Chapter 4

Presedent Study

Fig.58: Gabion wall with penetrating sunlight

4.1 – Herzog and de Meuron – Dominus Winery (California)

The Napanook Vineyard near Yountville, California has been cultivated since 1866. It was in 1983, that the wine produced there attracted such international acclaim that the proprietor Christian Moueix decided to build a winery on the site. In 1995, the family commissioned Herzog and de Meuron to design the building.

Fig.59: Interior view of the Dominus Winery showing sunlight penetrating the gabion wall.

Fig.60: Exterior view of the Dominus Winery showing an undercover walkway puncuring throught the building

4.1.1 Introduction

In contrast to the surrounding wineries that are focused towards extravagance, the client and the architects instead decided to take a different approach. The result was a building that is an exact rectangle, 140 meters long from north to south, 25 meters wide from east to west, and two storeys high. It was positioned on the backdrop of the farm's vineyards and the simple form is only interrupted with two covered walkways that puncture through the width of the building separating the major functional spaces within.

The structure used is a simple and conventional concrete ground slab, concrete columns, and pre-cast concrete plank roof. The importance of the design lies in the cladding that consists of steel mesh cages and loosely packed stones, more commonly referred to as gabion walls. The reason the architects decided upon these gabions was not for aesthetic appeal only but rather their ability to regulate temperatures inside the building though thermal mass. By using different types and sizes of stones different parts of the building are regulated to different conditions.

4.1.2 – Considerations

The building uses passive cooling in a country and society where by and large, air conditioning is the norm. Only a small steel portion of the building containing the offices on the northern side is regulated mechanically. This supports the idea that, in many instances, passive ventilation can be optimised to such a degree that even very sensitive environmental requirements can be achieved with minimal mechanical resources. Herzog and de Meuron achieved this optimised passive thermal control through architecture and not through services.

Zaha Hadid

Fig.61: Communal offices with conveyor belts suspended overhead transporting cars still in production phase.

4.2 – Zaha Hadid – BMW Central Building (Leipzig)

In 2002, the German automotive company BMW invested in a $1, 55 billion competition for the design of the central building and factory of their complex on the outskirts of Leipzig, Germany. Twenty-five international architects participated in the competition and the brief was eventually awarded to Pritzker Prize winner Zaha Hadid. The brief set up by BMW required a building to cater for 5 000 employees and produce 650 3-series BMW's per day. The first car rolled out of the factory in May 2005.

4.2.1 Introduction

The central building proposed by Zaha Hadid is unique in terms of industrial conventions. BMW's non-hierarchical culture of transparency and accessibility encouraged Hadid to create a democratic building where managers in authority not only share their entire working environment directly with that of the factory workers, but also in conjunction with the actual production process. Automotive production and administration is merged together with conveyor belts suspended from the roof moving cars, still in production phase, around the building and through the cafeteria, cubicles and laboratories. Initial criticism that such a direct integration of functions would not work successfully was proven incorrect when Peter Clausen, the Leipzig plant manager, pointed out that the conveyor belt in the cafeteria transporting dirty dishes to the kitchen was louder than the belt that moves cars through the building (Architectural record 08.05:90).

4.2.2 – Considerations

The architectural language used by Hadid is successful in that it communicates industrial success while it remains specifically committed to the slick and cool nature of the company. The inspiration drawn from this project is not the architecture per se but instead the concept of integrated functions in an industry. Users on all authority levels are able to work in the same environment, at all times aware of this living and active building surrounding them.

Fig.62: Offices shared by managers and factory workers.

Fig.63: Inside walkway shoing conveyor belts suspended from the ceiling.

Gabriel Fagan Architects

Fig.64: Front of the SAB Visitor Centre in Newlands. The new glass box in front contrasts the old brick chimney on the side.

4.3 – Gabriel Fagan Architects – SAB visitors' centre (Newlands)

The South African Breweries (SAB) operates a large beer production unit in Newlands in the Western Cape. The association with the site dates from 1956 when SAB merged with Ohlsson's Cape Breweries and has since been developed into a successful beer trade for the area.

4.3.1 Introduction

Striving for tourist outreach in the area, the brewery decided to renovate the Mariendahl brewery built in 1859 and the malt house containing the kiln built in 1892, and convert them into a visitors' centre.

The centre was designed by local architect Gabriel Fagan and reveals the important approach he took towards conservation. Instead of restoring original form, the re-use and contrasts between new and old were emphasised. The building takes the visitor on a journey of the history of the brewery and the history of brewing in the Cape. The journey is enhanced through symbolism, spatial experience and physical interaction (Architecture SA 09/10 1995:13–15).

4.3.1 – Considerations

The project focused on retaining heritage and conservation by means of expressing the modern. This has been achieved through contrast, and by the architectural language continuing to speak as a brewery revealing information to the visitors by means of a journey.

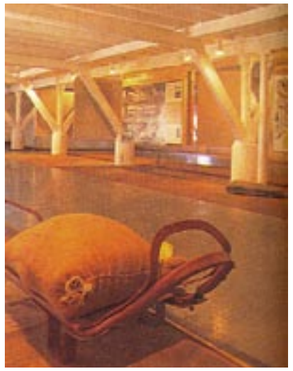

Fig.65: Inside of the visitors centre

Fig.66: Special attention spent on detailing.

Fig.67: View of the lift.