

figures

A: List of figures

Briefing document: pp1-13

- Figure 1:* Map of southern Pretoria showing the macro site and surrounding natural areas
- Figures 2 & 3:* The Voortrekker Monument, located near the Interactive Centre, embodies the heritage of Afrikaner nationalism
- Figure 4:* The Discovery Channel website with information on television programmes dealing with environmental issues
- Figure 5:* The Namco Playstation game, 'Soul Calibur', in which the user is involved as an action figure that explores super-real animations of ancient lands
- Figure 6:* The Extruded Window project at an exhibition hall of the Softopia Japan Centre in Gifu
- Figure 7:* Cameras capturing the real image which is then projected onto screens to create the 'extruded windows' effect
- Figure 8:* A map of Pretoria CBD to define the focus areas of the Tshwane Inner City Development and Regeneration Strategy, edited to show the location of Groenkloof Nature Reserve
- Figure 9:* The Tshwane Regeneration Strategy's building block 1 is 'Defining the gateways' (p. 17) to Pretoria CBD. Main gateway shown is the southern gateway, where Groenkloof Nature Reserve is located
- Figure 10:* Maps of Pretoria CBD to illustrate the southern gateway, and how the green open areas are linked

- Figure 11:* Results of a study to identify sensitive animal habitats in the Groenkloof Nature Reserve
- Figure 12:* The face-brick building that currently functions as an overnight hut
- Figure 13:* Cyclists leaving through the secondary gate
- Figure 14:* View as one enters through the main gate upon arrival at the site
- Figure 15:* Diagrammatic map of the selected site to show existing functions
- Figure 16:* Human space connects with context by means of design

Context study: pp15-21

- Figure 17:* The Centre has a multidimensional user profile
- Figure 18:* The segments of the chart show the percentages of certain categories of visitors to the reserve
- Figure 19:* The 'old pump', located in the Fountains Valley Resort. The pump will be protected as one of the monuments the visitor can view on the proposed historical trail
- Figure 20:* The monument indicating the site of the two original fountains in Fountains Valley. The plaque reads: 'Fontes origo Praetoriae 1855-1955'
- Figure 21:* The remains of the Bronkhorst house in the Groenkloof Nature Reserve. The area has been fenced off to commemorate the arrival of the first white pioneers in Pretoria

- Figure 22:* Sketch of selected site to show the existing buildings and layout in relation to the Apies River
- Figure 23:* Map of the GNR showing the available trails for hiking and for mountain biking in the reserve. The chosen site for this study project is indicated by the symbol ■
- Figure 24:* A map of the GNR taken from the *Groenkloof interpretation booklet*
- Precedent study: pp23-31*
- 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
- 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
- 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
- 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
- Design discourse: pp33-55*
- Figure 40:* Contour map of Groenkloof Nature Reserve indicating the location of the new bird hide and lookout points
- Figure 41:* Design concept for proposed signage and lookout points in the reserve
- Figure 42:* The movement and construction axes that exist on the site
- Figure 43:* The proposed new construction axes on the site
- Figure 44 a:* Colour coded exploration of the functional layout and movement within the *Interactive Centre* (April 2006)
- Figure 44 b:* Exploration of the interaction between spaces in the centre (July 2006)
- Figure 44 c:* Final layout of the *Interactive Centre* (August 2006)
- Figure 45:* Concept of the entrance to the *Interactive Centre* (April 2006)
- Figure 46:* Exploration of the effect of the auditorium as a double-volume space (a) as opposed to sunk into the earth (b)
- Figure 47:* Impression of the *Interactive Centre* seen from the main entrance or from the north-western side of the site (August 2006)
- Figure 48:* Concept of the interactive unit
- Figure 49:* Concept development of the interactive unit to form a unit suitable for displaying printed media
- Figure 50:* The interactive exhibition units as they appear within the exhibition area

- Figure 51:* The layout plan of the coffee shop
- Figure 52:* Sofa and coffee table configuration for the inside seating area of the coffee shop
- Figure 53:* The existing brick building visible beyond the proposed coffee shop
- Figure 54:* Timber and steel stools within the Due South shop
- Figure 55:* Clothing display within the Due South shop. Units are suspended from mountain climber's rope
- Figure 56:* Concept of the cycling shop window display
- Figure 57:* Design concept of the auditorium interior (April 2006)
- Figure 58:* Auditorium screen resolution (April 2006)
- Figure 59:* The plywood screens concept with light spilling down onto the steps as a safety and aesthetic feature (June 2006)
- Figure 60:* Detail on the plywood screens and their relation to the auditorium steps with artificial lighting (September 2006)
- Figure 61:* Final resolution of the ventilation gap in the nose of the auditorium seating and steps
- Figure 62 a & b:* The initial signage concept (April 2006) that was subsequently discarded in favour of a more refined architectural expression
- Figure 63:* Signage attached to a wall to indicate specific activities
- Figure 64:* Signage concept for indicating general direction
- Figure 65:* An influence on the proposed design of the restrooms: '2x4 Bathroom' by Rem Koolhaas
- Figure 66:* The layout plan of the restrooms adjoining the coffee shop
- Figure 67:* The 'Brain POP office' restrooms designed by 4pli, showing decorative logos on acrylic sheeting
- Figure 68 a, b & c:* An influence on the proposed design of the shower units: 'Public Toilets in the forest' by Aranda Pigem Vilalta Architects in Olot, Spain. Plan and section not to scale
- Figure 69:* Resolution of the shower facilities
- Figure 70:* Information counter concept
- Figure 71:* Detail of the information counter; the first part of call in the *Interactive Centre*
- Figure 72 a:* The initial balustrade design was exchanged for an inclusive design
- Figure 72 b:* Detail resolution of balustrade materials
- Figure 72 c:* Initial concept of nanotubes that form part of the balustrade
- Figure 73:* Detail resolution of the auditorium swivel chair components
- Figure 74:* A coffee table of 32mm curved plywood that influenced the design resolution and material choice of Product A
- Figure 75:* A single rib, forming part of Product A
- Figure 76:* Product C used for storage of visitors' mountain bikes
- Figure 77:* IBR metal sheeting used as external wall cladding on a building, which influenced the design of pivoting door type A
- Figure 78:* Technical resolution of the materials used in the pivoting door type A
- Technical resolution: pp57-67*
- Figure 79:* The baseline objectives are prioritised in the *Interactive Centre*
- Figure 80:* Clear width of doorways in the Centre
- Figure 81:* Reflection of sound in the auditorium
- Figure 82:* Floor materials in the auditorium
- Figure 83:* Calculation of the reverberation time in the auditorium
- Figure 84:* Passive ventilation of the auditorium
- Figure 85:* Aerial photo from the Tshwane Metro Municipality with the sewage, water and electrical layout indicated in the Fountains Valley. The site of the *Interactive Centre* is highlighted