Do we need ‘NEW’?

Rethinking Trends Through Emotional Connections, Sustainable Design, and Cultural Heritage

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Abstract

The design industry, in its pursuit of novelty and profit, often sidelines longevity, cultural heritage, and ecological responsibility—a tension epitomized by the furniture sector's reliance on disposable, trend-driven products. This thesis interrogates these systemic shortcomings through the lens of furniture design, where the rise of "fast furniture" mirrors a broader crisis: industries prioritizing mass production over meaningful innovation, convenience over craftsmanship, and extraction over equity. By centering India's ancestral practices of upcycling and heirloom preservation, the work challenges the linear "take-make-waste" model dominating modern design, proposing instead a modular, adaptive bed system that embodies circularity and emotional durability.

Drawing from *Jenga*-like modularity and the Indian ethos of *jugaad* (problem solving with limited resource), this thesis applies the concepts of Jugaad from lived experience, responding to the practical necessity of modular function into a sustainable ethos, using the example of furniture adapting to users' evolving lives. This approach not only critiques the furniture industry's environmental and cultural costs but also illuminates a path forward for the design field at large. By redefining value as communal rather than commercial—prioritizing repair, local materials, and intergenerational storytelling—the project demonstrates how design can honor planetary boundaries while nurturing human connection.

Ultimately, this thesis positions furniture as a microcosm of design's broader failures and possibilities, arguing that sustainability demands a return to practices rooted in care, adaptability, and cultural memory. It calls for an industry-wide shift from capitalist disposability to regenerative systems, where objects serve as dynamic companions rather than transient commodities.

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1.0 Introduction

I grew up surrounded by objects that told stories. In my family, furniture was never just functionality carrying memories, relationships, and values. My mother instilled in me a deep appreciation for the emotional resonance embedded in everyday things. Together, we shared a love for furniture rooted not in aesthetics alone, but in history, craftsmanship, and meaning.

From a young age, we would explore thrift stores and local markets across the city, searching for forgotten pieces. Each table, chair, or mirror was a small adventure—an object with a hidden story waiting to be rediscovered. These experiences deepened our bond and taught me to see potential where others saw waste, and beauty in imperfection.

When I was in first or second grade, my mother took me to my first interior design exhibition. Walking through imaginative displays, I became fascinated with how furniture could shape space and emotion. I'd collect brochures and flip through design magazines for hours, dreaming of the homes I could one day create. What began as a childhood hobby became a lasting passion for how objects influence our lives and relationships.

This perspective was also shaped by the enduring presence of my grandfather's furniture—crafted over seventy years ago from solid rosewood. His bed, desk, and chair weren't just useful items; they embodied stability, skilled craftsmanship, and family legacy. By craftsmanship, I mean the thoughtful and intentional making of objects with care and skill—using durable materials, precise construction techniques, and a deep respect for both the maker's labor and the object's purpose.

When my grandfather passed away in 2023, my family faced a decision: what to do with these heirloom pieces that had stood untouched for decades? I was in Canada while my mother, in India, navigated this question. Initially unsure, she ultimately chose to restore and transport the bed and

desk from Chennai to Delhi. The process was not just logistical, it was a quiet act of honoring history, preserving care, and choosing sustainability over convenience. As we restored the furniture, it became clear that we were preserving not just wood and craftsmanship, but the values of resilience, resourcefulness, and emotional continuity.

These personal histories—weekends spent thrifting, exhibitions that sparked my imagination, and the restoration of my grandfather's furniture—shaped my approach to design. They taught me that furniture is more than form or function; it's about creating spaces filled with memory, meaning, and care. Through this thesis, I aim to recreate that feeling—the love, excitement, and belonging that a well-loved piece of furniture can bring. I hope to challenge the disposable culture dominating contemporary design by drawing on traditions of upcycling, repair, and longevity—designing pieces that minimize waste, foster connection, and endure across generations.

1.1 How My Experience Helped Me Rethink What Design Means to Me

Much of design today is driven by profit and consumption, shaping industries such as furniture production. The modern furniture industry reflects this shift, using aesthetics as a strategy to achieve profit, producing cheap, short-lived items designed more for visual appeal than durability. While once seen as valuable, durable assets, furniture pieces today are often viewed as temporary commodities, discarded at the first sign of wear or when new trends emerge. This has resulted in a surge of landfill waste, exacerbating environmental crises and deepening socio-economic inequalities. According to the U.S. Environmental Protection Agency (EPA), approximately 12 million tons of furniture waste were generated in 2018, with nearly 80% ending up in landfills (EPA, 2018). This trend is mirrored globally, particularly in high-consumption economies. In

India, an estimated 3.1 million tonnes of discarded furniture contribute to the country's annual 62 million tonnes of waste (New Indian Express, 2020). To address this growing issue, the Swachh Bharat Mission promotes Extended Producer Responsibility (EPR), urging manufacturers to take accountability for their products' end-of-life stages through collection, reuse, and recycling. Individuals can also play a role by donating, refinishing, or repurposing old furniture to reduce landfill waste.

In 2020, when the world went into lockdown during the COVID-19 pandemic, I noticed something quietly powerful: as the constant motion of daily life came to a halt, so did much of the noise—both literal and environmental. Skies grew clearer, city air felt lighter, and I saw more animals wandering through familiar spaces. Though many of these changes were temporary and difficult to measure, they left a lasting impression on me. They revealed how quickly the world around us could begin to heal when it wasn’t being pushed and pulled by human demands. That unexpected

Figure 1: India Gate, New Delhi on November 3, 2019 (left) & 20th March, 2020 (right), by McGrath, 2020

pause made me begin questioning not only how we live, but how we surround ourselves with things—especially the ones we call “home.”

I began to reflect more deeply on the role of design in everyday life, especially the objects we rely on the most. My thesis doesn’t try to answer sweeping global questions, but instead begins with a very personal one: *how can I design a single object—like a bed—in a way that resists waste and invites a deeper connection between people and their belongings?* This question became the seed for a modular bed system that adapts, transforms, and stays relevant as needs change over time. It’s a response to the fleeting, disposable habits I’ve seen grow more common around me, especially in the way we treat furniture—not as something to live with, but something to eventually throw away.

This project became even more personal in 2021, when I helped my family set up their home in the United States. As we searched for furniture, we encountered a difficult choice: either choose affordable pieces that met our immediate needs but felt impersonal and temporary or invest in beautifully crafted reclaimed items that were often too bulky, expensive, or impractical for the space we had. It made me think of the homes I grew up in in India, where furniture wasn’t just a transaction or a trend. It was made thoughtfully—often by local carpenters—designed to last through the use of durable materials, simple joinery, and timeless forms that resisted obsolescence. These pieces could be repaired, refinished, or repurposed as needed, and they remained part of a household for decades. This durability wasn’t only physical, it was also emotional, as furniture was treated as something worth maintaining and passing on.

That contrast stayed with me. It made me wonder: what if we could bring that sense of care and adaptability back into the way we design? What if furniture didn’t have to be so final or disposable? My modular bed system is an attempt to carry those questions into form. It’s designed to grow

with its user, to shift roles when life changes, and to be something worth holding onto—not because it's perfect, but because it's flexible, repairable, and personal.

Figure 2: Discarded furniture in the street of Toronto, Canada, by author, 2025

The traditional approach to furniture in India, based on local craftsmanship, emphasized the durability and repairability of items, instilling a sense of responsibility towards resources. By "local craftsmanship," I refer to the practices of neighborhood carpenters and skilled artisans who often worked with locally sourced wood and materials, building furniture tailored to the needs of individual homes. These makers operated outside mass manufacturing systems, relying instead on techniques passed down through generations. Their work prioritized utility, longevity, and adaptability, allowing furniture to be repaired or modified as family needs evolved. This localized and intimate mode of production fostered a culture where furniture was embedded with care, familiarity, and meaning pieces that aged with their users and were often passed down as heirlooms.

However, this way of thinking has increasingly been overtaken by the fast-paced culture of mass production and the influence of social media, which has fueled an overwhelming demand for novelty often at the expense of quality. Furniture, once viewed as a lasting part of a home, is now seen as a temporary commodity, regularly replaced to keep up with aesthetic trends and marketed with the promise of obsolescence. This shift has led to a dramatic increase in waste, particularly in the form of discarded furniture that ends up in landfills or incinerators, contributing to environmental degradation and the loss of deeper, more sustainable ways of living with the objects around us.

As I consider these shifts, my research draws from key texts that challenge the dominant paradigms of design and emphasize the need for long-term, regenerative thinking. In *Flourish: Design Paradigms for Our Planetary Emergency* (Ichioka & Pawlyn, 2021), the authors emphasize in the Introduction that design must go beyond simply reducing harm—it should actively restore ecological systems and support the well-being of communities. This perspective aligns with my investigation into how furniture design, once grounded in durability and emotional value, has been increasingly shaped by a trend-driven culture focused on short-term aesthetics and disposability.

Similarly, in *Cradle to Cradle: Remaking the Way We Make Things* (McDonough & Braungart, 2002), the authors advocate for a closed-loop approach to manufacturing, where products are designed to be disassembled and reused rather than discarded. As explained in **Chapter 4, "Waste Equals Food,"** this principle challenges the linear consumption models dominant in industries like furniture, where objects are often thrown away after a short lifecycle. This idea of circularity—where waste becomes a resource—deeply informs my thesis. Through upcycling, I aim not only to reduce waste but also to design furniture that adds value by renewing materials and fostering deeper emotional connections between people and the objects they live with.

The reflections sparked by the global pause of 2020, combined with my personal experiences and the insights from these key texts, have led me to a deeper understanding of the role that design—specifically furniture design—can play in the ecological and cultural transformation we desperately need. The furniture industry, as one of the most consumer-driven and wasteful sectors, offers an opportunity for radical change. My research aims to explore how upcycling and sustainable practices can create a paradigm shift that reconnects people with their possessions and reduces waste, ultimately contributing to a more resilient and equitable future.

1.2 Out of Sight, Out of Mind

Delhi, the capital city of India and one of the fastest-growing economies, is also home to one of the largest and most polluted landfills. Hidden within the city, the Ghazipur landfill site was started in 1984 and is a stark reminder of unchecked urban waste. Located in East Delhi, the landfill now covers nearly 30 hectares and receives about 2,200 metric tons of waste each day. Towering at 40 meters, it holds around 5 million cubic meters of mostly biodegradable, moisture-heavy waste. Studies estimate that over 24 million liters of polluted liquid seep from the site each year, with even higher runoff during the monsoon months (East Delhi Municipal Corporation [EDMC], 2008; Indian Institute of Technology Delhi [IIT Delhi], n.d.; Kumar et al., 2017). This growing environmental burden highlights the urgent need to rethink how we create, use, and discard everyday objects. Despite its massive presence, it remains largely ignored by the majority of the city's population.

Living forty minutes away from this landfill, I rarely visited or crossed that side of the city. The surrounding neighborhood, consisting of people living below the poverty line, is often overlooked in urban planning and economic growth discussions. The landfill has led to severe health issues in

the community, creating an environment that is nearly uninhabitable. During the scorching summer months, the landfill frequently catches fire, releasing toxic fumes into an already highly polluted atmosphere. The air quality in Delhi, among the worst in the world, exacerbates these conditions, creating a cycle of environmental and social neglect.

Compared to waste management systems in Western countries, which focus more on controlled landfilling and waste-to-energy processes, many Asian countries, including India, still struggle with improper waste disposal. However, the West's waste management practices are not without fault—many developed nations export their waste to developing countries in Asia and Africa, a behavior that aligns with the "out of sight, out of mind" mentality. By shipping electronic waste, plastic scrap, and other non-recyclable materials to the Global South, wealthier nations avoid dealing with the long-term consequences of their consumption habits while burdening poorer regions with pollution, toxic exposure, and environmental degradation.

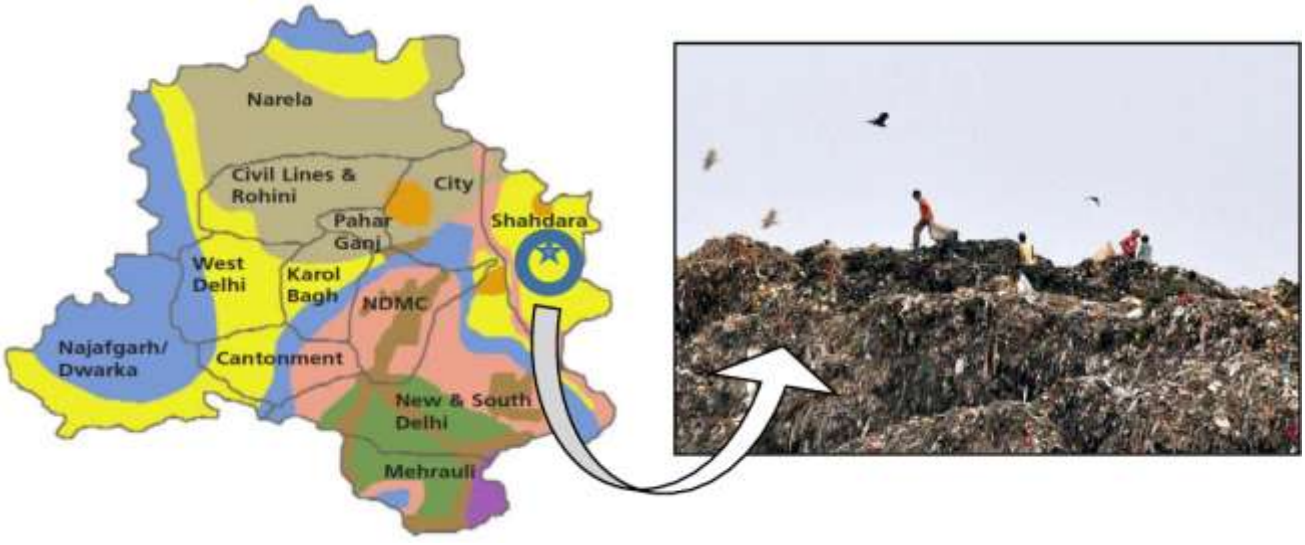


Figure 3: Map of Delhi highlighting the Gazipur landfill location by Kumar et al., 2017

This landfill serves as a haunting reminder of what Anna Tsing and her co-authors describe in *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene.* Tsing explores how human activity has created "haunted landscapes," spaces that are marked by ecological destruction and neglect, where the ghosts of environmental degradation linger. The Delhi landfill embodies this concept—a place where waste becomes a permanent feature of the urban fabric, leaving behind toxic remnants that shape not just the land but the lives of those who inhabit its periphery.

Figure 4: Gazipur landfill, Delhi, India as a 'haunted landscape' by NDTV, 3 June 2019

As Tsing and her co-authors suggest, these sites are not just physical burdens but also cultural and economic failures, revealing the inequalities of a world driven by disposable consumer culture. The landfill represents the dark side of economic growth—one that does not account for the marginalized communities forced to live in its shadow. This research on sustainable furniture design aims to challenge the culture of disposability that contributes to such landfills, advocating for a shift toward upcycling, mindful material use, and circular design practices that minimize waste at its source.

1.3 Personal Experience and Observation

The reflection on these contrasting approaches to furniture design—the widespread culture of disposable, mass-produced furniture versus the enduring tradition of craftsmanship—shaped the foundation of my thesis. By *craftsmanship*, I refer to the skilled, often manual process of making furniture with attention to detail, material integrity, and longevity. This practice values the maker's expertise and the uniqueness of each piece, often allowing for repair, adaptation, and long-term use. While craft furniture traditions certainly exist in the United States, they are often positioned within exclusive, higher-end markets, making them less accessible to the everyday consumer. In contrast, in traditional Indian households, durable, heirloom-quality furniture was more deeply woven into daily life across social and economic classes. As I explored further, I realized that the future of furniture design lies in bridging the gap between these worlds: blending the values of longevity, quality, and emotional connection from traditional practices with innovative, sustainable approaches to design. By focusing on upcycling and circular economy principles, we can create furniture that not only minimizes waste but also fosters a deeper connection between people and the objects they use, shifting away from a throwaway culture toward one that values care, repair, and reuse.

My connection to furniture design has always been deeply intertwined with memories, culture, and family. Growing up in India, I learned to value not just the aesthetic or functional qualities of furniture, but its ability to carry meaning and history. These objects were never mere possessions; they were part of our lives, woven into the fabric of everyday existence. My understanding of design has been shaped by this mindset, one that sees furniture as both a practical necessity and a vessel for continuity.

The experience that shifted my perspective was the loss of my grandfather in 2023. His furniture, pieces crafted from rosewood nearly seventy years ago, had been a cornerstone of his home and a lasting testament to the craftsmanship of a bygone era. These pieces, a bed, desk, and chair, were not just objects; they were repositories of memories, symbols of his life and legacy. When it came time to decide what to do with these items after his passing, it felt like an intimate conversation with the past, one that required careful consideration. I was far from home, living in Canada at the time, so my mother took it upon herself to evaluate the furniture's condition. Despite the pieces having sat unused for over 15 years, she saw potential in them—potential that extended far beyond mere repair.

Transporting the furniture from Chennai to Delhi was no simple task. It took nearly a month to restore these pieces and bring them to their new home, but the result was worth the effort. These objects, though worn by time, were enduring symbols of resilience. Their quality and craftsmanship were undeniable, and in restoring them, we were not just revitalizing old wood—we were preserving the values of resourcefulness and longevity that they represented. This act of restoring and repurpose being felt like a commitment to something more than just sustainability;

Figure 5: Grandfather’s table(left) and grandfather’s bed(right), by Uma Vemanna ,2025

it was an act of care, of honoring past lives, and of ensuring that these meaningful objects could continue to have a place in our home.

The process of reintegrating my grandfather's furniture into our home resonated deeply with my own beliefs about design and sustainability. I saw how these pieces, imbued with decades of history, could continue to serve in a modern context. They had transcended mere functionality, becoming carriers of memory and culture, much like the other objects I had grown up with. The decision to restore these heirlooms reinforced my commitment to creating designs that are not only practical but that also resonate emotionally and culturally.

Through this thesis, I aim to bring the values that shaped my understanding of furniture and design to the forefront. By embracing upcycling, repair, and longevity, I believe we can move away from the transient nature of today's mass-produced culture. I want to reimagine furniture as something that endures—not just in terms of its physical form, but as an object that holds significance across generations. This is the vision I want to explore: a world where furniture doesn't simply serve its purpose and fade away, but continues to live, evolve, and contribute to the narrative of our lives.

1.3.1 Why I Couldn't Find What I Was Looking For

In the West, I have found that the mass furniture market is predominantly driven by consumer culture—a culture centered around convenience, affordability, and the desire for novelty. Mass-produced furniture, often found in large stores, is made from cheap materials and designed with a focus on cheap trends rather than durability. These pieces are often flimsy, with limited options for repair, and lack the lasting power of traditional designs. While such furniture serves its immediate function, it lacks the substance and emotional connection that furniture in India carries.

The preference for this low-cost, mass-produced furniture is symbolic of a broader societal trend towards disposable consumption, where objects are not designed for longevity but rather for quick turnover and short-term utility.

At the other end of the spectrum, there are high-end, reclaimed pieces, often sold as "vintage" or "one-of-a-kind," which is priced significantly higher but also came with the promise of lasting durability and unique craftsmanship. These pieces are often made from salvaged wood or other materials, but their costs were prohibitive for the average consumer. Despite their higher quality, the expense of these reclaimed pieces have made them an impractical option for many people. For example, high-end brands specializing in reclaimed wood furniture often market their pieces as luxury items, making them inaccessible to the average consumer. This binary between cheap, disposable furniture and expensive, reclaimed pieces leaves little room for a middle ground—affordable furniture that is built to last. Additionally, the aesthetic appeal of reclaimed furniture often aligns with a specific design trend, which may not cater to diverse tastes or broader accessibility.

In contrast, my experience of navigating these limitations made me reflect on the practices I was familiar with in India, where furniture was often crafted by local artisans or carpenters. These craftsmen created custom pieces tailored to the needs and preferences of the family, and the value of such items went beyond their utility—they carried with them stories, cultural significance, and a deep emotional connection. Unlike mass-produced furniture, these pieces were built to last for generations, repaired, and passed down through the family. In this way, furniture was not a fleeting commodity but an integral part of the family's heritage and daily life.

1.3.2 Learning Design Values from My Cultural Heritage

In India, furniture is often custom-made by local carpenters, a practice deeply intertwined with familial and cultural heritage. Unlike mass-produced furniture found globally, these pieces are meticulously designed to address a family's specific needs and crafted to endure for decades. The traditional furniture-making process is slow and deliberate, with artisans working with natural materials and employing techniques passed down through generations. These craftsmen are not merely makers; they are stewards of a legacy, creating pieces meant to become part of a family's history, treasured and passed down for generations.

In *Flourish: Design Paradigms for Our Planetary Emergency*, Ichioka and Pawlyn (2021, pp 5-11) suggest that for design to be truly transformative, it must go beyond aesthetics and focus on nurturing ecological systems, supporting communities, and preserving cultural meaning.

Figure 6: Grandfather's table, by Uma Vemanna ,2024

This idea resonates with traditional Indian approaches to furniture, where design is closely tied to practices that honor both the environment and the materials used. In this context, the emotional connection to an object becomes essential to its longevity, creating a relationship that extends beyond mere functionality.

The contrast between mass-produced furniture and locally crafted pieces has significant implications for both sustainability and cultural preservation. Resilience in design emphasizes creating systems where materials are valued, resources are used efficiently, and products are adaptable to changing needs. This approach aligns closely with traditional Indian practices, where furniture is often repaired and reused, extending its lifecycle and minimizing waste.

By exploring these contrasting approaches, I realized that sustainable design is not solely about utilizing new technologies or materials but also about reclaiming and reimagining the values embedded in traditional craftsmanship. Care for the environment and the objects we use should be an integral part of the design process, emphasizing sustainability, emotional connection, and long-term value. My grandfather's table exemplifies this philosophy, crafted with thoughtfulness, durability, and care—qualities that stand in stark contrast to today's disposable culture.

Traditional Indian craftsmanship offers valuable lessons for modern design practices. Artisanal techniques such as intricate wood joinery, hand-carving, inlay work (is a decorative technique where small pieces of materials like wood, metal, shell, ivory, or stone are set into the surface of a larger object—often furniture or flooring—to create intricate patterns, images, or designs.), cane weaving, and natural polishing methods (using plant-based oils) focus on durability and repairability, creating furniture meant to last for generations and designed to be repaired as needed. These methods often require no nails or synthetic adhesives, allowing furniture to be disassembled and restored easily. Beyond function, traditional furniture carries emotional value, fostering lasting

connections that transcend temporary trends and build deep-rooted cultural significance. Local artisans also prioritize the use of sustainable materials, working with natural, locally sourced resources such as teak, rosewood, neem, and bamboo, which minimize environmental impact.

By drawing inspiration from these time-tested practices, this thesis aligns with Ichioka and Pawlyn's vision of integrating cultural heritage with modern design principles. In this context, modern design refers to practices centered around sustainability, circularity, and adaptability—approaches that prioritize longevity, material efficiency, and multifunctionality. The goal is to create furniture that not only serves functional purposes, but also nurtures people, communities, and the planet, fostering a deeper and more meaningful connection to the objects we live with.

1.3.3 How the Furniture I Grew Up With Started Disappearing

Over the past few decades, India has experienced a significant transformation in how furniture is perceived and consumed. The traditional practice of commissioning local artisans to create custom-made, durable furniture has been largely replaced by a preference for disposable, trend-driven pieces. However, Western influence and globalization have rapidly shifted consumer habits, favoring disposable, trend-driven furniture over long-lasting, artisanal craftsmanship. The influx of international fast furniture brands has further cemented this transformation, leading to the decline of local woodworking traditions.

Historically, furniture in Indian households carried immense sentimental and cultural value. Items such as intricately carved wooden beds or dining tables were not only functional but cherished family heirlooms, passed down through generations. These pieces embodied stories, memories,

and a sense of belonging. However, with rapid urbanization and the influence of global trends, the furniture market has shifted toward mass-produced, factory-made products. This is evident in the rise of international fast furniture brands like IKEA and Pepperfry, which cater to urban, transient lifestyles by offering affordable and ready-to-assemble products. By 2022, Pepperfry had increased its studios to 150, strengthening its omnichannel presence and focusing on the urban market (99CashDeals, 2023).

One clear example of this shift is the younger generation's growing preference for flat-pack furniture. Instead of hiring local carpenters to craft sturdy, unique pieces, many opt for quick, mass-produced solutions that cater to immediate needs but lack longevity. A notable example is Pepperfry's **"Woodbuzz Particle Board Wardrobe"** or IKEA's **" Kallax bookshelf"** both of which are lightweight, affordable, and designed for temporary urban living. Unlike handcrafted wooden wardrobes once made by local artisans, these mass-produced pieces prioritize convenience over durability. This change not only erodes the legacy of local craftsmanship but also contributes significantly to the growing issue of furniture waste, as these items are often discarded rather than repaired or passed down.

This trend contradicts the idea that "our concept of sustainability focuses on being 'less bad' by minimizing negative impacts. But being less bad is not the same as being good. Why not take nature itself as our model?" (McDonough & Braungart, 2002, p. 17). The shift toward disposable furniture reflects a cultural move away from values such as longevity, craftsmanship, and environmental care. By embracing fast furniture, society often prioritizes convenience and conformity to globalized trends, frequently at the cost of ecological balance and the preservation of traditional skills. Reimagining design through a regenerative lens could help restore the harmony between cultural heritage, sustainability, and modern needs.

1.4 Research Question

How can upcycling and modular design redefine furniture as a long-lasting, adaptable asset rather than a disposable commodity?

The contemporary furniture industry operates largely within a linear “take-make-waste” model, driven by short-term consumer demands and ever-changing trends. This unsustainable approach has led to significant environmental consequences. Non-recyclable materials, such as laminated particleboards and mixed plastics, accumulate in overflowing landfills, contributing directly to ecological degradation. Mass production processes are also highly energy-intensive, increasing carbon emissions and depleting valuable natural resources. Compounding these issues, modern furniture is rarely designed for reuse, repair, or disassembly, resulting in products that are discarded prematurely rather than maintained or adapted.

These practices stand in stark contrast to traditional craftsmanship, which emphasizes durability, repairability, and sustainable resource use. Historically, local artisans created furniture with longevity in mind, embedding emotional value and environmental responsibility into every piece.

By integrating circular design principles and drawing inspiration from traditional practices, this thesis challenges the prevailing culture of disposability. It advocates for a regenerative approach where furniture is not just functional and fashionable, but also adaptable, meaningful, and enduring.

2.0 Design Proposal

2.1 Designing Furniture That Can Grow and Move With Us

In response to the cultural and environmental tensions explored in earlier sections particularly the erosion of heirloom craftsmanship and the rise of disposable furniture—this proposal reimagines domestic objects as dynamic companions for transient populations, such as students and young professionals.

Furniture Type	Modular Unit Transformation
Lounge Chairs	Bed components can be reconfigured to create comfortable lounge seating.
Side Tables	Individual modular parts can be assembled into side tables for versatile storage.
Bookshelves	Bed pieces can be stacked or aligned to form bookshelves, offering space-saving options.
Dining Surfaces	Modular units can be combined to create compact dining surfaces, ideal for small spaces.

Figure 7: Table outlining the versatile transformations possible with the modular bed , author, 2025

In ancestral households, furniture held significance beyond function—it was durable, repairable, and often repurposed across generations. However, in today's fast-moving world, rigid heirloom pieces no longer align with the impermanence of modern lifestyles. My furniture seeks to bridge this gap by offering adaptable furniture solutions that combine emotional durability with

sustainable material practices—carrying forward the spirit of resilience, care, and flexibility embedded in both ancient craftsmanship and modern life.

This system transforms a bed[1]—often the first investment in independent living—into a **versatile "kit of parts."** These modular units can be disassembled and reconfigured into multiple furniture types, including:

- Lounge chairs
- Side tables
- Bookshelves
- Dining surfaces

This adaptability mirrors the functionality of ancestral Indian furniture, where a single wooden trunk might serve as storage, seating, or even a ceremonial platform across generations. Like these traditional pieces, the modular bed system is designed to be both functional and emotionally significant, encouraging users to build personal connections with the furniture they use, rather than viewing it as a disposable object.

Unlike heirloom furniture that remains static, this system embraces change, ensuring that users can modify and repurpose their furniture based on shifting life circumstances—whether transitioning from student life to professional workspaces or adapting to growing family needs. The emotional durability of the design is embedded in its ability to evolve with the user's life story and have minimum impact on the environment. Just as heirloom furniture is passed down and holds memories across generations, the modular system allows for new layers of meaning to be created,

[1] See Appendix A for more drawings of the Modular Furniture System.

based on its reconfiguration and continued use. This fluidity ensures that the furniture remains relevant and valuable throughout various stages of life, incorporating elements of both tradition and modernity.

2.2 Jugaad in My Design Execution

Drawing inspiration from Indian artisanal practices, this design prioritizes locally sourced and regenerative materials like reclaimed wood, corkboard, and cardboard. Instead of relying on synthetic, non-recyclable composites typically found in fast furniture, I chose materials that align with both India's ethos of jugaad (resourceful innovation), the Indigenous Learning Outcomes (**Appendix C**), **(**The Indigenous Learning Outcomes at OCAD U draw from Indigenous worldviews that prioritize relational thinking, environmental stewardship, and community knowledge. These principles can be applied globally as a way to reimagine design practices that are rooted in care, responsibility, and sustainability.**)** and the principles of the **Cradle-to-Cradle framework** proposed by McDonough and Braungart[2]. Every material selected was considered for its ability to return to biological or technical cycles, ensuring that the design itself supports a circular economy.

A key part of this thesis was not just designing sustainably—but also building the project sustainably. The majority of materials used for the final installation were upcycled, allowing the exhibition itself to embody the same principles of waste reduction and resourcefulness that the

[2] The Cradle to Cradle framework, developed by William McDonough and Michael Braungart, advocates for designing products with closed-loop systems, where materials are perpetually reused, supporting a sustainable, waste-free economy.

modular bed system promotes. This was made possible through resources like the ReUse Depot and the Sustainability Community of Practice at OCAD University.

The ReUse Depot functions both as a material library and a creative hub, offering students access to discarded cardboard, wood, and other materials that might otherwise end up in landfills. It supports innovation while easing the financial burden on emerging artists and designers. Similarly, OCAD's Sustainability Community of Practice brings together students, faculty, and staff through regular gatherings, focused on sharing ideas, building community, and integrating sustainability into curriculum and studio practice.

By consciously integrating material awareness, systemic critique, and hands-on making, this exhibition challenges how we think about waste. It encourages a shift away from disposable design toward a future rooted in circularity, repairability, and emotional connection—reminding us that sustainability is not just about minimizing harm, but about reimagining how we live with the things we create.

2.3 Building Emotional Connections Over Time

Beyond physical longevity, the Modular Furniture System fosters emotional attachment through participatory use, encouraging users to personalize and interact with their furniture in meaningful ways.

One of the key features is its rearrangeable modules, which allow users to modify configurations to match different life stages. For example, a cozy "post-exam lounge nest" in a student apartment can easily be reconfigured into a "first-job interview desk" as life circumstances shift. These small adaptations invite users to see their furniture not as static objects, but as companions that move with them through different seasons of life.

Additionally, the system encourages shared ownership and trade, allowing individual components to be exchanged between peers. This model not only extends the lifespan of each piece but also builds a sense of community around the furniture itself, deepening the emotional value users place on these evolving artifacts.

By inviting participation, personalization, and shared stewardship, the Modular Futures System resists traditional capitalist models of disposability. Instead of treating salvaged materials as waste, the system nurtures relationships between people and objects—countering what Anna Tsing

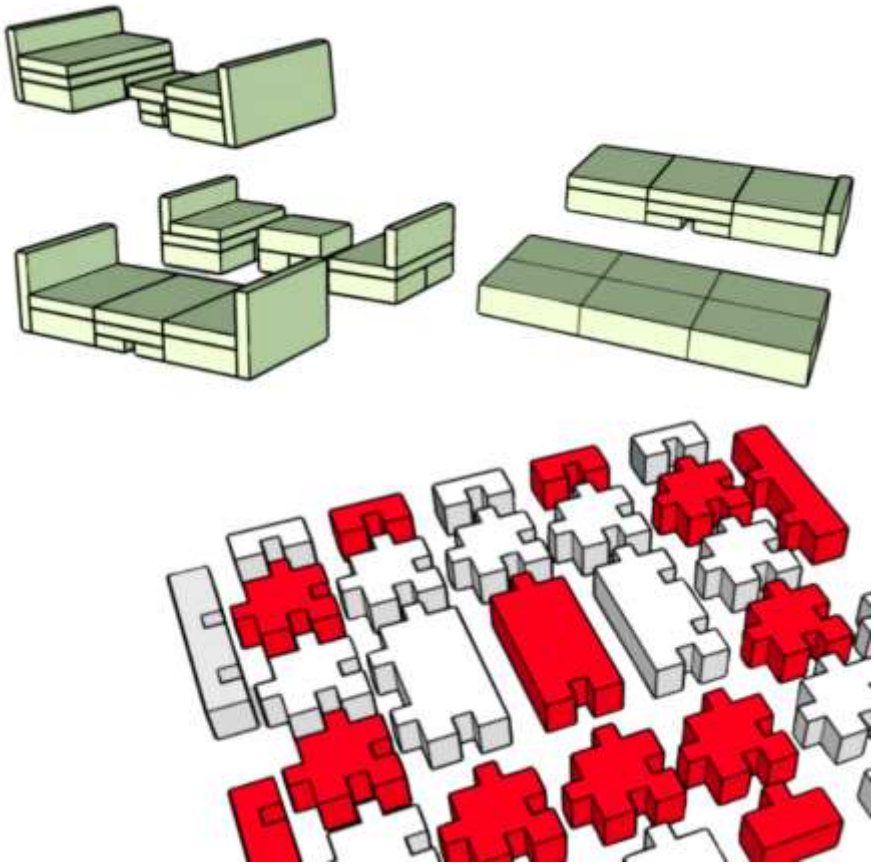


Figure 8: initial concept drawings, *by author,2024*

critiques as “salvage accumulation,” where capitalism extracts without care or reciprocity. Here, care becomes embedded in the object, and longevity is measured not only in years, but in stories.

2.4 Design Process

2.4.1 From Concept to Prototype

The design process for the Modular furniture System unfolded in several stages, evolving from early conceptual research to a full-scale functional prototype.

Research and Concept Development began with identifying the critical problems surrounding contemporary furniture: growing landfill waste, lack of repairability, and a deepening emotional detachment from the objects we live with. I drew on research into traditional Indian furniture practices, where multi-functionality, resourcefulness, and repairability were fundamental values. This contrast helped me see how far today's disposable design culture has drifted from systems once rooted in care, longevity, and material respect.

At the same time, I reflected on contemporary needs through my own experiences as a student and young adult. I critically assessed the limitations in existing modular and upcycled furniture solutions—many of which, despite good intentions, still prioritized trendiness over long-term adaptability.

My design goals became clearer through this reflection: I wanted to create a furniture system that was modular and adaptable, but also emotionally durable, something that could stay with a person through different stages of life. I wanted it to use circular, regenerative materials so that it could be part of a longer, kinder material story.

Moving into Prototyping and Material Testing, I started sketching and building small models. I was inspired by the simple strength of jigsaw puzzles—how pieces fit together without glue or

screws, depending on each other for support. I wanted the furniture to work the same way: easy to assemble, easy to change, built to last without waste.

Building the prototype was hands-on and messy—in the best way. I built small-scale models first, testing how the parts could interlock, how they could hold weight, and how easily they could transform into different pieces. I kept refining the design, adjusting joints to make transitions smoother, and pushing myself to keep it simple and tool-free.

Finally, I scaled it up into a full-sized model for the exhibition, staying committed to the goal of zero-waste construction—relying almost entirely on upcycled materials, with barely any new purchases.

2.5 Designing Not Just in Form, But in Feeling

The Modular Furniture System offers a way to reduce furniture waste by creating pieces that can adapt and evolve instead of being discarded. Its modular, replaceable parts encourage repair and longevity, allowing users to reconfigure and maintain their furniture rather than replace it entirely.

But more than that, I hope it encourages a cultural shift: away from viewing objects as disposable, and toward a deeper sense of care and ownership. A shift where furniture moves with us, changes with us, and holds parts of our stories over time.

By weaving the wisdom of traditional craftsmanship into a modern, flexible design, this project shows that sustainability isn't just about using better materials—it's about honoring memory, practicing care, and designing for continuity.

The Modular Furniture System imagines furniture not as something temporary or static, but as something alive—something that can grow with its owner, carrying forward resilience, creativity,

and emotional connection across generations. And if, one day, it must be discarded, it will leave behind minimal impact—because it was made with intention, adaptability, and care from the very beginning.

2.6 My Learning through Building

When I started building the modular furniture, I kept thinking about what would happen to it after the exhibition. I couldn't take it back with me, and I didn't feel comfortable selling it. That's when I decided to build it with cardboard.

Every year, our school holds GradEx, a final-year student exhibition. Afterward, there's always a huge pile of leftover cardboard, available for students to reuse. I picked up a stack from the ReUse Depot.

Figure 9: Reusing an old T-shirt as a rag cloth and cleaning bushes, by author,2024

Back in India, giving things a second life was part of everyday life. Old clothes were turned into cleaning rags, Amazon packages became storage boxes or drawer dividers. We didn't call it "sustainability" — it was just common sense. That memory came back strongly as I worked with cardboard.

I also kept thinking about my grandfather's rosewood furniture. It wasn't bought to match trends. It wasn't discarded when it broke. It was kept, repaired, and passed down. In our family, objects had value because they lived with us. That's what I wanted this bed to be like, not just another piece of furniture, but something that could adapt and grow with someone's life.

As I folded the cardboard, adjusted the corners, and tried different ways of connecting the parts, I kept asking: *Can someone feel at home with this? Can it hold more than just weight—can it hold memory?*

Working on this project made me unlearn a lot of what I had been trained to do. Coming from an architecture background, I was used to clean lines, fixed plans, and the idea that every detail had to be perfect. But this process was different. It was rough, sometimes clumsy, and very physical. I had to let go of control and allow the material to guide me.

It wasn't about getting everything right. It was about asking: *Does this make sense in real life? Can it move and adapt the way people do?* It was messy—but in the best way.

2.7 Why Emotional Connection Matters

During the process, I started seeing the bed differently. It wasn't just a design anymore — it was a space for someone's memories.

I realized: we don't just need more furniture. We need better relationships with the things around us.

That moment helped me understand emotional durability not just as a theory, but as a lived experience. If people care about something, they'll keep it. They'll fix it. They'll pass it on. And maybe, through that care, the object becomes more than just a thing — it becomes part of their story.

This understanding was shaped by my own memory: my grandfather's desk. It wasn't ornate or fashionable, but it had deep meaning. I remember sitting beside him as he worked, his quiet focus, the way he kept everything in order, the smell of old wood and paper. That desk was a site of learning, of patience, of shared time. He never spoke about sustainability, but through the way he cared for that desk—repairing its drawers, keeping its surface polished—I learned what it meant to value and maintain something. It wasn't just furniture; it was part of our family.

That memory influenced me how to think about design. I want to create pieces that invite this kind of attachment, not through nostalgia alone, but through usability, adaptability, and presence. A modular bed that transforms and grows with the user can become part of their evolving life, not just a temporary solution. This is how meaning-making becomes embedded in the material world: through design that supports care, repair, and emotional continuity.

This thesis wasn’t just about solving a design problem. It was about reconnecting with the values I grew up with. Working with cardboard, remembering my grandfather’s furniture, and reflecting on what it means to care for things — these experiences shaped everything.

Repair, reuse, and adaptability aren’t new ideas to me. They were always there, passed down quietly through my family.

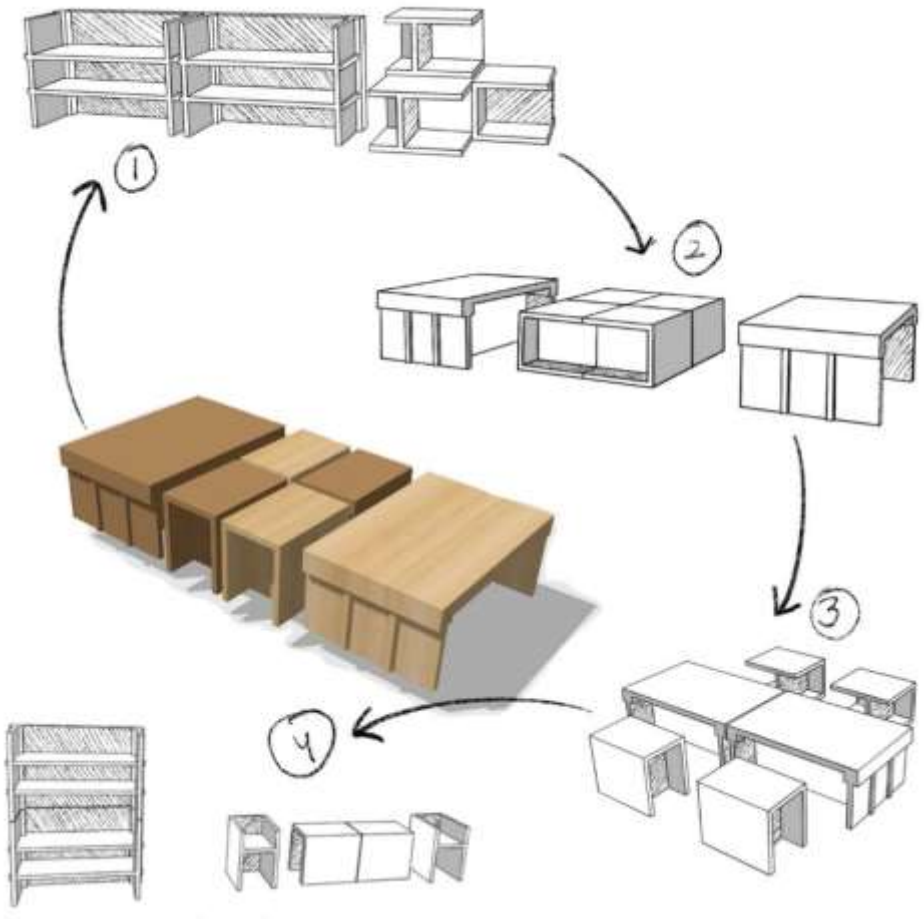


Figure 10: Illustration of the furniture, by author ,2025

3.0 When Design Stopped Lasting: How Capitalism Changed Our Relationship with Things

3.1 How Profit Took Priority Over People and Design

Design has historically served as a means to respond to human needs, nurture cultural identity, and promote environmental stewardship. However, with the advancement of industrial capitalism, the role of design has become increasingly entangled with market-driven imperatives. According to Porter (2008), industry structure, defined by competitive forces such as buyer power, the threat of substitutes, and rivalry among existing firms, compels companies to reduce costs, accelerate product turnover, and pursue short-term profitability. This economic framework encourages practices such as planned obsolescence and price-based competition, both of which are particularly visible in the furniture industry. Where traditional furniture once embodied longevity, repairability, and emotional significance, contemporary mass production has shifted toward disposable, trend-responsive models that favor repeat consumption over lasting value.

Stuart Walker (2021) offers a critical perspective on this consumerist trajectory, arguing that modern society increasingly favors "short-term gratification, novelty, and stimulation" over "enduring values, cultural meaning, or social cohesion" (p. 42). Within this context, design is stripped of its ethical grounding and transformed into a vehicle for market expansion. The result is an industry that undermines sustainability, accelerates environmental degradation, and erodes cultural practices of care and continuity. By examining the intersection of economic structure and design priorities, it becomes evident that the commodification of design has subordinated people and the planet to profit.

3.2 Fast Furniture as a Case Study

Fast furniture brands exemplify how capitalist forces shape consumer behavior. Companies like IKEA, Wayfair, Target and Amazon Basics provide low-cost, aesthetically appealing furniture designed for temporary use. While these pieces offer affordability and convenience, they are typically constructed from cheap, non-recyclable materials such as particleboard and plastic laminates. Unlike solid wood or handcrafted furniture, these materials deteriorate rapidly, making repair difficult or impractical.

IKEA presents an especially interesting case. While widely associated with flat-pack, affordable furniture, IKEA has also become a leading voice in mainstreaming sustainability in large-scale retail. The company has set an ambitious goal to become climate positive by 2030, including commitments to use only renewable or recycled materials, offer repair and resale services, and embed circularity into its design principles IKEA Sustainability Strategy 2030. IKEA has launched buy-back and refurbishment programs in several countries, reflecting a growing awareness of its role in addressing waste.

However, this shift is not without contradictions. Many IKEA products remain rooted in a design logic that prioritizes affordability, flat-pack convenience, and global scalability—often at the cost of durability and long-term usability. A significant portion of their furniture is made from particleboard, a composite of wood chips and resin engineered for low cost and efficient shipping. While practical for large-scale manufacturing, particleboard is structurally weak, difficult to repair, and not easily recyclable. These material choices contribute to short product lifespans and limit the potential for repair or reuse. This design-for-disposability model, especially when not counterbalanced by robust infrastructure for repair, resale, or part replacement, continues to fuel

landfill overflow and accelerate resource depletion. While IKEA's sustainability strategy includes commendable initiatives—such as buy-back programs and a shift toward renewable or recycled inputs, their success depends on deeper systemic change. True circularity cannot be achieved through material substitution alone; it requires reimagining the entire product life cycle, from initial design to end-of-use scenarios.

Yet, IKEA's evolving approach suggests that even within the constraints of mass production and global retail, steps toward regenerative design are possible—if supported by long-term investment, consumer education, and structural support for extended use. In this way, IKEA operates as both a critique and a case study in the transition from fast to mindful furniture design.

3.4 Reframing Scalability Beyond Capitalist Metrics

In capitalist design models, scalability is often equated with mass production and global standardization. However, this approach disregards cultural and environmental differences, frequently resulting in unsustainable solutions. Instead, scalability should be redefined to emphasize local adaptability and decentralized production.

For example, my modular bed design can be customized based on regional materials and traditions. In South India, for instance, it could incorporate woven dry grass mats instead of thick mattresses, as they are both well-suited to the hot climate and deeply rooted in cultural practice. By embracing such context-specific materials, the modular bed achieves a form of global scalability that doesn't depend on mass production but instead supports regenerative design principles. This ensures that materials stay within their local ecosystems and contribute to sustainable practices that are culturally and environmentally grounded

3.5 Why Sustainability Can’t Just Be Another Sales Strategy

The capitalist model thrives on perpetual consumption, making true sustainability within this framework inherently contradictory. Companies often claim to be sustainable, yet their business models rely on continuous product turnover to maintain profitability. This raises a critical question: Can design ever be truly sustainable within a system that demands endless growth?

This contradiction is made starkly visible at places like the Ghazipur landfill—Delhi’s infamous “trash mountain.” Once a marshland, the site has transformed into a toxic landscape, rising over 65 meters high and still growing. Discarded furniture, packaging, and synthetic materials pile atop one another, contaminating soil, leaching into groundwater, and generating dangerous methane gas. The surrounding communities, many of whom rely on informal waste-picking, suffer health consequences from constant exposure to pollutants. The landfill is both a physical and symbolic monument to the failures of a throwaway culture. It underscores how sustainability, if treated as a branding strategy rather than a systems ethic, leads to superficial fixes while the core problem persists.

A truly sustainable design philosophy must therefore adopt anti-consumerist principles—values that resist the dominant culture of disposability, trend-driven buying, and endless accumulation. These principles prioritize longevity over novelty, repair over replacement, and care over convenience. In practice, this means designing products for long-term use, embedding repairability and modularity, and encouraging emotional durability—user-object relationships built on familiarity, memory, and meaning.

It also includes supporting collective ownership models, such as shared, leased, or co-owned furniture systems, that reduce individual consumption and promote equitable access—ensuring

that well-designed, durable, and sustainable furniture is available to people across income levels and living conditions. Equitable access means making sustainable design affordable, inclusive, and adaptable, especially for those in transitional, rental, or low-income housing who are often excluded from long-term ownership. By decoupling furniture from individual purchasing power, these models help redistribute access to quality living environments while reducing resource strain. Examples include furniture libraries, subscription-based rental platforms, and community reuse networks—systems that support circularity while extending the social value of design.

These principles challenge the extractive, linear design practices that dominate the contemporary furniture industry. My modular bed system embodies these values by emphasizing adaptability, repairability, and material circularity—pushing back against the capitalist cycle of wasteful production. It proposes a shift from designing for disposal to designing for continuity—where parts can be repurposed, meanings retained, and value sustained.

To imagine a future of zero waste is to reimagine the landscape itself—not with landfills, but with repair cafés, community reuse systems, and material ecosystems that mirror nature's regenerative cycles. Waste would cease to be inevitable and instead become an opportunity—an input, not an end. Sustainability, in this vision, is not a trend but a commitment: one that demands humility, accountability, and long-term thinking in every act of design.

3.6 How My Modular Bed Can Be a Commodity Without Becoming Fast Furniture

Rather than treating the modular bed as a mass-produced commodity, I propose a localized production model where different regions adapt the design based on their own materials and traditions. This approach balances scalability with sustainability, ensuring that the bed remains

relevant across diverse cultures and environments. Instead of relying on centralized factory manufacturing, the system can be crafted by local artisans, helping to preserve cultural traditions while reducing carbon footprints through shorter supply chains. Users are encouraged to modify materials based on their climate, availability, and personal preferences, making each version of the bed responsive to its specific context.

Unlike fast furniture, which is designed for disposability, this system is built around the principles of repairability and longevity, encouraging regular maintenance, part replacement, and long-term use

This idea isn't abstract for me—it's deeply rooted in personal memory and lived experience. Growing up, my grandfather's desk wasn't just a piece of furniture. It was a space for storytelling, learning, and reflection. Its surfaces bore the marks of time: pencil notches, ink stains, and worn handles. That desk taught me that durability isn't just about material strength—it's about emotional continuity. It shaped my understanding of furniture as something to live with, not just to use.

This perspective became more urgent when I moved to Canada as an international student. Like many others, one of my first stops was IKEA. I needed something cheap, fast, and functional—and so I bought my first bed there. That experience is shared by millions and speaks to the accessibility and convenience fast furniture offers. But over time, I began to notice how quickly those pieces broke down, how little they meant to me, and how often I saw similar items discarded during move-outs. This tension—between affordability and disposability—raised the questions that ultimately led to this thesis.

It became even more personal when my lease ended. I had to spend over 600 CAD to hire a moving company just to disassemble, transport, and reassemble my bed. As someone new to the country, I didn't have the tools, experience, or support network to do it alone. That moment helped me

understand how, especially in a city like Toronto—where many people rent and move frequently, there's a real need for furniture that doesn't require tools, that's easy to disassemble, and that adapts to changing circumstances.

The modular bed system I designed is a direct response to this reality. It acknowledges the pressures of student life, transient living, and tight budgets, while offering a model that doesn't default to waste. It invites users to build, adapt, and hold onto their furniture—not as a burden, but as a companion across different life stages. In doing so, it becomes a commodity, yes—but one that resists the logic of fast furniture by being rooted in care, memory, and context.

3.7 Why Local Materials Matter More Than Global Trends

One of the major flaws of universal sustainability models is the assumption that a single material solution can suit all environments. In reality, true sustainability is context-dependent—what works in one location may not be viable in another. For instance, in South India, dry grass mats (chattai) are an ideal bedding solution because they offer natural cooling in hot climates, are affordable and locally sourced, and are biodegradable, making them environmentally responsible. However, in Canada, where winters are harsh, such reed mats would be impractical. In that context, sustainable alternatives might include recycled wool, corkboard, or reclaimed wood—materials that offer insulation and durability better suited to colder environments. By embracing local materials and cultural knowledge, sustainable design becomes truly regenerative and resilient. This approach rejects the one-size-fits-all philosophy of capitalist production and instead fosters regionally specific sustainability solutions that respect the needs, environments, and traditions of different communities.

4.0 Exhibition: "Do We Need NEW?"

The modular bed system will be exhibited at **Ignite Gallery, 100 McCaul**, for four days, showcasing its sustainable design and circular economy principles through an immersive, multi-

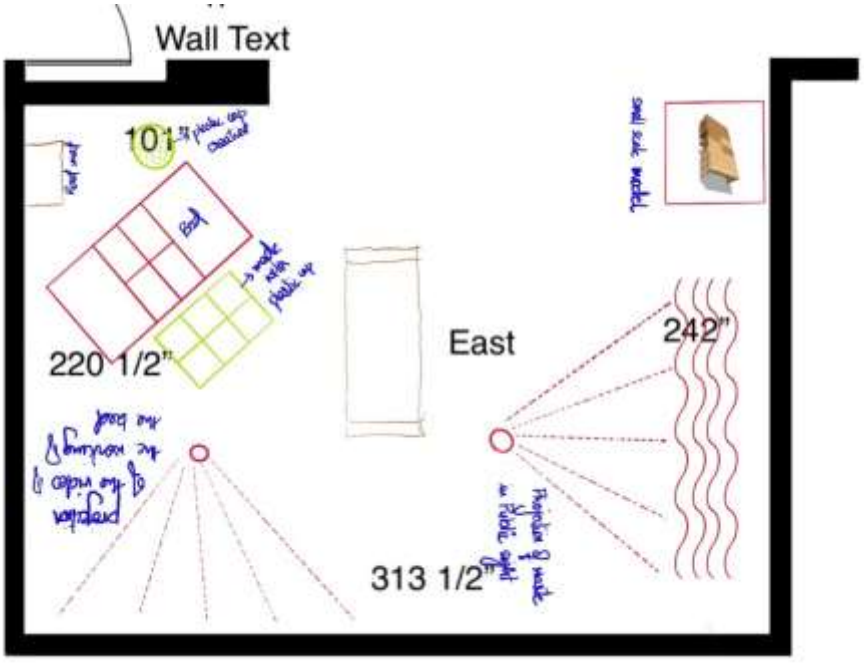


Figure 11: layout design for the exhibition, by author ,2025

section installation. The exhibition is structured into three key sections, each emphasizing different aspects of modularity, sustainability, and the societal implications of waste.

1: Material Perception and Hidden Waste

This section presents the modular bed prototype constructed from cardboard, accompanied by decor made entirely from waste plastic bottle caps and discarded plastic materials. From a distance, these elements resemble aesthetically pleasing decor, yet upon closer inspection, they reveal the overwhelming presence of plastic embedded in our everyday lives—often unnoticed. A video projection will demonstrate the bed's transformability into different configurations, reinforcing the adaptability and long-term usability of modular design. Additionally, traditional Indian reed mats

(Chattai) will be displayed to highlight the modularity of ancient Indian design, emphasizing sustainable material use across generations.

2: Contrasting Circular Design with Disposable Consumption

This section juxtaposes the circular, repairable nature of the modular bed with the stark reality of waste accumulation. An installation featuring projected visuals of Delhi's Ghazipur landfill will serve as a powerful contrast to sustainable design practices, highlighting the consequences of disposable consumption. The projection will be layered across suspended translucent curtains, symbolizing the socio-economic filters that obscure environmental degradation from mainstream visibility. The stratification of these layers also represents the discrepancy of classism, where marginalized communities disproportionately bear the burden of waste mismanagement, as landfills are positioned away from affluent urban centers.

3: Interactive Student Room Installation

A scaled-down model of the modular bed within a recreated student's living space will provide visitors with a hands-on opportunity to interact with the furniture. This setup allows users to engage with the modular design, experiencing its adaptability in a realistic context, reinforcing its relevance to transitional lifestyles.

IGNITE
GALLERY

Do We Need NEW?

March 14 - March 17

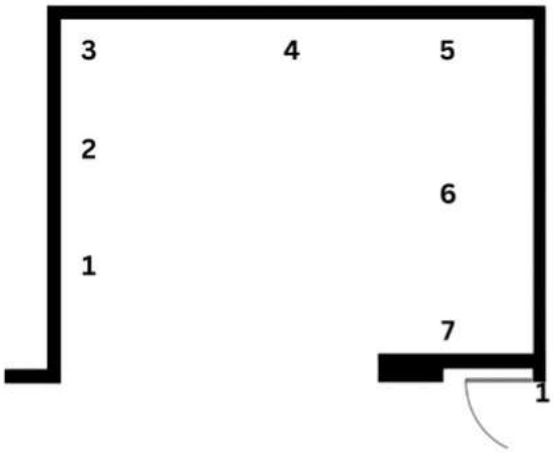
Rithika Manna

What if design wasn't about constant newness but about adaptability, cultural heritage, and longevity? Do We Need NEW? challenges the throwaway culture of fast furniture, proposing a modular system that evolves with the user instead of ending up in a landfill.

Rooted in jugaad (frugal innovation) and traditional craftsmanship, this project embraces sustainability as a localized practice. In South India, people sleep on woven reed mats suited to the climate, while colder regions rely on insulating materials like wool or reclaimed wood. My work questions the universal approach to sustainability, advocating for design that honors cultural traditions and environmental realities.

By prioritizing reuse, repair, and emotional connection, Do We Need NEW? reimagines furniture as something we grow with, rather than discard. This exhibition invites you to rethink consumption, celebrate heritage, and see sustainability as a practice of care and continuity.

Figure 12: artist statement, by author ,2025



1. Small-Scale Model of the Modular Bed

Scale: 1:100

2. Unseen Seen Problems

A video projection of the Ghazipur landfill in Delhi, revealing the lives affected by waste. Displayed on layered curtains to symbolize the filters we place on the issue of waste.

3. Hidden Problems

A collection of plastic bottle caps illustrating the unnoticed, omnipresent role of plastic in our daily lives.

4. Video Projection

A visual demonstration of the modular bed in its various transformations.

5. & 7. Chattai

A traditional Indian woven mat used for sitting, sleeping, or meditation. Lightweight, portable, and breathable, it demonstrates how we can localize material choices for sustainability, offering an eco-friendly alternative to thick mattresses.

6. Modular Bed

This bed challenges disposable furniture culture by adapting to users' needs. Inspired by Lego, jigsaw puzzles, and Indian traditions, it transforms into chairs, shelves, and tables. Made from sustainable materials, it embodies circular design and longevity.

Figure 13: layout for the exhibition, by author ,2025

Figure 14: Exhibition Photo, by Laiken Breau ,2025

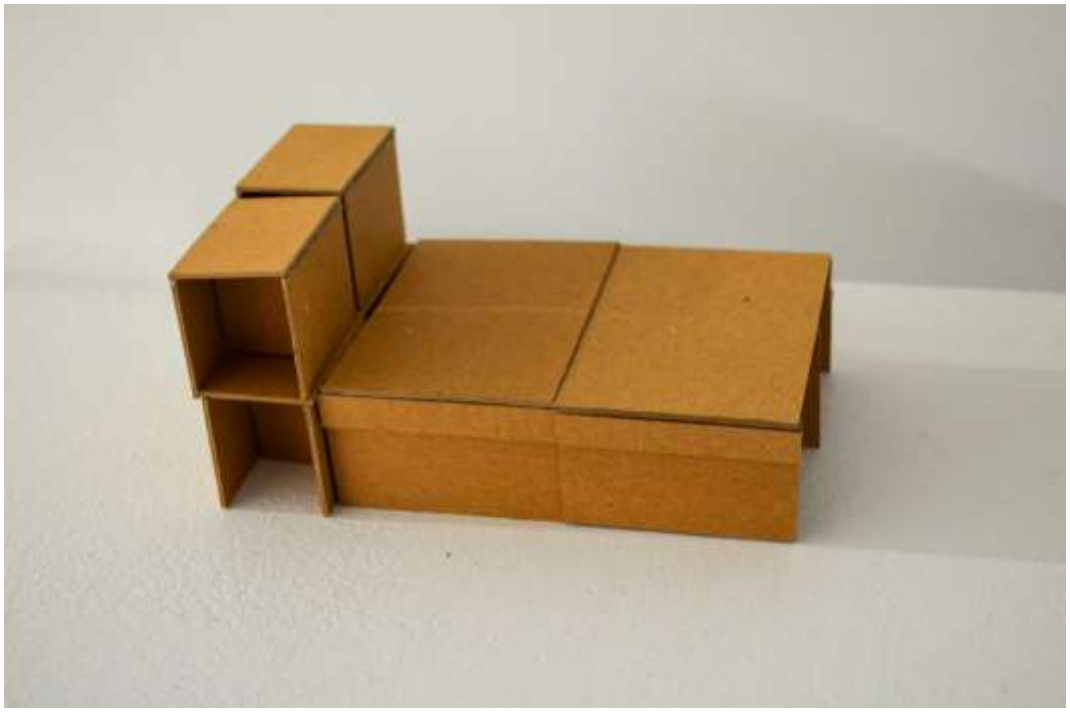


Figure 15: small scale model of the modular furniture, by Laiken Breau ,2025

Figure 17: Exhibition Photo, by Laiken Breau ,2025

Figure 16: Exhibition Photo, by Laiken Breau ,2025

Figure 18: Exhibition Photo, by Laiken Breau ,2025

Figure 19: Exhibition Photo, by Laiken Breau ,2025

Figure 20: Exhibition Photo, by Laiken Breau ,2025

Figure 21: Exhibition Photo, by Laiken Breau ,2025

Figure 22: Exhibition Photo, by Arun Manna ,2025

5.0 Conclusion: Reclaiming Legacy, Designing for the Future

The story of my grandfather's rosewood furniture stayed with me throughout this journey. It wasn't just a bed or a desk, it was a living part of our family, shaped by years of use, repair, and care. Those pieces carried memories, not just utility.

In contrast, today's fast furniture market prioritizes affordability and convenience over longevity and meaning. We've normalized a cycle where objects are designed to be temporary, disposable, easily forgotten. This loss is not only environmental—it's deeply cultural.

Throughout my thesis research, I often found myself struggling with the scale of the problems I was uncovering. I started with large, sprawling concepts: ideas about changing the entire design industry, rethinking systems, solving global waste. But the more I read, researched, listened to podcasts, and spoke to others, the more I realized the complexity—and the emotional weight—of these issues.

Initially, I had grand, elaborate plans. I wanted to change everything at once. But as I moved deeper into the research, I started to feel the challenge, the discrepancies, and at times, real emotional turmoil. There were moments when I lost confidence in my thesis entirely. I doubted whether I was asking the right questions, whether my work mattered.

It was thanks to my advisor and friends that I was able to find my way back. They reminded me that questioning is not a weakness—it is essential to meaningful design. Through conversations, encouragement, and reflection, I was able to reconnect with the heart of my project.

Over time, my conclusions shifted again and again. At first, it was simply about designing a modular bed with upcycled materials. Then it became about linking the design to my

grandfather's furniture—about carrying memory and adaptability forward. Then it expanded again: to addressing landfill overflow, to thinking about how conversations with people during my exhibition revealed a deeper urgency about waste, land use, and responsibility.

And along the way, I had to confront something else: even though my thesis speaks about culture and craftsmanship, my final furniture piece does not resemble traditional Indian craftsmanship at all. It is not intricately carved or made from polished hardwood. It is cardboard—simple, raw, unrefined. At first, I worried that this would contradict everything I was trying to say.

But through the process, I realized that what I was really carrying forward was not just craft techniques, it was emotional connection. What mattered most was not how polished the object looked, but how much care, memory, and adaptability it held. Emotional attachment—the sense that an object grows with you, holds your experiences, and matters beyond its function—became, for me, the most powerful form of sustainability.

In that sense, the process itself taught me that regeneration is not just about preserving traditional forms, but about preserving the spirit of care and relationship embedded in those traditions.

My modular furniture design draws directly from cultural and ancestral memory—not in form, but in spirit. While the final piece may not visually resemble traditional Indian craftsmanship, it is rooted in the same values: adaptability, longevity, emotional connection, and care. These are the same principles that guided how furniture was once made and preserved in my family and in many others—where beds, desks, and cupboards weren't just functional, but sacred, storied objects passed through generations. By creating a system that evolves with the user and resists disposability, I'm honoring that legacy. It's a reinterpretation of tradition—not by replicating form, but by preserving **intention and relationship**. This echoes the thesis's call to move away

from extraction and mass production toward systems grounded in memory, regional knowledge, and regenerative design.

I built it not just to solve a design problem, but to ask a different kind of question: *What if the objects we lived with could move with us, adapt with us, and carry our stories forward?*

The process brought me back to the spirit of jugaad—resourceful innovation. Though my grandfather may not have used the word, the spirit of *jugaad* was present in how he lived. He repaired what he had, adapted furniture for new uses, and valued materials in ways that others might overlook. I remember him fixing drawer handles with wire, raising his desk on wooden blocks to suit his writing posture, or repurposing leftover fabric into chair cushions. These weren't just quick fixes—they were quiet acts of care and ingenuity. That same ethic guided my design process: working with upcycled cardboard, embracing imperfection, and designing a modular system meant to grow and change with life itself.

The Modular Futures System is a small step toward a different future. A future where furniture isn't something you throw away at the first scratch or life change. A future where our objects evolve with us, carrying both resilience and memory.

In the end, this thesis isn't just about a bed that transforms. It's about a way of seeing: that sustainable design means rekindling our relationships with the things we live with—so they don't just fill space, but carry meaning, story, and life.

Figure 24: A student interacting with the furniture, author, 2025

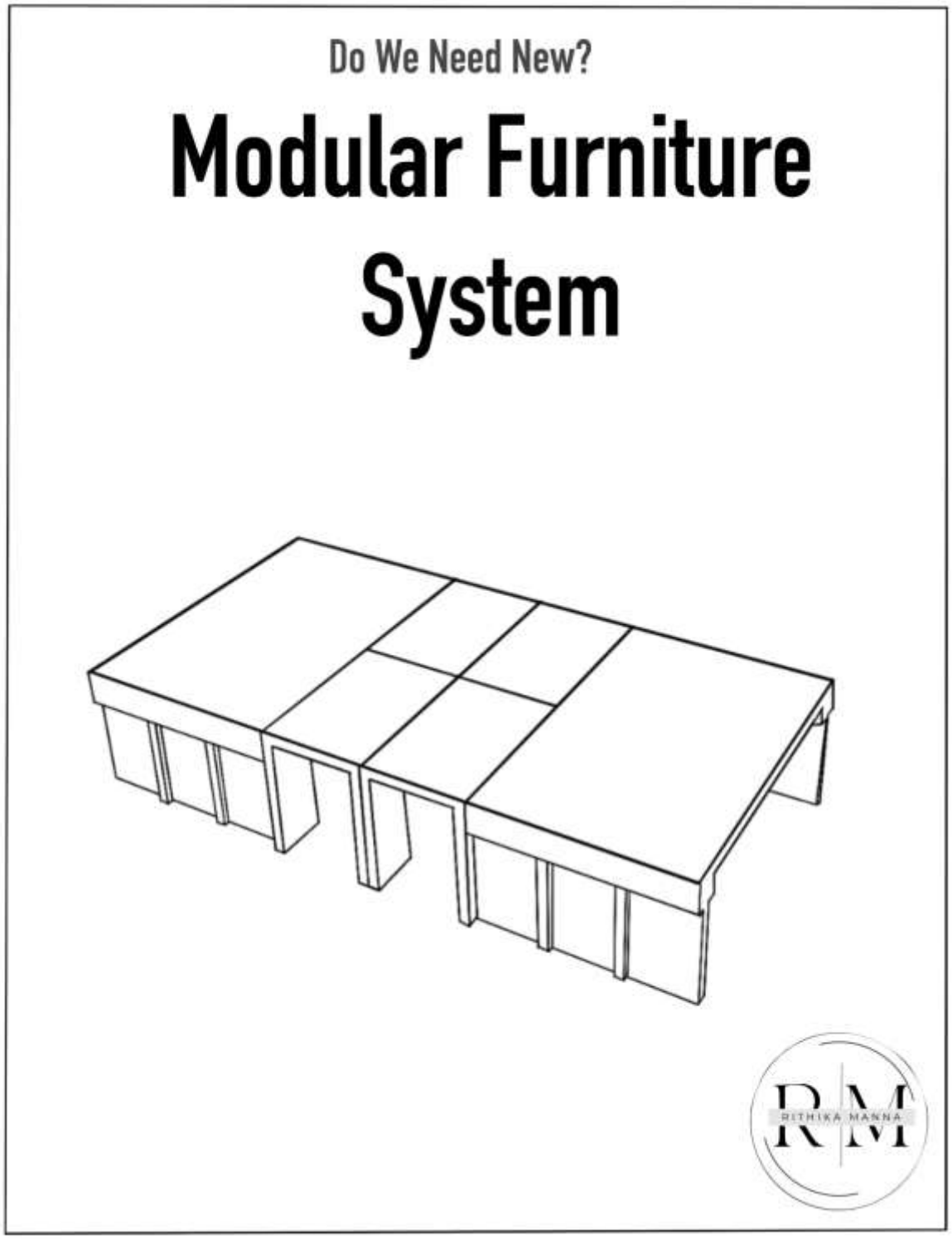
Figure 23: A student interacting with the furniture, author, 2025

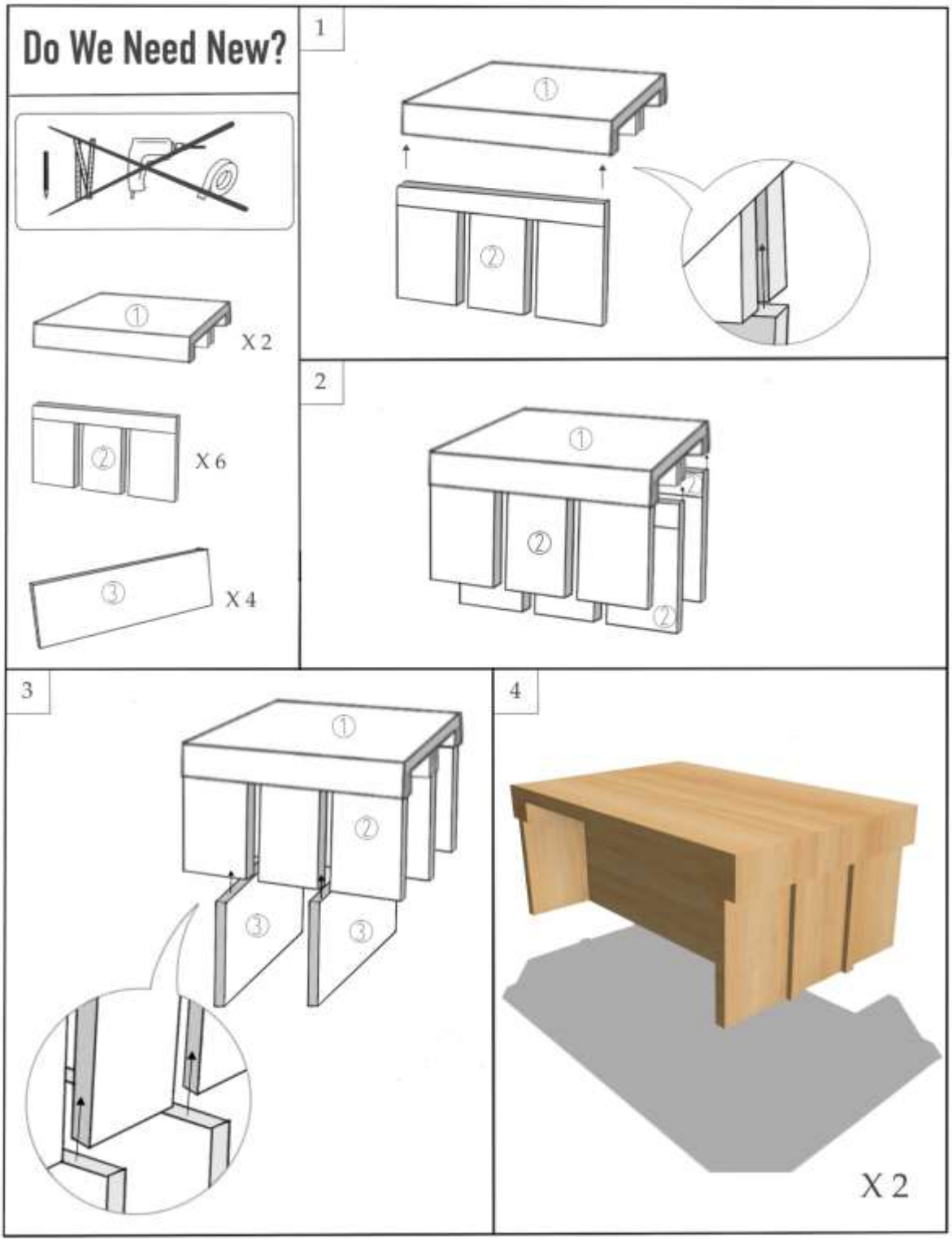
Figure 26: : Students interacting with the furniture, author, 2025

Figure 25: the furniture being used in my home

Appendix A

The booklet below is a guide to assembling the Modular Furniture System together, the inspiration for the booklet is taken from the Ikea guide booklet.

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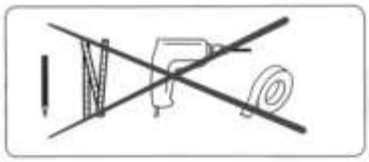
Do We Need New?



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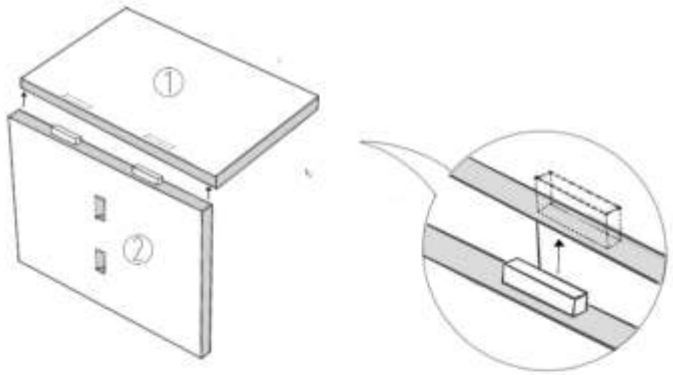

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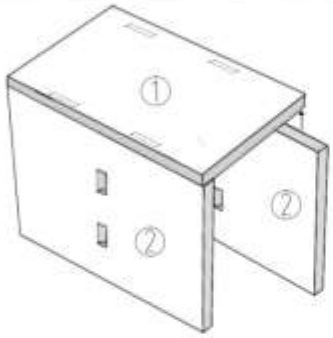

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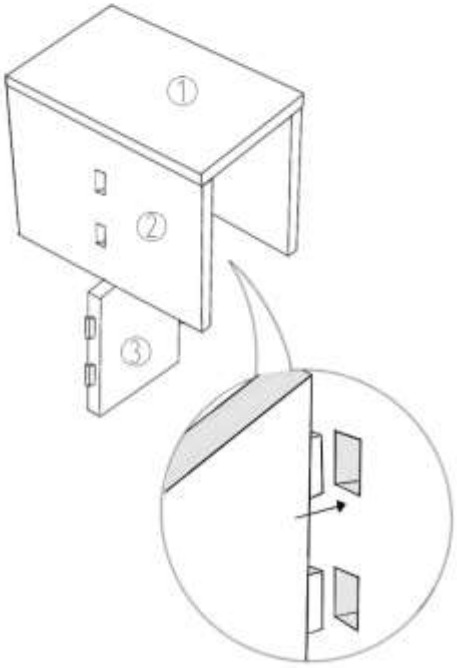
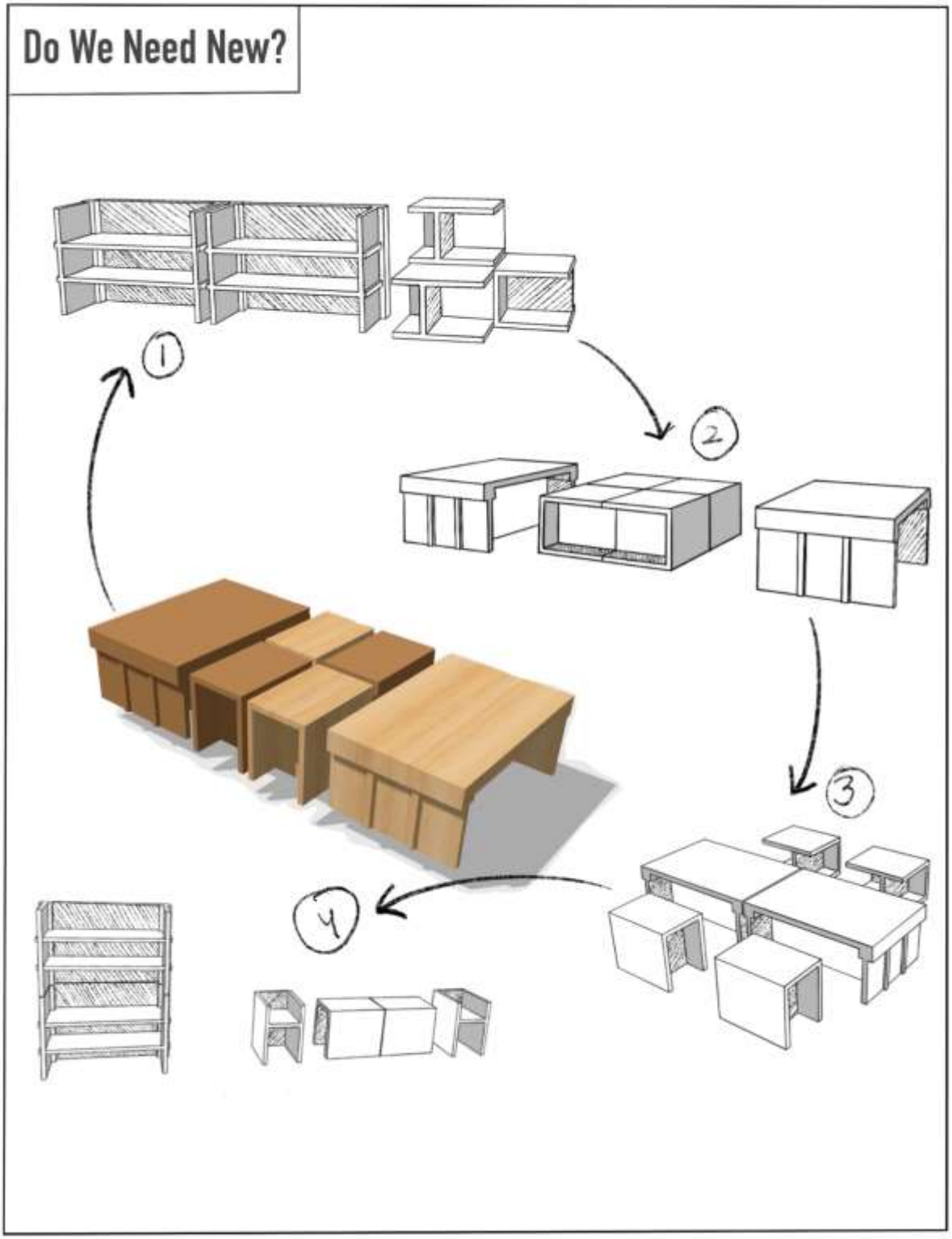


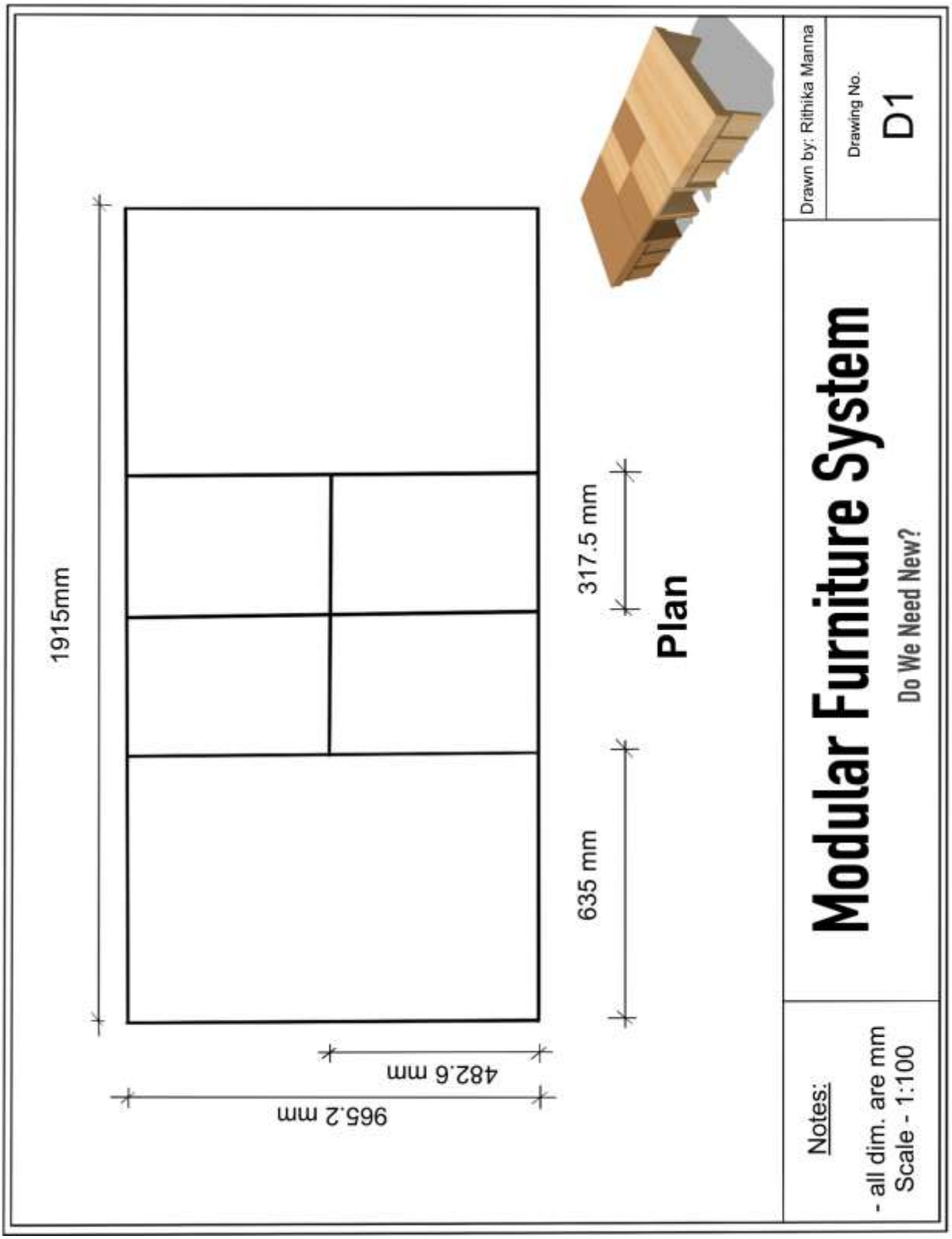
8

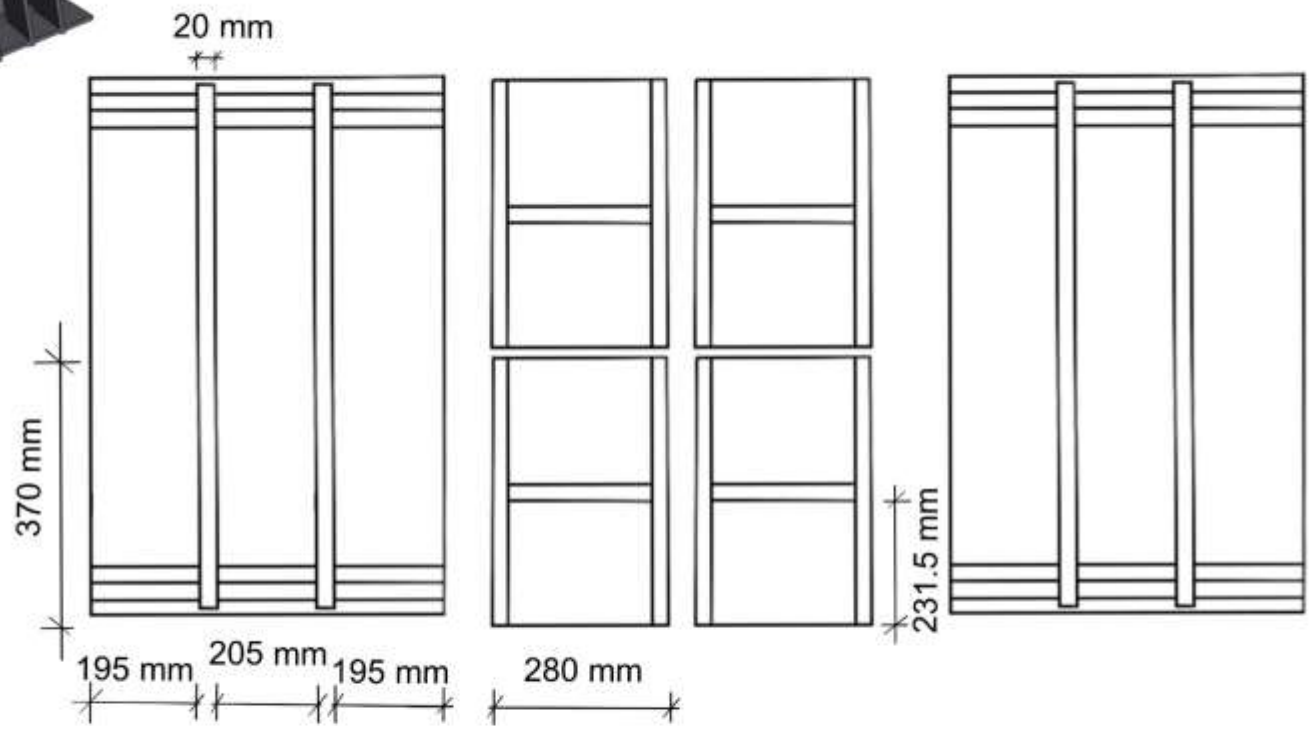
X 4


Do We Need New?
1
2
3
4

Appendix B

Detail drawing of the furniture





Bottom View

Notes:

- all dim. are mm
Scale - 1:100

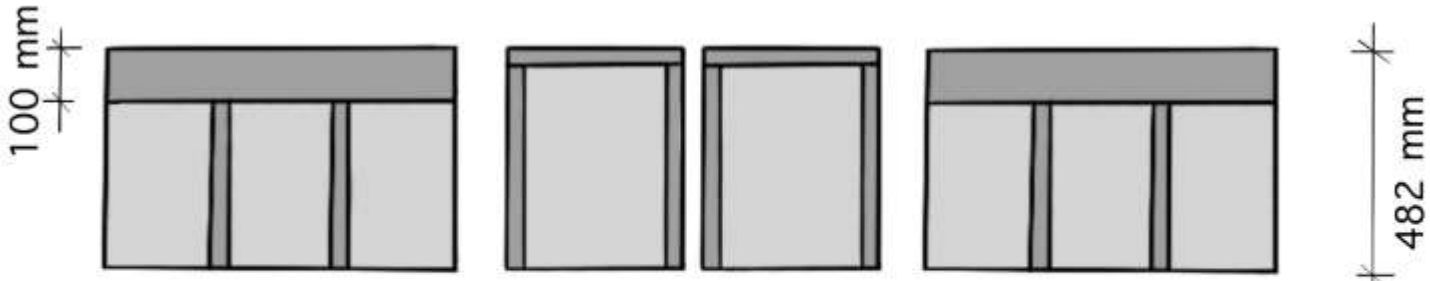
Modular Furniture System

Do We Need New?

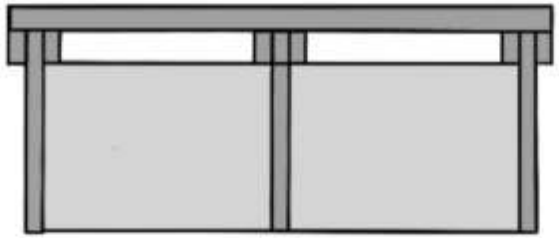
Drawn by: Rithika Manna

Drawing No.

D2



Elevation



Side Elevation

SPECIFICATIONS
- Material: Cardboard - Thickness of the cardboard is 20 mm

Notes:

- all dim. are mm
Scale - 1:100

Modular Furniture System

Do We Need New?

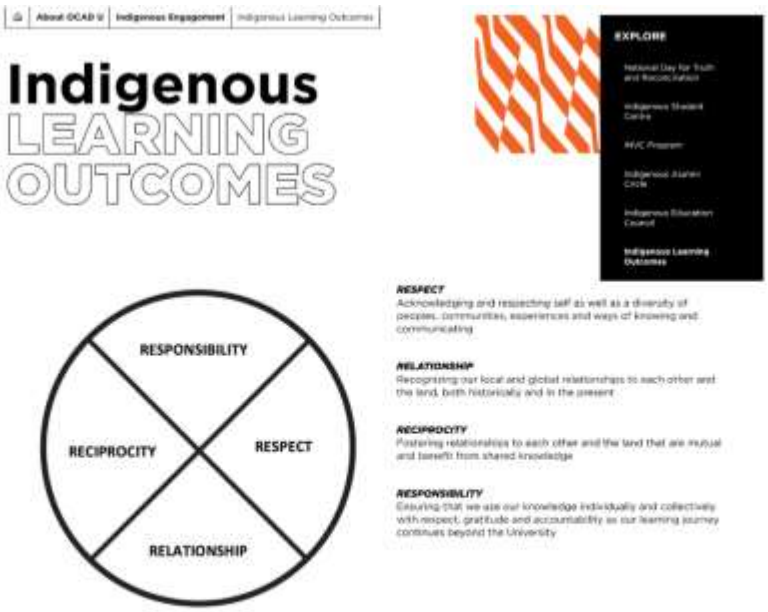
Drawn by: Rithika Manna

Drawing No.

D3

Appendix C

OCAD U Indigenous Learning Outcomes: https://www.ocadu.ca/about-ocad-u/indigenous-engagement/indigenous-learning-outcomes



What are Indigenous Learning Outcomes?

Residential school survivor and recipient of the Order of Canada, Elder Garnet Angeconeb reminds us that the meaning of the word respect, when broken down into its two parts, "re-" and "-spect", means "to look again" - as in, to look at something or someone again while also being aware of the lenses through which we view, understand and experience the world.

OCAD University's Indigenous Learning Outcomes require us to do just that as we come to know Turtle Island's diverse First Nations, Métis and Inuit knowledges, compelling each of us to build a relationship with that knowledge by also knowing our selves, our positions and our ways of being.

The Indigenous Learning Outcomes will guide the learning that we all, as a community of students, faculty and staff, will undertake to make space for First Nations, Métis and Inuit ways of knowing, histories, cultures and art and design practices.

Recognizing the importance of art and design to all aspects of Indigenous life, and the historical role of legislation and educational institutions in particular in systematically suppressing the languages, traditions, practices and cultures of Indigenous peoples, the Indigenous Learning Outcomes will help the University to meet its responsibilities to reconciliation and engage in the healing process through art and design.

How the Indigenous Learning Outcomes came to be

The Indigenous Learning Outcomes were developed through a process that began in a circle with Elder and Medicine Man James Carpenter in December 2018. Participants from across the University community were asked to share in this visioning session facilitated by Nadia McLaren, educational developer, Indigenous learning, which set the spirit of the learning outcomes into motion. The work of the visioning session was then put into the hearts, spirits and hands of an Indigenous faculty working group (Melanie Hope, Sarah McMaster, Peter Morin and Ryan Rice) who put the learning journey into words.

Four organizing principles - respect, relationship, reciprocity, responsibility - emerged from the knowledge of the working group. This knowledge is grounded in culture, tradition and communities. The value of these principles is also widely recognized in Indigenous education and Indigenous research (see, for example, the work of Verna J. Kirkness, Ray Barnhardt, Ls Dionne-Harris, Jacqueline Waldewski and Shawn Wilson).

Elders Shirley Williams and Liz Osawamick, as well as other Indigenous community leaders, provided guidance in the development of these learning outcomes.

The Indigenous Learning Outcomes were presented to OCAD University's Senate in April 2019 as part of the Wholistic Approach to Curriculum, which is intended to guide the development of Indigenous curriculum.

In February 2020, at a symposium on Indigenous Students Pathways held at OCAD U, Elder Ralph Johnson from Sioux Lookout, Ontario blessed and shared his vision for the Learning Outcomes, and the OCAD U community was invited to share together in a feast to celebrate them.

How to use the Indigenous Learning Outcomes respectfully and responsibly

The Indigenous Learning Outcomes (PDF, 2019) are organized as a journey guided by the four directions of an Anishnaabe medicine wheel to facilitate a process of movement and an understanding that speaks about relationships to and with everything. This wholistic approach allows us to reconsider learning outcomes in terms of the importance of process and relationship rather than just a prescribed end result or outcome. The medicine wheel allows us to locate learning as a journey that doesn't end, as it comes full circle and begins again.

As we move through our journey with the Indigenous Learning Outcomes, each of us is encouraged to come to know them through our varying roles and the different lenses through which we understand and experience the world. More than just knowing them, we should strive to put the ILOs into practice in all of our interactions with students and colleagues.

The Indigenous Learning Outcomes are Indigenous knowledge. We have been given the responsibility as a community to care for that knowledge and to use it respectfully when we share it with our students and colleagues.

For inquiries about the Indigenous Learning Outcomes, please contact the Office of the Vice President, Academic and Provost (vpapr@ocadu.ca).

References

Ichioka, S., & Pawlyn, M. (2021). *Flourish: Design Paradigms for Our Planetary Emergency*. Triarchy Press.

McDonough, W., & Braungart, M. (2002). *Cradle to Cradle: Remaking the Way We Make Things*. North Point Press.

Tsing, A. L., et al. (2017). *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton University Press.

Tsing, A. L., et al. (Eds.). (2017). *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. University of Minnesota Press.

Walker, S. (2021). *Design for Resilience: Making the Most of Our Materials, Resources, and Systems*. Routledge.

The Care Collective. (2020). *The Care Manifesto: The Politics of Interdependence*. Verso.

Hendren, S. (2020). *What Can a Body Do?: How We Meet the Built World*. Riverhead Books.

Ghazipur Landfill Waste Management Report. Government of India.

Kumar, S., et al. (2017). *Leachate Management in Ghazipur Landfill: A Hydrologic Evaluation*. Indian Institute of Technology Delhi.

Environmental Protection Agency (EPA). (2018). *Advancing Sustainable Materials Management: 2018 Fact Sheet*. Retrieved from EPA Website Environmental Development Monitoring Centre (EDMC). (2008).

NDTV. (2019, June 3). *Ghazipur Landfill, Delhi: A 'Haunted Landscape' of Waste*. Retrieved from NDTV.com

The New Indian Express. (2020, March 15). *India's Furniture Waste Crisis*. Retrieved from NewIndianExpress.com

OCAD University. (2025). *Sustainability Community of Practice*. Retrieved from OCAD Sustainability Hub

OCAD University ReUse Depot. (2025). *Material Reuse Guidelines*. Retrieved from OCAD ReUse Depot

Swachh Bharat Mission. (2020). *Extended Producer Responsibility (EPR) Guidelines*. Government of India.

Porter, M. E. (2008). *The five competitive forces that shape strategy*. *Harvard Business Review*, 86(1), 78–93.

Inter IKEA Systems B.V. (2024). *IKEA sustainability strategy*. IKEA. https://www.ikea.com/ca/en/this-is-ikea/climate-environment/the-ikea-sustainability-strategy-pubfea4c210/IKEA

I have used ChatGPT & DeepSeek to ensure clarity, coherence, and grammatical accuracy in my writing.