

Narrative pop-up space

for the rebirth of old clothes

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ABSTRACT

We live in an era of "buying fast and throwing away even faster." Fast fashion has accustomed us to cheap buying and casual disposal; clothes are no longer precious companions but fleeting consumer goods. This phenomenon not only causes enormous waste of resources but also weakens our deep emotional connection to the material things in our lives.

This study is located in Piazza San Babila, Milan. This is the heart of Milan's fashion district, surrounded by rationalist stone buildings. With the opening of the new M4 metro line, the flow of people here has become even more hurried. People quickly enter fast fashion and luxury stores, buy new items, and then quickly disappear. This "high-speed consumption" environment makes people more likely to overlook old, story-filled items.

To change this situation, I proposed a design concept: a "old clothes rebirth pop-up store." During the research phase, I deeply analyzed the operating models of global pioneers: for example, how the Swiss brand Freitag creates "uniqueness" by showcasing the washing and tailoring of truck tarpaulins, and how Shanghai's Déjà Vu gives secondhand clothing a new sense of dignity through standardized processes.

Unlike traditional secondhand stores, this design constructs a complete value reconstruction path, artificially creating a narrative within the consumer center. The core of the space is designed as an interactive stage where artisans and owners engage in deep collaborative dialogue: they jointly trace the stories behind the old clothes, with artisans guiding owners to deconstruct their original structure and collaboratively injecting new creative logic. In this co-creation process, each piece of old clothing is no longer seen as waste, but transformed into works of art with more uniqueness and narrative value than luxury goods. Its wear, wrinkles, and marks are seen as evidence of "beauty" rather than defects. This is not merely clothing repair, but a curatorial exploration of material dignity. Through this novel exhibition model, it repairs the profound relationship between people and the memories of clothing through the combined efforts of people and artisans.

Keywords: Fast Fashion, Circular Economy, Upcycling, Temporary Architecture, Narrative Space, Emotional Durability, Piazza San Babila;

ABSTRACT / In Italiano

Viviamo in un'epoca di "comprare in fretta e buttare via ancora più in fretta". La moda usa e getta ci ha abituati ad acquistare a basso costo e a gettare via tutto con noncuranza; gli abiti non sono più compagni preziosi, ma beni di consumo effimeri. Questo fenomeno non solo causa un enorme spreco di risorse, ma indebolisce anche il nostro profondo legame emotivo con gli oggetti materiali che ci circondano.

Questo studio si svolge in Piazza San Babila, a Milano. È il cuore del distretto della moda milanese, circondato da razionalisti edifici in pietra. Con l'apertura della nuova linea M4 della metropolitana, il flusso di persone qui è diventato ancora più frenetico. Le persone entrano velocemente nei negozi di fast fashion e di lusso, comprano nuovi articoli e poi spariscono altrettanto velocemente. Questo ambiente di "consumo ad alta velocità" rende più probabile che le persone trascurino vecchi oggetti ricchi di storia.

Per cambiare questa situazione, ho proposto un concept di design: un "pop-up store per la rinascita di vecchi abiti". Durante la fase di ricerca, ho analizzato a fondo i modelli operativi dei pionieri a livello globale: ad esempio, come il marchio svizzero Freitag crei "unicità" mettendo in mostra il lavaggio e la sartoria dei teloni dei camion, e come Déjà Vu di Shanghai conferisca agli abiti di seconda mano un nuovo senso di dignità attraverso processi standardizzati.

A differenza dei tradizionali negozi di abbigliamento di seconda mano, questo progetto costruisce un percorso completo di ricostruzione del valore, creando artificialmente una narrazione all'interno del centro del consumatore. Il cuore dello spazio è concepito come un palcoscenico interattivo dove artigiani e proprietari si impegnano in un profondo dialogo collaborativo: insieme ricostruiscono le storie che si celano dietro i vecchi abiti, con gli artigiani che guidano i proprietari a decostruirne la struttura originale e a iniettare, in modo collaborativo, una nuova logica creativa. In questo processo di co-creazione, ogni capo di abbigliamento non è più considerato un rifiuto, ma si trasforma in un'opera d'arte con un valore narrativo e di unicità superiore a quello dei beni di lusso. L'usura, le pieghe e i segni sono visti come testimonianza di "bellezza" piuttosto che come difetti. Non si tratta semplicemente di riparazione di abiti, ma di un'esplorazione curatoriale della dignità della materia. Attraverso questo innovativo modello espositivo, si ristabilisce il profondo legame tra le persone e i ricordi legati agli abiti, grazie all'impegno congiunto di persone e artigiani.

Parole chiave: Fast Fashion, Economia Circolare, Upcycling, Architettura Temporanea, Spazio Narrativo, Durabilità Emotiva, Piazza San Babila;

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Introduction

This chapter establishes the core motivation, background, and philosophy of the entire thesis, clarifying the research objectives, questions, and methodology.

01

1.1 Philosophy

This study's design philosophy is built upon a profound reflection on the logic of contemporary "fast fashion." As Jean Baudrillard stated in «The Consumer Society», goods in the modern consumer system no longer exist for their functionality, but rather as "symbols" constantly being exchanged and discarded. In consumer centers like Piazza San Babila, clothing is thoroughly "depersonalized"—it is produced on assembly lines, glorified in shop windows, but becomes physical waste shortly after purchase due to its "outdated" status.

In the traditional commercial context, restoration is often seen as a humble, marginalized remedy, its purpose merely to save costs or extend the lifespan of an item. However, I advocate viewing restoration as an ontological act of creation. We can draw inspiration from Martin Heidegger's concept of "The Thing": when a tool functions well, it disappears from our consciousness; we simply use it instinctively. Only when a tool breaks or malfunctions do we truly notice its existence, and its "materiality" is revealed at that moment. Therefore, when a garment is torn, has a loose thread, or a missing button, it is actually inviting a dialogue. The process of repair is essentially a process of deep communication between a person and the object. This dialogue is no longer a one-way domination, but a two-way shaping.

"Old" should not be seen as the decline of life, but as the accumulation of value. In mainstream aesthetics, we pursue perfection and novelty; however, Jonathan Chapman, in «Emotionally Durable Design», argues that if a deep emotional connection is established between people and objects, the rate of material waste will decrease significantly. The establishment of this connection is often hidden in those moments of "repair." The traces of restoration should not be carefully hidden, but should be displayed openly as an aesthetically pleasing "memory value," and it remains perfect.

Each patch is a glimpse into a piece of life's history, recording how the garment accompanied its owner through storms and how it was treated with tenderness. This value transcends the price tag, transforming clothing from a "consumable" into a "long-term asset." In Piazza San Babila, a place that strives for "instant perfection," displaying these repairs imbued with the warmth of memory is itself an elegant rebellion against the fast pace of life: it tells the world that what is truly valuable is the texture that time leaves on matter.

1.2 Background

Over the past two decades, the global apparel industry has experienced a near-frenzied expansion. With increased production efficiency and globalized supply chains, garment output has more than doubled, while the lifespan of a single

garment has shortened by nearly 40%. We are trapped in a vicious cycle of "linear decline": mining raw materials, manufacturing products, short-lived consumption, and eventual disposal.

Fast fashion is essentially a greedy pursuit of speed. It uses extremely low prices to induce overbuying and leverages rapid turnover to create anxiety about "outdated" items. According to environmental data, tens of millions of tons of textiles are sent directly to landfills or incinerators every year, creating massive "clothing graveyards" in many places. These clothes release methane during decomposition, and their synthetic fibers decompose into microplastics that enter the water cycle, causing environmental pollution.

In response to the increasingly severe ecological crisis, "sustainable development" and "circular economy" have become the most prominent slogans in the fashion industry in recent years. However, under rational scrutiny, these actions often fall into a vicious cycle. Many major brands' "old clothes recycling programs" are often merely a means to stimulate future consumption: consumers hand in old clothes in exchange for discount coupons on new clothes, while brands maintain their ethical image in this way. The real recycling process—the complete dismantling, remanufacturing, and rebuilding of emotional connections—is often overlooked in commercial logic due to its high cost. The current circular economy has a significant weakness: it's active on digital platforms and in back-end factories, but "invisible" on real city streets. Consumers rarely see how old clothes are given a new lease on life in their daily shopping experiences. This lack of physical presence means that public understanding of environmental protection remains merely an abstract slogan, lacking tangible participation and behavioral change.

Milan, as a fashion capital, is the center of global fashion. It defines what is "fashionable" and what is "past." Milan's economy is highly dependent on the constant circulation of clothing, placing it in an extremely awkward position when facing environmental crises. Piazza San Babila is at the forefront of this contradiction. Located in the heart of Milan's fashion district, it connects the high-end luxury culture of Via Montenapoleone with the mass consumer culture of the Galleria Vittorio Emanuele II. Here, "new" is considered a sacred creed. The grand and rigorous rationalist architecture surrounding the square creates an atmosphere of extreme respectability and order, naturally rejecting anything "old," broken, or showing signs of repair.

With the full opening of the M4 metro line in 2024, Piazza San Babila has become an even more "transportation hub" in Milan's urban landscape. People spend less and less time in the square, and their behavior has been simplified to "shuttling from point A to point B." This fast pace has robbed people of their ability to

appreciate the details of objects and their environment. It has also led to Piazza San Babila becoming a "non-place of emotion": people buy designer brands and display their status here, but no one discusses the origin and destination of material possessions. In a place where consumer desires are at their peak and the pace is fastest, if a "spatial friction point" can be artificially created to showcase the true process of the circular economy, the resulting social impact will be enormous.

1.3 Research Problem

Although the circular economy is widely discussed in fashion and design, it remains largely disconnected from everyday urban life and commercial spaces. In cities shaped by fashion consumption, people are constantly exposed to new products and polished retail environments, while the afterlife of garments is rarely visible. Old or outdated clothes are often treated as objects to be discarded, donated or left unused, rather than materials that can be repaired, transformed or reimaged.

This invisibility is part of a wider global waste problem. The Guardian's report on Ghana shows that large quantities of second-hand clothing from the global north are exported to markets such as Kantamanto in Accra, yet many garments cannot be resold or reused and eventually become waste. This means that donation or recycling does not always solve the problem; it can also move textile waste to places far away from the original consumer.

At the same time, public awareness of old clothes' potential value remains limited. Many consumers see damaged, outdated or unfashionable garments as having reached the end of their life. Traditional repair usually restores clothes to their original condition, while creative transformation often requires skills, tools and guidance that most people do not have.

In Milan, where fashion and aesthetics are central to urban identity, many circular economy spaces still lack the spatial appeal of mainstream fashion stores. They are often perceived as informal, cluttered or purely functional, making sustainable fashion feel like frugality rather than creativity or desire.

Therefore, the research problem of this thesis is how spatial design can make the hidden life cycle of garments visible, meaningful and participatory within a high-consumption urban context. Instead of treating old clothes as waste or simply restoring them to their original state, this project explores how a temporary pop-up space in Piazza San Babila can reframe old garments as materials with stories, emotional value and creative potential.

1.4 Research Aim

The aim of this research is to investigate how temporary spatial interventions can reframe the perception of old clothing within a high-consumption urban context. This is necessary because old garments are often seen as outdated, damaged or no longer desirable, while the processes of repair, reuse and upcycling remain largely invisible in everyday commercial spaces. By making upcycling visible, participatory and narratively engaging, this research explores how spatial design can help people recognize the hidden value of old clothes and imagine more creative ways of extending their life.

1.5 Research Question

How can temporary spatial design intervene in high-consumption urban environments to make the process of clothing upcycling visible, participatory, and emotionally meaningful, thereby reshaping public perception of material value?

- 1.How does fast fashion contribute to the invisibility of material lifecycle and the emotional detachment between people and clothing?
- 2.How can theories such as "the thing" (Heidegger) and "emotional durability" (Chapman) be translated into spatial design principles?
- 3.What spatial and operational strategies are employed by existing upcycling practices to construct value, narrative, and user engagement?
- 4.How can a temporary intervention in Piazza San Babila disrupt high-speed consumption patterns and create a "moment of reflection"?

1.6 Structure

Chapter 1: Introduction

This chapter establishes the core motivation, background, and philosophy of the entire thesis, clarifying the research objectives, questions, and methodology.

Chapter 2: Resource Waste and the Development of the Circular Economy from a Global Perspective

This chapter deconstructs the linear consumption pattern driven by fast fashion, analyzing how it leads to large-scale material waste and emotional disconnect. It then introduces the rise and development of the circular economy, explaining how humanity has shifted from a linear "buy-use-throw" logic to a closed-loop logic.

Chapter 3: Theoretical Framework

This chapter provides theoretical support for the thesis, focusing on Heidegger's theory of the manifestation of "things" and Chapman's view on "emotional persistence." These theories will also be transformed into core principles for subsequent design.

Chapter 4: Case Studies I — Business Logic, Spatial Narrative and User Behavior in Circular Fashion

This chapter emphasizes "case-based logical learning," investigating the standardized processes and emotional narrative strategies employed by brands such as Nike and Freitag in handling secondhand materials. This chapter analyzes the operational and spatial design characteristics of each brand and event case, creatively extracting design elements applicable to Piazza San Babila, such as old clothes diagnostics, transparent restoration workshops, and narrative-driven results displays.

Chapter 5: Site Analysis – Piazza San Babila

This chapter conducts a comprehensive on-site survey of Piazza San Babila in Milan, including the site's historical development and urban status, analyzing its rationalist architectural facade and important historical buildings. Through a series of mapping techniques, it depicts the site's pedestrian flow, crowd analysis, and behavioral analysis, providing a site-specific basis for subsequent spatial design.

Chapter 6: Case Studies II on Temporary Spaces at Piazza San Babila

This chapter analyzes past temporary installations/spaces from Milan Design Week, Fashion Week, and the Winter Olympics, examining how they intervened in the plaza and addressed different groups of people, analyzing their design strengths and weaknesses to provide valuable experience for subsequent spatial design.

Chapter 7: Design Project Presentation

This chapter is a concentrated presentation of the research results, detailing how the design scheme was developed. Through a series of analytical diagrams, including plan and section views, axonometric exploded views, and renderings, a complete spatial narrative is presented—from the psychological shift of handing over old clothes, to the experience of personally participating in and witnessing the restoration process, ultimately achieving a reshaping of both material and emotional aspects.

Conclusion: This paper explores whether this design model, after its success at Piazza San Babila, can be replicated and disseminated to other consumer centers worldwide.

1.7 Contribution of thesis

Theoretical Level: Applying the theory of "emotional durability" to spatial design. Through design intervention, spaces can evoke public respect for old objects, transforming sustainable development from an environmental slogan into a

concrete emotional connection.

Methodological Level: Proposing and implementing a spatial model of "performative production." By transforming "repair" into an attractive "theater," providing a reference design template for how temporary architecture can shift from purely visual marketing to functional restoration.

1.8 Methodology

Literature Analysis: Systematically review relevant works on phenomenology, consumer sociology, and sustainable architecture. Through theoretical reading, establish the underlying logic of the paper, ensuring a solid foundation.

Site Mapping: Conduct an in-depth "analysis" of Piazza de San Babila. This includes not only quantitative analysis of the topography, building facades, and circulation, but also qualitative "sensory mapping." I will record activities, pedestrian flow, and line-of-sight paths at different times to serve as precise intervention points for the design.

Case Study Comparison: Deconstruct the logic of the world's most representative circular economy brands. For example, study how Shanghai's "DuoZhuayu" standardizes disorganized old items, and how Switzerland's "Freitag" transforms industrial waste into totems with identity. I will analyze their successful "spatial agreements" and translate them into a design language suitable for the Milanese context. The study also explored temporary spatial interventions, such as those designed for Milan Design Week and Milan Fashion Week at Piazza San Babila, to understand how short-term installations can create engagement and disruption within the everyday flow of the city.

Resource Waste and the Development of the Circular Economy from a Global Perspective.

This chapter deconstructs the linear consumption pattern driven by fast fashion, analyzing how it leads to large-scale material waste and emotional disconnect. It then introduces the rise and development of the circular economy, explaining how humanity has shifted from a linear "buy-use-throw" logic to a closed-loop logic.

02

2.1 The Linear Consumption Model of Fast Fashion

Over the past two decades, the global fashion industry has experienced significant expansion and profound transformation. Its total value exceeds \$3 trillion, accounting for 2% of global GDP, and its production speed is unprecedented (Weavabel, 2022). The rise of fast fashion has been particularly crucial, characterized by the continuous introduction of new styles at extremely low prices (European Parliament, 2025). This model constantly compresses the time interval between design, production, and sales, enabling clothing to enter the market in a very short period. However, this has brought not only changes in the industry's pace but also a shift in consumption patterns. Compared to previous purchases based on long-term use, consumers today are more inclined to continuously update their wardrobes at a lower cost to meet ever-changing aesthetic and psychological needs. It is in this context that clothing has gradually moved away from the category of durable goods and into short-term consumption, with its value judgment shifting from materials and craftsmanship to a focus on "whether it is currently fashionable."

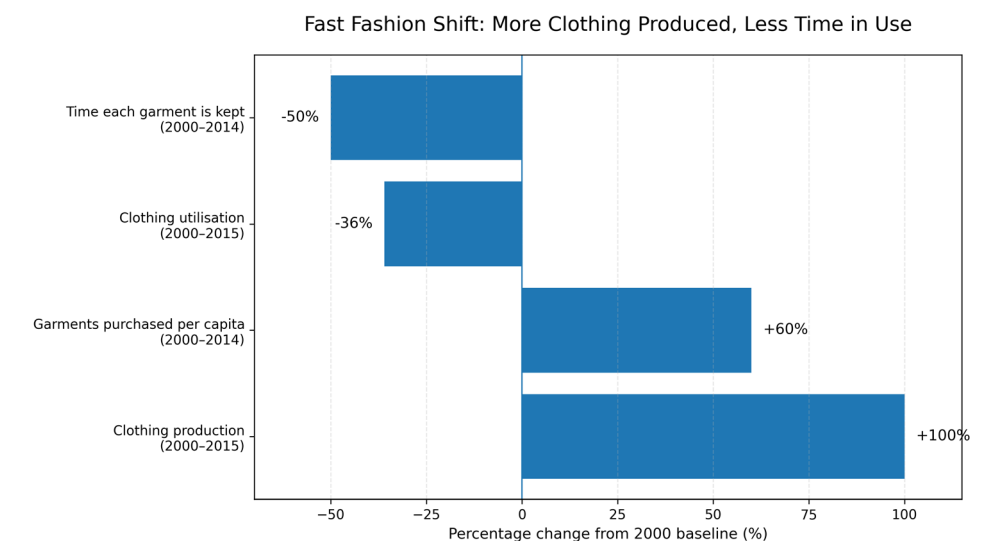


Figure 1. Fast Fashion Shift

Linear Model

The operation of the contemporary fashion industry can be summarized as a linear path: "Acquisition—Production—Disposal" (fashion.sustainability, 2025). In this process, raw materials are extracted and put into production, processed into garments, and then discarded after a short period of use. This is a one-way flow, lacking recycling and reuse, contrasting sharply with the cyclical nature of natural systems. Against the backdrop of the ever-accelerating pace of fast fashion, this path has not weakened but rather become more pronounced.



Figure 1. linear consumption pattern



Figure 2. A large pile of clothes



Figure 3. a shopping scene



Figure 4. a garment factory

The accelerated pace of production and the increased frequency of consumption lead to the continuous consumption of resources, while waste accumulates, gradually forming a phenomenon that is difficult to interrupt.

Production Side

From the production side, cost reduction and efficiency improvement consistently dominate. To achieve rapid new product launches, brands often rely on highly streamlined supply chains, compressing design, sampling, and even production cycles to the minimum. Under such circumstances, scale continues to expand, while quality is often relegated to a secondary position. A large amount of clothing uses low-cost materials, such as petroleum-derived synthetic fibers. While these materials have advantages in cost control, they are difficult to decompose in the natural environment, and their carbon emissions account for 10% of global annual carbon emissions (energise, n.d.). At the same time, to cope with the uncertainty of market demand, companies often tend to expand production scale to cover a wider consumer base. The result is, of course, a significant surplus of inventory. It is estimated that about one-third of clothing produced remains unsold. These unsold goods not only occupy resources but may also be disposed of directly, further exacerbating waste.

Consumer Side

From the consumer perspective, high-frequency purchasing has gradually become the norm. Offline stores and online shopping platforms constantly update their product offerings, keeping consumers constantly attracted by novelty. They feel the need to always have the latest clothing to keep up with trends. However, the rapid turnover of new trends means that their clothing quickly becomes outdated, relying on the widespread dissemination of information through social media. To keep up with trends, people continuously consume, ultimately causing substantial waste (Jayda Brunkan, 2023). Lower prices have further lowered the barrier to purchasing decisions, making it common to buy multiple garments at once. In this context, the lifespan of clothing has been significantly shortened. Studies indicate that some low-priced garments are worn only a few times,

or even discarded after only a few uses. Furthermore, the widespread adoption of online shopping has led to higher return rates. In some markets, the return rate for clothing can reach 25% to 50% (Wipo, 2025). Returns not only increase transportation costs but also mean that some goods are unlikely to re-enter the market, ultimately becoming new waste.

Waste Problems

As production and consumption continue to accelerate, waste problems emerge. A large amount of discarded clothing ends up in landfills or incinerators. Some estimates suggest that consumers treat even the cheapest clothing as disposable items, wearing it seven times before throwing it away. For every five garments produced, the equivalent of three end up in landfills or incinerators annually. The total greenhouse gas emissions from textile production reach 1.2 billion tons per year—more than all international flights and ships combined (McKinsey & Company, 2025). Unlike biodegradable organic materials, many modern textiles, especially those containing synthetic fibers, are difficult to degrade in the natural environment and can remain for decades or even longer. Landfills not only occupy limited space but may also release pollutants during decomposition; incineration introduces greenhouse gas emissions and other environmental problems. Although some clothing can be recycled or reused, the overall proportion remains low, making it difficult to fundamentally alleviate the ever-increasing trend of waste. It is evident that the impact of this linear consumption pattern on the end-user level is reflected both in the accumulation of quantity and in the continuous environmental pressure.

Ultra-Fast Fashion

Looking further, it's difficult to alleviate this phenomenon, as it's closely related to the continuous expansion of the industry. As one of the global industries, the fashion industry has reached a trillion-dollar output value and has continued to grow over the past two decades. Increased clothing production and consumption frequency have led to a simultaneous expansion of resource input and waste generation. On this basis, the emergence of "ultra-fast fashion" has pushed this trend to a new stage. As early as the 1990s, Spanish retailer Zara was one of the first fast fashion retailers to break the traditional model, launching

hundreds of new products every week. As of 2023, Chinese ultra-fast fashion retailer Shein continuously launched up to 10,000 new designs every day. Moreover, Shein's average product price is far lower than other more established fast fashion brands: Shein's average item price is \$14, while fast fashion retailer H&M's average item price is \$26, and Zara's average item price is \$34 (McKinsey & Company, 2025). Compared to traditional models, some emerging platforms, leveraging data analytics and digital technologies, are able to launch a large number of new products in a very short time. For example, Shein experienced rapid growth during the pandemic, partly due to a surge in online sales and increased digital penetration; during this period, the company's market share in the US more than doubled. By rapidly capturing consumer preferences, this model further compresses the gap between production and consumption, while also accelerating the pace of updates. AI algorithms within apps and promotional methods continuously stimulate users to browse and purchase more, thus making consumption behavior more frequent.

While the industry has gradually begun to focus on sustainable development in recent years and has attempted adjustments in areas such as material selection and supply chain transparency, these efforts have not fundamentally changed the operating model driven by frequent replacements. The crux of the problem lies in the fact that production and consumption still revolve around "constant replacement." Under this premise, even localized improvements are insufficient to offset the pressure from the overall scale. Therefore, to understand the root cause of current resource waste, it is necessary to examine it holistically within this linear consumption pattern, rather than focusing solely on individual aspects.



Figure 5. Popular fast fashion brands



Figure 6. HM stores



Figure 7. A large amount of clothing was eventually buried.

2.2 Environmental and Material Consequences

Overall, the fashion industry's environmental impact extends throughout the entire lifecycle of textiles. From raw material acquisition, through textile processing and inter-regional transportation, to final disposal, each stage involves resource consumption and pollution emissions. It's important to note that this process doesn't unfold linearly, but rather creates a continuously amplifying effect across different stages. Taking raw materials as an example, fiber sources are broadly categorized as natural and synthetic. Natural fibers like wool, flax, and hemp typically have a lower carbon footprint than synthetic fibers because they are renewable and biodegradable. However, their production still has a significant environmental impact, particularly regarding the overexploitation of land and water resources. Cotton cultivation requires substantial land and water resources and relies on pesticides and fertilizers to maintain yields. Synthetic fibers such as polyester, derived from petroleum, inherently involve energy consumption and carbon emissions during their production.



Figure 8. Mountains of discarded clothing in the Atacama Desert.



Figure 9. Deforestation in the Amazon Basin

Building upon this foundation, the expansion of the globalized supply system has presented the problem with greater complexity. Unlike the early days when production was completed by a single enterprise, the contemporary fashion industry relies more heavily on transnational supply cooperation, with different stages distributed across multiple countries and regions, many of which are developing and underdeveloped. Brands and retailers often concentrate on design and sales, while shifting manufacturing to regions with lower labor costs, such as China, India, Bangladesh, Vietnam, and Cambodia. On the surface, this division of labor increases efficiency and reduces costs; however, it conceals the issue of shifting responsibility (Wipo, 2025). For example, pressures such as pollution emissions, water consumption, and waste disposal tend to be concentrated in the production areas, while consumption mainly occurs in developed regions. This results in a spatial imbalance: the costs of environmental pollution are pushed downstream to the producing countries in the supply chain, while economic benefits remain largely in the consumer market, i.e., developed regions and countries.

According to some articles and papers, we can find that resource consumption and environmental impact exhibit diversity. Among these, water resource issues are particularly prominent. Cotton cultivation, dyeing, and finishing processes all require significant amounts of water. For example, the estimated water consumption for each kilogram of cotton fiber during dyeing and finishing is approximately 125 liters (Wipo, 2025). In some manufacturing-intensive areas, groundwater levels are continuously declining, and water scarcity has become the norm. Meanwhile, untreated dyes and auxiliaries discharged into water bodies can cause long-term damage to local ecosystems. Moreover, these chemicals may gradually accumulate in the environment, having chronic effects on human health, which is a cause for serious concern.

Energy consumption and carbon emissions are another important aspect. For instance, the production of synthetic fibers is highly dependent on fossil fuels, and its energy requirements are generally higher than those of natural fibers. The textile processing further amplifies this burden. Especially during dyeing and finishing, large amounts

of water need to be heated and maintained at high temperatures; this energy-intensive process directly drives up carbon emissions. By 2050, the fashion industry will consume a quarter of the global carbon budget. The fast fashion industry is booming, and its size will only continue to grow without any intervention. In most producing countries, the energy structure remains dominated by coal, which exacerbates emissions problems (Jayda Brunkan, 2023). Although transportation also generates emissions, its impact is relatively limited compared to the raw material acquisition and processing stages. Therefore, the focus of this problem is not on the logistics aspect at the consumer end, but rather on the production stage.

Microplastic pollution is gradually becoming an issue that cannot be ignored. Synthetic fibers, represented by polyester, release tiny particles during production, wear, and washing. Unfortunately, these particles are often difficult to completely intercept by existing systems. Over a long period, microplastics have permeated marine and terrestrial ecosystems. According to the Ellen MacArthur Foundation, clothing releases 500,000 tons of microfibers into the ocean annually, equivalent to more than 50 billion plastic bottles (Remode, n.d.). Microplastics can also enter the bodies of animals and even humans, posing significant risks. However, this problem is not limited to the production stage; it also occurs during consumer use, making it a hidden impact throughout the entire life cycle.

We previously discussed the environmental and health consequences of a product's manufacturing phase. However, the environmental impact doesn't end when the product enters the usage phase. Daily activities like washing, drying, and ironing still consume energy and accelerate material aging, thus shortening the actual lifespan of clothing. Statistics show that the 16-24 age group is the main consumer of clothing. This generation pays close attention to fashion trends through social media, creating a vicious cycle of frequent purchases (Lucid, 2025). Against this backdrop, clothing is more likely to be discarded before it has been fully used. These discarded garments ultimately enter the waste disposal stage, where the problem becomes concentrated. Large amounts of textile waste are sent to landfills or incinerators, with only a very small portion being reused—a proportion that has

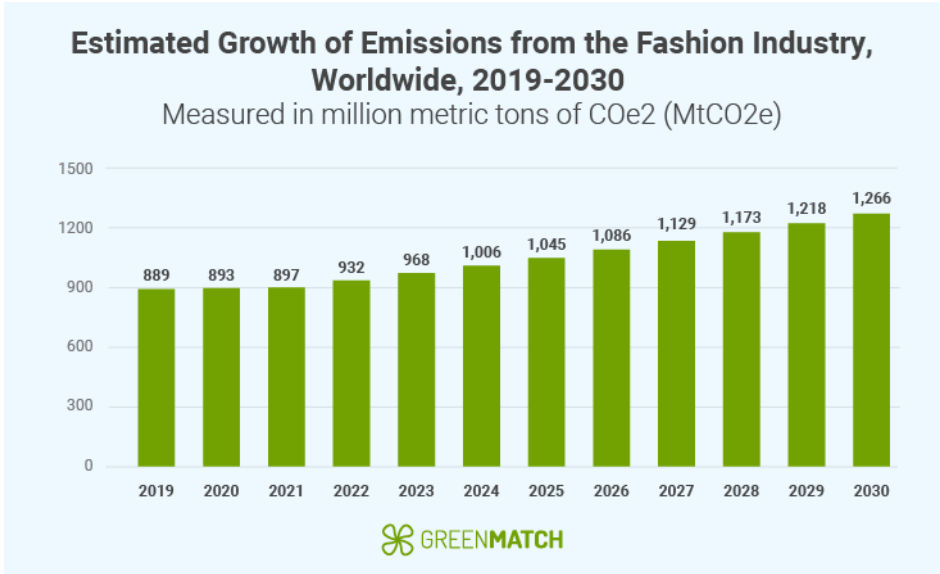


Figure 10. Global carbon emissions in the fashion industry.



Figure 11. Europe's biggest textile polluting nations.

long remained extremely low, even less than 1% (Wipo, 2025)! This result is not accidental but closely related to design and material selection.



Figure 12. The fashion waste facts.

Specifically, material properties and product structure have a significant impact on the final outcome. Synthetic fibers are difficult to degrade naturally, and the widespread use of blended fabrics makes material separation exceptionally complex; this situation can be considered a form of "technology lock-in." Even if recycling is technically feasible, its high cost and low efficiency limit its practical application (Wipo, 2025). Furthermore, chemicals used in production often remain in recycled materials, adding additional risks to the reuse process. Under these conditions, a large amount of textiles that could be reused ultimately end up as waste.

As the industry develops, "sustainability" has become a frequently used term, but related practices do not always align with its claims. Some brands shape their image by launching eco-friendly lines or using recycled materials, a practice that is, to some extent, a "gimmick," meaning it is not truly sustainable. For example, converting plastic bottles into polyester fibers, while delaying disposal, does not truly create a closed loop. The widespread "greenwashing" phenomenon in the fashion industry further exacerbates the problem (fashion.sustainability, 2025). In the absence of transparency, such practices can easily mislead consumers into believing their actions are environmentally friendly, leading them to continue purchasing under their existing consumption habits. This inevitably raises suspicions that these brands are exploiting

the true value of "sustainability" to drive consumer spending. This shows that such superficial improvements, to some extent, mask the underlying problems, allowing the original linear pattern to continue.

However, the impact of fast fashion extends beyond the environment, affecting resource allocation and social conditions. Globally, 20% of the population consumes 80% of natural resources, and the wealthiest countries consume ten times more resources than the poorest (Remode, n.d.). Production pressure is concentrated in economically disadvantaged regions, a clear case of "structural imbalance," which is also a social phenomenon. Simultaneously, harsh working conditions and low wages in the production process reflect another side of this system. Therefore, environmental and social issues are intertwined, making the impact of the fashion industry more complex and multifaceted than a single area.

Thus, we can now more clearly understand the environmental and material consequences of the fashion industry. Whether it's resource consumption in the raw material stage, pollution emissions during production and processing, or the impact of disposal, these problems are not isolated but permeate the entire garment lifecycle.

In response to this situation, some regions have gradually begun to offer policy solutions. In Europe, for example, a series of sustainability strategies for textiles were launched in 2024 (European Parliament, 2025), emphasizing improved product durability and recyclability, and the gradual establishment of producer responsibility systems. In September 2025, the European Parliament approved new rules requiring EU member states to establish mechanisms to ensure that manufacturers of clothing, accessories, hats, footwear, blankets, sheets, curtains, and (optionally) mattresses bear the costs of collecting, sorting, and recycling their products. From 2026, the EU will ban the destruction of unsold clothing, footwear, and accessories. These policies address current issues to some extent, but their effectiveness remains to be seen.

product value can be extended through recycling and reuse (Weavabel, 2022). Compared to traditional methods, this new path helps reduce resource consumption and opens up new development opportunities for businesses. Simultaneously, it prompts companies to rethink product design and business models, breaking old logic and stimulating new possibilities (energise, n.d.).

However, theoretical advantages do not guarantee smooth implementation in practice. First, the initial investment required for transformation is high, including technology introduction, process adjustments, and supply chain restructuring, which puts significant pressure on companies in the short term. At the same time, the fashion industry's supply chain itself is highly fragmented, and its complexity makes management difficult; this can be

2.3 The Rise of the Circular Economy

For a long time, the fashion industry has relied on a unidirectional production and consumption path—a linear process from resource acquisition to product manufacturing and eventual disposal (Reconomy, 2026). In this system, raw materials are continuously extracted and used in production, while products are discarded after a short period of use, their lifecycle often ending at the end of consumption (Philip Hanan, 2024). It's important to note that this path is not simply repetitive but rather a long-term, habitual accumulation. It is against this backdrop that the circular economy has gradually come into focus, seen as an alternative to the established model and a fundamental requirement for the future survival of the fashion industry. Its core lies in reorganizing resource flows, requiring the concerted efforts of all stakeholders in the supply chain to maintain the value of products and materials over a longer period (Sustainable Production and Consumption, 2024).

Conceptually, the circular economy attempts to build a closed system that allows resources to be reused repeatedly at different stages, rather than being consumed once. It has several key principles, such as reducing waste, extending product lifespan, and promoting the regeneration of natural resources—an orientation clearly "regeneration-oriented." By incorporating material selection and production methods into the design phase, waste generation can be reduced at the source, while

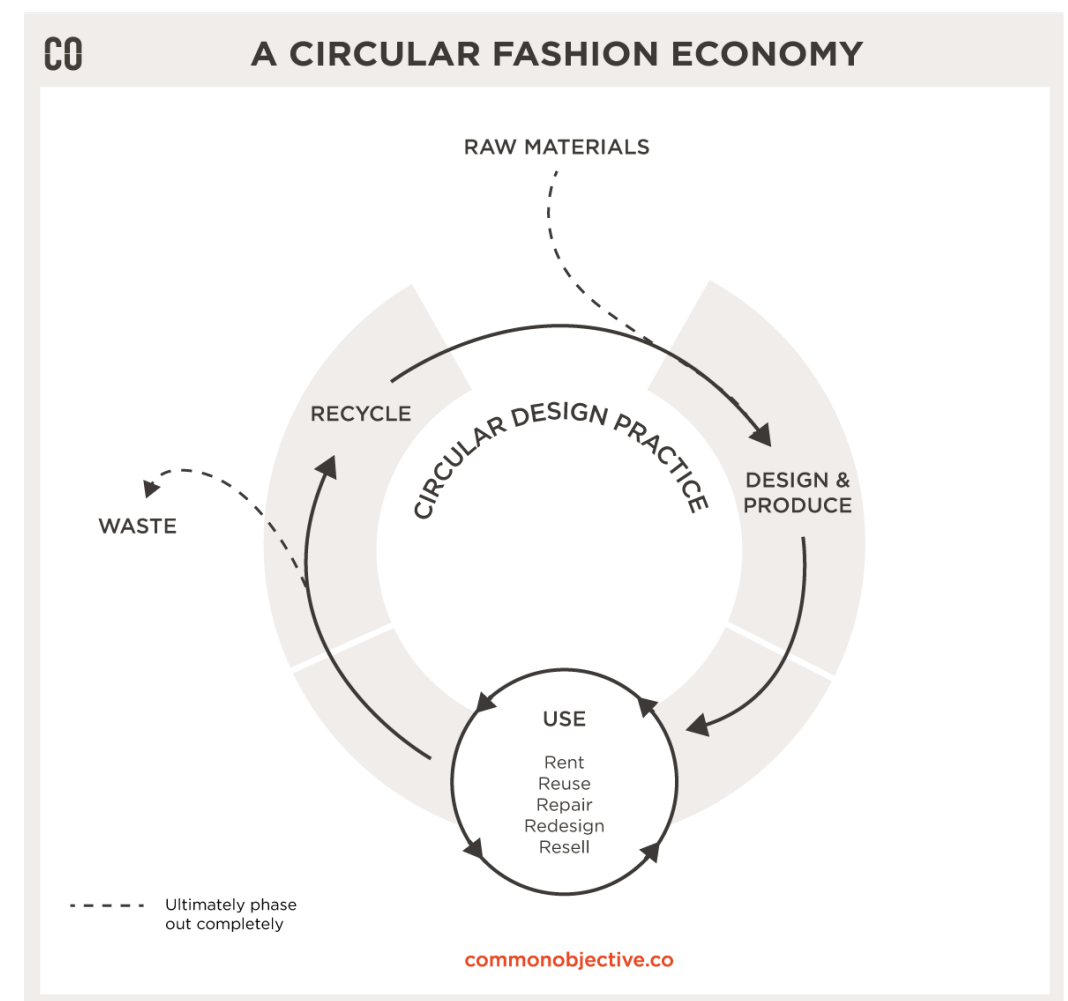


Figure 13. A circular fashion economy

understood as a form of "systemic hindrance" (energise, n.d.). Second, differences in the development levels of recycling systems and reuse technologies across different regions limit overall progress. Moreover, and more critically, consumer behavior patterns have not fundamentally changed. For most consumers, price and convenience still play a significant role in their decision-making. Therefore, the development of the circular economy presents a situation where the concept is gradually being accepted, but its practice remains constrained by multiple conditions.

The development of the circular economy has also gradually clarified the specific practical paths for circular fashion. Currently, typical methods include repair, upgrading and renovation, resale, and leasing. These forms share the common goal of extending the product's lifespan. For example, through repair and refurbishment, clothing that might otherwise be discarded can continue to be used; through renovation, old products are given new form and meaning; through secondhand platforms, clothing circulates among different consumers; and leasing separates the right to use from ownership. Supporting the secondhand clothing industry is an excellent way to ensure clothing is recycled for as long as possible, and wearing it for just nine more months can reduce carbon emissions, water consumption, and waste emissions (Remode, n.d.). These practices influence people's understanding of clothing to some extent, gradually shifting it from one-time consumption to multiple uses.

Market changes have provided external impetus for this transformation. In recent years, the rapid development of the secondhand market and online platforms has brought circular fashion into a wider view. Against the backdrop of rising living costs, consumers are more inclined to choose reasonably priced goods, such as resale and secondhand products, a trend that exhibits clear characteristics of a "rational return" (mintel, 2025). Social media has amplified this trend, with platforms like YouTube and TikTok reinforcing awareness of sustainable consumption through continuous information updates and trend guidance. Simultaneously, some consumers are beginning to pay attention to the origin and production process of products, this change this kind of moralsuasion is crucial in changing perspective.



Figure 14. Rental

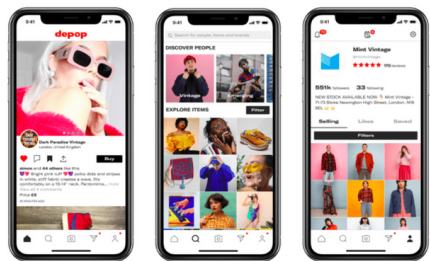


Figure 15. Resale



Figure 16. Remake



Figure 17. Repair

Over the past decade, clothing consumption has continued to grow, driven by fast fashion production cycles and low-cost garments. In the EU alone, The average EU citizen bought 19 kilograms (kg) of clothing, footwear and household textiles in 2022 — up from 17 kg in 2019, which is enough to fill a large suitcase per person each year. Meanwhile, much of this clothing is discarded after only a few wears. Some studies estimate that even the cheapest garments are discarded after just seven wears. The scale of textile waste underscores the urgency of the problem. In the UK alone, approximately 1.45 million tons of waste textiles were generated in 2022. Only 650,000 tons of waste were diverted from the residual waste stream. Around 759,000 tons of textiles ended up in landfills or incinerators. Global fiber production has reached record levels. In 2023, textile fiber production reached 124 million tons, but less than 8% of this fiber came from recycled sources, and less than 1% came from recycled textiles (Reconomy, 2026).

These figures show that circular fashion is still in its developmental stage. On the one hand, its attention is indeed increasing, gradually shifting from a peripheral issue to a key industry focus; on the other hand, its scale and infrastructure are still insufficient to support full-scale promotion. Data shows that global textile production continues to grow, while the proportion of recycled materials remains limited (Reconomy, 2026). Furthermore, companies still face efficiency and cost issues in practice, making it difficult for some projects to be sustained in the long term. These circumstances indicate that the actual implementation of the circular economy still requires time and the accumulation of necessary conditions.

In this process, technology and innovation are gradually becoming important supports. Technologies such as blockchain and artificial intelligence are being introduced into supply chain management to improve transparency and enhance information traceability. For example, recording product origins through blockchain can provide a more reliable basis for sustainability claims, while data analysis helps optimize production and inventory management (coherent market insights, 2025). At the same time, the development of new materials is also driving industry changes; for example, the use of sustainable materials such as organic cotton, recycled polyester, and

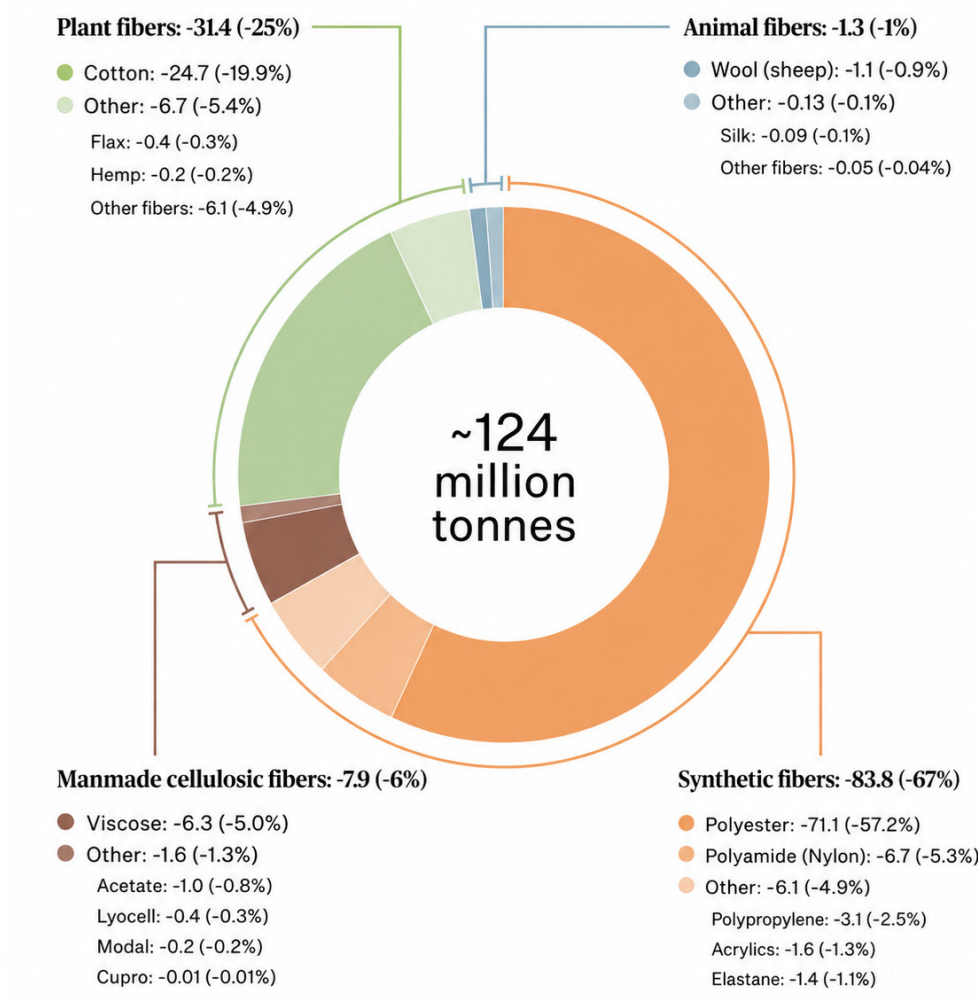


Figure 17. Global fiber production in 2023 (in million tonnes and % of global fiber production)



Figure 17. Out of the 19kg, 8kg consisted of clothing, 7kg was household textiles and 4kg was footwear.

recycled cashmere is growing significantly. Consumers are increasingly inclined to choose products made from recycled textiles or environmentally friendly materials, prompting fashion companies to incorporate such fabrics into their product lines (coherent market insights, 2025). This also helps reduce reliance on native resources. Digital platforms provide the foundation for resale and leasing, making product circulation more convenient. The introduction of these technologies makes circular economy models more feasible in reality.

Besides technological factors, the market and consumers are also driving this transformation. Price remains a significant factor influencing consumer choices, especially among younger generations who often weigh sustainability against cost, reflecting a pragmatic approach (mintel, 2025). Meanwhile, generational differences are becoming increasingly apparent, with Gen Z and Millennials showing a greater inclination to support brands with environmentally conscious values. Half of Gen Z believe retro fashion represents a beautiful past, providing brands with an opportunity to evoke nostalgia and revive classic styles. Social media culture further reinforces this trend, making circular fashion a perceptible consumption pattern through content dissemination and community interaction. This consumer-driven change provides new insights for businesses to adjust their direction.

In practice, some brands have already begun exploring various paths to the circular economy. For example, through recycling programs, secondhand platforms, and material innovation, companies are attempting to extend product lifecycles at different stages. H&M is one of the leading fashion brands to promote a circular economy. Its circular strategy focuses on three core areas: circular products, a circular supply chain, and a circular customer experience. H&M has also adopted the six sustainable textile goals proposed by the Stockholm Resilience Center and the Ellen MacArthur Foundation, integrating them into its own transformation plan. In recent years, H&M has launched several innovative initiatives, such as using AI to optimize resource allocation, developing garment recycling machines, and exploring durable materials. In 2020, H&M partnered with Renewcell to launch Circulose material made from cotton from old clothes. In addition,



Figure 18. H&M has opened a secondhand store in New York City.

it launched the secondhand trading platform COS Resell. By introducing new technologies and service models, companies are gradually shifting from selling single products to providing comprehensive services. Therefore, circular fashion not only has environmental significance but also contains significant economic potential, and its related market size is expected to continue to grow in the future (Philip Hanan, 2024). However, these attempts do not mean that the problems have been solved.

In reality, the cost of circular products remains high. For example, in the United States, large-scale textile recycling and repair services still face high transportation and labor costs, resulting in circular fashion products remaining more expensive than traditional products (Philip Hanan, 2024). Consumers' unwillingness to pay a premium for circular products compared to traditionally manufactured alternatives limits their widespread adoption.

The circular economy offers the fashion industry a development path different from a linear model. But this process presents both advantages and limitations: on the one hand, it has advantages in resource utilization and environmental impact; on the other hand, uncertainties remain regarding cost, scale, and consumer acceptance. This reflects the complex situation of the circular economy within the fashion industry.

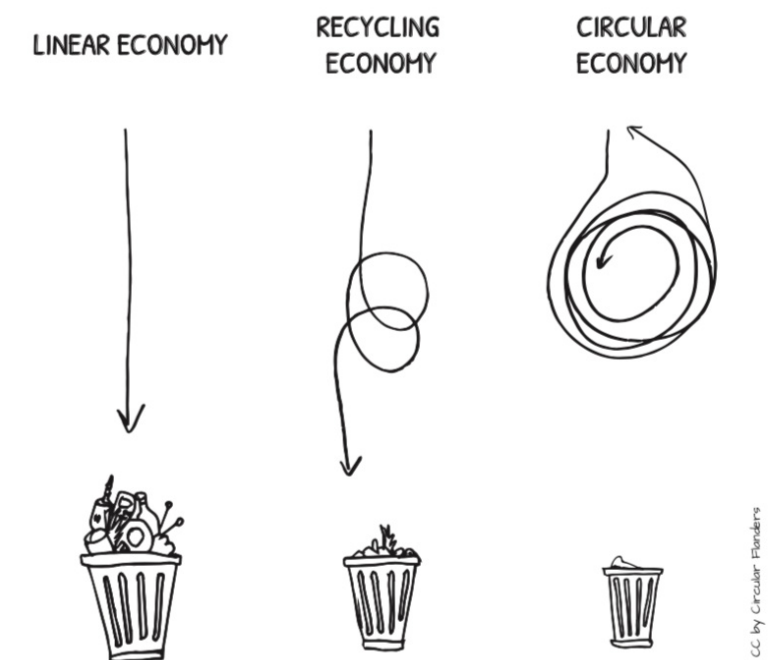


Figure 19. Different economic models

2.4 Limitations of Current Circular Practices

As circular fashion develops, it has gradually moved from concept to practice, with more and more apparel brands incorporating circular practices into their operations. Specific examples show that this shift is not merely conceptual but is manifesting in various forms in our daily business lives. For instance, brands like The North Face and Patagonia extend product lifespan through repair and refurbishment services, while others, such as lululemon and Erin Fisher, establish resale channels, allowing products to circulate continuously among different users. Simultaneously, some companies are experimenting with leasing and recycling programs to reduce resource consumption, altering the usage path of clothing at different levels (bluesign, 2025). In the design phase, some brands are adopting more durable structures or single-material constructions to increase the likelihood of future recycling; for example, Adidas developed the Futurecraft Loop—a performance shoe made entirely of a single material with a recyclable design concept (bluesign, 2025).

These practices are not limited to a single model but present a multi-pathway approach. The development of resale platforms allows brands to directly participate in the resale of products, rather than relying entirely on third-party channels; rental services, to some extent, make use the primary purpose, rather than "I must own," exhibiting a tendency towards "de-possession." Meanwhile, the widespread availability of repair services allows products

to continue to be used after wear and tear, while recycling programs attempt to reintegrate waste into the production process (bluesign, 2025). These different approaches have created greater room for the development of circular fashion, and its presence in the industry has thus increased.

However, despite its continuous expansion in practice, its development in reality is still subject to several limitations. First, it should be noted that price still dominates consumer choices. Related research shows that whether buying new clothes, secondhand goods, or choosing repair services, price remains one of the most important criteria, a phenomenon exhibiting significant "price sensitivity" (Hannah Beisel, 2025). In many situations, especially when the actual costs of materials, labor, and repair services are hidden, the cost of circular options is even higher than that of fast fashion products. For example, repairing a pair of jeans that costs 20 euros is often just as expensive as buying a new pair, making consumers more inclined to choose the latter in their actual decision-making (Hannah Beisel, 2025). At the same time, fast fashion maintains its competitive advantage in the market by driving down prices through large-scale production, and this gap further exacerbates the difficulty of promoting the circular model.

Alongside price factors, convenience profoundly influences behavioral choices. Even if some consumers agree with the circular fashion concept, their participation remains limited if related services are difficult to access or the process is cumbersome. In some regions, the uneven distribution of repair shops, rental channels, or secondhand platforms incurs additional costs for consumers, a situation that can be considered a "disconnection" (Hannah Beisel, 2025). In contrast, fast fashion products can be quickly obtained through online platforms, further solidifying their advantage. Therefore, while circular fashion is attractive in practice, its practical application remains challenging, creating a gap between concept and behavior.

Consequently, compared to fast fashion, reflections on circular practices themselves are emerging, with secondhand fashion becoming a focal point of discussion. On the surface, secondhand transactions seem to reduce resource consumption by extending product lifespan. However, as this behavior evolves into a new

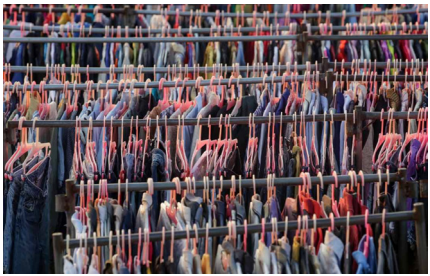


Figure 20. Second-hand clothing in the store.

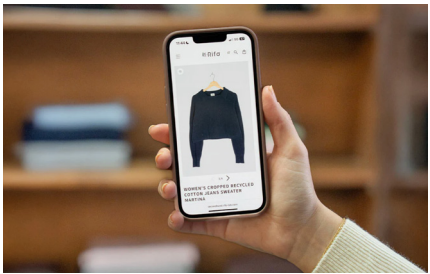


Figure 21. Second-hand shopping platform.

consumption pattern, its effects are not always as ideal as expected. Secondhand goods do not change their original appearance; if a garment is designed for short-term use, its durability is unlikely to improve even after re-entering the market. If a garment was originally expensive, like those from a luxury brand, or if its provenance holds special significance, such as being a birthday gift or a present from a close friend, then the garment appears durable, exhibiting a kind of "structural continuity" (Eleonora Marini, 2026). On the other hand, low-quality products repeatedly circulating among different users may only extend their lifespan before disposal, perhaps by weeks or months, without truly altering their lifecycle.

Meanwhile, price fluctuations in the secondhand market raise new issues. In private transactions, prices are typically determined through negotiation, a flexible method that can easily lead to a continuous devaluation of goods. When clothing prices gradually detach from their material and production costs, and are determined solely by market bargaining, their intrinsic value is weakened. When price becomes the sole consideration, secondhand goods may encourage impulsive consumption rather than rational shopping. Items considered "disposable" are unlikely to receive proper care, repair, or long-term use. This trend exhibits a clear "value drift" (Eleonora Marini, 2026). This resembles the linear logic of fast fashion, where items are purchased and soon discarded. This phenomenon also suggests that the secondhand market, in certain situations, may replicate existing consumption logic rather than truly change it.

Of course, cyclical practices may not reduce resource consumption in some cases; instead, they may perpetuate existing problems through new pathways. Related research and survey results show that consumers who buy large quantities of secondhand goods often also buy large quantities of new goods, indicating that the two are not substitutes but rather additive—a phenomenon that can be understood as "consumption superposition" (Eleonora Marini, 2026). When consumers view secondhand shopping as a more reasonable option, they may psychologically lower their restrictions on the quantity of goods they consume, thereby increasing their overall purchase volume. The differences in consumer behavior surrounding this

phenomenon further reveal the complexity of the issue.

From a generational perspective, younger generations participate significantly more in the secondhand market than older generations. Research indicates that Generation Z and Millennials are more inclined to transact through digital platforms, a behavior influenced not only by price but also by social media culture (Meital Peleg Mizrahi, 2025). On these platforms, secondhand fashion is presented as an attractive option, not just an economic activity, thus increasing its acceptance among younger generations. However, this high participation does not necessarily lead to reduced consumption. On the contrary, young consumers often exhibit high activity in both the new and old markets; they buy fast fashion products and participate in secondhand transactions, demonstrating a clear "behavioral overlap" (Meital Peleg Mizrahi, 2025). Therefore, overall consumption levels may increase rather than decrease, which could weaken the environmental significance of circular practices. Participation in circularity is not equivalent to reduced consumption, a point particularly prominent among younger generations.

From an income perspective, different groups exhibit another difference in behavior. High-income respondents spend more on both new and secondhand clothing than low-income respondents. This group also keeps clothing for a shorter period and is more inclined to discard items in good condition, indicating a higher overall consumption level. While high-income groups demonstrate greater environmental awareness, their consumption behavior is less sustainable, and their actual actions do not necessarily reflect this. This is reflected in higher return rates and a tendency towards conspicuous consumption (Meital Peleg Mizrahi, 2025). In contrast, low-income groups prioritize price and durability, and their consumption is more practical.

Furthermore, gender and occupational background also influence consumption patterns. Research shows that women generally participate more in both new and old markets than men, purchasing more frequently and in larger quantities, exhibiting a "gender difference" (Meital Peleg Mizrahi, 2025). Women have a more positive attitude towards sustainability, a deeper understanding of the

environmental impact of the fashion industry, and place greater emphasis on sustainability in their purchasing decisions. They are also more likely than men to adopt sustainable waste disposal methods, such as reusing old clothes. However, women's overall consumption patterns result in a larger environmental footprint than men's, and despite their greater emphasis on sustainability in attitude, their overall consumption level remains higher. Meanwhile, students have the highest participation rate in the secondhand market, but their consideration of sustainability in actual decision-making is relatively weak.

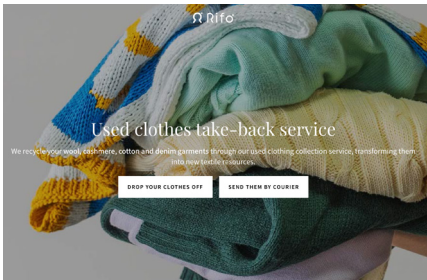


Figure 22. Rifo Second-hand shopping platform.

In the current circular economy, consumers can go to physical stores to select clothes, but this kind of physical store experience is severely lacking (including secondhand, repair, and upcycling). The core issue is that while online platforms solve the efficiency problem of recycling and trading, they strip away the most important aspects of the old clothes circulation process: sensory trust, emotional connection, and cultural narrative. Consumers find it difficult to judge the actual wear and tear, fabric texture, and fit of a garment through a screen, and cannot establish an intuitive understanding that "it is still worth owning." An ideal offline experience space can precisely fill these gaps: for example, tactile displays, on-site alteration workshops, clothing carbon footprint story walls, and even exchange markets and styling advice, making "old clothes rebirth" a visible, try-on, and credible process. At the same time, offline spaces can also complete the closed loop of online recycling—users can see what their donated clothes have become in physical stores or enjoy instant rewards. Although some pop-up stores, community wardrobes, or brand repair stations have been piloted, they have not yet been scaled up. In the future, if low-cost modular spaces (such as laundromat corners or pop-up café areas) can be embedded into urban life, and online data can be used to trace the history of each garment, then recycled clothing can hopefully complete the leap from a "passive recycling" to an "active selection" lifestyle.

Therefore, we can see that the development of circular fashion in reality presents a complex situation. Brands and markets are promoting its expansion through various paths, gradually integrating the concept of circularity into daily life; however, factors such as price, convenience, and

consumption habits still limit its development, making it difficult to completely replace existing models. This situation can be understood as a transitional stage. At the same time, specific practices such as secondhand fashion may, in some cases, perpetuate existing consumption logic, and even reinforce consumption behavior under certain conditions. The multiple participations of consumers in different markets make the actual effects of circular practices even more difficult to assess.

We can also argue that the current challenge facing circular fashion is not the lack of practical forms, but rather that these practices have not yet changed the consumption patterns themselves. At this stage, the circular economy is more of a supplement to the existing system than a replacement. If we want to achieve a deeper transformation, we not only need to adjust business models but also re-examine consumption concepts themselves; this change may not be completed in a short period of time.

2.5 Structural Barriers to Circular Economy in Fashion

In the practical operation of the circular economy in the fashion industry, in addition to the practical difficulties mentioned above, there are still structural obstacles to development. We gradually realize that the problems are not concentrated in a single isolated link, but are scattered throughout the underlying conditions of the entire system, presenting a state of continuous constraint. The most obvious obstacle comes from the inadequacy of recycling infrastructure. True recycling is not simply collecting old clothes, but requires a series of steps including sorting, cleaning, and reprocessing. These steps demand highly sophisticated equipment and technology, and also imply high input costs (coherent market insights, 2025). In many regions, especially developing countries, these conditions have not yet been established. For example, according to a 2022 report by the United Nations Environment Programme, only 9% of the materials used in the fashion industry are currently recycled. Major obstacles include the difficulty in recycling clothing designs, the lack of unified sorting standards within the European Union, and the lack of incentive mechanisms to encourage the industry to shift from traditional linear production models to reuse and recycling models (coherent market insights, 2025). Therefore, even if there is a willingness to recycle, it is difficult to translate into stable and large-scale practice.

Of course, material-level obstacles are equally significant. Recycled textiles are not a resource that can be easily scaled

up. Their production process is more complex than that of virgin materials, requiring multiple processing stages, which directly increases costs. This cost pressure puts them at a disadvantage in the market (coherent market insights, 2025), and as mentioned above, this significantly impacts consumer purchasing desire. For businesses, large-scale adoption of recycled materials means compressed profit margins, and in a highly competitive environment, this choice is often unsustainable, leading consumers to continue buying fast fashion items. Meanwhile, the recycling rate itself remains consistently low; the global recycling rate of post-consumer textile waste has long failed to improve significantly. For example, a 2022 report by the United Nations Environment Programme showed that the global collection and recycling rate of post-consumer textile waste hovered between 15% and 20%, far below the recommended target (coherent market insights, 2025). This makes the circular system fragile and unstable at the raw material level.

Large-scale reuse also faces significant obstacles in practice. The inconsistent quality of discarded textiles complicates their unified processing, and related technologies are still not fully mature (coherent market insights, 2025). Not all clothing is suitable for reprocessing; due to the variety of materials, some materials no longer meet production requirements after multiple uses. Therefore, we say that recycling remains more of an ideal than a practical reality. On the other hand, consumer support is also insufficient, such as the lack of convenient recycling and resale channels. These factors weaken the feasibility of recycling pathways, making implementation even more difficult.

The issues we've discussed above primarily focus on the industrial and technological levels. However, a deeper examination of the institutional environment reveals another, more profound constraint. For instance, the market alone is unlikely to drive companies to proactively shift to a circular economy model. This is because corporate decisions are always centered on costs and benefits; they need to survive. In the absence of external pressure, they rarely take on additional risks spontaneously—a clear example of a "profit-driven" approach (Philip Hanan, 2024). In other words, simply increasing environmental awareness is insufficient to change production methods. Such a

transformation is only possible when external conditions change.

However, in reality, some policy tools have gradually been proposed. These include extended producer responsibility, tax breaks for circular enterprises, and material taxes on resource-intensive products. These measures aim to influence corporate behavior by adjusting price structures (Philip Hanan, 2024). Once the prices of related goods rise, companies may reduce their production scale while seeking more material-efficient technologies—a process with a certain "price leverage effect." Simultaneously, government tax revenue can be used to support circular economy-related R&D and infrastructure development. However, this process is not without resistance. Businesses often have reservations about policies that might impact profits, especially in highly competitive industries where this resistance is more pronounced. This creates a persistent tension. On the one hand, policies aim to drive transformation through institutional arrangements; on the other hand, businesses are more focused on short-term gains, which is understandable. Caught in this tug-of-war, the development of the circular economy becomes slow and stagnant. Without sufficiently strong incentives or constraints, related measures often fail to be implemented, remaining merely initiatives without changing actual production and consumption patterns.

In recent years, reflection on the concept of "circular fashion" itself has gradually emerged. This concept is frequently used and imbued with high expectations, but some studies have begun to point out its problems. For example, some studies have found significant biases in the economic forecasting of circular fashion; some widely circulated data even contain calculation errors. For instance, it is commonly claimed that CF can recover over \$500 billion in lost value annually through resale, leasing, and recycling, but research shows a \$460 billion calculation error (Loughborough University, 2025). This forces us to rethink whether these repeatedly cited figures truly have a reliable basis.

In practice, circular fashion often relies on existing industrial structures. Some reports emphasize the value of resale and leasing, but ignore the core issue of

overproduction (Loughborough University, 2025). Dr. Talia Hussein, the lead author from Loughborough University, stated: "The fashion industry faces many sustainability challenges, but unfortunately, it has not successfully addressed them. Anyone can see the problem of overproduction in the endless promotions on high streets, but this problem remains unresolved (Loughborough University, 2025). If the production of new products does not decrease, the introduction of a circular model is likely to be merely a supplement to the existing system, not a replacement. In this context, its environmental significance is naturally weakened, and one has to question whether it is a 'hollow' concept. To some extent, it may even provide new legitimacy for continuous production."

Furthermore, the narrative of circular fashion itself is biased. Some studies indicate that in the process of disseminating this concept, it serves more the industry players than consumers or workers (Loughborough University). (University, 2025). When "sustainability" becomes marketing language, its original meaning is diluted and used instead to maintain brand image. This loses the meaning of "sustainability" itself, and to some extent, it's deception. This is not hard to notice in our daily lives: frequently updated products and continuous promotional activities indicate that the pace of production has not slowed down. Even in a context emphasizing circularity, high-frequency consumption still dominates. This deserves our serious consideration.

Global search interest in "circular fashion",
Google Trends (2021–2026).

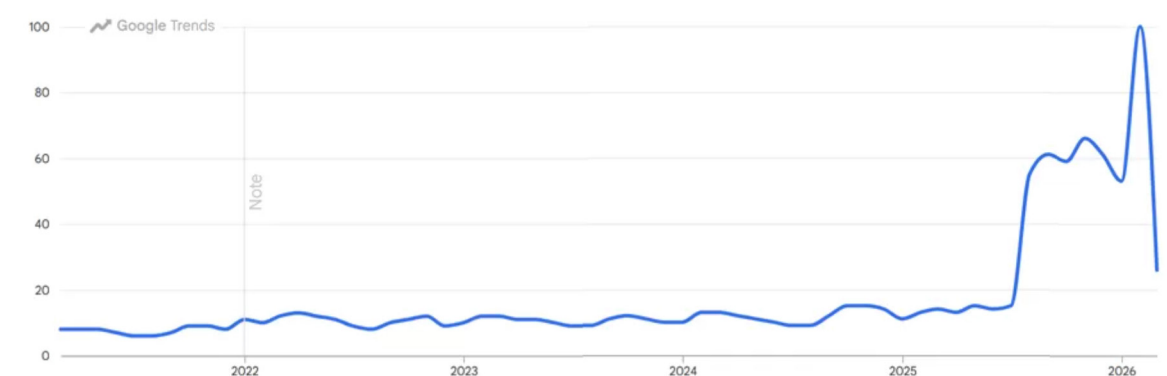


Figure 23. Google Trends data shows global search interest in "circular fashion" between 2001 and 2026.

We are forced to confront a deeper question: does the circular economy truly have the ability to solve problems, or is it merely an adjustment to the existing system? Some studies indicate that if the profit margin of circular business models is lower than that of traditional sales, then companies lack sufficient incentive to drive transformation; and if these models merely add new consumption channels, their environmental benefits are very limited (Loughborough). (University, 2025). This means that input and output are not directly proportional.

Therefore, in summary, the obstacles to the circular economy in reality cannot be simply attributed to insufficient technology or an immature market. The deeper reasons lie hidden in institutional arrangements and ways of understanding. On the one hand, infrastructure and material issues limit its material realization; on the other hand, the relationship between policy/government and enterprises influences its implementation path; their understanding of circularity itself may also contain some degree of bias. These multiple factors collectively form a complex constraint.

The circular economy does offer a traditional approach different from the linear model, but whether this approach can truly be implemented still depends on broader conditions. From industrial structure to the institutional environment to consumption concepts, these factors together constitute the foundation for the development of the circular economy. If these conditions do not change, then no matter how many new concepts we propose, it will be difficult to bring about substantial change. This understanding may be the key to understanding the current predicament of the circular economy.

Theoretical Framework

This chapter provides theoretical support for the thesis, focusing on Heidegger's theory of the manifestation of "things" and Chapman's view on "emotional persistence." These theories will also be transformed into core principles for subsequent design.

03



Figure 24. Martin Heidegger

3.1 Rethinking Objects: From Commodity to “Thing”

When we discuss "clothes," "objects," or "consumer goods," we often assume they are simply objects that are used or replaced. But if we return to a more fundamental question: How should we understand "thing"? This question is not as simple as it seems; it is a philosophical one. Especially in contemporary consumer society, we are accustomed to understanding everything as a commodity—produced, priced, purchased, and ultimately discarded. In this linear consumption model, "thing" seems to be reduced to only function and price. However, if we slow down a bit, we realize that this understanding is actually a very limited perspective.

Martin Heidegger, a great philosopher and thinker, raised an important distinction in his text "The Thing": "thing" is not equivalent to "object." In our everyday language, the two seem interchangeable because, semantically, they are not much different. But philosophically, they point to completely different modes of existence. What we usually call an "object" is actually an object that can be used, manipulated, and measured; it is functional and serves people. "Thing," however, is a more complex entity. It's not merely a tool, but a gathering of relationships, meaning, and experience (Martin, Gateway Editions, 1968).

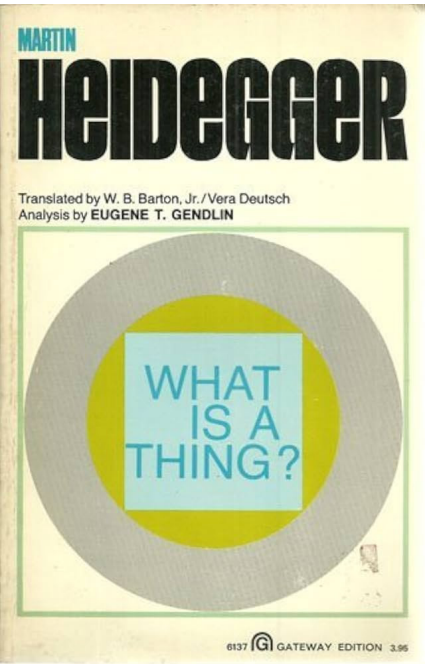


Figure 25. “What is a thing”—Martin Heidegger

Heidegger further illustrates this with a very concrete example: a "pot." In our everyday understanding, a pot's function is to hold or pour water; its meaning derives entirely from its function, which is easy to grasp. Heidegger argues that this is not actually the case. If you fill the jug with water, do you then pour it into the bottom and walls, the material? What we are doing is pouring the water between the walls and over the bottom. It is the emptiness, the void, that is holding the water. "The empty space, this nothing of the jug, is what the jug is as a holding vessel." What about the potter? If the holding is done by the void, then the potter is not actually making the jug; it shapes the clay. "Thing" exists because it "gathers" a series of relationships. He wrote, "The thing is things. The thing gathers." (Martin, Gateway Editions, 1968). This statement may sound abstract, but upon closer examination, we find that he is emphasizing that an "object" becomes a "thing" because it connects different levels of existence—materials, users, environment, and cultural significance. In the example of the teapot, it involves not only clay (material), water (content), and people (users), but also potentially ritual or culture. In other words, "thing" does not exist in isolation; it is a convergence point of relationships.

I found this point very interesting. I have never thought of it like this before. It's like going backwards, turning all we know upside down. We perceive the world through material and forget about the negative spaces that lie in between. This understanding is particularly important today because these relationships are being gradually severed in the contemporary consumer system. Clothes are no longer connected to their material sources; we don't know where their cotton or fabric comes from. They are also no longer connected to the production process; we can't see who made them. Even so, they rarely establish a long-term relationship with us because we quickly discard them. In this context, clothes are no longer a "thing," but merely a transient "object."

In subsequent research, I found this viewpoint further explained and expanded. For example, in "Thing (Ding)", Heidegger's idea is summarized more clearly: "A thing is not merely an object present-at-hand, but something that gathers relations." (James D. Reid, 2021) This statement

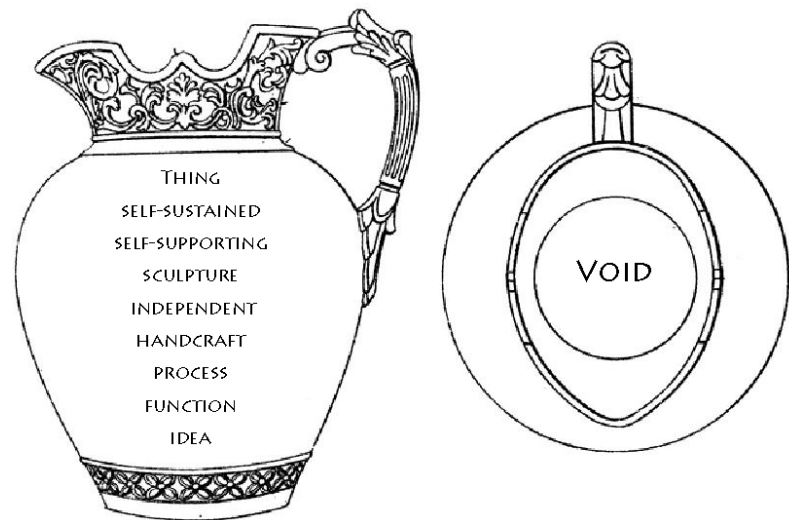


Figure 26. Martin Heidegger—"Pot"

is essentially a reorganization of Heidegger's original meaning—the essence of a thing lies not in "what it is," but in "what it connects to." If these connections disappear, then the object loses its "thingness." A similar viewpoint has appeared in contemporary discussions of material culture. In Stanford University's "Things—In Theory," a crucial judgment is: "We begin to confront the thingness of objects when they stop working for us." (Bill Brown, 2016) In other words, in everyday use, we don't truly "see" a thing. Only when it malfunctions, breaks, or can no longer function properly does it "jump" out of the background and enter our sight and consciousness. This is very similar to Heidegger's view—things only truly manifest themselves at the moment of "breakage."

If we apply this viewpoint to clothing, we find a very interesting phenomenon. When a garment is new and intact, we hardly notice it. It's simply a "useful" object. But when it becomes damaged—such as torn, frayed, or faded—we suddenly become aware of its existence. At this point, we begin to think: When did it break? Why did it break? Can it be repaired? Should I throw it away? In this moment of thought, clothing transforms from an "object" into a "thing".

This point is further discussed in the study "Heidegger's notion of the thing and re-enchantment." The author points out that in modern society, people have gradually lost a



Figure 27. torn clothes

deep connection with objects, and the concept of "thing" offers a possibility of re-establishing this relationship: "The notion of the thing offers a way to re-establish meaningful relations between humans and the material world." (Olga Louchakova-Schwartz, 2023) In other words, "thing" is not merely a philosophical concept; it also has practical significance. It reminds us that the relationship between people and things can be re-established, rather than being destined to break down.

At this point, we can summarize several key points: First, modern consumer society simplifies "thing" to "commodity," emphasizing function and price; Second, Heidegger argues that the true "thing" is a convergence of relationships, not a single function; Third, objects are often only re-perceived when they are "damaged" or "ineffective"; Fourth, when this perception occurs, the relationship between people and objects can potentially be re-established.

These key points provide a crucial perspective: the problem isn't just "we consume too much," but rather "how we perceive things themselves."

In Chapter Two, we analyzed the problems of fast fashion: high-speed production, rapid consumption, and short lifecycles. In this linear consumption system, clothes are constantly replaced; we continuously buy new clothes, rarely having the opportunity to be "re-perceived." Therefore, clothes remain in the state of "objects," never becoming "things." This also explains why the "circular economy" often struggles to truly change behavior in reality. It primarily operates at the system level (recycling, reuse), but doesn't alter the relationship between people and objects. If people continue to treat clothes as short-term goods, the problem persists even with a perfect recycling system. This is something we should seriously consider.

Perhaps we can propose a different approach: if the problem lies in "things being invisible," then shouldn't the solution be "making things visible again"? This is easy to understand. Here, Heidegger's ideas provide a very concrete direction—making things visible through

"damage" and "repair." As mentioned earlier, objects only enter our consciousness when they become obsolete. So, what happens if we move the process of "restoration" from the hidden background to a visible space?

Imagine this scenario: an old garment is brought into a space, where it is disassembled, mended, and reassembled. This process is no longer a private, overlooked act, but rather one that is displayed and participated in. In this process, the user sees not only the garment's "problems" but also its "possibilities." This is precisely the moment Heidegger refers to as "things revealing themselves."

From this perspective, "repair" is no longer merely a technical act, but a cognitive shift. It allows people to rediscover the existence of "things" and re-establish their relationship with them. This aligns with our point in Chapter One: restoration is a dialogue, not simply patching things up. This "dialogue" is the embodiment of "thingness." Because in this process, people are no longer just users, but participants; "things" are no longer passively existing, but responsive objects.

Furthermore, if we translate this process into spatial design, imagine it as no longer just a functional space, but a "narrative space." In such a space: the history of "things" is displayed; damage is preserved rather than hidden; restoration becomes a public act, visible to the public. That is, the space itself becomes a medium, or a platform, for "making things visible." This echoes the concept of "re-enchantment" mentioned in "Heidegger's notion of the thing and re-enchantment." We can understand this as: spatial design can be a tool for re-enchanting, allowing previously overlooked "things" to regain meaning and awareness.

We can return to a very core question: in a consumer environment that emphasizes the "new," is it possible to reinterpret the "old" through design? Heidegger's answer is: yes! But the prerequisite is that we change our understanding of "things."

In my research, we attempt to further propose that this change can occur not only through thought but also through space. Therefore, this discussion is not merely a theoretical foundation but provides a basic judgment for subsequent design: if we hope to change consumer behavior, we must first change how people "see" things. The shift "from commodity to thing" is precisely the starting point of this process and the effect we aim to achieve.



Figure 28. Professor Jonathan Chapman

3.2 Emotional Durability and Attachment

When we discuss "why people keep some clothes and discard others," the question, seemingly mundane, is actually quite complex. We easily think of factors like quality, price, style, and durability, as if a garment, if sturdy enough and classic enough, will naturally be kept for a long time. But in real life: some clothes aren't expensive, may not be perfect, and may even be faded, deformed, or worn, yet they are still repeatedly worn or carefully preserved. They are kept not because they are physically the best, but because they have become connected to personal experiences at a certain point in time.

For example, a T-shirt worn on the first day of college, a pair of boots that have accompanied us on many journeys, or a coat given by family—these can gradually acquire meaning beyond their function over time. They may no longer be brand new, but because they carry certain memories, identities, or stages of life, they become irreplaceable. As some sources have mentioned, the clothes we cherish have often been worn many times, even faded and worn, but these marks only increase their charm because they have become part of our life experiences (Joanna Stout, 2024). Clothing is more than just covering the body; it can be a container of memories, something imbued with a private warmth.

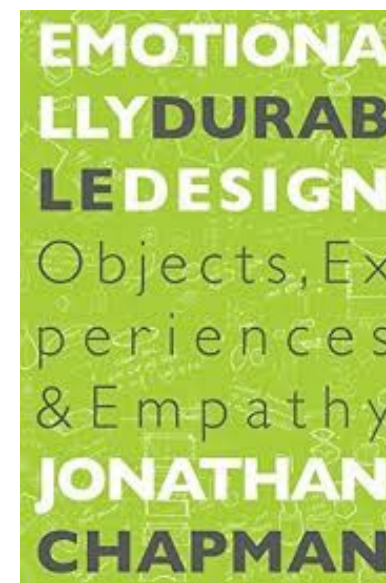
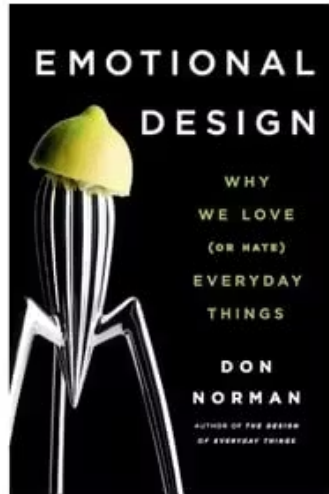


Figure 29. "Emotionally Durable Design"—Jonathan Chapman

Jonathan Chapman, a British-born design researcher and sustainable design theorist, introduced the concept of "Emotional Durability" in his book «Emotionally Durable Design». Chapman emphasizes that a product's lifespan depends not only on the strength of its materials but also on whether people still want to maintain a relationship with it. He points out that durability is not only about "fractured polymers, worn gaskets, or blown circuitry," but also about "desire, love, and attachment" (Chapman, 2005). This statement is crucial because it elevates "durability" from a purely technical issue to one of human desire and affection. In other words, whether an item can be preserved long-term depends not only on whether it is damaged but also on whether it is still needed and remembered.

This is very similar to our everyday experience with clothing. Think about it: we often don't decide to discard clothes until they are truly worn out, but rather when they are no longer "ours." It's highly likely it's still wearable—the zipper is intact, or the fabric isn't damaged—but if you feel it's out of style, or if there's no emotional connection between you and it, it will slowly become superfluous. This kind of wear and tear sometimes happens faster than physical wear and tear. Chapman's value lies in reminding us that sustainable design, if it only focuses on material strength, structural lifespan, and recycling methods, is still incomplete; the clothes will still be discarded. What's truly worth exploring is how to make the relationship between people and objects last longer.

Don Norman, in his book "Emotional Design," also discusses the emotional relationship between people and objects from another perspective. Norman (born 1935) was an American cognitive scientist, design theorist, and author, often hailed as the "father of user experience." He is best known for proposing the concepts of "User Experience (UX)" and "Human-Centered Design (HCD)." Norman divides the emotion in design into three levels: visceral, behavioral, and reflective (Norman, 2004). The visceral level concerns first impressions, such as the direct reaction to color, shape, and touch; the behavioral level concerns the smoothness and comfort of use; and the reflective level points to meaning, memory, and identity. For clothing, the first two levels are certainly important—a garment needs to look good and be comfortable. But what truly determines whether it will be



preserved long-term is often the third level: whether it can enter into a personal narrative.

Norman famously stated, "Attractive things work better" (Norman, 2004). This statement illustrates how emotions influence our judgment of products. When we like an item, we are more willing to use it, more tolerant of its minor flaws, and more willing to invest time in maintaining it. The same applies to clothing. If a garment makes us feel confident and understood, we might still wear it repeatedly, at home or in our daily lives, even if it's no longer entirely fashionable. Conversely, a garment that is technically sound but doesn't evoke a sense of belonging might quickly become unused.

We can understand this through a simple example. Suppose there are two white T-shirts, similar in style and fabric. One is a plain, ordinary T-shirt, while the other is printed with the logo or signature of an important concert. Most people would likely keep the latter. This is because it carries a special memory, not because its cotton is better or its cut is more precise. This is precisely the "T-shirt test" mentioned in the book: T-shirts with memories and identities are harder to discard than ordinary T-shirts (Paulina, 2025). This is because the value of clothing comes not from physical differences, but from the emotional attachment it carries.

Therefore, we can distinguish between two types of durability: physical durability and emotional durability. Physical durability focuses on materials, construction, stitching, washing, and wear; it answers the question, "Can a garment still be used as clothing?" Emotional durability, on the other hand, focuses on aesthetics, memory, personal meaning, comfort, and identity; it answers the question, "Is this garment still important to the wearer?" Paulina's article also clearly distinguishes between the two: physical durability is affected by materials, construction quality, and care, while emotional durability is affected by aesthetics, memory, and personal meaning; the former aims to maintain function, while the latter aims to maintain emotional connection (Paulina, 2025). This distinction is crucial for fashion design because a garment that still functions does not necessarily retain its meaning.

In the contemporary fashion industry, "durability" is often

understood as physical quality. Brands emphasize high-quality fabrics, strong stitching, washability, and classic tailoring, which are certainly important and can indeed extend the lifespan of clothing. However, stopping at this level fails to address the deeper problems brought about by fast fashion. Many garments are discarded not because they're worn out, but because people get tired of them, become estranged from them, or feel they no longer fit their lifestyle. In other words, physical integrity doesn't automatically translate into emotional continuity.

Chapman's concept of emotional durability attempts to fill this gap. He points out that sustainable design must address both physical and emotional lifespan. If a garment can be worn for ten years, but a consumer no longer wants to wear it after two months, its sustainable value is still limited. However, if a garment is preserved longer because of its story, engagement, memories, and the restoration process, it can reduce the frequency of replacement in real life. His book also points out that emotional durability design extends product lifespan and strengthens product value or emotional attachment by building an emotional connection between the user and the product, encouraging consumers to retain the product for longer rather than discarding it prematurely (Joanna Stout, 2024).

This emotional connection can actually be generated in several ways. First, through storytelling. Every garment can have a story—where its fabric came from, who made it, who it once belonged to, and what it accompanied the wearer through. This story isn't just additional marketing; it's a way to make an item meaningful. Second, through personalization. When consumers participate in the design, selection, alteration, or repair of clothing, they are more likely to see it as "their own" because it is unique, not just one of countless similar products in the market. Then there's the passage of time. Denim, leather, or certain natural fabrics change color, texture, and shape with wear; this change is not merely wear and tear, but also a deposition of memories. The book mentions that choosing fabrics that "develop character with wear" allows consumers to experience how clothing changes with the wearer, especially evident in denim and leather (Joanna Stout, 2024).

Therefore, time doesn't necessarily diminish the value of clothing. On the contrary, time can enrich its value. The problem with fast fashion is that it treats time as an enemy: a garment is considered unattractive once it becomes outdated, faded, or worn. Emotional durability offers a different perspective: old doesn't equate to decay; it can also signify companionship, familiarity, and irreproducibility. A Premiere Vision article also points out that in fast fashion and ultra-fast consumption cycles, sustainable innovation often focuses on materials, production processes, and recycling, but the lever of "emotional durability" is often overlooked (Premierevision, 2025). The article further points out that while the circular economy is based on physical properties and inherent durability, the shift in consumption patterns from quantity to quality still requires emotional triggers (Premierevision, 2025). This statement connects well with the theories of Chapman and Norman. Materials can be more environmentally friendly, production more transparent, and recycling more efficient, but if consumers still view clothing as a quick way to satisfy novelty, then the circular economy will still be defeated by high-frequency consumption. The real transformation is actually "rethinking the relationship between clothes and oneself." This transformation is slower, but closer to the root of the problem.

From the perspective of fashion culture, this also echoes Simmel's discussion of fashion. In his writings, he mentioned that he believed fashion is built on the tension between individuality and belonging, novelty and imitation, freedom and conformity; the allure of fashion comes from its transience, promising both inclusivity and allowing for discarding (Premierevision, 2025). Fast fashion pushes this transience to the extreme, with new products constantly appearing and old items constantly losing their meaning. Emotional durability attempts to prevent change from coming at the cost of forgetting and discarding. It makes us rethink: can a piece of clothing continue to exist amidst change, rather than being judged a failure as soon as it becomes outdated?

If we return to the three levels mentioned by Norman, we can also understand the emergence of clothing attachment in more detail. The instinctive level attracts people to a piece of clothing, the behavioral level makes people willing

to wear it repeatedly, and the reflective level allows it to be incorporated into personal memory. Many fast fashion products remain at a basic level; they are typically brightly colored, inexpensive, and have good photo quality, but lack a comfortable wearing experience and long-term meaning. Clothing with true emotional durability, on the other hand, often satisfies three levels simultaneously: it may be aesthetically pleasing, comfortable to wear, and, more importantly, it responds to the wearer's identity and lifestyle to some extent, creating a harmonious match. This makes it less likely to be replaced.

Paulina's article also distinguishes between "effective lifespan" and "passive lifespan." Effective lifespan refers to the time a garment is frequently worn and truly serves its purpose; passive lifespan refers to the time a garment still exists but is no longer actively worn, such as a keepsake, for special occasions, or "just in case" (Paulina, 2025). This distinction is insightful because emotional attachment doesn't always mean a garment will be worn frequently. Some garments, though no longer used daily, are preserved because of memories. Their sustainable value may not come from frequent wear, but from avoiding easy disposal. Ideally, design should allow clothing to have both emotional value and continue to be integrated into daily life.

From this, we can form a clearer judgment: people discard clothing not just because it's damaged; people keep clothing not just because it's perfect. More accurately, discarding often occurs after the relationship has broken down, while retention stems from the continued presence of meaning. The problem isn't just "the product isn't durable enough," but "the relationship isn't lasting enough." This statement is crucial to this paper because our design isn't simply about extending the physical lifespan of clothing, but about attempting to extend the lifespan of the relationship between people and clothing.

In Chapter Two, I discussed how fast fashion shortens the lifecycle of clothing through speed, low prices, and frequent updates. In this linear consumption system, clothing is replaced by newer styles before it has a chance to develop a deep relationship with the user. They are bought quickly and forgotten quickly. Even if they are still physically wearable, they are rapidly removed from life due

to a lack of emotional durability. This situation is arguably a core problem in contemporary clothing consumption. If we hope to change this situation, simply improving materials, increasing quality, or strengthening recycling is not enough. More importantly, we need to consider: how is emotional connection created? Or, how can design ensure that a garment is not just purchased, but understood, engaged with, and remembered? In my view, spatial design can be a starting point for this question.

In 3.1, we discussed how an object can only be rediscovered when it is "seen"; in this section, we further point out that an object can only be retained when it is "cared for." These two processes are not separate. An object must first be rediscovered from its consumption context before it can be imbued with emotion; and only after it is imbued with emotion can its lifecycle truly be extended. In other words, seeing is the starting point of a relationship, while caring is the prerequisite for preservation.

If we envision a space for regenerating old clothes, its task is not merely to display them, but to allow them to re-enter people's emotional experiences. The origin of the clothing, its production process, signs of wear, and repair possibilities should all be presented. Users can participate in the regeneration process, tell its story, choose repair methods, and even redesign it themselves. Such participation transforms clothing from "old things" into "things I've been involved in." This is one of the conditions for emotional durability. In this space, repair becomes an experience. A workshop, an open workbench, a dialogue between the artisan and the clothing's owner can all make the repair process perceptible. People invest time, attention, and choices, thus establishing a new connection with the clothing; it records the process of a renewed encounter between people and objects.

Therefore, emotional durability in this study is not merely a product design concept, but can be transformed into a spatial strategy. Space can allow clothing to be reinterpreted through narrative, participation, touch, and repair. It relies on people's genuine experiences within the space.

If we want to extend the lifespan of clothing, we must extend the relationship between people and clothing. This kind of relationship doesn't happen automatically; it needs to be designed, triggered, and experienced. Design itself can also create conditions for people and objects to reconnect. For this paper, the significance of the old clothes recycling pop-up space lies precisely here: it attempts to reconnect relationships severed by fast fashion, so that clothing is no longer just a short-term consumer good, but once again becomes something that carries memories and emotions.

development, demonstrating that narrative can be a way of thinking that permeates the organization of space itself. (Nigel Coates, 2012)

If traditional spatial design focuses more on "what functions a space has," then narrative space is more concerned with "what people experience in the space." Coates's discussion particularly emphasizes that spatial narrative is not entirely equivalent to the linear story in literature or film. Narrative in space relies more on physical movement, shifts in perspective, contact with materials, and the unfolding of time (Nigel Coates, 2012). A sentence in his abstract aptly explains this: "narrative in space as opposed to literature or cinema has a firm basis in the way each of us learns to navigate and map the world around us." In other words, the foundation of spatial narrative is how people walk, identify, pause, and establish their place in space. (Nigel Coates, 2012)

3.3 From Theory to Space

In the previous two sections, we discussed two important issues: first, objects are not merely commodities that can be bought and replaced; they can also become "things" that carry relationships and memories; second, people retain certain objects for a long time not only because of their physical durability, but also because they still hold some emotional significance for them. In this section, I want to explore how these theories enter into space. If "objects" need to be rediscovered, and the relationship between people and objects needs to be re-established, can space become the medium for this process? How can these theories be transformed into a perceptible and participatory spatial experience?

In design research, space is not a neutral container. It is not merely a place to place objects and fulfill functions. Space can also organize human actions and change how people perceive things. An object placed in a corner of a warehouse is easily seen as waste; but if it is placed on a display stand and connected with light, text, touch, sound, and human action, it can be reinterpreted. This is very close to Nigel Coates's concept. In his book «Narrative Architecture» , Coates doesn't understand architecture merely as the organization of functions; he emphasizes that narrative can be a crucial way to understand and construct space. The book's introduction states that narrative architecture explores "narrative as a way of interpreting buildings," that is, using narrative as a means of interpreting architecture. More importantly, it also involves practice and future

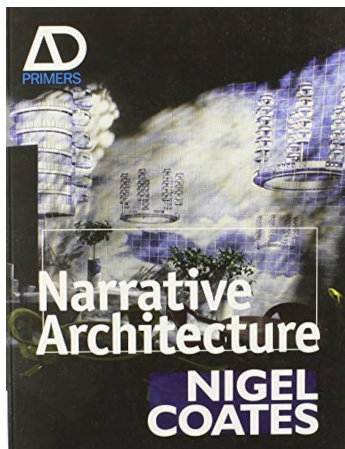


Figure 31. Narrative Architecture—Nigel Coates

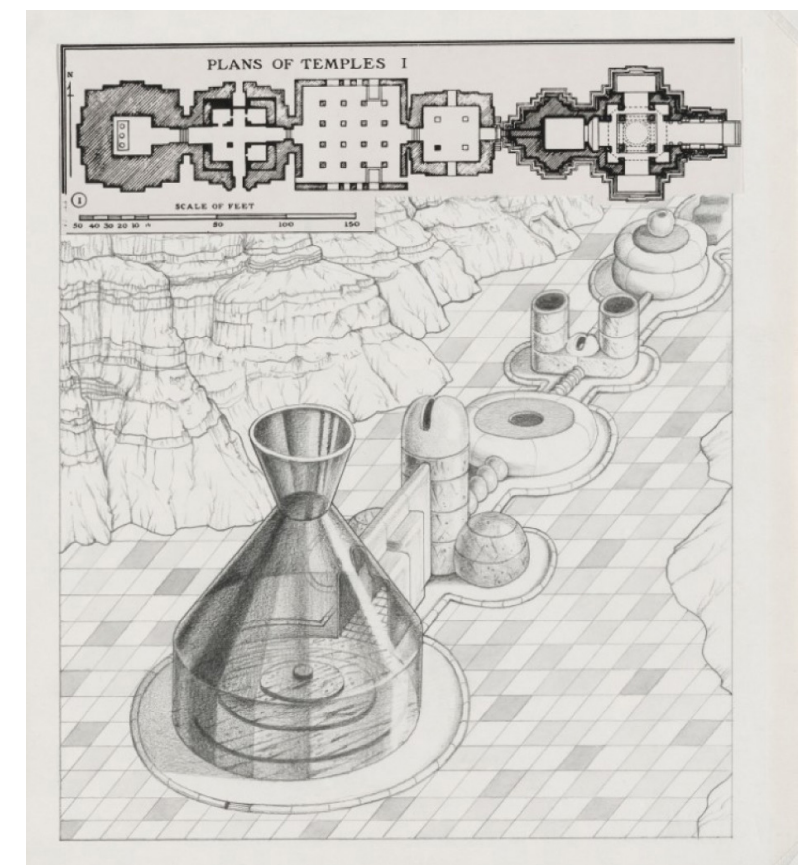


Figure 32. Drawn by Nigel Coates

This is crucial to this study. The value of old clothes cannot be re-established simply by using an environmental slogan. It requires a process: people need to approach the clothes, see their wear and tear, understand their origins, participate in their restoration, and finally re-evaluate and recognize their value. This process itself is a narrative. It's not a story written on a wall, but rather, through spatial arrangement, it allows people to gradually enter the life trajectory of the clothing.

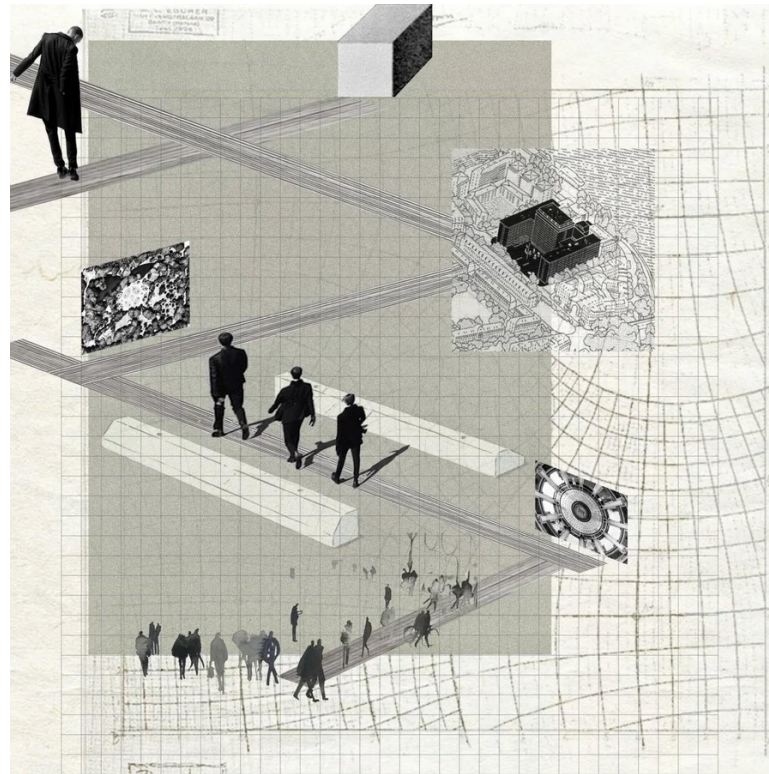


Figure 33. Drawn by Nigel Coates

In Coates' early views on narrative architecture, there's a noteworthy statement: "Meaning and conventional function need not necessarily be linked." This means that meaning doesn't necessarily have to conform to traditional function. In other words, a space can also be established because it creates a certain psychological, emotional, or memory experience. He also mentioned that architecture needs to draw people back into interaction with the space and needs "a time dimension, a mental dimension... or what we could call narrative." This indicates that space not only has plan and elevation but also time and psychological dimensions. (Nigel Coates, 2012)

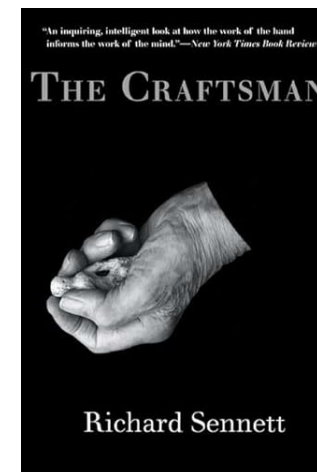


Figure 34. The Craftsman—Richard Sennett

This can be directly applied to the design of this paper. For example, an old clothes recycling space cannot simply be a "clothes repair place." If it only provides repair services, then it's no different from an ordinary tailor shop. What's truly important is that it makes the restoration process an experiential spatial event. Once old clothes enter the space, they shouldn't be immediately sent to the back office for processing. Instead, they should undergo a series of processes—diagnosis, disassembly, discussion, repair, and display—to reveal their past and future. Only then can the space become not just a functional place, but a narrative space.

Richard Sennett offers another perspective on this in his book «The Craftsman». He focuses on the process of "doing," that is, the relationship between human hands, materials, techniques, and time. Sennett writes in the book: "Craftsmanship names an enduring, basic human impulse, the desire to do a job well for its own sake." This illustrates that craftsmanship is a desire to do things well in itself. (Richard Sennett, 2008)

This is crucial for "restoration." Restoration is not simply covering up damage, nor is it making old clothes look new. Restoration is a process of interacting with materials. In this process, one needs to observe the condition of the fabric, determine the location of wear, and so on. This process requires us to slow down, requires the participation of the hands, and requires judgment. It is the opposite of the speed of fast fashion. Fast fashion pursues speed, cheapness, and uniformity; restoration emphasizes slowness, detail, and individual differences.

Sennett's discussion of "hands" is also well-suited to support this research. In his book, he states, "The hand is the window on the mind." While this quote originates from Kant's philosophical discussion of the hand, in Sennett's context, it emphasizes that manual labor and thought are not separate (Richard Sennett, 2008). When people handle materials with their hands, understanding doesn't only occur in the mind but also through touch, trial and error, adjustment, and repetition.

Applying this to clothing restoration, we find that the very act of "hand" can change one's attitude towards clothing.



Figure 35. The state of a craftsman.

When a garment is simply purchased from a shelf, it's easily seen as a commodity. But when we touch its fabric, see its damage, and participate in its repair, it ceases to be merely an external object. The act of the hand brings the garment back into our attention, making us realize that a garment is not an abstract "sustainable product" but an entity composed of labor, time, and personal emotion.

Therefore, in this study, "making restoration visible" is not simply a display strategy but a crucial part of theoretical translation. Sennett's emphasis on the value of craftsmanship requires us not to hide production and restoration in the background. The handcrafted process should be at the heart of the space. A transparent restoration workbench, a visible mending process—these allow consumers to see how the object is transformed. In this way, restoration transforms from a service into an experience, and from technical labor into a spatial narrative.

In this spatial orientation, Juhani Pallasmaa's book, «The Eyes of the Skin», further reminds us that spatial experience is not merely visual. Modern commercial spaces often over-rely on visual elements—window displays, lighting, branding, perfect arrangements—all reinforcing the "seeing" consumption pattern. But in a space dedicated to regenerating old clothes, we cannot rely solely on visuals, because the value of old clothes often lies in touch, smell, weight, wear, texture, and the marks of time. Pallasmaa emphasizes the relationship between architecture and the senses in her book, stating, "The elements of architecture are not visual units or gestalt; they are encounters, confrontations that interact with memory." (Juhani Pallasmaa, 1996) This means that architectural elements are encounters that interact with memory. This almost directly explains the spatial orientation of this study. The value of old clothes comes from their ability to evoke memories. For example, a faded cuff, a patch, or a re-stitched seam might evoke a stronger emotional response than brand-new fabric. The space's role is to allow these details to be perceived, not to conceal them.

Pallasmaa also criticized the overemphasis on visual elements in modern architecture. He focused on touch, the body, materials, and memory, arguing that architecture

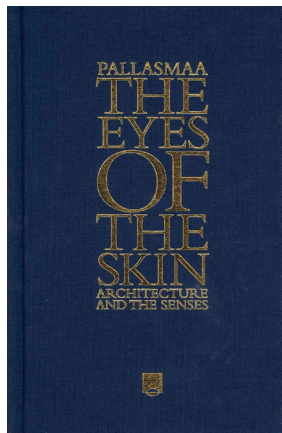


Figure 36. The Eyes of the Skin—Juhani Pallasmaa

should not merely be an object for the eyes to see, but rather a space that allows people to truly enter through multi-sensory experiences. Some commentators have pointed out that Pallasmaa considered architecture to be "multi-sensory," requiring people to immerse themselves in space and time to experience it (Juhani Pallasmaa, 1996). This is highly insightful for this paper. Piazza San Babila, as a core consumer area in Milan, is filled with intense visual stimulation, such as shop windows, brand advertisements, pedestrian traffic, and subway exits. Such an environment is very suitable for creating desire, but not for creating lingering. It encourages people to see new products, but discourages them from experiencing old things. Therefore, if we want to implant a pop-up space for recycled clothing in such a consumer environment, we must consciously change the sensory rhythm of the space.

Pallasmaa also has a very relevant point for this study: "The door handle is the handshake of the building." This statement emphasizes that the relationship between architecture and the body often begins with the smallest tactile details. (Juhani Pallasmaa, 1996) For example, a doorknob is not just an ordinary component; it's the first point of contact between a person and the architecture. In recycled clothing spaces, touch is equally important. Can people touch the materials? Can they feel the thickness after repair? These details affect them. In other words, spatial translation isn't about writing theories on display boards, but about transforming theories into details that can be experienced physically. Heidegger helps us reinterpret "objects," Chapman and Norman help us understand emotional attachment, while Coates, Sennett, and Pallasmaa help us bring these theories into space. Meaning is organized through narrative, process is presented through craftsmanship, and memories are evoked through the senses.

Therefore, we can summarize three spatial principles. The first principle is "visibility." If one of the problems with fast fashion is that the processes of production, disposal, and recycling are hidden, then recycled clothing spaces must bring these processes back into the public eye. Repair should be the core scene in the space. Users can see how clothing is inspected, redesigned, and mended, and they can also see how craftsmen assess materials

and structures. The "seeing" here isn't about watching a performance, but about understanding the process. It makes people realize that an old garment is still a material that can be transformed.

The second principle is "narrative." The value of old clothes comes not only from the material itself, but also from the personal story associated with it. The space can organize this story through different points. For example, the original state of the garment can be presented at the entrance, its memories, wear and tear, and repair plans can be displayed in the middle, and the repaired result can be presented at the end. Alternatively, a reverse chronological design approach can be used. The movement of people in the space becomes a reading process from "old object" to "new meaning." This narrative doesn't need to be overly dramatic; it can unfold gradually through labels, sounds, images, and garment archives.

The third principle is "participation." Participation can be subtle and tailored to different people. For example, filling out a garment memory card, choosing repair materials, or discussing plans with a designer; it can also be more in-depth, such as personally completing some sewing or participating in the design of the old garment's reconstruction. The important thing is that the user is no longer just a consumer, but becomes part of the garment regeneration process.

These three principles collectively point to the spatial logic of the "old clothes recycling - pop-up store." It's not a traditional secondhand store, nor simply a repair shop; it's a temporary space that re-exposes the lifecycle of old clothes. Its task is to create pause, not to hide damage. It transforms repair into a spatial experience of re-establishing a relationship between people and objects. This spatial intervention is particularly significant in venues like Piazza San Babila, a high-consumption, high-traffic urban hub where people are accustomed to quickly entering stores, buying new items, and leaving the plaza. Placing a space that emphasizes old clothes, repair, and lingering in such a location disrupts the consumption rhythm. It brings old objects back into the public eye.

If we want people to rediscover the value of old clothes, we cannot simply tell them "old clothes can be reused," but rather let them see and touch them, and experience their transformation within the space. Only when old clothes transform from abstract environmental objects into concrete spatial experiences can they truly shift from "waste" to "meaningful objects." This is precisely the ultimate goal of this chapter's theoretical discussion: from the manifestation of objects to emotional attachment, and then to spatial translation.

Case Studies I

— Business Logic, Spatial Narrative
and User Behavior in Circular Fashion

This chapter emphasizes "case-based logical learning," investigating the standardized processes and emotional narrative strategies employed by brands such as Nike and Freitag in handling secondhand materials. This chapter analyzes the operational and spatial design characteristics of each brand and event case, creatively extracting design elements applicable to Piazza San Babila, such as old clothes diagnostics, transparent restoration workshops, and narrative-driven results displays.

04

4.1 Introduction: Learning from Existing Circular Fashion Practices

This chapter shifts its focus to another area: what interesting things are existing brands and spaces doing? We'll learn from real-world examples, analyzing how they handle old clothes, leftover materials, and secondhand goods, and how they use space, processes, and narratives to revitalize these often-overlooked items.

The case studies selected for this chapter include RE.UNIQLO STUDIO, Nike Re-Creation, Freitag, and Shanghai Duo Zhuayu. They are not the same type of business, and their business models differ. RE.UNIQLO STUDIO is closer to routine repair services, incorporating repair, alteration, and personalization into some of its stores; Nike Re-Creation emphasizes the re-creation of old materials, redesigning and transforming leftover inventory or old clothing into locally produced limited-edition products; Freitag integrates the sourcing, cleaning, and cutting processes of discarded truck tarpaulins into its brand narrative; and Duo Zhuayu focuses on using standardized processes to make secondhand goods clean, trustworthy, and respectable again. These cases address different problems, but they all attempt to answer the same question: how can old items re-enter the realm of consumption and emotional connection? This chapter is not intended to simply introduce these brands, nor to judge which is more successful. I want to focus on the logic behind them. For example, how does a brand get consumers to accept

recycled materials? How does a space make the repair or rebuilding process visible? These questions are more important than simply describing the brand story. This paper ultimately presents a recycled clothing pop-up space located in Piazza San Babila. We need to extract elements from the case studies that can be transformed into spatial design.

This chapter will analyze each case from three perspectives: business logic, spatial narrative, and user behavior. First, business logic: why do brands do this, and how do they create new value through repair, resale, rebuilding, or standardization? Second, spatial narrative: how are these practices presented in the space, how are they narrated spatially, and what narrative techniques are used? Finally, user behavior: what role do consumers play in these spaces or platforms? How do they participate, and how is their participation understood? This point is particularly important for this research. In Chapter 1, we clearly pointed out that a significant problem with the current circular economy is its lack of visibility in real urban consumer spaces. Many of the recycling, cleaning, sorting, and reprocessing processes happen in the background, and consumers rarely see how old clothes are given a new life. This is why "sustainability" often remains just a slogan.



Figure 37. RE.UNIQLO STUDIO SERVICE

4.2 RE.UNIQLO STUDIO

The most valuable lesson we can learn from the RE.UNIQLO STUDIO case is how it brings the act of "repairing old clothes" back into the everyday lives of ordinary people. Often, sustainable fashion sounds like a distant issue, related to policy, materials technology, and so on, but not so much to the clothes a consumer wears that day. RE.UNIQLO STUDIO takes the opposite approach, starting with the simplest things: small holes, wear and tear, missing buttons. Uniqlo directly states in its introduction, "Your Uniqlo clothing has a long lifespan," and aims to help customers maximize the use of their existing clothing through "repair, modification, reuse, or recycling suggestions" (Uniqlo, n.d.).

The core of RE.UNIQLO STUDIO is not to encourage consumers to buy more new clothes; from a business logic perspective, it's about extending the lifespan of Uniqlo's existing products. Its services mainly include repair, remake, reuse, and recycling (Grace Loyola, 2025). This is significantly different from traditional retail logic. Traditional stores typically focus on how an item is sold, while RE.UNIQLO STUDIO focuses on how the product continues to exist after it's sold.

In the fast fashion context, clothing is easily seen as short-term consumer goods. Damaged? Replace. Old? Throw away. Out of fashion? Stop wearing it. But RE.UNIQLO

STUDIO reminds consumers that a garment doesn't necessarily end its life because of a flaw. It can be repaired, repurposed, or reused. Uniqlo's official description states that the project aims to "repair your beloved clothes so you can continue to wear and love them," and "transform them into brand new items" (Uniqlo, n.d.). It makes sustainability simple and easy in a way that resonates with everyday emotions.

From a spatial narrative perspective, RE.UNIQLO STUDIO's spatial strategy is to place repair and repurposement services within the store, allowing consumers to directly experience the process of regenerating old clothes within the shopping space. Especially in stores in Berlin, London, New York, Singapore, Malaysia, Taiwan, and Japan, RE.UNIQLO STUDIO is offered as an in-store service (Grace Loyola, 2025). The value of this approach lies in transforming "repair" from a peripheral activity into an integral part of the brand space. When consumers enter the store, they see not only new products but also the possibility of reusing clothing.

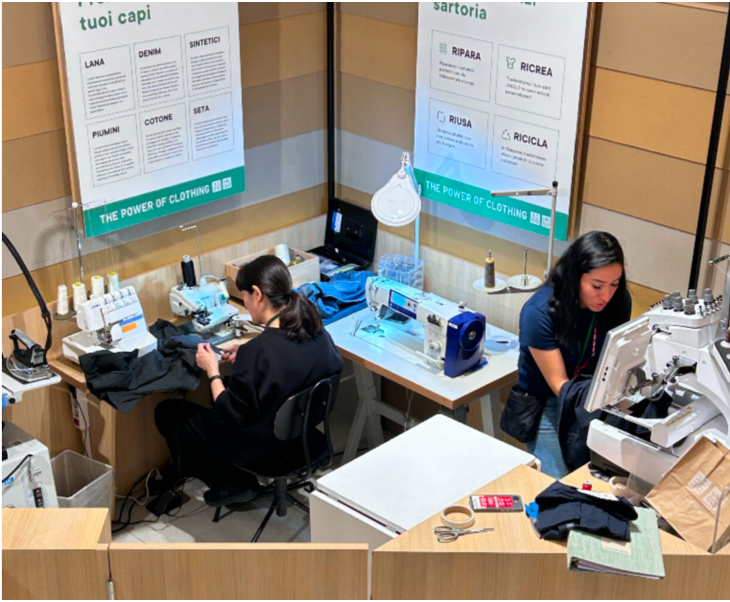
Figure 38. Re-UNIQLO store in Piazza Cordusio, Milan.



Figure 39. Work environment.



Figure 40. The staff are repairing the clothes.



The Sashiko embroidery service is another narrative-driven aspect of this case. Uniqlo's website describes Sashiko embroidery as a traditional Japanese garment repair technique, originally used for "repairing, reinforcing, or enhancing the warmth of clothing." Later, it was incorporated into the LifeWear collection, adding design elements and functionality, allowing customers to enjoy wearing the garments for longer (Uniqlo, n.d.). It's worth noting here that repair is no longer just about concealing damage; rather, it transforms damage into a new visual language through decorative stitches. Grace Loyola's materials also mention that Sashiko embroidery allows customers to enhance the aesthetics of clothing while reinforcing it through decorative stitches (Grace Loyola, 2025).



Figure 41. Sashiko craftsmanship with different patterns.



Figure 42. RE-UNIQLO Circular Process.

In addition, Uniqlo has a down jacket recycling program: Uniqlo recycles down jackets that are no longer worn, and also collects the down and feathers from them. This reduces unnecessary resource consumption and waste. Technically, Uniqlo uses down recycling technology for regeneration, which is crucial for recycling and reuse. Uniqlo collects unwanted Uniqlo down products from customers through RE.UNIQLO recycling bins installed in each store.

From a user behavior perspective, RE.UNIQLO STUDIO changes the role of consumers in stores. In traditional retail spaces, consumers typically just select, try on, pay, and leave. But in RE.UNIQLO STUDIO, consumers can bring old clothes into the store, inquire about repair options, choose different alteration methods, and even participate in workshops. Uniqlo's official materials mention that the Berlin studio provides Uniqlo and customers with "co-creation opportunities" (Uniqlo, n.d.). This statement is important; it illustrates that the relationship between the brand and its users is no longer just a transaction, but a new collaboration centered around a garment.

Of course, I think RE.UNIQLO STUDIO also has its limitations. For example, Grace Loyola's information mentions that the service only applies to Uniqlo clothing, not all branded garments (Grace Loyola, 2025). Therefore, it remains an internal brand service, not a completely open public repair system. Its starting point is still closely related to the brand's products, brand values, and the LifeWear philosophy. However, for this paper, this does not diminish its reference value. On the contrary, it shows us how a large retail brand can embed repair, modification, reuse, and recycling into its spaces and services, making it more acceptable to consumers.



Figure 43. THE UNIQLO DOWN RECYCLING PROGRAMME.

Therefore, the value of RE.UNIQLO STUDIO lies not in solving many problems of circular fashion, but in making "repair" a daily service and making the idea that "old clothes can still be loved" tangible.



Figure 44. Nike Re-Creation Program.

4.3 Nike Re-Creation

The Nike Re-Creation case exemplifies how recycled materials are brought back to the forefront of culture and trends, transforming old clothing, surplus stock, and discarded materials into new limited-edition items, community events, and even creative activities imbued with local culture. This transforms it into a re-creation with scarcity, narrative, and cultural value.

Nike's official definition of Re-Creation is straightforward: "The Nike Re-Creation project collects vintage and surplus stock locally and uses it to create new locally designed and manufactured products" (Nike, 2022). It's not an abstract global recycling program, but rather a relationship with specific cities and communities. This project "transforms locally collected vintage and surplus goods into locally designed and manufactured products," a "new circular business model that is close to and designed for local athletes" (Nike, 2022). From a business logic perspective, this approach is ingenious. It not only reduces waste but also transforms "old materials" into "locally exclusive" value.

The initial phase of the project at The Grove store in Los Angeles in 2022 illustrates this point. Nike has released three fleece hoodies and crewneck sweatshirts inspired by Los Angeles sports culture, exclusively available at Nike The Grove stores (Nike, 2022). These aren't mass-produced new items; they've been hand-cleaned, dyed, sewn, and repaired before being reintroduced to the market. Nike states, "Each item has been hand-cleaned, dyed, sewn,

and repaired to restore it to wearable condition. Each item is unique, featuring patches and decorative stitching for enhanced durability" (Nike, 2022). The repair process actively allows patches, stitching, and patterns to become a new visual language. The old traces are preserved while being redesigned, which is very interesting.

This has been very inspiring for my design. Because in the Piazza San Babila pop-up space for repurposed clothing, old clothes shouldn't just be "restored to their original state." Simply restoring them to their original state remains at the level of a repair service. But Nike Re-Creation tells us that old clothes can be recreated and given a new identity. It can become a limited edition, gaining a stronger sense of exclusivity than ordinary new clothing.

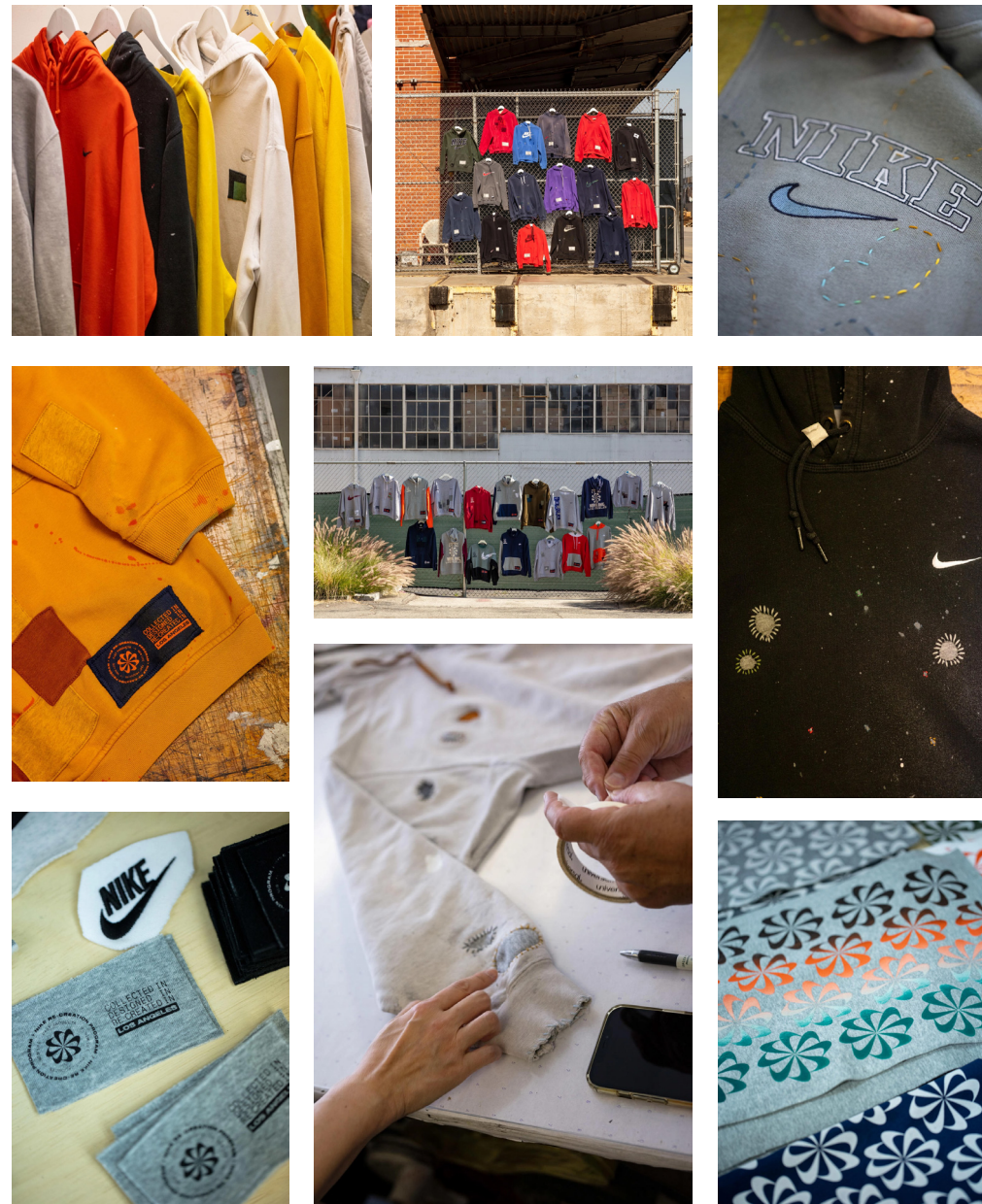


Figure 45. launching May 26 at The Grove in Los Angeles, Nike Re-Creation Program.

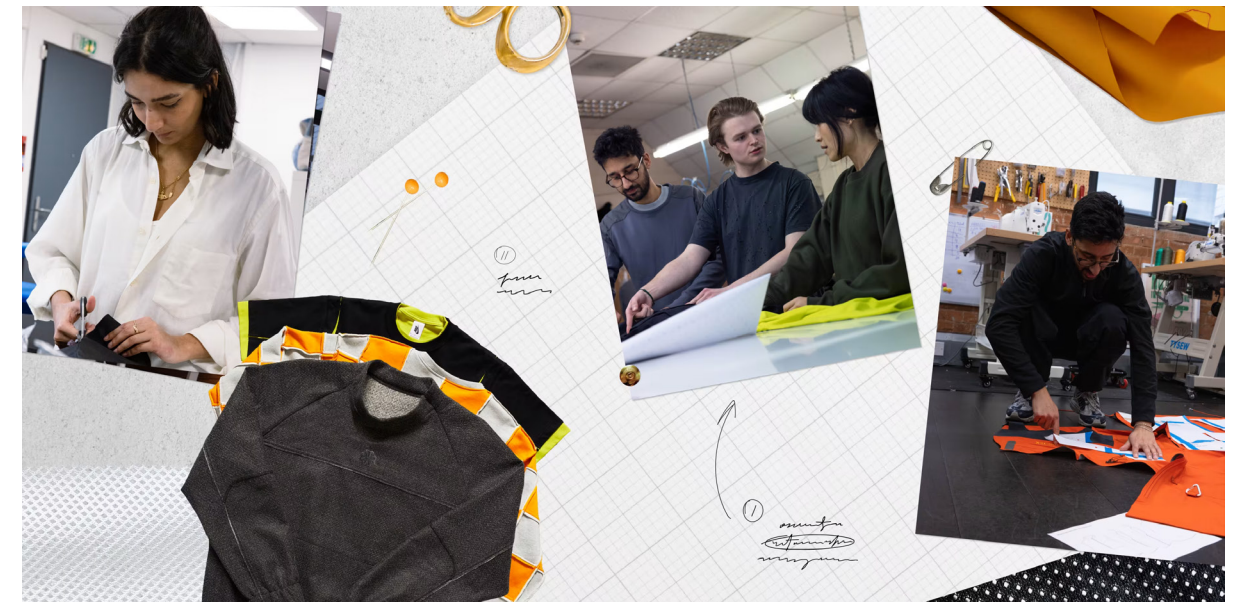


Figure 46. London local designer.

Nike Re-Creation in London, in collaboration with Greater Goods, places greater emphasis on the role of designers and handcrafted upcycling. Nike describes the project as follows: "Nike Re-Creation is coming to London, bringing a limited-edition upcycling collection meticulously crafted by Greater Goods," and invites viewers to "meet directly with the collection's lead designer, Jaimus, to learn more" (Nike, 2023). This is interesting because Nike presents the designer, their creative background, and the upcycling process to the audience. Jaimus's story also fits the project well; he initially learned sewing by reusing fabrics from existing products, transforming a jacket into a bag, which



Figure 47. NikeLab Chicago, 2019



Figure 48. Design mentors and students work and learn together, workshop.

later developed into the Greater Goods London design project (Nike, 2023). Greater Goods' attitude is also clear: they "don't discard damaged clothing, but rather recycle the still-intact fabrics to create unique pieces" (Nike, 2023). Therefore, it involves reassessing the "still intact" parts of the material and designing them to continue to provide value.

However, the Nike case study most worthy of in-depth analysis is the NikeLab Re-Creation Center Chicago in 2019. This project, a temporary space next to the Nike Michigan Avenue store, was not only a retail space but also a creative studio and workshop (nopattern studio, n.d.). Brandex described the NikeLab Re-Creation Center as an "experiential installation" that allowed consumers to "see Nike's recycling process" (brandex, 2019). More interestingly, this space was also defined as an alternative energy factory; it was not merely a retail space but a cultural center that inspired the innovative spirit of Chicago's youth through workshops and mentorship programs (brandex, 2019). Here, recycling was not packaged as boring environmental education; it was transformed into creativity, youth culture, and community engagement.

Designboom's description of the project also emphasized its community aspect. It stated that the space aimed to empower the city's young people by inspiring their creativity through workshops, non-profit projects, exclusive products, and collaborations with local influencers (Designboom, 2019). Virgil Abloh also selected local Chicago creators to hold workshops within the space, including graphic designers, photographers, interdisciplinary artists, and architects. This transformed the Re-Creation Center into a temporary urban creative platform.



Figure 49. "Industrial laboratory" style.



Figure 50. NikeLab interior space.



Figure 51 winding system.



Figure 52. Nike Grind for furniture.



Figure 53. winding system to collection points.

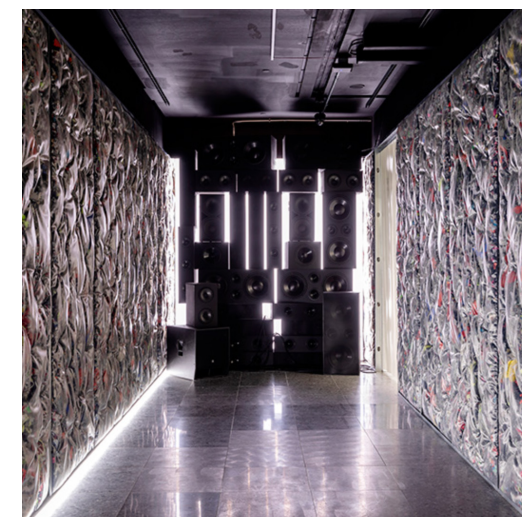


Figure 54. The entrance wall was made from collected old Nike shoes.



Figure 55. The mixture of rubber, foam, fiber, leather and textiles is separated and ground into various particles.



Figure 56. Nike Grind for molds.

The project also features a strong spatial element: the visualization of old shoe recycling. All visitors can participate in Nike's "old shoe recycling" program. The process involves customers donating old shoes, which are then transported via a complex, winding system to collection points (brandex, 2019). These shoes are ultimately transformed into Nike Grind, a reusable material previously used in the construction of local community basketball courts; within the space, Nike Grind is also used for furniture such as benches and flooring (Designboom,

2019). This is a very direct spatial narrative: old shoes enter the space, are transported, collected, transformed, and ultimately become part of the community court. Viewers witness a path from waste to regeneration.

From a user behavior perspective, the most successful aspect of Nike Re-Creation is that it engages users in a larger cultural event. In Los Angeles, consumers buy locally designed, locally made, and unique repurposed garments; in London, consumers can interact with designers and understand the creative process behind the upcycling; in Chicago, visitors can donate old shoes, watch the recycling process, and participate in workshops and community events. This sense of participation transforms old materials from being perceived as cheap or passive into something connected to creativity, identity, and urban culture.

Of course, Nike's case also has its complexities. It remains a strongly brand-driven project, utilizing limited editions, celebrities, and cultural events to create appeal. For this paper, the focus is on extracting the design methods from this case, such as transforming old materials into limited-edition and unique value; making the repurposing process visible; creating participation through workshops and mentorship programs; and connecting material recycling with the local community.



Figure 57. Freitag factory.

4.4 Freitag

Freitag is a Swiss eco-friendly backpack brand founded in 1993 by the Freitag brothers. They use recycled truck tarpaulins, old bicycle inner tubes, and seatbelts as their main materials to handcraft unique, waterproof, and durable backpacks and accessories. The brand adheres to a complete recycling philosophy, using materials from years-old tarpaulins, resulting in each product featuring unique patterns, wear marks, and an industrial feel, while remaining sturdy, durable, and repairable. The brand continues this circular thinking, emphasizing that "we don't produce seasonal products, but rather carefully designed, durable, and timeless unique items" (freitag, n.d.).

Freitag's case differs from RE.UNIQLO STUDIO and Nike Re-Creation. Its most interesting aspect is transforming waste itself into brand identity. Nowadays, many brands treat recycled materials as an eco-label, simply placing it in product descriptions and calling it a day; but Freitag is different. It makes the source of the materials, the washing process, the cutting method, and the signs of use all part of the story—this is brand narrative.

From a business logic perspective, Freitag's core principle is redefining recycled materials as high-value materials. The truck tarpaulins they use have already completed their first life cycle—used on the road, weathered, and bearing the

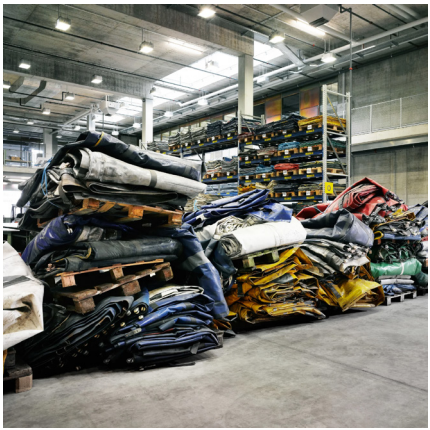


Figure 58. They collect and buy old truck tarpaulins, discarded seat belts, bicycle inner tubes, and other materials.



Figure 59. Staff members are using sewing machines.



Figure 60. REPAIR STATION.

marks of time. Logically, these tarpaulins would often be considered waste. However, Freitag believes that even used, durable truck tarpaulins remain high-quality raw materials for making bags (freitag, n.d.).

Freitag's material processing is also very narrative. It breaks down the entire process into clear steps: sourcing, disassembling, cleaning, cutting, and sewing. For example, its website states that Freitag searches for a large amount of recycled tarpaulins in Europe each year, shipping up to 270 tons to Zurich; then, workers use "cutters, pliers, and brute force" to remove the tarpaulins from the straps, buckles, and accessories (freitag, n.d.).

During the cleaning process, Freitag openly states that these tarpaulins come from the streets, carrying the dirt and dust from the roads, and are restored to their unique texture through washing. They use multiple large washing machines to clean the tarpaulins and collect rainwater on the factory roof to meet about half of their water needs (freitag, n.d.).

This uniqueness of Freitag is not created through limited-edition marketing, but is determined by the materials themselves. Because the color, scratches, lettering, fading, and stains on each truck tarpaulin are different, each bag produced is naturally unique. The article mentions that the cutting table determines the final appearance of each unique Freitag product, and transparent templates are arranged on used truck tarpaulins to create the most aesthetically pleasing bags (freitag, n.d.). The cutting here involves selection and judgment. Designers or workers need to find the most suitable pattern placement on the existing materials, thus each finished product has a certain unrepeatable quality.

Furthermore, Freitag's repair service is also worth learning from. A small repair counter of only 10 square meters allows customers to order repairs like ordering takeout, choosing services from a dedicated menu and picking up their refurbished bags afterward. Some simple repairs can even be expedited for same-day pickup, while complex repairs like canvas transplants take several days (freitag, n.d.). This is interesting because it lets customers know what can be done, how long it will take, and the approximate result.

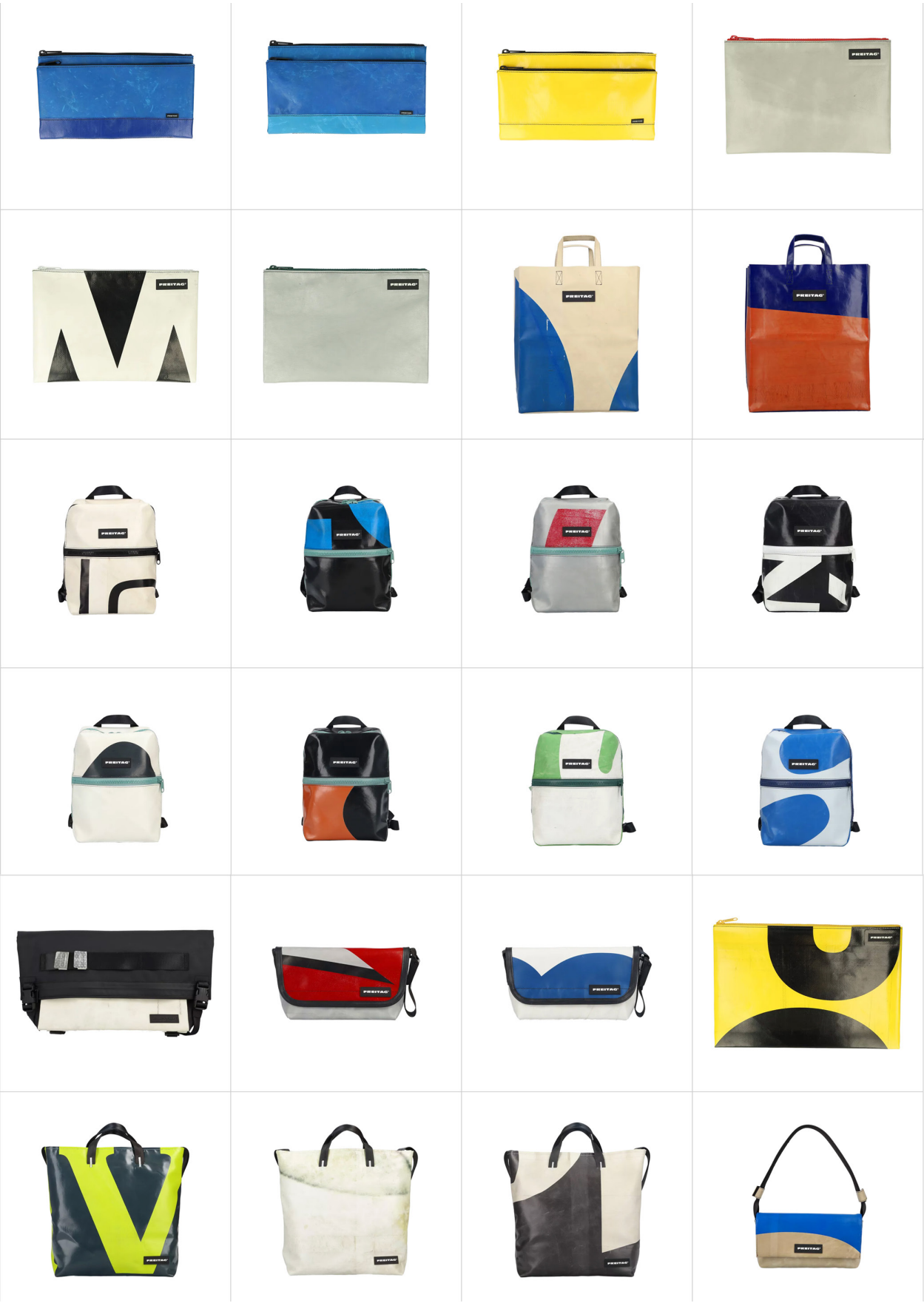


Figure 61. Each bag made by Freitag is naturally different.



Figure 62. The Donnerstag Weeks at FREITAG.



Figure 63. Shelves.



Figure 64. FREITAG products were displayed interspersed with vegetables.

Freitag also has a fun pop-up event. In September 2023, a shop next to Hardbrücke was transformed into a "supermarket." Using items sourced from secondhand platforms, such as vegetable display cases, supermarket checkout counters, and refrigerated shelves, they transformed the space almost into a real supermarket scene (freitag, n.d.). This space is very clever because it makes the purchasing process easy, everyday, and even a little humorous. Customers browse like they're shopping in a supermarket, reducing pressure and increasing engagement.

From a user behavior perspective, Freitag transforms consumer behavior from "buying a standardized product" to "choosing a unique item." Consumers pay attention to material patterns, compare different marks, and may even choose a bag based on a particular color, lettering, or wear. This process is very different from buying ordinary new goods. Normally, ordinary goods emphasize uniform quality, but Freitag emphasizes the difference itself. Customers are buying a piece of material that has been used on the road, given a new life.



Figure 65. Interior space

Therefore, Freitag's insights into this research can be summarized in two points. One is that the processing should be visible, especially key steps such as cleaning, disassembly, cutting, and remanufacturing. The other is that the traces of old materials should be transformed into uniqueness, rather than concealed.

Site Analysis

—Piazza San Babila

This chapter conducts a comprehensive on-site survey of Piazza San Babila in Milan, including the site's historical development and urban status, analyzing its rationalist architectural facade and important historical buildings. Through a series of mapping techniques, it depicts the site's pedestrian flow, crowd analysis, and behavioral analysis, providing a site-specific basis for subsequent spatial design.

05



Figure 66. Piazza San Babila.

5.1 Urban Context: Piazza San Babila as a Fashion Consumption Node

Piazza San Babila, located in the heart of Milan, Italy, close to the Duomo, is a vital link between the historical center, commercial districts, and trendy shopping areas. Some describe San Babila as "the heart of Milan," noting its proximity to the Duomo and its preservation of part of the city's history. Examples include early high-rise buildings constructed in the 1930s and the San Babila Church (italia.it,n.d.) named after the square. Therefore, San Babila is a space in central Milan with overlapping historical, transportation, and commercial attributes.

The importance of Piazza San Babila lies primarily in its relationship with Milan's core shopping area. Corso Vittorio Emanuele II, the main pedestrian shopping street connecting Piazza Duomo and Piazza San Babila, boasts numerous clothing and accessories stores, primarily fast-fashion brands such as Zara, H&M, and Mango, and together with Galleria Vittorio Emanuele II, it is considered a major shopping destination in Milan (italia.it,n.d.). Furthermore, San Babila itself serves as a transition point in the city's consumer flow, allowing people to enter the pedestrian shopping district from the Duomo direction and then access higher-end fashion areas via San Babila.

San Babila is also very close to Quadrilatero della Moda. Many institutions and individuals describe Quadrilatero della Moda as Milan's ultra-luxury shopping district, also known as the "Fashion Quadrilateral" (wikipedia, n.d.). It is enclosed by four streets: Via Montenapoleone, Via Manzoni, Via della Spiga, and Corso Venezia (yesmilano, n.d.). Via Montenapoleone is the core street of the area and, along with New York's Fifth Avenue and Paris's Champs-Élysées, is considered one of the world's most expensive and iconic shopping streets. The shops and showrooms on these streets attract fashionistas from all over the world, whether for shopping or simply admiring window displays (italia.it, n.d.). This means Piazza San Babila is situated in a transitional zone between mass-market commercial consumption and luxury consumption. On one side is a high-traffic pedestrian shopping street, and on the other is a highly symbolic luxury fashion district. This urban location naturally gives it the nature of a "consumption gateway."



Figure 67. Basilique San Babila.



Figure 68. San Babila M4 subway entrance.

In recent years, San Babila's transportation attributes have been further strengthened. With the opening of the M4 blue line in 2025, Piazza San Babila has become an important transfer point in Milan's urban transportation network. It takes less than 30 minutes from San Cristoforo to Linate Airport. (ATM, n.d.) The M4 line is 15 kilometers long with 21 stations, and can reach Linate Airport from the city center in approximately 12 minutes (comune.milano, 2024). For San Babila, the square is not only a commercial space in the city center, but also a new gateway connecting the airport, the metro network, and the shopping district. We can try to understand Piazza San Babila as a "high-

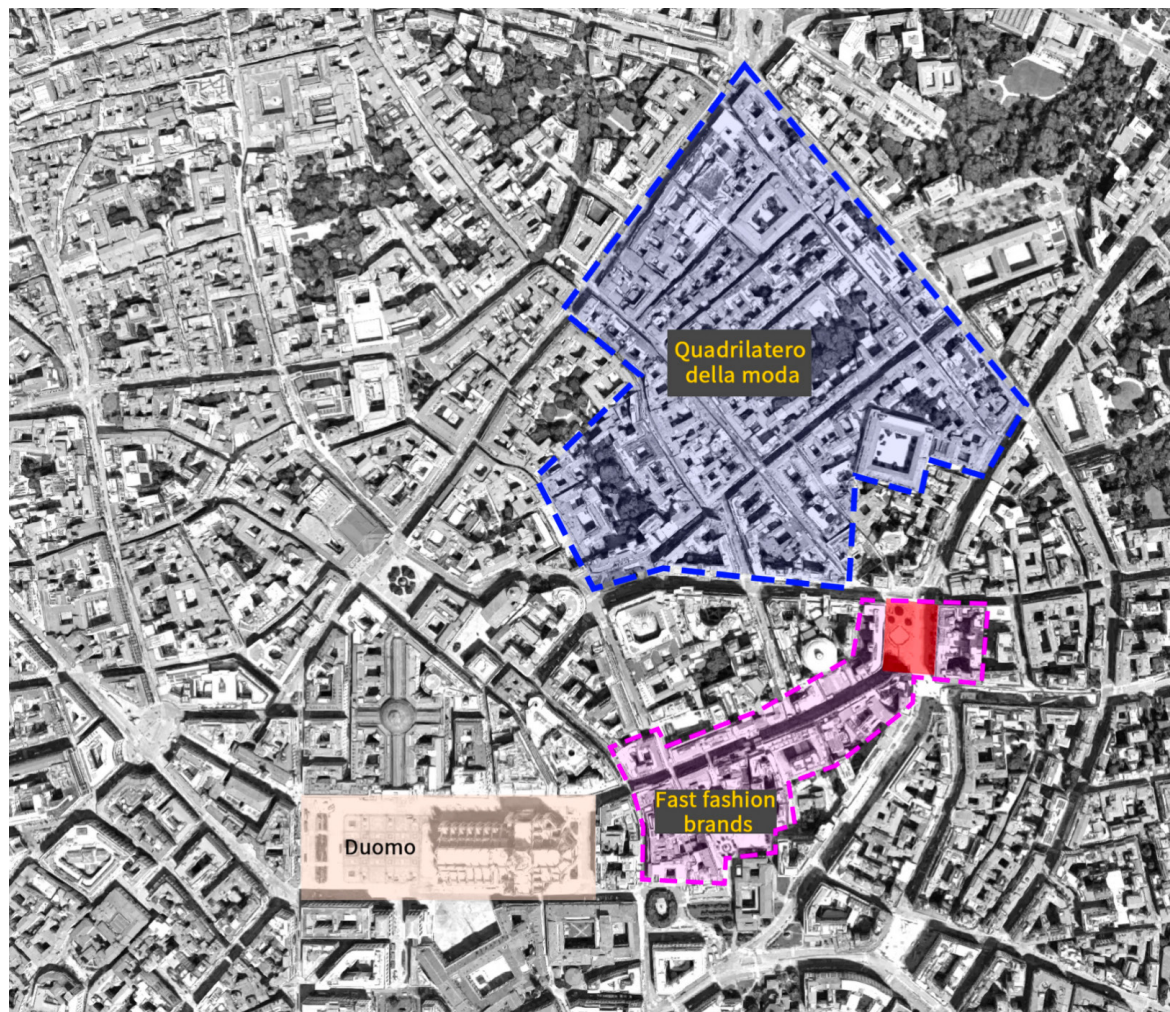


Figure 69. This area is home to many of the most important fashion brand stores and studios.

speed consumption node." Because it possesses both a historical urban context and is constantly being redefined by contemporary commerce and transportation, the flow of people here is not simply that of tourists; it comprises shopping, commuting, sightseeing, and urban mobility. People come here often to head in a specific direction, such as to the Duomo, Corso Vittorio Emanuele II, Quadrilatero della Moda, or to access the M1/M4 metro system. This makes the site prone to a fast-paced rhythm of movement. My research focuses on how old clothes can be rediscovered, restored, and reinterpreted,



Figure 70. Located in the heart of Milan's shopping district, it connects Corso Vittorio Emanuele II (a hub for mass-market fast fashion brands) and Via Montenapoleone (a luxury center).

and how temporary spaces can rebuild the relationship between people and objects. Piazza San Babila, a hub of fashion consumption, with its surrounding commercial spaces constantly showcasing new products and the metro and pedestrian flow continuously propelling people forward, ironically lacks a visible expression of the life of materials and the value of old objects.



Basilica di San Babila, 11th Century



Largo San Babila, 1930 s



Palazzo Toro



Snia Viscosata



Red Line



Fountain



Blue Line

5.2 Historical and Architectural Background

Piazza San Babila has a unique historical and architectural background. It's an urban node shaped by architecture, transportation improvements, and commercial activities from different periods. Here, ancient religious buildings, 20th-century modern architecture, and contemporary subway renovations coexist. Therefore, San Babila's spatial character is not singular; it possesses a sense of history and order, while being constantly redefined by today's consumer pace.

Piazza San Babila's history dates back to ancient Roman times, but its current appearance was primarily shaped by urban planning in the 1930s.

Its core historical phases:

Origins and Antiquity (Roman and Medieval): Since Roman times, this area has been an open space called a "largo," a crossroads leading to Bergamo.

(11th Century) The iconic building on the square is the Basilica of St. Barbila: Built in the 11th century (some sources indicate its history dates back to the 5th century), it is one of Milan's oldest churches. It witnessed the square's development from an open space in front of the church into a vital transportation hub.

(1930s) Large-scale demolition and reconstruction in the 20th century: During the Fascist era, many old buildings (including the famous Venetian Gothic architecture) were demolished to modernize the city. During this period, the square was officially named "Piazza," and a series of rationalist buildings were constructed.

(1930s-1950s) Many rationalist buildings emerged around the square, such as the Palazzo Toro, built by Emilio Lancia between 1935 and 1939. Milan's first skyscraper—the Spire of San Barbilla (also known as the Tower of San Barbilla)—also stood here. This 15-story tower, designed by Alessandro Rimini in 1937, was 60 meters high.

(1960s) The construction of the M1 Red Line metro station transformed the area. The Passarella Gallery was also completed in 1957.

(1960s-1970s) Political stage: This area became the center of neo-fascist political activity.

(1980s) Youth Culture Center: The iconic "Paninari" youth subculture was born here. These young people were known for their pursuit of fashion brands and gatherings at "Burghy," Italy's first burger joint.

(1990s) Art and Landmark: The square was decorated with fountains designed by Luigi Catia Dominioni and sculptures by Arnaldo Pomodoro.

(2024) With the completion of the M4 metro line, the square's construction was essentially finished.

Figure 71. Historical Evolution.



Figure 72. Torre Snia Viscosa.

The history of the San Babila Church dates back to 46 AD. This sacred church, built on the site of a Roman temple of the sun god, has always provided spiritual solace to the citizens of Milan. Its current form has undergone numerous restorations and renovations; the neo-Romanesque facade we see today was mainly formed in the late 19th and early 20th centuries, completed by Cesa Bianchi and Nava (Visit Milano, n.d.). The existence of this church makes the square more than just a commercial and transportation space; it also preserves a certain urban memory.

In the visual experience of the square, what is truly striking is not only the church, but also the sense of order brought by 20th-century modern architecture. The San Babila area contains early high-rise buildings constructed in Milan in the 1930s (italia.it,n.d.). The most representative of these is Torre Snia Viscosa. Built between 1935 and 1937, this tower, approximately 60 meters high, was the tallest building in Milan at the time and its first skyscraper. Designed by Alessandro Rimini, this building stands between Via Matteotti and the square, its side facades facing Via Bagutta and Via Montenapoleone (Garnerone, Daniele, 2007). Its facade design harmonizes with the building structure and interior layout, without excessively pursuing symmetry. Only two types of marble are used for the walls, one light and one dark, a result of in-depth research into color effects. Torre Snia Viscosa's influence on the site's character is evident. Its architectural language is relatively restrained, clear, and vertical, contrasting with the bustling surrounding commercial streets. Lombardia Beni Culturali describes the building as a “sobria” (high-quality materials) with meticulous details, making it easily recognizable within the plaza's environment. (Garnerone, Daniele, 2007)



Figure 73. Sculpture“Fountain”

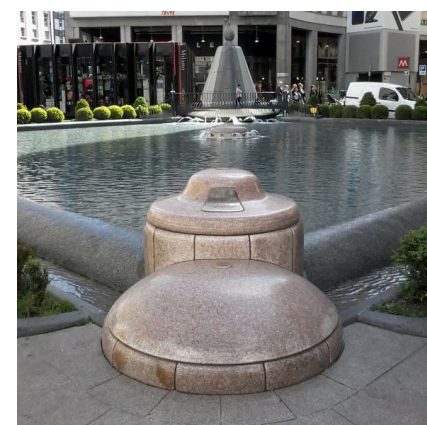


Figure 74. Granite materia.

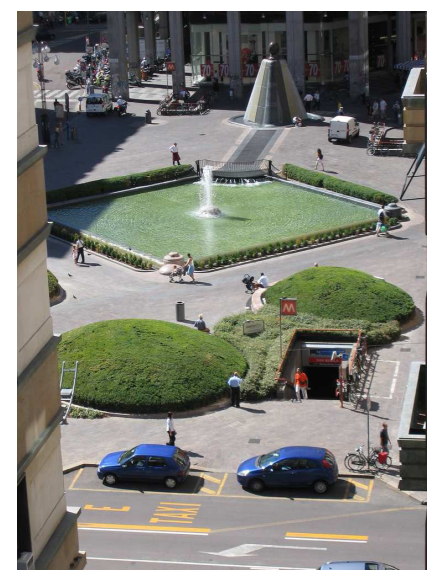


Figure 75. Fountain in the Piazza San Babila.

Another important historical element in the plaza is the “Fountain,” designed by architect Luigi Catcia Dominoni in 1997. It is a red stone pyramid topped with a large dome, its shape resembling the Lombardy Mountains, while the dome itself symbolizes a cloud. Water gushes forth from here, cascading down the pyramid's smooth walls into a circular pool below. The water then flows again, passing through a grid simulating river and spring paths, eventually merging into a large lake-like pool. This pool symbolizes one of the many lakes in Lombardy, while the jets of water simulate evaporation, ultimately merging with the sphere atop the fountain. Nearby, small artificial hills surrounded by greenery symbolize the Lombardy Mountains that form the backdrop of Milan (C. Arduini, 2014). Therefore, it holds significant symbolic meaning.

This circulating fountain, covering approximately 370 square meters, consists of two parts: a commemorative stone column and a rectangular pool connected to a technical room housing the water pump system. Specifically, the materials used include: porphyry used for paving, ranging in hues from red to brown; the fountain itself is constructed from Cerizzo di Val Massino granite, Montorfano granite, Bavino rose, and Dubino Valtellina granite; and Sasso Rosso de la Val Gerora for the egg-shaped sculpture placed atop the fountain (C. Arduini, 2014).

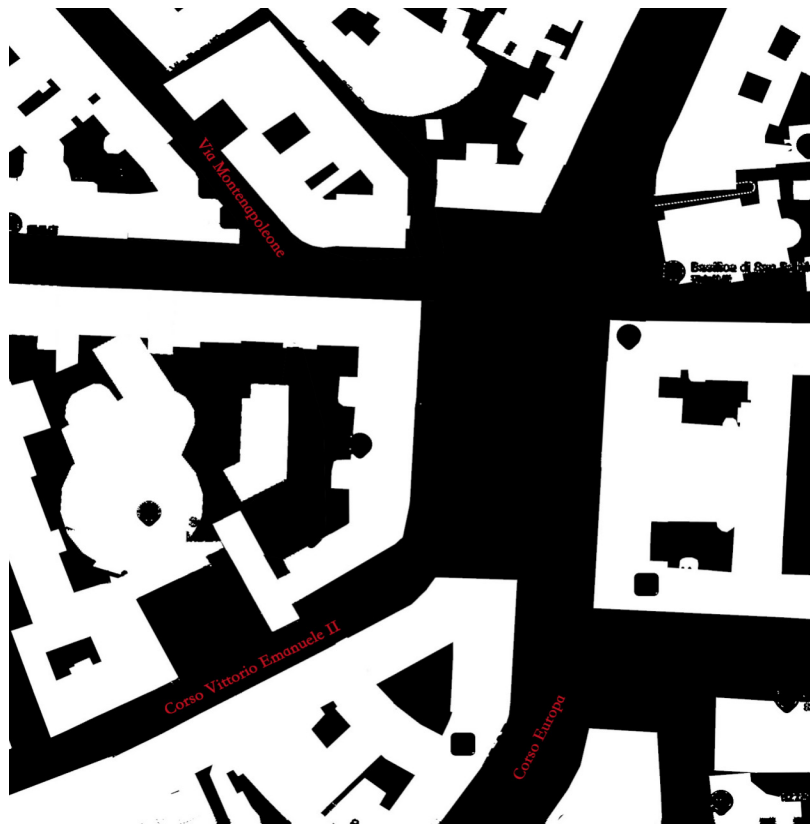


Figure 76. Black and white underground map - buildings, plazas and roads.



Figure 66. Piazza San Babila.



Figure 77. one side of the square.



Figure 78. one side of the square.

Piazza San Babila presents a strong sense of spatial coherence and enclosure, not because it is completely closed on all sides, but because its surrounding buildings collectively form a clear urban boundary. The façades around the square share a relatively consistent scale, restrained colour palette and ordered architectural rhythm. Light stone, beige and grey tones dominate the visual environment, while repeated windows, horizontal lines and commercial fronts create a continuous urban edge. As a result, the different buildings do not appear as isolated objects, but work together as a unified background.

This sense of enclosure is also produced by the relationship between the built edges and the open ground of the square. The surrounding façades act almost like the walls of an outdoor room, giving the square a contained and legible spatial quality. Although San Babila is connected to several important pedestrian and commercial flows, the architectural edges still define a recognisable central space. This balance between openness and containment makes the square feel both connected to the city and spatially held within its surrounding buildings.

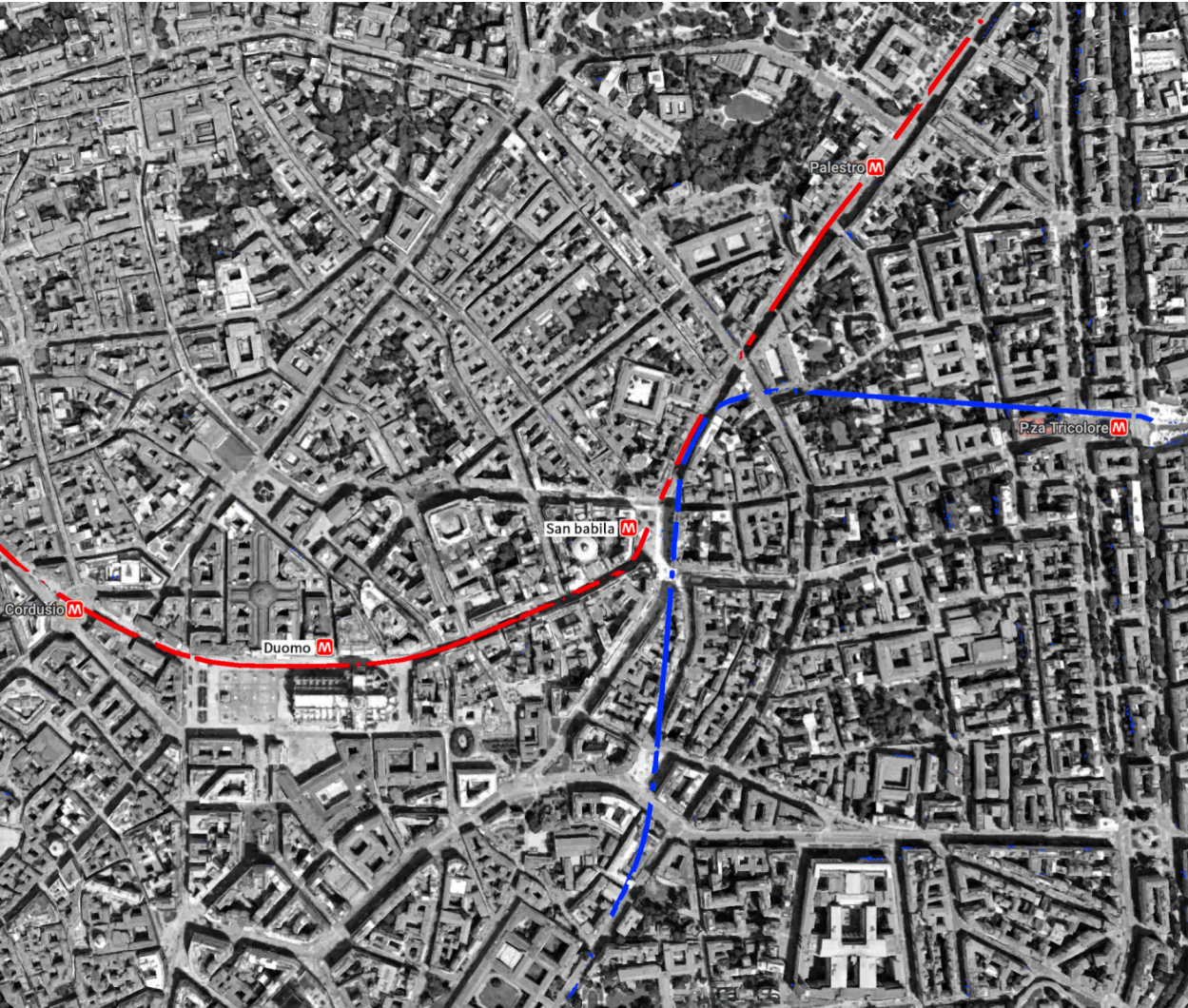
In recent years, the construction of the M4 metro has further transformed the public spaces of San Babila. Many areas along the M4 line have undergone surface-level renovations, including the renewal starting with the pedestrian zone of Piazza San Babila (webuild, n.d.). Other sources indicate that the area surrounding San Babila station has been reorganized with pedestrianization as a priority; Piazza San Babila has also been completely closed to vehicular traffic, becoming an important urban meeting place (webuild, 2024). This demonstrates that the plaza is shifting from a space primarily focused on traffic and vehicular flow to a public space primarily for walking and lingering.

However, pedestrianization does not automatically mean people will actually stay. For San Babila, the metro, shopping streets, and fashion districts have collectively brought higher pedestrian density, but this may simply mean people are just moving through more quickly. Although the surface of the space has become more open, human behavior may still be rapid, purposeful, and consumer-driven.

5.3 Pedestrian Flow and Behavioral Observation

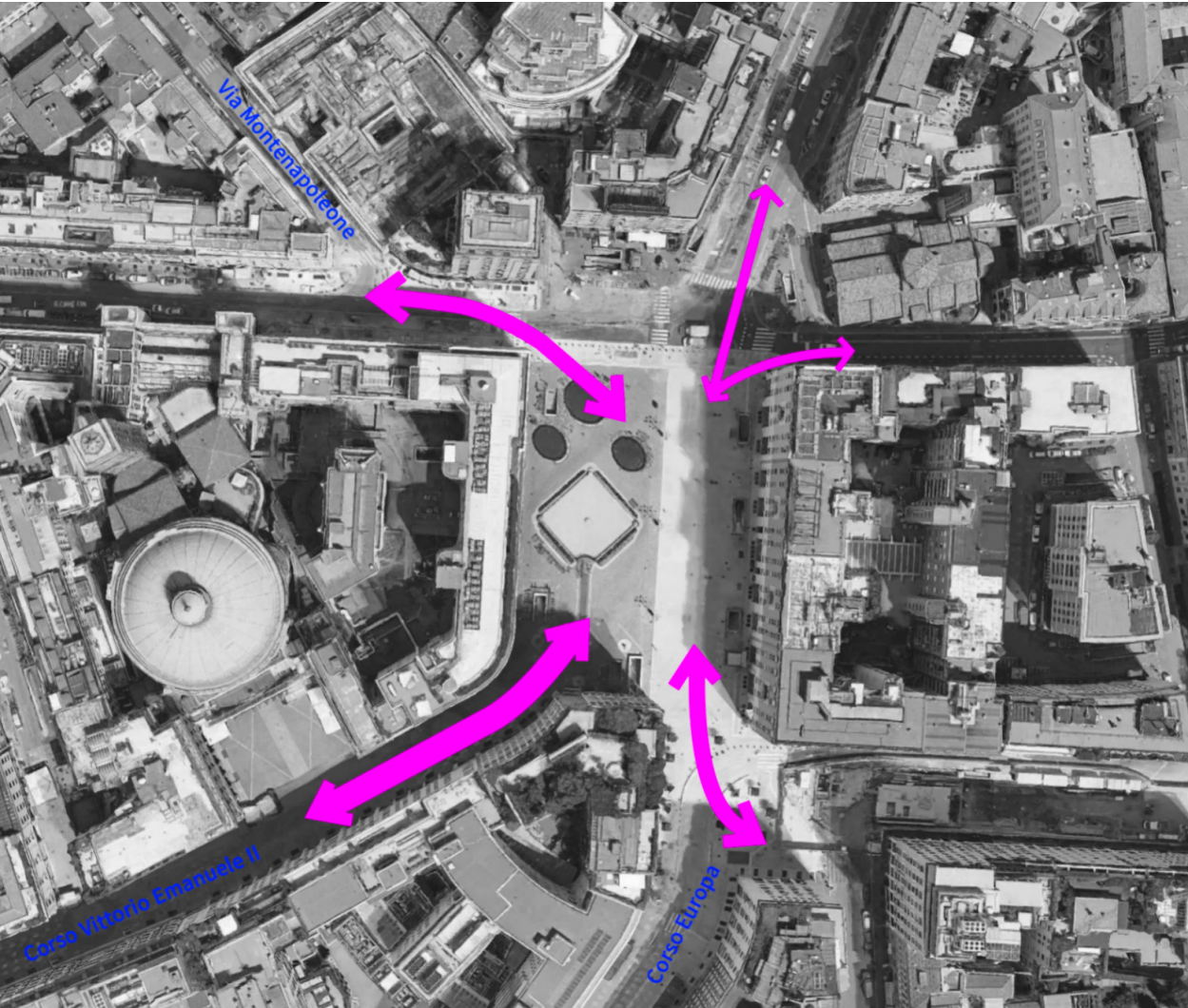
The pedestrian flow characteristics of Piazza San Babila stem primarily from its location. It's not only a station on the Milan Metro M1 line but has also become a significant stop on the M4 Blue line. The M4 line is 1 kilometer long with 21 stations, intersecting with the M1 Red line at San Babila. People continuously enter from the airport, the eastern part of the city, the Duomo, and the trendy Quadrilateral area, thus giving the square a strong "through" function.

Figure 79. Stations along the M1 (red line) and M4 (blue line) lines.



From the perspective of surrounding pedestrian traffic, Piazza San Babila is a crucial endpoint of Corso Vittorio Emanuele II. This street itself possesses a strong commercial flow; people walk from the Duomo direction, past shop windows, clothing stores, accessory shops, and large fast-fashion brand stores, ultimately arriving at San Babila, or conversely, from San Babila into the shopping streets closer to the Duomo. Therefore, the pedestrian flow in the square is not random but continuously drawn by the metro exit, the entrance to the shopping street, and surrounding commercial destinations.

Figure 80. Pedestrian density flowing from different streets towards Piazza San Babila.



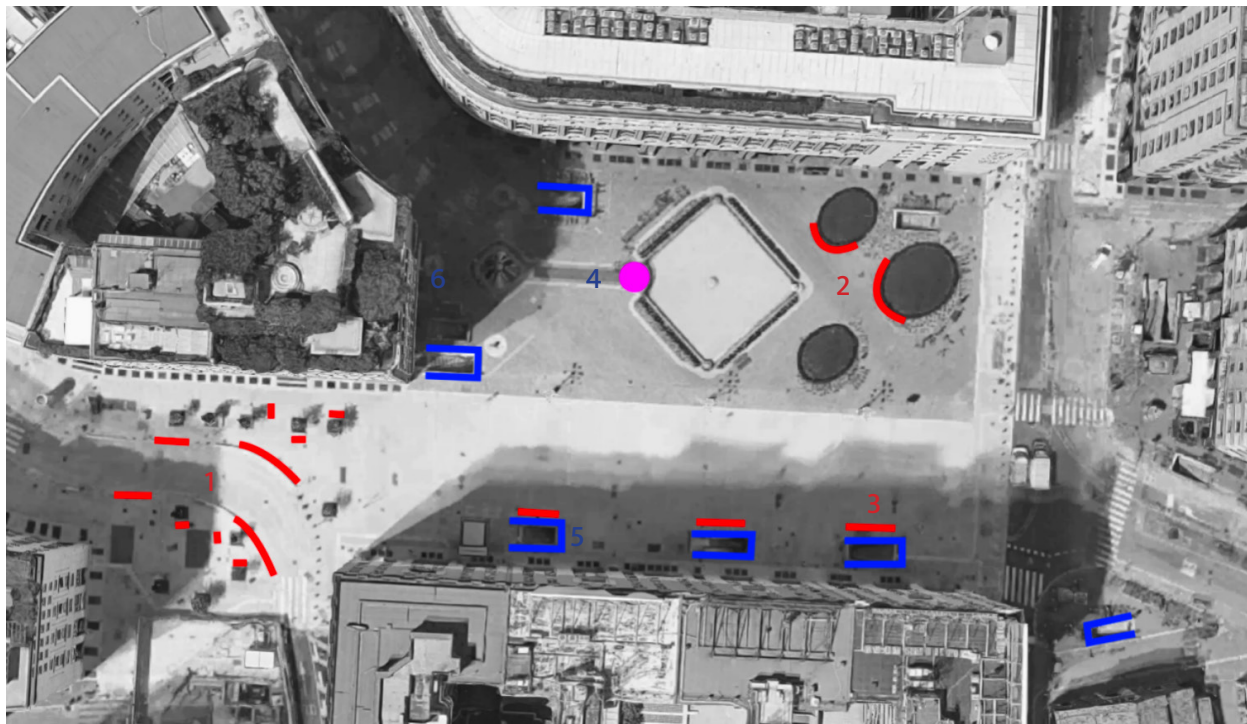


Figure 81. Distribution of different behaviors in the square.



Figure 82. The sitting people (1)



Figure 83. The sitting people (2)



Figure 84. The sitting people (3)



Figure 85. People leaning on the railing (4)



Figure 86. People leaning on the railing (5)



Figure 87. People leaning on the railing (6)

According to on-site surveys, while people do stop at Piazza San Babila, these stops are mostly brief and scattered, such as waiting for others, looking at their phones, making calls, chatting, eating, resting, observing passersby, or taking photos. The benches in the square are arranged facing the square and the direction of pedestrian flow, rather than in an enclosed layout. This design is more suitable for watching and waiting, and less conducive to public interaction between strangers. Overall, people walk relatively quickly, moving from one direction to another, using the square more as a transit point than a true place to stay; it's more like a "flowing space," making it difficult for people to linger for long. Some people exit from the M1 or M4 station and head towards Corso Vittorio Emanuele II, while others continue towards Via Montenapoleone and Quadrilatero della Moda.

At night, the flow of people decreases significantly, with those remaining mostly strolling or sitting on benches looking at their phones; later still, some benches are used as temporary resting places by homeless people.

However, we cannot simply say that San Babila lacks public space. With the completion of the M4 station, the square's surface space has undergone adjustments. The Milan city government, in an M4 update, noted the expansion of pedestrian zones around Piazza San Babila and Largo Augusto to connect the two sides of the square and further enhance pedestrian connectivity in the central area (comune.milano.it). Thus, Piazza San Babila was redesigned as a more open urban pedestrian space. The problem is that a more open space doesn't necessarily mean people will actually slow down, which is precisely the case.

Furthermore, I observed pedestrian flow in San Babila in several categories.

The first category is commuting flow, the flow of people from the metro and transfers. These people are usually fast-moving, have a clear purpose, and pay less attention to their surroundings, like commuters.

The second category is shopping flow, mainly moving between Corso Vittorio Emanuele II, Via Montenapoleone, and surrounding brand stores. These people are attracted by shop windows and stores, but their stay still revolves around consumption.

The third category is tourist flow; they might take photos, observe the church or square environment, but their stay is relatively dispersed.

The fourth category is the waiting flow, which consists of people who briefly linger at fountains, intersections, subway entrances, or plaza benches. They are often relaxed and at a slow pace, and are regulars in the plaza. Examples include elderly people walking their dogs, young people chatting, and street performers. They may not necessarily engage in consumption, but they also rarely have a deeper connection with the space.

This classification of pedestrian flow is crucial for design projects. Because the goal of pop-up spaces is not simply to attract passersby to glance at them, but to create a space that allows people to pause, approach, and participate. If San Babila itself is a place of rapid movement, then the design must proactively create "slowing-down points."



Figure 88. commuting flow.



Figure 89. Shopping flow.



Figure 90. Waiting flow.



Figure 91. Tourist flow.

5.4 Visual and Commercial Environment

From a behavioral observation perspective, we also need to pay attention to visual paths, that is, looking towards Piazza San Babila from different street directions. The pedestrian flow in San Babila mainly comes from streets such as Corso Vittorio Emanuele II, Corso Europa, and Via Montenapoleone. According to surveys, the pedestrian flow varies on each street. The placement of pop-up spaces needs to be based on the actual pedestrian flow of the site. It's not enough to just consider the size of the open space; its location within the main line of sight and traffic flow must also be considered. If the installation is too far to the side, it may become merely a background element; if placed in an overly congested location, it may obstruct passage. Therefore, a suitable intervention should be located in an area that is "highly visible but not congested," allowing it to be seen by more passersby while also encouraging those who are genuinely interested to linger.

This also relates to spatial transparency. The pedestrian flow in San Babila is relatively fast; if the installation is too enclosed, people may be reluctant to enter; if it is completely open, it may not create clear boundaries for the experience. Therefore, pop-up spaces can adopt a semi-open structure: the outer side attracts passersby to look, for example, by showcasing modified clothing, like an

Figure 92. View (1)



Figure 93. View (2).



Figure 94. View (3).

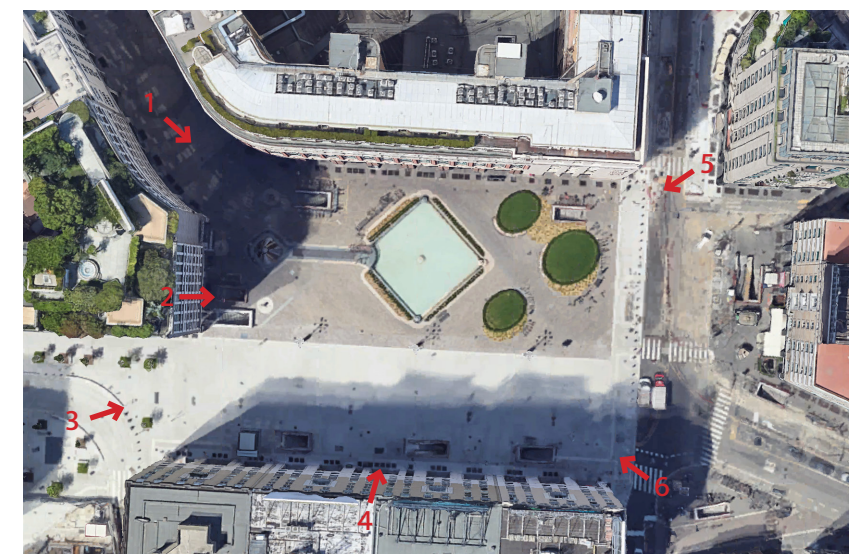


Figure 98. Distribution map of different views in the square.

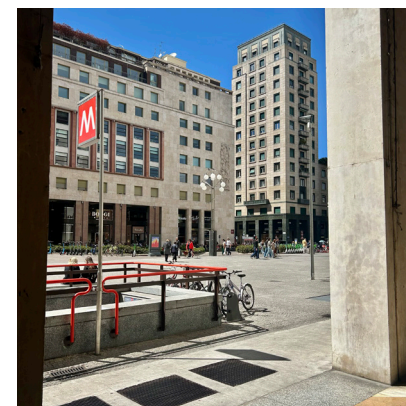


Figure 95. View (4).



Figure 96. View (5).



Figure 97. View (6).

Armani fashion exhibition, creating an initial impact. The fleeting glances of passersby and the deep engagement of those who choose to linger.

The visual environment of Piazza San Babila is inextricably linked to its surrounding commercial landscape. It's not a quiet city square. When we arrive at San Babila, what we often perceive first isn't the "square itself," but rather the constant barrage of consumer information: new clothing, brand logos, discount notices, window displays, lighting, and mannequin images. People walking from the Duomo direction are almost constantly drawn to these new and sophisticated product images.

On the other hand, San Babila is also close to the Quadrilatero della Moda, known as the "Fashion Quadrilateral," placing it at the intersection of two distinct consumer levels. One side is a more mass-market, higher-traffic commercial street; the other is a highly luxurious, symbolic high-end fashion district. This location gives San Babila's visual environment a dual character. It features both the high-frequency updates of mass-market brands and the high-end image of luxury brands. The former attracts consumers through speed, quantity, and accessibility; the latter generates desire through scarcity, window aesthetics, and brand symbolism. Regardless of the specific type, they all convey the same message: only new, complete, and purchasable items deserve to be seen. Old clothes, wear and tear, repairs, and renovation processes are seen as an anomaly in this visual environment.

Furthermore, another aspect of the visual environment is the materials and colors you see at Piazza San Babila. The materials and colors of the surrounding buildings significantly shape the overall character of the plaza. Research indicates that the buildings around San Babila tend towards restraint, stability, and order. Stone facades, light beige and gray tones, regular window openings, and relatively austere building proportions collectively create a rational and calm urban backdrop. This architectural color and material environment directly influenced the design project. The pop-up space design could not ignore this context. It needed to respond to the urban character of the surrounding stone, gray, beige, and rational facades.



Figure 99. view of the square.



Figure 100. view of the square.

Case Studies II

— on Temporary Spaces at Piazza San babila

This chapter analyzes past temporary installations/spaces from Milan Design Week, Fashion Week, and the Winter Olympics, examining how they intervened in the plaza and addressed different groups of people, analyzing their design strengths and weaknesses to provide valuable experience for subsequent spatial design.

06

6.1 A|X Armani Exchange "I see you" milano

A|X Armani Exchange launched the “I SEE YOU” project in Piazza San Babila, Milan, from May 15th to 17th, 2026, running from 10:00 AM to 7:00 PM, with free public participation (chiechi, 2026). Armani describes the project as an experiential project about “identity, inclusivity, and urban creativity,” engaging the public through a temporary photographic art installation.



Figure 104. Entrance.

I think this case effectively utilizes the high foot traffic and visibility of Piazza San Babila. The square itself is a fast-moving traffic and consumption node; many people simply pass by, wait, take photos, or enter nearby shops. But “I SEE YOU” creates a very clear visual focal point in the square through a small cube structure covered with LED screens. Two facades of the cube are electronic screens, and they are fluid, continuously looping new images. The other two facades use mirrored reflective materials. Portraits taken in an internal photography studio are projected onto the electronic screens. Anyone can register on-site, enter the space to have their portrait taken by a photographer,

and each participant has the opportunity to have their own photo projected onto the screen. From a spatial perspective, this LED cube is very direct. It occupies the visual center of the square with a clear, highly recognizable geometric form. It's not placed in the exact center, but rather in a different location (pictured), at the visual intersection of the two main streets leading to the square, "Via Montenapoleone" and "Corso Vittorio Emanuele II." This is crucial for a temporary space. In a venue like San Babila, with its fast-moving pedestrian traffic and dense commercial information, an installation without a clear image and an inappropriate placement can easily be diluted by the surrounding environment. A|X chose LED screens and mirrored materials for the facade, allowing the installation to continuously change its content while the mirrors reflect the surrounding environment. Whether day or night, this real-time projection continuously attracts the attention of passersby, as well as those taking a short break in the square, thus increasing their engagement. Moreover, passersby can see the cube even from a distance before reaching the square.



Figure 105. Temporary spaces from different perspectives.



Figure 106. Location in the square.

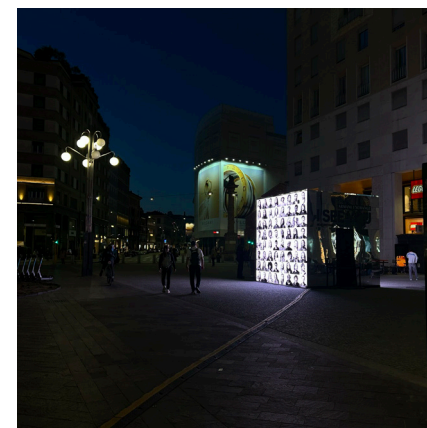


Figure 107. At night.

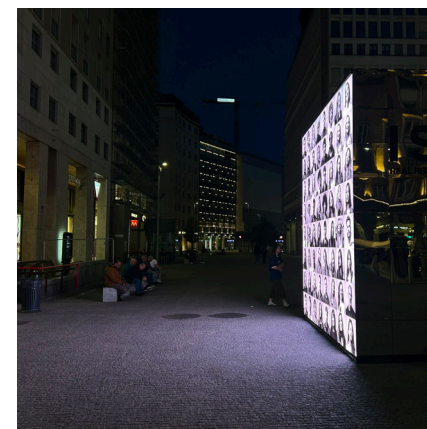


Figure 108. Screen at night.

From a user behavior perspective, this case transforms "watching" into "participation." Typically, in shopping plazas, passersby are more interested in window displays, advertisements, or brand images; but in "I SEE YOU," the passersby themselves become the objects of observation. As Armani states, "Every face deserves to be seen, every story deserves to be told" (ghè sèm, 2026). The general public has the opportunity to have their portraits displayed on the city's visual interface, and excitingly, the resulting portraits are sophisticated and stylish, encouraging active participation.

"I SEE YOU" also demonstrates how temporary spaces can quickly build a sense of community. The project aims to convey a message of "listening, inclusion, and authenticity," transforming fashion into a "tool for connection and dialogue" (milanodascrocco, 2026). This shows that the brand doesn't just treat the plaza as a showcase, but as a place for public interaction. While this interaction still retains the nature of a brand event, it at least proves that in a fast-paced consumer environment like San Babila,

people can be drawn to stop if the space's activities are clearly defined. Stopping doesn't happen automatically; it requires a clear reason for participation.

Of course, this case also has its limitations. Its participation was relatively simple, mainly involving having one's portrait taken and receiving a photo; while the public became part of the project, the depth of participation remained relatively limited. It was more like a short-lived urban communication event than a sustained public practice. However, precisely because it took place at Piazza San Babila and successfully transformed a branding event into an open and participatory urban installation, it still holds relevance for this paper. It illustrates that in a plaza, temporary spaces that can provide a clear visual focus, simple participation methods, and personal memories that can be taken away can potentially disrupt the otherwise rapid pace of people passing through.

6.2 Prada Transformer

The Prada Transformer is a temporary structure completed in 2009 next to Gyeonghuigung Palace in Seoul, South Korea. Lifted and rotated by crane, it adapts to various cultural events. The project is one of Rem Koolhaas's most popular works to date. The 20-meter-high pavilion is constructed of a pure white membrane covering four steel frames, often referred to as an "inverted teardrop"—hexagons, rectangles, crosses, and circles lean against each other, forming a tetrahedron resembling a circus tent. (Connor Walker, 2014)

Therefore, it is not a traditional exhibition hall, nor a typical brand pop-up store, but a temporary space situated between architecture, fashion, art, and urban events. The most noteworthy aspect of this project is that it transforms "temporariness" itself into an architectural concept. The architecture not only provides a venue for different events but also actively participates in the transformation of the event's content through changes in its own form.

The choice of site for Prada Transformer is also significant. Located near a 16th-century palace in the heart of Seoul, it exists within a distinct historical context. A futuristic, semi-transparent temporary structure placed next to the traditional palace environment creates a contrast between new and old, light and heavy, temporary and historical. It doesn't attempt to imitate the surrounding historical buildings, but rather enters the site with a clearly contemporary image. This strategy allows the architecture to maintain its independence while reinforcing people's perception of the site's unique character. For temporary architecture, this "clear appearance" is crucial, as it needs to be seen, remembered, and generate discussion in the city within a short period. (oma, n.d.)



Figure 109. Construction scenario.

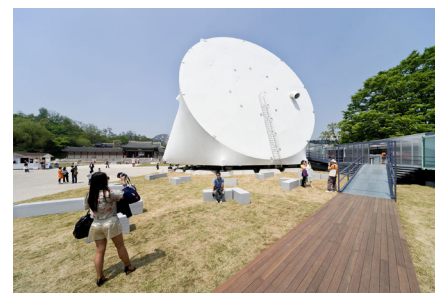


Figure 110. Transformer.

Figure 111. The Prada Transformers exhibit is located in the garden of Gyeonghuigung Palace in Gyeongseong, the capital of South Korea.

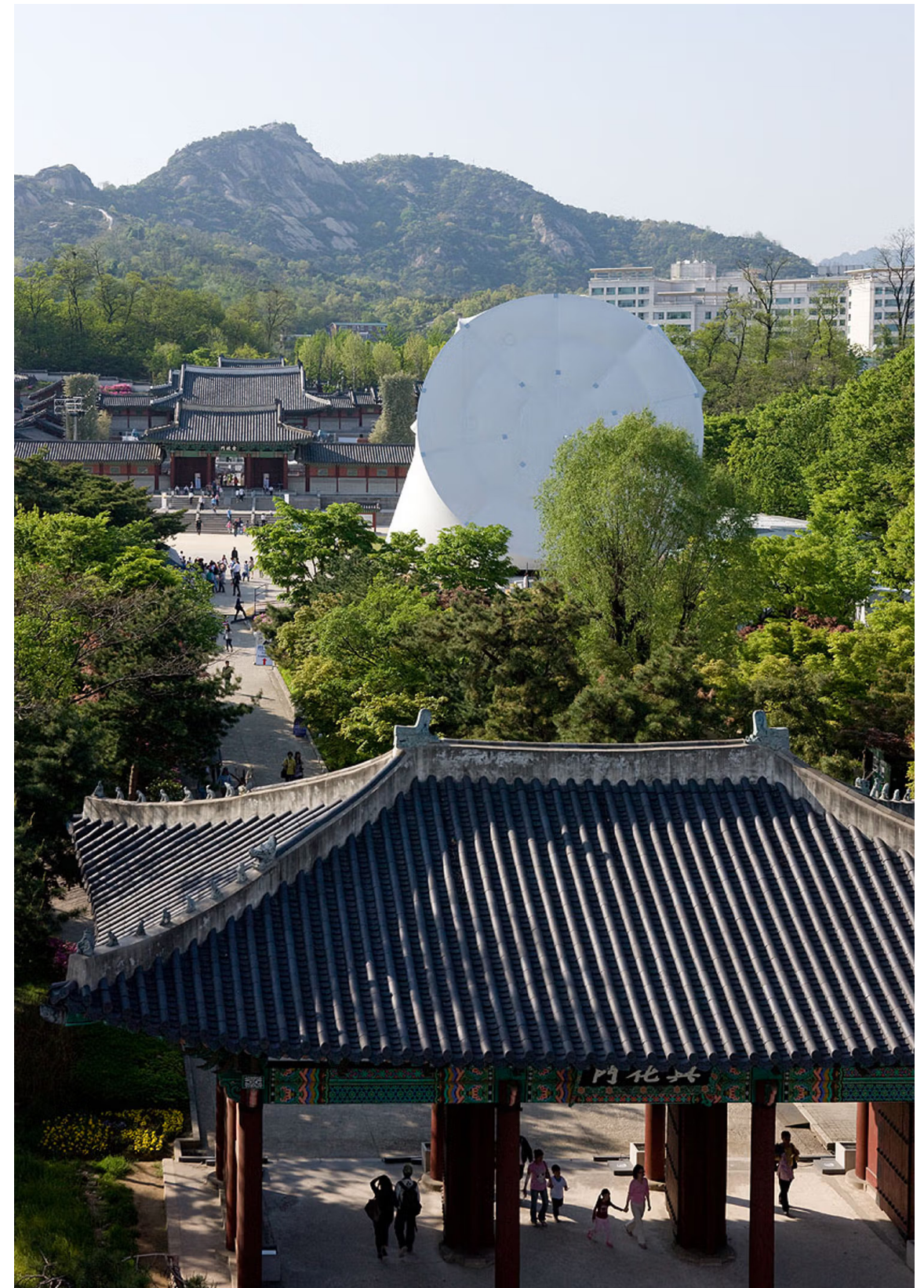




Figure 112. Interior exhibition hall.



Figure 113. Architectural model.

From an external perspective, the Prada Transformer is highly recognizable. It is composed of four basic geometric shapes: circles, crosses, hexagons, and rectangles. These forms are not simply pieced together, but collectively constitute a tetrahedral-like architectural volume. The building is entirely clad in a translucent membrane material, with the internal steel structure partially visible beneath the outer skin, making it appear both like a large-scale installation and a temporary object not yet fully fixed. This visual language is crucial because it allows the building to first appear in the city as an "event," rather than as a typical building facade.

The core mechanism of this project is "rotation" and "transformation." Four unique spaces are created within the building to correspond to different functional needs: fashion exhibition space, film screening space, art exhibition space, and event space. Its name, "Transformer," originates from the concept that any side of the pavilion can serve as the building's floor; the building's plan is not fixed but changes with usage. What is a wall today may become the floor next; what is the roof today may become a side in the next transformation. This spatial logic breaks the stable relationship between floor, walls, and ceiling in traditional architecture, making "functional adaptation" not merely a matter of interior layout, but an integral part of the overall architectural form's transformation.

On a brand level, Prada Transformer is not simply a space for selling goods. It represents Prada's reorganization of the relationship between fashion, art, film, and cultural events. Through this project, Prada doesn't merely showcase clothing, but transforms the brand into a cultural platform. The space here becomes a medium: it allows the brand image to transcend window displays, advertisements, or the products themselves, entering the public eye through an architectural event. In other words, the value of Prada Transformer lies not only in its design, but also in its transformation of temporary architecture into an urban cultural installation that can be viewed, disseminated, and discussed.

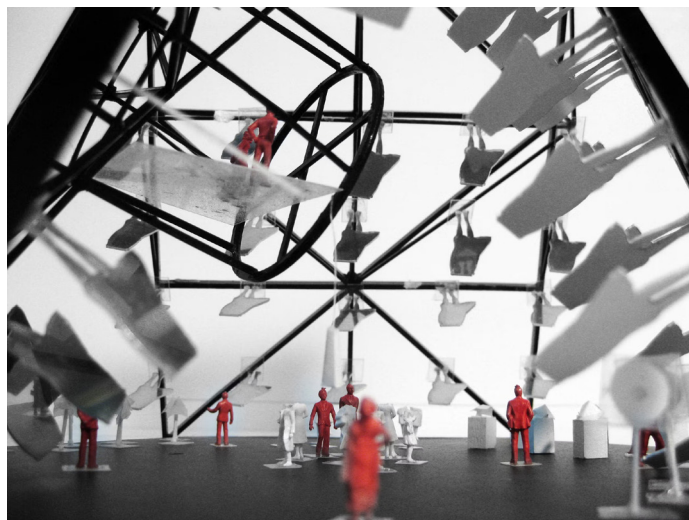


Figure 114. fashion exhibition space.



Figure 115. art exhibition space.



Figure 116. film screening space.

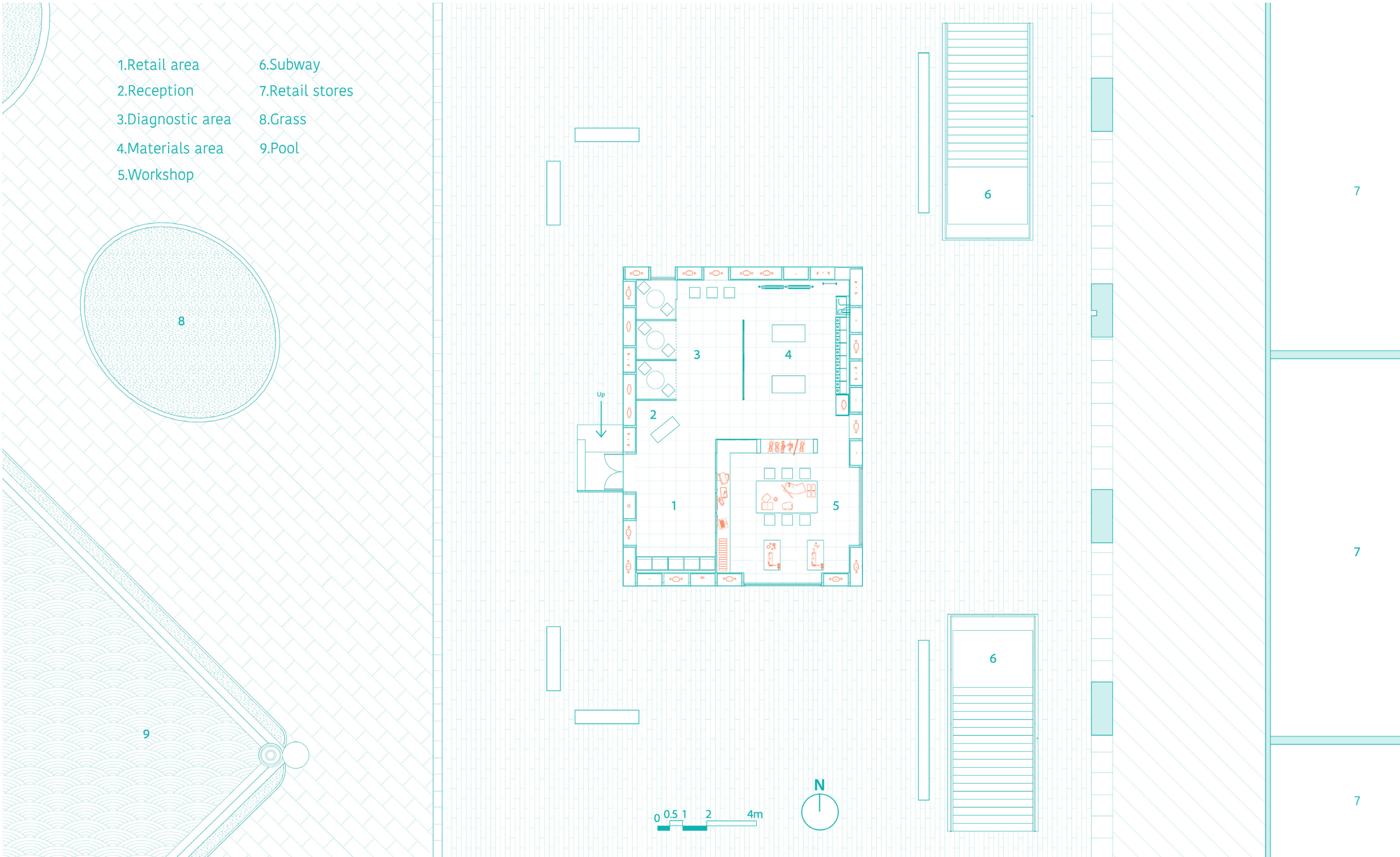


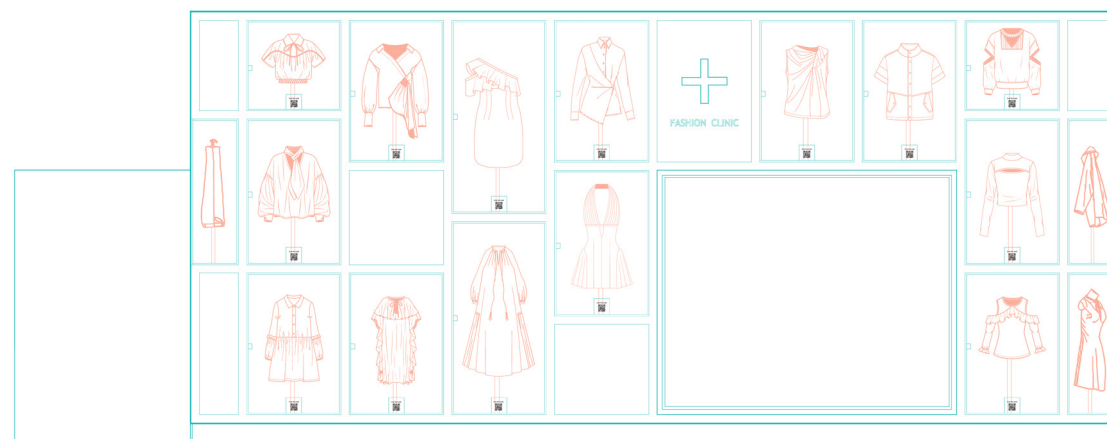
Figure 117. event space.

Design Project Presentation

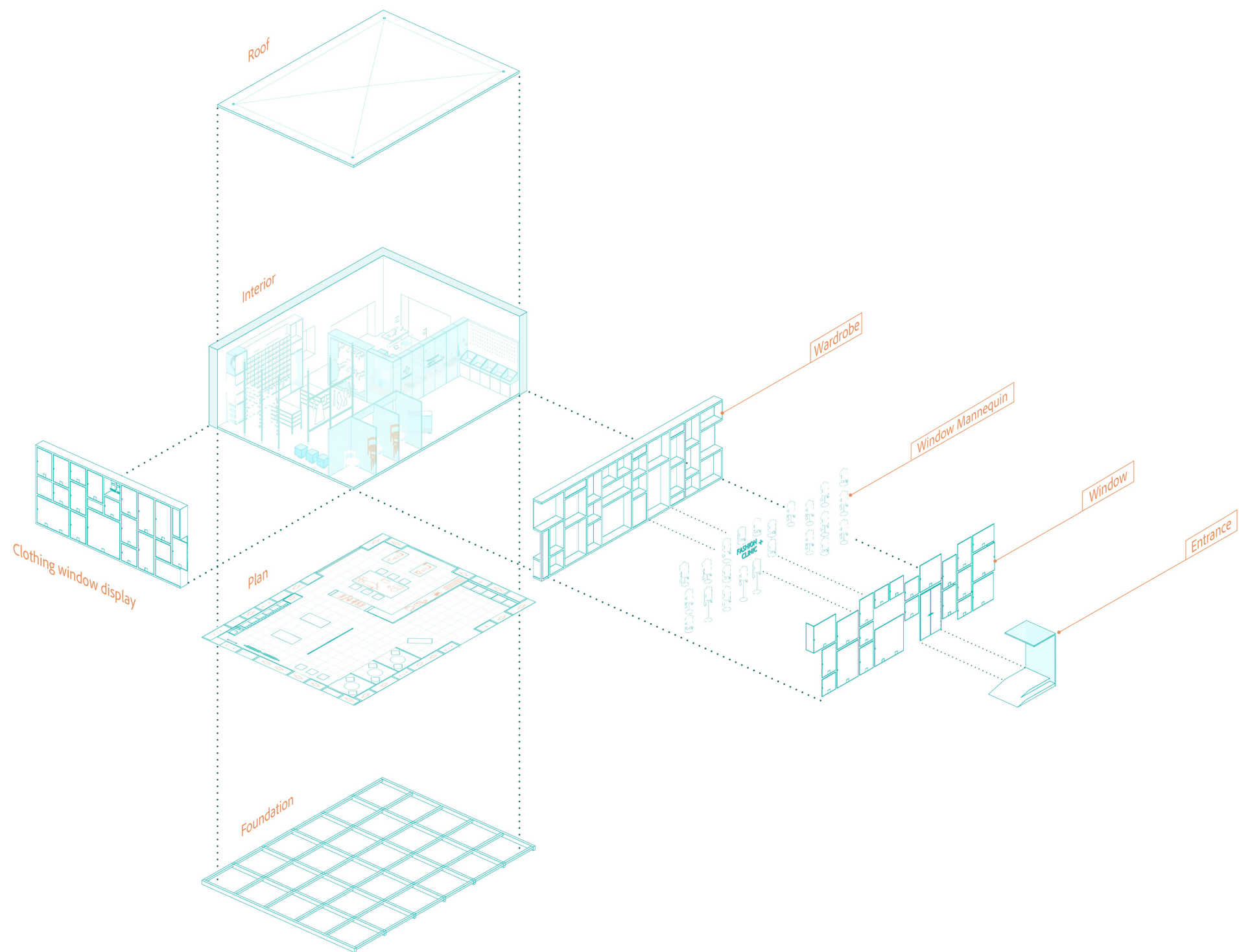
This chapter is a concentrated presentation of the research results, detailing how the design scheme was developed. Through a series of analytical diagrams, including plan and section views, axonometric exploded views, and renderings, a complete spatial narrative is presented—from the psychological shift of handing over old clothes, to the experience of personally participating in and witnessing the restoration process, ultimately achieving a reshaping of both material and emotional aspects.

07



























Temporary flash mob event, limited to every Saturday.



Temporary flash mob event, limited to every Saturday.



Temporary flash mob event, limited to every Saturday.

















Garment Health Form

What's wrong with your clothes?

- Damaged
- Out of style
- Unsuitable size
- Forgotten
- Style fatigue
- Boring
- Reluctant to throw them away, but unsure how to wear them
- No problem, just want to be more unique



Huwei

Pre-diagnosis photos



Post-diagnosis photos



PATIENT NO. 12

Symptom description

style fatigue and sleeve damage

Treatment plan

visible mending + silhouette reconstruction

Craftsmanship used

reborn as a cropped statement jacket

Simple mending + sleeve cutting

A word from the owner

visible mending + silhouette reconstruction

New name after modification

cooler

Treatment Menu

- Ⓐ Minor Repair:
Patching holes, sewing, reinforcing, replacing buttons, small-area embroidery coverage
- Ⓑ Visible Treatment:
Making repair marks part of the design, patchwork, decorative stitching, emphasizing rather than hiding damage
- Ⓒ Style Transplantation:
Changing silhouettes, adding pockets, piecing together other old fabrics, altering length, structure, and styling
- Ⓓ Reconstructive Surgery:
Completely deconstructing and redesigning, transforming coats into bags, shirts into vests, pants into skirts, etc.

Garment Diagnosis Report

- ① Disease Name
- ② Clothing Condition
- ③ Etiological Analysis
- ④ Treatment Recommendations
- ⑤ Recommended Therapy
- ⑥ Is Surgery Required?
- ⑦ Is Conservative Treatment or Reconstructive Treatment Suitable?

Conclusion

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