

Tiger Hill at Zoo Schwerin, Germany from Zoo Lex

This tiger exhibit was built in a naturalistic, unobtrusive, manageable and affordable way. It is a good example for an exhibit that is very suitable for the animals kept, easy to maintain and interesting for visitors while being a relatively low cost exhibit for big cats.



Our experience has shown that the ZooLex audience is very interested in this type of exhibits. We strongly encourage zoos to present inexpensive and effective exhibits as these can be important models for many institutions.

Zoo Schwerin, Germany

Waldschulweg 1, 19061 Schwerin, Germany
Phone: 0049-385-39551-0 Fax: 3955130
URL: <http://www.zoo-schwerin.de>

Family: Carnivora
Species: *Panthera tigris altaica*
Common Name: Siberian Tiger
Number: 3 to 6

DESCRIPTION:

Because the old tiger enclosure at Zoo Schwerin, built in 1972, was not compatible with today's style of animal management, plans for a new enclosure were begun in 1994. The new enclosure includes a tiger house with six night quarters, keeper access and keeper areas, two entrance enclosures with keeper access, two main outdoor enclosures and a visitor area.

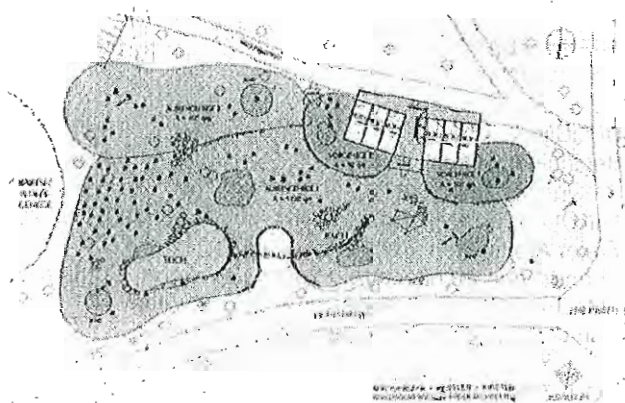
The outdoor enclosures are built into the existing rolling hillside that is covered with mature oaks and beeches. The existing understorey composed primarily of elder provides the backdrop. The exterior fence is constructed of bent metal pipes and wire mesh. Timber wood and glass panels are integrated into the fencing in order to differentiate protected from viewing areas. A man-made creek traverses the exhibit ending in a large pond and a water hole. Planting and furnishing in the exhibit are varied in order to create different spaces and heights. These variations provide retreats for the tigers, which usually live a solitary life in the wild.

Entrance enclosures and keeper access are enclosed with a metal fence and screened with climbing plants. Their tops are closed with wire mesh. The enclosure surface was either left natural or is filled with sand and gravel. Tree trunks in the entrance enclosures keep the tigers busy with climbing and scratching. All doors are made from steel. The tiger house is a log cabin with a green roof and no heating. One of the holding quarters is oriented visitor viewing. The house is otherwise situated in the background of the wooded hill.

DONT FORGET -- YOU CAN SEE THESE PICTURES AS BIG AS YOU WANT AND IN LIVING COLOUR ON THE ZOOLEX WEBSITE. TRY IT ... IT WILL HELP YOU LOTS.



Description -- Overview © Zoo Schwerin, 1999



Site Plan -- © Mikołajczyk Kessler Kirsten, Arbeitsgemeinschaft freier Architekten, 1999



Tiger on view -- Overview © Zoo Schwerin, 1999

Adapted from www.zoolex.org (2001-9-6) with permission from Monika Fibey, Website Editor

SIZE:

The tiger hill has two main outdoor enclosures with areas of 1220 m² and 407 m², two entrance enclosures with areas of 107 m² and 92 m² and two groups of three indoor enclosures with a sunny outdoors part and a roofed indoors part of 15 m² each. Both pairs of three holding quarters can be combined into units of 45 m² each.

Space allocation in square meters:

use	indoors		outdoors		total exhibit
	accessible	total	accessible	total	
animals		90		1,826	1,916
visitors			250	450	450
others		45			45
total		135		2,276	2,411

COSTS:

DM 648,000 including 15% for design.

OPENING DATE:

May 21, 2000

DESIGN:

Beginning: August , 1998

· Design, Architecture: ·

MIKOLAJCZYK - KESSLER - KIRSTEN Arbeitsgemeinschaft
Freier Architekten, Schwerin, Germany

· Landscape architecture: Proske, Schwerin, Germany

· Mechanical: Ing. Franke, Schwerin, Germany

· Statics: Ing. Ohse, Schwerin, Germany

CONSTRUCTION:

Beginning: August , 1999

· Shell: H. Schütt, Schwerin, Germany

· Metal, fencing: LTA, Brüsewitz, Germany

· Timber: DMS, Schwerin, Germany

· Electrics: ENS, Schwerin, Germany

· Sliding gates: Scharfenort, Leezen, Germany

LOCAL CONDITIONS:

Climatic diagram no.

by Walter and Lieth 1967

40 m altitude

8.0 °C mean annual temperature

620 mm mean annual precipitation

PLANTS:

The existing oak-beech-forest with underwood was integrated into the outdoor enclosures. The plant species listed below were primarily used outside the exhibit and for greening the fences. Landscape architect Matthias Proske selected the planing materials to include. Some of the plants are native to the Amur river region.

Trees: beech, oak

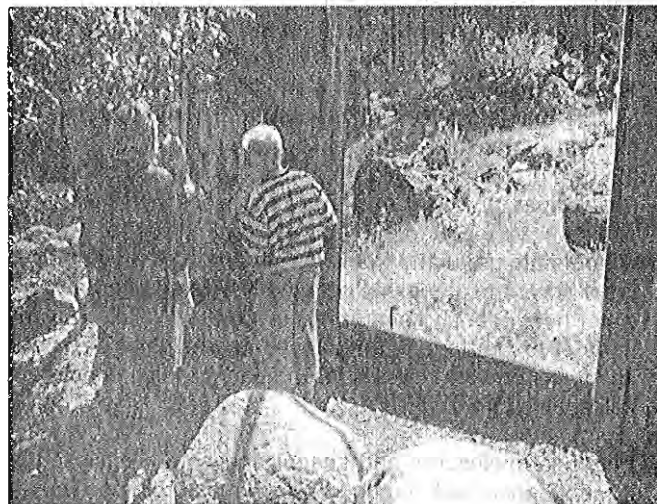
Shrubs: *Cornus mas / sanguinea*, *Euonymus europaeus*,



Access to the tiger exhibit in summer © Kirstein, 2000



View through windows © Ziegler, 2001



Window to the exhibit © Zoo Schwerin, 1999

lonicera xylosteum

Vines: *Celastrus orbiculatus*, *Clematis vitalba*

Other Plants: *Alchemilla mollis*, *Geranium magnificum*,
Waldsteinia ternata

FEATURES DEDICATED TO ANIMALS:

The enclosure is situated in a dense forest similar to the tigers' natural habitat. It is enriched with trunks, roots and rocks and offers both sunny and protected places to rest. The entrance enclosures are also furnished with trunks and for climbing and scratching. The smaller of the two main outdoor enclosures is not visible for visitors and serves as an additional enclosure. The holding quarters receive natural light and air and offer resting platforms. The walls are covered with interchangeable wood panels that provide the tigers with comfort and that aid in easy repairs.

FEATURES DEDICATED TO KEEPERS:

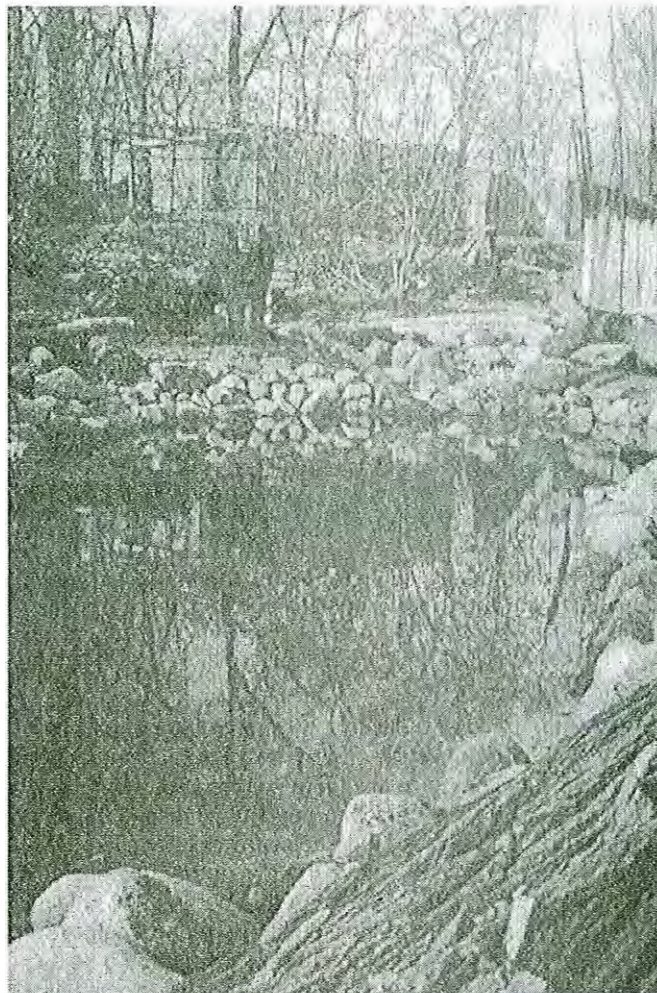
The tiger house has sanitary installations including toilets, sinks and a hosebib. A keeper access corridor is located behind the holding quarters. Horizontal sliding doors are made from steel and plastic. They are easy to handle and enable connecting and separating individual parts of the enclosure.

FEATURES DEDICATED TO VISITORS:

Because of public interest, the visitors may view one of the tiger holding quarters. The larger main outdoor enclosure is visible from various points and heights. Where fencing separates the visitor from the animals the visitor's path is additionally bounded by a one meter high metal fence. A little creek runs from the tiger exhibit, passes into the visitor area for a few meters and finally returns into the exhibit. This element strengthens the impression that the tiger habitat and the visitor area are united while creating an additional attraction.

INTERPRETATION:

Interactive games and models communicate characteristics about tigers and other big cats. A speaker system is used for guided tours and feeding demonstrations. A zoo cart will be fitted for talks about Siberian tigers, their endangerment and conservation.



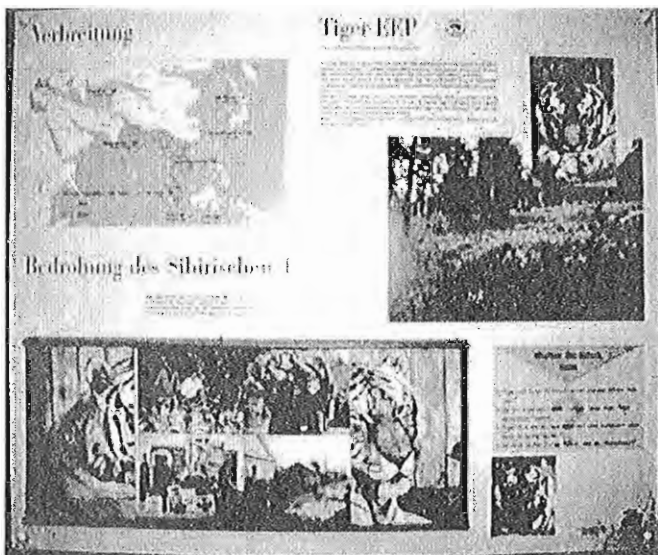
During the cold season, without the leaves, the size of the exhibit and the boundaries made from mesh and timber are visible.



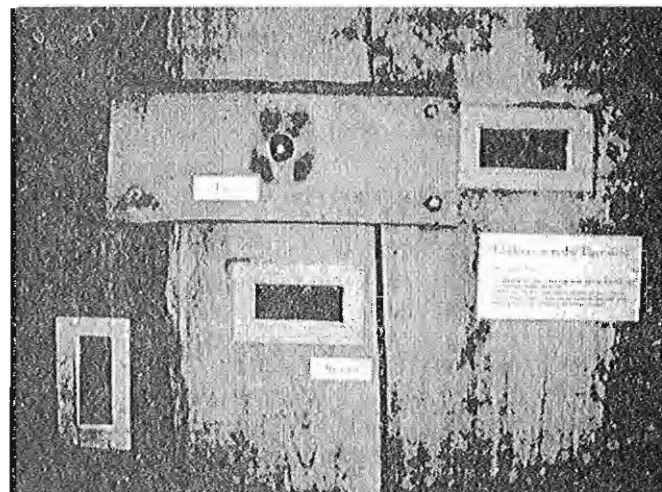
Graphics : Life rhythms of Siberian tigers -- from birth to death.



The mesh is fixed to the bent pipes. These poles were especially developed by the architect blending with the trees by their slim upright form and conserving tree roots by their special anchoring



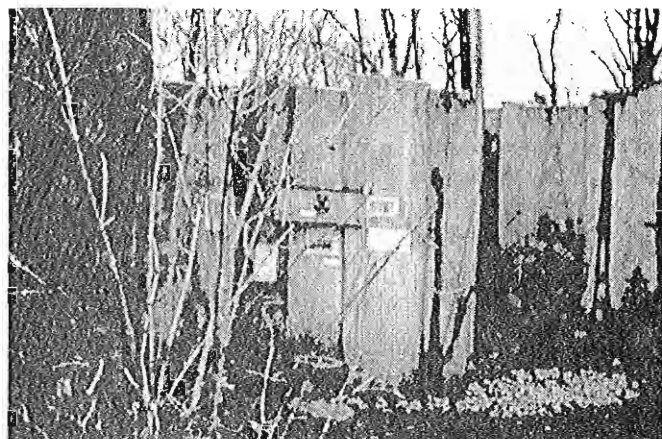
A panel at the outdoor exhibit informs about spreading and endangerment of Siberian tigers and about the European Species Survival Program (EEP) for tigers.



A view into the tiger enclosure from the perspective of a human and that of a tiger (enlarged by a lens).

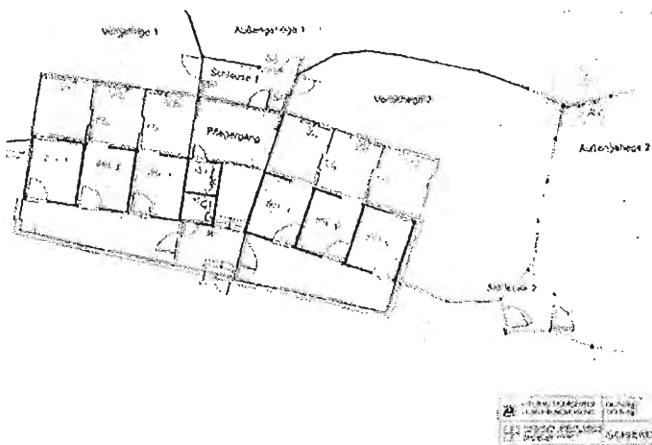
MANAGEMENT:

The two pairs of three individual holding quarters can be combined into one unit with an area of 45 m². During very rare circumstances, up to six tigers can be kept separately. In order to provide all tigers with optimal conditions they can be rotated through each of the enclosure daily or every two days. Thus, each animal enjoys the two large outdoor enclosures at least once a day. For this purpose all holding quarters can be separated individually from one another. The two entrance enclosures can be connected by a shift area so that there are enough spaces for shifting animals. In a daily routine, this means that the animals can enjoy the main outdoor enclosures for five hours, the entrance enclosures for another five hours and the indoor enclosures for another five hours. At night (for nine hours) each animal is shifted into an individual holding quarter.



Peep hole viewing station -- seen from a distance.

This rotating through enclosures has advantages in daily routine even if all tigers can be kept together or when there are only two groups of animals. Various zones offer more stimulation as the animals are switched between spaces of relative tranquility and those of excitement introduced by visitors.



Holding area for tigers.

CONSERVATION:

Zoo Schwerin participates in the EEP for Siberian tigers. The water in the creek and the pond is re-circulated. The tiger house has a green roof and therefore holds storm water.

LOCAL RESOURCES:

The existing forest was integrated into the enclosure and was well protected during construction. The system of anchors for the fence anchors was chosen in consideration of existing tree roots. The use of local timber was both, cost effective and ecological.