travel through to alleviate their own personal anxieties. The site of this installation will be taking place at the Philadelphia International Airport, specifically utilizing four retail spaces in between Terminals B and C.

Total Square Footage of Lighting Experience: 12,806 square feet

Site Plan for Philadelphia International Airport

Enlarged Plan of Site

Lighting Studies on Aura and Materialization

When an individual becomes overwhelmed with Social Anxiety, it is a natural response for them to want to become isolated and to be within their own personal space.
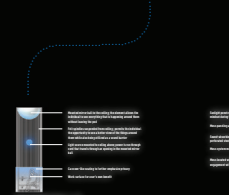
Within this particular part of the experience, privacy sleeping and relaxation pods are put into play. These privatized environments allow the individual to become engulfed in an entirely felt materialized room for noise cancellation, allowing them to feel disassociated from their external environments and in their own world. The pods feature an encapsulated dome that prevents anyone from the outside to look inwards at the person utilizing it, additionally, these rooms feature suspended mesh fabrics, which promote a privacy and division between the two users. To even further enhance the privacy component, the user has their own curtain that they are free to close if they want complete isolation from society.

Axonometric Floor Plan Legend:

- Social Anxiety Zones (Primary Disassociation from Environment)
- PTSD Zones (Connectivity and Association with Environment)
- Generalized Anxiety Zones (Connectivity and Association with Environment)
- Standing Points for Perspective Views
- Typical Paths of Travel for Each Form of Anxiety
- Miscellaneous Potential Paths of Travel Dependent Upon Individual
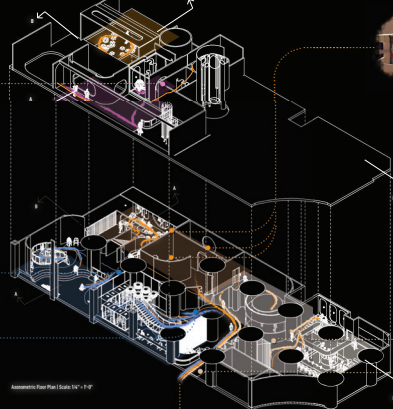
A part of the PTSD experience is bringing people back to reality; in this case, it is engulfing the individual into their own dreamscape in the form of nature.

The series of this aspect of the experience starts with a mirrored flooring that reflects the sky, naturally drawing the individual towards that space. As they look up, they experience that environmental connection with the sky. When then turning, they see a vignette of a dreamscape room that has a window to the ou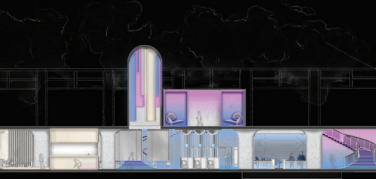tside. The scale of this progression continues to grow, as a need starts small and then grows into a plant. While further processing through the space, they reach the primary space where individuals are able to fully connect with their external environments. Greenery is brought into the space to ultimately form that connection; in addition, the ability to touch nature in the space enhances the relationship between the individual and their surrounding environment.

Individuals with Generalized Anxiety tend to find social situations and gatherings more comforting, as centers pieces. Interacting within their environments are factors in the alleviation and regulation process.

The Tea Bar and Lounge is an atmosphere within the lighting experience that grants individuals the opportunities to interact within this area in a multitude of ways; 2 person high-top seating is provided for one-on-one conversations, four-seated booths allow for a greater number of connectivity, and the bar itself grants the most amount of intertwining oneself with others in the space, all of which the individual has the control to decide where they want to be.

The Entry and Check-in area promotes a neutralized setting for all individuals upon entering the lighting experience. At a first glance, people are given the chance to take a look into the space, but are greeted with layered mesh fabrics that generate a sense of intrigue as to what is beyond the scope, which gets them prepared for what could be ahead of them.

To promote further clarification for the user, bright, neutral paneling faces them at the forefront, showing them other individuals utilizing the space and going through the motions of the experience to grant them a sense of safety.

Axonometric Floor Plan | Scale 1/4" = 1'-0"

User Personas

Aaron — Aaron is a 47-year-old man that suffers from Social Anxiety. When he is in social settings, he needs areas of reprieve, to decompress and obtain security. Within these spaces, he needs quietness, softness, and tranquility.

Jack — Jack is a 39-year-old man that suffers from PTSD. One of the things that Jack finds most calming to him is moments of stress are his connections with the outside environment. Within spaces, he needs transparency and texture.

Taylor — Taylor is a 33-year-old woman that suffers from Generalized Anxiety. She finds immense comfort in connecting and talking with others. Within spaces, she needs people and crowd of some form.

Andrew Scheetz | Thesis Final

Privacy Pod Detail | Scale: 1" = 1'-0"

Green Ceiling Detail | Scale: 3/8" = 1'-0"

Section A-A | Scale: 3/4" = 1'-0"

Section B-B | Scale: 1/4" = 1'-0"

Thank You!

As a final thank you, I would love to give a shoutout to my biggest supporters - my incredible family. Thank you all for always pushing me to try my hardest and to be the best possible version of myself as I could be. I could not have gotten through this without the support.

Lastly, I would love to thank all of my podmates, their advisors, and most especially, my advisor Sara McElroy. I could not have gotten through it without you - it is because of your help that I was able to bring this seed of an idea to life.

See ya later, Drex!