

Opened January, 2004

LOCATION:

K Road , PO Box 460
Werribee , Werribee,
Victoria 3030 , Australia
Phone: 61-3-9731-9643
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URL: <http://www.zoo.org.au>

KEY WORDS:

Co-existence, Cat

ANIMALS:

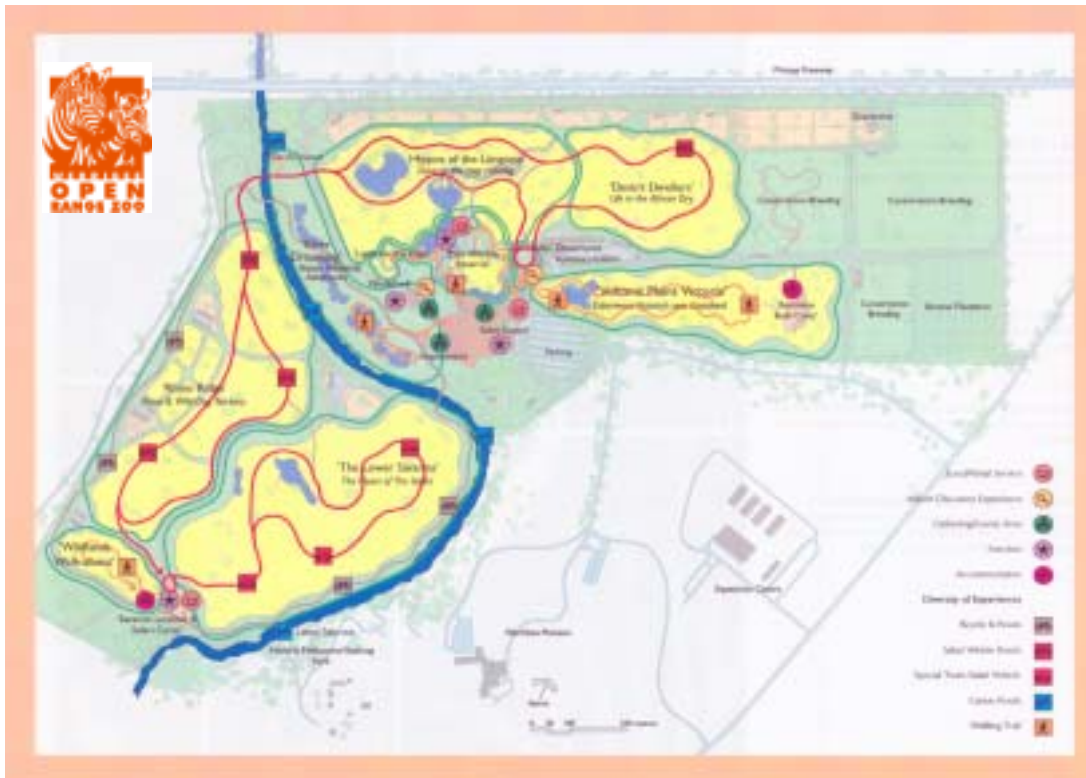
Felidae, *Panthera leo*
Lion, 4.2.4 Viverridae,
Suricata Meerkat

DESCRIPTION:

The goal of the design was to introduce visitors to a believable, exciting experience of walking through the bush with lions as part of the living landscape. The purpose was to help visitors to intuitively appreciate the drama and dilemmas that pastoralists and land managers deal with ... and the successes and failures that they experience ... in trying to maintain a system where lions are an integral part of both the tourist economy, as well as the natural ecosystem.

In order to maintain an authentic experience - one that places visitors in a faithfully replicated African landscape - the design incorporates items that are theatrically modeled on real materials, objects and structures found in Botswana.

The visit of "Lions On The Edge" begins with the arrival at a break in a boundary fence with a sign informing that, beyond this point, visitors are entering an unprotected area and warning them about the presence of lions in the area. A recently killed



The exhibit is located in the middle of the northern part of the park, marked with a black circle.
exhibit ©Becca Hanson & David Roberts, 2005

Site Plan



The Designs and photos all by Becca Hanson & David Roberts, 2005



Lion on car

cow carcass confirms this fact. The surface of the track is full of lion, hippo and ungulate footprints, as well as vehicle tire tracks. Upon proceeding, visitors explore a Botswana savanna - from a herder's boma and animal kraal, through a tallgrass "maze", past a waterhole and meerkat community with views to the surrounding mixed herd savanna and, finally, to a location where the park ranger's truck has apparently had a flat tire.

The truck itself is partially in the lions' area with the hood being sectioned off from the rest of the vehicle by a glass viewing panel. Feedings regularly occur on the hood which has the additional benefit of having heating coils running through it ... both of which encourage lions to lounge up close to visitors.



Interpreter as Paleontologist

This location forms the nucleus of an interpretation and demonstration area with lions as the focus - discovering how lions live, and the connections between people and lions in the wild and at the Zoo. The use of a truck as a viewing platform provides a realistic way to view lions in the landscape. Mesh netting provides an opportunity for keepers to demonstrate behavioural training techniques which facilitate the lions' care, as well as to get visitors safely up close to witness the size, hear their breath, and appreciate the special physical features that make lions such magnificent creatures. The journey back forms the set-up for the next phase of development, through the hippo marsh habitat. Two visually-overlap-



**Lion with food at
Truck Overlook**



Termite Mound

ping spaces (about 1800 and 2000 m²) that allow for physical separation of males and females/ females with cubs while maintaining the perception of a contiguous connection between the two. The building includes 3 interior dens (two at 3x3m² and one at 5x6 m²), a kitchen, freezer and a toilet. All interior dens are attached to exterior runs of similar size. Additionally there is a night yard (6x14 m²) interconnected with all runs by a raceway. Space allocation in square meters: use indoors outdoors total exhibit

COSTS:

AUS \$ 3,700,000 including 18 % for design. The design costs include architectural, landscape architectural, zoological, interpretive, horticultural and engineering services, project management and quantity surveying.

DESIGN:

Began: October 2002
Design: The Portico Group, Seattle

Design Lead: Becca Hanson, David Roberts, currently Studio Hanson/ Roberts, Bainbridge Island, Washington

Project Manager: Carson Group, Melbourne, Australia

Interpretive Design: AldrichPears Associates, Vancouver, B.C., Canada

Engineers: Connell Mott MacDonald, Melbourne, Australia

CONSTRUCTION:

Began: April 2003
General Contractor: ADCO, Melbourne, Australia

Interpretive Elements Coordinator: Jen Allen, Melbourne, Australia



Viewing area using chain link mesh with “frame” and visitor area

Interpretive Elements
Fabrication Lead:
Mother's Art, Melbourne,
Australia

LOCAL CONDITIONS:

24 m altitude 19.5 °C
mean annual temperature 480 mm mean
annual precipitation

PLANTS:

The tall, denseley vegetated grass trails appear to have been made by animals. A clearing reveals a water hole with more stands of tall grasses where a lion might be in hiding. The plant list specifies the Latin names of the plants used for this exhibit.

FEATURES DEDICATED TO ANIMALS:

- Provisions for shade – both from trees, downed logs and close to the glass visitor viewing area
- Large, elevated, grassy hills for viewing out to ungulate herds and surrounding expansive Werribee River landscape
- Spaces to get away from one another without getting trapped
- Distance away from public without getting too far away
- Separated exhibits for males and females so that staff can manage breeding without the need for hormone treatment
- Out of doors night yards with access to interior dens
- Interior dens with remote manual sliding gates and doors
- Barriers: 9m horizontal jumping distance / 5m vertical jumping distance. Hidden moats: graded 1:1.5 stabilized earth slopes, vertical gabion retaining walls near structures. Vertical chainlink fence with 800mm openings, return at top and buried 1m return at bottom, 2 electric wires on the inside. Glass with hidden chainlink above.



Naturalistic “Lions on the Edge” Graphic



Exhibit graphic miming native art

FEATURES DEDICATED TO KEEPERS:

- Keeper area with food preparation room, records storage space and observation area
- Adjacent freezer
- Easy behind-the-scenes service access as well as convenient access by visitors for special tours
- Individual feeding "chutes" for behind-the-scenes demonstration feedings
- Mesh barrier at sheltered viewing area for behavioural conditioning

FEATURES DEDICATED TO VISITORS:

The visitor experience is a naturalistic setting of an African Savanna, beginning with a kraal - a native hut with livestock. Walking through a dense, grassy maze gives the visitor a sense of a path made by lions, then opens up into a water hole with tracks, meerkats, finally revealing the lions on the edge in a rolling savanna dotted with trees, a battered old truck and a distant river. Visitors can view the lions from a ranger truck. This is a novel opportunity for close encounters with the lions, creating an exciting sense of "safe danger".

Opportunities for behind-the-scenes experiences have been well considered. A lion feed experience allows for 14 visitors at a time to view the male lions being fed from very close quarters. Visitors have the opportunity for an outstanding experience with Lions that takes them beyond "urban life" and enables them to form sensory and intellectual connections with the Lions and their habitat, providing active participation rather than only passive viewing.



Naturalistic Kraal exhibit



Site Plan

INTERPRETATION:

When following the Africa Walking Trail toward the lions exhibit, visitors cross a fence broken by elephants demarking the boundary between the reserve and the "outside". A series of encounters include sounds, graphics, models and play environments at the waterhole and grass maze on the way to the destination at the 'edge of the reserve'. The use of a truck as a viewing platform provides a realistic and dynamic way to view lions up close. Near the truck, visitors can see the park ranger's maps, supplies and personal gear including a lion skeleton in a crate. Interpreters employ a number of different roles to engage visitors in their journey to Botswana. Visitors may meet a paleontologist, a documentary maker or a researcher studying lion communication. Visitors gain knowledge of the ecological and cultural relationships that exist between humans and lions within the African savanna ecosystem.

MANAGEMENT:

Separated exhibits for males and females allow to manage breeding without the need for hormone treatment. A mesh barrier at a sheltered viewing area is provided for behavioural conditioning.

RESEARCH:

Excellent observation points are provided for both visitors and animals to carry out research.

CONSERVATION:

Locally-sourced timbers from around Melbourne were used in construction. Cut and fill were balanced. The moats are used for biofiltration of stormwater. Water in



Site details



Entry Sign into Lions on The Edge

the "water hole" is recycled. The proposed plant species are climate adapted and need irrigation only during establishment.

LOCAL RESOURCES:

A research and buying trip to Botswana was done to develop partnerships. A Botswanan student group in Melbourne served as review group. A video footage and radio.

About ZooLex

ZooLex Zoo Design Organization:

The ZooLex Zoo Design Organization runs the ZooLex website. The ZZDO is a non-profit organization independent from companies and organizations. It relies on the support of subscribers, members, sponsors and well-wishers to fund its activities.

Contact:

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Sobieskigasse 9/12
A-1090 Vienna
Austria

Objectives:

ZZDO was established to help improve holding conditions for wild animals in captivity by publishing & disseminating information related to zoo design, -promoting appropriate holding conditions for wild animals in captivity, providing balanced technical information and advice about zoo design, and supporting research and vocational training related to zoo design.

Founders:

The ZooLex Zoo Design Organization was initiated by

Monika Fiby,
Hans Fiby and Nadja
Ziegler

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