

HEALING ACTIVITIES CENTRE

Submitted in part requirement for the Degree Magister in
Interior Architecture (Professional) in the Faculty of
Engineering, Built Environment and Information Technology

UNIVERSITY OF PRETORIA: Department of Architecture
NOVEMBER 2007

INGRID NIEBUHR
MENTOR & STUDY LEADER: BARBARA JEKOT

TABLE OF CONTENT

ABSTRACT	i	4. PRECEDENTS	49
LIST OF FIGURES	iii	Paimio Sanatorium	50
1. BRIEFING DOCUMENT	03	Castelveccio Museum	51
Real World Problem	04	Krzysztof Wodiczko	52
Problem Statement	05	Japanese Rock Garden	53
Delimitations and Assumptions	07	Africa Centre for Health	54
Design Approach	08	Pietermaritzburg City Hall	55
2. CONTEXT ANALYSIS	11	KZNSA Art Gallery	56
History	12	Margaret Roberts	57
Physical Context	14	5. DESIGN DISCOURSE	59
Metaphysical Context	20	Building Evaluation	60
Target User Group	26	Design Development	72
Client	26	6. TECHNICAL RESOLUTION	109
Economic Activity	27	Baseline Document	110
Legislative	27	Acoustics	114
Discipline	28	Lighting	115
Social and Health	28	Fire Protection	115
Governmental Goals	28	Water and Sewerage	115
3. THERAPY APPROACH	31	7. TECHNICAL DRAWINGS	119
Therapy Types	32	CONCLUSION	147
Sensory Integration	37	REFERENCES	149
Colour and Human Response	41	APPENDIX	151

The chosen site, the former Nature and Culture History Museum is positioned next to the National Zoological Gardens in Boom Street, Pretoria. The once successful museum building has now been left deserted, resulting in a ‘big white elephant’ occupying space in the city. The valuable building is filled with potential, which will be used to its fullest during the project. At the same time, the city inhabitants distance themselves more and more from nature, losing their balance in life.

All happenings in our lives leave marks on us. These marks form an impression, a change and/or an emotional layer. Marks allow reflections back on the past. It is essential to find balance again by going back to nature, going back to our roots. Sand marks, the touch of mother earth, follow the dissertation throughout, leaving marks on the reader.

The aim is to bring life back into the building and to strengthen the wounded through activities targeting the senses, intellect, creativity, offered at the *Healing Activities Centre*.

LIST OF FIGURES

Briefing Document: pg 03-09

Figure 1: Proportion of assault, sexual offence and murder victims who knew the offender in some way (Statistics SA, Crime and Justice Program, ISS)

Context Analysis: pg 11-29

Figure 2: The location of the site in the Pretoria CBD (www.savenues.com, 18 October 2007)

Figure 3: copy of original Z.A.R. Staatsmuseum plan 1899 (Fisher, R. C. et al. 1998. Architecture of the Transvaal)

Figure 4: Museum soon after completion, 1904 (Dippenaar, N. J. 1992. Staatsmuseum 100)

Figure 5: Access routes, location of site (Pretoria Zoo, Civil Department)

Figure 6: Zoning Map (Group 4, 2007)

Figure 7: Movement Map illustrating different forms and intensities of transport (by author)

Figure 8: Topographical map showing Daspoort ridge and channel (by author)

Figure 9: Soil Map (Pretoria Zoo, Civil Department)

Figure 10: ISDF 'Government Boulevard' proposal (by author)

Figure 11: Sensory Map (by author)

Figure 12: Aerial view onto existing building from Boom Street's side (Photo by June Jordaan)

Figure 13: Disarray along Boom Street (Photo by author)

Figure 14: View into courtyard (Photo by author, 16 May 2007)

Figure 15: Current building front facade, viewed from Andries Street (Photo by author, 4 April 2007)

Figure 16: Existing pressed steel ceiling inside 'towers' (Photo by author, 16 May 2007)

Figure 17: Clerestory window and pressed steel ceiling in Eastern wing (Photo by author, 16 May 2007)

Figure 18: View into courtyard addition (Photo by author, 30 March 2007)

Figure 19: Wagon timber door (Photo by author, 16 May 2007)

Figure 20: Existing door into courtyard (Photo by author, 30 March 2007)

Figure 21: Unique vaulted ceiling (Photo by author, 16 May 2007)

Figure 22: Staircase in northern wing (Photo by author, 16 May)

Figure 23: Staircase into basement (Photo by author, 16 May 2007)

Figure 24: Arches inside basement (Photo by author, 16 May 2007)

Figure 25: Eastern courtyard veranda (Photo by author, 30 March 2007)

Figure 26: London Plane tree in the courtyard centre (Photo by author, 16 May, 2007)

Figure 27: Medical and Educational institution map (by author)

Therapy Approach: pg 31-47

Figure 28: The interplay between intellect, social and creativity during therapy (by author)

Figure 29: Feeling Shapes Activity (Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)

Figure 30: T-Stool Activity (Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)

Figure 31: Crash Pad Activity (Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)

Figure 32: Flying Beanbag Activity (Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)

Figure 33: Bird Calls Activity (Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)

- Figure 34: Taste and Tell Activity
(Kranowitz, C.S. 2003. The Out-of-Sync Child has Fun)
Precedents: pg 49-57
- Figure 35: Green painted ceiling to prevent glare
(<http://whc.unesco.org/en/tentativelists/1864/>, accessed 15 June 2007)
- Figure 36: Walkway along perimeter of building
(<http://whc.unesco.org/en/tentativelists/1864/>, accessed 15 June 2007)
- Figure 37: Auditorium interior
(<http://whc.unesco.org/en/tentativelists/1864/>, accessed 15 June 2007)
- Figure 38: Colour treatment of staircase
(<http://whc.unesco.org/en/tentativelists/1864/>, accessed 15 June 2007)
- Figure 39: Detail of walls revealing different time layers through different use of materials (Scarpa, C. 1986. The Complete Work)
- Figure 40: The position of the Equestrian Statue of Congrande
(Scarpa, C. 1986. The Complete Work)
- Figure 41: Old and new time layers (Scarpa, C. 1986. The Complete Work)
- Figure 42: Live projected face against the Omnimax Theatre building
(<http://web.mit.edu/idg/cecut.html>, accessed 17 June 2007)
- Figure 43: Projection effect reaching wide into the city
(<http://web.mit.edu/idg/cecut.html>, accessed 17 June 2007)
- Figure 44: Participant in front of own projection
(<http://web.mit.edu/idg/cecut.html>, accessed 17 June 2007)
- Figure 45: Live emotion visible, live conversation
(<http://web.mit.edu/idg/cecut.html>, accessed 17 June 2007)
- Figure 46: Head set model
(<http://web.mit.edu/idg/cecut.html>, accessed 17 June 2007)
- Figure 47: Holographs projected against an existing building
(Soldiers & Sailors Memorial Arch, accessed 17 June 2007)
- Figure 48: Rock Garden of Zuiho-in Temple, Kyoto
(www.phototravels.net. Frantisek Staud, Image ref No 2633-S0)
- Figure 49: Rock Garden of Zuiho-in Temple, Kyoto
(www.phototravels.net. Frantisek Staud, Image ref No 1663-34)
- Figure 50: Zuiho-in Garden
(www.phototravels.net. Frantisek Staud, Image ref No 2633-89)
- Figure 51: Ryogen-in Garden
(www.phototravels.net. Frantisek Staud, Image ref No 1663-36)
- Figure 52: The karesansui garden in Ryōan-ji Temple, northwest Kiyoto, Japan. (<http://www.educ.sfu.ca/kegan/Japangardenhome.html>, accessed 16 March 2007)
- Figure 53: Courtyard of the Africa Centre for Health
(Architecture for Humanity. 2006. Design Like You Give a Damn)
- Figure 54: Locally manufactured sun shaders
(Architecture for Humanity. 2006. Design Like You Give a Damn)
- Figure 55: Entrance of the Cente
(Architecture for Humanity. 2006. Design Like You Give a Damn)
- Figure 56: Water tanks in tower
(Architecture for Humanity. 2006. Design Like You Give a Damn)
- Figure 57: Front view of the Africa Centre fore Health
(Architecture for Humanity. 2006. Design Like You Give a Damn)

- Figure 58: Side view onto glass-enclosed portal (Photo by author)
- Figure 59: Close-up view of glass partition (Photo by author)
- Figure 60: Portal seen in wider context (Photo by author)
- Figure 61: Street view onto gallery (Photo by author)
- Figure 62: Link between inside and outside, coffee and art (Photo by author)
- Figure 63: The interior exhibition space links to the outside (Photo by author)
- Figure 64: High volume space (Photo by author)
- Figure 65: The former park stairs now form part of the restaurant (Photo by author)
- Figure 66: Sage (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Figure 67: Peppermint (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Figure 68: Rosemary (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Figure 69: Ginger (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Figure 70: Pennywort (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Figure 71: Lavender (Mountain Herb Estate. <http://herbgarden.co.za/mountainherb/herbs.php> accessed 14 October 2007)
- Design Discourse: pg 59-107
- Figure 72: Vehicular and pedestrian access into building (by author)
- Figure 73: The colour-coded routes lead from the Activities Centre to each specific therapy animal (by author)
- Figure 74: Therapy Allocation in Healing Activities Centre (by author)
- Figure 75: Colour Placement in Centre (by author)
- Figure 76: Basement plan linking into zoo (by author)
- Figure 77: Ground Floor Plan of the Healing Activities Centre (by author)
- Figure 78(a): Perspective view of stage in context (by author)
- Figure 78(b): Stage plan (by author)
- Figure 78(c): Stage section (by author)
- Figure 79(a): Pavilion Plan (by author)
- Figure 79(b): Pavilion Elevation (by author)
- Figure 79(c): Pavilion Side Elevation (by author)
- Figure 79(d): Pavilion Structure in Perspective (by author)
- Figure 79(e): Pavilion Structure in Context (by author)
- Figure 80(a): Assembly of the Track System (by author)
- Figure 80(b): Pavilion Roof Track System (by author)
- Figure 81: Projecting onto stage (by author)
- Figure 82: Extended coffee area into courtyard (by author)
- Figure 83: Pebble bed and water feature. The different high levels create seating opportunity (by author)
- Figure 84: Different levels and textures inside courtyard (by author)
- Figure 85(a): Ground floor plan of Art Café (by author)
- Figure 85(b): First floor plan of Art Café (by author)
- Figure 85(c): View into Art Café from staircase (by author)
- Figure 85(d): Perspective towards kitchenette underneath mezzanine floor (by author)
- Figure 85(e): View into Art Café from the 'Healing Exhibition' (by author)

- Figure 85(f): Exterior view into Art Café (by author)
- Figure 85(g): Perspective onto mezzanine floor (by author)
- Figure 85(h): View towards adjoining door and mezzanine gallery (by author)
- Figure 86(a): A step-by-step guide as how to operate the Seating Unit (by author)
- Figure 86(b): Seating Unit dimensions (by author)
- Figure 86(c): Labelled description of the Seating Unit (by author)
- Figure 87(a): Mezzanine column Detail (by author)
- Figure 87(b): Multi-functional column spacer (by author)
- Figure 88(a): Perspective views of assembled mezzanine system (by author)
- Figure 88(b): Labelled column tops and cross bracket (by author)
- Figure 88(c): Labelled mezzanine system (by author)
- Figure 88(d): Plan of assembled mezzanine system in Art Café (by author)
- Figure 89(a): Staircase front, showing first flight (by author)
- Figure 89(b): Back of staircase, showing storage facilities (by author)
- Figure 89(c): Upper flight of stairs, landing (by author)
- Figure 89(d): Labelled Art Café staircase (by author)
- Figure 90(a): Diagram showing water run off of 'recess cover' (by author)
- Figure 90(b): Ventilation diagram of 'recess cover' (by author)
- Figure 90(c): 'Recess cover' on front facade (by author)
- Figure 90(d): Enhanced communication between the exterior and interior (by author)

Technical Resolution pg 109-117

- Figure 91: The calculated sustainability of the proposed project.
The average building performance is 4, which is fully acceptable as the building is re-used. (SBAT prepared by author)

- Figure 92: Passive ventilation diagram (by author)
- Figure 93: New Sewerage Plan (by author)

Technical Drawings pg 119-145

- Figure 94: Basement Plan (by author)
- Figure 95: Groundfloor Plan (by author)
- Figure 96: First Floor Plan (by author)
- Figure 97: Roof Plan (by author)
- Figure 98: Altered Basement Plan (by author)
- Figure 99: Altered Ground Floor Plan (by author)
- Figure 100: Altered First Floor Plan (by author)
- Figure 101: Altered Roof Plan (by author)
- Figure 102: Altered South Wing and Courtyard Elevation (by author)
- Figure 103: Altered North Wing and Courtyard Elevation (by author)
- Figure 104: Altered Courtyard Section and Elevation (by author)
- Figure 105: Altered exterior east and west elevations (by author)
- Figure 106: Proposed Basement Plan (by author)
- Figure 107: Proposed Ground Floor Plan (by author)
- Figure 108: Proposed First Floor Plan (by author)
- Figure 109: Proposed Roof Plan (by author)
- Figure 110: New openings (indicated green) on building (by author)
- Figure 111: New proposal (opening) on building (by author)
- Figure 112: Sections through building, showing the different location atmospheres (by author)
- Figure 113: Sections through building, showing the different location atmospheres

(by author)

- Figure 114: Detailed Section through the east wing and Pavilion Roof (by author)
- Figure 115: Section through library, showing unique vaulted ceiling (by author)
- Figure 116: Detailed Section through Northern wing, showing the connection between zoo and courtyard (by author)
- Figure 117: Basement electrical plan (by author)
- Figure 118: Ground floor electrical plan
- Figure 119: First floor electrical plan