

# SOFT STRUCTURE

Siobhan Sprickerhoff | Capstone Project | Sheridan College | 2022 - 2023



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**01**

**INTRODUCTION**



# Problem / Objective

Stress and anxiety are slowly becoming less taboo topics, allowing conversations around mental health to become more recognized and accepted as normal. Everyone experiences anxiety to some degree, and research indicates that among other methods of relieving anxiety, a hug can provide significant relief.

When someone is hugged, the c-tactile afferent nerves are prompted to send signals from your skin, through your spinal cord to your brain's emotional process network. This activates the release of oxytocin, which slows heart rate,

blood pressure and reduces stress and anxiety levels. [1] By creating a collection of products to depress the central nervous system with large points of continuous pressure on the body, the heart rate will slow down and a user can relax, de-stress, and become mindful of their body and emotions. [2]

In order to reduce stress and create a safe environment in which a user can relax, I propose creating a collection of domestic furnishings which promote comfort and replicate the emotional and physical benefits of an embrace.



# Target User

- Young Adult
- Creative
- Prioritizes Rest
- Comfortable in Small Spaces
- Managing Anxiety
- Living Alone
- Mindful
- Eclectic Taste



FIG 1. Chen, Y. (2020). SU Students Practice Self Care



FIG 2. Simont, M. (n.d.). Bear curled around child

## Personal Context

As a person with a chronic illness, fatigue and a myriad of anxiety and depressive disorders, I have clear personal motivations for my chosen topic. Creating products that prioritize rest, comfort and decreasing stress and anxiety in this growingly chaotic world are very important to me.

I find now more than ever, people's feelings surrounding the Covid-19 pandemic have created an environment of stress, we have been living in fear for three years, and I believe that anyone could benefit from some relaxation and comfort.



02

RESEARCH

# Historical Context

The use of textiles within the art of furniture making as home goods has a long and storied history, beginning in Egypt, with horsehair-stuffed cushions, plush daybeds, and luxury fabrics draped over thrones were the norm. [3] This more comfortable furniture with textile components would continue to spread along trade routes and appeared in Europe beginning in Medieval times.

As comfort became more of a priority and the standards of living began to improve, wealthy families started to add cushions onto chair seats, the fine silk of Italy made its

way to Britain and wall hangings, tapestries, and bed drapes began to surface in these wealthy homes. [4]

In the Elizabethan Era, comfort became more of a priority, this created the trend of heavy curtains draped around beds in order to prevent drafts. Along with the new bed hangings, bed skirts and curtains, the farthingale chair was introduced – a chair without arms with a piece of leather stretched across the back and nailed on each side. [5]

During the Renaissance, upholstery was not particularly common in Britain, until following the lead of Spain and Turkey, when tooled, decorative leather became a popular style, also gaining popularity were the Turkish divans – low sofas completely covered in stuffed cushions, and colourful tapestries covered small chairs. [6]

Once the Puritan regime ended, the decorative arts began to flourish in England. The comfort of upholstered furniture was gaining recognition and in 1705, the ‘sleeping chayre’, the first, fully upholstered chair was created.

Daybeds also grew in popularity and custom cushions for seats and benches were everywhere. [7]

In the 19th Century, Victorian opulence was the go-to for wealthy families. Major innovations in the steam-powered engine allowed for cheap power to machine looms so that for the first time, machine-woven fabrics could be mass-produced. [8]

# Historical Context

The 20th Century boasted the Mission, Art Deco, and Mid-Century Modern styles. The invention of Nylon was a durable alternative to silk – resistant to normal wear and tear that affected more traditional upholstery. [9] Other inventions, from bent steel to fibreglass to moulded foam cores, revolutionized furniture design and brought about many of the modern designs in the furniture we still see today. [10]

Contemporary furniture boasts a wide range of styles inspired by historical pieces, architecture, cultural movements and modern material innovations. Home furnishings range from furniture pieces such as beds, couches, lighting fixtures, cabinetry, storage, shelving, tables, love seats, dining chairs, armchairs, benches, desk chairs and so many more.



FIG 3. Original design sofa Boa. (n.d.)



FIG 4. Orla, M.-N., & Hvidt, P. (n.d.). Daybed Model FD 417t



# Interviews

In order to gain a better understanding and appreciation for creating comfort within spaces and the impacts of colour, material choice and textures, I conducted several interviews with industry professionals, ranging from interior decorators, art psychotherapists, textiles artists and furniture makers.

These interviews gave me a great jumping off point for which aspects of this endeavour would be particularly important and how they could co-exist with one-another to create a cohesive collection of comforting and beautiful domestic furnishings.

# Yali Paz

## Product Designer

How do you promote comfort in your work?

What about your work brings you joy?

“Playing in the world of textiles allows me to stimulate new senses, finding that meeting point between the person and the material, that exploration of how people experience things differently, it’s the first thing that comes to mind when starting a new project. The

new materials and possibilities they allow for exploration keep me interested in the world of textiles, there are infinite applications, in home, office, its all about comfort and experience.”

# Jeremy Bedard

## Furniture Maker & Designer

How do you promote comfort in your work?

How do you prioritize your user's needs?

"My projects all start in the home, my work began as a collection for my daughters, something for them to reach my level, stools to climb up and help in the kitchen, benches for the entryway. The inclusion of accessibility in furniture, where for disability, size considerations,

ergonomics, we must include each other in the process and result. The finishes I use must allow for safety around family, round edges, non-toxic oils, the home is where I want my products to exist, family use, a place to put your hat down and rest."

# Kayla Wagg

## Interior Decorator at NFG Designs

How do you promote comfort in your work?

How do you prioritize your user's needs?

"Creating an immersive and exciting domestic experience is what I always aim to do for clients, something that balances the serenity of the home with the realistic existence of people.

We make messes, mistakes, and live largely, we spread into a home and

fill it with light, laughter and love, this is vitally important to a private home space."

# Johana Cordero

## Textiles Artist & Educator

What about your work brings you joy?

How do you prioritize your user's needs?

"My studio and classes center upon finding a communal space to learn, make, and enjoy craft. Sustainable practices and materials, honouring traditions in craft, mindfulness, experimentation, these all have a home at Loom studio, and these

values and practices are what I hope follow each student and user of my pieces."

# Cat Judice

## Textile Designer & Artist

How do you promote comfort in your work?

“Colour is where all my collections begin, the vivacity of hue, bringing this into the home allows for a rich connection between users, guests and this connection is what makes my pieces create spaces that are so welcoming.”

# Beth Joy

## Textile Artist & Art Psychotherapist

How do you promote comfort in your work?

What about your work brings you joy?

“While working in creative and professional fields, I have this informed approach to my work, my therapy practice illuminates ideas for me, I can play with bold and vibrant colours, making playful pieces is integral to my practice, I

want my users and clients to have just as much fun with my pieces as I do designing and making them. My work is designed for homes, studios and anywhere where someone needs a smile and hug.”

# Nina Cherie

## Textile Artist & Designer

How do you promote comfort in your work?

What about your work brings you joy?

“Playful home textiles is what I do, I always say that our feelings, moods, and emotions are impacted by what we surround ourselves with, and that is why I center my work around colour interaction and playful design. I want to bring colour, excitement, and visual

pleasure to any setting where my craft is displayed or used. Bumming around in the studio and making vibrant pieces, creating contrast and illusions, that’s what brings me joy.”



# Competitive Products

The following research is based on the competitive products I have found while looking into products with similar objectives. The majority of these products are speculative design or adjacent design products, through some may be available for purchase as bespoke or limited products.



FIG 5. Lee, E. K. (n.d.). Hugging Chairs



co.coon

FIG 6. Van den Berg, J. (n.d.). Co COON



FIG 7. Oradaria Design. (n.d.). Blandito



FIG 8. Audrain, A. (n.d.). OTO Chair



FIG 9. Hornig, S. (2012). Camp Daybed

# Material Research

This space acts as a compilation of my proposed material choices for my collection, these have each been selected to meet a variety of criteria and each will describe more about the choice below their respective image.



FIG 10. MOOD Fabrics. (n.d.). Forest Green Fleece-Backed Stretch Cotton

# Fleece

## Cotton & Polyester Blend

Sourced from Fabricland

To make the weighted quilt, I opted to use a cotton and polyester blend, this allows for a great combination of durability and breathability. This fabric can be washed with ease with low heat, and the soft and plush texture creates a calming

tactile environment within the collection. The fleece provides warmth without being too hot or uncomfortable, making it perfect for use on the body pillow exterior too.



FIG 11.The Felt Store. (n.d.). SAE Industrial Felt.

# Industrial Felt

## Wool

Sourced from The Felt Store Canada

I chose to upholster the outer frame of the lounge pod with wool-based industrial felt, this allows for breathability and good air flow while also providing some noise-dampening qualities to create a calm, restful and peaceful

experience in the lounge-pod. The felt also makes upholstery as a relative beginner much easier as I won't have to 'finish' edges.



FIG 12. Home Depot. (n.d.). UltraStock Medium Density Fibreboard

# MDF

## Medium Density Fibreboard

Sourced from Home Depot

I'm choosing to build the frame of the lounge pod using MDF, as the pod will only be used indoors and will not be disassembled post production, this allowed for ease of cutting on the CNC, a relatively smooth glue-up process and a

sturdy inner frame to hold up the form. For the 1/4 pod, I will be using 1/4" MDF.





FIG 13. The Fabric Sales. (n.d.). Alin Mustard Green Virgin Wool

## Applique Fabric Wool Blend

Sourced from Fabricland

The fabric chosen for the quilt's applique is a beautiful, washed wool blend. This fabric adds another comforting texture to the mix.

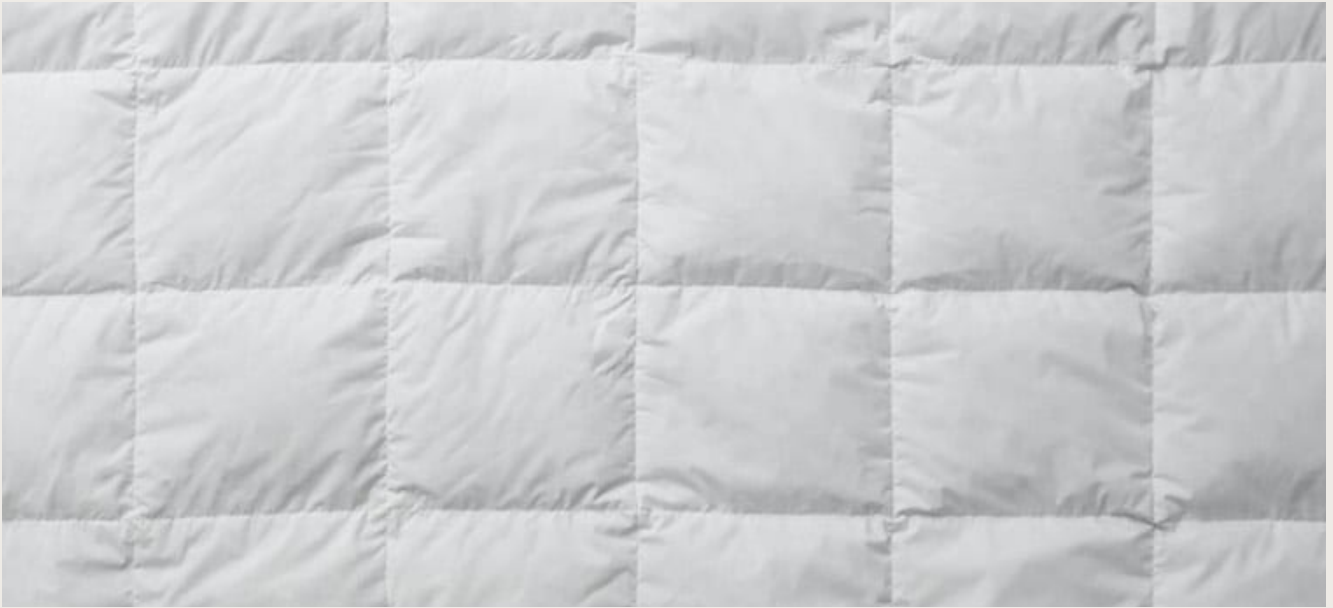


FIG 14. New Africa. (n.d.). Weighted Duvet

# **Weighted Duvet**

## **Cotton & Glass Beads**

Sourced from Dream Away

The weighted duvet insert will be externally sourced and should be easily removeable for washing purposes. The duvet will weigh 15lbs without its cover which is suited for 1-2 users.

# Inspiration

The following documented research demonstrates sculptures, and products which I am drawing inspiration from both in form, thematic values or purpose. These may not all influence the final physical design outcome, but have been important to the design journey and all relate thematically to my objective and brief.



FIG 15. Neto, E. (n.d.). Humanoids Family



FIG 16. DAY Collective. (n.d.). Soft Huggable Sculpture



FIG 17. Piazzi, A. (n.d.). OKAY Sofa



FIG 18. Sewell, F. (n.d.). Hush



FIG 19. Hefer, P. (n.d.). Nest



FIG 20. Monod, R. (2005). HideAways



03

ANALYSIS



# Research Findings

Through my research phase, I have discovered a variety of products which seek to provide comfort to users, whether in way of colour, tactility, or form. When designing my own collection, it is imperative that I use all these sensory outcomes to create a pleasing experience.

This will come down to the material choices, including the weight designated for the quilt, the fabric choices for the quilt and body pillow covers.

The tactility will also be explored through the lounge pod material choices, the upholstery foam and cushions, the industrial felt shell and cotton lining inside.

The visual language and form of the pod will be explored with scaled tests and full-scale physical testing of the elements.



FIG 21. Baya Bird Nest. (n.d.)

# Design Brief

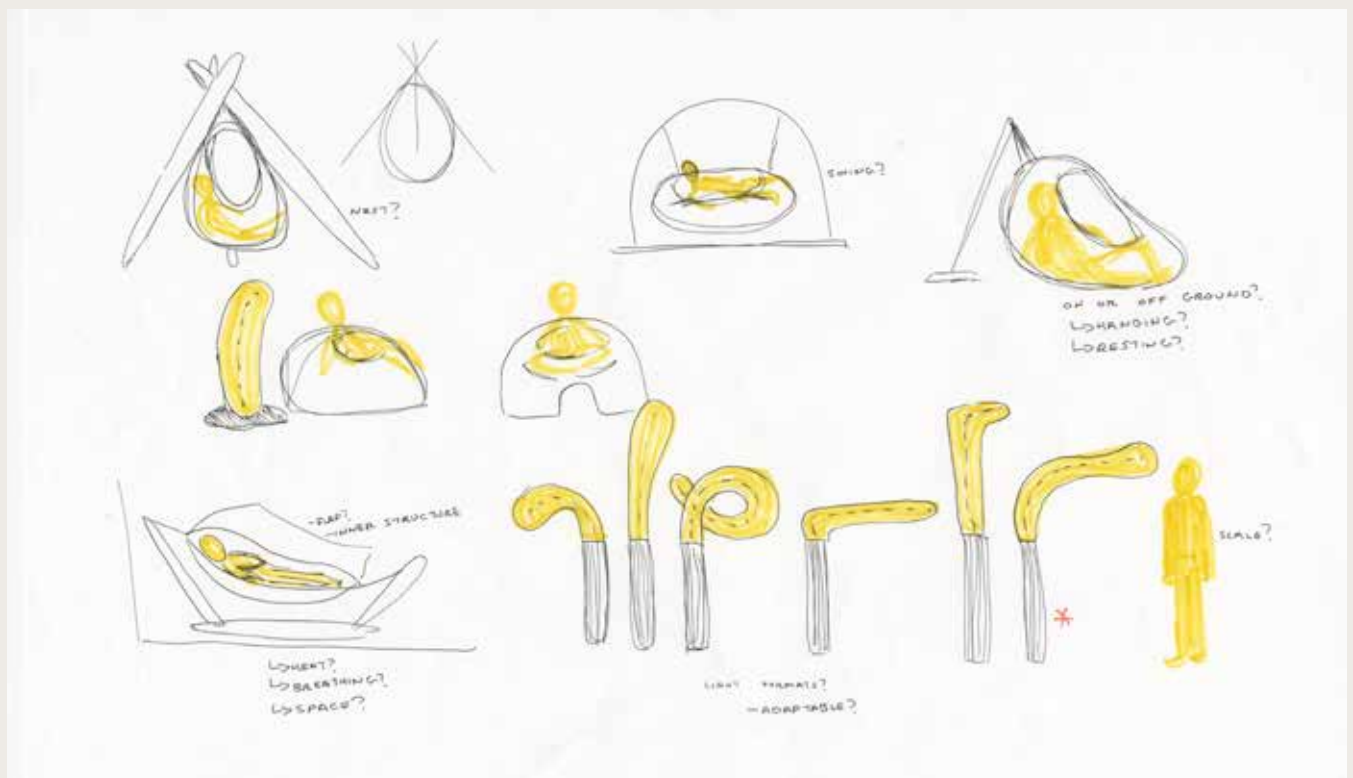
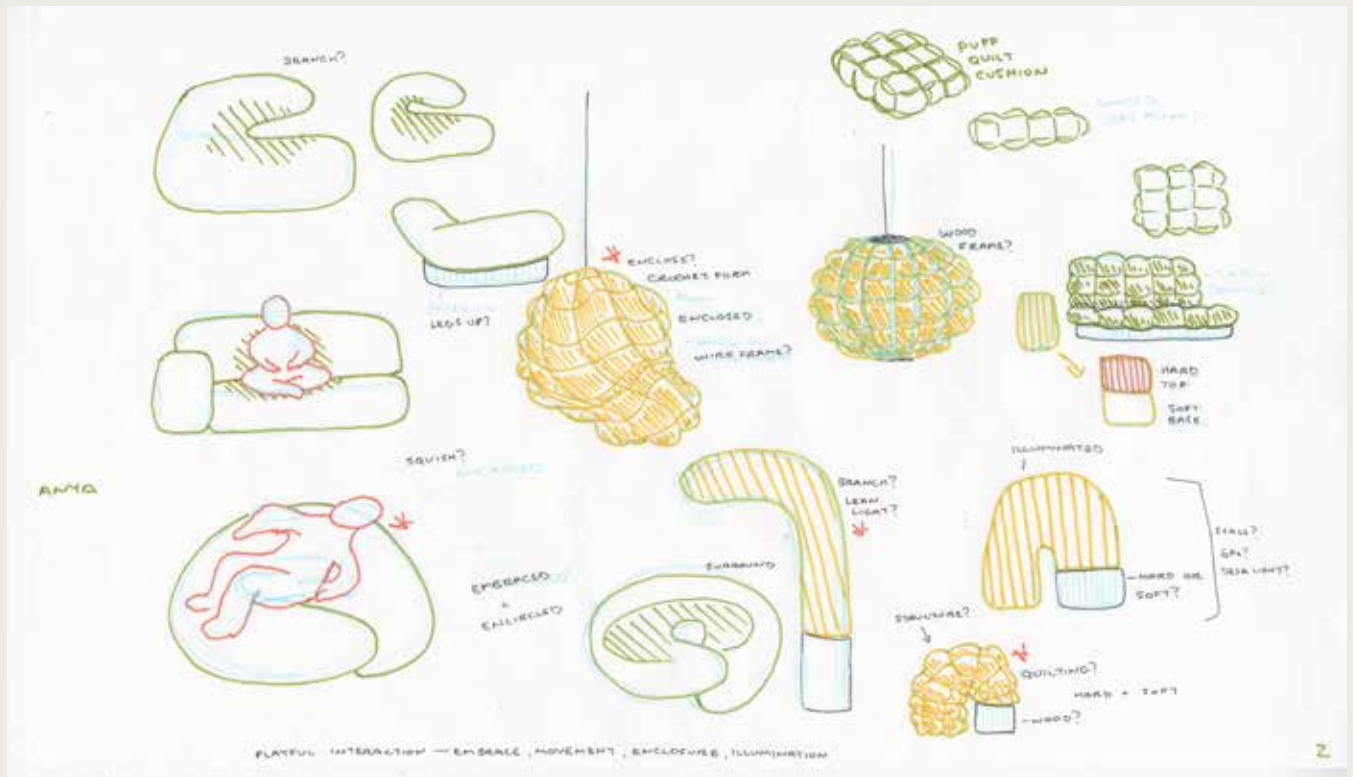
Through an exploration of the interaction between textiles and furniture, I aim to create a collection embodying a comforting and restful domestic experience, replicating the benefits of an embrace.

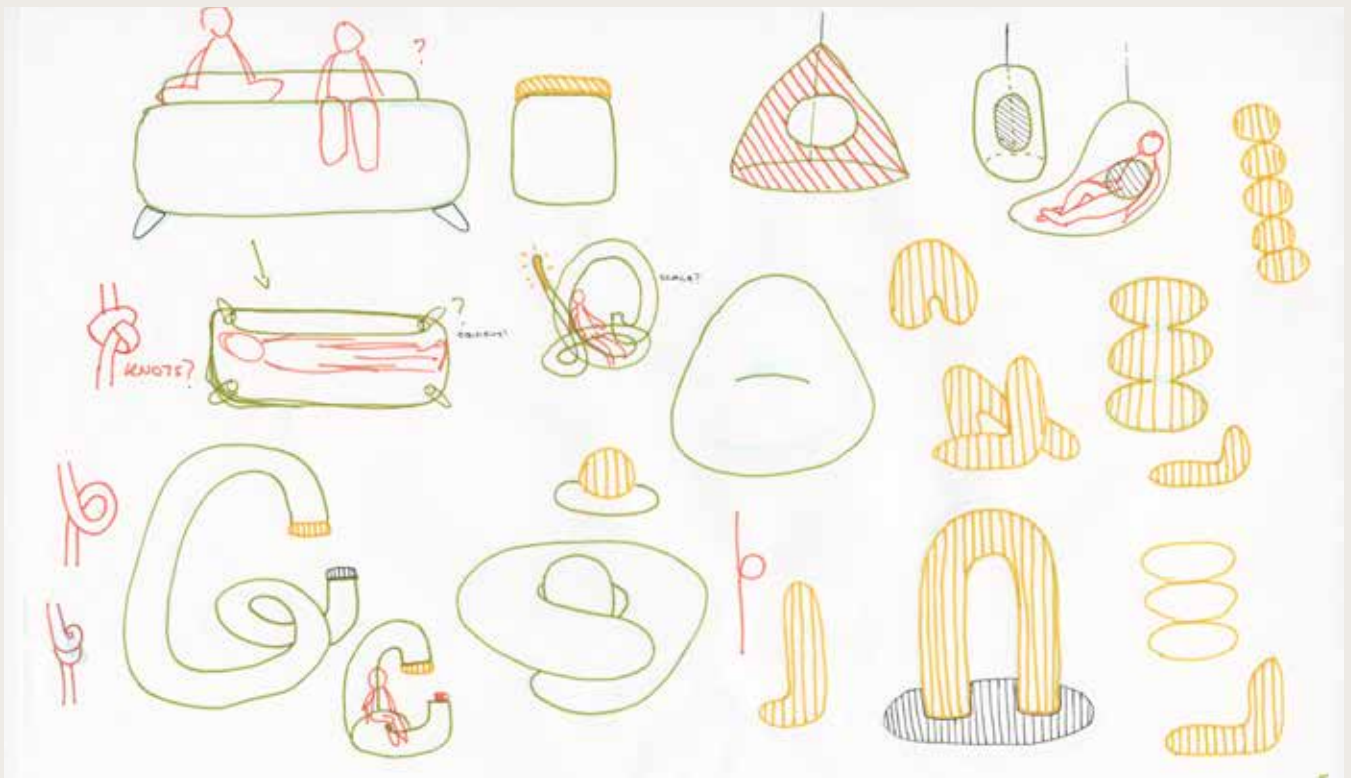
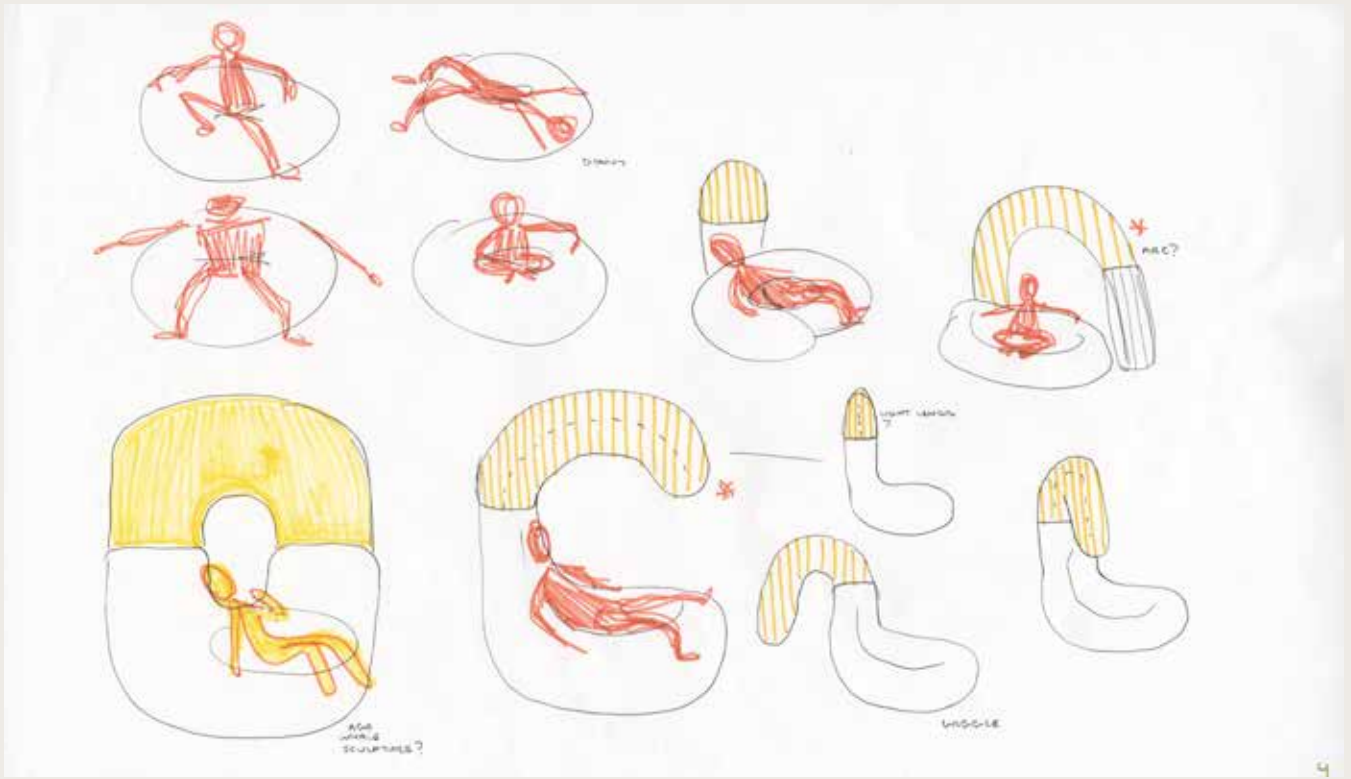
This collection will include a lounge-pod, a weighted blanket and a body pillow.

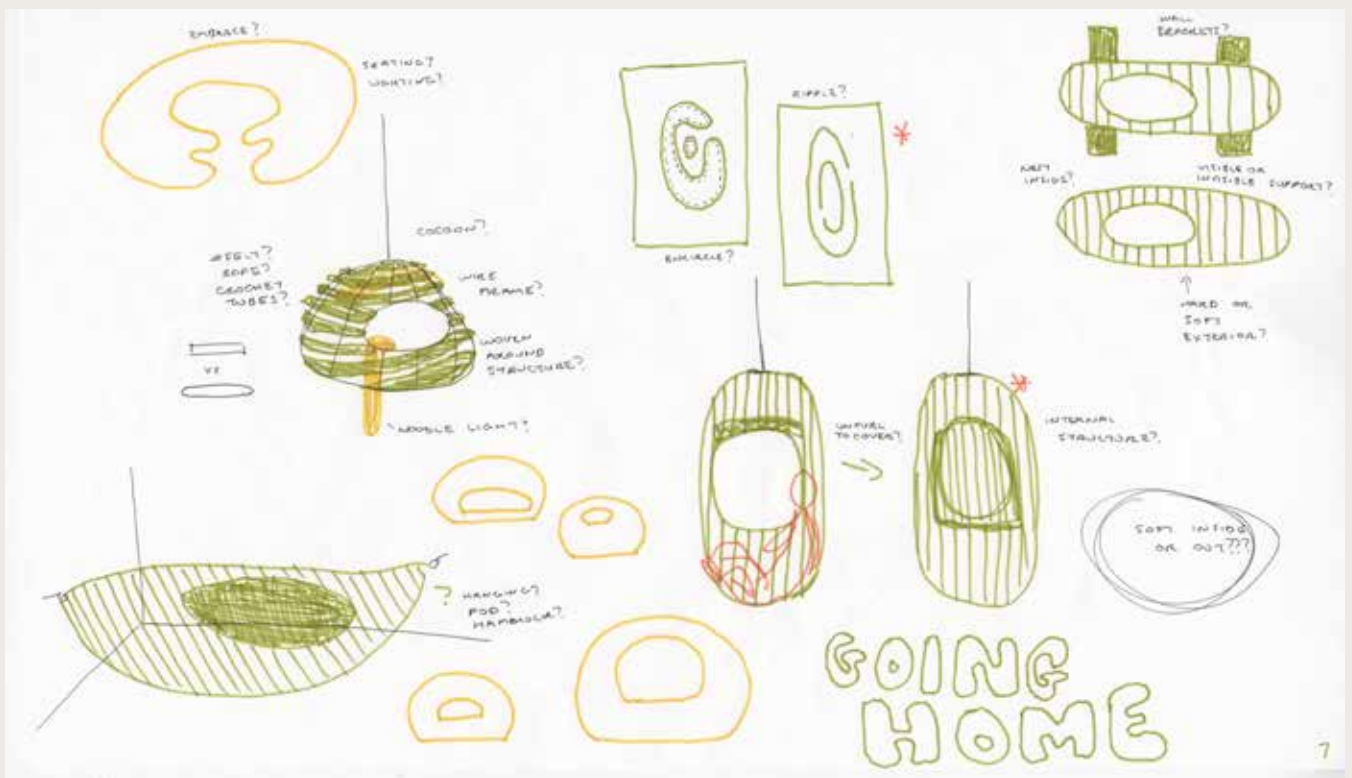
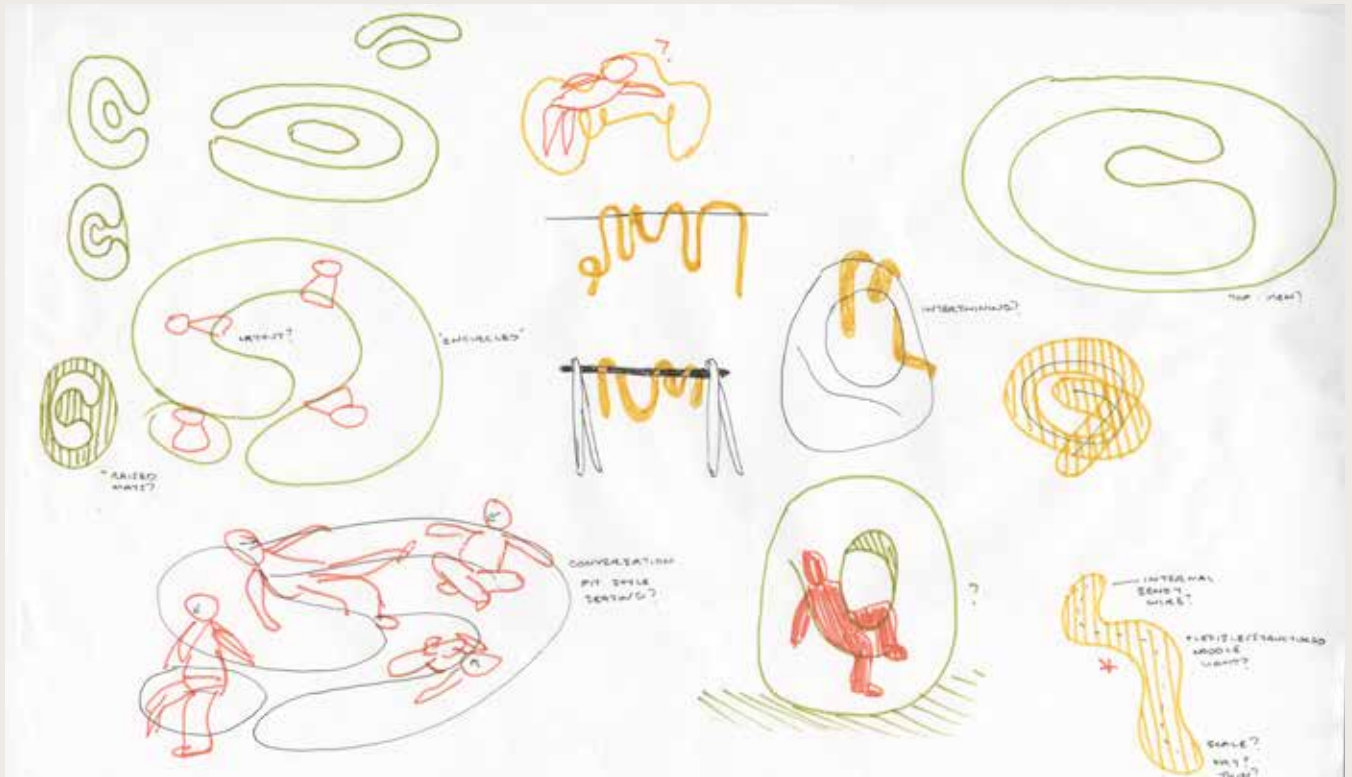


# Ideation

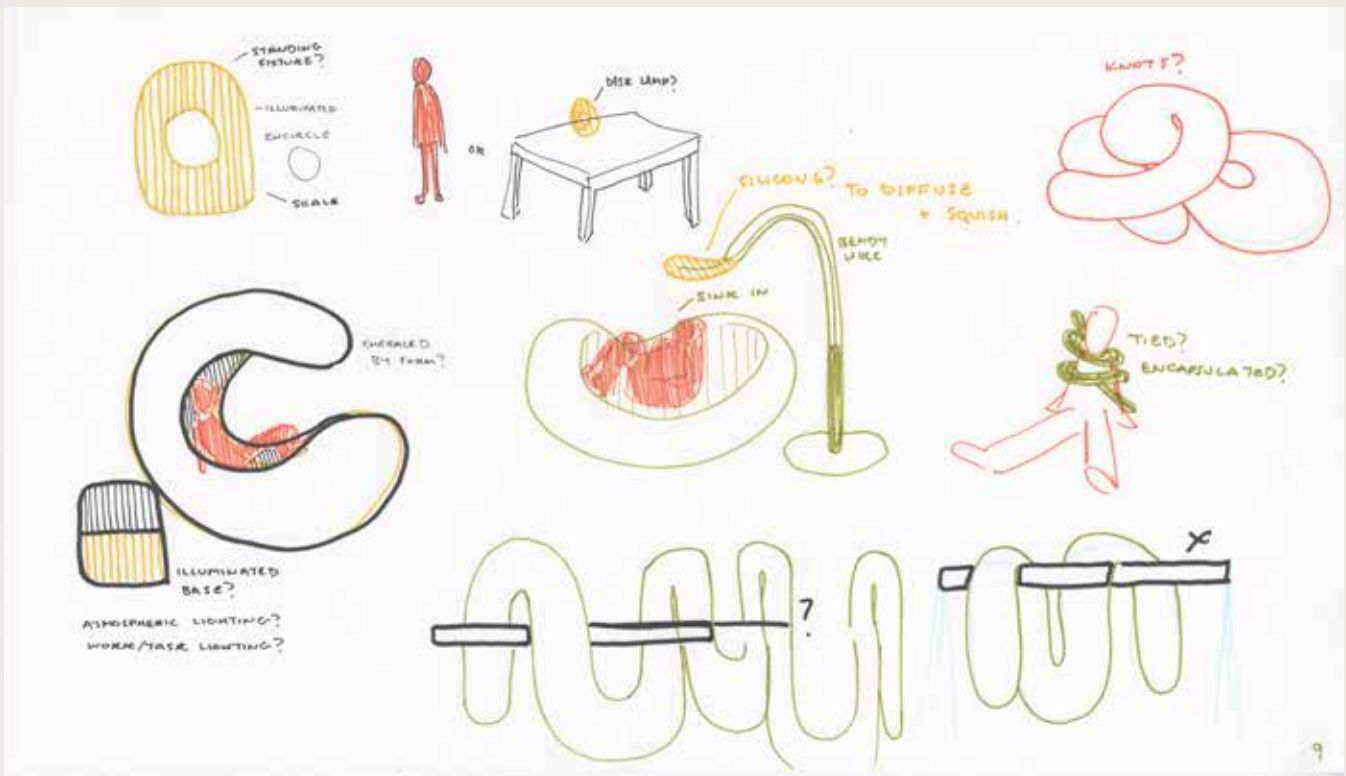
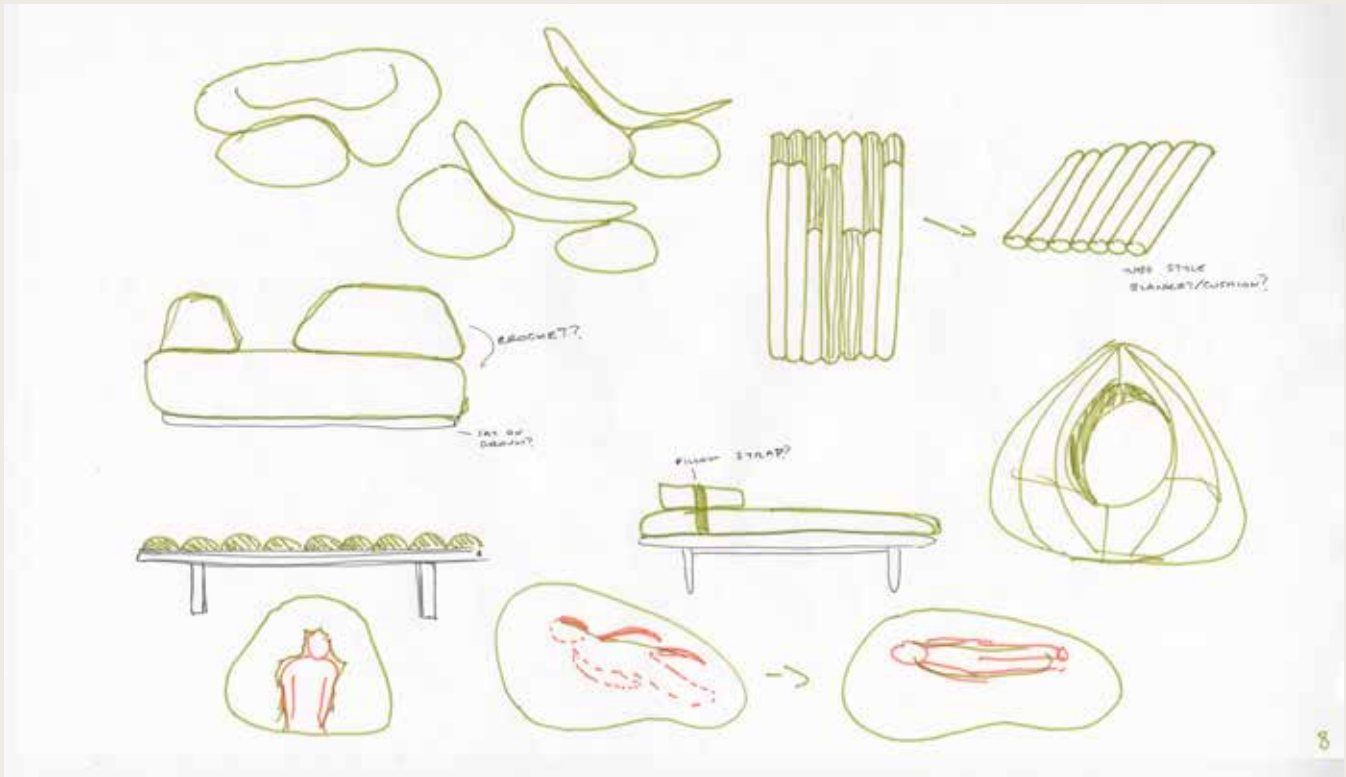
The following are the series of ideation sketches in order to explore potencial forms and products in the collection, this includes a lighting fixture, a variety of seating and furniture and other combinations of textiles and furniture.

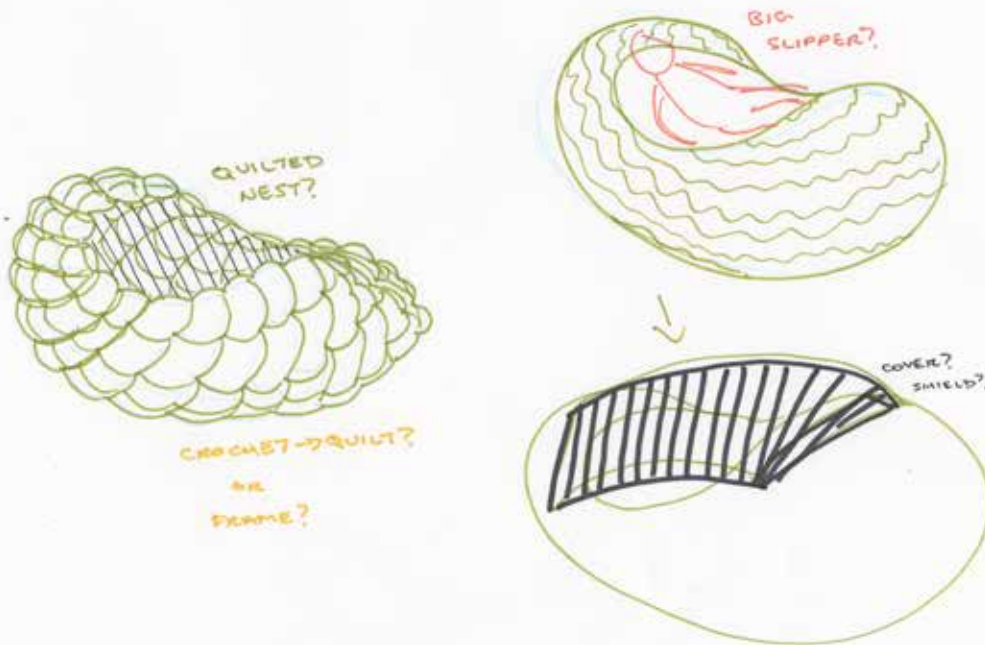


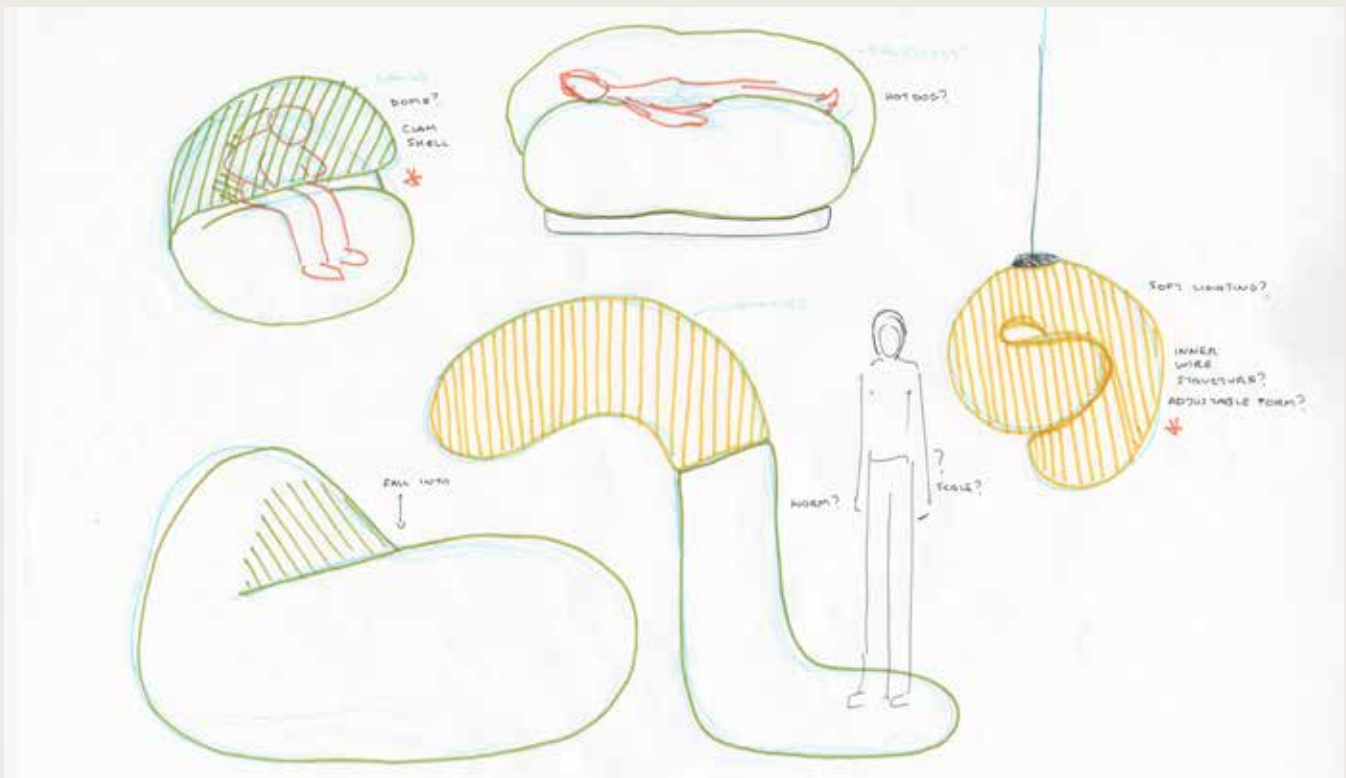












# Ideation Reflection

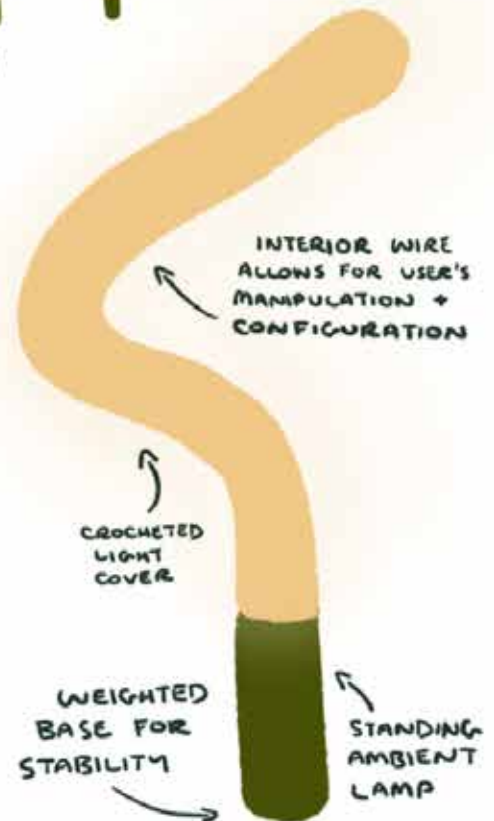
After completing the series of ideation sketches over the course of a week, I came to realize that many of the forms I was most drawn to were pod-like pieces, whether suspended and hanging from ceilings or bars, or resting on legs or the floor, I feel that these pods best capture the connotation of embrace, a vessel in which a user crawls into and which 'hugs' the user within.

From the beginning, I was most interested in creating collection of products, to work in harmony together creating the restful domestic experience in which I hoped to provide. This resulted in the early visualization of secondary components, largely textile-based cushions and blankets to provide some extra squish and an even more pronounced experience of an embrace.

# POD

## nest | body pillow | lamp

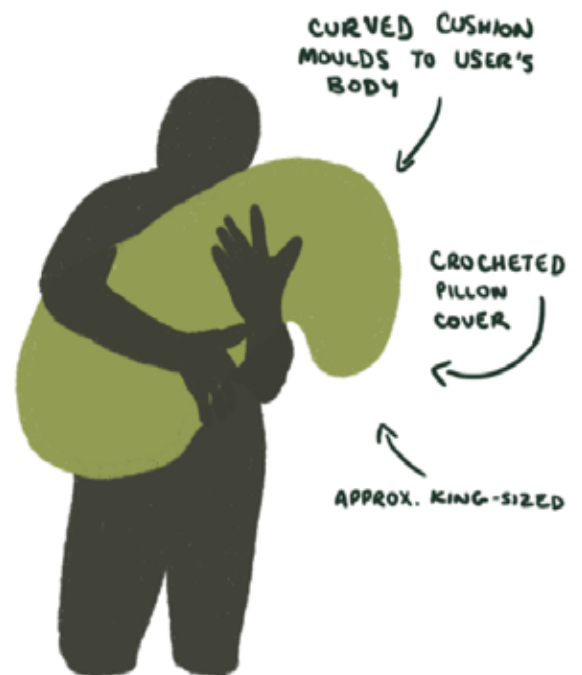
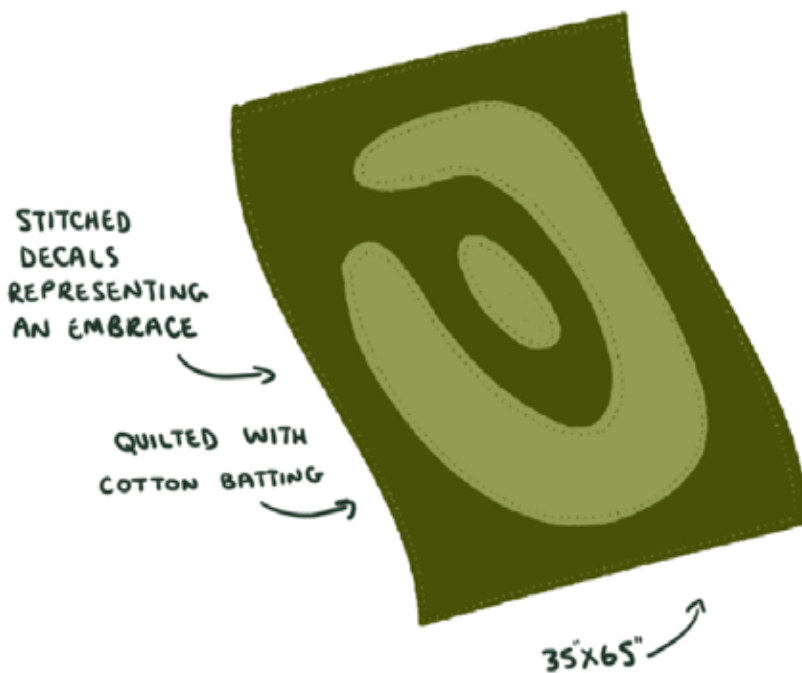
The POD concept includes a hanging nest inspired by the Baya bird nests. POD provides the user with solace and comfort while the asymmetric body pillow within the nest may wrap around the user and act as an embrace, moulding to their body. The final component of the POD collection is a standing textile light which can be manipulated into many configurations allowing for the users' customization. This customization allows the user to use this ambient lighting to establish a comforting and relaxing environment for rest.



# HOLLOW

## pod | cushion | blanket

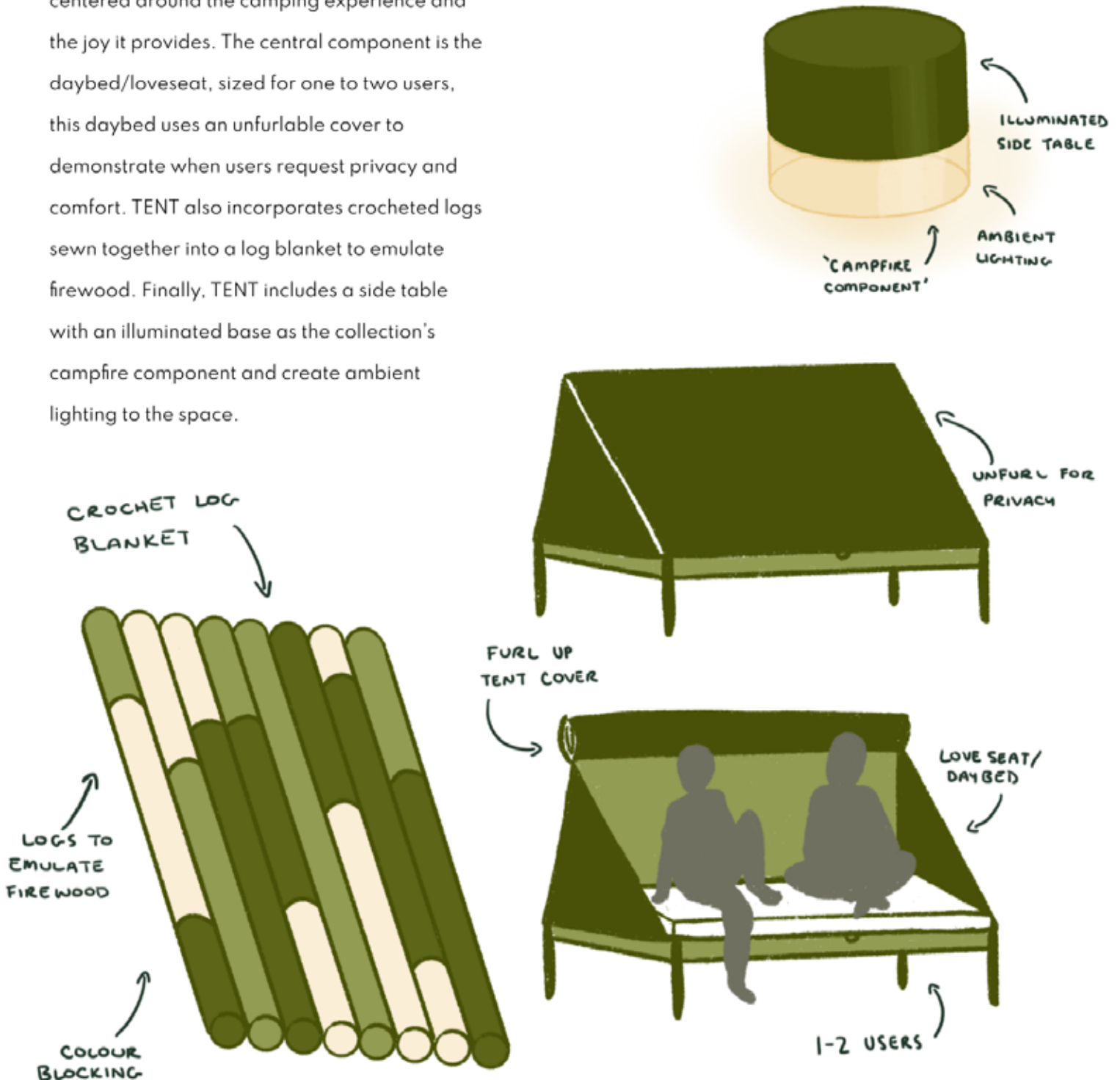
The HOLLOW collection uses a pod that rests on the floor which the user crawls into with a large cushion, shaped to surround the user much like a hug. HOLLOW also includes a quilted blanket with a stitched decal in the shape of one form enclosing another to suggest an embrace and comfort. HOLLOW acts to create a playful and comforting domestic environment prioritizing rest, and focusing on the feeling of a loving and protective embrace.



# TENT

daybed | log blanket | side table

The TENT collection contains three pieces centered around the camping experience and the joy it provides. The central component is the daybed/loveseat, sized for one to two users, this daybed uses an unfurlable cover to demonstrate when users request privacy and comfort. TENT also incorporates crocheted logs sewn together into a log blanket to emulate firewood. Finally, TENT includes a side table with an illuminated base as the collection's campfire component and create ambient lighting to the space.



# 3 Concepts Reflection

Towards the end of the research process, students were prompted to devise three concept boards, to present these and decide which concept to proceed forwards with. After creating the boards and presenting to the class, I decided that the 'hollow' concept was most thematically and visually appealing to me. This is how I came to the selection of the pod, blanket and body pillow collection.



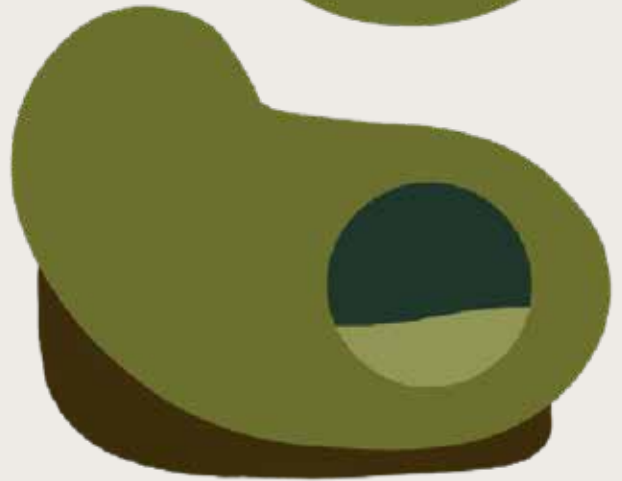
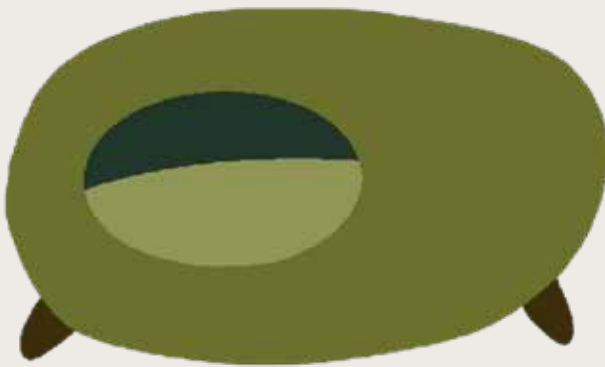


04

SYNTHESIS

# Materiality & Form

For my synthesis, I find it imperative to break my findings and decisions into two components, the desired materiality and the proposed and final form. These two components must work together for the final collection, though these will be researched separately so as to distill the best results for each on their own then formed together to create harmony between them.



# Materiality

When researching existing products with a similar theme or form, I noted some similarities between material choices, many use comforting, durable fabrics, felt is a common choice among these products, though often a base grey industrial felt. I was excited and intrigued to add colour theory into the sensory experience of my collection. After consulting with an art and colour psychotherapist, I was told about the emotional stimulus properties of particular colours and tonal selection.

For the purposes of this collection, to provide relief from stress and create a comforting experience, I was prompted to seek out colours within the green tonal family, including more warm and saturated mustard greens, and deep, rich, jewel-tone greens, as these are closely related to themes of growth, health and nature, and while green is refreshing and comforting, these warmer and deeper tones, would also provide a restful experience.



# Form

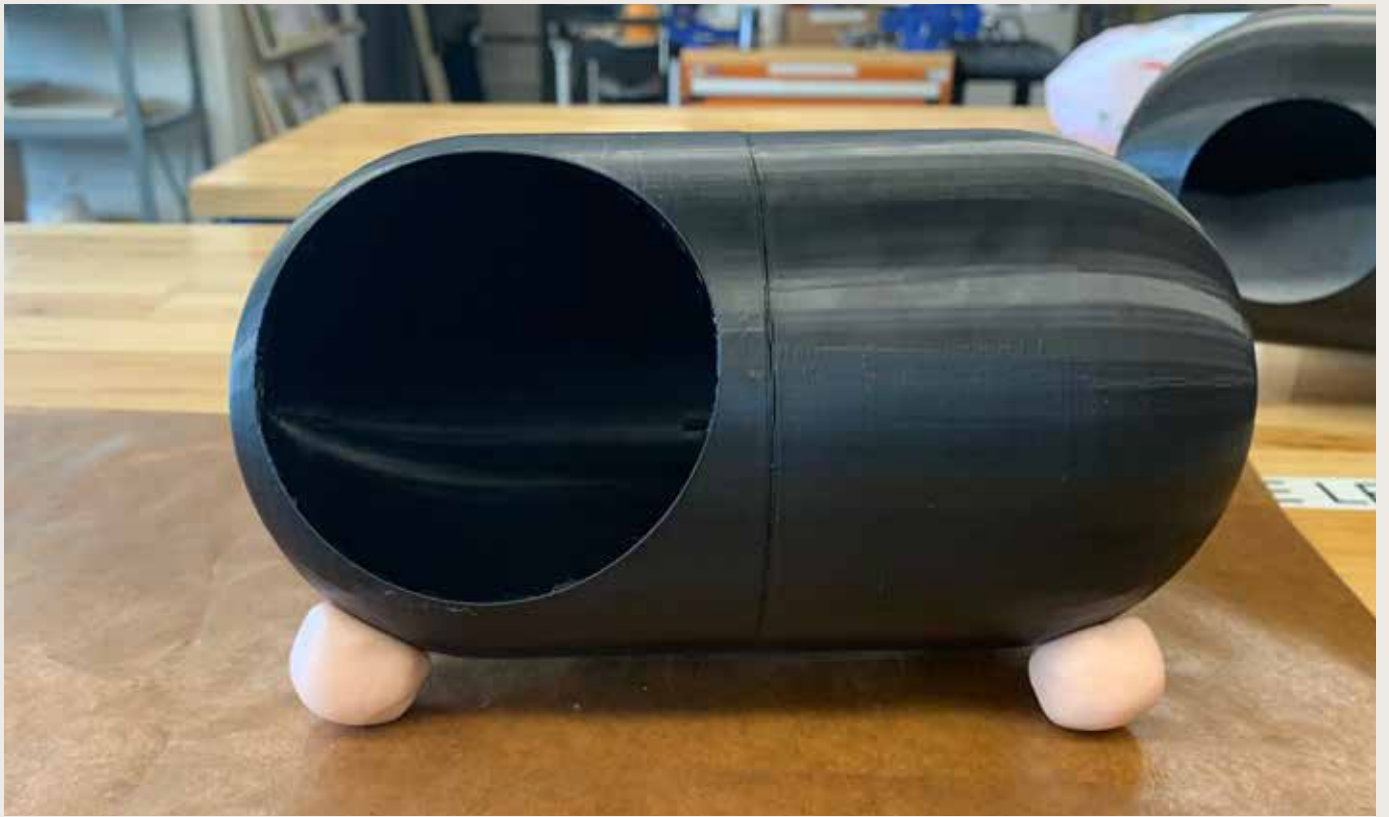
After determining that a pod needed to be designed for the collection, I explored some form variations, beginning with the organic and shifting to the more geometric.

Once the base form was decided upon, I did some testing to determine which legs/feet would best suit the form and meet the user's needs.











05

CONCEPT

DEVELOPMENT

# Scale & Structure

For the final collection design, all scale decisions have been based on full-scale physical testing, this includes a series of circular holes in descending diameter to discover which is most comfortable for users to crawl in and out of the pod.

The testing also uncovered which scale of pod would be best suited for an embrace-like experience. I used the CNC to cut out a full-scale pod base

and used this to determine the footprint of the pod and how users best interacted with the space provided.

After testing, the best scale of the pod follows:

Inner Height of 48''

Inner Length of 70''

Opening Diameter of 28''

Opening distance from ground of 17.5'' for best ingress and egress









# Production

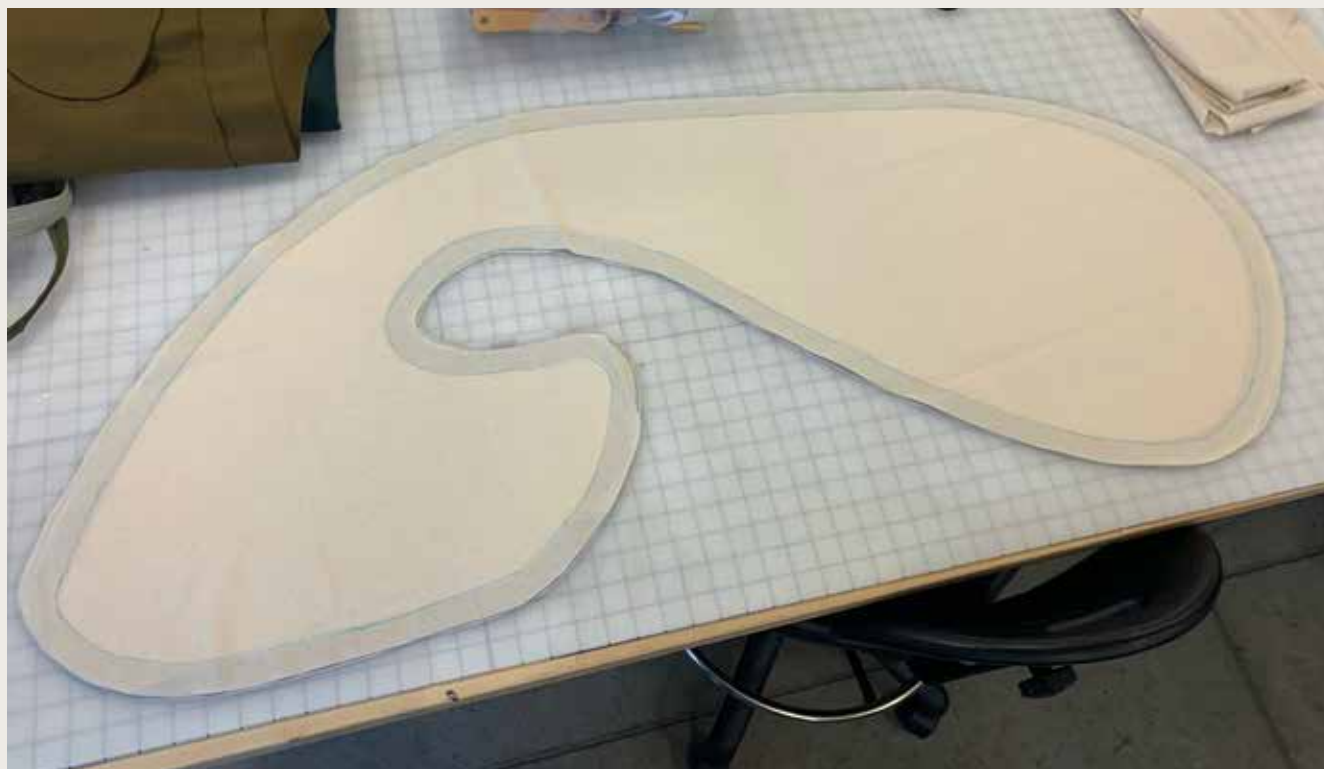
The production component of this project is divided into three elements, the body pillow, the weighted quilt, and the lounge pod.



# Body Pillow

To produce the body pillow, I created digital pattern pieces to assure the scale and seams. I used the pattern pieces to cut out a mockup case and test all zipper options. For the final pillow, I made an insert cushion out of cotton muslin, then used the larger pattern piece to cut out the fleece pieces.

I sewed the fleece pieces together and added the zipper to the case for easy removal for wash. The pillow insert is stuffed into the fleece case.





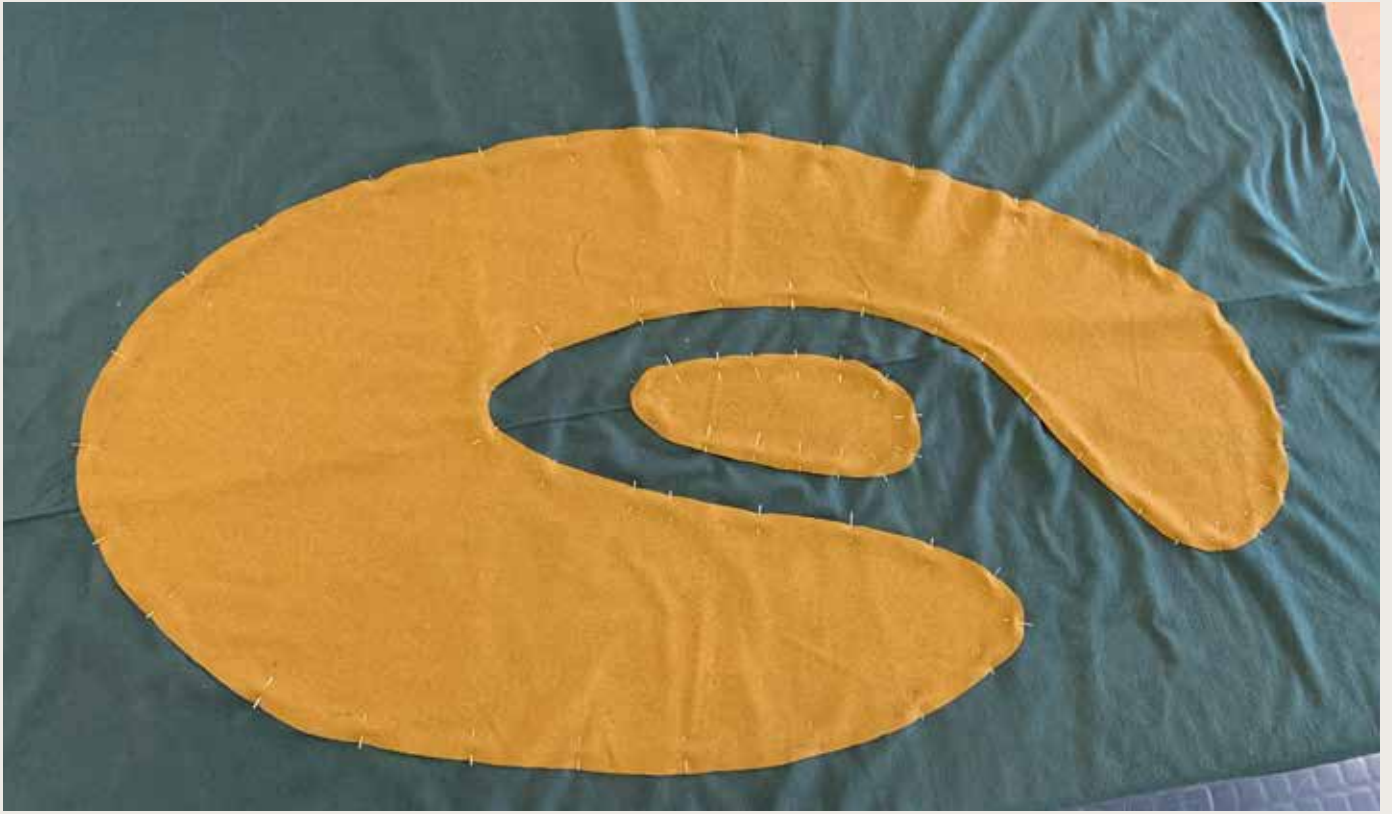
# Quilt

To produce the quilt, I began by creating the digital pattern pieces for the applique, then printing these pattern pieces out at full scale, applying them onto the fabric and cutting out the pieces needed. I stitched a backing onto the top and bottom components for stabilization and appliqued the embrace symbol

on top with a tight zig-zag stitch. I placed the two right sides together and sewed along three edges, leaving the bottom open for the zipper application. I used a 54'' zipper to close the bottom and allow for easy removal of the inner weighted component for washing.











# Lounge Pod

When producing the  $\frac{1}{4}$  scale pod, I cut the MDF frame on the CNC, then glued it together, securing the joints with tape. I upholstered the interior first with cotton batting, then felt. Once the inside was upholstered, I began laying the cotton batting upon the exterior frame to pattern the piece.

Once this was finished, I sewed the final felt cover with the pattern developed and cut the whole for ingress and egress, I added the inner cushions into the pod and attached the MDF base, which had been upholstered in cotton batting.











06

FINAL CONCEPT



























07

CONCLUSION

# Self Reflection

Over the course of this project, I had the amazing opportunity to pursue almost anything I wanted, and time and time again, I came back to the pursuit of comfort. I am very proud of the work I have done and plan on continuing this research and the pursuit of comfort and peace.

With continued efforts, I would love to work on how the lounge pod could be developed into a producable product, how to assemble and disassemble, clean and potencial flatpacking capabilities. I am eager to continue this work and provide comfort for myself and others.



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Figure 7 : Oradaria Design. (n.d.). Blandito. In 6sqft. <https://www.6sqft.com/tag/oradaria-design/>

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