





SIRCLING  
the  
CQUARE

LATIKA BALACHANDER

To Valambal Srinivasan, my grandmother.  
Thank you for your love.

Sircling the Square

A thesis presented in partial fulfillment of the requirements for the degree Master of Fine Arts in Textiles in the Department of Textiles of the Rhode Island School of Design, Providence, Rhode Island, United States of America

by Latika Balachander 2024

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# ABSTRACT

As we journey into an increasingly virtual and intangible reality, is there an opportunity for our tactile fabrics to journey with, and even reorient us? Can they exist in our future worlds to remind us of the value of current traditional, low-tech practices that we may soon forget?

Referencing the fundamental fabric languages of knitted and woven structures, this collection of garments, that I term “Earthsuits,” embody the stages of metamorphosis as we adjust to a new phase of our perceptive reality. With an emphasis on circling, we loop through virtual squares like screens and pixels, to the circles of the physical world—organic life cycles and saris.

Inspired by the transformation of the silkworm (from egg, through larva and cocoon, to moth) and the long tradition of woven saris in India (a flat, 5-meter long rectangle wrapped around the body), I present these textile constructions as portable, nomadic objects for a speculative future.

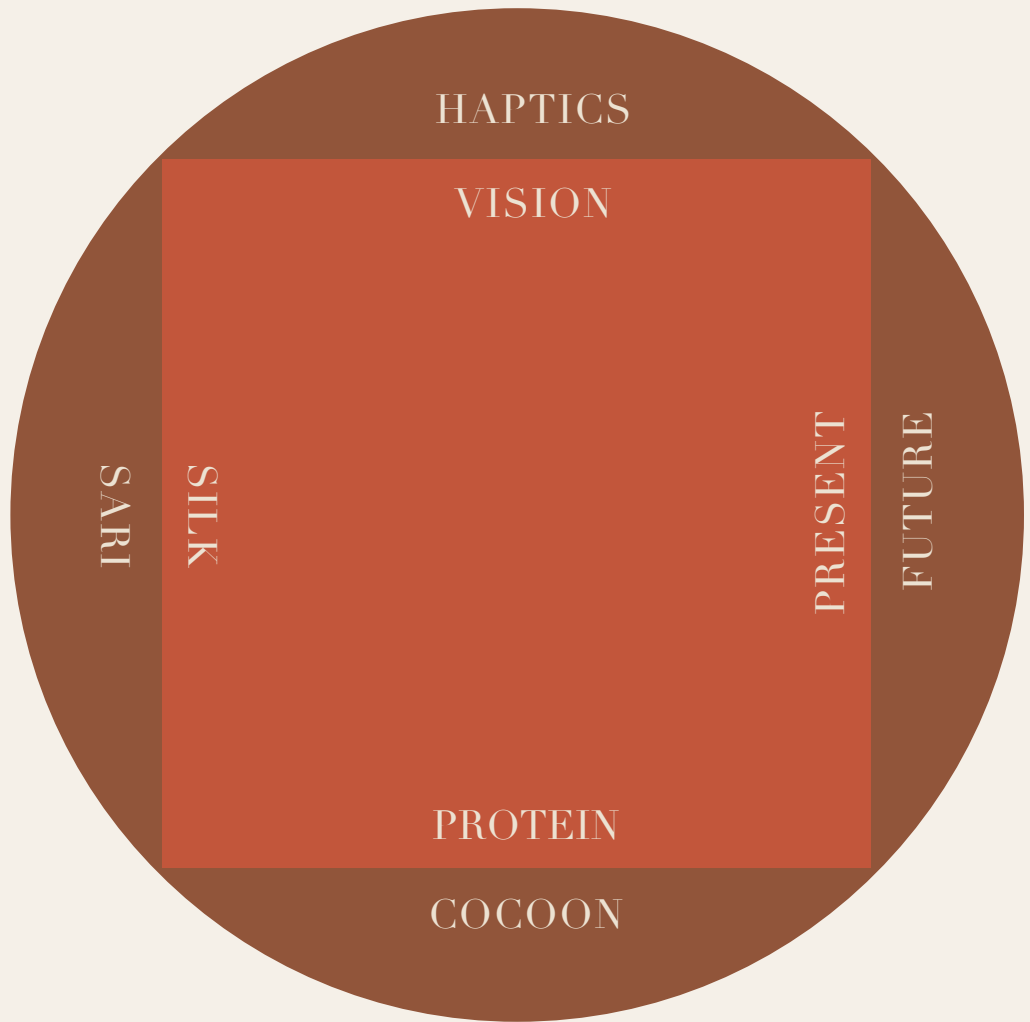
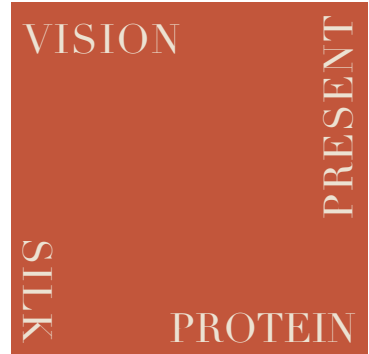
# ABOUT THIS BOOK

This book is about circles and squares. It begins with the story of a fabric made from silk. I envision important points in this story of how it has sustained time, commencing with the close observation of a humble silkworm. Though blind and flightless, the worm constructs around itself a spherical cocoon using the three right angles of a square enclosure. A symbiosis then occurs when this saliva from the worm is transformed into long fibers, delicately hand woven into a traditional Indian sari. Rectangular and flat, the wearer mimics the material roots of the worm as she drapes it around her body into a cylindrical form.

Fabric, through our history, has been governed by its ability to manifest forensic memory. The way a fabric smells, looks, sounds, and feels reveals where it is from, when and why it was made, and who it will reach. Therefore, it is a valuable object of communication, universally imbedded in our daily lives, evolving alongside us into the era of VR headsets and squared pixels. Drawing a parallel between the sari’s wearer and the silkworm, I note the intriguing coincidence that the worm does not rely on the very senses—sight and sound—that dominate human perception in the digital age. As technology continues to enhance our same facilities of perception, we forfeit something in the same way that we lose an important part of our connection to fabrics when we neglect the process in which they are constructed. What if our future meant returning to the past and falling back on other senses that we underutilize, like the touch and feel of an oft-overlooked fabric?

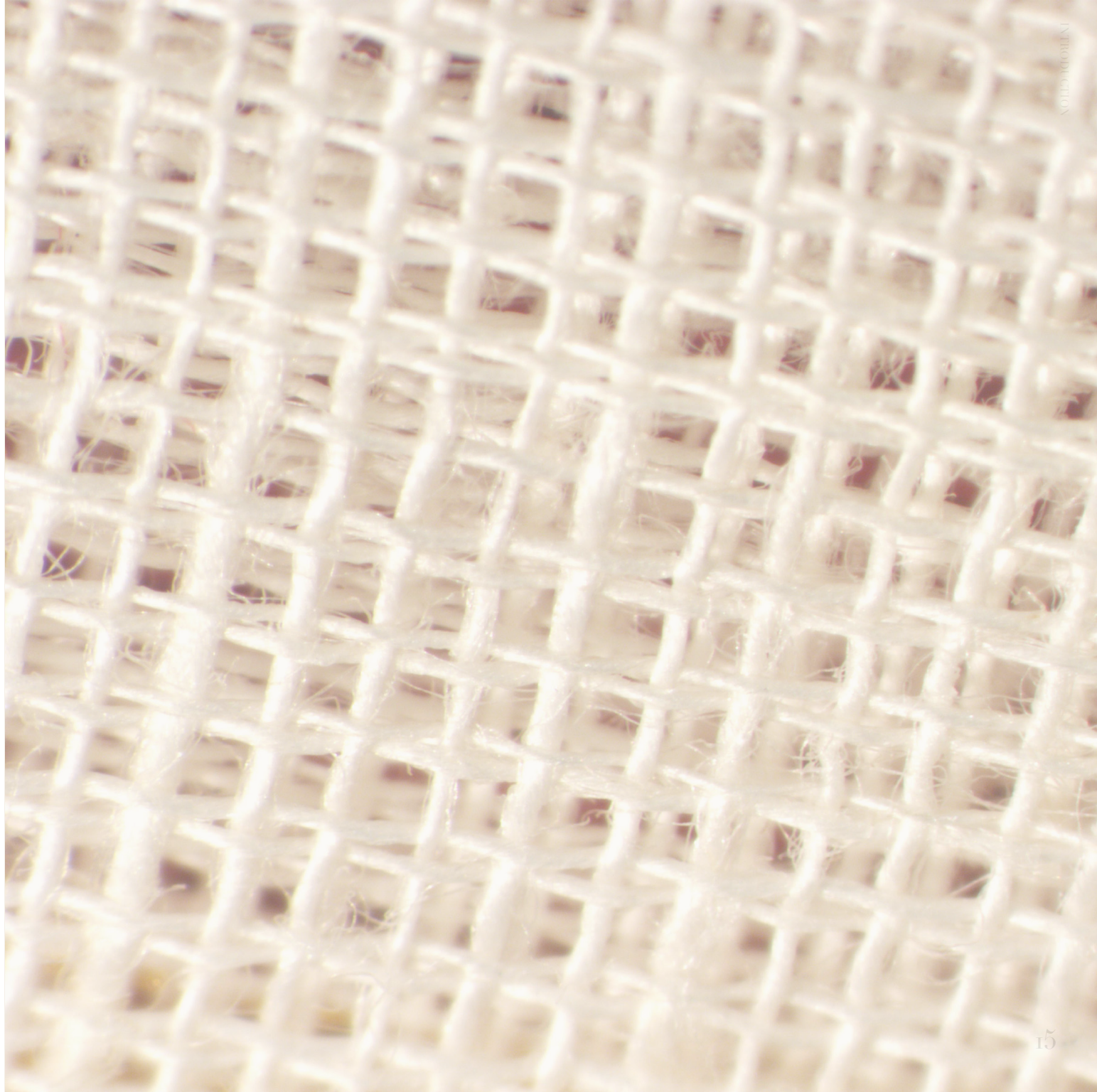
The book is structured around various contexts of fabric, beginning with "The Sari Story," which offers a personal and historical narrative of the sari. The "Linguistic Multispace" reexamines fabric as a means of communication and the relationship between language and sensory perceptions. This section breaks down perception into language and language into material, investigating a way to communicate using material. The "Body Schema" considers fabric in relation to the body, exploring its potentials through wearable, technological experimentation. Contemplating the transformation of fabric into spatial forms, the "Multi-Dimensionality" section highlights artists who abstract the body form. It concludes with "Sircles and Cquares" condensing these various conversations into a final thesis piece. My work aims to preserve the emotive story of the silkworm while embracing traditional wisdom and advancing into the digital realm, seeking to redefine the role of fabric in our futures through a series of conceptual and experimental projects. It aims to circle the square and return to the beginning, to worms.

- PROTEIN → COCOON
- SILK → SARI
- VISION → HAPTICS
- PRESENT → FUTURE



While this thesis in some ways highlights the differences between the angular rectangles of our technological future and the cyclical patterns of the natural world, these two concepts are heavily interwoven. As we appear to move further and further away from our grounding senses like touch and feel, it is imperative we not lose the connections to our roots in the material. For this reason, and drawing upon the linguistic properties textiles can embody when it comes to influencing perception, the title of this work reflects this delicate and interrelated balance between circles and squares, swapping their starting letters to remind us of where we have been, and where we should be going.

S





# INTRODUCTION

My work is heavily inspired by Edwin A. Abbott's *Flatland: A Romance of Many Dimensions* (1884). *Flatland* tells the story of a world that exists on a two-dimensional plane, structured and organized into classes based on the number of sides of a figure. The Square, the protagonist of the book, meets the Sphere who takes him out of Flatland to Spaceland, allowing him to experience the third dimension. Experiencing this strange reality beyond Flatland's imagination, the Square begins to understand the larger picture of the universe. Finally, he returns to Flatland and attempts to share the idea of the third dimension with others. Unable to properly describe his time in Spaceland, the Square is imprisoned for conspiring dangerous ideas. He laments that he has

been in prison for seven years as he writes *Flatland*, and the book ends with the hopeless Square dejected by his failure to spread the gospel of the three dimensions.

In many ways, the Square's journey mirrors the transient journey of fiber to fabric, cloth to clothing. This process is all a result of construction, of the liminality between origin and destination, of bringing something inexistent into existence through making. Whether it derives from the saliva glands of a silkworm that essentially 3D prints a liquid solidifying in thin air, or from a small weaving floor loom operated by the pedals under the feet of a South Indian man—fabric comes from a single dimension and is activated into its third dimension upon interaction.

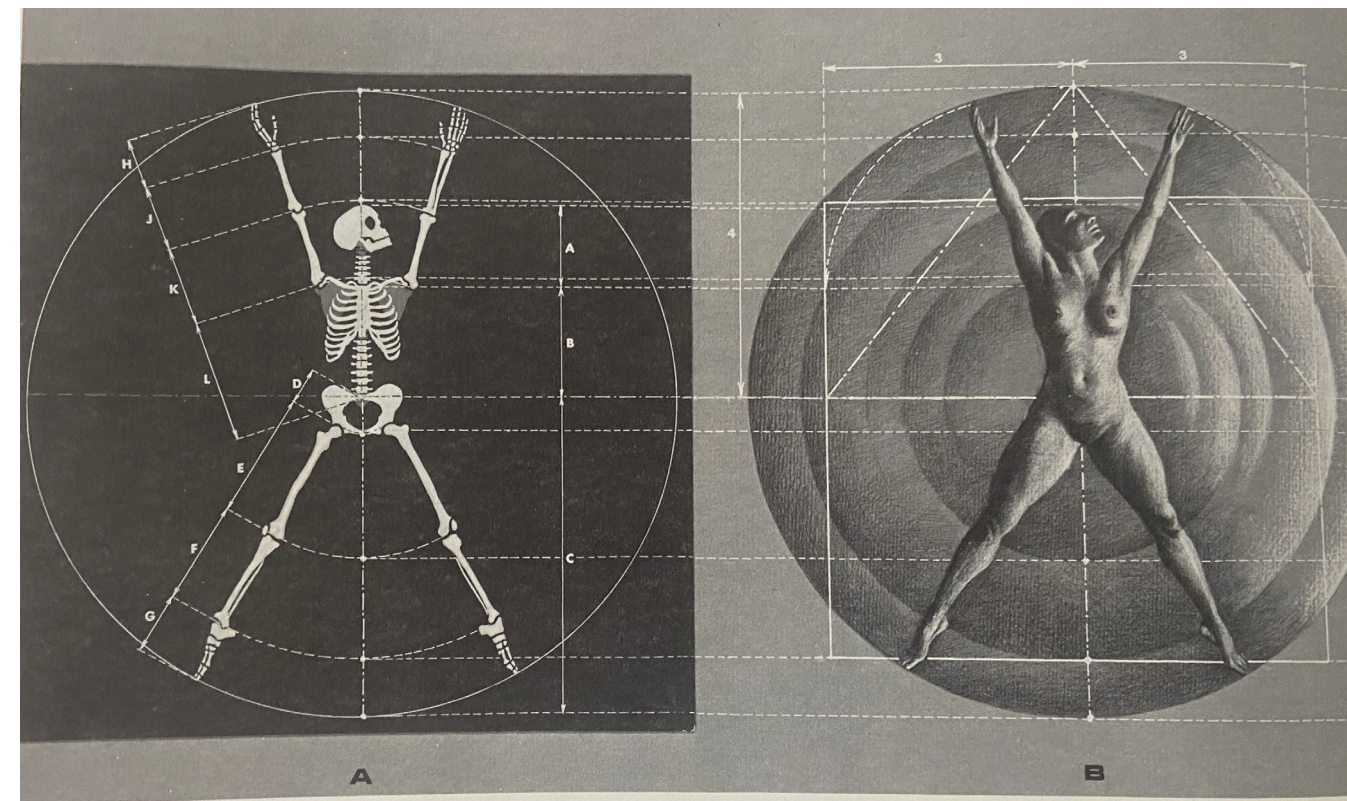
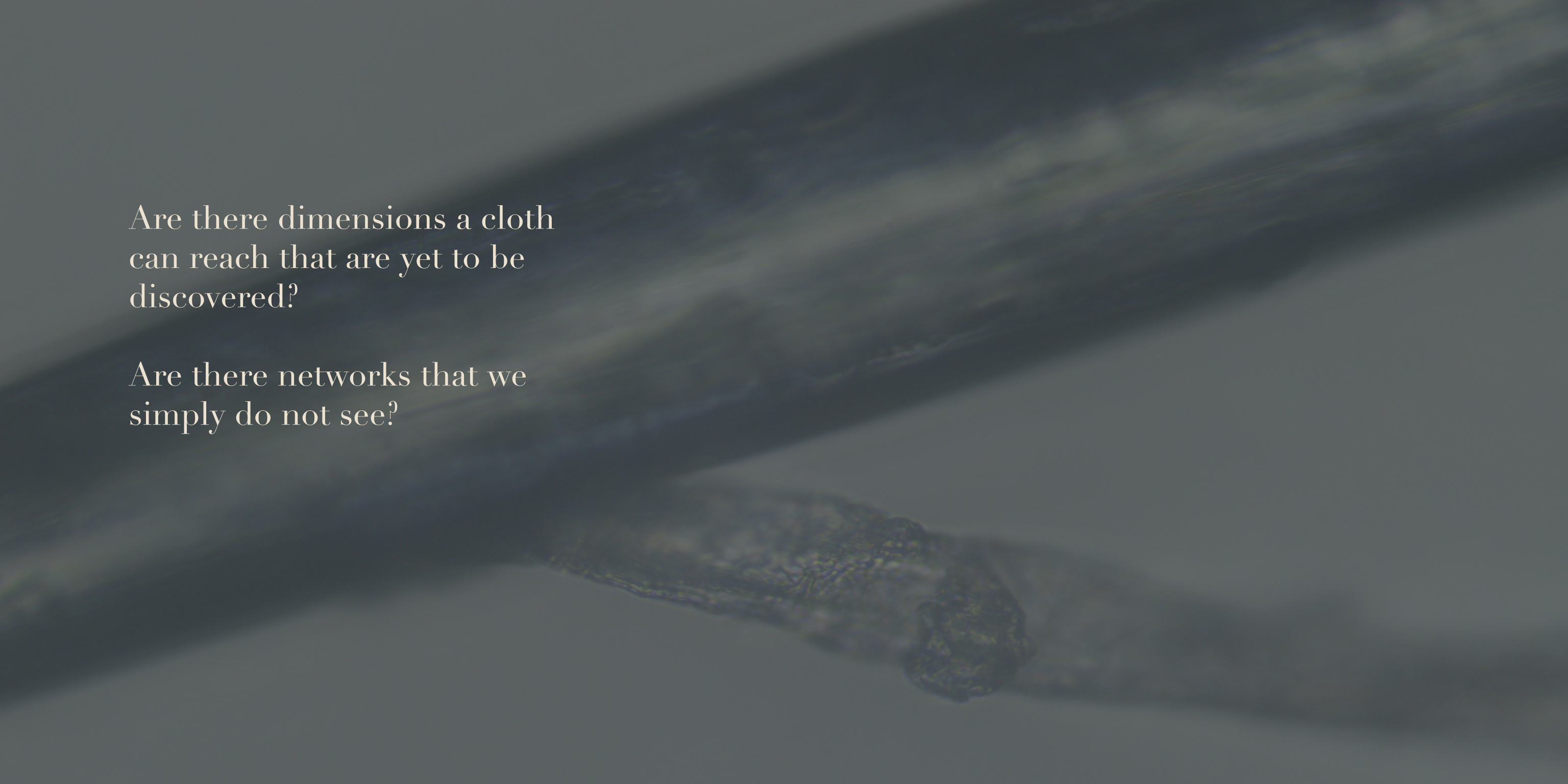


Image 1 : Captured from Doczi's *Power of Limits*, demonstrating human body proportions and growth patterns in space and temporality

The fabric holds no form and is seldom indicative of its destination when it is simply a cloth. When it is linked to utility, it gains context and has a place to be. What happens when fabric remains in its flat, two-dimensional land? What does it gain when it is activated by interaction with its three dimensional space?



Are there dimensions a cloth  
can reach that are yet to be  
discovered?

Are there networks that we  
simply do not see?

*Fabric Story*

## THE SARI TALE

I saw my first sari on my grandmother. She would return from her shower every morning and unravel the neatly folded sari that she had chosen for the day. She started with the short end of this excessive length and would loosely wrap it around her waist, nonchalantly throwing the end over her shoulder. She then went back to the center of the fabric and made large, meticulous pleats, straightening them out with the spaces between her fingers. As she drowned in the seven yards of woven fabric, I quietly watched the theatrical performance. Once satisfied with her pleating, she would aggressively tuck and fold them into a sausage-like form on her waist. A few pats, fidgets, and eight minutes later, she walked out of the room and began her day.



Image 2: Personal photograph of my grandmother and grandfather (1999)

As the years passed, my grandmother's saris turned darker in color and her tucks turned weaker. She replaced her bright yellow silk saris with maroon cotton ones. When asked why, she would say, "the years have passed me". When my grandfather passed away, she got rid of her most beloved light green silk sari, almost as a way of letting him go. She began to tie her saris loosely, as if liberating the fabric — and perhaps herself.

As a child, my favorite part of her sari was the *pallu* (the loose end of the fabric). As the *pallu* followed my grandmother around, hanging from her shoulder, I followed the *pallu*, grabbing onto its end. The *pallu* would often disappear before she started cooking, as she tucked it into her sausage pouch. It would reappear when she got warm and needed to fan herself. Sometimes it would serve as a hand cloth, annoying my mother's modern hygiene rules. Rarely, it would hold a little knot with hidden pennies so that I could surreptitiously buy myself a snack.

Years passed and we both grew older. As her arms grew weak and her legs refused to hold her up, she struggled to perform her daily morning dance. Her 60-year-old relationship with this garment ended when she could no longer independently wrap herself. So, she decided to give away all her saris and replace them with sporty tee shirts and sweatpants. Many years later, when she lost her memory to dementia, she held on to her tee shirt and carefully pleated the fabric, the way her muscles were trained to with her dear sari.



Image 3: Personal photograph of my mother (1995)

My mother had a different relationship with the sari. She wore them only on special occasions, often weddings. Her first step was to turn up the air conditioner and turn on all the fans in the room. Frazzled, she would begin with her pleats and make her way up to the shoulder. She never entirely trusted the physics of the pleats and the petticoat. As a result, she developed her method of securing it, using safety pins. I would often enjoy watching her frantically run around looking for more pins. Then she would yell at my dad to help her straighten out the pleats. Over an hour later, after many gasps and fights, she would rush out the door, late.

I have never worn a sari.

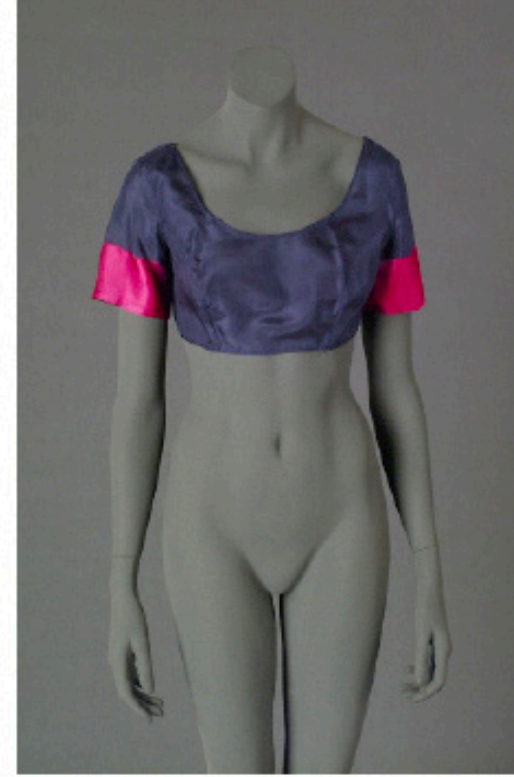
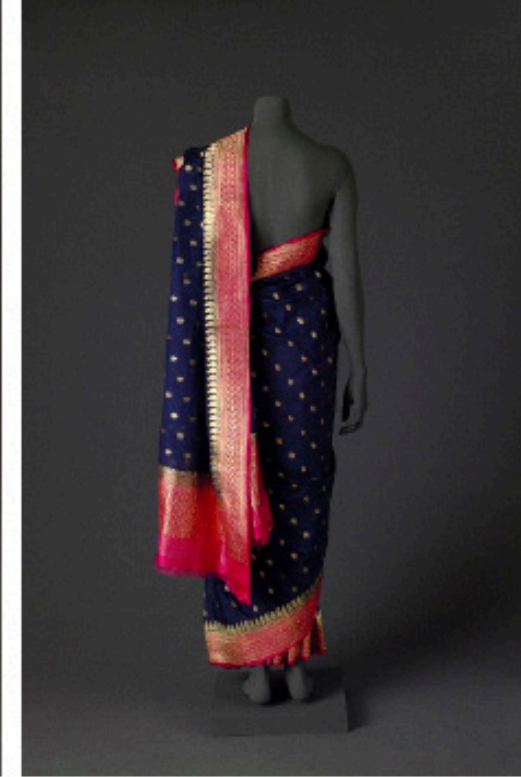


Image 4: Sari Archive Images (Met Museum Archive)

My grandmother wore her first sari when she was 15 years old (1935). However, the garment has existed from the 2800 BC, flourishing heavily in the Indus Valley Civilization. Early evidence of the sari suggests that the word originated from *Sattika*, meaning women's clothing, as referenced in ancient Jain and Buddhist texts. *Sattika* consisted of a three-piece outfit: the *Antriya* (a lower garment resembling a fishtail), the *Uttariya* (a veil draped over the shoulder or head), and the *Stanapatta* (a chest band). This attire is mentioned in Sanskrit literature and Buddhist Pali texts from the 6th century BC. The three-piece set was known as *Poshak*, the Hindi word for costume. As the garment evolved, it began to take various forms and shapes. The modern form of the general sari is the external fabric drape, an underskirt tied at the waist usually with a drawstring, and a body-fitted blouse that ends at the waist. The sari is generally tucked into the underskirt, wrapped and pleated around the lower half of the body, and the remainder, known as the *pallu* covers the blouse and falls over the shoulder.



Image 5: Photograph taken in a Sari store, Kanchipuram, Tamil Nadu (2023)

In design, “Universal design” is defined as the “design of buildings, products or environments to make them accessible to people, regardless of age, disability or other factors”. An overarching question in my investigation, is if fabric can transcend culture and utility to become truly universal. Factors of universality such as lifestyle, language and class play a role in answering this question.

Saris are historic and indigenous solutions to modern conversations about zero-waste. The six yards of fabric, along with a blouse, are body mapped onto the wearer with no cuts or intervals. Similar to the sari, history is rich with examples of zero-waste garments from various cultures, each with its unique narrative and methodology. The Japanese *Furoshiki*, for example, employs a square piece of cloth used for wrapping and carrying items, easily adapted into clothing with strategic folding and tying. Similarly, the Scottish Kilt, constructed from a single length of cloth that is pleated and wrapped around the body, showcases an understanding of the fabric economy and the environment, long before these became global concerns. In Africa, the *Kanga*, a rectangular piece of printed cloth, serves multiple purposes, from clothing to carrying infants. It is interesting to revisit the wisdom of these historic garments that confront sustainability by simply placing utility and mindsets at the forefront of indigenous design.

In our world, fabrics hold class and exclusivity, much like any commodity. They hold material presence and memory, and oftentimes the scents of the people we love, long after they are gone. Fabrics contain the forensics of our movements and our lifestyles—the erosion at the base of a trouser hem, and a hole in our favorite sock. They live among us and around us, even if we don't notice them. Sometimes we don't want to—like on the seats of buses. But sometimes we do—like the fuzzy wool rug below our feet when we get home after a long day.

The fabric closest to us, listening  
and breathing with us, are  
the clothes we wear.



Image 6: Photograph of a weaving loom, Kanchipuram, Tamil Nadu (2023)

Before beginning to write this thesis, my interactions with the sari were limited to my observations of it. I associated it with my family and memories of weddings and rituals. Searching for answers and looking for what I was missing in the Sari Story, my thesis dragged me back to my country. Before I left for graduate school in August 2022, I counted the number of times people asked me, “so you are leaving India to go study textiles?” I discounted these comments, writing them off as national pride. However, as I journaled in a car on my way back from a weaving mill in Kanchipuram (a city known for its silk saris in Southern India) at the beginning of my thesis research, driving through loud honks and large acres of paddy fields, I understood exactly what they meant.

Growing up in Hong Kong, like many non-resident Indians, my parents worried about my connection to my culture and enrolled me in several events and clubs to help sustain traditions. To me, these were excuses to meet friends and eat delicious food. My time in India was predominantly over summer breaks. We began the trip in Chennai, a major city in Tamil Nadu, India, and often travelled to Sirkali, a rural village in Tamil Nadu and the birthplace of my father. To me, Sirkali was often associated with fear, caused by insects, dim-lit streets, green fields and the palm trees that looked luscious and beautiful during the day and pitch black and dead silent at night. These trips were focused heavily on visiting temples and attending weddings where my distant cousins sat around and mocked me for my “non-Indian” accent and constant need for paper towels, sanitizers, and packaged water. As a child, a standard part of the trip was a visit to the doctor’s office because of drinking non-packaged water or indulging in a spicy, greasy, delicious snack from a street stall.

This one day in December 2023, sitting in India, I found myself devouring a large meal on a banana leaf, cross-legged and on the floor, using my hands, in an actual weaver’s home. The meal consisted of a mountain of rice, accompanied by four spicy curries and vegetables, neatly placed on a large, flat-open banana leaf. Seated

on the cold brick-lined floor of a traditional Tamilian home, I noticed having to bend forward, reaching my hands to my mouth. Three people stood around me, watching as I ate slowly, chewing and relishing every bite. It was a strange feeling, realizing I was being watched so that I could be refilled with everything I had eaten and anything I wanted more of. Every time I looked upwards, the lady serving me would reach for a different container holding a curry and make a curious eye and head nod, as if to ask me if I wanted more. So eventually I stopped looking up and began truly enjoying my every bite, fully indulged in hospitality. As I completed my first serving of rice, she rushed to me with the large rice barrel and insisted I have more. “Anyone who visits the mill has to eat here and be full,” she said.

At the end of this intense meal, struggling to breathe, I became hyper-aware of everything I disregarded before: the smell of wet mud, the texture of the rough, unlevelled floor alternating between modern tiles and soggy grass, groups of women on farms, with their saris tucked in and wrapped around their heads for shade, roofs made of woven coconut leaves, and ladders made of bamboo shoots, tied using rope. I began to realize the interrelatedness between man and nature and how each leaf, stem, and stalk was prevalent in the homes of farmers who grew them.

Every moment of every day was in dialogue with their natural environments. In these homes, women woke up early, at around five am, and spread out rice flour from their patty fields in front of their homes in beautiful, intricate patterns that attracted ants and other such insects to distract them from entering the home. Even today, with the existence of technology, these farms use wood fires and fire lamps to light their homes. To me, this was a testament to the ingenious integration of natural principles into everyday life.



Images 7, 8: Photographs from Sirkali, Tamil Nadu (2023)







Images 9 - 12: Photographs of punch-cards at the Weaving Mill, Kanchipuram, Tamil Nadu (2023)



Images 13, 14: Photographs of weavers bringing in their saris to receive commissions at the Weaving Society, Kanchipuram, Tamil Nadu (2023)



Image 15: Photograph of a weaving loom, Sirkali, Tamil Nadu (2023)



Image 16: Photograph of spinning gold yarn for the sari borders, Sirkali, Tamil Nadu (2023)



Image 17: Photograph of the dyeing tubs , Sirkali, Tamil Nadu (2023)



Images 18 - 20: Photographs of spinning raw silk fibers in preparation of dyeing , Sirkali, Tamil Nadu (2023)

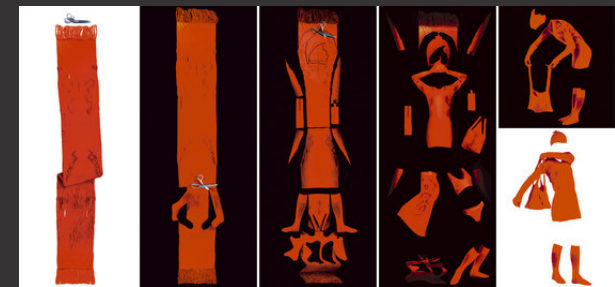


Images 21 - 24: Photographs of the dyeing process, Sirkali, Tamil Nadu (2023)



## APOC ISSEY MIYAKE

Issey Miyake, a Japanese designer, collaborated with Dai Fujiwara on the APOC (A Piece of Cloth) project in 1997, pioneering a zero-waste approach to clothing design that fuses traditional textile techniques with digital technologies. His ensemble from 1999, featured in the Metropolitan Museum of Art, exemplifies this concept through a complete, machine-made knit fabric set that emphasizes minimal waste and user customization. I'm inspired by Miyake's work in relation to the Indian sari and the concept of the universal cloth for its revolutionary approach to reducing waste and enhancing personal expression, mirroring the sari's versatility and cultural significance. This innovative method highlights the potential for sustainability and personal expression in fashion, similar to the adaptability and cultural depth of the Indian sari.



Images 25 - 27: APOC, Issey Miyake (1997)

## KANCHIPURAM

*Presented at the RISD Textiles Biennial*

Kanchipuram, one of the towns I visited during my trip, is a district in the interiors of Southern Tamil Nadu. Known for its Hindu temples and silk saris, the city prides itself as the home of the world-renowned Kanchipuram silk sari. Drawing inspiration from the traditional Indian Kanchipuram Silk Sari, this knitted interpretation questions the language of weaving against that of knitting. It resembles the construction and process of making a traditional sari, from machine to body. Developed using the fully digital Stoll Industrial Knitting machine, this project initiates a dialogue that positions traditional hand loom practices within an era of digitization and automation.



Image 28: Detail of the knit fabric in the garment (2023)





Image 29: Detail of the garment (2023)

## MATERIAL METAMORPHOSIS

Silk, a testament to the ingenuity of small creatures, serves as a bridge between the world of the very small and the vast expanse of human culture. Produced by the labor of silkworms, particularly those of the *Bombyx mori* species, silk fibers emerge as an important example of nature's capacity for producing materials with exceptional properties. At its core, silk is a protein fiber, primarily composed of fibroin, which the silkworms spin into cocoons to provide a protective enclosure for their pupal stage. This process has been harnessed by humans to create a material that is both luxurious and practical.

On a physical level, silk exhibits characteristics that distinguish it from other fibers. It is a combination of strength, elasticity, and a smooth, lustrous texture that has made it sought after for centuries. Despite its delicate appearance, silk fibers hold remarkable tensile strength. Coupled with its

elasticity, it allows silk fabrics to gracefully withstand wear and tear, maintaining their structural integrity over time. In addition, silk's smooth texture is not only pleasing to the touch but also contributes to its ability to drape beautifully and reflect light.

From a scientific standpoint, the study of silk opens doors to understanding the complex biological processes involved in its production and the physical properties that make it so versatile. Scientific researchers delve into the molecular structure of silk to uncover the secrets of its strength and flexibility, exploring how sequences of amino acids within the fibroin protein contribute to its characteristics.

Within the context of my work, silk is where the story begins. It is the microscopic molecule that makes up the weaves of the Kanchipuram Sari.

**HEALTHY EGGS  
TURN FROM**

**YOLK GOLD  
TO BLUSH**

**BLACK  
INTENDAYS**

**TO BE REVIVED  
IN A POUCH WARMED**

**BETWEEN THE  
BREASTS OF A WOMAN**

**OR LETS BE HONEST  
A HEATED ROOM**

Sections Taken from Jen Bervin's Silk Poems

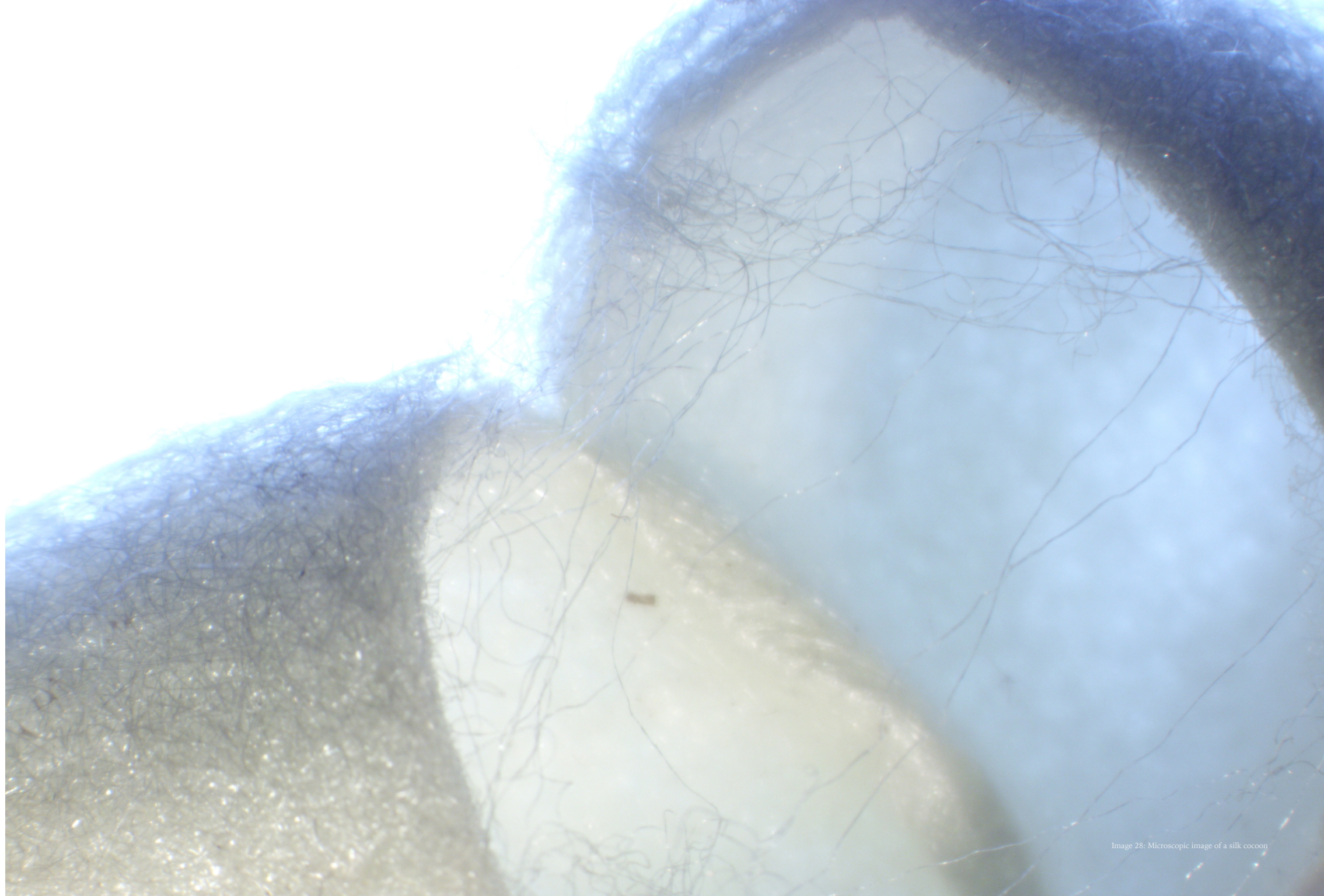


Image 28: Microscopic image of a silk cocoon

## *Pooch* THE SILK WORM

On March 14, 2024, I was gifted a silkworm. It was poised to begin cocooning, nestled in the spinning phase. During the last 20 nights of my final semester at RISD, I cared for this silkworm, affectionately naming it Pooch. In Tamil, the domestic silkworm is called “Pattu Poochi,” meaning “silk insect,” which inspired the name Pooch. I was captivated by the thought that one of these creatures, or its exact genetic replica, had spun the silk for my grandmother’s sari. The same type of worm produced the silk dress I wore at my first birthday and the silk sari in which my grandmother was cremated.

Caring for a living creature in my studio was a novel experience. Having never owned a pet before, I felt a profound sense of responsibility—almost motherly—as if I was tasked with safeguarding its life and ensuring its comfort. On the first night, hesitant to touch it, I placed it in a small, acrylic, circular container. It clung to the edge with its tiny feet, swirling around all night. I spent five hours mesmerized by this

peculiar being in a white box. After observing its delicate, velvety body segmented into nine equal parts, I surmised that Pooch was female.

Days later, Pooch began to produce shiny white silk from her mouth. Bathed in sunlight from my studio window, the fragile strands glistened, growing stronger as she spun more. I marveled at her ability to navigate her environment solely through touch. Lacking eyesight, Pooch would freeze whenever she sensed movement around her. She detected my knocks on her acrylic enclosure as I cleaned it. I soon realized she was struggling to retract her sticky, silver threads due to a lack of strong anchor points. Therefore, I transferred her to an angular space with three 90-degree walls. She quickly adapted, becoming smaller and more flexible, and soon encased herself in a glistening cocoon, vanishing for ten days.

This journey with Pooch felt like a real-life enactment of the concept of “Umwelt.” In his book *An Immense World*, Ed Yong describes Umwelt as “the specific part of the surroundings that an animal can sense and experience—its perceptual world.” For Pooch, this world was limited to her silk cocoon, a space spun from her instincts and needs. I often pondered how Pooch perceived her surroundings merely by touching and sensing the walls around her. Could she detect the presence of a human face, intently observing her as she crafted her cocoon?

Five days after exhausting herself and transitioning into the



Image 30: Time-lapse images of the built habitat





Image 31 : Pooch transformed into a moth

next stage of metamorphosis, I glimpsed her faint silhouette within her sheltered shell. A week later, Pooch emerged, truly transformed. She now sported a furry, fluffy body lined with smooth, off-white fur; her wings were expansive and fluttered rapidly. She even cleaned her long eyebrows with her tiny arms, much like a cat. Although still flightless and blind, Pooch remained my charge, deepening our bond of dependence and care. Yet, in her short three-week life, she interacted with her small, silk-lined cardboard world more profoundly than I could have experienced my perceptual world. This experience, perfectly timed during a stressful period of my life, acted as a pause button, prompting me to slow down and explore the rich, sensory world around me.

## NERI OXMAN SILK PAVILION

Oxman's research acts as a foundation for any interaction with silk as a bio-material and conversations of biophilic design. "Silk Pavilion I," created in 2013 by Neri Oxman and her research team at the MIT Media Lab, explores the intersection of digital fabrication and biological processes. The pavilion was constructed with the help of 6,500 silkworms guided by a robotic arm to spin silk in specific patterns influenced by environmental conditions. This project highlights sustainable and humane methods of silk production, contrasting traditional practices by allowing silkworms to live through the process. It represents a pioneering step towards collaborative fabrication between humans and non-human organisms, underscoring potential new directions in material science and architecture.

Image 32 : Silk Pavilion (2013)

*Hybrid Identities: Language & Power*

# LINGUISTIC MULTI-SPACE

Language is a tool for perception, affecting the way we understand and interact with our surrounding world. In some cultures, the presence or absence of words for colors and numbers fundamentally transform the way speakers of the language view their environment. Beyond the pure linguistics of the spoken word, language is necessarily accompanied by historical and cultural backgrounds.

I was born in Chennai where the spoken language is Tamil. Early in my life, I moved to Bangalore, another city, belonging to a different South Indian state, Karnataka, with a different spoken language—Kannada. Having spent years in Bangalore, I learned poems and stories and often conversed with my friends in Kannada. Six years later, my parents and I moved to Hong Kong, where Cantonese is predominantly spoken. Although I resorted to a Cantonese-English hybrid to say “please” and “thank you,” throughout primary and secondary school, I studied French. Many years later, I returned to India, but to a city I had never previously visited—Mumbai. Mumbai is cosmopolitan, where people commonly

speak Hindi. Unlike all the other languages I learned, Hindi was unsupported by formal education. I learned the language solely by watching movies and participating in social events. After high school, I moved to Singapore for my undergraduate degree. Singapore is famously known for its multiculturalism, with three national languages—Malay, Chinese, and Tamil. Like many foreign nationals, I spoke the hybrid language, “Singlish”, an informal, colloquial English that is used in Singapore. Migrating to the United States for my graduate degree was notably the first time I knew the spoken language of the country.

Within all my journeys in and out of cultures and countries, I repeatedly experienced the challenges of being an expatriate and a non-native speaker. Given that most of the cities and countries I lived in were lined with colonial and imperial histories, English was inadvertently a symbol of power. Therefore, I frequently realized that the challenges of learning a language were overshadowed by the privilege of knowing English.

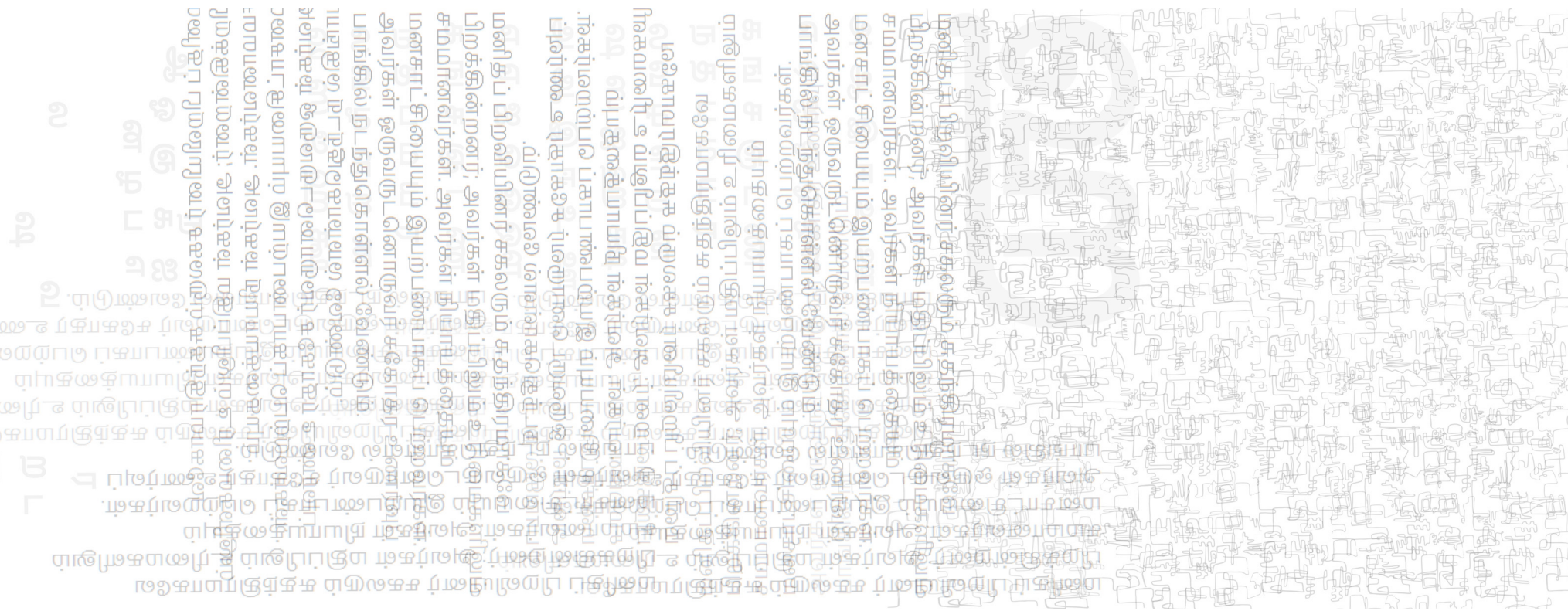
Interestingly, this feeling existed even when learning and speaking my native language, Tamil. I predominantly communicated in Tamil with my grandmother who lacked an English education. Growing up around her, she taught me her version of the language, which I much later discovered was a different dialect of Tamil, uncommonly spoken in Chennai, jokingly categorized as *Bhramin Tamil*.

Tamil is one of the oldest languages of the world and has transformed over the last 5000 years, distinguished as Old, Middle, and Modern Tamil. As a woman born in the 1920s, my grandmother belonged to the era of the Indian Caste System, where communities had largely been replaced by commercial distinctions as the primary social order in southern India. She belonged to a *Brahmin* family and hence was educated in a language that was different from all the other classes (considered inferior to the *Brahmins* at the time). I discovered that I spoke in an entirely distinct dialect when I visited Chennai and communicated with my extended family. This realization illuminated the influence of social hierarchies on the very fabric of language, molding it into a tool that not only communicates ideas but also reinforces societal structures.

Language allows for intangible sensations to gain meaning, for them to be shared, and to become a framework of measurement, where objectivity is provided to various subjective sensations.

Elizabeth Grosz’s Volatile Bodies examines the relationship between bodies, sexual differences, and psychoanalytic and philosophical theories. Grosz’s work intersects with Merleau-Ponty’s phenomenology of emphasizing the body as a primary site of experiencing the world. Grosz extends this by exploring how bodies are not only situated in a physical and sensory world but are also deeply entangled with cultural and symbolic dimensions. Within the book, Grosz describes language as the “result of folding back the flesh of the world,” wherein language emerges from our interaction with the physical world, reshaping our perception and understanding of it. It is therefore “not dependent on any voice but is what gives voice to the world itself,” creating an iterative back-and-forth between the subject and the world. Reflecting upon language from my personal context of multilingualism, I believe that it grounds sensory perception, as well as shapes society, class, and power.

In the same way that different languages can change our relationship with the outside world, fabric has communicative properties through the medium of touch and other senses. Just as linguistic traditions influence how we describe and think about our environment, the simple feel or smell of a familiar garment can transform our worldly interactions.



To better understand the communicative characteristics of fabric, I developed a print that explores the Tamil language alongside an invented language based solely on the characteristics of words and their meanings. Inspired by the length and often narrative-based imagery of a sari border, I created this print drawing from a sparrow story my grandmother read to me each night, a tale that is cyclical in nature. The interplay between the familiar structure of Tamil and the expressive elements of the invented language seeks to convey a layered narrative, much like the continuous, evolving storytelling tradition encapsulated in the sari’s construction.

One dry, sunny morning in Sirkazhi, a village in Southern India, a tiny sparrow developed a strong craving for *payasam*, a South Indian milk-based pudding. She flew to a grandmother sitting on the front porch of her home and asked, "Paati, can you please make me some *payasam*?" The grandmother responded, "Sure, if you bring me dal and jaggery." The sparrow agreed and waited on the street corner. A vendor carrying a bag of jaggery came by, and when he looked away, she grabbed a large chunk and flew back to the grandmother. For the dal, she flew to a small store and patiently waited. When a young boy came looking for dal, the vendor opened a large jute bag to serve him. Cleverly, the sparrow jumped into a jar of oil and then into the jute bag. With dal stuck to her feathers, she carefully but quickly flew back to the house and shook all the dal onto the grandmother's sari, which she then collected and used.

"Well done. Come back at five, and I'll have some *payasam* ready," said the grandmother. The hungry sparrow flew back at five and eagerly asked, "Where is my *payasam*?" "It's in the backyard. Be careful, it's hot," the grandmother responded. The sparrow flew through the house and found a large bronze bowl sitting in the backyard. Tempted by the incredibly sweet aroma of the *payasam*, she shoved her beak into the boiling concoction and got scorched. "AH," she yelled in pain. It would be a while until the dessert cooled down, but she grew very impatient. She yelled out, "What do I do, Paati? It's not cooling down!" The grandmother replied, "Add some cold water from the well." The sparrow listened and dragged the large bowl with her beak to the well. She added some cold water from the well's pail into the *payasam* and gave it a try. It was delicious! Impatiently, she emptied the entire bowl into the well and thought, "WOW, more *payasam* for me!" As she began to drink the water from the well, it started to leak from her behind. After all, she was just a small sparrow. To prevent the leak, she stuck a piece of straw on her hind side and continued to drink.

Unable to fly, she walked with her bloated belly to the grandmother and said, "Paati, can I sleep for a while in your house?" The grandmother said, "No, you may not. Go sleep near the cows in the backyard." Disappointed, she dragged herself to the shed and gently laid down next to a baby cow. Unfortunately, the grandmother had spent the entire day making *payasam* and had forgotten to give any straw to the cows. The hungry cow spotted the straw sticking out of the sparrow and pulled at it. The sparrow's stomach, now without a stopper, released a torrent of water, carrying the cow and the shed away in the flow. The grandmother's house, the furniture, and all the utensils were swept away by the water. But once the village was flooded, the sparrow felt light, spread her wings, and flew away.

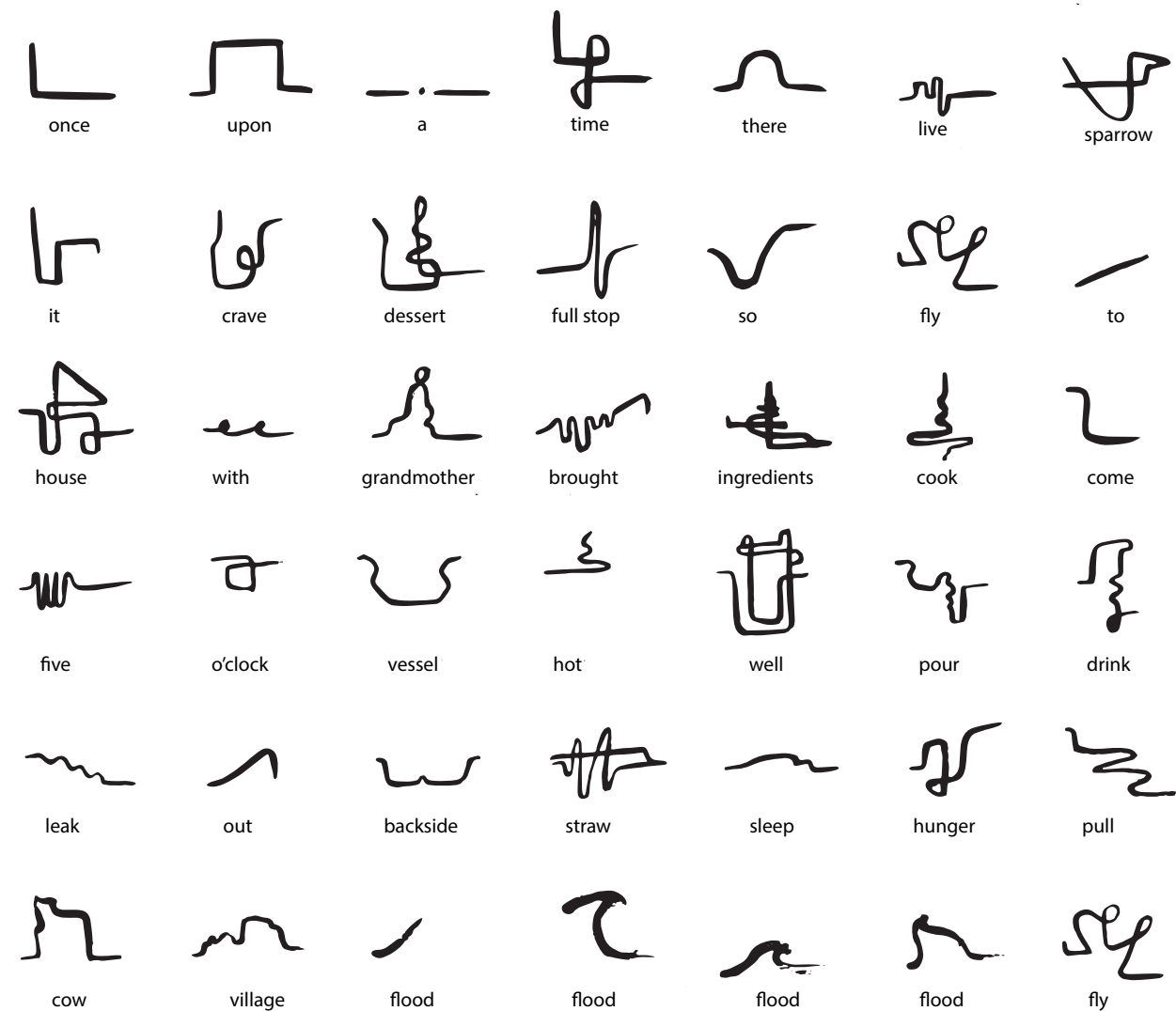


Image 33 : Dictionary/lexicon for the pictograph-based language



# SYNESTHETIC INTER-TRANSLATION

In *Volatile Bodies*, Grosz speaks of Emmanuel Levinas' *Kinesthetic Inter-translation*. This concept is argued as the connection between one perceptual system and another, as senses communicate and work with each other to develop an understanding of the world. The title of this section, *Synesthetic Inter-Translation*, is my interpretation of this concept. Within my work, I explore the interrelatedness of the various senses and am intrigued by the ability to translate perceptions to language. During this study, I discovered a highly inspiring project.

The School for Blind and Visually Impaired Children, designed by SEALab and located in Gandhinagar, India, is an architectural marvel aimed at bettering the education and opportunities for visually impaired children. This innovative project, completed in 2021, features classrooms arranged around a central courtyard, designed to facilitate navigation using multiple senses, including touch, hearing, and smell. The design incorporates contrasting textures and colors, special skylights, and a richly landscaped environment to aid in orientation and mobility.

Within this design, each sense is heightened and combined with a stronger sense to create a mental map of the space. For example, to support students' low vision, specific skylights and openings were designed to create contrasting areas with light and shade. The construction of the building also heightens acoustic qualities,

changing echoes in different corridors. Students even use olfactory responses from aromatic plants and trees to navigate the building. The haptics play a crucial part in understanding the space, as walls and floors have rough and smooth surfaces that allow students to distinguish between classrooms and know which side of the building they are in. This project exemplifies Maurice Merleau-Ponty's argument that "the senses not only communicate to each other but are also transposable, within certain limits, onto each other's domains, although they remain irreducible in their differences."

In my practice, I have discovered this transposable and interchangeable ability of the senses. As a maker of fabric and more specifically garments, my primary interest lies in manifesting a landscape of textures and surfaces close to the skin's million sensory receptors. Knowing the implications of design choices on the receiver, in this context the wearer, I have ownership of the material and the reaction. I am intrigued by materials that simulate, misguide, and surprise haptic perceptions. Therefore, I find sensory reactions to be malleable, volatile, and susceptible to misalignment in judgment, where an object does not feel as it looks. Taking inspiration from the SEALab Project, I wonder if there are senses stronger than the visual sense that can act as a tool for social impact, wherein synesthesia and the interrelatedness of the senses heighten the understanding of our physical reality.

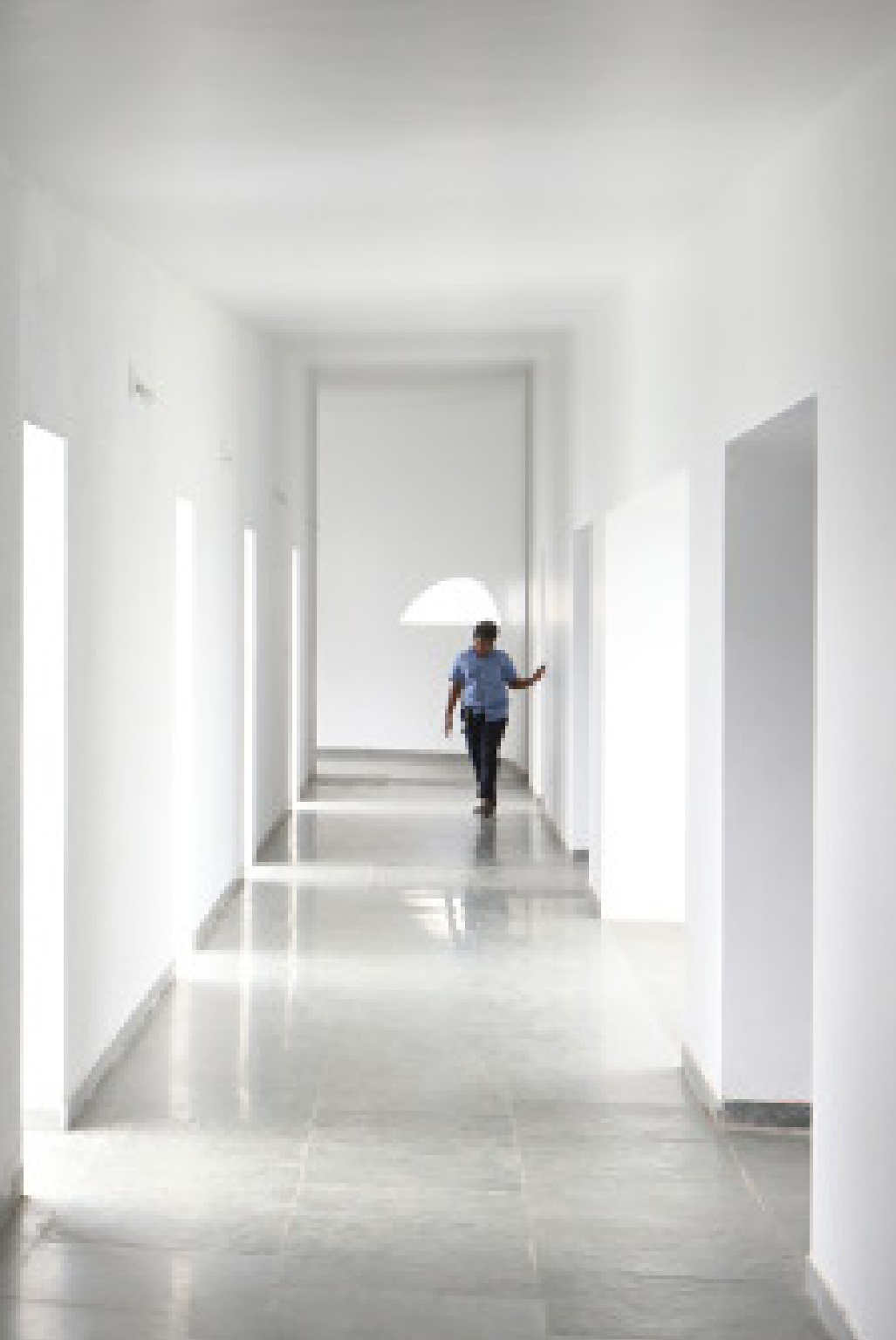




Image 34 : School for Blind and Visually Impaired Children / SEALAB

**SEALAB**  
SCHOOL FOR BLIND &  
VISUALLY IMPAIRED  
CHILDREN



## SENSORY EDI-BOWL

*Collaboration Project*



The Sensory Edi-Bowl presents a forward-thinking approach to addressing environmental concerns, specifically plastic waste, through the lens of culinary culture and sustainable design. Conceived as an edible bowl, this speculative proposal was showcased at the SilkLab at Tufts University, where it humorously interrogated the norms of food consumption and cultural traditions. Crafted at the Nature Lab at the Rhode Island School of Design, the project utilizes innovative bio-material 3D printing technology, employing a mixture of tortilla flour and food coloring to create a functional yet biodegradable dining vessel.



Images 35, 36 : 3D printing the bowl (2023)



## ALLIE E.S. WIST

### EXTINCT ARMAOTORIUM

Allie E.S. Wist is an artist-scholar and writer engaged in an Interdisciplinary Arts PhD at Rensselaer Polytechnic Institute, focusing on the senses, the Anthropocene, and environmental archives. Wist's "Extinct Armaotorium" explores synesthesia and sensory experiences by incorporating the scents of banana, dirt, and fungus into a visual art piece, creating a multi-sensory engagement that transcends traditional visual aesthetics. I am inspired by this work as it invites the audience to engage with history, extinction, and the artificial versus natural through an olfactory dimension, enriching the sensory experience and provoking deeper reflections on how we perceive and interact with the natural world and its transformations.



Images 37, 38: Extinct Armaotorium (2022)

*Body as Code*

## BODY SCHEMA

The body is universal, existing as a three-dimensional object in space. Within the realm of codes and binaries, this section delves into technology as a means of investigating our body schema.



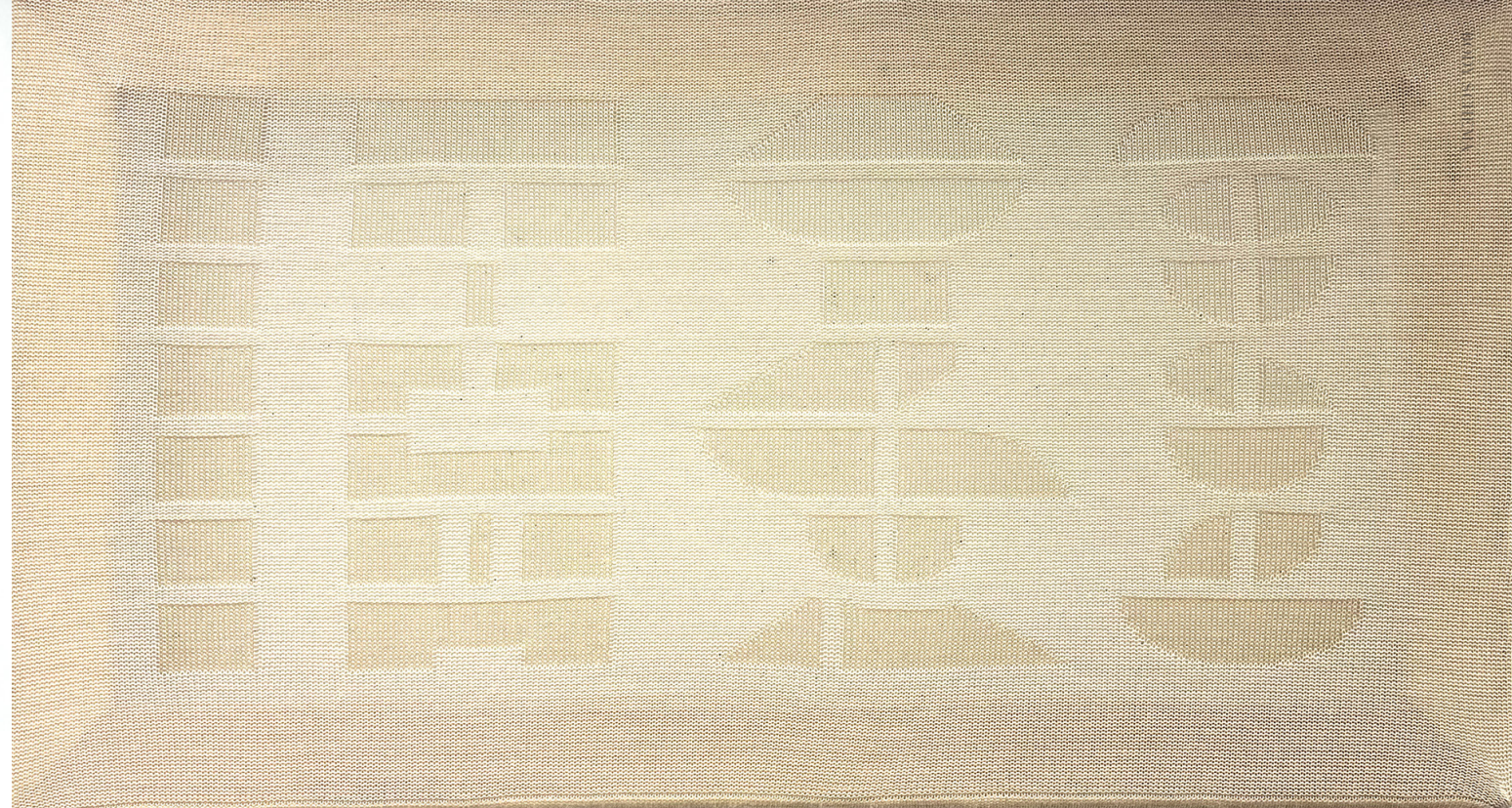
## SCRIPTED ANATOMIES

*Materiality Project*

As I brush my fingers over a dried-up scab on my knuckle, I am immediately confronted with a variety of sensations: the protrusions of a bumpy surface engulfed within soft skin, a crusty exterior tempting me to peel it off, and a faint pain that strengthens with each touch. It reminds me of how our hands and the haptics provide valuable insights into the world around us. They also reveal a mysterious inner world within us, which we have pondered as humans for many years. I draw inspiration from the installation pieces of artist Kiki Smith, who utilizes the body's byproducts as a metaphoric vocabulary to question the functions of the human body, within contexts of traditions and social practices. Ancient wisdom from Indian Ayurveda and the knowledge of energy channels known as chakras offer a glimpse into this intangible realm.

Ayurveda, translated as "Knowledge of Life," allows for us to explore the body as a language. Traditionally, chakras have been associated with specific organs, symbolized by colors, gemstones, metals, and hand gestures.

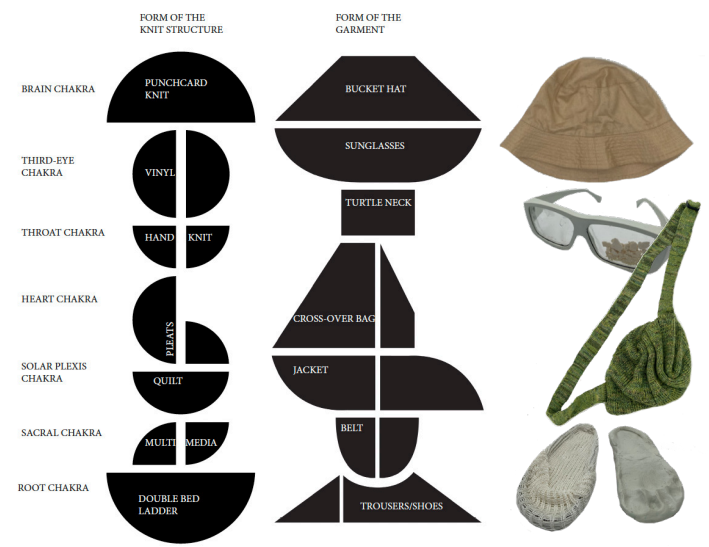
This language made it easier for us to understand our bodies in a contemporary context. However, at its core, the ancient traditions and history point to a fundamental duality—a dance between passive and active forces, like Yin and Yang, Ida Nadi and Pingala Nadi, the Sun and the Moon. It is the interplay of these binary elements that brings unity, surpassing the notion of seven chakras and divisions. In essence, we are all connected as one—an embodiment of the color white that transcends culture, time, tradition and science.



Images 39: Knit and Purl Imagery using Stoll (2023)



My project aims to question the physical and psychological facets of the human body. I seek to create a parallel language through the form of a book, that translates the symbols of each Chakra into corresponding organs, forming a framework of knitted structures that can then be applied to garment forms.



The collection of modular accessories and garments provide an abstraction of the body and extend the metaphorical phrase "wearing your heart on your sleeve" to perhaps wearing a pleated sleeve made of knits.

It is after all our fingertips that are the eyes to the tactile world around us, that unravel the hidden depths within and uncover our interconnected bodies turned inside out.

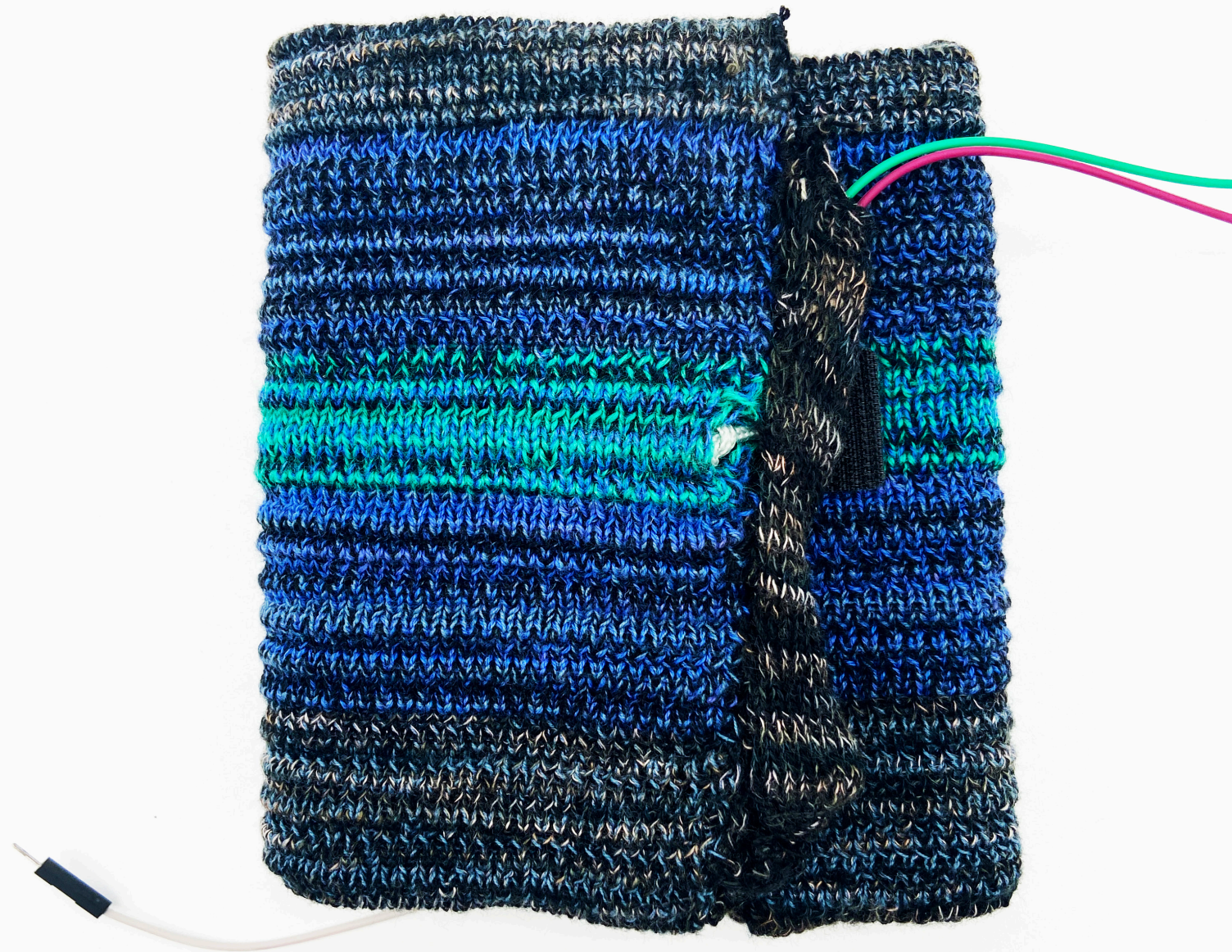


Images 40: Encounter (1969)

## DOROTHY DEHNER

### ENCOUNTER (1969)

Dorothy Dehner's "Encounter" (1969) showcases totem-like forms that represent a delicate balance between abstraction and elements reminiscent of nature, memory, or myth. Emphasizing sculptural contours over mass, this work highlights the importance of both positive and negative space. For "Encounter," she utilized the ancient lost-wax process, demonstrating her intuitive approach to sculpture despite having no formal training in the medium. Inspired by Dorothy Dehner's "Encounter," I find myself drawn to the concept of language and developing a totem-like association in my art. Dehner's ability to weave abstract forms into something that feels both ancient and deeply personal resonates with my artistic exploration, pushing me towards creating pieces that speak in a broad yet intimate language.

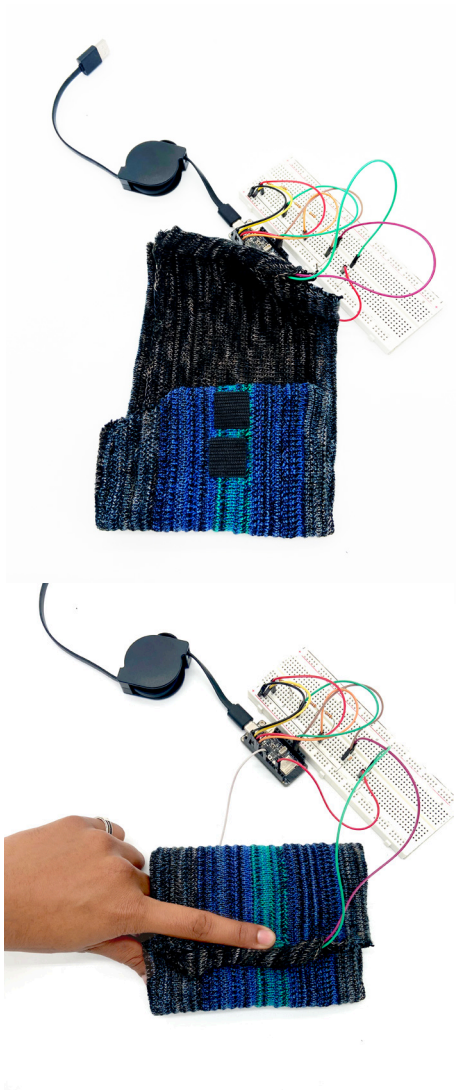


## BINARIES



## Technology & Innenwelt

The rapid pace at which we can now capture, archive, and display spaces forces me to question the growing synonymy between digital and physical environments. Gabriel Loke, a computer science researcher, posited in his 2020 publication, "Matter," that "fabrics occupy the most valuable real estate—the surface of our bodies. Exposed to troves of data, important insights would be revealed if only fabrics could compute: sense, store, analyze, infer, alert, and act while retaining their traditional qualities." This perspective encourages me to reconsider the idea of our bodies as spaces independent of us. Thus, just as technology enhances our exploration of the external world, this divergence calls for an exploration into using technology to understand the inner realms or the innenwelt of our bodies.



## PRES-SENSE *Collaboration Study Project*

This speculative project is a proposal for an adaptive, adjustable, and portable mode of acupressure therapy. The knitted travel band provides visual dictation using color marking to make the wearer measure the position of the spot, LED activation that allows the device to detect touch and calibrates the time to hold the pressure point. Deliberate pressure is applied using Velcro closures, also creating adjustable positions for the interchangeability of pressure points. Circuitry and coding allow for the LED to light up upon pressure after 45 seconds, dictating to the wearer that the pressure point has been enabled and the treatment is complete.





Image 45: ScreamBody (2004)

## KELLY DOBSON

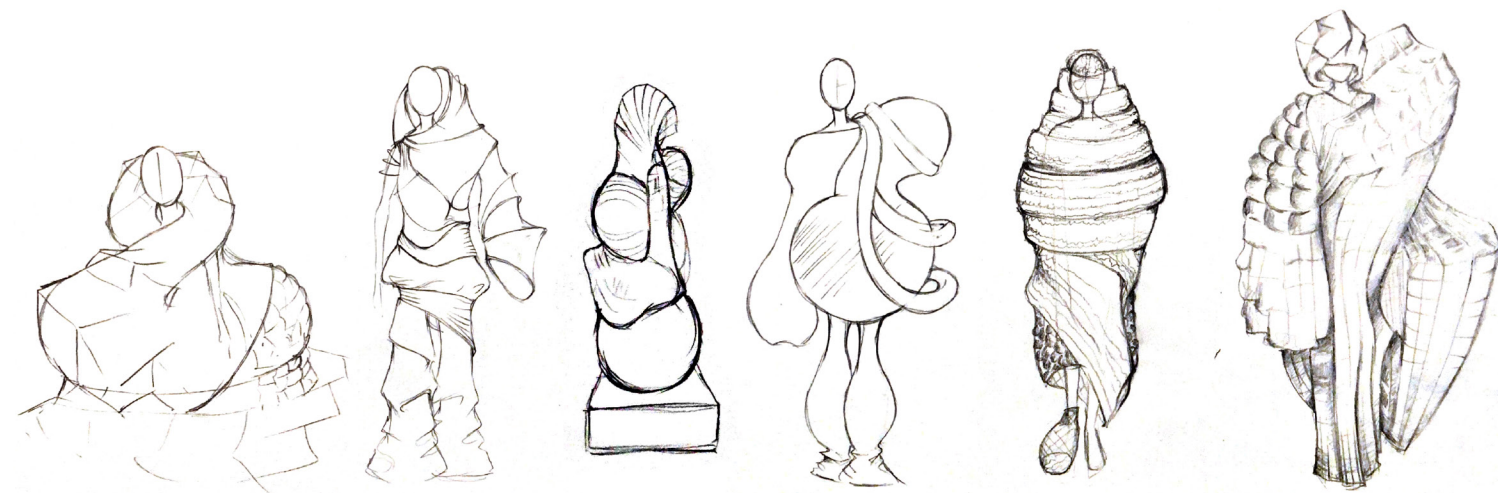
### SCREAMBODY

Kelly Dobson, the creator of ScreamBody, is an artist and researcher who intersects the realms of art, technology, and psychotherapy. ScreamBody, developed between 1998 and 2004 by Kelly Dobson, is an innovative project aimed at creating a portable space for screaming without causing disturbance. Part of the Wearable Body Organs series, it allows users to scream into the device, which silences the sound but records it for later release at an appropriate time and place. This project intersects technology with psychotherapy, offering a novel way for individuals to express themselves while addressing social constraints on expression.

### *Precedent Artists*

## MULTI-DIMENSIONALITY

This section delves into the transformative nature of objects, particularly focusing on inflatables and portable devices. My exploration into creating forms capable of inflation began with an in-depth study of the works of pioneering artists in this domain. Drawing inspiration from these innovators laid a foundational theoretical understanding and facilitated the transition of my abstract ideas into tangible creations. Within this chapter, I explore the integration of concepts established in the book *Flatland* and the ideologies of *Umwelt*, while also probing the concept of *Innenwelt*—the inner world. Here, I examine whether these ethereal, inflatable forms can completely envelop the body, thereby creating an ambiguous form and eliciting a heightened awareness of a hyper-textural inner world.





Sandra Mujinga's multidisciplinary work at the Biennale Arte 2022, titled "Milk Dreams," delves into themes of visibility, identity, and the interplay between presence and absence. Her installations feature ghostly figures and hybrid creatures that evoke a world where camouflage, inspired by nocturnal animal survival strategies, and hybridity offer a nuanced examination of autonomy and protection. Through her art, Mujinga invites viewers into a speculative realm that blends post-humanist thought and Afro-futurism, challenging conventional perceptions of the body and its digital representations. Her works inspire me to consider deeper implications of visibility and to imagine beyond the human form in my own creations.

SANDRA MUJINGA  
SPECTRAL KEEPERS



Images 47, 48: Vertical Bed (2012)

## ERNESTO NETTO

### HUMANOID | VERTICAL BED

Ernesto Neto is a Brazilian artist renowned for his immersive, sensory installations that explore the relationships between the human body, organic shapes, and natural materials. Through projects like "Vertical Bed" (2012), which offers a unique resting experience, and "Humanoids Family" (2001), featuring biomorphic body suits that engage the senses, Neto invites viewers into a world where art physically interacts with and enriches their sensory perception, blurring the lines between viewer and artwork, and fostering a deep connection to the natural world. Neto's exploration of the human body and organic forms, combined with his commitment to creating multi-sensory environments, challenges my perceptions and motivates me to think more deeply about the spaces and experiences I create.

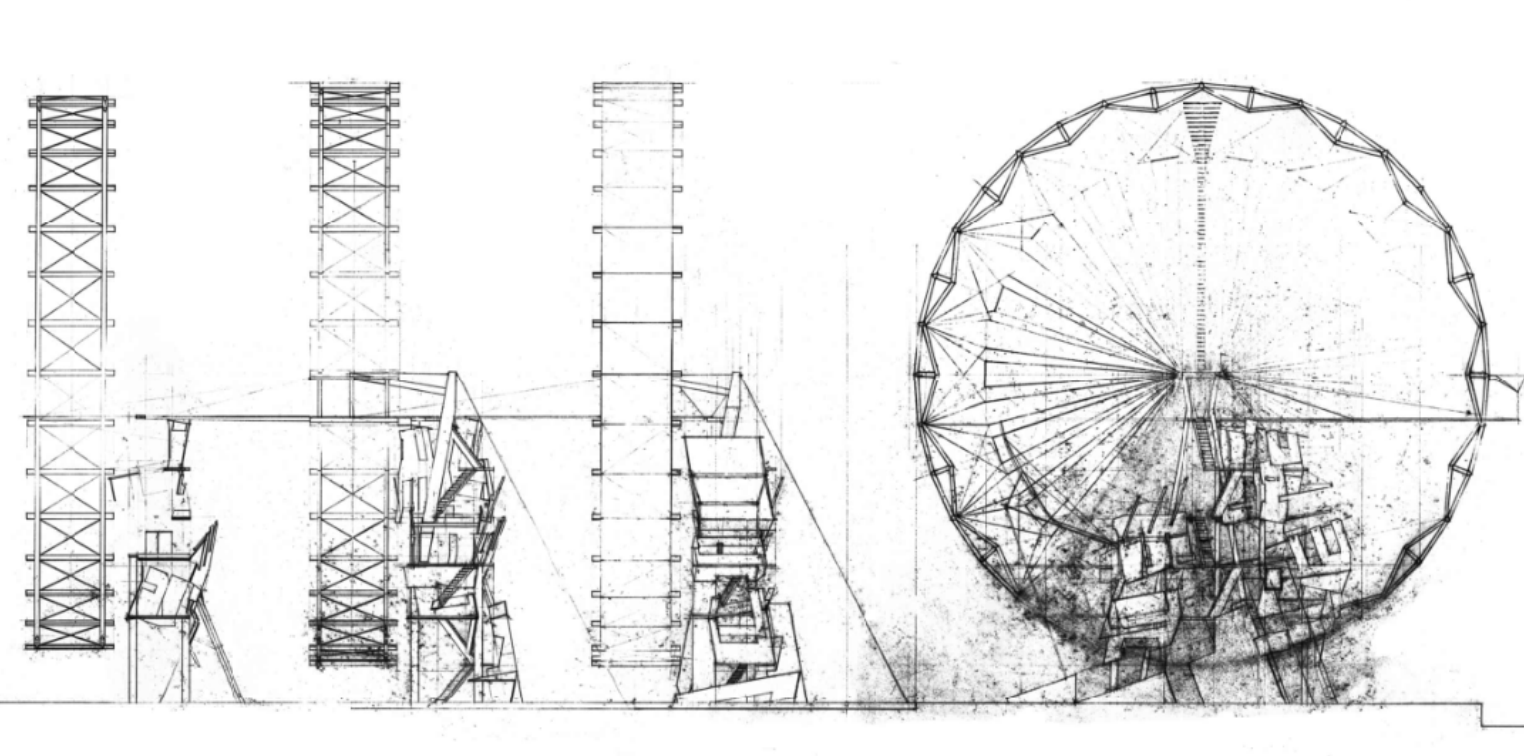


## YULIYA SINKE

### KNITFLATABLE ARCHITECTURE

"Knitflatable Architecture: Pneumatically Activated Preprogrammed Knitted Textiles" is an innovative exploration into the use of textiles in architecture, specifically focusing on the potential of knitted textiles to create inflatable and dynamic structures. This project examines how pre-programmed knitting patterns can be pneumatically activated to form complex, three-dimensional shapes. This investigation inspired me to visualize knitted structures that work in parallel with pneumatic devices.

Image 49: Knitflatable Architecture - Pneumatically Activated Preprogrammed Knitted Textiles. (2016)



Images 50: "Airship Museum." Design II, 1987-88

## MICHAEL WEBB

### ARCHIGRAM

The project Cushicle and Suitaloon by Michael Webb of Archigram, created in 1967, explores individual housing through compact, inflatable living spaces. It embodies Archigram's Utopian and speculative architectural visions, influenced by Pop Art, science fiction, and Cold War-era technology transformations. Webb's work stands out for its focus on small-scale, humanized technological advancements. Cushicle and Suitaloon represent a radical approach to the concept of dwelling capsules, offering a portable, inflatable chamber that addresses basic living necessities within a minimal space. These creations not only showcase innovative housing solutions but also reflect postwar societal changes, emphasizing openness and technological dependence.



Images 51, 52: 'Cushicle and Suitaloon.' Hidden Architecture (1967)



# CRAIG GREEN X MONCLER

FORMS OF NATURE

This collaboration between Craig Green and Moncler for the Spring 2019 collection features architectural garments like padded jackets transformed into dramatic and protective layers. It invites wearers into a world where fashion intersects with personal and environmental space. These garments include oversized silhouettes and complex layered textures, engaging the senses, blurring the lines between clothing and wearable art, and fostering a deep connection to modern functionality.

*Process and Final Work*

## SIRCLES & CQUARES

For the final display, inspired by fashion designers such as Rei Kawakubo and Craig Green, my vision was to create a series of large, satirical garments that challenge perceptions of human scale. Intricate, complex, and voluminous, these garments position the engulfed body form in a liminal space between compression and liberation.



# COLOR EXPLORATION

The project's color palette draws inspiration from subtle shifts and contrasts within tones of white, ranging from natural to synthetic shades created through yarn wrappings. I was also inspired by earthy tones, pulled from vintage sari imagery and portrait photography captured on aged film. To introduce further variety, the palette includes a mix of warmer and cooler hues with an emphasis on material color.

To expand my color scape, a class exercise involved developing color compositions using minimal shapes and maximum color relationships. Building on this assignment, I deepened my exploration of color through a gouache painting exercise inspired by the words, "composition," "space," "mood," and "movement."



Image 54: Colour Board





Image 55: Gouache painting of Space



Image 56: Gouache painting of Composition

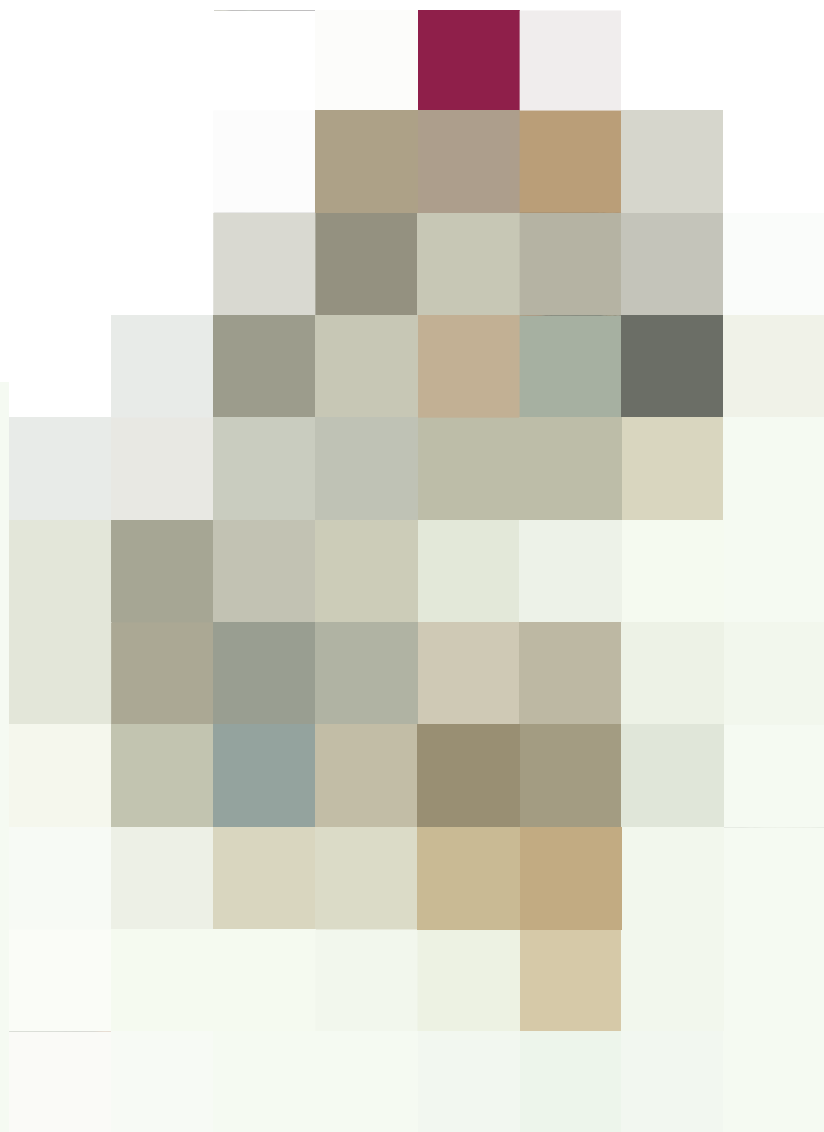


Image 57: Photograph capturing a natural grid of colours, Tamil Nadu (2023)





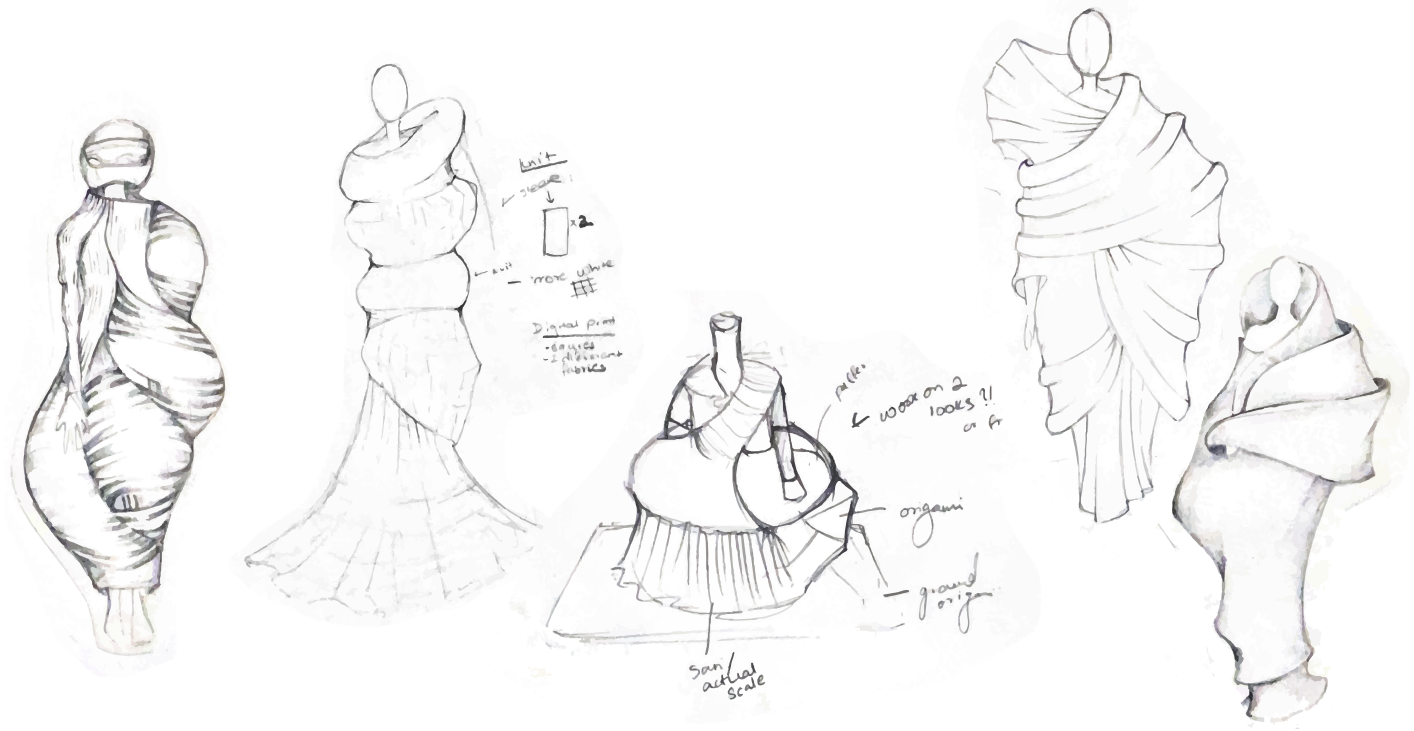
Image 58: Class Assignment to extract colour grids from images





# EARTHSUITS

Inspired by the worm and its transformative processes—from egg, through larva and cocoon, to moth—I aim to develop a collection of garments that acts as portable and nomadic objects in their various stages of transformation. My garments are sculptural forms that converse between notions of fabric as a garment and as a space, much like a silk sari engulfing a body form. These “Earthsuits” ground, cohabit, and protect our bodies as we transition into a new phase of our perceptive reality. Therefore, my garments heighten texture and dimension as a way to distinguish all the various textures, almost like a skin landscape. This piece circles the square and transports us to the future, or rather, where it all began.



Initial Sketches of the Earthsuits

In creating this capsule collection, the garments have exaggerated and satirical shapes that mimic the traditional draping of a sari around the body. My goal was to eliminate cutting altogether, focusing on constructing pieces solely through folding, draping, and pleating of the fabric. This approach honors the integrity of the sari, which is often composed of various joined pieces but is never cut.

To develop the collection's distinctive bulbous structures, I drew inspiration from the artists featured in the "Multi-Dimensionality" chapter, particularly their work with inflatable art. Utilizing inflated forms allowed me to explore their transformative potential, echoing the sari's ability to undergo complete transformation.

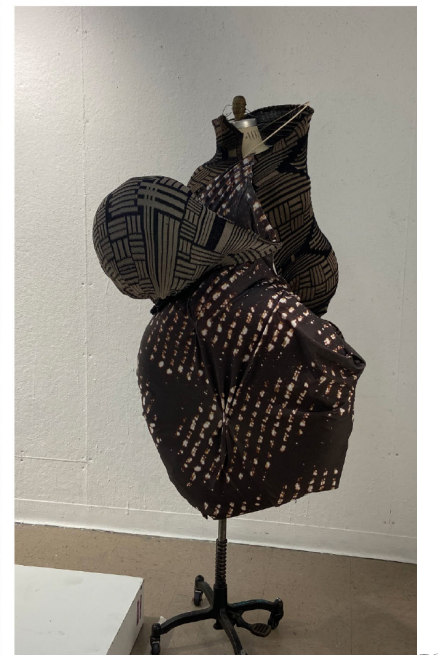
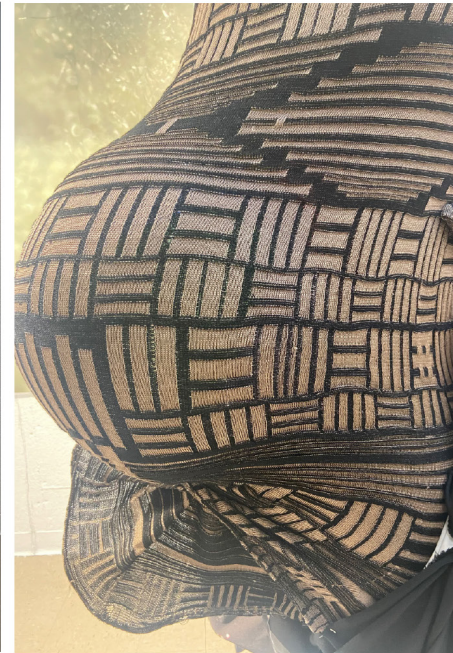
My potential aim in the future is to create a reactive fabric that could function as a portable device, responding to changes in temperature and reimagining the sari as suitable for winter wear. Moving forward, I plan to continue experimenting with silk, a material known for its temperature regulation properties. I envision a reactive fabric that not only responds to environmental changes but also transforms into a cocoon-like space, offering protection and comfort.





Look 1 is inspired by the first stage of the silkworm life cycle—the egg stage. Illustrating this stage, conceptually and artistically, I utilized circular inflated objects and a ribbed knit structure, with knits and purls, to develop transformative fabrics.

## EARTHSUIT OVUM

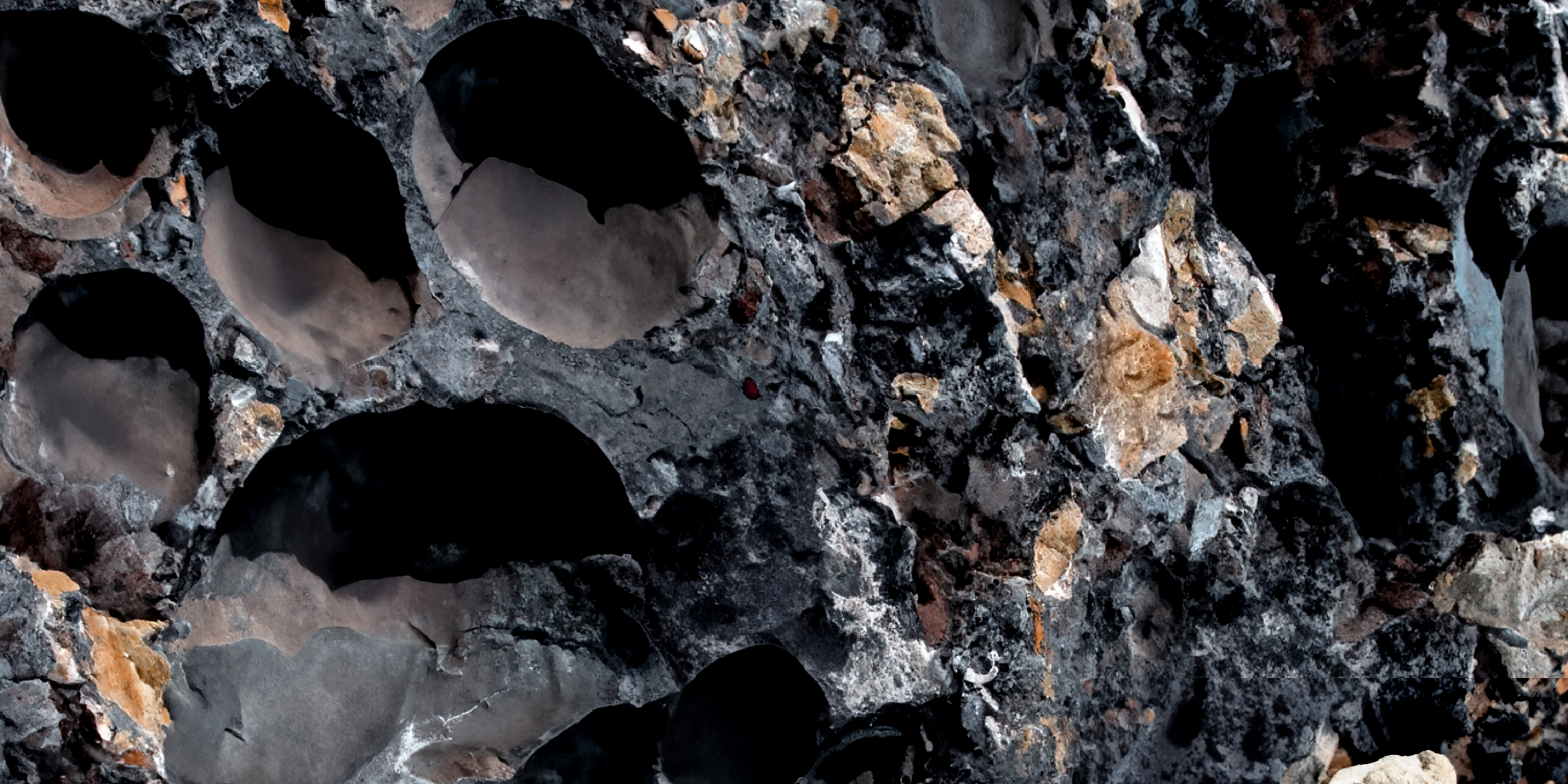








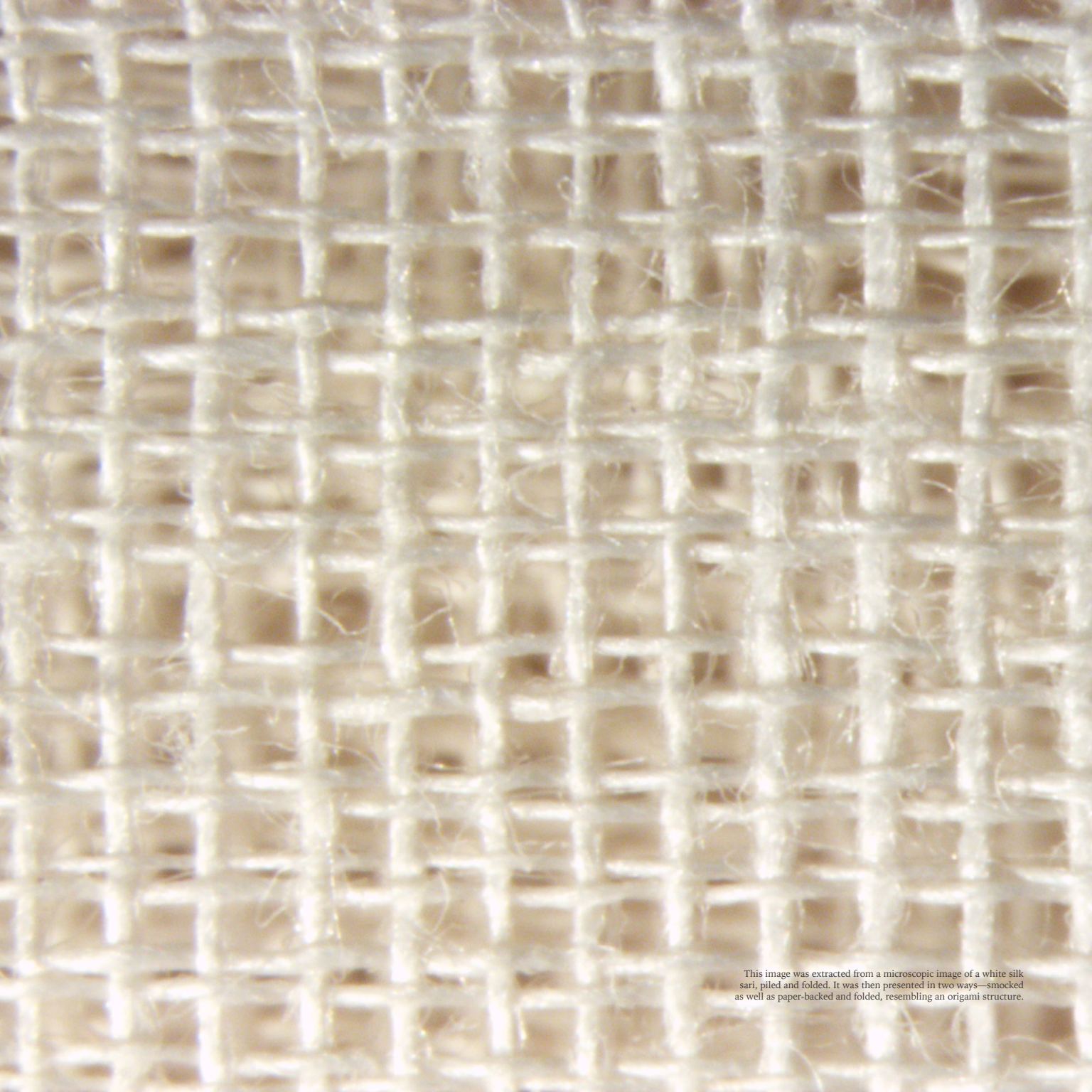
This rib structure using Robison Anton Rayon and Jagerspun Wool yarn creates high contrast and dramatic transformation when stretched. Therefore, it was placed over a spherical inflated structure for maximum effect.



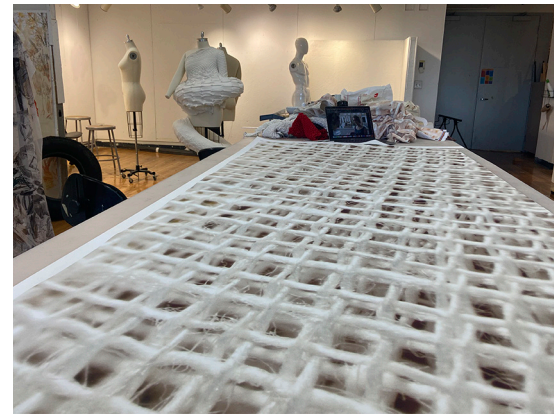


Look 2 is inspired by the second stage of the silkworm life cycle—the worm stage. Inspired by the individual sections of the worm's body, this piece alternates between knits and woven fabric.

## EARTHSUIT WORM



This image was extracted from a microscopic image of a white silk sari, piled and folded. It was then presented in two ways—smocked as well as paper-backed and folded, resembling an origami structure.





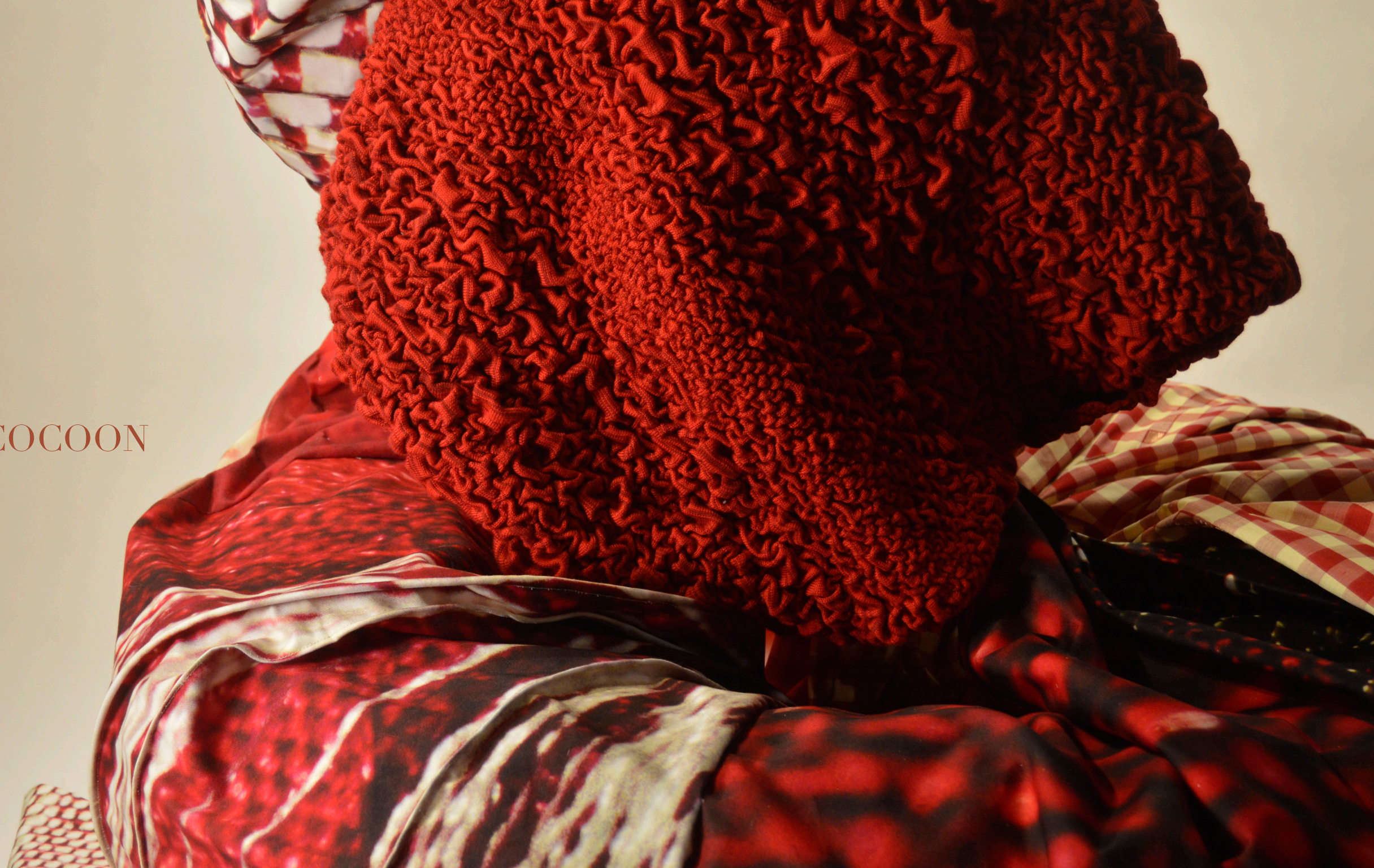


The knit & purl checkerboard structure using Robison Antron Polyester and Jagerspun Wool yarn, as seen in the *Kanchipuram* piece.



Look 3 is inspired by the third stage of the silkworm life cycle—the cocoon stage. It is displayed as the most constricted, spacial, and sculptural. Made using an inflated form, this piece is reminiscent of transformation, to show a nomadic object in the state of development.

## EARTHSUIT COCOON

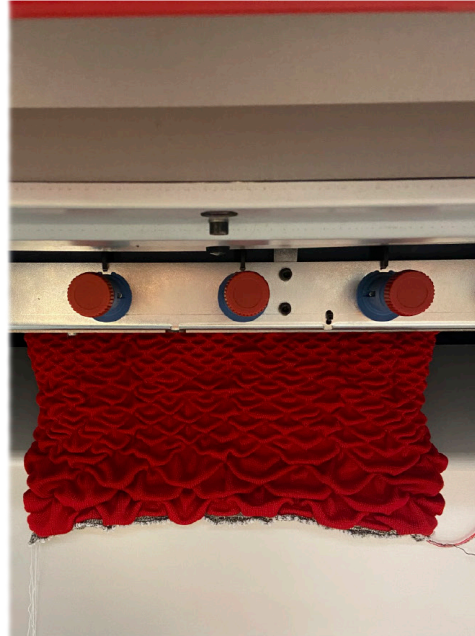
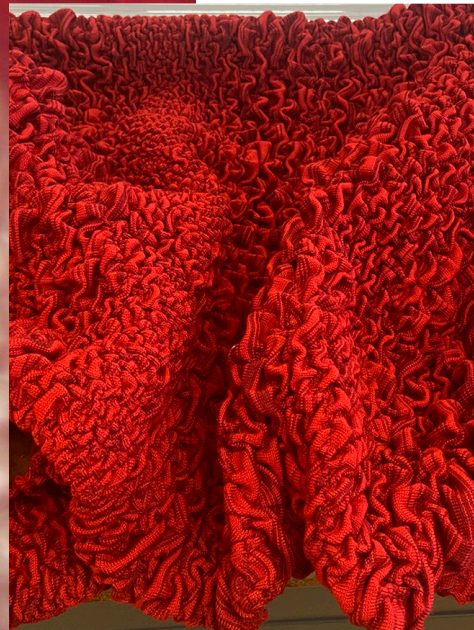








This image was extracted from a microscopic view of a plaid sari. It was then heavily manipulated using a wire armature, quilting and smocking.





The heavy knit was constructed using the tubular jacquard structure using two ends of red wool on the face and elastic yarn on the back.





Look 4 is inspired by the last stage of the silkworm life cycle—the moth stage. However, this look represents the uninhabited, empty cocoon. The transparency and emptiness demonstrate the once home, abandoned. Although this is a sentiment of melancholy, the white garment symbolizes a sense of purity and serenity, a completion of the transformative process and a return to nothingness. This material then transforms into fabric and silk that we humans use. This look is the most modular, wearable and practical, leading the wearer into the world of utility and practically.

## EARTHSUIT MOTH











I planned for a 360-degree view of the space, allowing people to walk around and interact individually with each garment. Placed in each corner of the space in a square formation, I designed the layout so that people would eventually circle the square as they moved from one garment to another.



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# BIBLIOGRAPHY

## IMAGE REFERENCES

**Image 1:** Dóczy, György. *The Power of Limits: Proportional Harmonies in Nature, Art, and Architecture*. Shambhala, 1981.

**Image 4:** Sari. 1990-2000. *MadeMuseum Provincie Antwerpen (MoMu), Antwerp*. "Bloomsbury Fashion Central." Web. 05 Feb. 2020. The components of the sari including the front, back and blouse.

**Image 25:** Pink, Gail. "Eye On Design: Issey Miyake and Dai Fujiwara, A-POC Queen." *The Worley Gig*, 29 Nov. 2017, <https://worleygig.com/2017/11/29/eye-on-design-issey-miyake-and-dai-fujiwara-apoc-queen/>. Accessed 23 May 2024.

**Image 26:** "Legendary Fashion Designer Issey Miyake Has Died Aged 84." *HERO Magazine*, 9 Aug. 2022, <https://hero-magazine.com/article/218072/legendary-fashion-designer-issey-miyake-has-died-aged-84>. Accessed 23 May 2024.

**Image 27:** "Textile, 'A-POC Queen'." *Los Angeles County Museum of Art*, <https://collections.lacma.org/node/205968>. Accessed 23 May 2024.

**Image 32:** M.I.T. Media Lab. "Silk Pavilion I." YouTube, 4 June 2013, <https://www.youtube.com/watch?v=xVGTIV9M6sg>. Accessed 23 May 2024.

**Images 34 - 36:** No Author. 'School for Blind and Visually Impaired Children / SEALAB.' *ArchDaily*, 16 Feb. 2021, [www.archdaily.com/984721/school-for-blind-and-visually-impaired-children-sealab](http://www.archdaily.com/984721/school-for-blind-and-visually-impaired-children-sealab).

**Image 40:** Corder, Rob. *Dorothy Dehner. Encounter, 1969. Bronze, six parts (1901-1994)* MOMA, Flickr, March 1. 2011, <https://www.flickr.com/photos/racor/5487984104>

**Image 45:** Williams, Buckley. "9 Interesting Things We've Seen in May." *Buckley Williams Words*, n.d., [words.buckleywilliams.com/9-interesting-things-weve-seen-in-may-17e570546c7f](http://words.buckleywilliams.com/9-interesting-things-weve-seen-in-may-17e570546c7f).

**Image 46:** Williams, Gilda. 'Sandra Mujinga's 'Green Room' 2020 at Traumas.' *ARTnews*, Penske Business Media, LLC, n.d., [www.artnews.com/art-in-america/cia-reviews/sandra-mujinga-green-room-2020-traumas-1234592906/](http://www.artnews.com/art-in-america/cia-reviews/sandra-mujinga-green-room-2020-traumas-1234592906/).

**Image 47, 48:** No Author. 'Ernesto Neto's Vertical Bed, 2012.' *Elephant*, n.d., [elephant.art/ernesto-neto-vertical-bed-2012/](http://elephant.art/ernesto-neto-vertical-bed-2012/)

**Image 49:** Baranovskaya, Yuliya Prado Marshall Dörstelmann Moritz and Menges Achim. "Knitflatable Architecture - Pneumatically Activated Preprogrammed Knitted Textiles." *Proceedings of the 34th International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe) [Volume 1] (2016): n. pag.*

**Image 50:** Biglari, Armand. "Airship Museum." *Design II, 1987-88*. Faculty: Diller, Elizabeth; Scofidio, Ricardo; Sculley, Sean; Webb, Michael.

**Image 51, 52:** No Author. 'Cushicle and Suitaloon.' *Hidden Architecture*, n.d., [hiddenarchitecture.net/cushicle-and-suitaloon/](http://hiddenarchitecture.net/cushicle-and-suitaloon/)

**Image 53:** Tales. "5 Craig Green: Forms of Nature." *Moncler*, n.d., [www.moncler.com/en-us/stories/5-craig-green-forms-of-nature](http://www.moncler.com/en-us/stories/5-craig-green-forms-of-nature).

# CONTENT REFERENCES

**Issey Miyake** - "Ensemble." The Metropolitan Museum of Art, <https://www.metmuseum.org/art/collection/search/185792>. Accessed 23 May 2024.

**Neri Oxman** - Howarth, Dan. "Silkworms and Robot Work Together to Weave Silk Pavilion." *Dezeen*, 3 June 2013, <https://www.dezeen.com/2013/06/03/silkworms-and-robot-work-together-to-weave-silk-pavilion/>. Accessed 23 May 2024.

**SEALab** - School for the Blind and Visually Impaired Children.' *Divisare*, n.d., [divisare.com/projects/463716-sea-lab-school-for-the-blind-and-visually-impaired-children](http://divisare.com/projects/463716-sea-lab-school-for-the-blind-and-visually-impaired-children).

**Allie Wist** - Wist, Allie. "Extinct Armoatorium." *Allie Wist*, n.d., [alliewist.com/Extinct-Armoatorium](http://alliewist.com/Extinct-Armoatorium).

**Dorothy Dehner** - 'Untitled (Perfect Lovers).' The Museum of Modern Art, The Museum of Modern Art, n.d., [www.moma.org/collection/works/140333](http://www.moma.org/collection/works/140333).

**Kelly Dobson** - 'Kelly Dobson: Machine Therapy.' MIT Media Lab Events, Massachusetts Institute of Technology, n.d., [www.media.mit.edu/events/kelly-dobson-machine-therapy/](http://www.media.mit.edu/events/kelly-dobson-machine-therapy/).

**Sandra Mujinga** - 'Description of Spectral Keepers (2020).' Guggenheim Audio, Solomon R. Guggenheim Museum, n.d., [www.guggenheim.org/audio/track/description-of-spectral-keepers-2020](http://www.guggenheim.org/audio/track/description-of-spectral-keepers-2020).

**Ernesto Netto** - 'Ernesto Neto's Vertical Bed, 2012.' *Elephant*, n.d., [elephant.art/ernesto-neto-vertical-bed-2012/](http://elephant.art/ernesto-neto-vertical-bed-2012/)

**Yuliya Baranovskaya** - Baranovskaya, Yuliya Prado Marshall Dörstelmann Moritz and Menges Achim. "Knitflatable Architecture - Pneumatically Activated Preprogrammed Knitted Textiles." *Proceedings of the 34th International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe) [Volume 1]* (2016): n. pag.

**Michael Webb** - Webb, Michael. "Michael Webb shares his thrill of driving fast into and up through a building." *STIRworld*, STIR Design Private Limited, n.d., [www.stirworld.com/think-columns-michael-webb-shares-his-thrill-of-driving-fast-into-and-up-through-a-building](http://www.stirworld.com/think-columns-michael-webb-shares-his-thrill-of-driving-fast-into-and-up-through-a-building).

**Moncler x Craig Green** - "Moncler 5 Craig Green Fashion Shows." *Vogue*, Condé Nast, n.d., [www.vogue.com/fashion-shows/designer/moncler-5-craig-green](http://www.vogue.com/fashion-shows/designer/moncler-5-craig-green).

**Book references**  
Abbot, Edwin A. *Flatland: A Romance of Many Dimensions*. Paperback ed., B Apr. 2020.

Dóczi, György. *The Power of Limits: Proportional Harmonies in Nature, Art, and Architecture*. Shambhala, 1981.

Bervin, Jen. *Silk Poems*. Nightboat Books, 2017.

Grosz, Elizabeth. *Volatile Bodies: Toward a Corporeal Feminism*. Indiana University Press, 1994.

Levinas, Emmanuel. *Entre Nous: On Thinking-of-the-Other*. Translated by Michael B. Smith and Barbara Harshav, Columbia University Press, 1998.

Yong, Ed. *An Immense World*. Penguin Random House, 2021.

Kafka, Franz. *Metamorphosis*. Penguin Classics, 2016.

Dahl, Roald. *The wonderful story of Henry Sugar, and six more*. New York: Puffin Books, 2000. Text.

"Demystifying the Tamil Language: The Oldest Language of the World." *Medium*, <https://medium.com/@exoticindiaa/demystifying-the-tamil-language-the-oldest-language-of-the-world-fba3c487e96a>. Accessed 23 May 2024.

"Tamil History, Geography & Facts." *Study.com*, <https://study.com/academy/lesson/tamil-history-geography-facts-people.html>. Accessed 23 May 2024.

"The History of Sari: The Six Yard Wonder." *Suumayaweaves*. *Suumayaweaves*. Web. Accessed 23 May 2024

Fujiwara, Kaori. 'Furoshiki: The Folding Technique That Promotes Zero Waste.' *Japan Today*, Japan Today, 27 Oct. 2020, [japantoday.com/category/features/lifestyle/furoshiki-the-folding-technique-that-promotes-zero-waste-1](http://japantoday.com/category/features/lifestyle/furoshiki-the-folding-technique-that-promotes-zero-waste-1).

Fiddes, Nick. 'Kilts & Eco Sustainability.' *CLAN*, n.d., [clan.com/help/kilt-wearing-reasons-why/kilts-eco-sustainability](http://clan.com/help/kilt-wearing-reasons-why/kilts-eco-sustainability).

"Kanga: A Cloth That Unites - Google Arts & Culture." *Google*, Google, [artsandculture.google.com/story/kanga-a-cloth-that-unites-national-museums-of-kenya/UQXRrgjEQNcJLA?hl=en](https://artsandculture.google.com/story/kanga-a-cloth-that-unites-national-museums-of-kenya/UQXRrgjEQNcJLA?hl=en). Accessed 23 May 2024.

'Silk Fibroin.' *ScienceDirect*, Elsevier, n.d., [www.sciencedirect.com/topics/medicine-and-dentistry/silk-fibroin](http://www.sciencedirect.com/topics/medicine-and-dentistry/silk-fibroin).

Loke, Gabriel & Alain, Juliette & Yan, Wei & Khudiyev, Tural & Noel, Grace & Yuan, Rodger & Missakian, Anais & Fink, Yoel. (2020). *Computing Fabrics. Matter. 2. 786-788*. 10.1016/j.matt.2020.03.007.

'Universal Design.' *Victorian Health Building Authority*, Victorian Health Building Authority, n.d., [www.vhba.vic.gov.au/resources/universal-design#:~:text=Universal%20design%20is%20the%20design,background%20or%20any%20other%20factors](http://www.vhba.vic.gov.au/resources/universal-design#:~:text=Universal%20design%20is%20the%20design,background%20or%20any%20other%20factors).

"The History of Sari: The Six Yard Wonder." *Suumayaweaves*, n.d., [suumayaweaves.com/blogs/news/the-history-of-sari-the-six-yard-wonder](http://suumayaweaves.com/blogs/news/the-history-of-sari-the-six-yard-wonder).





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