



# JUST CHILL.

Yuan Wang.

ID Major Design.



## Boil.

- Background.
- Demographic.
- The Issues.
- Aim.
- Client.
- Opportunity.

## Brew.

- Research.
- Synthesis.
- Finalize Direction.

## Steep.

- Ideation.
- Prototype Test.
- User Test.
- Finalize Design.

## Pour.

- Specification.
- Product Personality.
- Fabrication.

## Enjoy.

- Final Render.
- Final Product.





## Background.


I immigrated to Canada when I was ten, everything seemed so familiar, yet so strange. I thought I needed to integrate into the Canadian culture, to fit in, and I was proud of it when I did, but to realize I do not want to abandon my Chinese identity.

I want to embrace my culture and identity, but how?

## Demographic.

Gen Z (age 18-25) university students (downtown Toronto) who are experiencing mental health issues because of their fast lifestyle from the result of reaching due dates at school.



A stylized map of Ontario, Canada, rendered in a dark red color. Overlaid on the map is a white silhouette of a maple tree with three leaves.

Ontario universities  
student population:  
493,243.

## The Issue.

University students have been under stress to submit assignments on time. This have taught them to focus on final results in life, and forget to appreciate the joy of experiencing life to live more comfortably. I hoped to help improve their mental health through Chinese tea ritual which values the process and experience of making tea to meditate the mind.





## Existing Solutions.

- Partnership with institutions to develop action plans that help guide and support of services to students.
- Address mental health on campus, with services to respond to student needs.

Current solutions make students feel discouraged by labeling them as “patients” with mental health issues. How might we help student without treating them as medical patients?

The background of the slide features a target with concentric rings in shades of blue and purple, with a red bullseye in the center. A red arrow with a black shaft is shown in mid-flight, having just struck the bullseye. The background is a soft, out-of-focus blue sky with faint clouds.

## Aim.

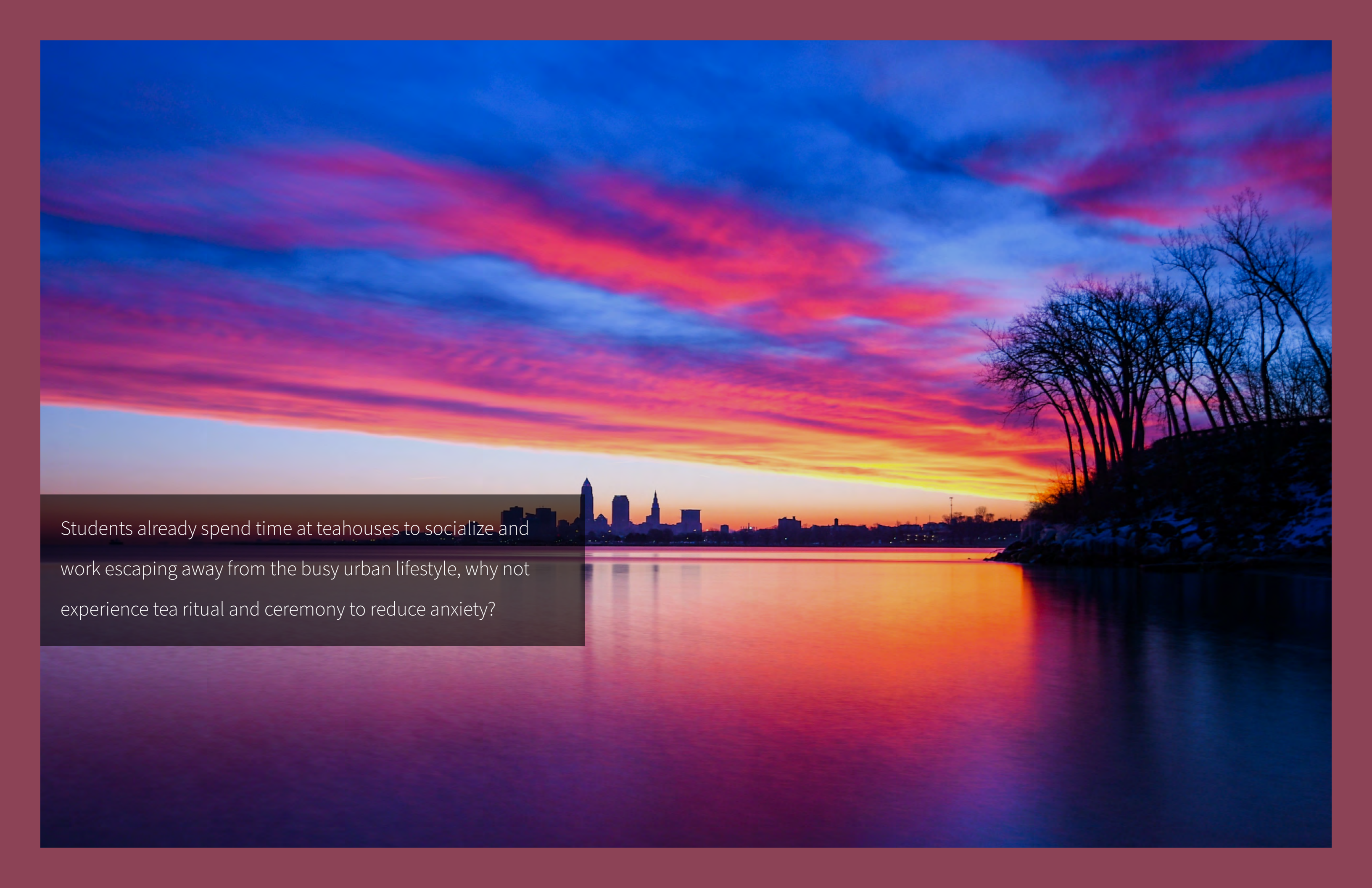
- Reduce university students' anxiety and stress caused by living with school and personal life.
- Incorporate cultural background to present an authentic Chinese culture to the audience.

A close-up photograph of a matcha bun, a soft, round, green-colored bun, resting on a white ceramic plate. The bun is dusted with matcha powder. In the background, a dark green boba drink in a clear plastic cup is visible, with a white sleeve that has the ICHA-TEA logo and name. The logo consists of a white geometric pattern surrounding the Chinese characters '一茶間' (Yi Cha Jian). The drink is filled with a light-colored liquid and black boba pearls. The scene is set on a light-colored surface, possibly a table or counter, with a soft, warm light source creating a gentle glow.

Client: Icha Tea.

An independent teahouse situated in Toronto's Chinatown that aims to present an authentic tea culture to consumers with the display of tea ritual & ceremony, along with tea based products.



A vibrant sunset scene with a city skyline in the distance. The sky is filled with streaks of orange, red, and purple, transitioning into a deep blue. The sun is low on the horizon, casting a bright glow. The city skyline is silhouetted against the bright part of the sky. The water in the foreground is calm, reflecting the colors of the sunset. On the right side, there are bare trees on a hillside. A dark semi-transparent box is overlaid on the left side of the image, containing white text.

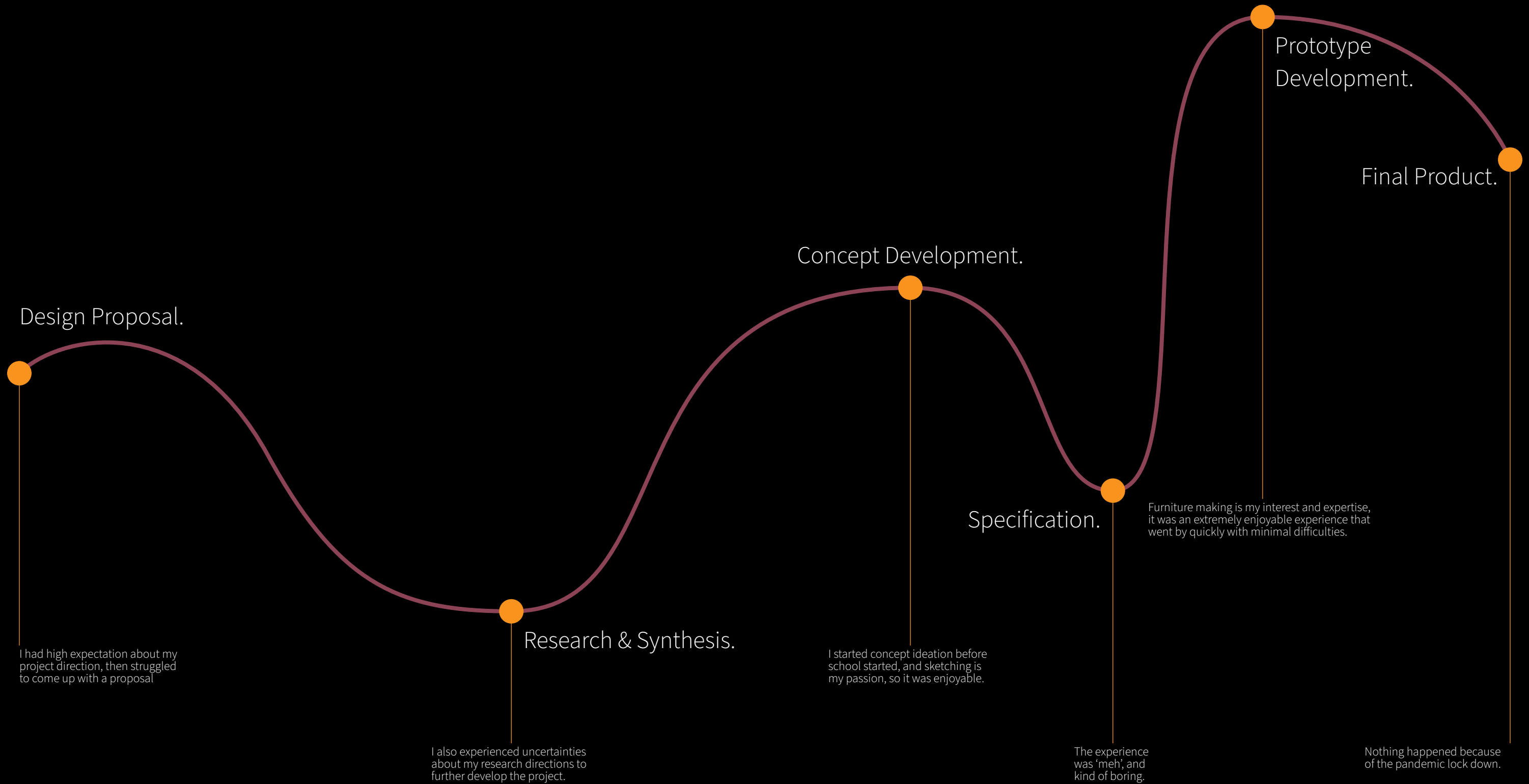
Students already spend time at teahouses to socialize and work escaping away from the busy urban lifestyle, why not experience tea ritual and ceremony to reduce anxiety?

# Opportunity.

- Improve a teahouse to encourage university students to practice tea ritual & ceremony to improve their mental health.
- Create an environment that could help students to improve their mental health.
- Improve a space in the school environment to increase university students' productivity.

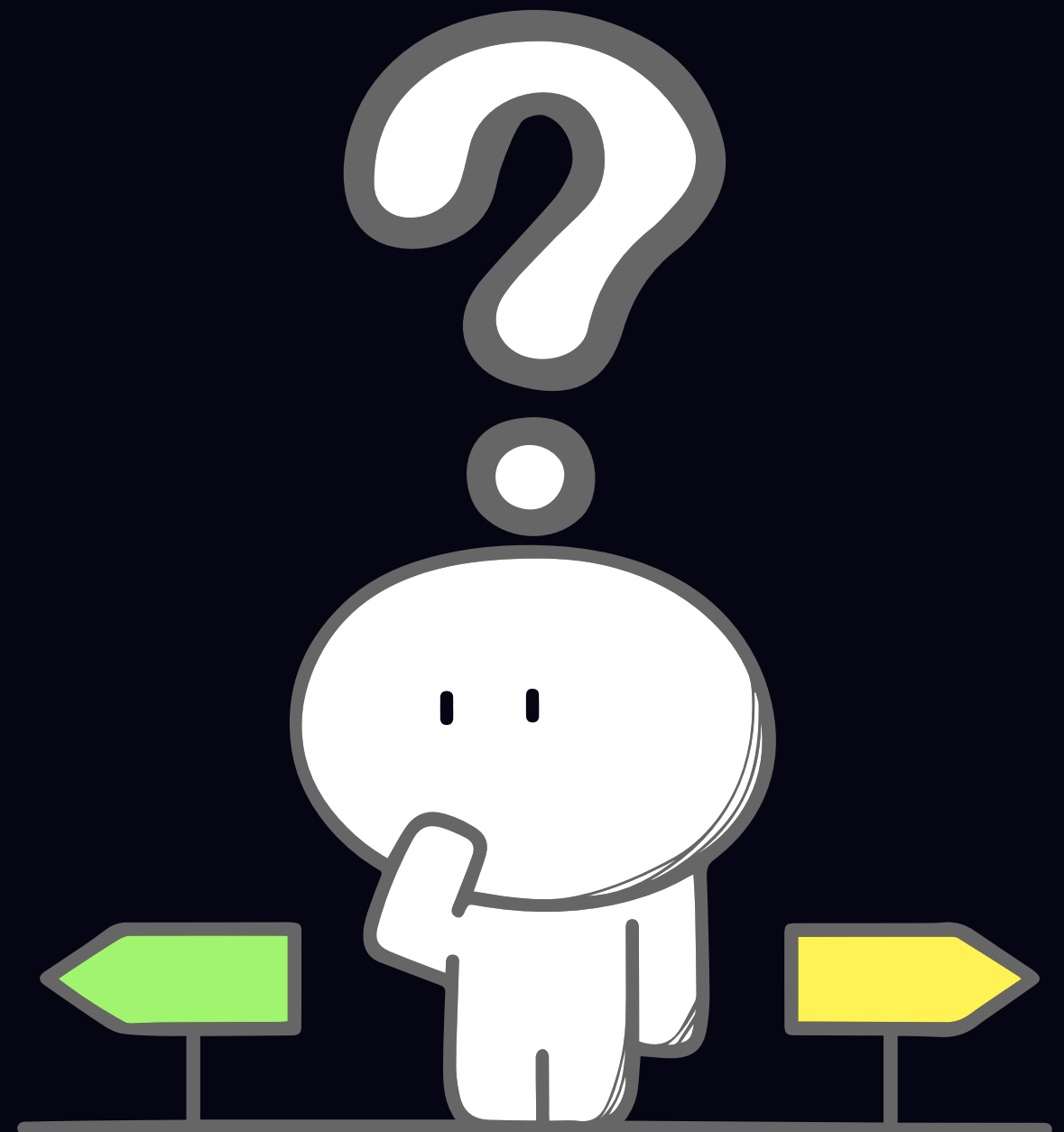


# Timeline



# Research Direction.

I initiated the research on university students' experience of anxiety and their productivity level based on my three design opportunities. To determine if I should develop the project to specifically focus on methods that would reduce university students' anxiety crisis, or to increase their productivity as a method to reduce their anxiety level as a result.



# Research Questions.

- Is there a connection between students' job status and anxiety?
- Does student productivity affect their experience of anxiety?
- Where students work at and why? What environment do they look for?
- Existing workspace at other universities.
- Why do students experience anxiety?
- Should people just chill and forget about productivity?



# Research Methods.



## SECONDARY.

- Productivity.
- Study space.
- Anxiety.

## JOURNEY MAP.

- Observation.
- Shadowing.
- Conversation.



## SURVEY.

- University students.
- Part time jobs.

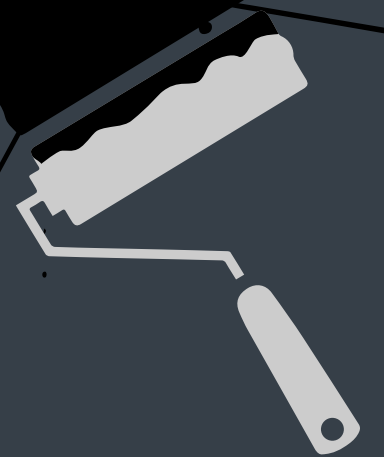
## EXPERIENCE.

- Student workspace.
- Teashops.
- Ryerson University.

# Productivity vs Anxiety.

Insights from the journey maps also present a connection between anxiety level & productivity level of the personas.

Anxiety is a product of chronic stress, which reduce productivity, when it becomes severe.

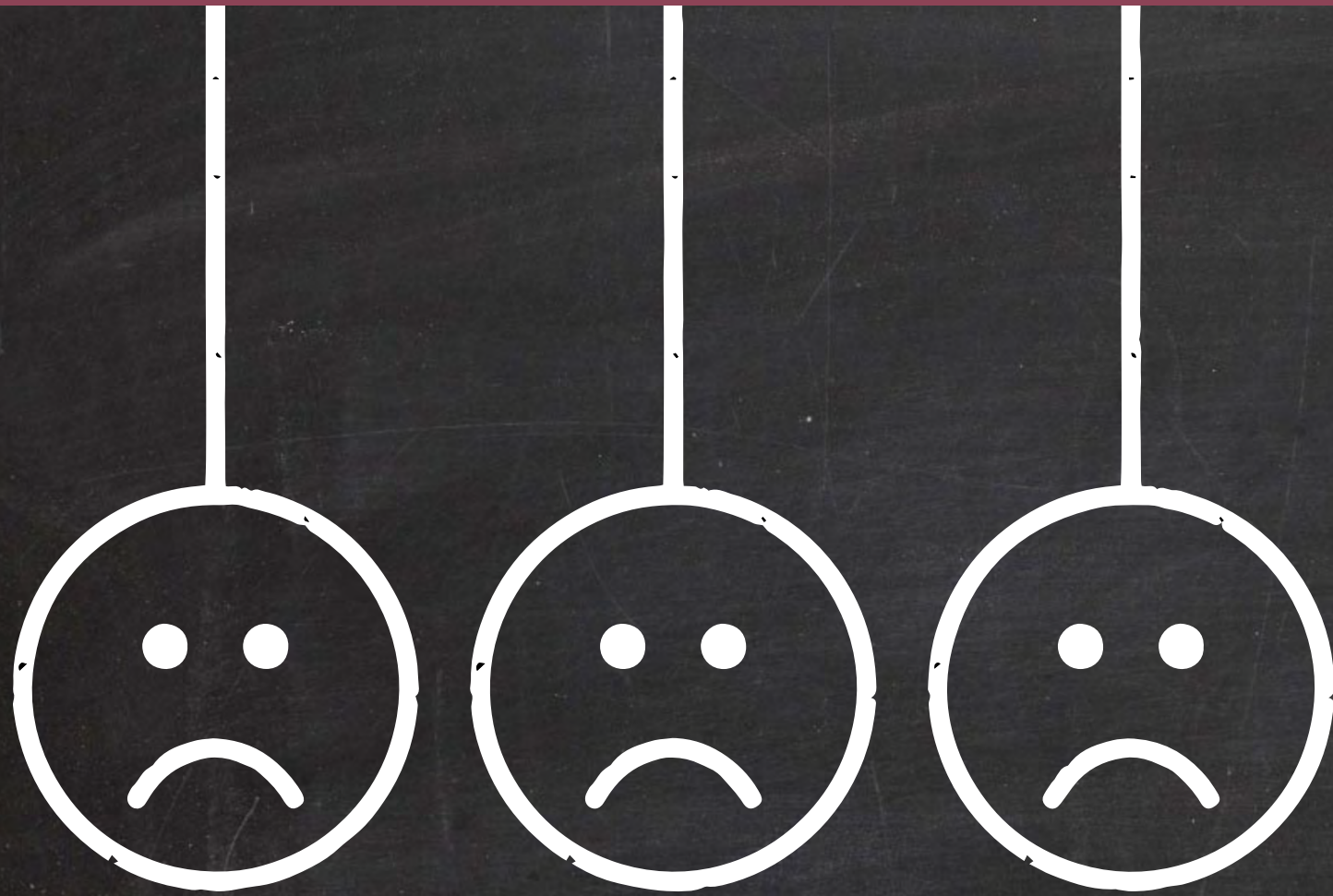


# What Is Anxiety?

“Anxiety is not an emotion but an experience, it harms our ability to be in control, making us feel paralyzed.”

When I am consumed by anxiety, I worry about everything,  
I cannot get anything done, I get stuck in an endless loop.





## Distraction? Seriously?

“Distraction can be surprisingly effective to improve your mood. When you experience anxiety or depression, it will interrupt your negative mood and dissipate it.”



## Distractions to Help.

- Talk to people, and listen to noises.
- Take short breaks.
- Exercise or just go out.
- Spend time outside your common space.

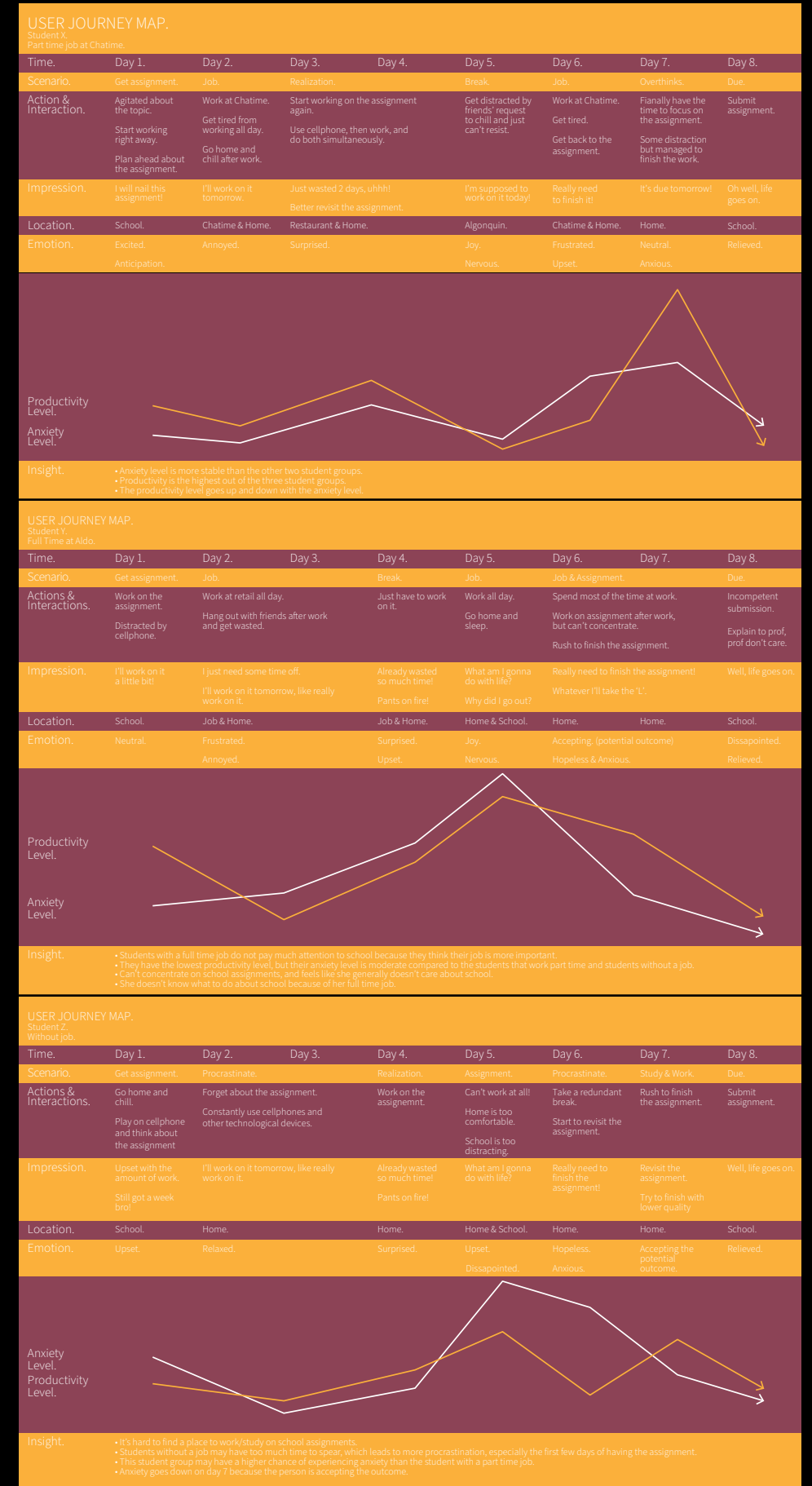


# Journey Map.

I shadowed 3 students weekly life to observe how they live their daily life on a weekly basis, and how it would affect their productivity experience of anxiety.

## Synthesis.

The student who has a part time job shows more productivity, experience less but more stable anxiety level than students who work full time, and don't have a job. Distraction of school, job, and home increase productivity and reduce anxiety. Would further research support the hypothesis?

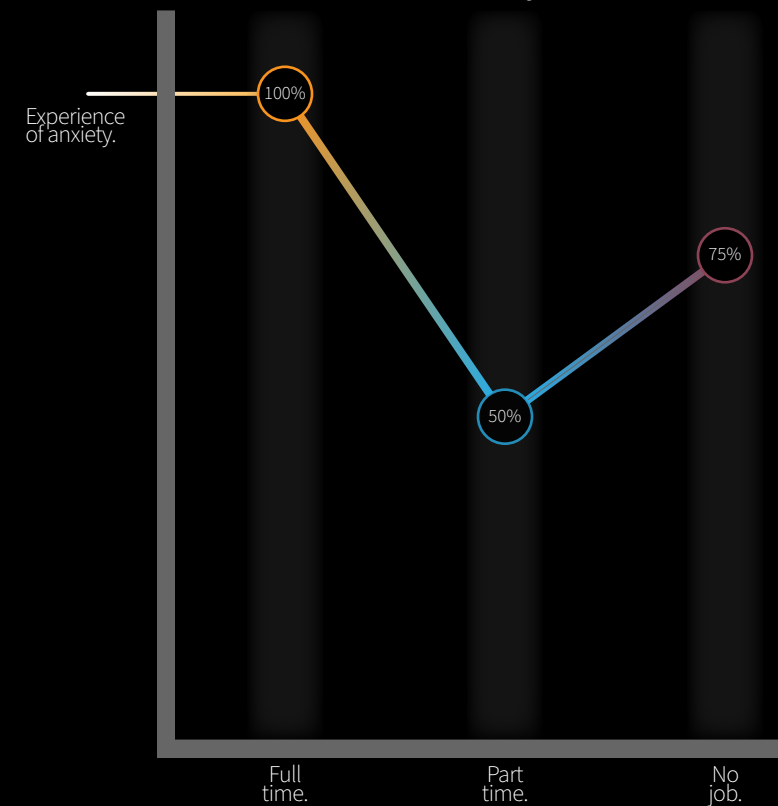


# Connection Between Job Status & Anxiety.

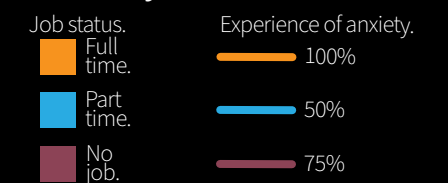
Survey university students about their job status, and experience of anxiety level. A balance between time spent at school, home, and job decrease students' chance to experience anxiety.



Job Status & Anxiety.



Data analysis.



Students with a full time job have to split their time on school and job, this creates a conflict of interests and completely distracts their focus between school, and job. Students who don't work could fully concentrate on their school, but this also causes too much stress because they would spend too much focus on home and school. While students with a part time job could balance their life well between home, school.



## Could Students' Workplace Affect Anxiety & Productivity?

There seems to be a conflict of interest between their preferred place to study & work on their assignments.

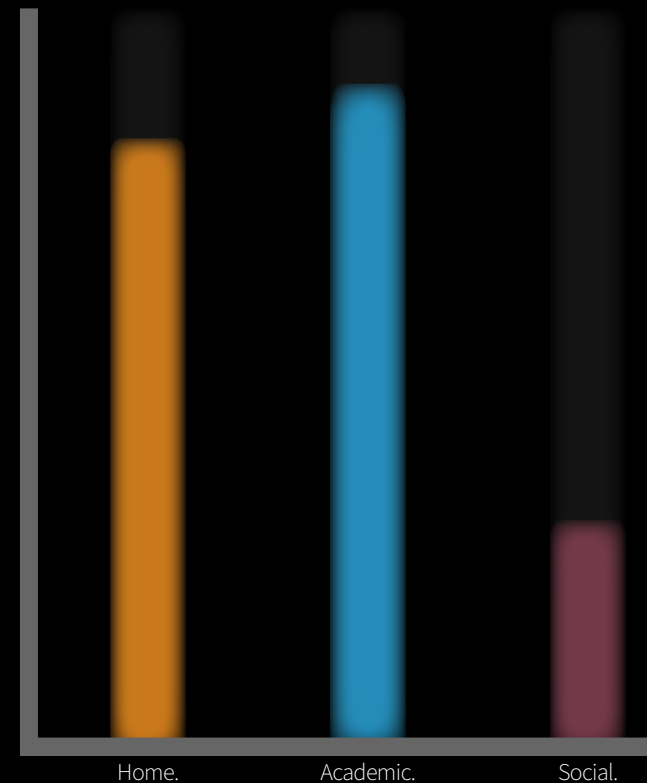
Do they affect students' productivity and anxiety level?



# Students Study Space.

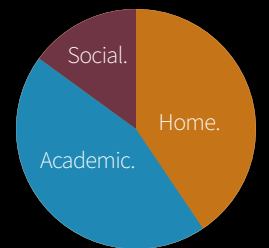
University students mostly study at academic environment like school or library, and home, over social spaces like teahouse.

## Where Do Students Study At?



## Data analysis.

- 55% Home.
- 40% Academic.
- 20% Social.

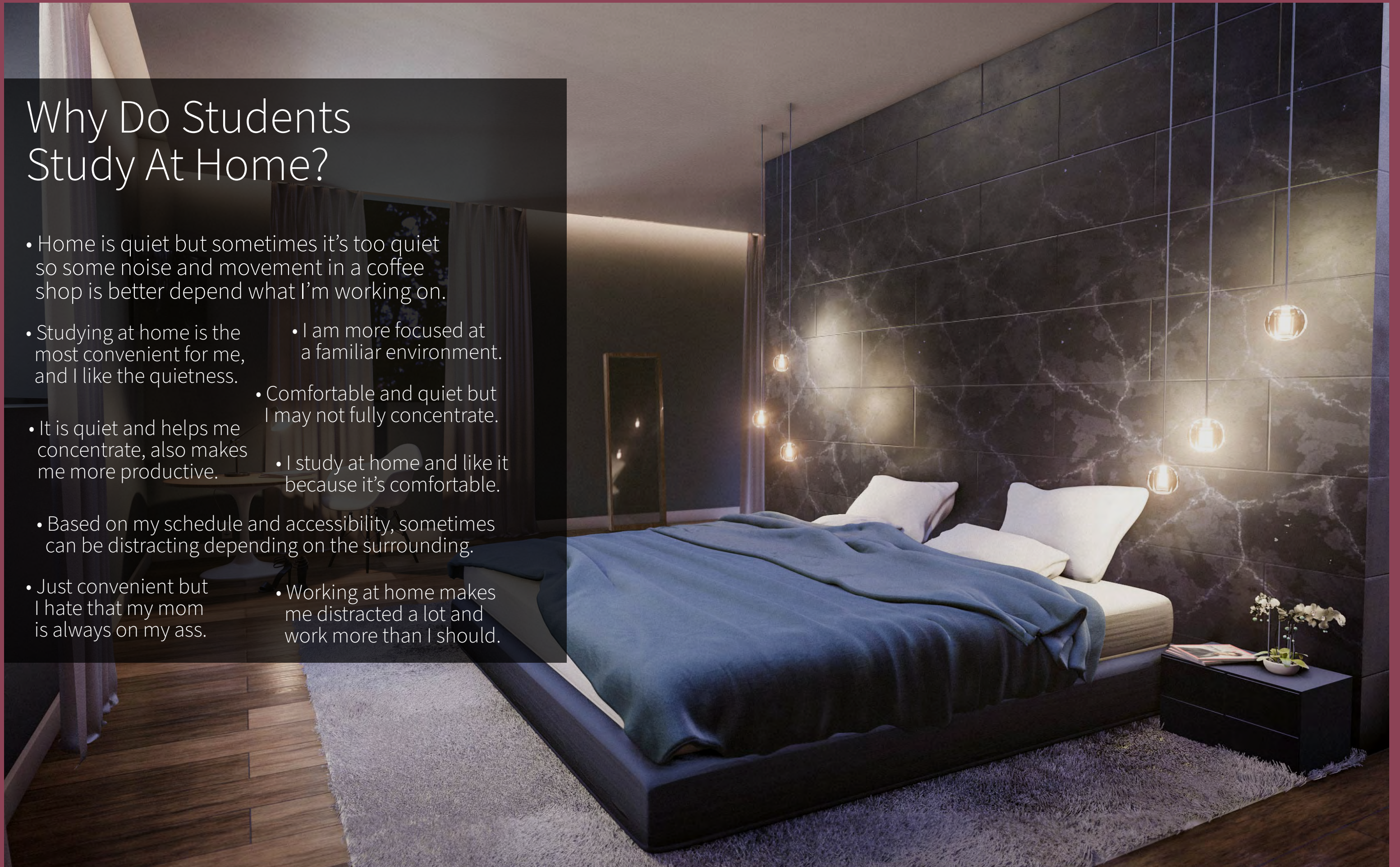


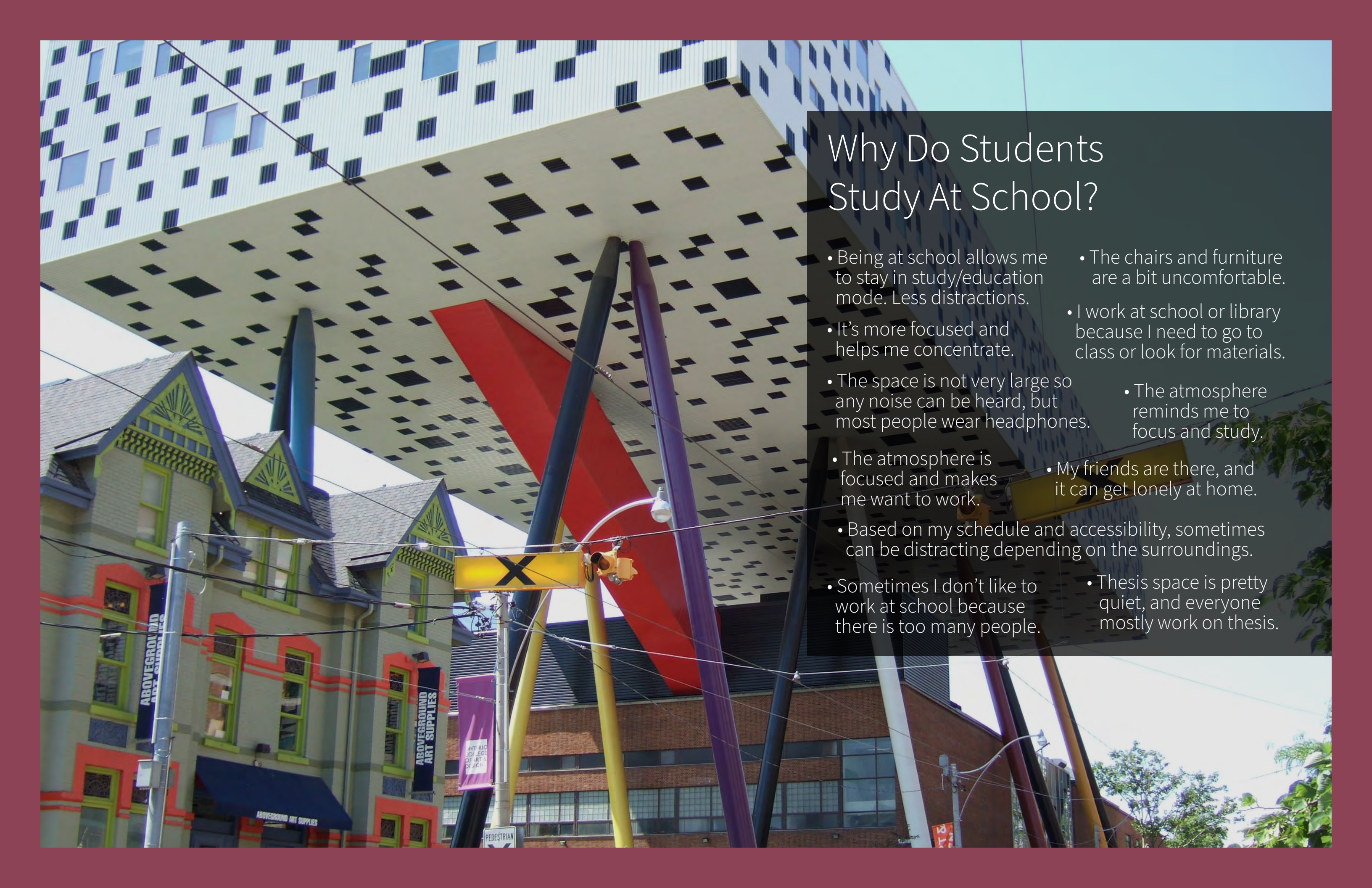
People prefer to study at home and an academic environment like school or library.

Social spaces like coffeehouse & teahouse have less favour among university students, and it may be true for any spaces that are not home nor an academic environment.

# Why Do Students Study At Home?

- Home is quiet but sometimes it's too quiet so some noise and movement in a coffee shop is better depend what I'm working on.
- Studying at home is the most convenient for me, and I like the quietness.
- It is quiet and helps me concentrate, also makes me more productive.
- Based on my schedule and accessibility, sometimes can be distracting depending on the surrounding.
- Just convenient but I hate that my mom is always on my ass.
- I am more focused at a familiar environment.
- Comfortable and quiet but I may not fully concentrate.
- I study at home and like it because it's comfortable.
- Working at home makes me distracted a lot and work more than I should.



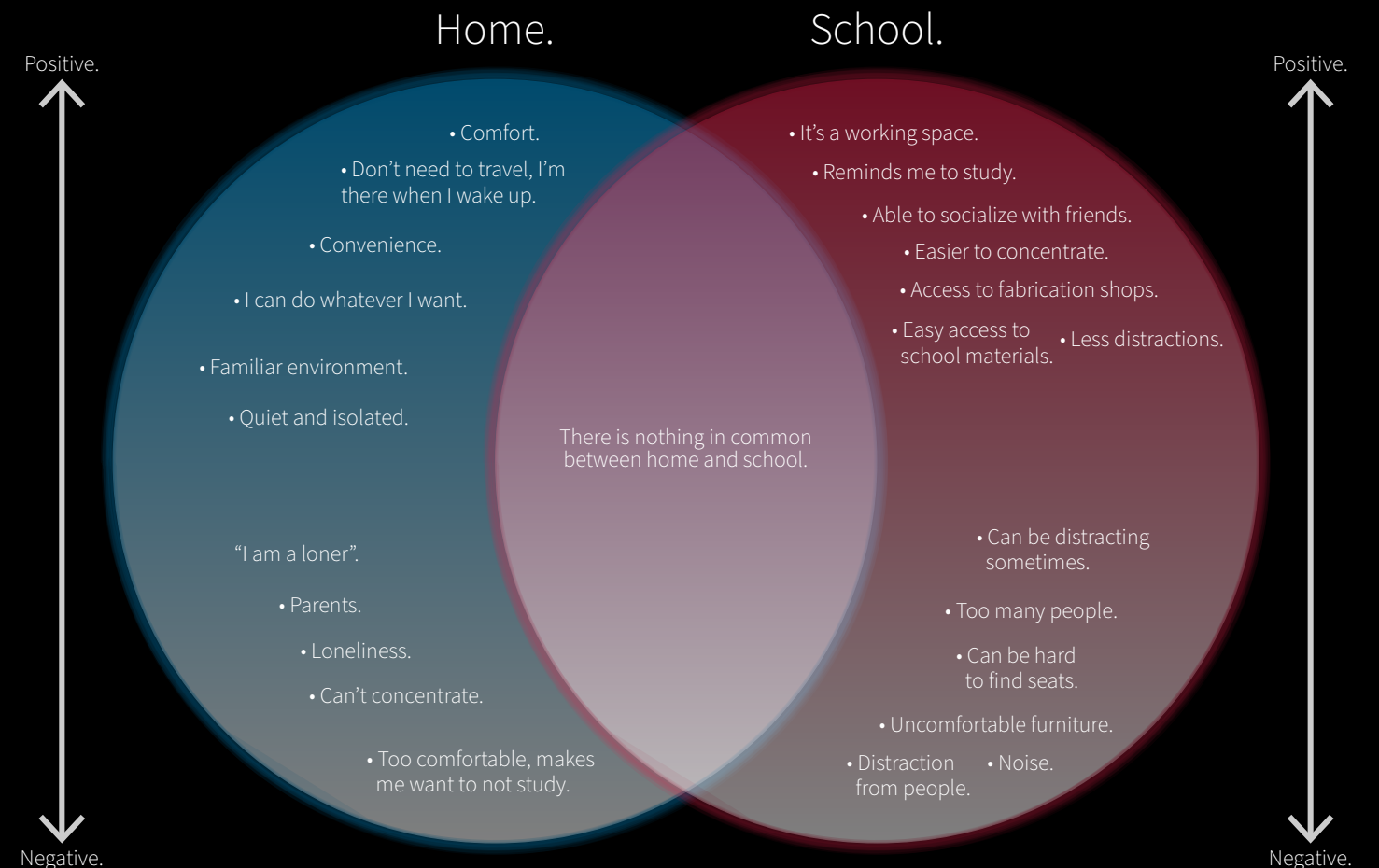


## Why Do Students Study At School?

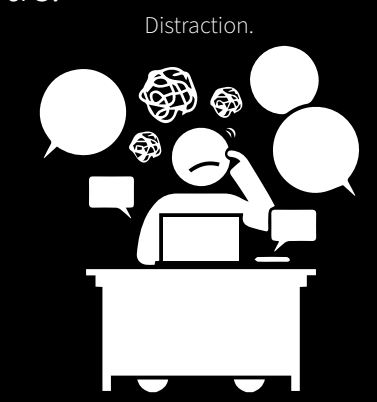
- Being at school allows me to stay in study/education mode. Less distractions.
- It's more focused and helps me concentrate.
- The space is not very large so any noise can be heard, but most people wear headphones.
- The atmosphere is focused and makes me want to work.
- Based on my schedule and accessibility, sometimes can be distracting depending on the surroundings.
- Sometimes I don't like to work at school because there is too many people.
- The chairs and furniture are a bit uncomfortable.
- I work at school or library because I need to go to class or look for materials.
- The atmosphere reminds me to focus and study.
- My friends are there, and it can get lonely at home.
- Thesis space is pretty quiet, and everyone mostly work on thesis.

# Home vs School.

A comparison between home and school to help me identify the strengths and deficiencies of both spaces, and understand how to develop a common space that emphasizes the strengths and minimizes the deficiencies to help increase students' productivity as a method to reduce their anxiety.

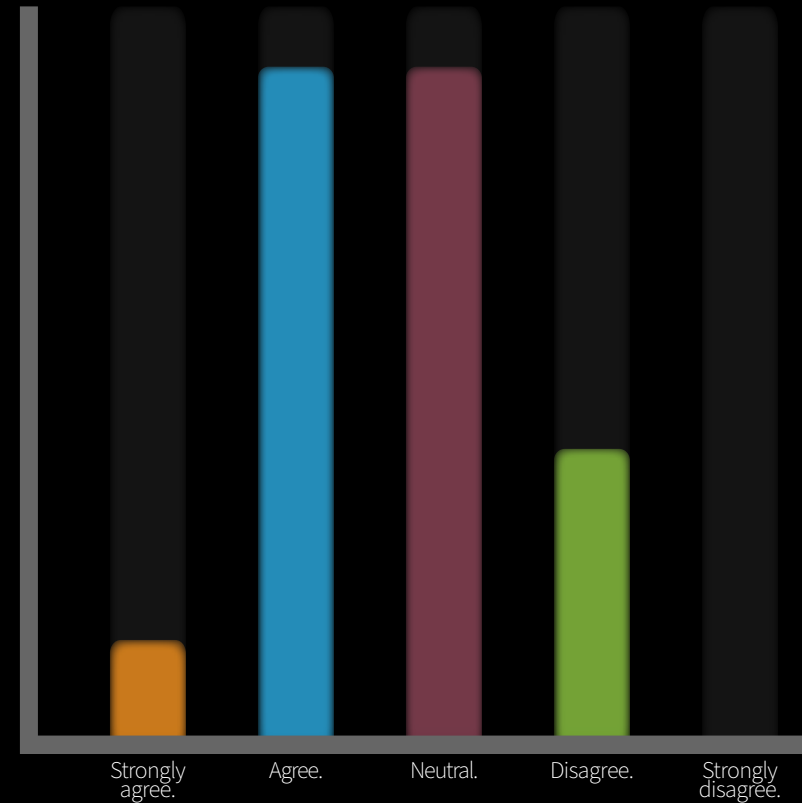


The Feedbacks Revolve Around 2 Characteristic.

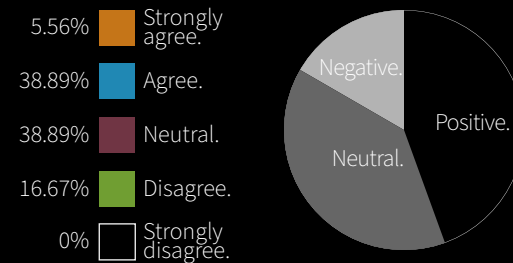




## Can School Be Too Distracting?



### Data analysis.

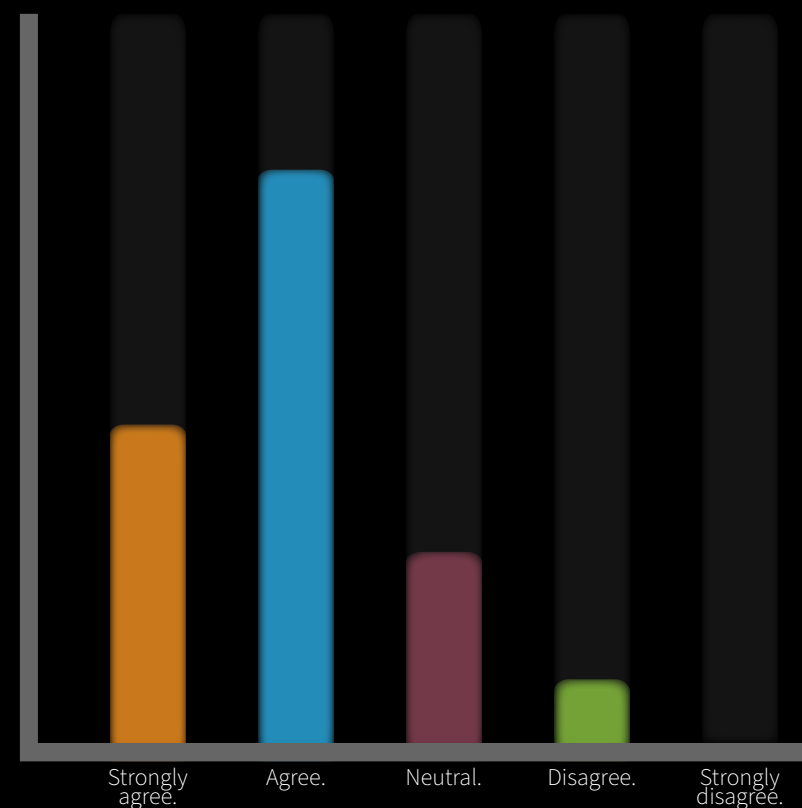


No respondent answered "strongly disagree", which suggests that no one is solidly against the hypothesis.

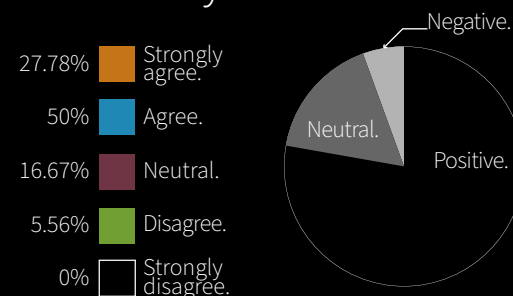
Respondents who answered "neutral" have the tendency to not knowing their preference, but have a slight favor toward the "positive".

There are more positive reactions toward the hypothesis than negative reactions.

## Can Home Be Too Comfortable?



### Data analysis.



No respondent answered "strongly disagree", which suggests that no one is solidly against the hypothesis.

Respondents who answered "neutral" have the tendency to not knowing their preference, but have a slight favor toward the "positive".

The positive reactions far outweigh the negative reaction.

## Distraction vs Comfort.

While many agree that school can be distracting to study at, especially at open spaces, some students are unsure if school is too distracting to study at, yet no one strongly opposes the hypothesis though.

Interestingly, students still prefer to study at an academic environment whether it is school or library, but just needs to be quiet and comfortable enough to study for long.

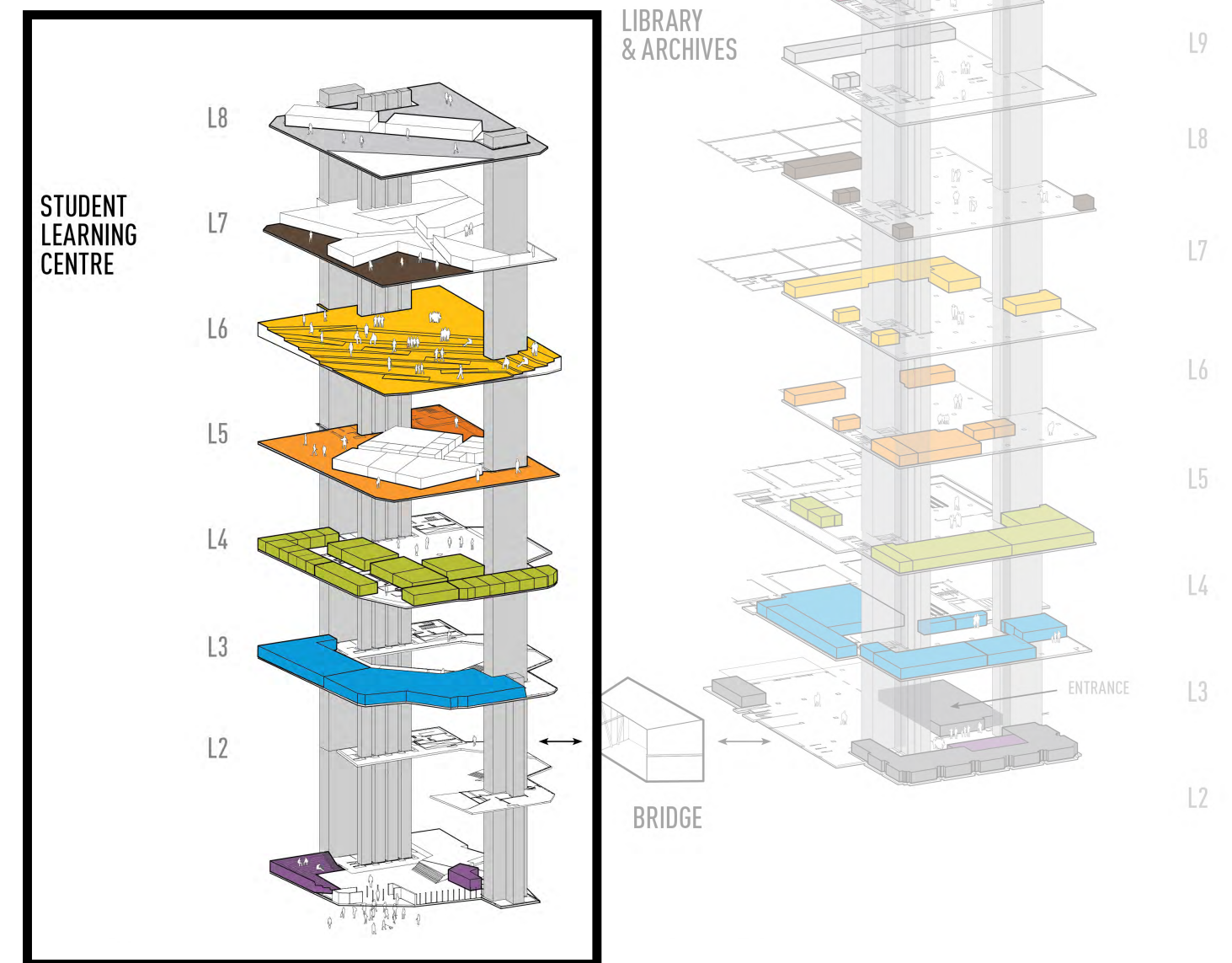
Although home is more convenient and comfortable, and quiet for students to study at, isolation and comfort could potentially distract them more because who really want to study at home? The academic environment of school, its slight discomfort and noises would benefit students more to increase productivity, and concentrate on their school assignments. However the study space needs a balance between comfort and distraction.

# Ryerson University

## Case Study.

- Located in the core of downtown Toronto.
- Surrounded by Eaton Center, the Business, and the Entertainment District.
- Ryerson has less people, student's needs are better focused.
- The campus is compact and modern.
- University of Toronto is boring.

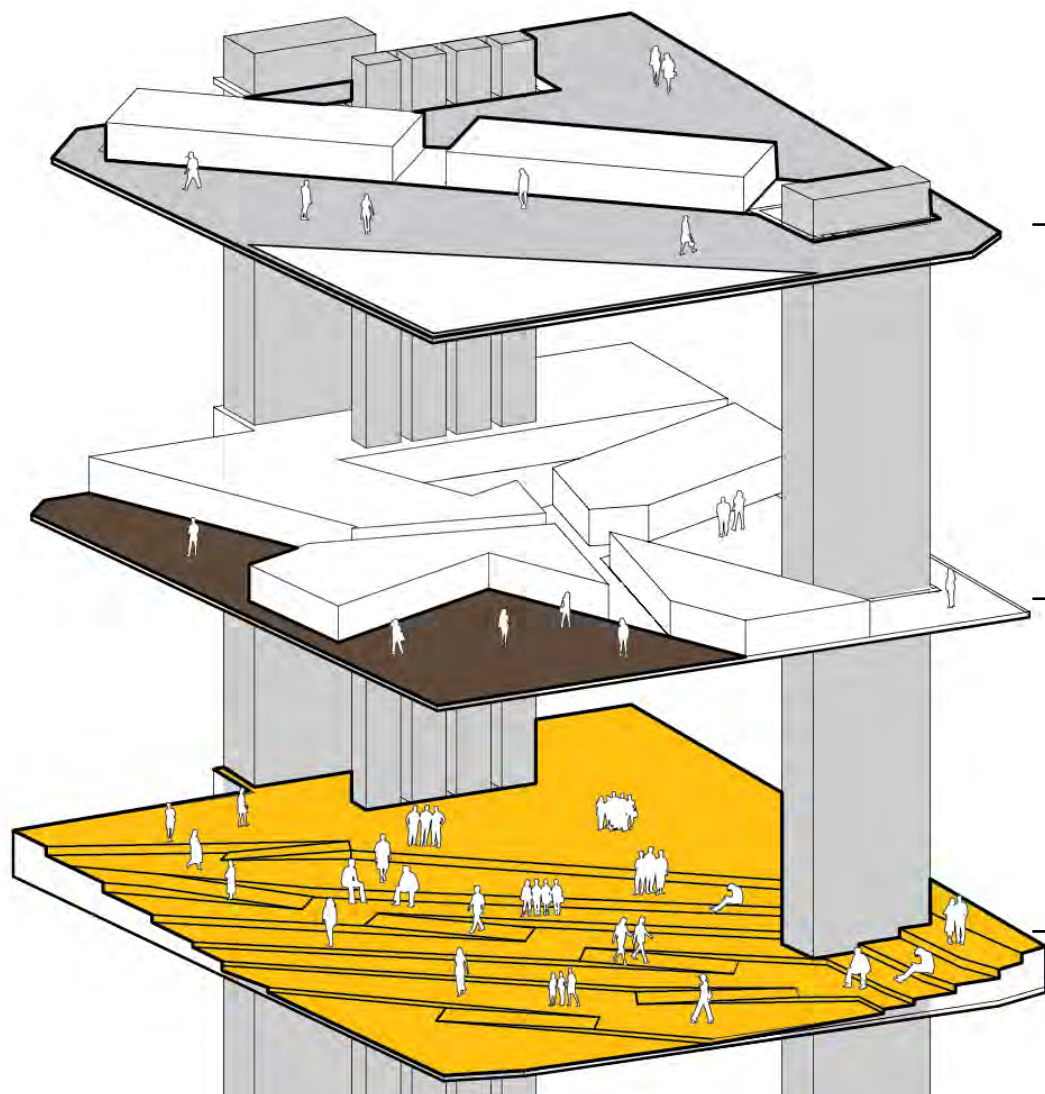
Student Learning Center is a dedicated space for students to study, and has some interesting floor levels where I want to focus on.



Primary focus.

# Student Learning Center.

Open study space exist at all floor levels, but it is a common amenity that exist in any university. I want to focus on the interesting floor levels at the student learning center to learn what works and not works.



## Group Study Room.

- Permits low volume conversation only.
- A whiteboard, and a LCD screen.



## Floor 8: Open Space.

- Panoramic view of the city.
- Open study space and casual seating.



## Floor 7: Quiet Space.

- Prohibits talking, eating, and cell phones use.
- Individual use only.



## Floor 6: Casual Space.

- Open space with casual seatings.
- Earth tone interior.
- Mostly sit on the floor.



- There is a boundary between workspace, but it's not well designed for individual need.

- Students are still vulnerable from distractions, also lacks privacy.

- A lot of natural light.

- The tables are separated, but everyone can see each other.

- Separation between individual space and group space.



- Lack of boundaries between the tables.

- Good distance between people.



- Is this a place to chill or a place to study?

- The bright furnitures may be distracting.



- Lacks natural light, but is bright.

- The room is quiet and isolated, but looks like an interrogation room.



## Study Space Insight.

- School has a lot of distraction, and home is too comfortable.
- The environment needs to be comfortable, but also remind people to study.
- Student workspace needs to minimize noise and distraction but not confined and isolated.
- Segregation between spaces that have different purpose.

# Why Don't You Prefer To Study At Teahouse?

I want to learn what prevent students to study at teahouse, to determine how the space could be improved to help students maximize their productivity, and reduce their anxiety.

## Distraction.

- Too loud which makes it hard to concentrate.
- Not quiet enough.
- Noise and no personal space.
- Too many people, and noisy.
- A lot going on and movement.
- Like to study by myself.
- Coffee shops can be really busy sometimes.
- I'm easily distracted.
- It's too open, and easy for me to get distracted.
- Loud, and distracting.
- It's a little busy.

## Convenience.

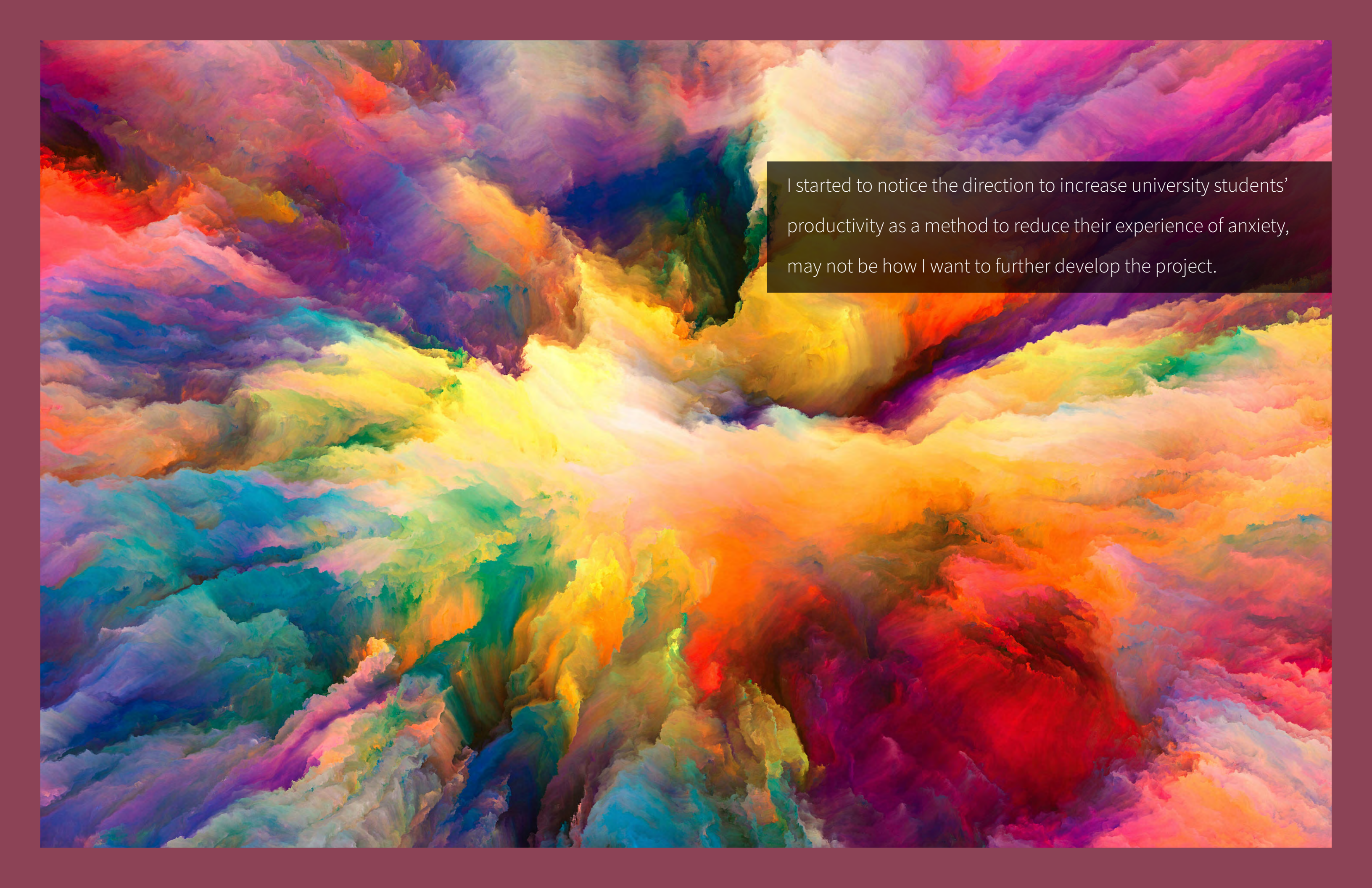
- Being at home or school I can just get food and not have to pack all of my things with me.
- Finding the time to go out my way to study there.
- I am lazy to leave the house.
- Spending money, and lack of seating.
- I don't like to get up and walk away from my computer to clear my mind.
- Can't find people to study there with me.
- No transportation to travel.
- Pressure of buying items, and my intent of being in the space will be different than other people.

## Hold on a Sec.

It would be unnecessary and counter intuitive to design a study space to increase students' productivity because it does not help reduce students' experience of anxiety nor improve their overall mental health significantly.

I settled to move away from developing a study space for students, instead to focus on how to improve a teahouse for students to chill and relax, that helps attract them from their usual environment of home and school, to create an environment where they could immerse in the tea culture.

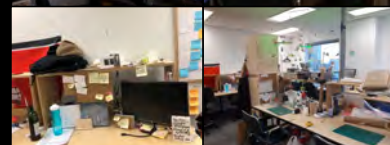
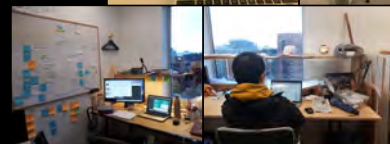




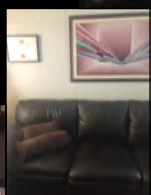
I started to notice the direction to increase university students' productivity as a method to reduce their experience of anxiety, may not be how I want to further develop the project.



Uncomfort



Quiet



Busy



Comfort

Only a few people sent photos of home. There lacks a middle space for students to spend time at, whether to study, chill, or distract them from school and home.

# Third Space.

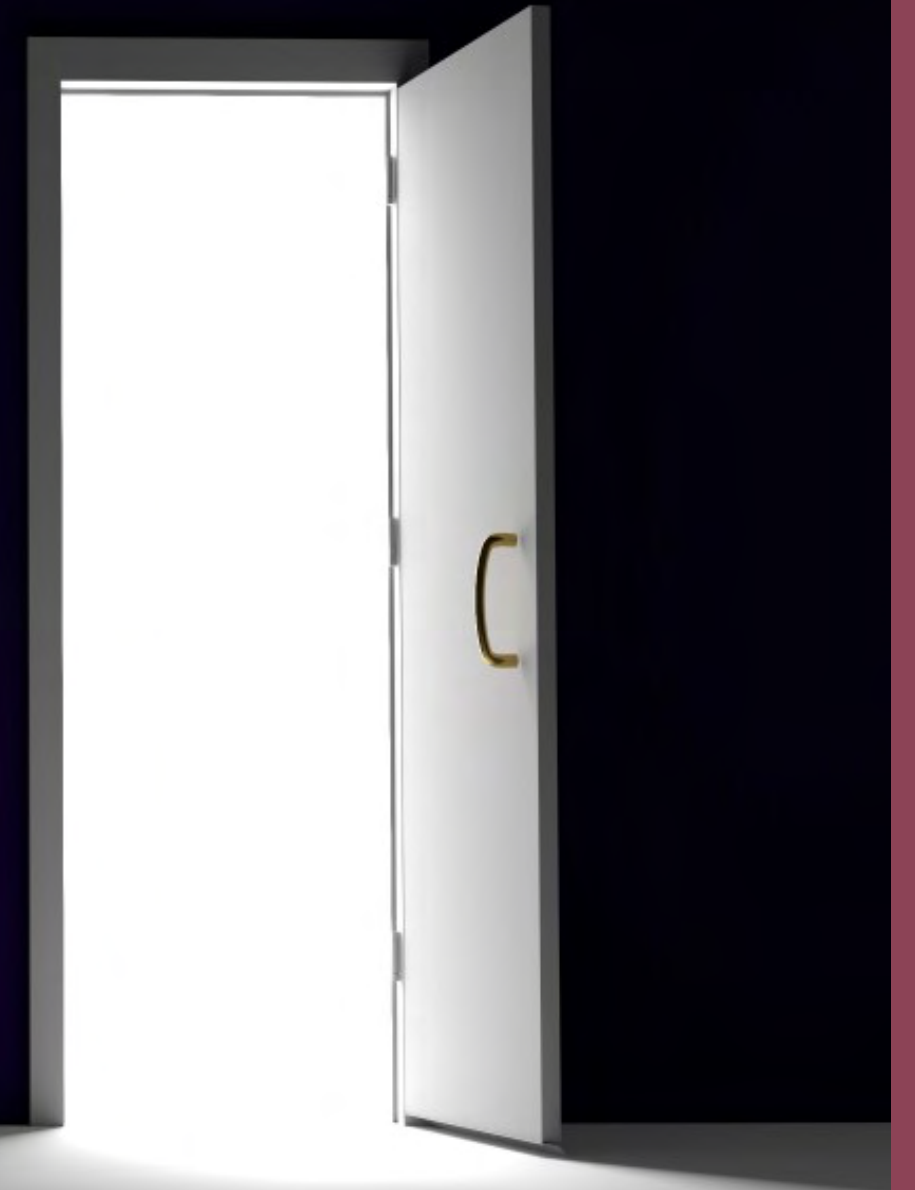
A hangout spot, or a social environment for students to chill and relax, either individually or collectively. It is essentially a “home away from home” that provide a recreation zone away from home and school.

Could teahouse be that space?



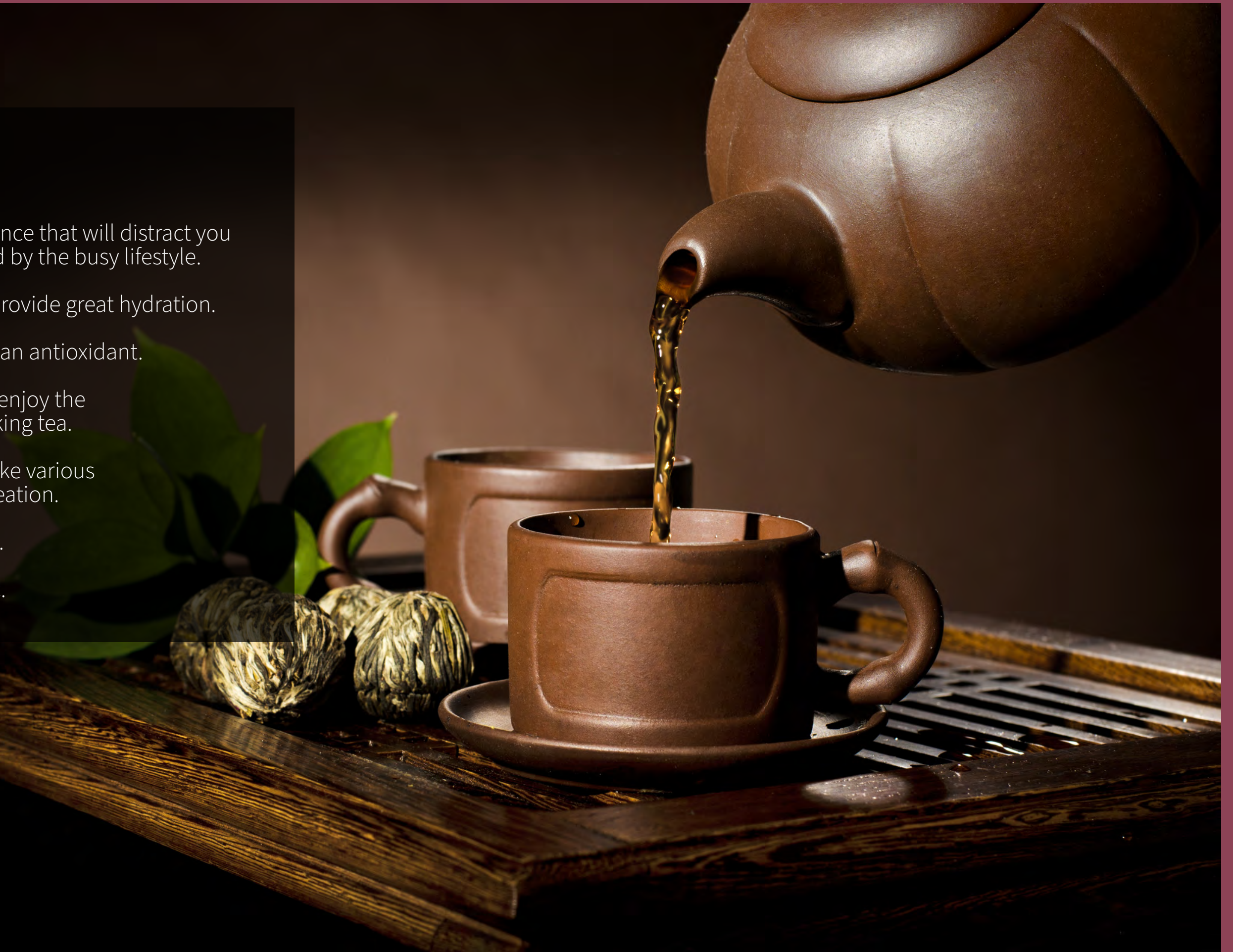
# Design Direction.

- A teahouse that provide university students a place to study & socialize through tea ritual and ceremony.
- A teahouse for university students to chill and relax, socialize and meditate through the practice and experience of tea ritual.



## Benefit of Tea.

- Tea ritual is a calming influence that will distract you away from the stress created by the busy lifestyle.
- Restorative drink that also provide great hydration.
- Medicinal drink that acts as an antioxidant.
- Sit down and make time to enjoy the process of making and drinking tea.
- Infinite combinations to make various drinks for pleasure and recreation.
- Tea is an antidote to poison.
- Comforting and therapeutic.



Can I improve a teahouse to attract university students to socialize and decrease their anxiety?



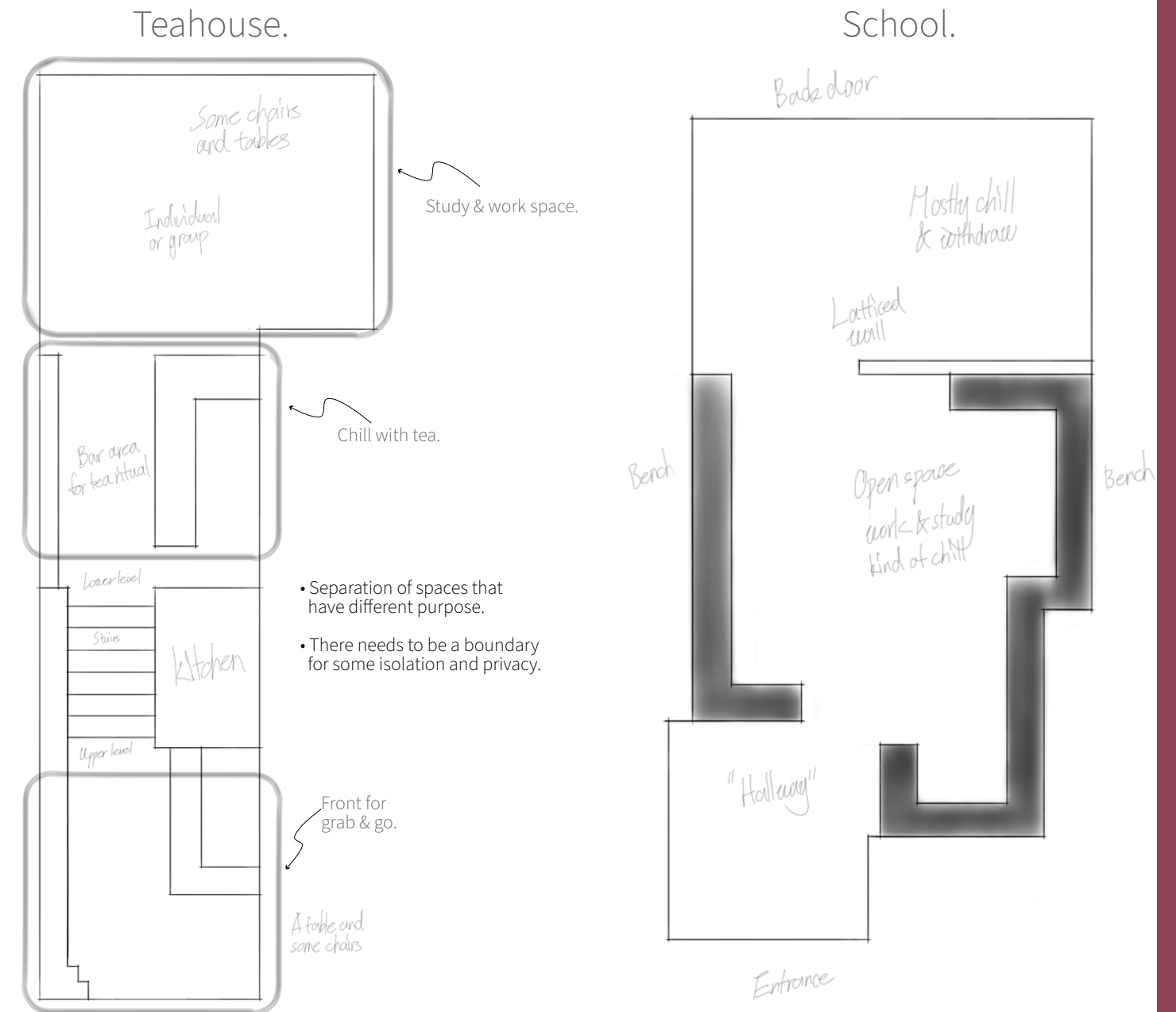
Take Pill. Just Chill.



# School vs Teahouse.

Comparison between objects and environment.

	School.	Teahouse.
Object.	<ul style="list-style-type: none"> <li>Organized but boring.</li> <li>Cheaply done.</li> <li>Usually constructed with recycled materials.                             <ul style="list-style-type: none"> <li>Handmade by shop technicians.</li> </ul> </li> <li>No conformity of style.</li> <li>Horizontal space distribution.</li> <li>It works? Let's have it!</li> <li>Function over form, yet still sucks at function.</li> <li>Utilitarian, but sucks at it.</li> <li>Lacks customization, has a single purpose.</li> <li>Quantity over quality.</li> <li>Students don't care about the maintenance.</li> <li>Students bring their own equipments.</li> </ul>	<ul style="list-style-type: none"> <li>Less quantity, so more conformity of style.</li> <li>Still very much cheaply done.</li> <li>There's more harmony between the furnitures.</li> <li>Still don't feel and look comfortable.</li> <li>Lacks customization, has a single purpose.</li> <li>Horizontal space distribution.</li> <li>Teawares can't be taken out of the teahouse.                             <ul style="list-style-type: none"> <li>Designed for in house usage only.</li> <li>Usually fragile and made from clay.</li> <li>Made from plastic for grab &amp; go.</li> <li>Not designed to be portable.</li> <li>Not cheap.</li> </ul> </li> <li>Equipments are provided by the teahouse.</li> </ul>
Work.	<ul style="list-style-type: none"> <li>Open space for students to work.</li> <li>Academic materials.</li> <li>Work oriented furnitures.</li> <li>Freedom of movement. (mostly)</li> <li>Noise and distraction from people and machines.</li> <li>Study space everywhere.</li> </ul>	<ul style="list-style-type: none"> <li>Away from the entrance.</li> <li>At the back, away from traffic.</li> <li>Away from movement.</li> <li>Close to the chill space.</li> <li>Almost no movement.</li> <li>Work oriented furniture, slightly better than those at school.</li> </ul>
Chill.	<ul style="list-style-type: none"> <li>Spacious.</li> <li>Outside of school, but still part of the school environment.</li> <li>Park, Grange.</li> <li>Beside the school cafe.</li> <li>Some isolation from the rest of school</li> </ul>	<ul style="list-style-type: none"> <li>Close access to tea.</li> <li>Darker lighting.</li> <li>Interaction with tea ritual and the staffs at the tea bar.</li> <li>Minimal movement.</li> <li>Essentially a bar.</li> <li>Bar chairs.</li> </ul>




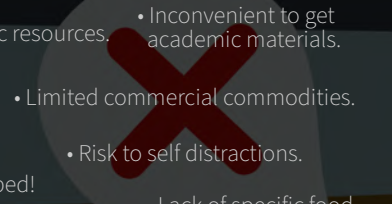



Positive.

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• A place to socialize and interact with students.</li><li>• Convenience of academic resources &amp; materials.</li><li>• Remind people it's an academic environment.</li><li>• People know to be quiet. (sometimes)</li><li>• Quietness in some spaces.</li><li>• Combination of spaces.</li></ul> | <ul style="list-style-type: none"><li>• Risk of self distraction from technology.</li><li>• Comfort.</li><li>• Minimal movement.</li><li>• Freedom of movement.</li><li>• Privacy &amp; Isolation.</li><li>• Alone with self.</li><li>• No external distraction from people and noise.</li></ul>   |
| <p>School.<br/>Teahouse.</p> <ul style="list-style-type: none"><li>• Tea ceremony and ritual.</li><li>• Nostalgic place.</li><li>• Away from home and school.</li><li>• People know it's a place to chill.</li><li>• Self meditation with tea.</li></ul>  | <p>Home.<br/>Combined.</p> <ul style="list-style-type: none"><li>• Comfort.</li><li>• Convenience of home + school + teahouse.</li><li>• Academic materials.</li><li>• Presumption and impression of the space before going there.</li><li>• Socialize away from home &amp; school.</li><li>• Need some privacy &amp; isolation.</li></ul> |



Negative.

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Lots of noise &amp; distraction depend on the space.</li><li>• Uncomfortable furniture and environment.</li><li>• Almost no boundary between spaces.</li><li>• Thesis space is far away from the main campus.</li><li>• Crowded space.</li><li>• Work/study space are all over the campus.</li><li>• Cost reduction over quality.</li></ul> | <ul style="list-style-type: none"><li>• Too much movement.</li><li>• Limited commercial commodities.</li><li>• Risk to self distractions.</li><li>• Lack of specific food.</li><li>• Risk to get food deliveries that are bad for your health.</li></ul>  |
| <p>School.<br/>Teahouse.</p> <ul style="list-style-type: none"><li>• People may not know to be quiet.</li><li>• Can be loud.</li><li>• Lacks a clear boundary between spaces and from other people.</li><li>• People may not know to be quiet.</li><li>• Too many people.</li></ul>   | <p>Home.<br/>Combined.</p> <ul style="list-style-type: none"><li>• Distraction from movement.</li><li>• Distraction from self.</li><li>• Lack of clear boundary between study space.</li><li>• Lack of commodities.</li><li>• Inconvenience of materials.</li><li>• Distraction from noise.</li></ul> |
- 
- 
- 

# Icha Tea.

- Compact.
  - More attentive to customer needs.
  - Less personal space.
- Separation of Space.
  - Front grab & go.
  - Mid tea ritual.
  - Back work/study space.
- More Friendly Staff.
  - Less stress for workers?
- Darker Environment.
- More Focused on Tea Culture.
  - Various tea beverage and dessert.
  - No unrelated hot food.





# 3 Design Direction.

## 1 Harmonic Environment.

Instead of a single direction, I decided to explore into three directions that harmonize together to create a space that will provoke emotions, attract student attendance, and experience authentic tea culture with modern interpretation.



Interior.



Object.



Furniture.



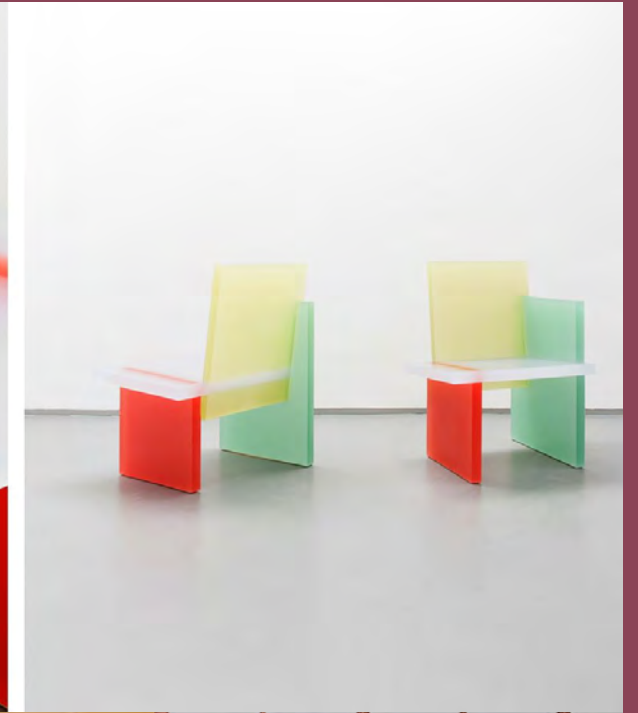
# Mood Board.

- Colour.
- Texture.
- Form.
- Emotion.



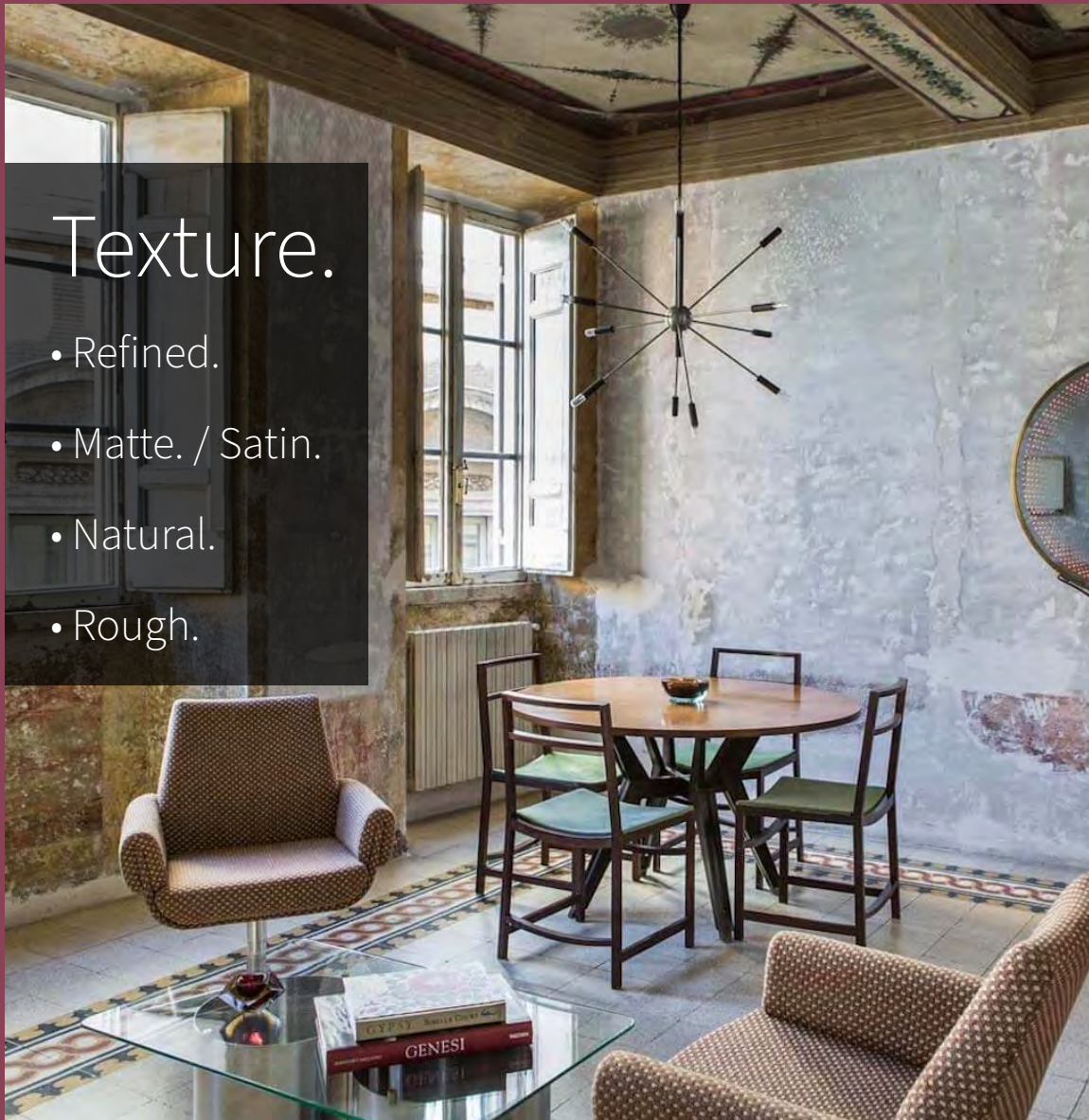
# Colour.

- Translucent.
- Opaque.
- Pastel.
- Natural.
- Soothing.



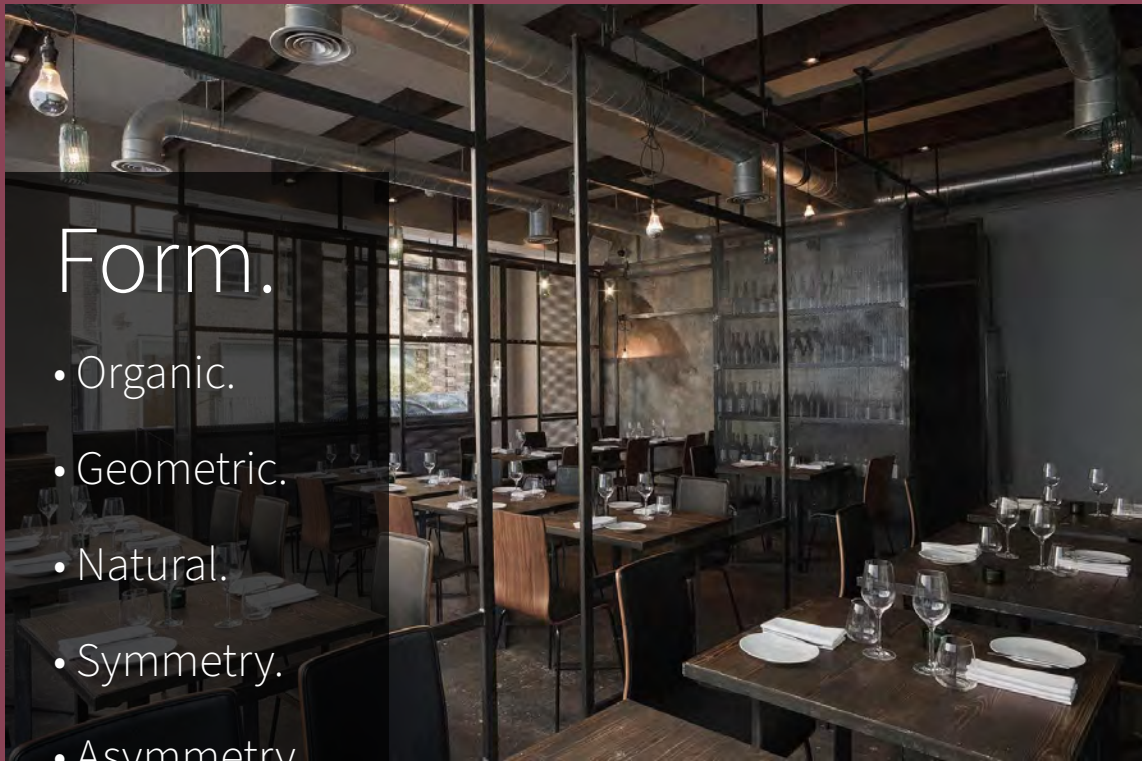
# Texture.

- Refined.
- Matte. / Satin.
- Natural.
- Rough.



# Form.

- Organic.
- Geometric.
- Natural.
- Symmetry.
- Asymmetry.





# Product Personality.

## Harmony.

- Functionalism & Formalism.
- Translucent & Opaque.
- Natural & Industrial materials.
- Geometric & Organic.

## Natural.

- Preserve the natural shape of the wood.
- Use natural hardwood to emphasize itself.
- No hardware.

## Simplicity.

- No unnecessary patterns.
- No ornaments.
- Clean & elegant lines.
- Raw functionalism.

## Culture.

- Traditional furniture construction.
- Chinese aesthetic.
- Structural stability.
- Mortise & Tenon.



# Chinese Furniture. (Ming Dynasty.)

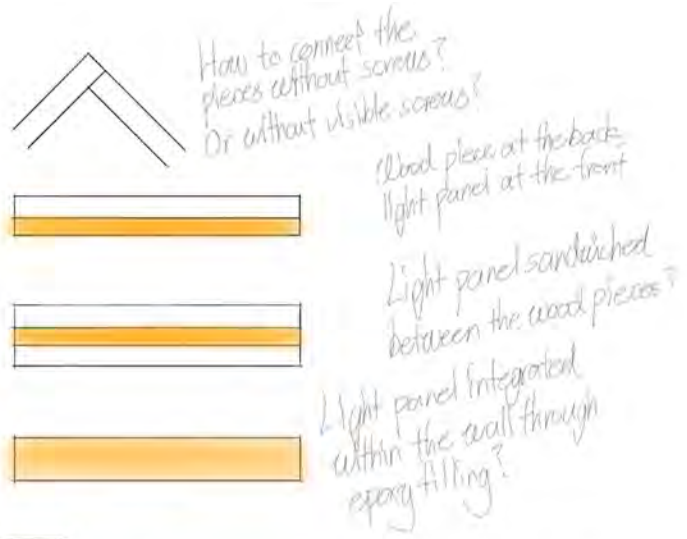
- Constructed from one piece of hardwood.
  - Beauty.
  - Function.
  - Craftsmanship.
- Simplicity.
  - Clean elegant lines.
  - Intricate lattice details.
  - Minimal & restrained carving.
- Material speak for itself.
- Focus on structure. (simple & strong)
  - Mortise & Tenon.
  - Dovetail.
- Laid down principle.



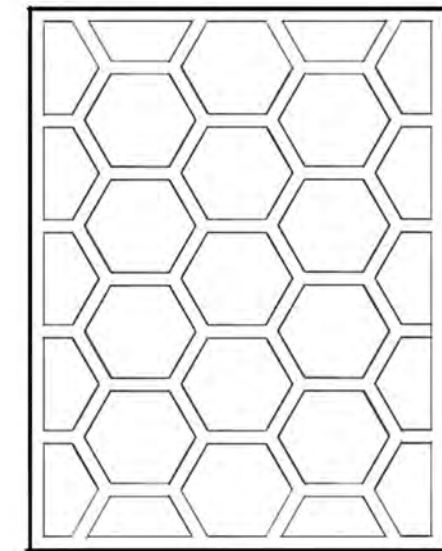
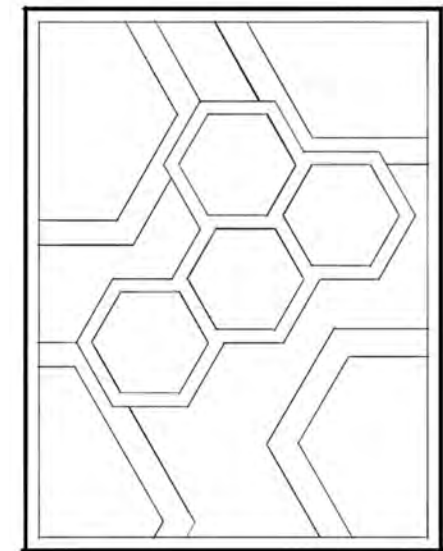




for 2 people

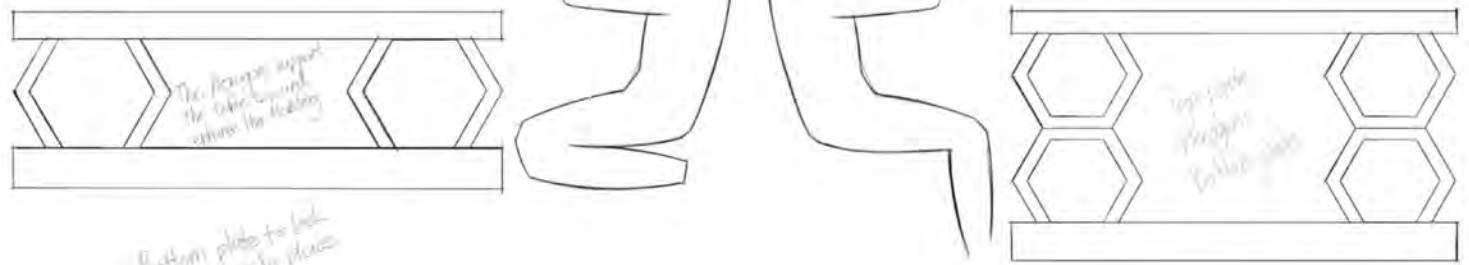


How to connect the pieces without screws?  
Or without visible screws?  
Wood piece at the back, light panel at the front  
Light panel sandwiched between the wood pieces?  
Light panel integrated within the wall through epoxy filling?



The ends with ambient lighting

- Light source
- Controllable by users for personal preferences!

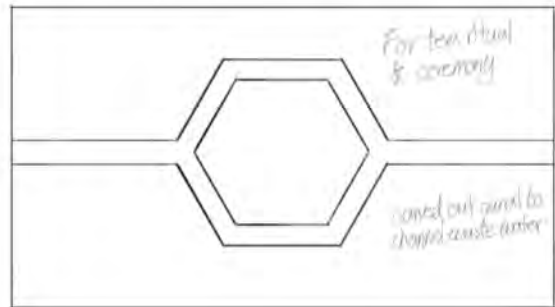


Bottom plate to lock the hexagons in place

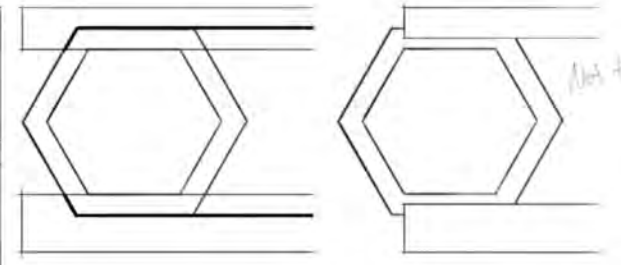
The hexagons support the table top when the lighting

top plate design to be used

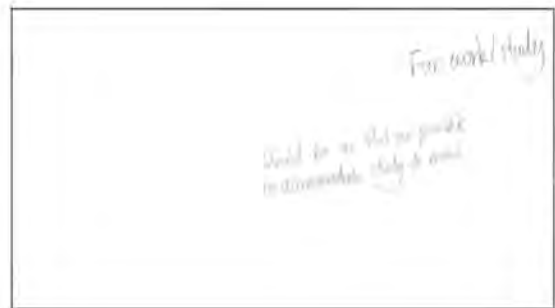
Option to stack the hexagons to raise the height of the table to be used sitting on a chair



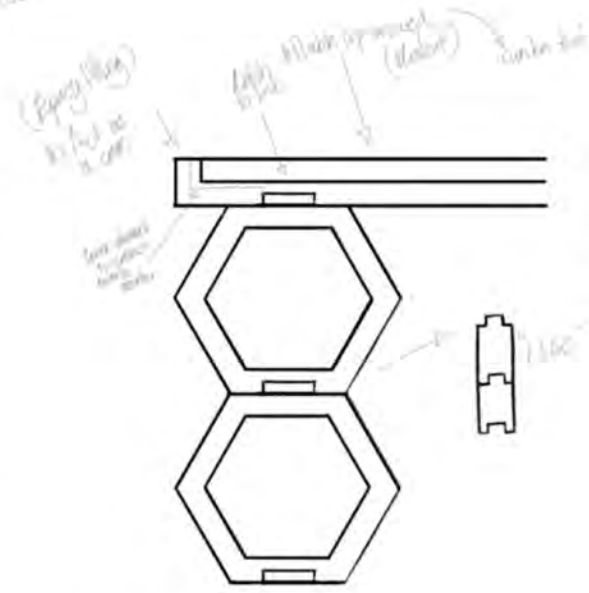
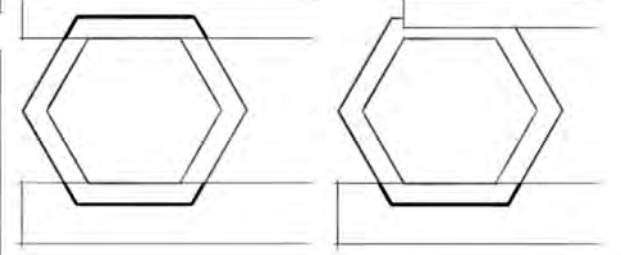
For tea ritual & ceremony  
channel cut around to channel waste water



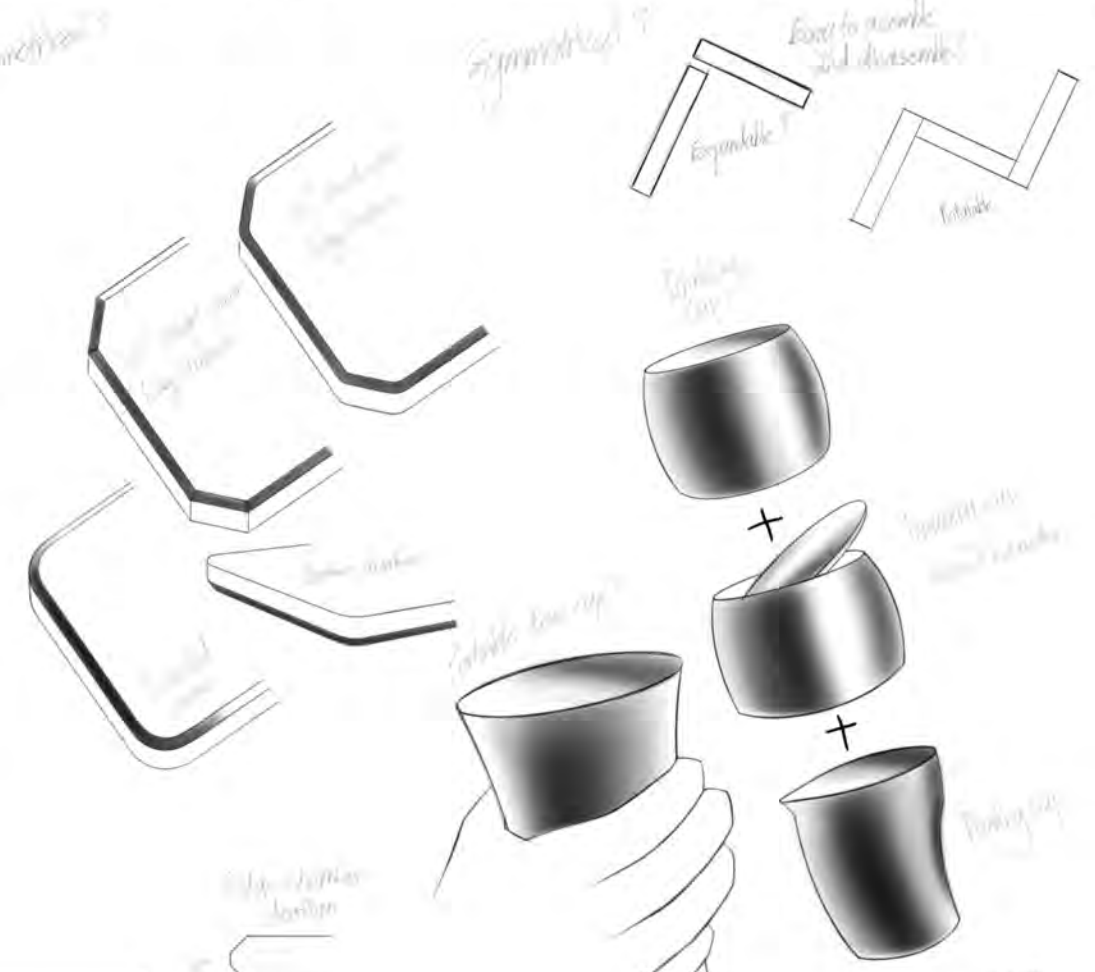
Not too stable?



For work/study  
could be as flat as possible to accommodate study & work



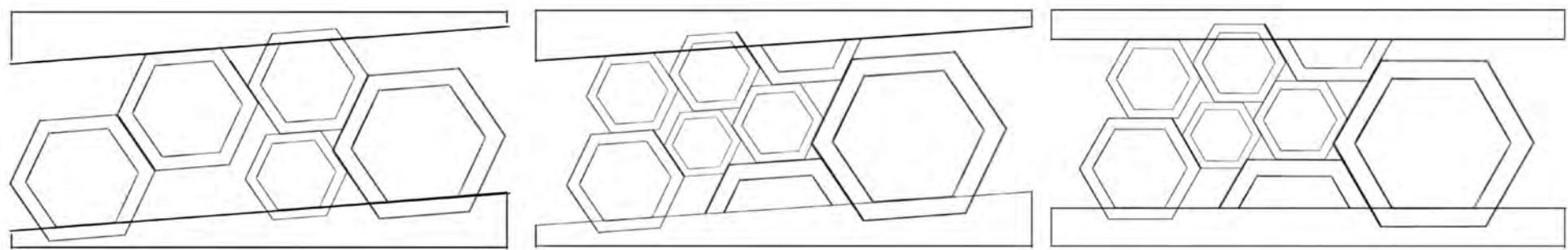
(Popping thing) to fit in a hole  
Add plastic separator (stacker) under hole



Expandable?  
Ergonomic?  
Easy to assemble and disassemble?  
Stable base cap?

Insert into wood structure

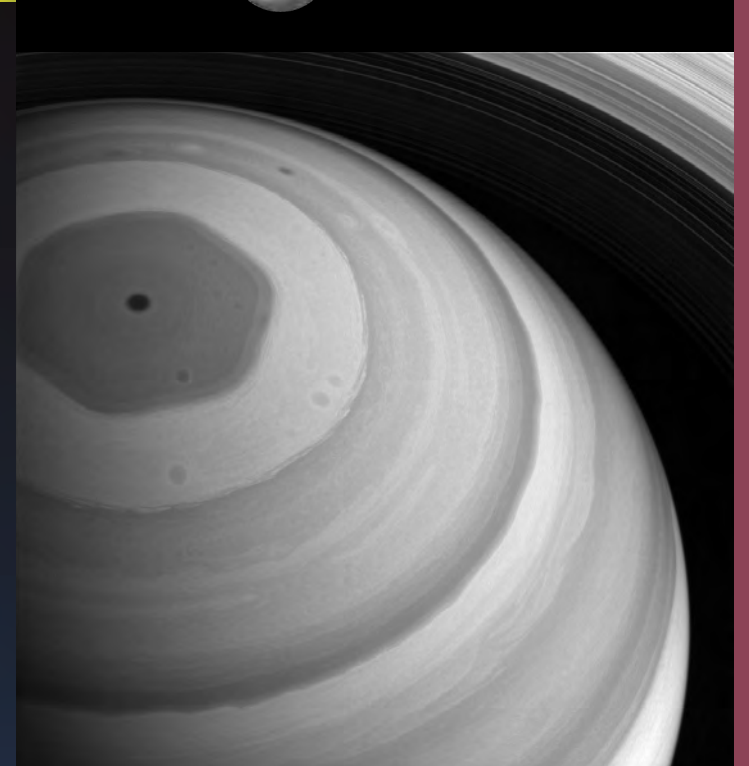
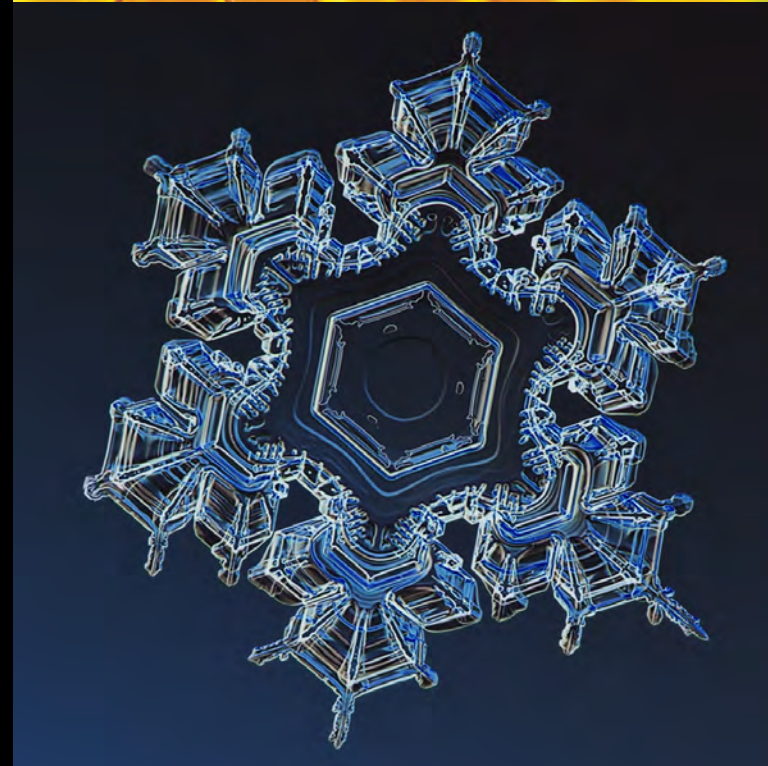
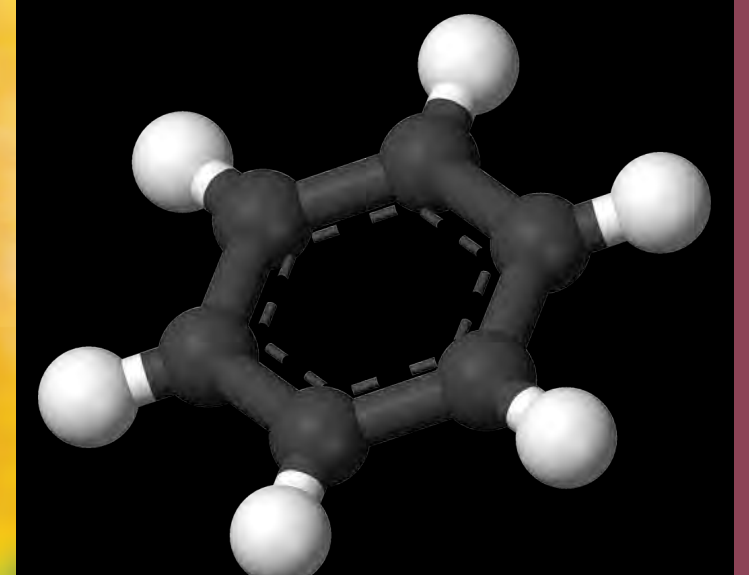
Drinking cup



Design a cup/terminal that can be used on the narrow end structure  
Heightened the plate  
Design a table top surface that can be used

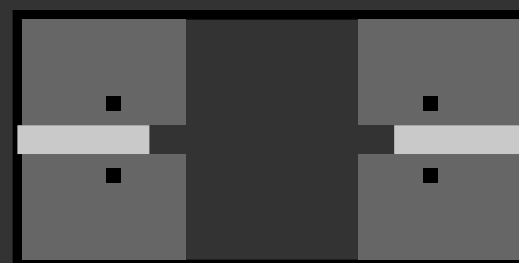
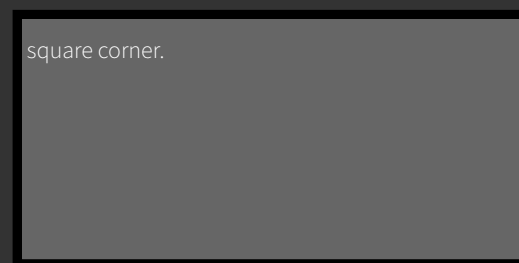
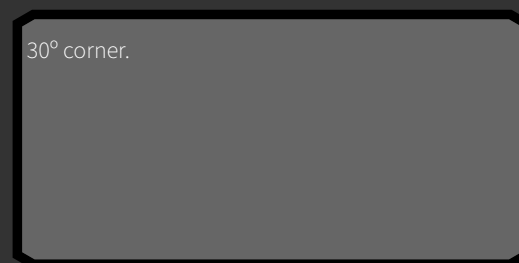
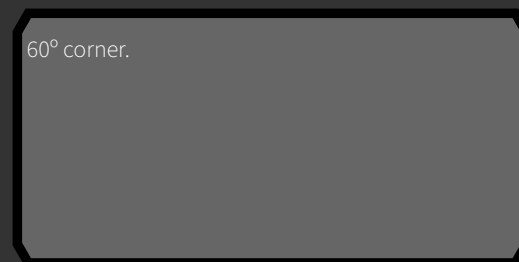
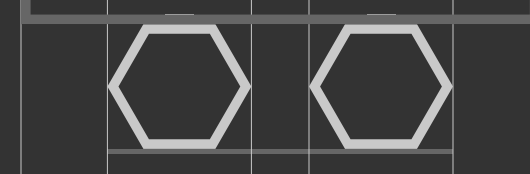
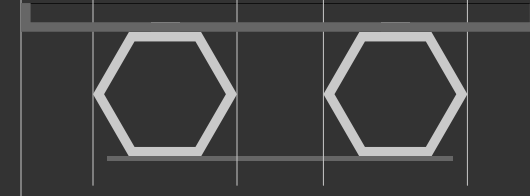
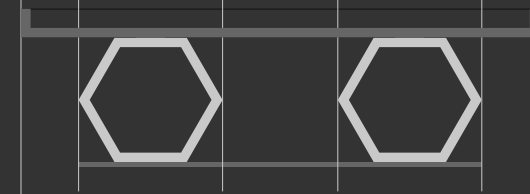
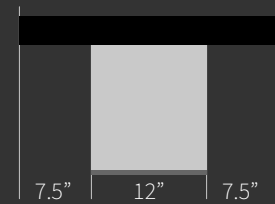
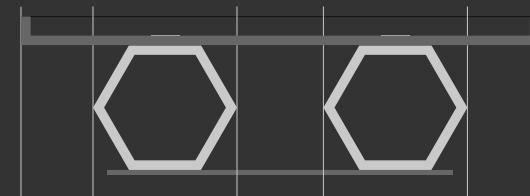
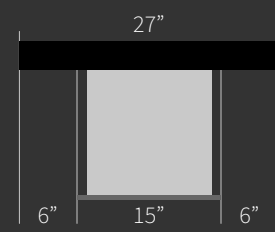
# Why Hexagon?

- The Giant's Causeway is a form of geological structure known as columnar basalt, where molten lava cools down and contracts to form the hexagonal columns, as  $120^\circ$  is the angle that release the most tension.
- Invertedly, bees will make their hives into cylindrical cells at first, but their movement will heat up the wax and expand the cells to a perfect hexagonal shape known as the honeycomb.
- Snowflakes are also hexagonal because water molecules likes to pair together in a hexagonal structure in the solid frozen state.
- Carbon is the backbone of our ecosystem, and the sixth element in the periodic table. A single carbon atom consists of six protons and six electrons, and six carbon molecules will form the benzene ring, a perfectly hexagonal chemical bond.
- There is a cloud formation at Saturn's north pole that resemble a distinct hexagonal shape. Scientists have hypothesized the rapid spinning from Saturn's gravitational force transforms the circular cloud into the hexagonal shape.
- This also explains why hexagon is the most stable and one of the strongest shape because it is the balance between a circle and a polygon with multiple straight sides.
- In Chinese culture and traditional literatures, hexagon symbolizes completeness of six directions: North, South, East, West, Heaven, and Earth that create harmony in the universe. Hexagon signifies higher wisdom and spirituality, it is often used in interior designs to exude peace and calmness.

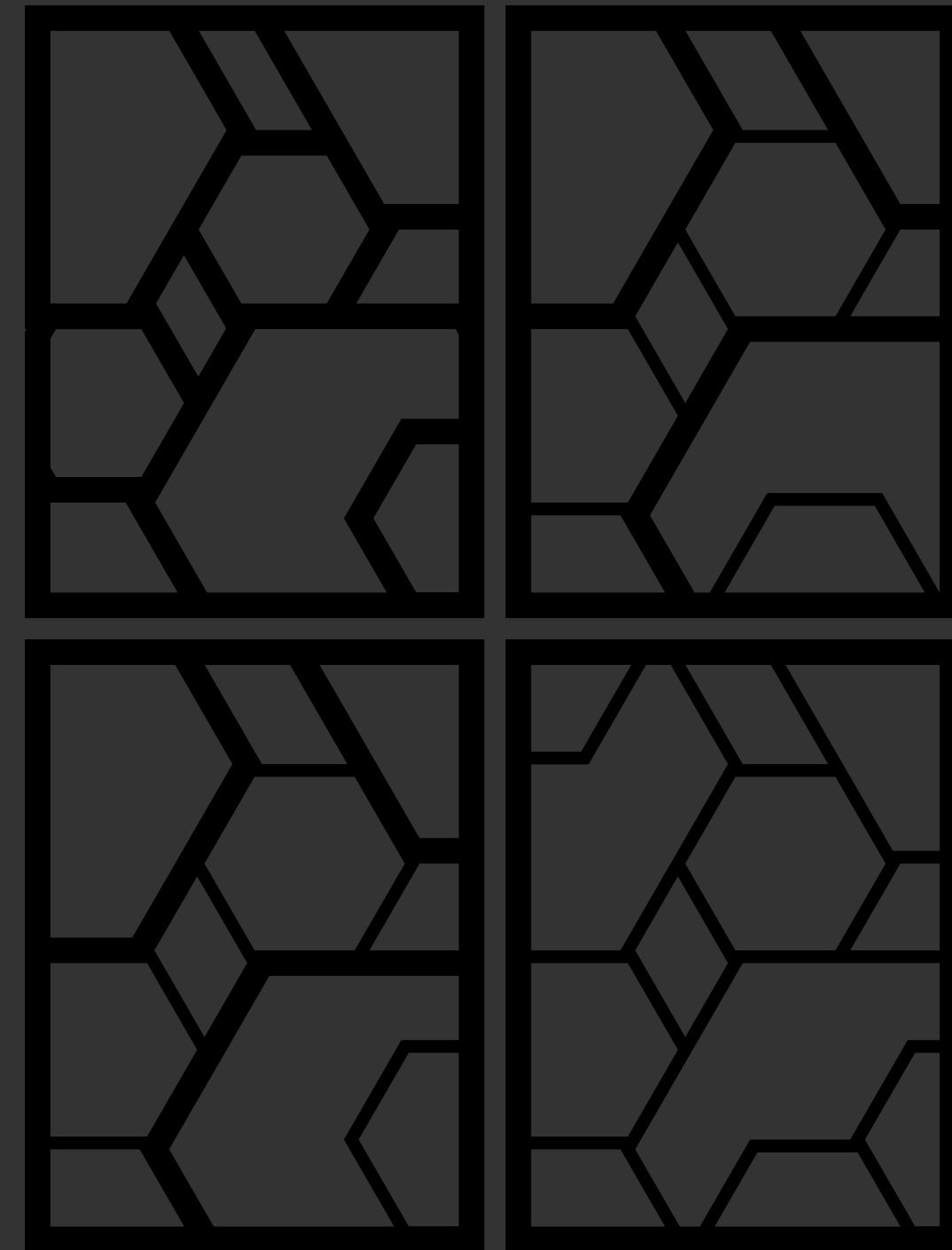


# Revision.

Ideation in 1:10 scale, the actual table top size is 27 inch width by 54 inch length. Exploring different ratio between the hexagons and the table top.



Test out different hexagon placement to create patterns.



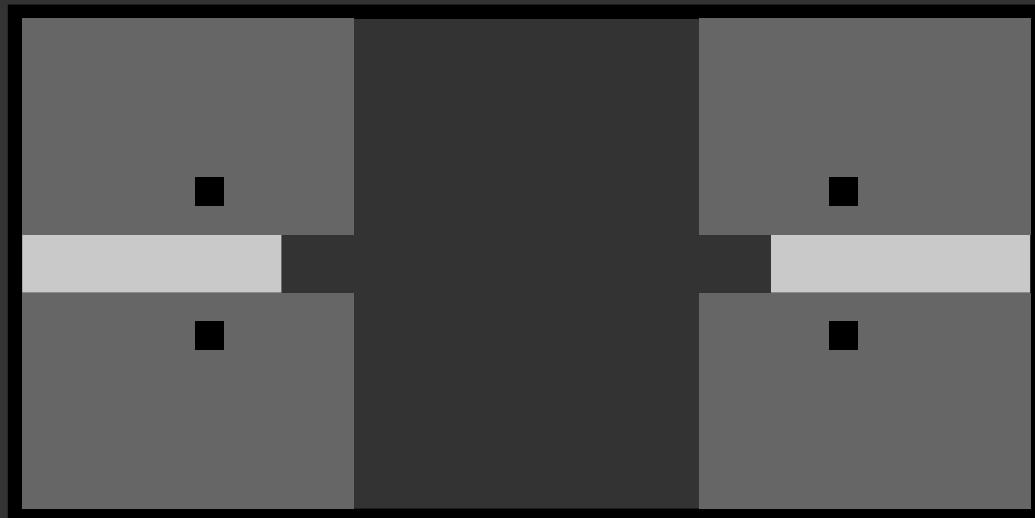
54 inch width by 72 inch height, outer frame thickness is 3 inch, the overall depth is 3 inch.

# Final Design.

Table.

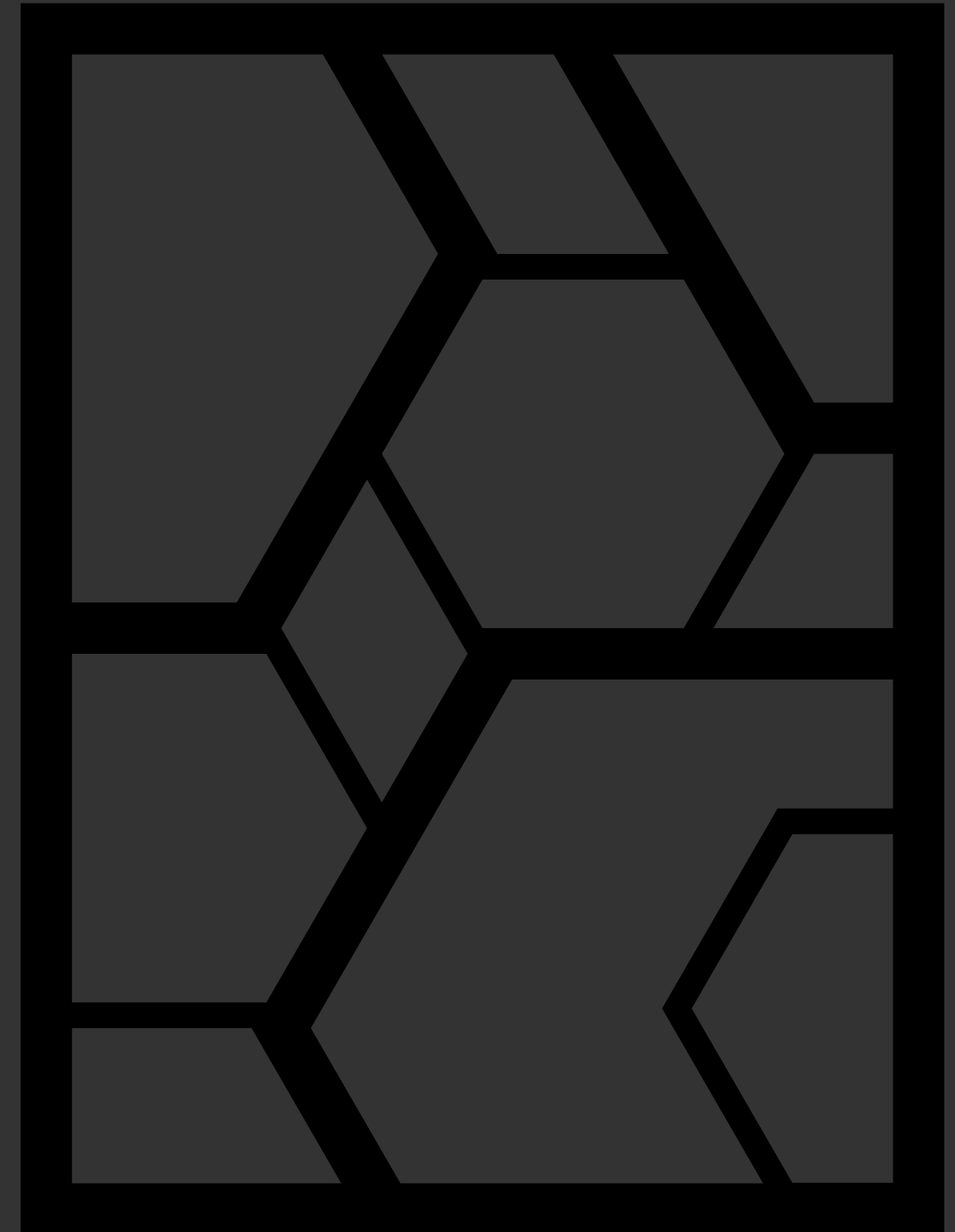
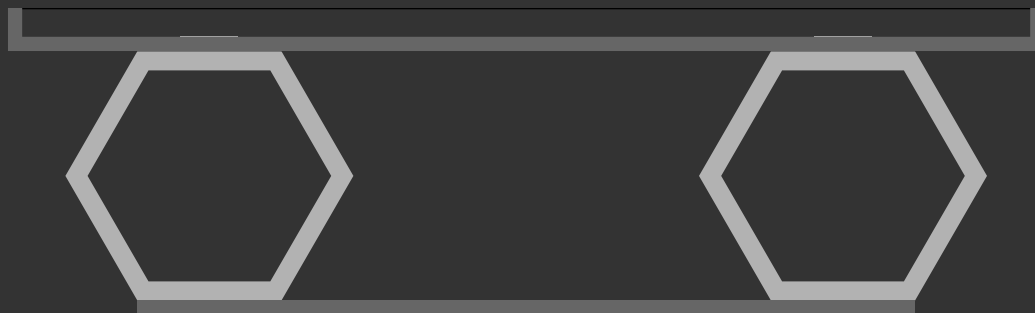
54"

27"

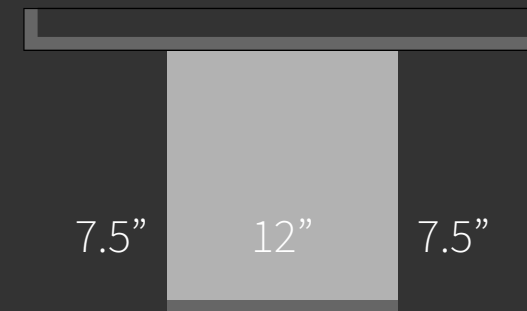


2.25 inch thickness.

54"



27"



7.5"

12"

7.5"

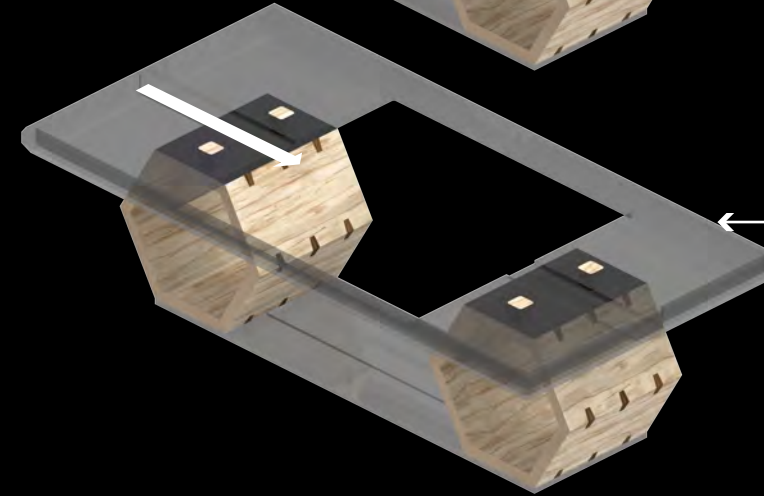
# Render.

• Waste water will run through the channel.



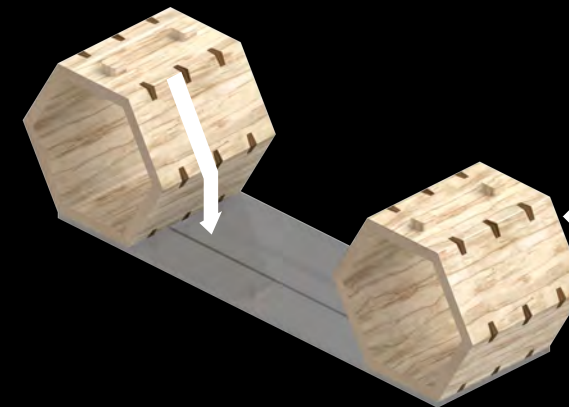
Black walnut tabletop.

• Then flow to the frame below the table top.



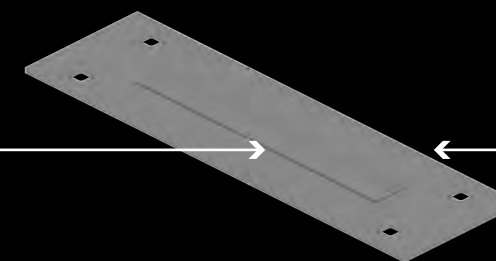
Acrylic top plate.

• Then travel through the hexagon to the bottom.



Spalted maple hexagon support.

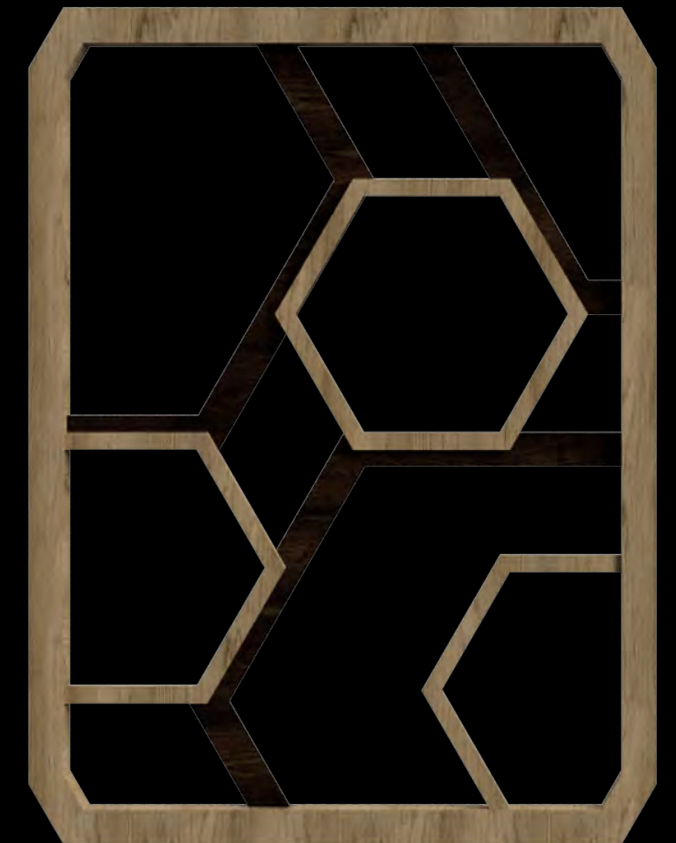
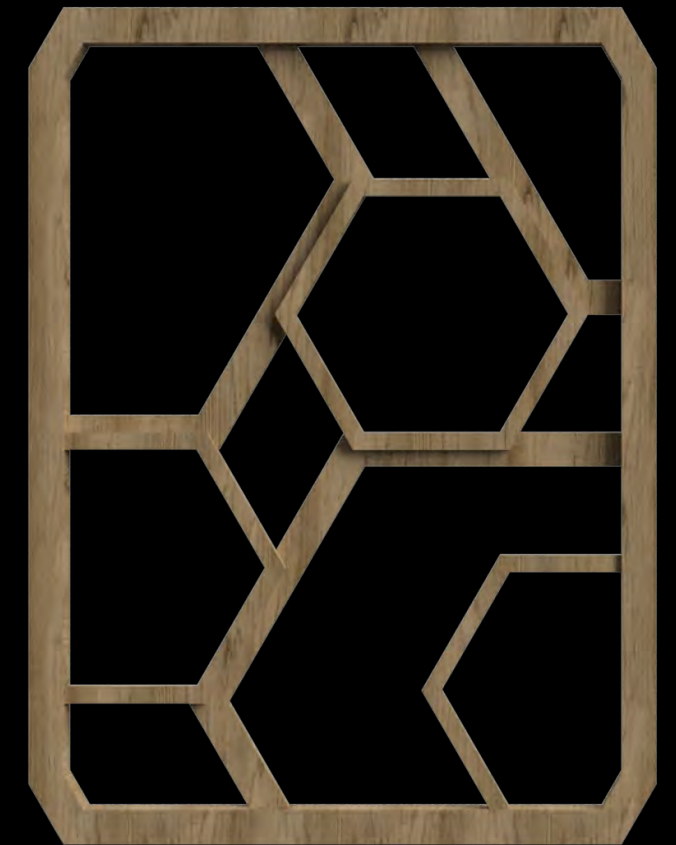
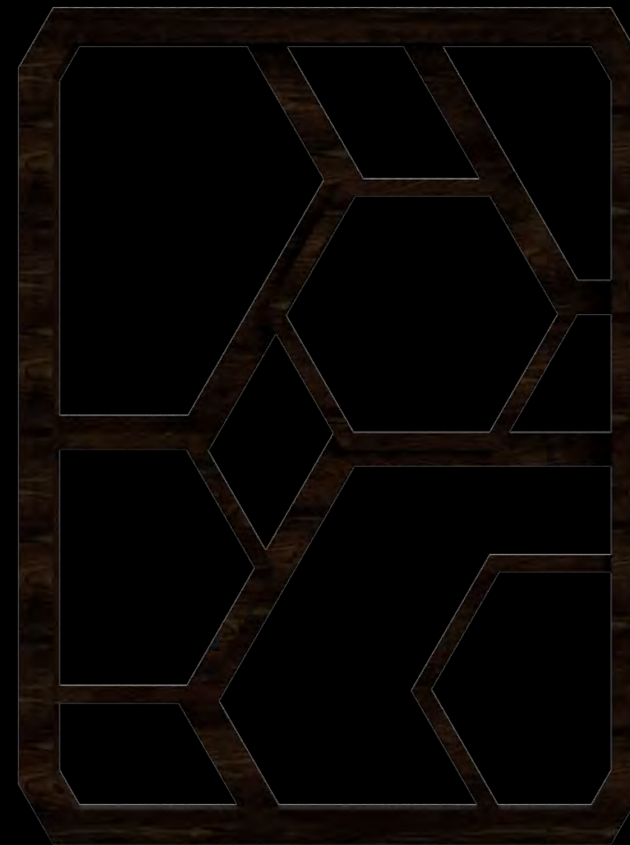
• The waste water will be collected in the "pond".



Acrylic bottom plate.

## Screen Divider.

Instead of using one type of wood for the entirety of the divider, I want to have diversities with the materials to create a mood of playfulness and present a casual environment. For the renders, I used black walnut and hard maple to create a colour contrast. Other wood could also be used for the final construction: white and red oak, pine, basswood, cherry, ash, etc. all with different price level for cost efficiency.



# Prototype.

- Test out the height of the table.
- Test out the size of the table top.
- Test out materials for the screen divider.

Test out the potential height of the table.



- 31 inch from the floor is a bit low for when sitting on a chair.
- 24 inch from the floor is too high for when sitting directly on the floor.

Prototypes to test out the potential size of the table.



- 24 Inch width by 48 inches length.
- Not long enough to seat 2 people on the length.
- Enough for 2 people facing each other.

Test out the potential size of the hexagon supports.



- Surprise! The size is too big for the original dimension.
- So I rotated the hexagons, the distance looks about right, but the size makes a weird proportion.

How the table top would function as part of the tea ritual experience.



- The bottom frame is to collect waste water from making tea.
- I want to make the tabletop removable. One side is flat for people to study, and the other for tea ritual, but it is too heavy to handle.

Test out the second height of the table.



- 21.5 inch from the floor is about right for when sitting on a high cushion.
- 41.5 inch from the floor is too high for when sitting on a chair.



- Mistake turned into an opportunity! The height works as a "bar" table.

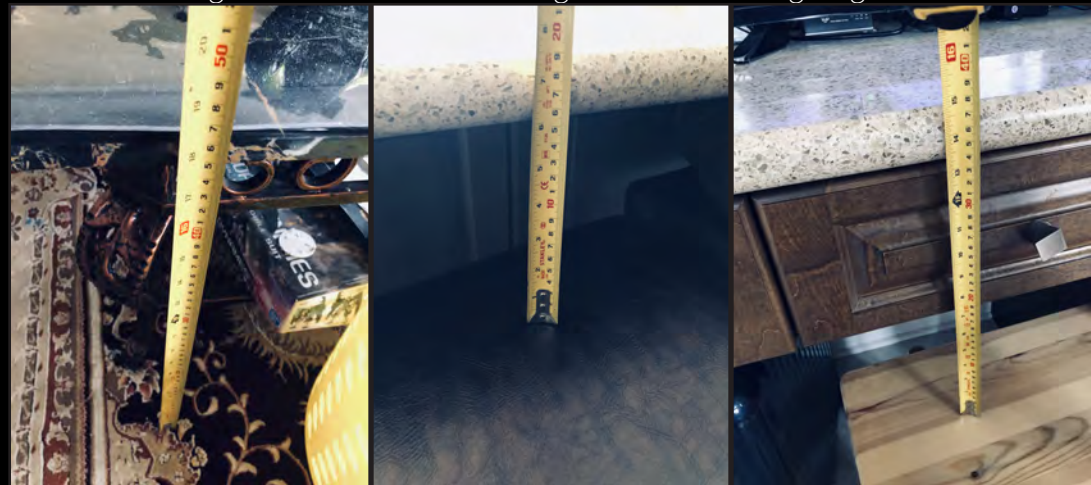
Prototypes to test out screen divider material.



- The material for the divider, but they are not exactly what I like.
- It will also be too expensive, so I have to make changes.

- Revise the height of the table.
- Revise the size of the table top.
- Test out the width of the hexagon legs.
- Test out the size of the screen divider.

Test out the height of the table with existing furniture's seating height.



- 15 inch from the seat to the tabletop is the most comfortable height.
- 7.5 inch from the seat can be cumbersome for people's legs when practicing tea ritual.
- 19 inch from the seat is too high for people to reach across the table (27 inch by 54 inch).

Test out the width of the legs for stability.



Making a router sled to flatten the wood slabs.



Test out the revised size for the table top.

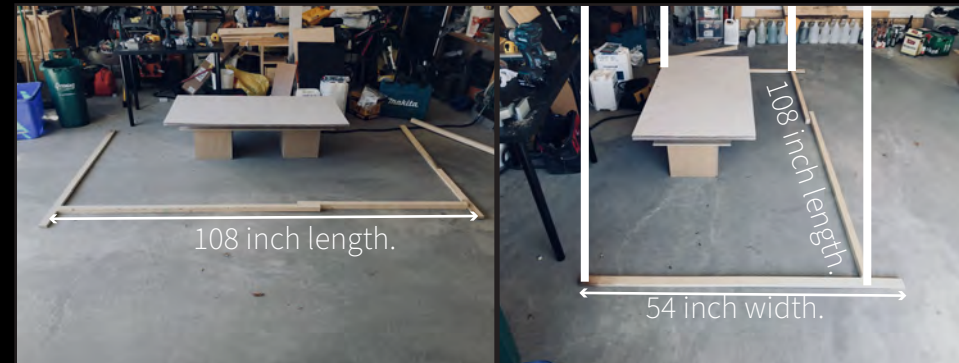


- I increased the size of the tabletop to 27 inch width by 54 inch length.
- It is more than enough to comfortably seat 4 people, and could potentially seat 2 more people on the side.
- The tea ritual is meant to bring people to socialize.

The material I will use for the final product.



- The frame is 48 inch width by 72 inch height.
- The size was meant for the tabletop at 24 inch width by 48 inch length.
- The height don't need to be changed but the width cannot accommodate 27 inch width by 54 inch length table top.



- Two of the 54 inch width by 72 inch height frames makes up 108 inch width.
- One screen divider is enough for the width of the table top.



# Pause.

The lock down prevented me to further develop the entire project through physical prototyping, and construct the furnitures to their final form. This compelled me to focus more on the teatable since it is the principal creation of the project, and continue through 3D models and digital renders to demonstrate the final form,



- How would the lighting and the wall be put together? What kind of lighting would be used? LED strips? Bulbs? Good range of option, but need more technical considerations.

- Good aesthetic and structural shape, but could focus more on the joinery of the hexagons structure in details.

- Good idea to incorporate lighting in the walls, but can you do it? How would the lighting look like? Give some examples.

- Good range of variation for the latticed wall design. Need to finalize on a direction, do you want to choose a single design, or both?

- Simple and elegant table, but I wonder about the structural rigidity of the hexagons, gluing them together work fine because the glue will be stronger than the wood, but it would lack a level of craftsmanship and sophistication.

- It looks nice, but also complicated, how would you produce the table & wall in a cost & labor efficient way?

- Need to try more design variations of the table assembly (table top + hexagons + bottom plate) to see different possibilities.

- Try different shapes or different designs for the tea table top.

- It's nice to see the lack of screwing and glueing to put together the table, it's like LEGO pieces.

- Seems like a lack of interest with the tea ware design.

- How will the pieces be produced? By hand? By machine? Really like the design, but looks like the process will be expensive. Could cost reduction & process simplification be the next goal?

- I like it, but I'm afraid of the potential cost of the tables and latticed walls.

- Should focus on the assembly of the walls, how would the walls stay up stably? Overall, the design and concept is very nice and interesting.

Feedbacks!



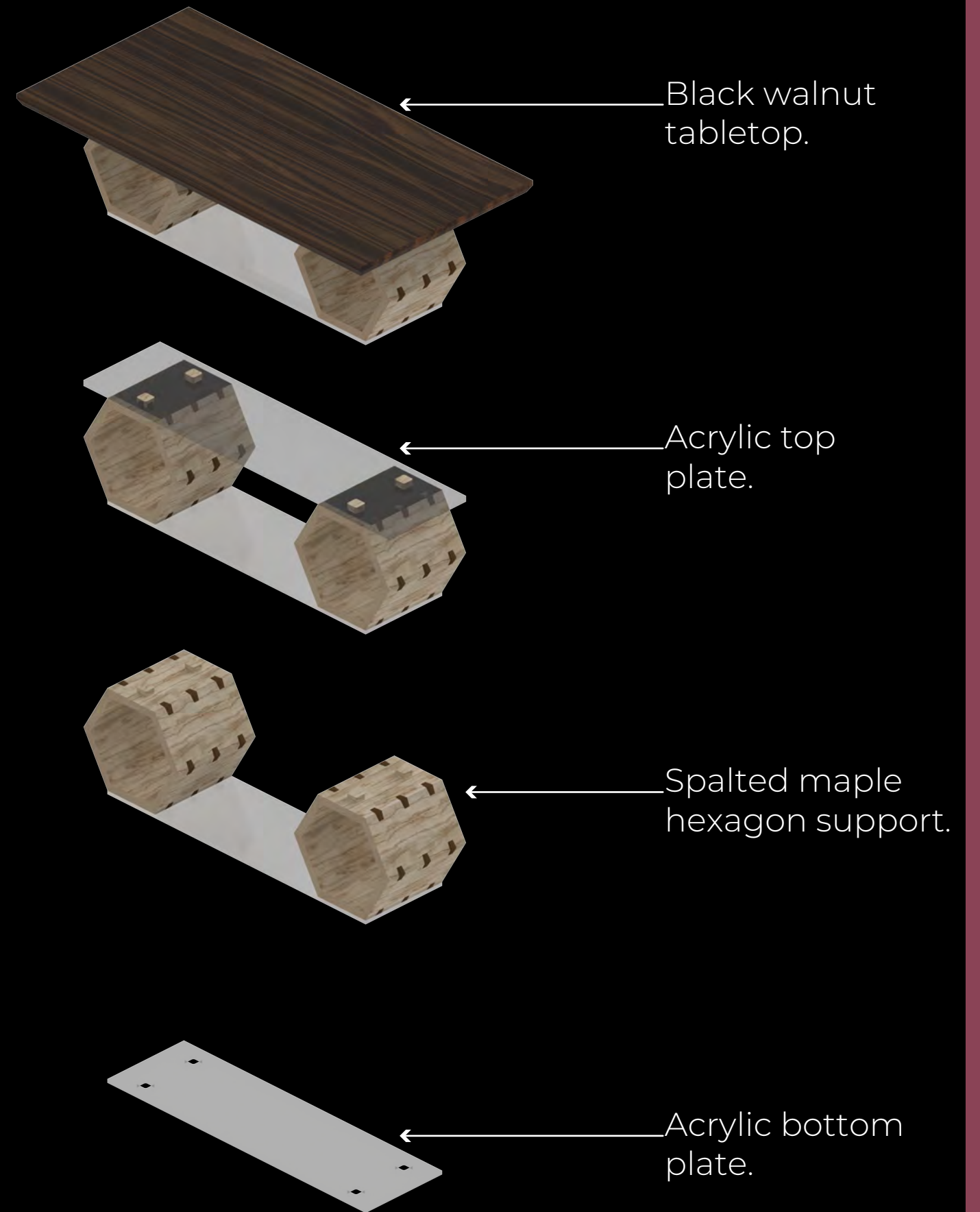
## Result.

- After low fidelity prototyping, I came to the conclusion that the design would cost substantial because of the complexity of construction and the materials required.
- The intended interactions between the users and the table will highly increase the maintenance expenses because the continual flowing of water through the table will rapidly decay the finishes, and reduce the structural rigidity of the material over time.
- Although the creative, material, and labour value is obvious, I cannot expect the teashop and customers to commit the equivalent amount of devotion and dedication to the table because they could not have invested as much effort as me on my own creation.

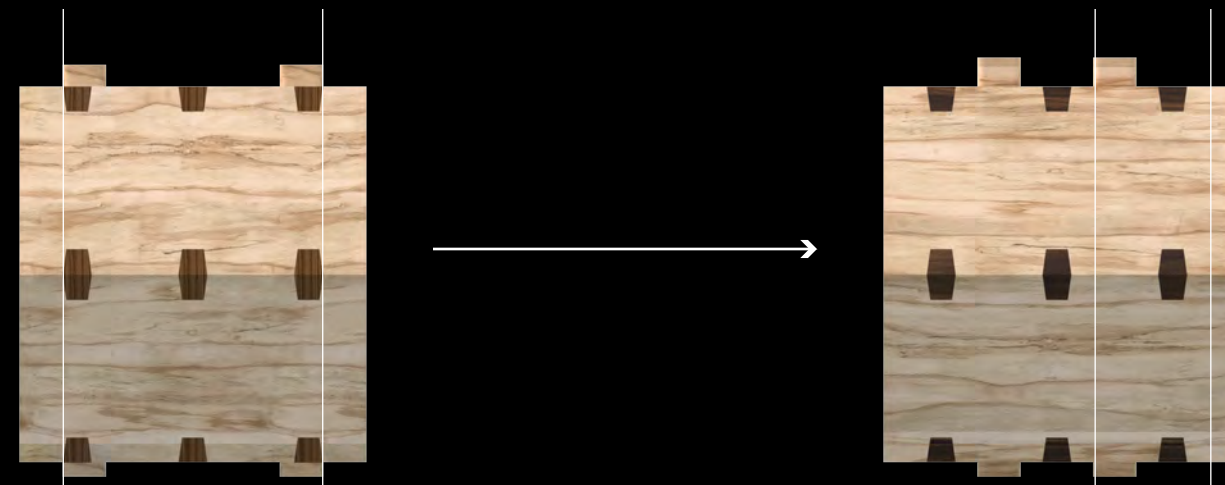
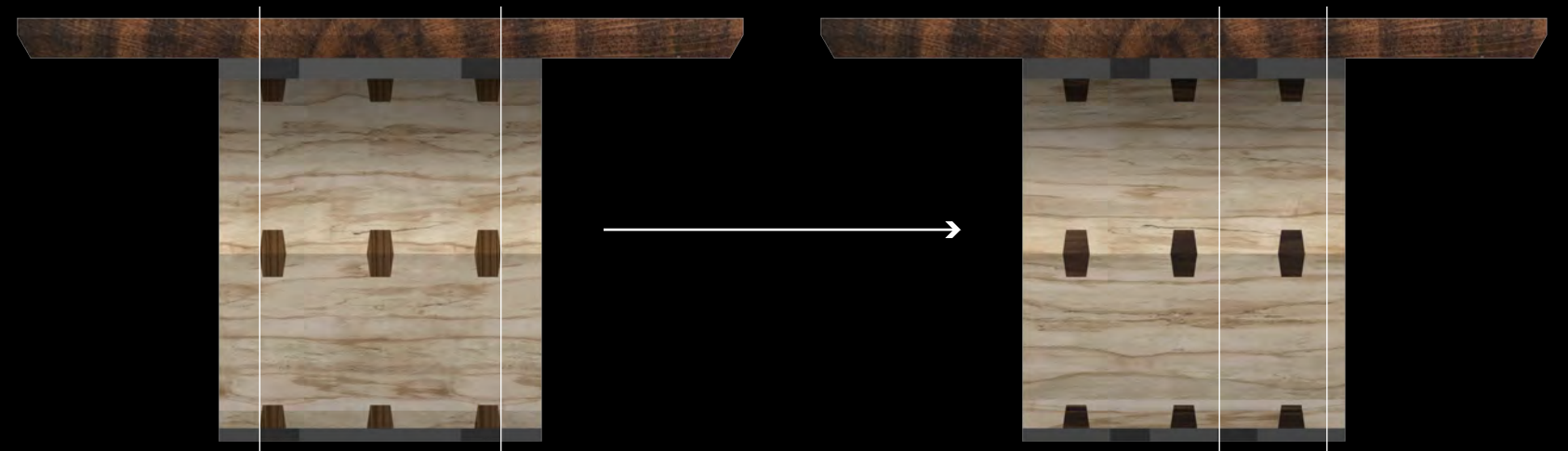


# Final Revision.

I revised the acrylic frame into a flat plate that rests between the hexagon supports and the tabletop to present a floating illusion when observed from the side. The “mortise” and “tenon” joinery slightly cuts into the tabletop to align its position and to secure it from shifting its position. This revision will reduce the physical interaction between the users and the table, but is a worthy compromise of material cost and construction complexity.

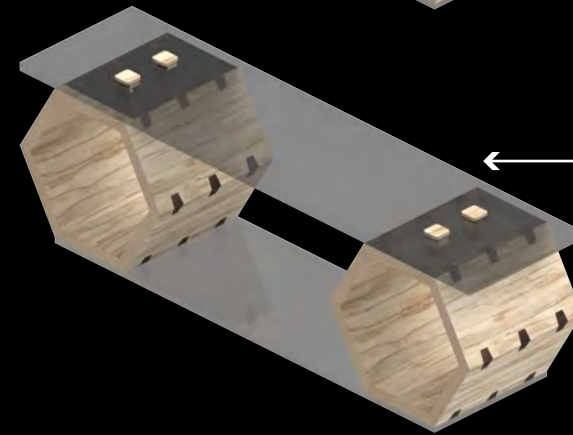


I specified the tenons to align the dovetail splines on the edge, but after analysis and consideration of the side view I altered the tenons to align in between the distance of the dovetail splines for a more uniform and balanced aesthetic.

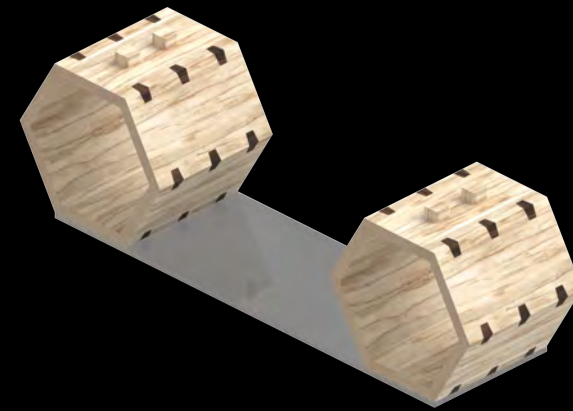




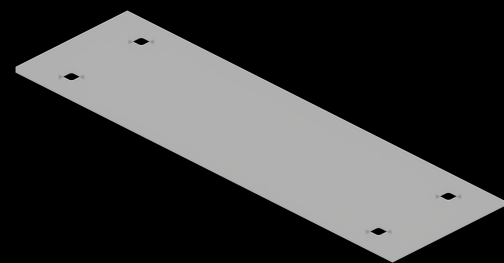
Black walnut  
tabletop.



Acrylic top  
plate.



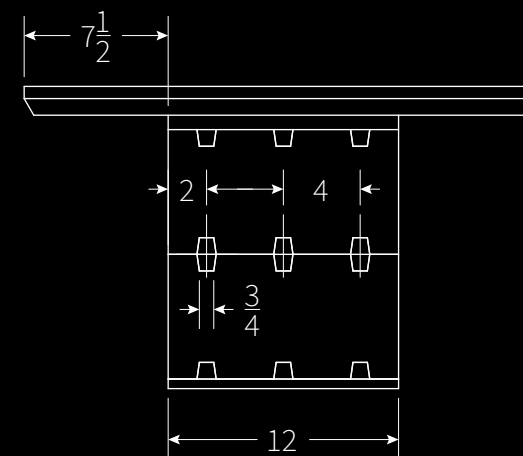
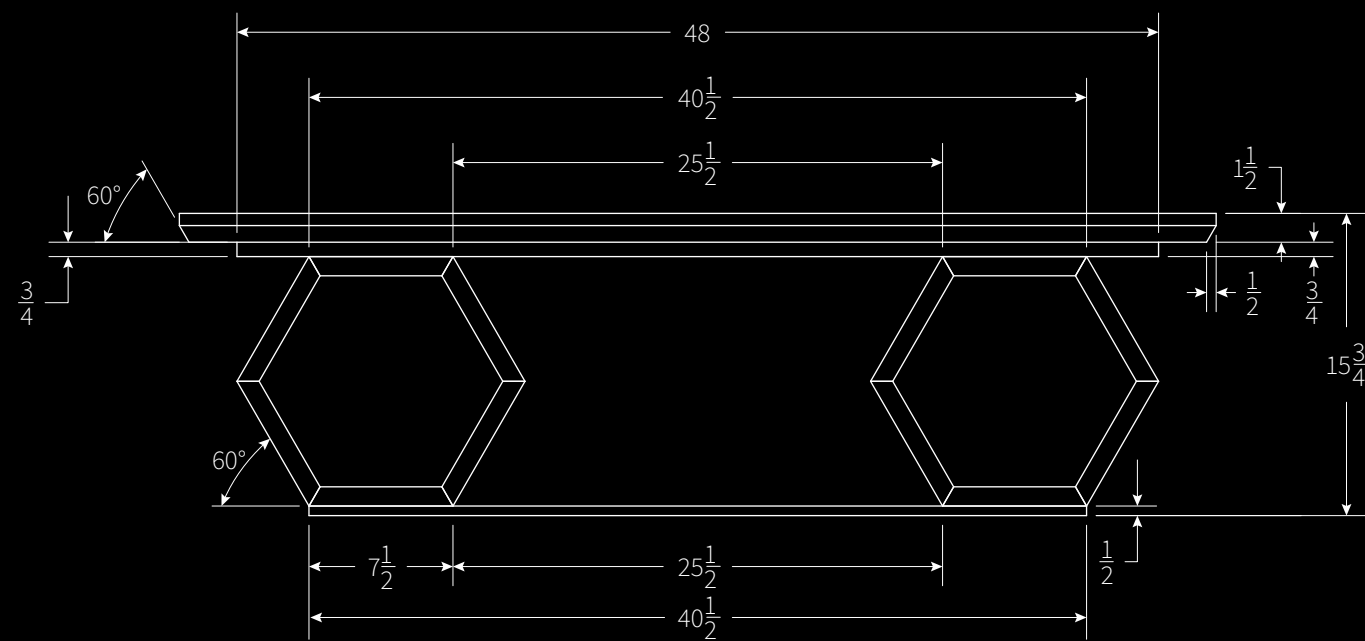
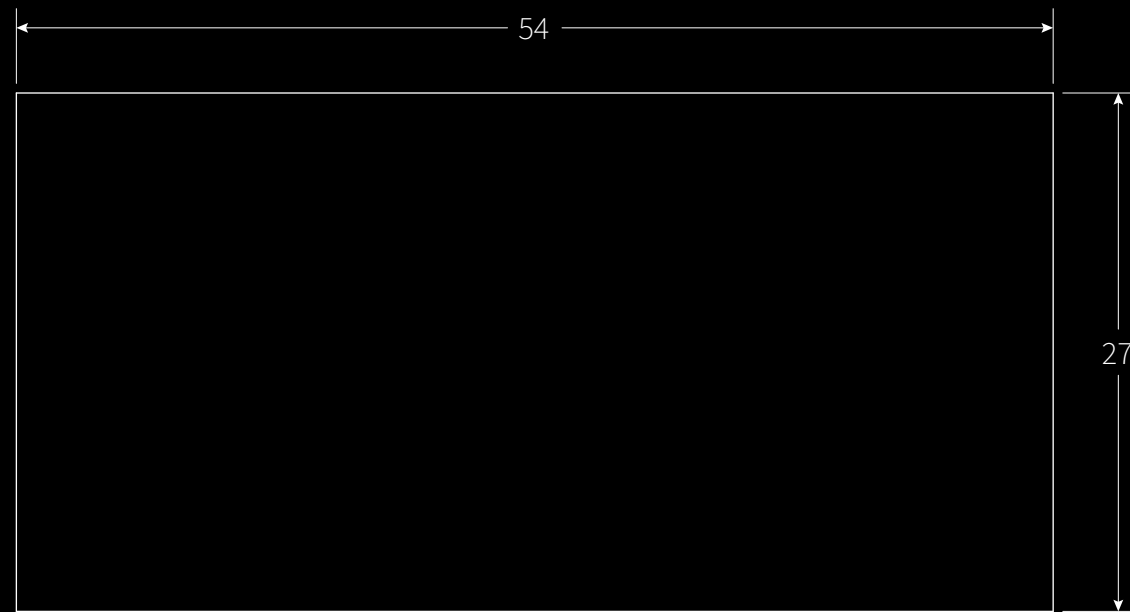
Spalted maple  
hexagon support.

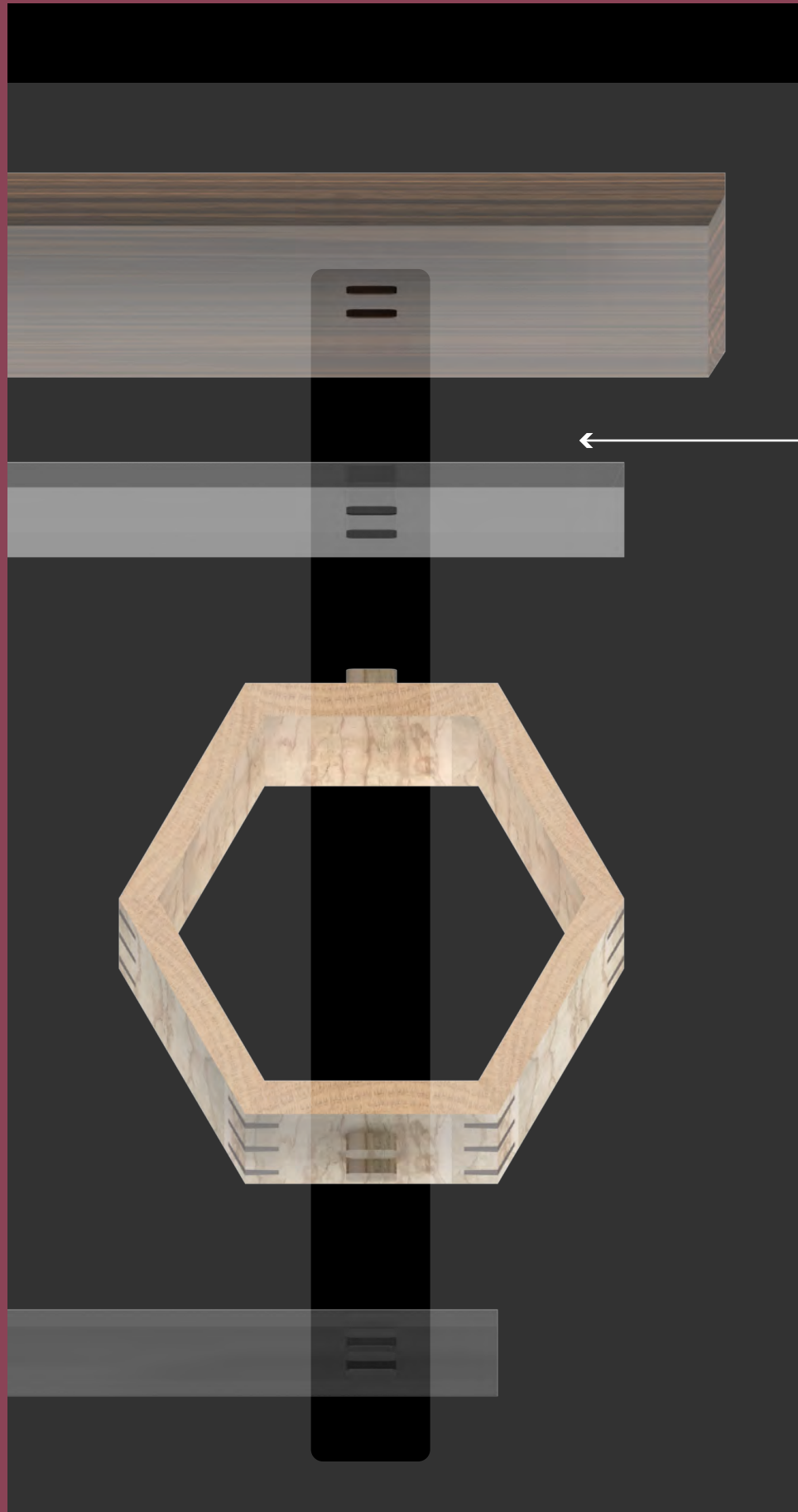


Acrylic bottom  
plate.

# Technical.

(Dimension in inches.)





Mortise & Tenon  
throughout the  
table parts.

60° angle  
chamfer.

