

# Flexible Coverings: (Re)Dressing Bodies and Facades. Analogies Between the Epidermis of Our Body and the Epidermis of our Buildings – The Facades

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## ABSTRACT

Combining the need to (re)dress bodies and facades with the will to adorn, let's consider the wide possibilities that textiles offer, to point out more sustainable solutions, that can counteract thermal discomfort. Both clothing and buildings protect and shelter the body while providing a means to express the identity of the wearer. In this study, we explore our relationship between interior and exterior. Clothing and housing are presented as an extension of our skin. Fabric structures are used to cover bodies and to clad the structure of buildings, used in both with the same function of protection and thermoregulation. We conclude that the use of textiles in architecture, allows to improve the thermal comfort of the users, to express their identity and to respond to humanitarian needs.

**Keywords:** Textiles, Innovation, Temperature, Dynamic structures, Architecture

## INTRODUCTION

There are numerous construction advantages to using textiles from material translucency, lightweight construction and quick assembly, significant energy savings, flexibility, and site adaptability. When building infrastructure is damaged, caused for example by terrorism or earthquakes, there is often a need for prefabricated, transportable solutions. Textiles used in tent systems remain a referenced solution for emergency shelters because of their lightness, ease of transport, and assembly by volunteers without technical training.

This research locates textiles used in architecture from their earliest use to the present day. We will present examples used by traditional cultures, but also contemporary and innovative constructions. Our study motivates several connections, between the User, Textiles and Architecture. We start with the most comprehensive and transversal connections, such as the frequent association of skin to clothing, and then clothing to our dwellings. In a second moment some more specific and specialized references, in which we will point out some textiles and coverings, which incorporated characteristics of flexibility, adaptability and interaction.

## **(RE)DRESSING BODIES AND FACADES**

Mary Flanagan and Austin Booth describe skin as a boundary between the self and the world around it, a changing covering that is altered by surgical changes, tattoos, skin perforations, moles, birthmarks, disease scars, and other rituals or technologies that exploit the skin. These are marks, which can be read, and which allow people to be classified. Skin color is presented as a sign that makes it possible to identify certain characteristics (intellectual, psychological, and social aspects) of a given individual or race. They also present a relationship between skin and the facades of our houses, indicating them as exteriors/boundaries, which hide and paradoxically reveal (Flanagan and Booth, 2006).

Hundertwasser, an Austrian artist and architect, conceived a drawing that represents his vision of the world. The first skin is the epidermis, whose marks, wrinkles, scars, tattoos, and body expressions are records of our experiences. The second are the clothes, the textiles that simultaneously protect and reveal the personality of each individual. The third is housing, the extension of the dweller, shelter. The fourth is social identity, social relationships, family, and friends. Finally, the fifth layer, the planet, humanity, nature (Decussatti, Teixeira and Caminha, 2015).

Marshall McLuhan presents clothing as an extension of the skin and draws a parallel between clothing and our dwellings. Clothes are used to store and channel the heat and energy of their wearers. Buildings are an extension of the thermal control mechanisms of their occupants. They are a shelter, “a collective skin or clothing,” that contributes to comfort (McLuhan, 1994).

Examining our affinities with animals, the skin constitutes the threshold between the inside and the outside. It is the connecting element between the two. The skin is a protective barrier against the environment or predators, yet it is permeable, helping to regulate temperature by mediating heat gain and loss (Mazzoleni, 2013).

Sometimes animal skin is used as a second skin, for humans. This is the case with reindeer hide, which has been used in the traditional fur clothing of the nomadic Nenets to improve the well-being of humans in extreme environments, such as the cold Arctic. To make the most of its characteristics, the skin should be worn next to the naked body. The use of reindeer skin, has become an integral part of the culture of the Arctic natives, contributing to the affirmation of their identity. Although there are several traditional models, each artisan decorates it in his or her own way, also revealing a bit of the creator's personality. As for the life cycle, Reindeer leather pieces are selected and collected throughout a whole year, and many times they are not immediately integrated into someone's wardrobe. They may wait years before being used. The whole process is in harmony with the environment, there is minimal waste during manufacture, and after its useful life, when it is discarded, it can be consumed by animals, since it is completely biodegradable. Even the yarns used are made from reindeer spines. In addition to the excellent insulation properties, which allow better adaptation to a harsh climate. The use of reindeer skin in clothing, expands the functionality of the garments, as

they are waterproof, allow to float on water and walk on ice without sinking (Usenyuk-Kravchuk et al., 2020).

Man over time showed an increased need to protect himself, the womb was his first shelter. Then other layers were created, then the one closest to the human body, clothing, flexible. Like the female body they also adapted, adjusted, took another shape. Finally, buildings, a refuge, a more static, more distant, more lasting protection. According to Peter Stallybrass, clothing, too, receives the smell, the sweat and the shape of the individual and supports his or her gestures (Stallybrass, 2008).

Drawing a parallel with a project that responds to the demand for mobility, shelter and autonomy — “Mother” a piece developed by Kosuke Tsumura, which assumes the role of clothing and housing, designed, to be worn by a mother carrying her child (Quinn, 2003).

## IDENTITY

Textiles, whether for covering bodies or building structures, are used for functional as well as aesthetic purposes (Carvalho et al., 2021). Once this need for protection was assured, clothing (and houses) began to explore the ability to communicate. Clothes, of people and buildings, are chosen to affirm or confuse, to surprise or to go unnoticed, to be alternative or conventional (uniforms, for example), opaque or transparent, formal, or festive, merely functional, or decorative. Clothing ends up reflecting the way one wants to be perceived, the personality, the state of mind of its users, it helps to express one’s identity, to develop one’s own aesthetic language (personal or cultural), to be recognized as part of a group (punk, hippies, for example), to socially define individuals, to hierarchically organize classes.

Gilles Lipovetsky states that fashionable attire serves to reveal or hide “No longer just a hierarchical symbol and sign of social status, but an instrument of seduction, a power of mystery and secrecy, a means of pleasing and being noticed in luxury, in fantasy, in amaneirate grace” (Lipovetsky, no date).

Baldini (Baldini, 2006) agrees that in the market there are clothes that are used not to hide, but precisely for the opposite effect, to show off parts of the female body (for example, slits, necklines, transparencies, mini-skirts and undone buttons). Curtain Wall House, is a project by Shigeru Ban (Tokyo, Japan, 1995), in which it is visible that architecture embraces fashion techniques, in the same way that our clothes allow us to hide or reveal our bodies. The flexible textile walls allow the structure to be exposed or protected from public view. When open they allow light to enter and air to circulate. Closed, for more privacy and isolation. These walls resemble clothing as well as tents (Garcia, 2006).

According to Alison Lurie, clothing is the first language, before words are exchanged, some information has already been revealed through clothing — sex, age, class, occupation, origin, tastes, sexual desires, and moods (Lurie, 2000). Massimo Baldini, aware that clothing can express emotions and reveal data about those who wear it, warns that clothing can be used to lie, as happened with Cinderella’s dress, which turned out to be just an act (Baldini, 2006).

Also, other authors address the language of clothing, “The habit speaks for the monk, clothing is communication beyond covering the body from nudity, it has other purposes” (Eco et al., 1982). Let’s remember, in this regard the idea of Eça de Queirós “Because by dressing us all in the same mould, V. leads us all to have the same feelings and the same thoughts. Nothing influences man’s feelings more profoundly than the outfit that covers him” (Queirós, 1945). School uniforms, the uniforms of monks or nuns, military uniforms, technical clothing, the clothing of certain institutions or services, university or folk costumes are codified combinations, loaded with meanings, that bring a group of individuals together. In the book “Psychology of Dress” some sports are listed with outfits for each activity – hunter, tennis player, footballers, golfer, fencer’s suit, skier’s suit, underwater fisherman’s suit (Eco et al., 1982). There is a common identity, and the subliminal message that is intended to be conveyed using such clothing is clearer. One quickly perceives belonging, acceptance, integration into a certain community, tribe or institution.

On the contrary, some popular Portuguese proverbs, which seem to devalue clothing communication, “A bata não faz o doutor” (A coat doesn’t make a doctor) or “a barba não faz o filósofo” (A beard doesn’t make a philosopher). Virginia Woolf, even holds the opposite, seeing clothing as a personal marketing tool, addressing the advertising function of clothing: “This man is a clever man – he is Master of Arts; this man is a very clever man – he is Doctor of Letters; this man is a most clever man – he is a Member of the Order of Merit” (Woolf, 1963).

The language of clothing can be used to make known one’s worldview, one’s sexuality (and, why not, one’s sexual ambivalence), one’s grief over a family bereavement, one’s conformism, one’s revelation, one’s religiosity, one’s humility (think of the Franciscan skirt), one’s youthfulness, one’s (real or fictional) virginity (think of the white wedding dress), and so on (Baldini, 2006).

The garments, are anchored messages, written, like what happens with wall paintings. But fashion and architecture behave differently because they evolve at different speeds. Clothing collections are often thought to last only one season and some are doomed to only one use, from a wedding dress to clothes worn to music festivals, vacations, events, vacations (Carnival, for example) that are then not reused. In the world of fashion everything evolves and becomes obsolete quickly, so it is worth remembering that there is no guarantee that the message that is intended to be conveyed by wearing a particular garment will be correctly revealed. First because it depends on the receiver and then because the next year may already be outdated and send a different message (Baldini, 2006).

Roland Barthes, in “Sistemas da Moda”, believes that the construction of meaning in fashion is fundamental. It is an industry strategy to accelerate consumption, so that new pieces are bought even if there is no need for them. If pieces were only replaced when worn out or broken the production and consumption would move at a very slow pace. To obfuscate the accounting consciousness of the buyer, it is necessary to add other layers to the product – images, reasons, of senses – to create a simulacrum of the real object (Barthes, 1981).

Quoting Pëtr Bogatyrev (1971) via Massimo Baldini (2006) “Folk costume is in many respects the antithesis of clothing which is subject to fashion changes.” Unlike fashion trends, which last one season, folk costumes pass from generation to generation, unchanged (Bogatyrev, 1971).

Starting from traditional women’s clothing we will make parallels between Fashion and Architecture. The Housing for Orphaned Girls is a project by ZAV Architects, in which there is an extension of fashion accessories, to the facades. It is visible that architecture seeks the intersection with other disciplines to reach new horizons, the communicative and versatile balconies, serve as a stage for sociable scenarios, vary depending on the festivities, the mood, expressing from mourning to celebration or with the change of seasons. Changing the ‘Hijab’ of their balconies, according to the cultural schedule of the city and simultaneously the “Hijab” and the “Chador” they usually wear, loaded with symbolism recalling the aesthetics of censorship (Castro, 2014). Iran’s mandatory veils, which fully or partially cover the female body, in other countries are banned in public spaces.

The eyes, nose, and mouth all perform different functions and contribute to defining the individual appearance of each person. Similarly, doors and windows don’t just reveal what’s happening on the other side of the wall or allow people, goods, vehicles, light, air, and heat to pass through. They determine the building’s identity (Allen and Iano, 2019).

Pierre Cardin, Gianfranco Ferré, Roberto Capucci, well-known designers who are architects by training. Zaha Hadid collaborated with Lacoste and Melissa, designing footwear. Alcino Soutinho, for whom shoes resemble foundations, which support buildings, has also designed shoes for the DeGier brand. At first sight, architecture and fashion may seem distant disciplines, which have little in common, besides the creativity that is demanded from their creators, because to textiles are associated characteristics such as ephemerality, superficiality, fragility, flexibility. Architecture, on the other hand, uses durable and rigid materials, and is associated with a more solid, more permanent character.

Yet it is increasingly possible to find “wearable dwellings that function as shelter and clothing”. And it is also visible that more and more architects are inspired by techniques used in textiles to design “buildings that are flexible, interactive, inflatable and even portable” (Quinn, 2003).

## CONCLUSION

Our study provides fertile ground for human-clothing-environment interaction. Clothing and our dwellings ensure stable and comfortable conditions for living and working. In this study we presented some versatile, adaptable, and ecological structures, which reflect the environmental and social changes of our society. Some of the projects presented challenge the conventional ways of thinking about Fashion and Architecture. Pieces that transform depending on the situation, with the aim of making the human being invulnerable to the surrounding environment. We conclude that the use of textiles in architecture, allows to improve the thermal comfort of the users, express their identity, and respond to humanitarian needs.

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