



4.1 Introduction

The precedents will be dealt with at levels of importance. There will be a focus on theoretical and conceptual precedents as it is the approach that needs to be justified.

It is necessary to look at theoretical and conceptual precedents for two reasons:

- To inform the concept and look at other similar approaches in Architecture and other fields; and
- To illustrate that the concept is an existing way of exploring space in Architecture.

4.2 Möbius House

Architect:	UNStudio
Date Completed:	1998
Location:	Amsterdam
Total area:	300 square meters
Program:	Residential House and SOHO

In 1993, Ben van Berkel was commissioned by a young couple to design a house that would be acknowledged as a reference for the renovation of the architectural language.

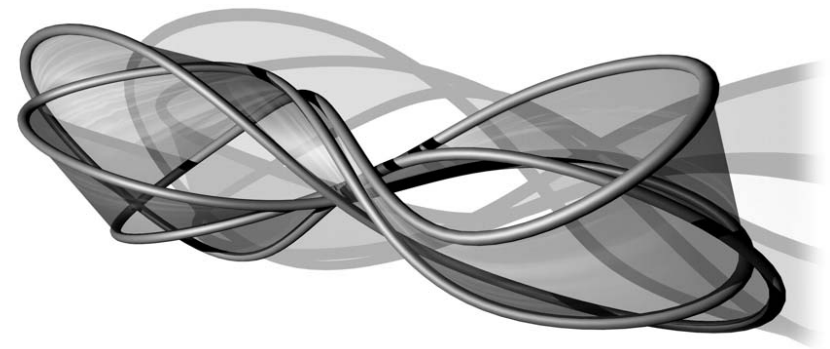


Figure 4-1: Möbius strip
(Source: *Stories of Houses*, 2003)

Completion of the design took the architect six years, creating a house based on the studies of a 19th-century German mathematician, August Ferdinand Möbius (1790-1868).

The design was developed around the principle that the new architectural language should be a direct consequence of their new way of life. The idea of two people moving along their own routes, but sharing certain moments - possibly also reversing roles at certain points - was elaborated into the built object.

By giving the Möbius band (Figure 4-1) a spatial quality, the architect has designed a house that integrates the programme seamlessly, both in terms of circulation and structure. Movement through this concrete loop traces the pattern of one's daily activities.

Arranged in three levels, the loop includes two studies (one on either side of the house), three bedrooms, a meeting room and kitchen, storage and living room and a greenhouse on the top, all intertwined during a complex voyage in time.

With its low and elongated outlines, the house provides a link between the different features of its surroundings. By stretching the building's form in an extreme way and through an extensive use of glass walls, the house is able to incorporate aspects of the landscape. From inside the house, it is as if the inhabitant is taking a walk in the countryside.

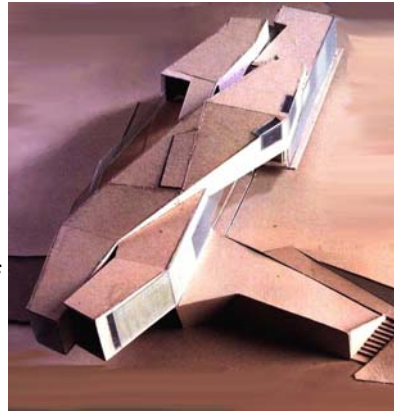


Figure 4-2

The perception of movement is reinforced by the changing positions of the two main materials used for the house, glass and concrete, which overlap each other and switch places. As the loop turns inside out, the exterior concrete shell becomes interior furniture such as tables and



Figure 4-3



Figure 4-4

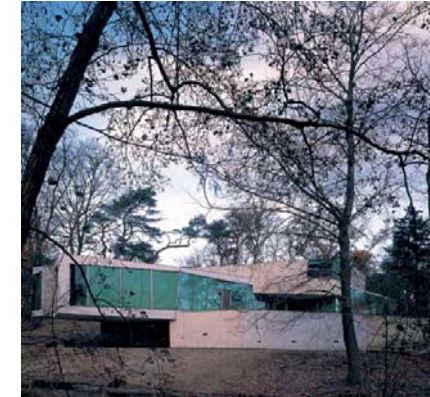


Figure 4-5

The contortions and twists in the house go beyond the mathematical diagram. They refer to a movement that has moulded a new way of life as a consequence of using electronic devices at work. The architect has managed to give an additional meaning to the diagram of the Möbius band, where its new symbolic value characterised by blurred limits between working and living that corresponds to the clients' way of life.



Figure 4-6



The concept that generated the Möbius House did not expire with it being built. Instead, it became further developed in the architect's mind and explored in at least two other projects of UNStudio. The other projects being the Living Tomorrow Pavilion in Amsterdam and the Mercedes-Benz Museum in Stuttgart .

(Paraphrased from: EMAP Architecture, 1999; *Stories of Houses*, 2003; UN Studio)

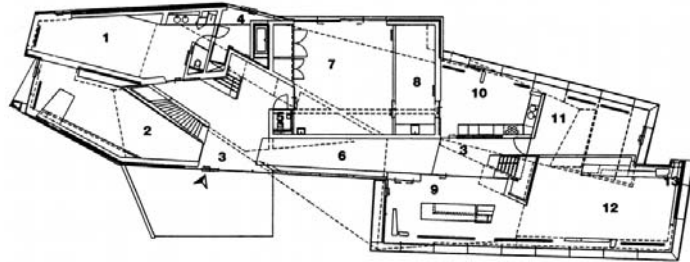


Figure 4-7

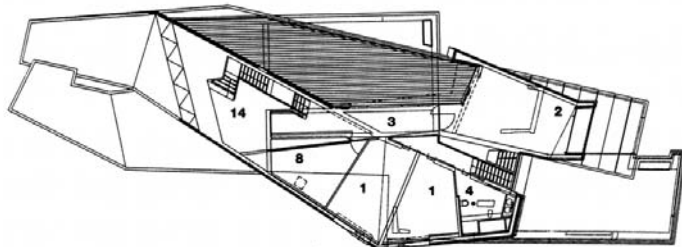


Figure 4-8



Figure 4-10



Figure 4-11

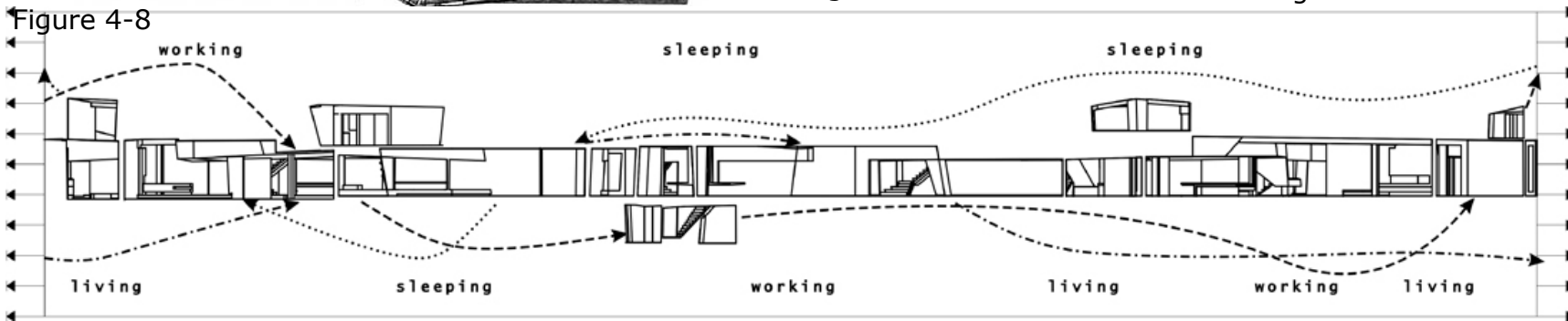


Figure 4-9

4.3 Living Tomorrow Pavilion

Architect: UNStudio in collaboration with Living Tomorrow, Brussels
 Date Completed: 2003
 Location: Amsterdam
 Total area: 3,500 square meters
 Program: Future oriented living- and working prototype, temporary building



Figure 4-12

According to UNStudio the design models that they used integrate several elements, instead of providing the designer with just one paradigm. Thus it does not simply state 'surface' or 'fold', but it instrumentalises possible concepts such as these that they incorporate the real ingredients of a built work of architecture.

The design model is prototypical, can evolve and can be implemented in various situations and projects. The design model condenses complexity: everything has to be already in it, including routing, construction, budget, programme, as well as its own driving principle, a direction, something that the designer points at. The Living Tomorrow Pavilion is a combination of a laboratory, an exhibition space and an auditorium. It is a temporary building where a variety of businesses can demonstrate their innovative technology and research for future buildings.

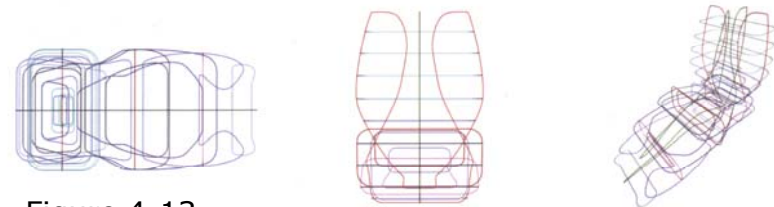


Figure 4-13

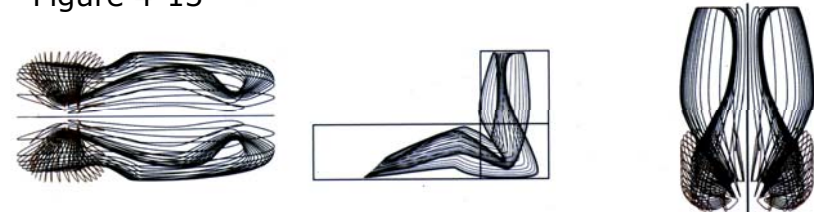
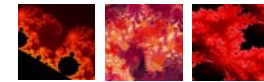


Figure 4-14

Visitors can get exposed to and acquainted with the products and services. The metal clad, curved shape derives from the concept that the vertical and horizontal parts of the building form one continuing inside-out-turned shape.



This is linked once again to a three dimensional exploration of the Möbius Strip where the vertical and horizontal were combined in a fluid whole.



Figure 4-15

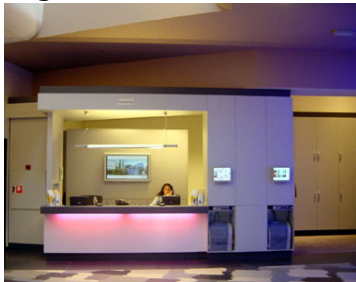


Figure 4-16

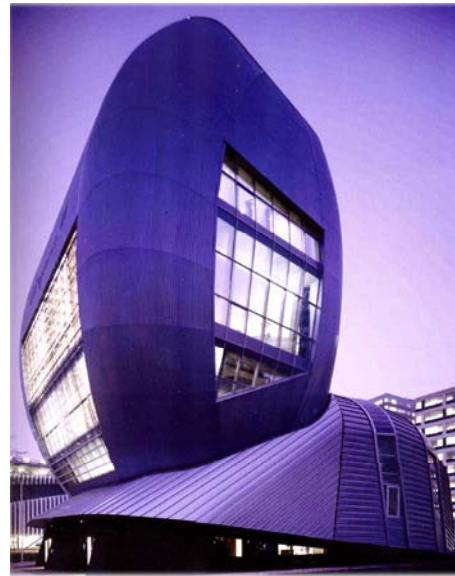


Figure 4-17

These integrated volumes form the basis for the spatial structure of the interior. All materials used are recyclable or have a low environmental impact.

The entrance, auditorium, event hall, exhibition room, administration and kitchen are located on the ground floor. On the four levels above, more exhibition rooms, a small restaurant and other secondary facilities are situated.



(Paraphrased from: Arcspace, 2004; Krajewski, 2009; UN Studio, 2003; Bahamon, 2005)

Figure 4-18

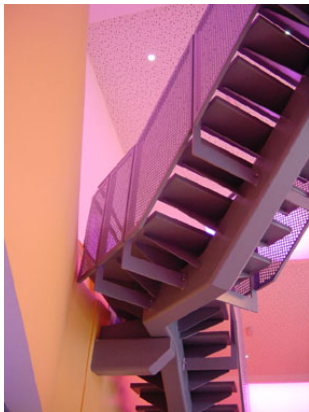


Figure 4-19

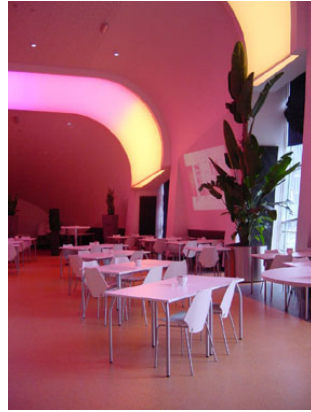


Figure 4-20

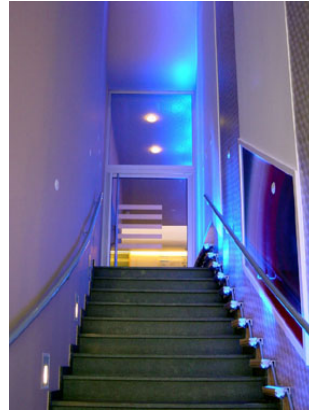


Figure 4-21



Figure 4-22



Figure 4-23

4.4 Beachness

Architect: NOX, Lars Spuybroek
 Date Completed: Research project for a beach hotel and boulevard (1997) in.
 Location: Noordwijk, the Netherlands
 Total area: Undetermined
 Program: Hotel and Promenade development.

Nox has been developing the possibilities of an interactive architectural territory for a number of years and one of their focus areas is the development of certain architectural logic to adapt architecture to the evolution in human perceptions.

More than mere adaptation, however, it attempts to synthesise existing and emerging technologies. The most recent projects touch on the notion of a cognitive architecture achieving a reactive "expert system" which mutates according to needs and functions as they arise.



Figure 4-26



Figure 4-27

By using a sort of genetic engineering, where architecture has been crossbred with other media, they have been able to generate a supple architecture that has nestled itself in the transitional area of two worlds: one being that of biological organisms and the other, electronic and modern technologies

According to Lars Spuybroek (Principal architect of Nox) we are experiencing an extreme liquidising of the



Figure 4-24



Figure 4-25



Figure 4-28



Figure 4-29



Figure 4-30

world, of our language, of our gender and of our bodies. We are witness to a situation where everything becomes mediated, where all matter and space are fused with their representations in media, where all form is blended with information.

In "Beachness" the firm started with quantified diagrams of various phenomenon that were translated into conceptual diagrams in a software environment that was then animated with the quantified data. This resembles the sand of the beach and bubbles being drawn up in a spiral (Steele, 2002: 142).

In the architects' words "Beachness" is defined as a certain state of mobility, because the beach should be primarily conceived as a place in which everything is in a state of flux. A beach is a loose architecture of light materials, wood, fabric and sand which is used for a highway when wet and for a bed or a chair when it is soft. Everything is mobile and moveable: furniture, bodies, fabric, sand and cars.

The flux of the project is expressed in a two-part design, namely the boulevard and the New Palace Hotel. Both parts are linked in terms of content and are based on two characteristics of soft matter: *plasticity* and *memory*.

On the one hand, this implies the capability to move and to transform. On the other hand, the possibility to "imprint" multiple traces, for instance imprints in the sand, the browning of the skin from the sun, brands projected on the fabric, the intent of the project is to 'remember' these and to let these interact with the movements of the visitors.

In its most basic explanation the area of Noordwijk is a road next to the coastline. In the Netherlands there is an interesting phenomenon that the coast is generally the countryside and the cities in the interior are much larger and more developed. The coastline consists of small coastal towns that are under threat from the ocean. For this reason the coastline is almost always undeveloped and unimpressively static. The idea is to lay down asphalt over a part of the beach so that the distinction between behaviour on the beach and the road melts into an exciting new intermediate form.

This will then be the available parking along the boulevard and in the vicinity, which will eliminate the problems surrounding parking. The problem is not that there are cars that are stationary, but that it is considered as parking, as in the Netherlands pedestrians are considered more important than cars.

Because cars and pedestrians are mixed at street level, the car will be forced to act as pedestrian. This dynamic mix of cars - moving and stationary - pedestrians, cyclists and the like, creates an active surface, upon which NOX proposes to place moving structures of steel and canvas that have 'thought' and move in the wind.

The structures can host restaurants hidden from the elements. On these structures videos will be projected at night. The area will be dotted with thin lampposts that bend in the wind some of these even "walking" into the sea.

Instead of people passively lying and staring into the horizon, the horizon is wrapped around a building. The hotel has no sea view and the reason for this is that the concept of the hotel is based on the idea that people are the horizon and not the view. The expectation that it will attract a lot of attention is based on the fact that the tower is not only five times as high as that of Pisa, but also twice as skew.

A steel structure wrapped with translucent fabric, the spiral tower with a large plinth and tapers to an elegant 140m high pinnacle. The intent for the user's perception inside the hotel is that of a Floating Tank (the kind where you float on salt water, with diffuse light, hints of sound on the ears, transporting you very far away).

The rooms are also all equipped with such a tank. They are not on the perimeter edge of the building, but a few meters behind it and very irregularly placed. The 'cavity' is the traffic and the sound of the wind will be electronically enhanced in this corridor.

As night falls and the sun finally sets, the building remains in vivid view as six cameras film the sunset while the sun "travels" through other time zones. These images are then broadcast at the Palace Hotel all through the night via the Internet. Thus, for example, at twelve at night you will be watching the sunset from New York.

(Paraphrased from: Vividvormgeving, 2009; Arcspace, 2004; Spuybroek L., 1999; NOX, 2003)