

## **The Fashion of Architecture**

**Theresa Beco Lobo**

Unidcom/IADE

[terry.beco@gmail.com](mailto:terry.beco@gmail.com)

Abstract:

The paper will investigate the contemporary relationship between architecture and fashion in considerable depth, by examining the ideas, imagery, techniques and materials used by visionaries such as Martin Margiela, Issey Miyake, Alexander McQueen, Tadao Ando and Daniel Libeskind. Fashion and Architecture examines shared strategies and techniques of the two disciplines, highlighting common ground and suggesting potential for the future development of each, including new design processes, fabrication methods, and aesthetic directions.

Much of the work challenges conventional ways of thinking about architecture and fashion, revealing the potential that can be gained from an increasingly fruitful dialogue between these two creative disciplines.

New generations of designers in both fields are poised to develop ever more ingenious ways of adapting and adopting each other's forms and strategies to transform the very nature of buildings and clothes.

The inspiration for garment silhouettes and details can be found in almost any architectural source. Here interactive media is very important for the fashion designer in getting to know the architecture as well as its different aspects. When the designer investigates the architecture, an unexpected detail of a building may become one of the magnificent features of the garment design.

***Keywords:** Architecture, buildings, fashion design, clothing.*

## **1. Introduction**

Riegelman gives a very poetic description of the similarities between architecture and fashion with her following words: "Draping is like architecture: the body is the armature, the internal structure, and the fabric, like skin, glides over this frame. Fabric falls and twists, forms knots, bends and curves, like a river it ebbs and flows over the contours of the body."(Riegelman, N., 2003)

Designed garments have to be conceived in relation to function as well as the contours of the human body that will use the object. Fashion designer is also expected to be extremely creative

and eager to explore his or her future environment. Fashion designer must have some idea of the development and origins of fashion and trends that come and go in art and design. The designer must produce unique and innovative designs, which will present new challenges, new obstacles and new human dynamics.

Kunii and Wachi consider fashion to be an influential medium, which leads the social trends internationally.

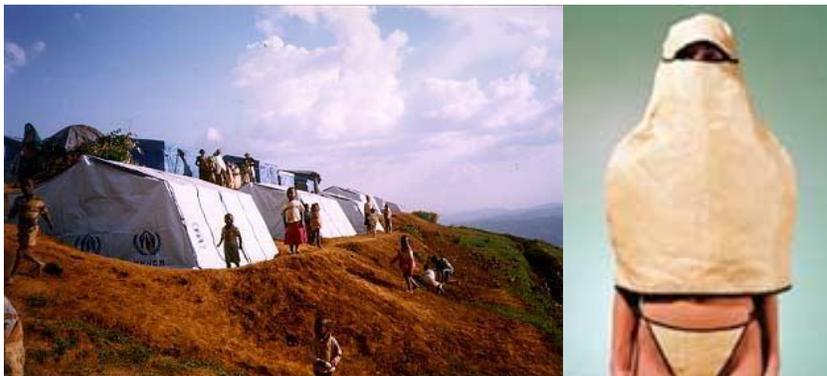
In recent years, connections between fashion and architecture have become increasingly apparent. The paper examines shared strategies and techniques of the two disciplines, highlighting common ground and suggesting potential for the future development of each, including new design processes, fabrication methods, and aesthetic directions. Both architects and designers are preoccupied with space, volume and providing a cover for the body, a protection from the environment and a vehicle for social and cultural comment (Black, Sandy, 2006). And these are the kernels of the paper, presented thematically with garments on one side and architectural parallels opposite: Shelter, geometry, structural skin, construction volume, construction, reconstruction and deconstruction, identity, tectonic strategies, wrapping, pleating, printing, folding and synthesis.

### 1.1 Shelter

The primary function of both clothing and buildings has always been to provide the body with shelter and protection. In recent years fashion designers and architects have begun to reinvent this fundamental aspect of their practice to reflect changes in our environment and our society. Fashion designers are reassessing clothing's potential to address the needs of the modern 'urban nomad', using high performance fabrics, and incorporating ideas of protection, mobility and identity (Quinn, Bradley, 2003). At the same time, architects are questioning the role of traditional 'bricks and mortar' structures, using new materials and techniques to create more versatile, adaptable and ecological structures that can respond to humanitarian need.

Both garments and buildings protect and shelter the body while providing a means to express identity. Example: Architect Shigeru Ban made use of inexpensive paper tubes to create both high-end architecture and temporary housing. His Paper Emergency Shelters (1995–99) consist of easily assembled paper-tube structures covered with the blankets issued to Rwandan refugees by the United Nations.

Other example is Chalayan's fashion collection (spring/summer 1998) examines how the traditional burka worn by some Islamic women can both reveal and conceal aspects of a woman's identity and protection (Evans, Caroline, Menkes, Suzy, Polhemus, Ted, and Quinn, Bradley, 2005).



**Figures 1 and 2:** Architect Shigeru Ban Paper Emergency Shelters (1995–99) and Chalayan's burka (spring/summer 1998)

## 1.2. Geometry

The use of geometry to generate form is a strategy shared by both architects and fashion designers. Simple forms such as circles, squares, and ellipses as well as more complex forms are used in both disciplines. In architecture, geometry is often used to create complex interior spaces or shape the overall physical form of the building, while in fashion design, once a garment is draped on a body, its shape is transformed and the geometry that generated it often becomes invisible. Another common thread running through fashion and architecture is the use of geometry to generate form. SANAA (Sejima and Nishizawa Architects & Associates) in Tokyo used geometry in a more straightforward way to generate the circular building they designed for the 21st Century Museum of Contemporary Art in Kanazawa Japan (1999–2004). While the perimeter of the building is a simple circle, its interior spaces are complex due to the careful arrangement of geometric shapes used to house the individual galleries.

J. Meejin Yoon employed the same geometric shape to create an unusual dress (Möbius Dress, 2005) that loops over and around the body. In most fashion design, rigid geometrical forms appear less often since conventional garments are made of multiple pieces of fabric that are cut and assembled to complement and conform to the shape of the body. However, explorations the geometry shape appears frequently in the practices of fashion designers, especially when they design packing dresses, that they laid flat, takes the shape of a circle, but when draped on the body its shape is less rational and more organic. (Steele, Valerie and Mears, Patricia, 2009) Similarly, architects begin with sketches and then construct study models from paper, cardboard, wood, or other materials to explore building variations.



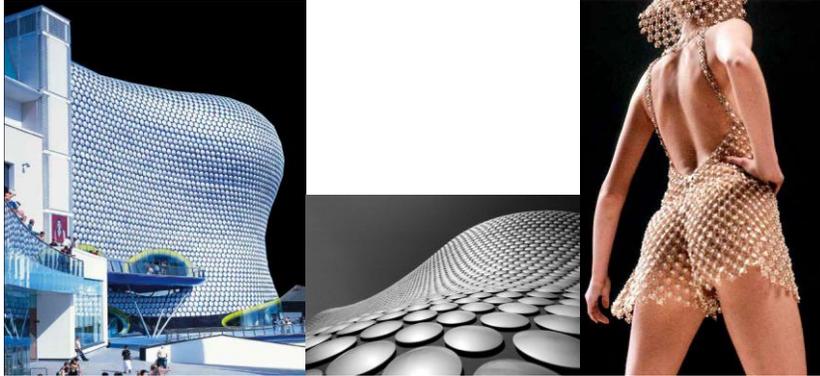
**Figures 3 and 4:** Architect SANAA, 21st Century M CA in Kanazawa Japan (1999/2004) and Isabel Toledo Packing Dress 1988

## 1.3. Structural Skin

In both fashion and architecture designers have recently begun to develop structural skins that bring the surface and the structure of a design—or the ‘skin and the bones’—together so they become one and the same thing. Structure and façade become joined in a single surface (Hanisch, Ruth, 2006). One of the most spectacular and unusual buildings in recent years is Selfridges Department Store in Birmingham, England, designed by Future Systems of London and was completed in 2003. The façade cladding was inspired by fashion, the aluminum disk covered façade of the Selfridges department store helped to both cover up the concrete substrate of the exterior but also provide an intriguing finish face to this unique building in which the program called for very few windows or other exterior elements. Jay Kaplicky and Amanda Levete, “compare the undulating curves of the building to those of a waistline and the fluency of its billowing shape to the drape of fabric. The citing snakeskin and the 1960s paillette dresses of Paco Rabanne as inspirations, the architects designed a cladding system that wraps all surfaces of

the building, including the roof, in one continuous movement, confounding conventional notions of front, back, and side facades." (Hodge, Brooke and Mears, Patricia, 2006)

Since both architecture and fashion are essentially constructed from flat two-dimensional materials, it is not surprising that practitioners in each field find inspiration in the other's techniques, forms, and surfaces.

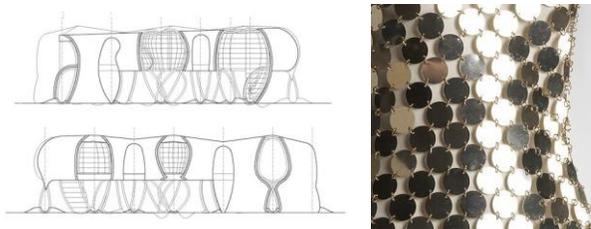


Figures 5, 6 and 7: Selfridges, The skin of the building and the 1960s dress of Paco Rabanne

#### 1.4. Construction Volume

Both fashion design and architecture deal with creating space and volume out of flat, two-dimensional materials, albeit on different scales. Increasingly, with the aid of new technologies and materials, each has been able to develop shared techniques that provide texture, form and volume in new and intriguing ways, often introducing shapes and silhouettes that confound conventional ideas of proportion and form. Surprisingly, the new shapes in each discipline seem to find echoes in one another (Fausch, Deborah and Princeton University, 1994).

Examples: The Slavin House, 2008, by the architect Greg Lynn, resembles a product blown up to the scale of architecture. A window/wall resembling a cluster of soap bubbles emerges from a corner of the house, and an interior wall, called the Blob Wall, comprising interlocking, plastic modules recalls a 1960s Paco Rabanne dress.



Figures 8 and 9: The Slavin House, 2008, architect Greg Lynn and 1960s Paco Rabanne dress

#### 1.5. Construction, Reconstruction and Deconstruction

While fashion's use of deconstruction is not as theoretically influenced as that of architecture, its appearance in the early 1980s runway shows of Comme des Garçons coincided with debates and discussions about it in the architecture world. Both disciplines, however, used deconstruction to challenge ideas of 'form', 'function' and 'beauty', and opened up new ways of thinking about architecture and fashion (Patton, Phil, Postrel, Virginia and Steele, Valerie, 2004).

In recent years, architects have adopted techniques such as printing, pleating, folding, draping, and weaving to develop more complex exterior surfaces, or skins, for their buildings, while fashion designers have looked to architecture for ways to construct clothes with greater volume and inherent structural integrity.

Other example is Gehry's Walt Disney Concert Hall in Los Angeles (1987/2003), in which a skin of stainless-steel panels creates deconstruction expressive curved forms. While these techniques are often used by architects to create greater visual interest on a building's exterior and to manipulate the volumetric forms of the interior. Designers in both fields have recently begun to develop structural skins that incorporate the bones, or structure, into the surface of a building or a garment.

Much of the work in this paper challenges conventional ways of thinking about architecture and fashion, revealing the potential that can be gained from an ongoing dialogue between the two disciplines. Inspired by the rich array of work on view, new generations of designers in both fields are sure to develop even more ingenious ways of adapting and adopting forms and strategies from each other that will transform the very nature of buildings and clothes.



**Figures 10 and 11:** Gehry's Walt Disney Concert Hall and Rei Kawakubo's 1980's dress

## 1.6. Identity

Both fashion design and architecture have long been used to express ideas of personal, social and cultural identity. However, in the recent year's practitioners in both disciplines, it have moved beyond the idea of merely signifying value, status and belonging, to express more complex and provocative issues surrounding notions of identity.

An example of identity is the Hussein Chalayan and Marcus Tomlinson, fashion design, *Afterwords*, 2000 was inspired by nature, culture, and technology. This work is an ongoing preoccupation with issues related to the wider realms of religion, cultural identity, and migration. *Afterword* illustrates the potential precariousness and fragility of both shelter and identity (Simitis, Matthew J. 2000). An architecture example is the Jean Nouvel's Arab World Institute in Paris (1981/87) serves as a hinge between two cultures and two histories. The building's dramatic perforated south façade incorporates elements that refer to Arab culture and architecture, while its reflective north façade mirrors the surrounding Parisian cityscape. This building is a preoccupation with issues related to the cultural identity.



**Figures 12, and 13:** Hussein Chalayan and Marcus Tomlinson, *Afterwords*, 2000 and Arab World Institute in Paris (1981/87)

## 1.7. Tectonic Strategies

Increasingly, fashion designers and architects are sharing techniques of construction. Architects are looking to fashion and the techniques of dressmaking, such as pleating and draping to achieve more fluid and complex forms out of hard materials, while fashion designers are employing engineering methods such as cantilever and suspension to create elaborate and often architectonic garments using fabric (Neil, Leach, 1999). Much of this transmutation of techniques has been made possible as a direct result of developments in materials technology and design software, which has allowed for significant advances in both disciplines:

### 1.7.1. *Wrapping*

Architects have utilised advances in materials technology and digital technology to reinvent what the skin of a building can look like and how it behaves, often blurring the distinction between fronts, back and side facades, and also the roof. Similarly, fashion designers have pushed the idea of how clothing can wrap the contours of the body, investigating distortion to challenge the prevailing silhouette (Black, Sandy, 2006).

One of the best examples is Seattle Central Library (2004) in United States was designed by Rem Koolhaas. The building's bold, dramatic, cantilevered form is, according to the architect concept: "wrapped in a mesh skin of diamond-shaped panes of glass (much like a fishnet stocking) set into a matching steel grid that operates as both a transparent curtain wall and part of the structural systems". As Herbert Muschamp described "the interior's overhanging platforms have been draped with a metal and glass building skin, as if it were a piece of cloth and the exterior folds"(Wigley, Mark, 1995), as the Rei Kawakubo's Dress, (spring/summer 1997).



**Figures13 and 14:** Central Library (2004) and Rei Kawakubo's Dress, (spring/summer 1997).

### 1.7.2. *Pleating*

Fashion designers have long used the traditional dressmaker's technique of pleating to create unusual surfaces and to amplify volume. More recently fashion designers have broken new ground by introducing industrial pleating techniques such as that used to create his well-known Pleats Please line. The sculptural forms and surface manipulation of these pleated garments have also provided inspiration to a number of architects.

An example of pleating is the Central Signal Box, 2000, that was designed by Jacques Herzog and Pierre de Meuron. Herzog's personal interest in fashion is in particular, of the qualities of pattern and texture. The Central Signal Box is wrapped in thin copper strips that twist and bend like fine pleats, serving to "dematerialize" and soften the monolithic structure.

Miyake pioneered a pleating process by which a piece of polyester is cut and sewn in the shape of a given garment, then sandwiched and pleated between layers of paper and fed into a heat-press machine (Miyake Issey, Sato, Kazuko, Chandès, Herve and Meier, Raymond, 1999). This technology, called "Garment Pleating," is the foundation for the Pleats Please Issey Miyake line, and earlier variations in the process resulted in Rhythm Pleats Autumn/Winter 1989, shown here. Miyake's pleated garments often take on architectonic shapes when worn.



Figures 15 and 16: The Central Signal Box, 2000 and Issey Miyake dress

### 1.7.3. *Printing*

Taking their cue directly from fashion, particularly the qualities of pattern and texture, some architects have chosen to wrap buildings in exuberant printed motifs, often to lend a narrative element to the structure, reflecting its identity or the context of its use in some way. Although the idea of incorporating printed textiles into clothing designs is certainly not new, some recent applications of printing in fashion have introduced fresh and unconventional ideas, particularly those that draw from the grammar of ornament or the language of architecture (Hodge, Brooke and Mears, Patricia, 2006).

An example of printing is the Hairywood Reincarnation in Covent Garden Piazza for the 2008, London Festival Architecture. The exterior of the tower is clad with plywood, laser cut with Eley Kishimoto's pattern of Rapunzel's hair allowing dappled light into the interior during day and lit from within by night, glows like a lantern. The Summer House is a playful challenge of how to re-imagine the possibilities of public space from a new perspective. The Eley Kishimoto, Rapunzel Dress from Dark Wood Wander collection, Autumn/Winter 2005-2006, inspired the pattern used on Hairywood building. These two examples represents the direct collaboration of the fashion design with the Architect, and both uses the print 'Rapunzel' from 'Dark Wood Wander', a collection inspired by a story of a princess trapped in a tower, who escapes and flees through a dark wood only to find her own fairy tale castle in flames.



**Figures 17 and 18:** Hairywood Reincarnation in Covent Garden Piazza, 2008 and the Eley Kishimoto, Rapunzel Dress, 2005-2006

#### ***1.7.4. Draping***

Architects have translated the drapery folds of fashion and textiles into both fluid and rigid building skins, often taking a hard material such as metal and distorting and manipulating it into gentle curtain-like folds. Similarly, fashion designers have utilised the soft technique of modelling, dressmaking on a mannequin form, to create drapery that is almost stiff in its sculptural form.

Example of Draping is the architect Shigeru Ban's Curtain Wall House (Tokyo, 1993/95). An immense two-story fabric curtain, working in tandem with an inner series of sliding glass doors, wraps two sides of the house and, when drawn shut, provides protection from the elements and a cocoon-like sense of privacy (Dodds, George and Robert Tavernor, 2001).

The Alber Elbaz's, Dress from the collection Autumn/Winter 2006-2007, is an example of draping and is focused on shape and proportion with exaggerated volumetric forms. Elbaz is known for his mastery of complicated technical challenges such as fluting, pleating, and seamless draping.



**Figures 19 and 20:** Curtain Wall House (Tokyo, 1993/95) and the Alber Elbaz's, Dress 2006-2007

#### ***1.7.5. Folding***

Since the early 1990s, architects have used folding as a device to create greater visual interest through dramatic effects of light and shadow on a building's exterior surface and to manipulate the volumetric forms of the interior. In fashion, the fold is being used in increasingly complex ways to give both structure and form to the construction of garments (Vidler, Anthony, 2000). An example of folding is the Chris Wilkinson and James Eyre accordion-like skybridge between the Royal Ballet School and the Royal Opera House in the Covent Garden section of London 2001-3. The skybridge is known as the "Bridge of Aspiration" and is at the fourth story.

The architects Wilkinson and Eyre about this concept had provided the following commentary: "Because the openings in each building are not directly aligned with earth other in elevation or laterally, we had offered a graceful solution: a sinuous aluminum spine supports the bridge's sleeve like enclosure, pleated with twenty-three square aluminum portals and glazed intervals. Each portal rotates four degrees from its neighboring one and shifts slightly to accommodate the skewered alignment."

Other example based in this concept is the Yoshiki Hishinuma, Dress from Bellows collection, Spring/Summer 2000. Hishinuma combines new technology with traditional Japanese techniques such as shibori or tie dying to develop textiles with effects like pleating, puckering, and crinkling that provide texture and volume. The designer's dress illustrates his investigation of the properties of textiles to give volume and form to garments. He used fabric with origami-like folds to create a honeycomb effect that allows each dress to expand when occupied or manipulated by the wearer.



**Figures 21 and 22:** Royal Ballet School: Bridge of Aspiration, 2003 and the Yoshiki Hishinuma, Dress, 2000

### *Synthesis*

More recently, the blurring of boundaries between fashion and architecture has led to the development of hybrid practices, that synthesis aspect of both disciplines.

"The body is a perfect small-scale exercise in spatial design, a testing ground for ideas and techniques to apply to buildings." Elena Manferdini (Hodge, Brooke and Mears, Patricia, 2006).

"We are all makers, operating in the same terrain, and drawing on craft and technology. We develop our own tools, share software and are challenged to work with new materials." Testa & Weiser.

An example of synthesis is the Peter Testa & Devyn Weiser's Strand Tower, 2006 that represents a synthesis of ideas, materials, and tectonic strategies drawn from both fashion and architecture. The architects devote equal attention during the design process to material development, fabrication technology, and engineering issues. Made by purpose-built robotic pultrusion (a method for producing continuous extrusions of composite materials) and braiding machines that "knit" vertical and horizontal strands together to form an exterior helix, this skeleton allows for the elimination of the core and interior columns typical of conventional high-rises. Other example of synthesis is the Elena Manferdini Custom dress 2006 that approaches the design of a garment as the skin of a building by using tools and techniques more commonly applied to architectural and aeronautical design.



**Figures 23 and 24:** Peter Testa & Devyn Weiser's Strand Tower, 2006 and the Peter Testa & Devyn Weiser's Strand Tower

## 2. Conclusion

Much of the work in challenges conventional ways of thinking about architecture and fashion, revealing the potential that can be gained from an increasingly fruitful dialogue between these two creative disciplines. New generations of designers in both fields are poised to develop ever more ingenious ways of adapting and adopting each other's forms and strategies to transform the very nature of buildings and clothes.

## References

Benjamin, Andrew, "Policing the Body. Descartes and Architecture of Change" in Neil Leach (ed) (1999), *Architecture and Revolution*. London: Routledge, p.150.

Black, Sandy, (2006) *Fashioning Fabrics: Contemporary Textiles in Fashion*. London: Black Dog Publishing, p.123.

Braddock, Clarke, (2006) Sarah E & O'Mahony, Marie: *Techno Textiles 2. Revolutionary Fabrics for Fashion and Design*. New York: Thames & Hudson, p.45.

Castets, Simon, (2009) *Louis Vuitton: Art, Fashion and Architecture*. New York: Rizzoli, p.155.

Dodds, George and Robert Tavernor, (2001) *Body and Building*. Cambridge, MA: MIT Press, p.406.

Evans, Caroline, Menkes, Suzy, Polhemus, Ted, and Quinn, Bradley, (2005) *Hussein Chalayan*. New York: NAI Publishers, p. 34.

Fausch, Deborah and Princeton University, School of Architecture, (1994) *Architecture, in Fashion*. 1st ed. New York: Princeton Architectural Press, p.142.

Hanisch, Ruth, (2006) *Absolutely Fabulous! : Architecture and Fashion*. New York: Prestel Publishing, p.116.

Heynen, Hilde, (1999) *Architecture and Modernity*. Cambridge, Mass.: MIT Press, p.118.

Hodge, Brooke and Mears, Patricia. (2006) *Skin + Bones: Parallel Practices in Fashion and Architecture*. Los Angeles: Museum of Contemporary Art. Neil Leach, *Camouflage* Cambridge, Mass.: MIT Press, p. 247.

Miyake Issey, Sato, Kazuko, Chandès, Herve and Meier, Raymond, (1999) *Issey Miyake: Making Things*. Zurich: Scalo Publishers, p.65.

Patton, Phil, Postrel, Virginia and Steele, Valerie, (2004) *Glamour: Fashion + Industrial Design + Architecture*. San Francisco: San Francisco Museum of Modern Art, 2004, p.55.

Quinn, Bradley. (2003) *The Fashion of Architecture*, Oxford, UK: Berg, p. 95.

Riegelman, N., (2003) *9 Heads- A Guide to Drawing Fashion*, (Third Edition ), 9 Heads Media in association with Art Center College of Design, Pasadena, California, USA, 104.

Sarnitz, August. (2003) *Loos Adolf, 1870-1933: Architect, Cultural Critic, Dandy*. Cologne, Germany: Taschen, p. 87.

Steele, Valerie and Mears, Patricia, (2009) *Isabel Toledo: Fashion from the Inside Out*. New Haven: Yale University Press, p.55.

Simitis, Matthew J. Simitis (2000). Introduction to "Fashion," Thresholds, Vol. 22 (Cambridge, Mass.: Massachusetts Institute of Technology, Dept. of Architecture, p.5.

Vidler, Anthony (2000), "Skin and Bones: Folded Forms from Leibniz to Lynn" in Warped Space: Art, Architecture and Anxiety in Modern Culture. Cambridge, MA: MIT Press, p.230.

Wigley, Mark. (1995) Designer Dresses: The Fashioning of Modern Architecture, Cambridge, Mass.: MIT Press, p.7.

**ISBN: 978-989-20-5336-3**