

3: Precedent study

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Studying similar projects in which the landscape has been successfully blended or contrasted with the buildings can be illuminating when embarking on a project such as the *Interactive* Centre in the GNR. By observing the design features, external and internal architectural techniques applied and facilities provided, there is much to be learnt from the work of established practitioners. The examples studied below show how the buildings and the landscape have been harmonised and the needs of the users catered for with flair, often juxtaposing the old and the new. The precedents offer valuable solutions and principles that can be effectively applied in the *Interactive* Centre.



3.1 The Sterkfontein Pavilion and Maropeng Visitors Centre

Location: The Cradle of Humankind, North-west Gauteng, South Africa

Architects: GAPP Architects and MMA Architects Interior
Designers: Artwood Interiors

Source: 2006 May/June issue of *Architecture: Journal of the SAIA*

President Thabo Mbeki officially opened the Sterkfontein and Maropeng Visitors Centres at the Cradle of Humankind, in 2005. At the opening ceremony of the Centre, the president explained that that the Centre represented ‘...our own 21st century humble contribution to record for posterity the story of evolutionary human biology and geography as it unfolds’. About 40 per cent of the entire world’s human ancestor fossils were found at the cradle, which was declared a world heritage site in 1999. Development of the entire area, including infrastructure, is a R347 million Blue IQ project. The development is managed by Maropeng a’Afrika Leisure. A public-private partnership, the project also involves the University of the Witwatersrand and the Gauteng province. The national government contributed land and money for the Cradle of Humankind development and in return receives a share of the annual profits.

The landscape near the Sterkfontein caves is charged with the memory of ancient civilisations. The two new complexes assume contrasting roles within this land that cradled humankind. The Sterkfontein entrance pavilion (Figure 26, 28) is a shed-like, single storey, face-brick structure that hovers above the landscape on concrete columns and gives the impression of treading lightly on the earth. It houses the hominid exhibition hall with interactive exhibits, a restaurant, ticket office, souvenir shop and auditorium. The pavilion serves as an orientation point and it is here that the guided walks through the caves begin (Figure 25). This building ‘imagines itself as part of its landscape ...’ (Bremner 2006:12) whilst remaining architecturally and culturally neutral.

The Maropeng Visitors Centre, in contrast, makes use of the dynamic interaction between ancientness and a world of hyper-modernity. It transforms the landscape with

the centrepiece of the complex – the Tumulus building (Figure 27). The latest technology simulates the history of humankind in an underground sensory display, which educates the visitor by means of entertainment. In combining the sacredness of human origin and 20th century Africa, this project has made the Cradle of Humankind an essential destination for tourists.

The natural and artificial contrasts are very evident in the design of the Sterkfontein Pavilion and Maropeng Visitors Centre. These contrasts place emphasis on what the visitor has come to see: the artefacts of human evolution. This bold technique, along with the use of technology in the interactive exhibits, enhances the visitor's experience of the intangible awe of an age-old site.

Figure 25: View of the entrance to the cave

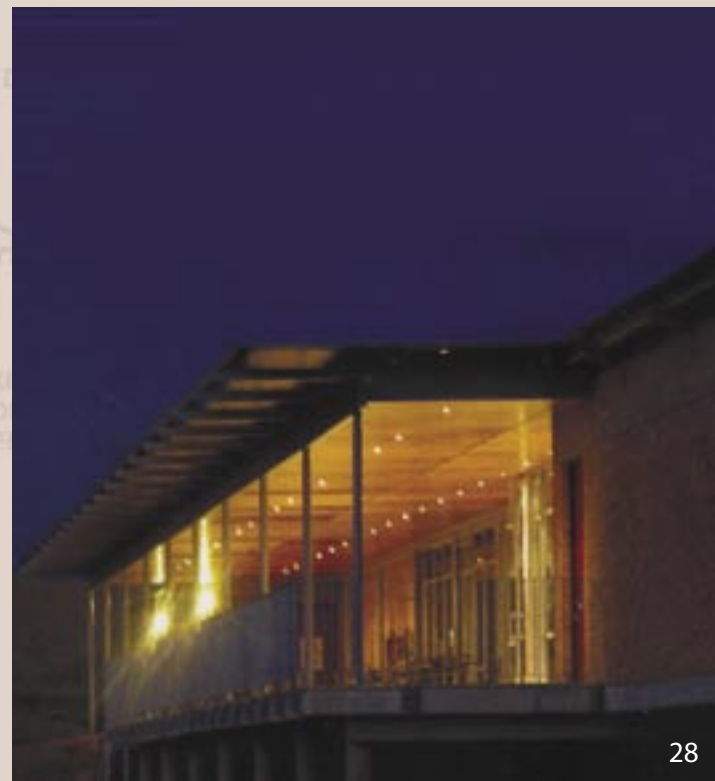
Figure 26: The pavilion with its marine-ply ceiling frames the view to the landscape beyond

Figure 27: The completed tumulus above an underground lake

Figure 28: The pavilion becomes a transparent glowing box at night



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3.2 Dome Rock: Thabapaswa Game Farm

Location: Limpopo province, South Africa
Architect: Heinrich Kammeyer
Source: Visited in March 2006

Designed for Deon and Ankie Richter, this farm is a popular getaway for city-dwellers as it is an inexpensive way to get back to nature just three hours out of Johannesburg (where you will assuredly not find a building turned inside out!). Designed with a delicate yet meaningful symbiotic relationship to the context, the architect used rocks from the site to create pathways (Figure 31), visual barriers and walls; hence the name of the camp: Dome Rock.

The architectural team worked on this project from an office in Johannesburg, but there was always someone on site to consider the context as the design process unfolded. Great care, for instance, has been taken to frame specific verandas as a guest moves from one enclosed space to another. Even from the toilets there is a picturesque view through the reed enclosures (Figure 30) into the bush. The shower and ablution area is a great adventure, with custom designed steel fixtures (designed by the architect) in the open-air showers. The sleeping areas comprise a glass box (Figure 29) with a stone wall on one side, blurring the lines between the interior and the outside (Figure 32).

The simple accommodation units at the Dome Rock Camp have made use of materials and resolutions to minimize the ecological footprint of the buildings. The use of materials like rock taken from the site makes the visitor feel completely at one with nature. In this way, the boundary between synthetic and natural becomes a blurred and subtle differentiation in Heinrich Kammeyer's unique design.

Figure 29: The glass-enclosed bedrooms allow natural light to enter and provide scenic views of the surrounding bushveld

Figure 30: The open-air toilets have a view through the reed enclosure

Figure 31: Elaborate stone detailing at the base of the bluegum poles

Figure 32: The accommodation units allow uninterrupted visual interaction between the resident and the bushveld





3.3. Koeberg Visitors Centre

Location: 30 km north of Cape Town, South Africa
Architect: Unknown
Source: www.Eskom.co.za

The Koeberg Nuclear Power Station provides power to most of the Western Cape and supplies approximately 6,5 per cent of South Africa's total electricity needs. A Visitors Centre located near the plant within Koeberg Nature Reserve offers facilities to educate the public and make them aware of nuclear power. The Centre has a well-equipped auditorium, where lectures and presentations are held to inform visitors about Eskom and the workings of the power plant. The visual exhibition area hosts a number of interactive models and displays (Figure 36).

The outdoor education programme encourages visitors to hike through the Koeberg Nature Reserve. The hiking trails and mountain bike trails are specifically designed to traverse the two naturally-occurring veld types in the area: sandveld and strandveld. There are also beaches and dunes to enjoy and the outdoor enthusiasts can experience a first-hand glimpse of the power plant and view the animal life in the reserve.

The planned *Interactive Centre* has similar typology to the Koeberg Visitors Centre in that the educational facilities and context of the two projects correlate. In contrast with the Koeberg Centre, however, the design approach of the *Interactive Centre* is to allow natural light into the interiors of the buildings and to use translucent and transparent materials to establish interaction between these and the context.

Figure 33: An aerial photo shows the Visitors Centre and power plant dominating the coastline, and Koeberg Nature Reserve

Figure 34: The impression of the Visitors Centre is of a building that is in contrast with the environment

Figure 35: The reception area of the Centre allows little natural light in so that the use of artificial lighting is accentuated

Figure 36 a, b & c: The dark interior with strategic 'starlight' down lighters highlights the computer screens as part of an interactive exhibition space





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3.4 XING

Location: Manhattan, New York, U.S.A
Architect: Lewis. Tsurumaki. Lewis
Source: *Architectural Record*, March 2003

The Pan-Asian Xing restaurant in Manhattan, New York, is an eatery designed by Lewis. Tsurumaki. Lewis. It was selected as one of *Architectural Record's* emerging vanguard architecture firms in 2000.

The restaurant is a bright, modern space, filled with contrasting textures and crisp detail. The owners wanted to retain an open ambience that could accommodate a prominent bar (Figure 39). 'The floor plan, typical in New York, was barbell-shaped (Figure 38), in which the middle is a bottleneck resulting from light wells placed on each side of the tenement building', explains design partner David Lewis. 'Rather than force a design that would hide the distinction between the front and back, the approach was to accentuate the unique nature of each space' (2003:198). Employing a collage-like technique of juxtaposing disparate materials, the architects used tactile surfaces such as bamboo panels (Figure 37), stone, and velvet, threaded with colourful acrylic forms that capture the light.

The unique use of materials makes this design an inspiring precedent for the GNR project. The contexts of the two projects differ in that the Xing eatery is in a decrepit, run-down part of Manhattan while the *Interactive Centre* rests within a beautiful Nature Reserve. But like the Xing bar the Centre makes use of the technique of juxtaposing materials with different textures, transparencies and colour to produce sleek interiors in stark contrast with the natural context.

3.5 Design influence

It is common knowledge that the progress and expansion of the human race influences our natural ecosystems. The size of the ecological footprint (cf B: glossary) that is left behind depends on the magnitude and duration of our intervention (for example, a shopping centre erected in a wetland or increased human activity in a public place). This constant conflict between the natural and artificial is what makes

for dynamic design decisions. This is well illustrated in the precedents discussed above.

The precedents offer valuable principles that can be adapted to apply in the *Interactive Centre*. The spatial relationships, transparency, response to environment and lighting are key factors. The precedents are successful in their respective contexts by responding to the project brief with a clear cognisance of the environment.

Figure 37: The wall, floor and custom banquettes are of bamboo panels. This material is used, as it is inexpensive yet attractive

Figure 38: The restaurant as it appears from the street

Figure 39 a & b: The combination of illuminated acrylic panels and stainless steel creates a prominent bar against vertical strips of dusky grey stone

