

ZooLex *News & design from December issue*

See the web version of this article with large, attractive photos at <http://www.zoolex.org/zoolexcgi/view.py?id=1045>. Go to www.zoolex.org

Hello ZooLex Friend,

We have worked for your enjoyment!

NEW EXHIBIT PRESENTATION

The Orangseum is an Orangutan exhibit at Apenheul Primate Park in the Netherlands. Its concept had three goals: first to provide the highest degree possible in social flexibility, second to provide a high degree of environmental complexity and third to create a maximum of climbing volume for the apes: <http://www.zoolex.org/zoolexcgi/view.py?id=1045>

We would like to thank Frank Rietkerk, Head Animal Management of Stichting Apenheul, and Suzan Megens for this presentation. Suzan was a trainee Apenheul Primate Park when preparing this exhibit presentation for the ZooLex Gallery. We hope that other zoos will follow the example and have their interns or volunteers assemble presentations for the ZooLex Gallery. Here is a template that is useful for this purpose: <http://www.zoolex.org/service.html>

ANNUAL REVIEW 2008

ZooLex Gallery:

We wish to thank all those who have taken their time to compile and submit information for exhibit presentations. With your support we have been able to publish 187 presentations (including translations) of 115 exhibits from 68 zoos in 17 countries in the ZooLex Gallery so far. In 2008 five presentations were submitted by zoo trainees using the ZooLex template: <http://www.zoolex.org/service.html>

Articles in ZooLex:

In addition to Gallery presentations, ZooLex publishes articles online in its Research section. We wish to thank Jon Coe, Tom Bailey, Dr. Brij Kishor Gupta and Monika Fiby for their articles: <http://www.zoolex.org/research.html>

Promotion for ZooLex:

Ivan Lozano Ortega, animal scientist and zoo consultant, and Monika Fiby, landscape architect and zoo consultant, are both editors for ZooLex. In January they gave a joint presentation to zoo staff, officials and students in Colombia about "Characteristics of Successful Exhibits" and "The Design of Zoo Exhibits in the Neotropics".

ZooLex Editors:

The quality of ZooLex publications is ensured by our editorial board whose members edit and comment on all newsletters, Gallery presentations and papers prior to publication and dissemination. We wish to

thank all our editors for this valuable support. <http://www.zoolex.org/editors.html>

Newsletter:

With the help of our ZooLex correspondents we are distributing the monthly ZooLex Newsletter in English, Spanish, Russian, French and German to about 8000 people, mostly working in zoos.

Translations:

In 2006, translations were provided by Pierre Godlewski, Andrei Kotkin, Ivan Lozano, Eduardo Diaz Garcia, and Monika Lange. We appreciate this help.

Cooperation with WAZA:

A link to the ZooLex Gallery is available on the website of the World Association of Zoos and Aquariums at www.waza.org. 44 out of 68 zoos presenting their exhibits in the ZooLex Gallery are WAZA members. Longevity and accessibility of the ZooLex Gallery is guaranteed by an archive at the WAZA office.

User Statistics:

In 2008 the ZooLex website obtained more than a million hits and about 100,000 visits each month. Here are the recent statistics: <http://www.zoolex.org/statistic.html>

OUTLOOK FOR 2009

Zoo design workshops:

We are planning to organize further workshops on masterplanning, zoo design and design for informal learning in 2009. When you are interested in hosting a ZooLex workshop please contact us: zoolex@zoolex.org.

Information: <http://www.zoolex.org/workshop.html>

Online payment:

An online payment system will be implemented on the ZooLex website. This will facilitate payments for listings in ZooLex Firms and for workshop fees.

Season Greetings to all of our supporters and visitors and our best wishes for 2009!

We keep working on ZooLex ...

The ZooLex Zoo Design Organization is a non-profit organization registered in Austria (ZVR-Zahl 933849053). ZooLex runs a professional zoo design website and distributes this newsletter. More information and contact: <http://www.zoolex.org/about.html>

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Stichting Apenheul-Orangseum

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Monika Fiby (editor for ZooLex)
Published 2008-12-13



LOCATION:

Postbus 97, 7300 AB Apeldoorn, Netherlands
Phone: +31-55-575700 Fax: +31-55-575701 URL: <http://www.apenheul.nl>

KEY WORDS:

welfare, social flexibility, moat, island, interpretation, enrichment, education, routings, conservation, climbing structure, arboreal, EEP

ANIMALS:

Family: Hominidae
Species: *Pongo pygmaeus pygmaeus*
Common Name: Bornean orangutan
Capacity: 16

DESCRIPTION:

Apenheul built a new exhibit for the orangutans, the red apes. The Orangseum is part of the 10-year master plan (1995-2005). There are three major factors essential in developing an orangutan facility: 1) provide the highest degree possible in social flexibility, 2) provide a high degree of environmental complexity and 3) create a maximum of climbing volume.

The exhibit, with four inside enclosures and eight islands, provides the orangutans with the choice, even on a daily basis, to be alone or with others. The idea was to stimulate scouting behaviour for the orangutans through different routes in the exhibit. They can move from one island to another by glass fiber swaying poles and there are many climbing possibilities.

In the indoor facility, the ceiling is equipped with anchoring points, 50 cm apart with a load capacity of almost 500 kg each. By means of these anchors the keepers can relocate the ropes and thereby create new challenges for the orangutans. Visitors can view the islands from several levels and can also see the four inside exhibits. The design of the whole enclosure stimulates the visitor to walk around because the orangutans can be anywhere. The indoor area is full of atmosphere and in harmony with the animal enclosures.



SIZE:

There are four indoor enclosures (each app. 58 m²) with a total volume of 1500m³ and eight islands with a total surface of 1000m². With the use of ropes, nets and platforms, the available space for the orangutans measures up to 10.000 m³. Off exhibit there are eight separation rooms (each 10 to 15m²). Humans and orangutans are separated by a moat of 6 m width.

Space allocation in square meters:

use	indoors		outdoors		total exhibit
	accessible	total	accessible	total	
animals	350	350	1,000	3,550	3,900
visitors	120	120	1,150	1,150	1,270
others	120	120			120
total		590		4,700	5,290

COSTS: € 2,800,000

OPENING DATE: July 1999

DESIGN:

- Beginning: June 1997
- Concept and final design: Anton van Es & Partners, Markelo
- Landscape architect: S. Füss, Vollenhove
- Installation advisor: K & R Consultants BV, Deventer
- Structural engineer: Adviesbureau van Eck, Rijswijk

CONSTRUCTION:

- Beginning: May 1998
- Contractor: Aannemingsbedrijf Draisma BV, Apeldoorn
- Ground work: Van Mourik Beekbergen, Lieren
- Wire mesh: Corton Constructiebedrijf BV, Kampen
- Steel: Van den Hul Metaal BV, Apeldoorn
- Glass indoors: Tetterode Glas, Voorthuizen
- Electric installations and infrastructure: Van Dam Installatietechniek, Apeldoorn
- Fire protection and camera system: Chubb Varel Security, Zutphen
- Nets and ropes: Huck Torimex, Katwijk aan Zee
- Landscaping: Plantplan Hoveniers, Driebruggen
- Chestnut trees and platform boards: Van Vliet Kastanjehout, Langbroek

PLANTS:

The selection of plants is defined by the desire to create a more or less exotic scenery, which makes the public notice a clearly different atmosphere. The landscape architect selected local plants with a lush growth, but not very familiar to the majority of the public. Because the plants are used to the climate, it is not difficult to maintain them, but because of the unfamiliarity they do create a feeling of exoticness with the public. Apenheul is closed during winter, so it was not necessary to use plants which are attractive and colourful during winter. In the orangutan enclosure itself it is very difficult to place non-edible and non-toxic plants. The only plants placed in the enclosure are (semi)aquatic plants. The water would inhibit the orangutans from destroying them.



Air view - ©Apenheul, 1998

FEATURES DEDICATED TO ANIMALS:

To accommodate the arboreal lifestyle of the orangutans, 220 sweet chestnut tree trunks, 5 km of rope and 24,300 m² of nets are used in the exhibit. To make sure the orangutans can get out of the water when they accidentally fall in, ropes are tied to the islands. Ten sliding doors in the facility give the animals the opportunity to control their environment, as they themselves can operate the doors. This increases animal welfare. The doors can be opened and closed from both sides. Because of the presence of two adult males since the opening of the exhibit, this system was never utilized till now. In order to keep the males separated, the animals have not been allowed to open the doors themselves so far, but keepers hope the system will be used in the future. At the moment, it is used as a training system to resemble the wild situation. The orangutans have to find their food but they are only able to use certain routes.



Orangutan - ©Suzan Megens, 2007

Special objects for enrichment are provided. A puzzle feeder is located in one of the inner enclosures. It is a kind of maze that stimulates the orangutan to work for its food. The orangutan can push a food item with its fingers towards a hole. Eventually he or she will get this food item as a reward. Hay is provided to the animals, which stimulates nest building. Temperature inside is kept between 10-20°C, with a preferable temperature of 17°C. Humidity is 70%.

Windows in the outer walls give the orangutan the opportunity to see what is going on outside. The inner enclosure is almost sound-proof and 50% of the viewing windows consist of coloured glass which is not transparent. The

windows are provided with a little sign that says: "Please do not knock on the windows... it would drive you crazy as well!" All this should assure privacy to the apes.

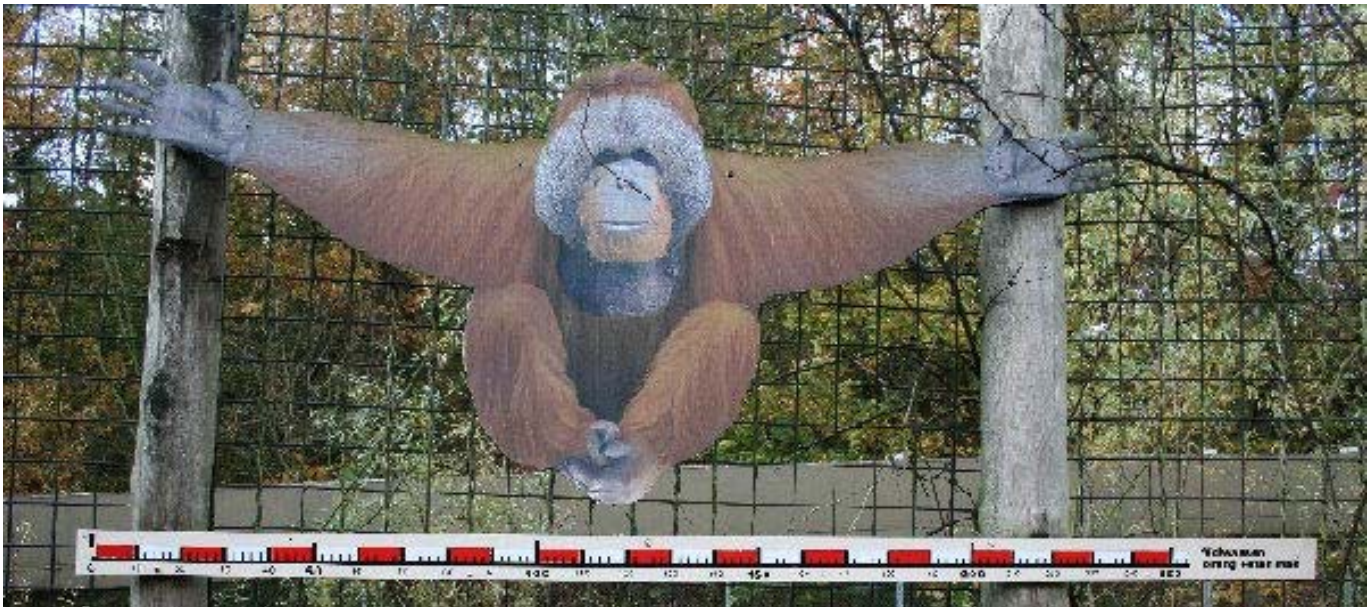
FEATURES DEDICATED TO KEEPERS:

To get from one island to another for filling feeding baskets, the keepers walk on "water bridges", barely submerged parts of the islands, which they can cross easily by wearing waterproof boots. Through observation cameras in the exhibit, keepers are always able to see the animals, for instance when they are preparing food in the kitchen. All sliding doors are hydraulic and can be controlled by a remote control. In the kitchen, a permanent control panel is installed to give keepers the opportunity to manage the sliding doors. However, the keepers do not often use this control panel for closing sliding doors because they do not have visual contact with the animals from this location.

FEATURES DEDICATED TO VISITORS:

The condensation-free public viewing windows were designed to make viewing exiting. The windows are installed with coloured glass which means visitors can only look through 50% of the total window surface. The coloured glass is not only for granting privacy of the orangutans, but it is a work of art as well, that creates different light colours similar to the light in a rain forest.

One requirement for the design was to make sure that the indoor exhibit receives daylight. Incoming sunlight is not blinding the public though because of its angle. To make sure the visitors can see the animals and not their own reflection, the visitors area was made darker than the four enclosures. The visitors are brought on one level with the orangutans. Inside resting platforms (balconies) are located next to the public viewing windows. The red



Spread your arms - ©Suzan Megens, 2008

apes sit there quite often so visitors can easily see them. An outside boardwalk runs up to the same level as the climbing structures and back down.

INTERPRETATION:

Multilingual information (Dutch, English and German) is given about demographics, history, subspecies and threats of orangutans. When visitors enter the orangutan area, they will see a sign that says: Are you as smart as an orangutan? Visitors can play an educational game called "Electro" which requires them to match a picture of an animal to a corresponding description by means of a special pen. When they connect one item to another, the display will show "True" or "False". On another interpretation sign people have to lift up several flaps and find out where the orangutan in the forest will find its food today.

All visitors (young and old) can compare their arm length with the arm length of an adult male and juvenile animal, lay their hands on a 3D copy of an orangutan hand or actually feel like an orangutan when they swing on ropes.

When visitors approach the indoor facility, they will see a large picture of an orangutan who invites them in. Once inside, visitors can walk around and take a look at the four enclosures. Three video screens show short documentaries about orangutans and every afternoon a keeper is present in the visitors area to answer questions.

MANAGEMENT:

The Orangseum has eight separation rooms on the ground floor which are directly connected to the four enclosures. The separation rooms are used when the large enclosures with a surface of organic soil are being cleaned (daily). Also when an animal is ill he or she will be separated and nursed in a separation room. Hydraulic sliding doors keep the animals apart. Orangutans have a very good sense

of smell. That is why cleaning products are used that do not have a penetrating odour.

RESEARCH:

In the future Apenheul wants to do some research on computer communication skills of orangutans. The red apes will play and practice with pictures of bananas and other fruits on a touch screen. Hopefully they will be able to learn to use the computer effectively so they can (eventually) "chat" with orangutans in a sanctuary on Borneo. The aim of this research is to increase the world's awareness of the orangutans' battle for survival on Borneo. They are losing this battle to the palm oil industry and commercial logging companies who continue to cut down Borneo's magnificent forests.

CONSERVATION:

The orangutans of Stichting Apenheul are part of an EEP. In 2008, the adult male was the oldest Bornean orangutan in captivity. He is the father of all offspring at Apenheul.

Apenheul has a special trust, APCT (Apenheul Primate Conservation Trust) which aims to provide financial support for conservation activities in the tropics. APCT receives 2% of the entry fees and visitors can also support APCT by a financial gift. Apenheul supports the Kinabatangan Orangutan Conservation Project in Malaysia. The goal of this project is to achieve long-term viability of orangutan populations in Sabah. Apenheul also supports the Borneo Orangutan Survival Foundation (BOS), founded by Willie Smits, with money for the project 'Samboja Lestari' on Kalimantan, Indonesia. BOS is the largest primate rescue center in the world.

LOCAL RESOURCES:

Almost all of the companies involved in design and construction are based in or near Apeldoorn. The durable chestnut trees were imported from France.