

Monika Fiby *

This is the first article in a series prepared by Monika Fiby for ZOOS' PRINT on features of the ZooLex website which she designed. In the following articles she will introduce ZooLex News, the ZooLex Gallery with new animal exhibit presentations, the new ZooLex Firms page and ZooLex Publications with research papers for browsing and downloading.

ZooLex

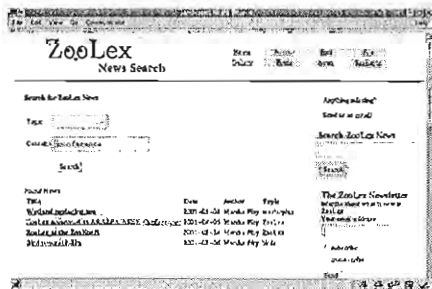
is an online publication on zoo design for zoo professionals, launched in September 2000. The site was developed and is maintained by the ZooLex Zoo Design Organization, a non-profit organization based in Vienna, Austria.

ZooLex is a way to learn zoo design right on the web. It has a database and a search engine so that you can find what you want in terms of specific animal taxa, zoos and design service providers.

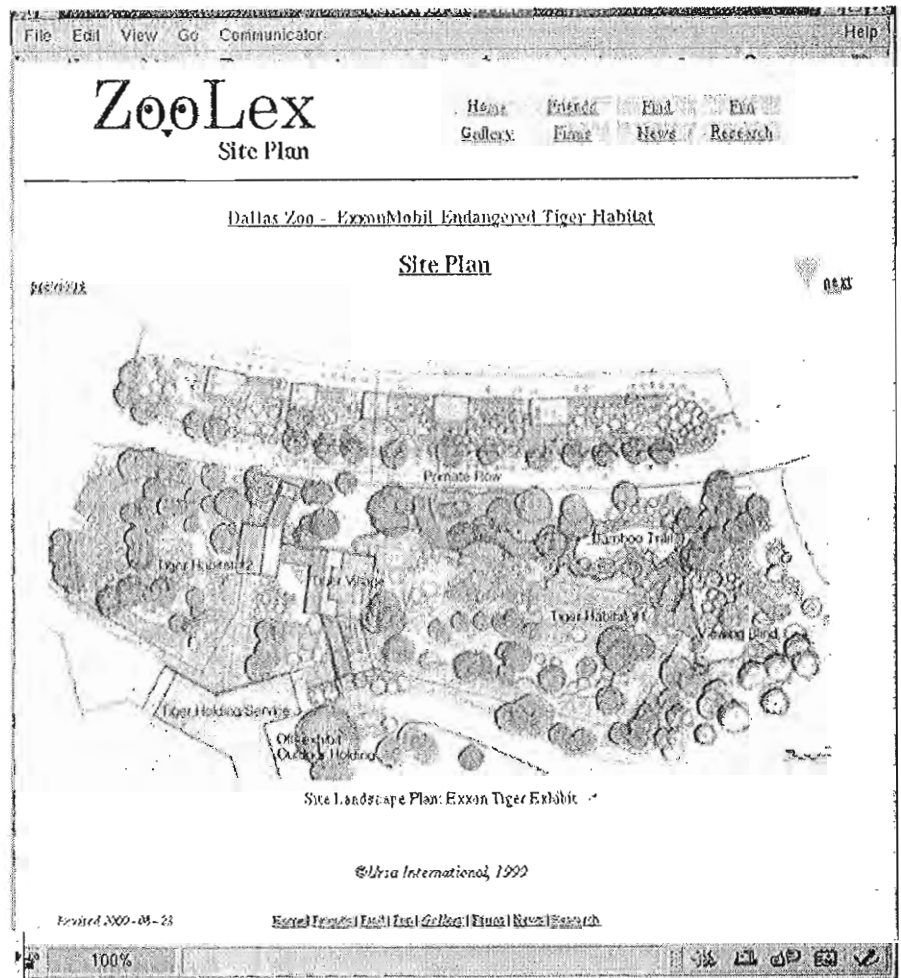
ZooLex News

ZooLex has a News page which can be accessed from any page on the site to find short articles about what is going on in zoo design and construction around the world, e.g.

- exhibit openings
- new master plans
- designs for animal exhibits
- information studies on visitor and animal behavior and
- surveys on browse use, mixing species and use of new construction materials.



Zoo Lex News Search : Four items are the result of the search for "conference".



If you do something new in your zoo, you can share it with ZooLex users all over the world by sending a message to zoolex@zoolex.org and attaching a picture of your design.

Special Features

ZooLex is designed to be convenient with layout, special icons and links to orientate you. In ZooLex News page there are "buttons" or icons to help you find the subject area that interests you in the city and country where the news originated.

If an article is longer than a few lines it is linked to the longer part of the text.

There are also links to other websites and download options in the text of an article.

For example, if you want to read about bird compatibility you can access a new study by typing in key words. You get the author's name and email

address as well so that you can mail questions about the study.

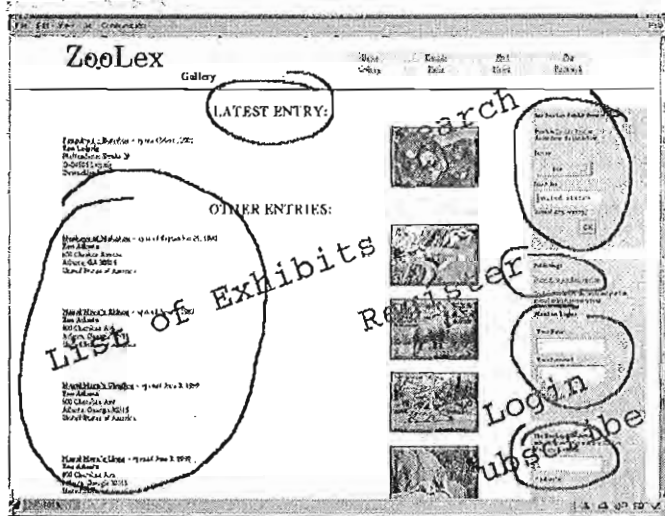
Every article comes with a discussion board so that you can read other people's comments on the presented topic and post your own opinion in a simple online form.

Networking

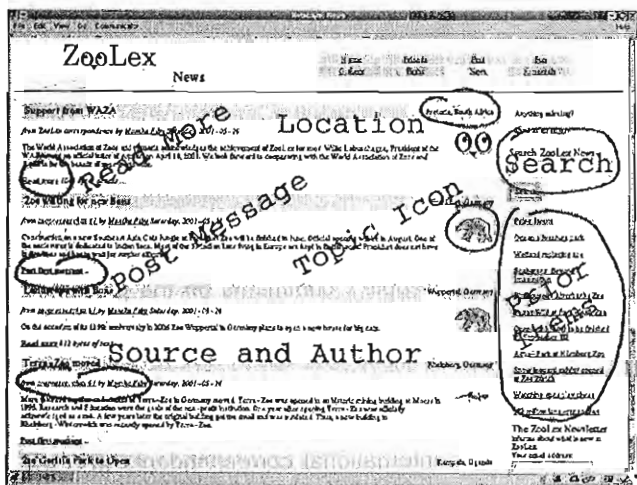
ZooLex has established a network of international correspondents who will promote ZooLex to people who need it as well as providing ZooLex friends with news from their region. We are proud that Sally Walker has accepted to serve as a ZooLex correspondent in India. Liz Romer, Executive Officer of the Australasian Society of Zoo Keeping is our correspondent in Australia. Ivan Lozano, trained at JWPT

* ZooLex Zoo Design Organization, Sobieskigasse 9/12, A-1090 Vienna, Austria

and working as a zoo consultant in Bogota, is our correspondent in Latin America.



ZooLex is a publication targeting persons interested in zoo exhibitry. The name ZooLex comes from the Greek words *zoo* for animal and *lexis* for word. Dirk Petzold in Germany is compiling a weekly "zoopresseschau" using a computer program to screen German online newspapers for zoo related news. Dirk edits and comments on them and sends them to the subscribers as a weekly newsletter. ZooLex staff selects news related to zoo design and translates them into English for ZooLex News.



The ZooLex News page shows recent articles relating to design and construction in zoos. It is designed for easy orientation and convenient navigation.

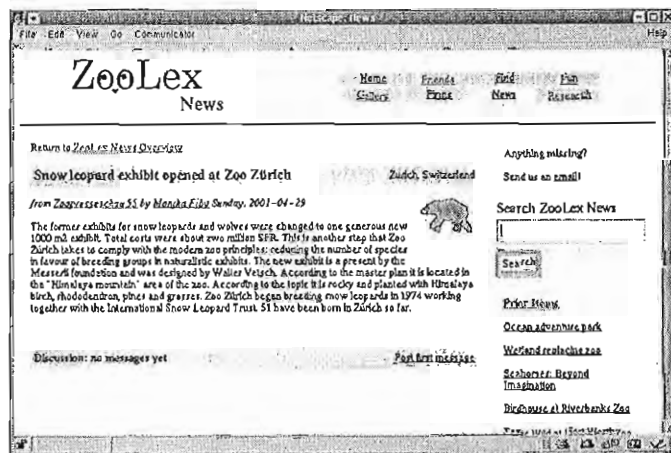
We also use Peter Dickinson's ZooNews about animal related topics from all over the world which relate to zoo design and construction.

On the top of each article you will find a line in italics telling the source of the news, the author and the date or publication in ZooLex. On the right side of the News page there is a list of "Prior Items" through which you can

browse by using the appropriate link or just select one of the titles.

Below this there is a form to register for the ZooLex Newsletter which is sent out once a month to announce when a new exhibit presentation is published in the ZooLex Gallery. You can subscribe with your email address.

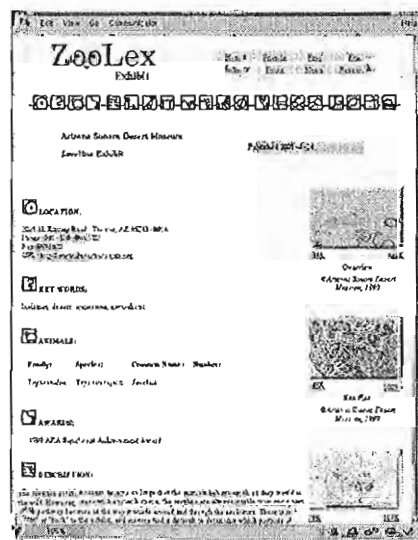
The lower part of the right column provides you with links to other websites offering zoo related news and information on zoo related events.



Article about an exhibit opening at Zoo Zürich.

ZooLex News is using a technology which allows one to share news with other organizations without the need of manual updates. By means of a standard XML-based format, any website can integrate ZooLex News headlines. For example an organization such as the Central Zoo Authority or Zoo Outreach Organisation could make current ZooLex News available to its members on its own website.

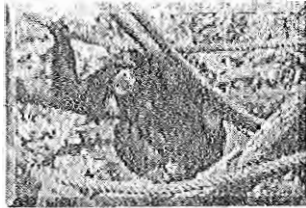
Internet is a complex technology. There is a gap between technical options and general usage. ZooLex keeps up with the most advanced technologies but at the same time does not confuse new internet users with unnecessary mechanics. The following pages include a case study of the kinds of information you can access easily on ZooLex.



Webpage on facility in Arizona

ZooLex -- Case Study: Chimp Enclosure at Leipzig Zoo

In order to give an idea of the kinds of things you find on ZooLex, the following text and thumbnail photos are reproduced below. The photos are not meant for publication and their quality reflects this. However, on the website, they are clear and sufficient for improving your understanding of the exhibit and giving you ideas for your projects. This case study is from the Wolfgang Köhler Primate Research Center which is associated with the Leipzig Zoo.



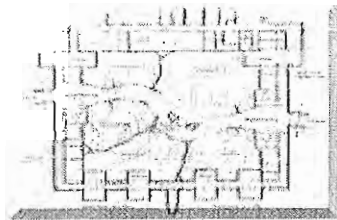
Chimpanzee ©Gabler, 2001

Zoo Outreach Organisation's association with ZooLex is being undertaken as part of its commitment to compile useful information on zoo design at the Central Zoo Authority Strategic Futures Search Workshop described elsewhere in this issue.

Case Study:

Wolfgang Köhler Primate Research Center
Pfaendorfer Strabe 29 , D-04105 Leipzig, Germany. URL:
<http://www.zoo-leipzig.de>

In 1997 the Max-Planck-Institute for Evolutionary Anthropology offered to establish a branch for comparative behavioral observation of primates in Leipzig Zoo, thus paving the way for the construction of a new great apes' habitat at the zoo. The project concept was a worldwide one-of-a-kind attempt to combine intensive scientific research with contemporary animal keeping and display. As part of a mock research camp on the Ivory Coast and a jungle village, the habitat is the heart of "Pongoland". It was the first phase of the "Leipzig Zoo's 21" master plan targeted to be carried out over the next 15 years.



Site Plan

Enclosures suited to the animals needs showing part of the animals' habitats with about 60 animals were planned. A large tropical house was constructed which is surrounded by five outdoor enclosures, two of which are used by the chimpanzees. In order to meet the demands of the research scientists, observation areas were set up where they have a view of each individual preserve in its entirety without being disturbed by zoo visitors.

In order to offer optimal surroundings for apes and scientists a jungle was created replicating the apes' habitat in detail. The barriers and walls of the building were constructed to look like embankments and rock walls. The roof has a thick covering of shrubs, bamboo, and large trees so that the architecture remains for the most part hidden. The space is divided by the east-west visitors' route. There are thus two enclosures on the north side and three on the south for the different groups of apes. The two-storey tract in the north contains offices, project

rooms, kitchen and toilet facilities of the Max Planck Institute on the ground floor as well as the two-storey technology center. The upper floor contains the zoo rooms such as feed kitchen, veterinary surgeon and X-ray room, staff room, workshop, storage rooms and toilet facilities. In the areas bordering the hall to the east and west are the rooms for looking after the animals. The ground floor primarily houses the animal retreat quarters and observation rooms. The upper storey contains sleeping quarters and observation rooms.



The tropical house is covered by a transparent sheet roof, allowing optimal light and the necessary introduction of ultraviolet rays. Total heat demand for the rooms was to be covered by static heating surfaces. Heating surfaces in the hall were installed in planted areas eight meters high above the floor, to ensure that these systems are not directly visible to the visitors. Control of the four heating circuits is carried out via the room temperature. A ventilation system is installed to circulate room air and to distribute heat. This ventilation system generates threefold air exchange. The system circulates 45,000 m³ of air per hour.

SIZE:

Exterior space is 24,705 m² including exhibit area (about 12,210 m²), water moats (about 4,645 m², 1.3 m deep and up to 10 m wide), visitor paths and green space (about 7,850 m²). More detailed information about size of various enclosures is available at the website.

PLANTS:

The primate park is located in the Rosental Nature Reserve and carries some valuable stock of trees which has been taken into consideration when planning. Up to 12 m tree trunks were added to the existing trees together with numerous shrubs, grasses and bamboo and rockwork, thus creating a habitat for apes. The plants used outdoors are listed in the website, specifying the scientific names of the plants.

FEATURES DEDICATED TO ANIMALS:

Outdoor enclosures are separated from each other and the audience by shallow swampland rifts. Nets underneath the surface of the water are there to prevent any animals from drowning. The building serves only to provide the animals with the climatic conditions they need to live in all year round. Under the skin of the transparent roof, tropical temperatures and humidity can be maintained even in the winter months. According to law here, owning of primates under ideal conditions requires a minimum temperature in the hall of 22 °C during the winter months. In summer, the interior temperature must not be more than 32 °C.

To imitate the primates' natural habitat to the greatest possible extent, humidity in the rooms should lie between 60% and 80% relative humidity of air. Patches of fog pervade the room and intensify the humid climate. The sleeping rooms were fitted with floor heating. Surface temperature in the cages is kept at a constant level of 25 °C. This is necessary for the Apes' comfort. Temperature

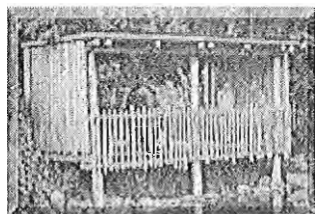
measurements are taken via probes built into the floor. When required the lighting system can lengthen the all too short days.

The habitats have natural flooring made of grass and sand. Jungle gyms made of tree trunks lashed together with bushropes, rocks and water ponds round off the items provided for the inhabitants.

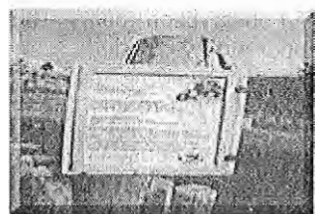
FEATURES DEDICATED TO VISITORS:

Visitors can experience a simulated safari in Africa and see a mock-up of a researcher's camp. Then they travel from one habitat to another via strongly meandering forest paths and wooded foot bridges. However, from none of the vantage points will the individual guest have a complete view of the entire area once the lush, green vegetation has reached maturity in a few years. Visitors become a part of the apes' environment and are separated from them only by wet and dry moats and; in some locations, shatterproof glass. Some of the observation huts jut out into the moats and enable one to have close contact with the animals.

The visitor enters the house through draught-excluding flap doors to where the ape enclosures open up one by one behind visitors' caves, dry ditches and plant areas on both sides of the path. On both sides of the visitors' caves are four research rooms that can be seen. Here the various stages of the research can be demonstrated to the public. After leaving the park, visitors end their adventure in a jungle village with a zoo shop, restaurants and snack bars, restroom facilities, and a petting zoo with African



Observation hut from the animal side ©Fiby, 2001



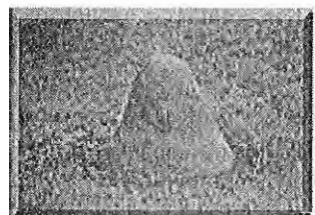
Field Book in mock research camp



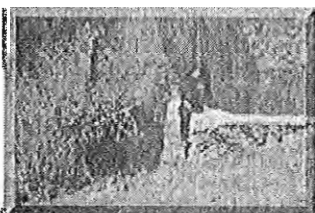
Another vantage point ©Fiby, 2001



Behind observation hut



Artificial termite mound



Chimp outside enclosure

pets. Visitors may thus observe the apes in both their outdoor and indoor areas, and even observe some scientific studies as they take place.

INTERPRETATION:

A system of markers, some of which are interactive, provides the visitor with all the important information about the animal species and their habitats.

MANAGEMENT:

A separate quarantine building has been built to allow optimum preparation of new animals for integration into the existing inventory.

RESEARCH:

Research at the new Wolfgang Köhler Primate Research Center focuses on the behavior and cognition of the primates chimpanzees, gorillas, orangutans and bonobos. There is a special focus on the ontogeny of chimpanzee cognition. Researchers and students from the University of Leipzig, and other universities around the world conduct their research projects at the center guided by on-site personnel. Detailed descriptions may be found in the book "Primate Cognition" by Michael Tomasello and Josep Call, Oxford University Press, 1997.

CONSERVATION:

Zoo Leipzig participates in EEP's (coordinated species breeding programmes) for all apes so must adhere to standards which insure the conservation value of the



Observation area for research



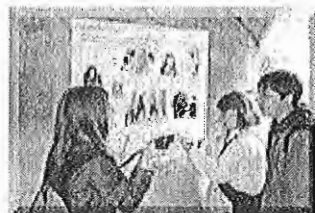
Plants and naturalistic furniture provide stimulation for the chimps



Another outdoor view



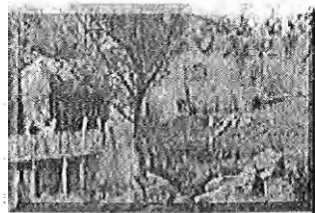
Attractive graphics are built into the rockface



Frequently placed graphics make education easy



African cave drawings create a more authentic atmosphere.



Outdoor "bridge" enhances immersion experience