



## Naturschutz-Tierpark Görlitz

### An exhibit for Red pandas and White-eared pheasants

Note : ZooLex is a website about zoo design. Many of the designs displayed there are for South Asian species and have relevance to South Asian Zoos. To get a full appreciation of this information, check out the site. There is a way you can submit your own designs for others to see as well. Ed.

#### LOCATION OF EXHIBIT

Naturschutz-Tierpark Görlitz  
Zittauer Strasse 43 , D-02826 Görlitz , Germany  
Phone: 0049-3581-407400 Fax: 407401 URL: <http://www.tierpark-goerlitz.de>

#### SPECIES

Family	Species	Common nm.	#
Passeridae	<i>Urocissa erythrorhyncha</i>	Blue magpie	1.1+ yng
Cervidae	<i>Muntiacus reevesi</i>	Chinese muntjac	1.3+ yng
Ailuridae	<i>Ailurus fulgens</i>	Red panda	1.1+ yng
Phasianidae	<i>Crossoptilon crossoptilon drouyni</i>	White-eared pheasant	1.3

#### DESCRIPTION

This enclosure has broken new ground in zoo design when considering its size, furnishings, construction and occupants. With a surface area of 1,500 m<sup>2</sup>, it is one of the largest red panda enclosures in any zoo. It has a naturalistic design and planting scheme. Initially, chain link and electric fencing were chosen for the perimeter, but they did not prove to be effective, nor was the mixing with white-eared pheasants. Both problems have since been solved; the fence was covered with Plexiglas, and the white-eared pheasants are now housed in an extra aviary (see section 'Features Dedicated to Animals').

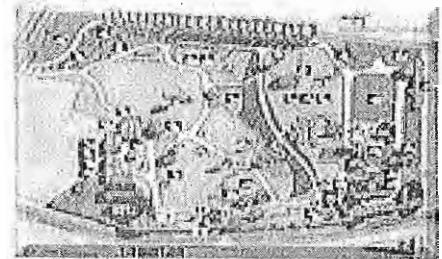
Design criteria: A) a large naturalistic exhibit; B) exhibit layout and planting to emulate a natural habitat in China; C) aesthetically appealing exhibit (through the use of a transparent perimeter, for example); and D) a mixed exhibit featuring red pandas and Chinese muntjacs as well as white-eared pheasants and blue magpies as attractive representatives of their central Asian habitat.

#### SIZE:

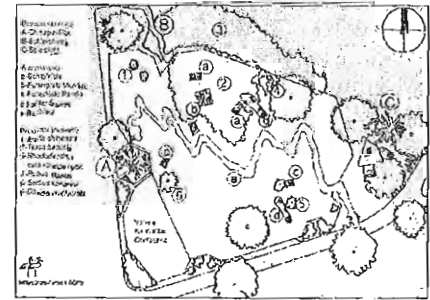
The exhibit has three parts:

1. Enclosure for red pandas & Chinese muntjacs - 1100 m<sup>2</sup>
  2. Aviary for white-eared pheasants & blue magpies - 165 m<sup>2</sup> 3.
- Visitor area (China pavilion, playground) - 300 m<sup>2</sup>

use	indoors		outdoors	
	accessible	total	accessible	total
animals			1,265	1,265
visitors	20	20	280	280
others				
total	20	20	1,545	1,545



Overview c Ralf Reimann, 1999.



Site Plan c Naurschutz Tierpark Görlitz Annett Buchholz, 2001



Red Panda c Axel Gebauer, 2000



Above : Muntjac c Axel Gebauer 2000



Left : White eared phasant c Axel Buchholz, 1998



## COSTS

EUR 175,000 including 1% for design. Low design costs due to our own input. Construction costs include expenses for a workforce program. Low recurring costs: EUR 5000 annual costs for keepers, EUR 500 annually for keeping the animals and about EUR 500 for the maintenance of the enclosure and visitor area.

## OPENING DATE

August 17, 1997

## DESIGN

Beginning: November, 1994

Landscaping: Landschaftsarchitekturbüro Panse, Bautzen, Germany

Landscaping: Naturschutz-Tierpark Görlitz, Görlitz, Germany

Design: Naturschutz-Tierpark Görlitz, Görlitz, Germany • Design of

pavilion: R-E-I-L-E Zimmerei & Holzbau, Waldhufen, Germany

Painting: Joachim Penz, Bad Urach, Germany

## CONSTRUCTION

Beginning: May 20, 1995

Timber construction: R-E-I-L-E Zimmerei & Holzbau, Waldhufen, Germany

Roofing: Deutsche Reetdachhaus Baugesellschaft

Dabow&Niedan GbR, Naundorf, Germany

Fencing: Bekaert Deutschland, Bad Homburg, Germany • Electric Fence:

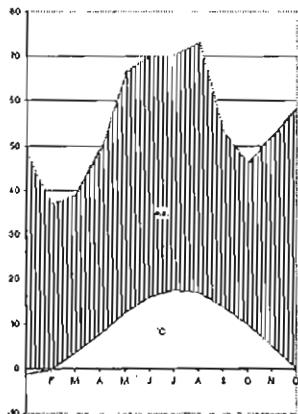
Gallagher/Allié, Miltenberg, Germany

## LOCAL CONDITIONS:

### PLANTS

A location for a naturalistic exhibit was available in our zoo that contained 100-year old rhododendrons, yews, a pine and a meadow. These woody elements are also found in the natural habitat of the red panda, for example in the rolling bamboo and rhododendron forests of the Sichuan province of China. Bamboo was the one missing element needed to create such a native forest. Over 100 large bamboo plants were, therefore, planted and enclosed with an electric fence, so that the pandas would not be able to eat their favorite food all at once. However, because the red pandas ignored the electric wiring, the bamboo had to be taken out of the enclosure. A handkerchief tree (*Davidia involuocrata*), a Chinese juniper (*Juniperus x media*), a mountain ash (*Sorbus vilmorinii*) and aralia (*Aralia chinensis*) were added as "substitutes" adjacent to different shrubs such as monkshood (*Aconitum spp.*) and senecio (*Senecio spp.*). The plant list specifies the Latin names of the plants used for this exhibit.

**FEATURES DEDICATED TO ANIMALS:** Outdoor enclosures: enclosure with wire mesh fencing (1.8 m high, 60 mm mesh width) and Plexiglas (1.6 m high, 2 mm strong, attached to the interior of the fence), display windows made of safety glass, a naturalistic brook (80 m long) with a source lake open areas with grasses and herbaceous plants for supplemental nutrition, and exercise trees for utilization of the animals including two yew groupings with Chinese plants and supplemental foraging plants (see above); two hollow tree trunks, two sleeping crates each divided into three sections, and two feeding boxes (one heated) for the pandas, and a covered feeding station for the dwarf Chinese muntjacs. Aviary: enclosure with wire mesh fencing (1.8 m high, 30 mm mesh width) and aviary net as canopy, plantings with shrubbery, sleeping tree for the pheasants and a small covered feeding station.

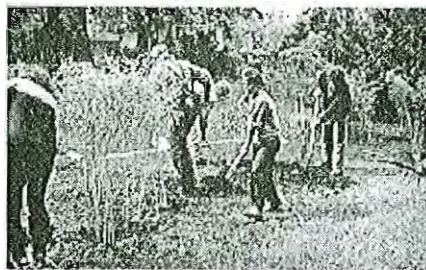


Climatic diagram no. by Walter and Lieth 1967

215 m altitude  
8.2 °C mean annual temperature  
657 mm mean annual precipitation



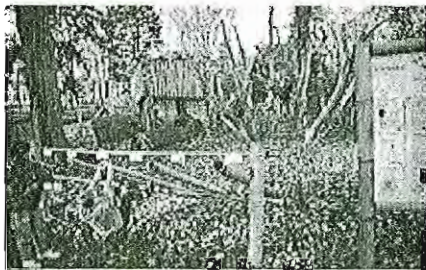
view ©Axel Gebauer, 1998



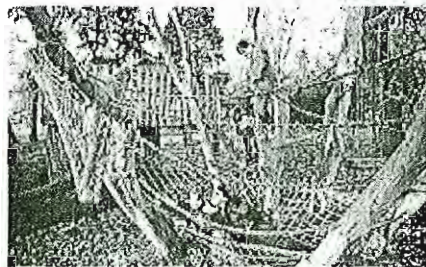
Planting bamboo -- Two years before opening about 100 bamboo plants were placed in the exhibit. ©Axel Gebauer, 1995



The elevation and a small entrance prevent muntjacs and crows from stealing panda food from this feeding hut. ©Axel Gebauer, 2001



playground where children can compare their strenght to a bamboo rat, a porcupine, a boar, a giant panda or a Takin. ©Axel Gebauer, 1997



Playground - climbing tree where children can climb like red pandas. ©Axel Gebauer, 1997

## FEATURES DEDICATED TO VISITORS

A reed-covered pavilion, that is a replica of a real pavilion in the Chinese province of Sichuan, containing information about the animals and about Chinese culture. A panda playground for children where they can climb like pandas, view the enclosure from above and try different quizzes and games. A "secret path" leading through the rhododendrons to the sleep area of the pandas.

## INTERPRETATION

traditional exhibit signage; - a large information board in the pavilion about the natural habitat represented (including other animals which live in the "steepest mountains of the world"), about conservation problems (habitat destruction and hunting in China) and about the meaning of the symbolism in China; - two large Chinese pictures (black-necked crane and golden pheasant); - panda playground with bamboo games. (Bamboo poles of varying thickness represent different animals in the pandas' habitat. If the children can press the corresponding bamboo pole down, then they are as strong as a bamboo rat, a porcupine, a boar, a giant panda or a takin.); - outlook station for children with two games (children recognizing the faces of the pandas in the enclosure as well as categorizing different animals from the habitat.)

## MANAGEMENT

Animals: food is given twice daily. Red panda food: bamboo, fruit, mice, etc. (in two crates), in addition to the berries from the yew, raspberry bushes and Chinese birdberry bush as well as grass and herbaceous plants from the meadow. Chinese dwarf muntjac food: grass and herbs, hay, fruit, vegetables, dry biscuits and oats. Pheasant food: mixed seeds, pellets, mealworms and fruit. Blue magpie food: soft-feed mixture, insects, mice, and fruit. The pandas are caught with a small hand-held net in the outdoor exhibit. The muntjacs are caught with a net annually. The pandas are immunized against hepatitis and canine distemper. Keeper talks held twice daily during feeding explain animal care. The "secret path" leading through the rhododendrons to the sleeping area of the pandas offers the visitor a good impression of the habitat and enables them to look into the sleeping tree. Chinese pavilion offers visitor information and a resting-place. Panda playground provides room to play and learn.

## RESEARCH

-Gebauer, A. (1998): CICONIA, Jahresbericht Tierpark Görlitz (Annual Zoo Report). 11: 24-27 -Gebauer, A. & Engler, S. (2001): Anmerkungen zum Nahrungsverhalten und zur Aktivität von -Katzenbären (*Ailurus fulgens fulgens*) in einem großen Freigehege. (Observations on the Feeding Behavior and the Activity of Red Pandas in a Large Outdoor Enclosure). Zool. Garten N.F. 71(4): 209-220. Actual study: Research on the eating of berries of *Taxus baccata* by red pandas.

## CONSERVATION

Contact with Professor Fu Wen Wei (China) was initiated by studbook keeper Dr. A. Glatston. Professor Wei heads the research on free roaming red pandas (social organization and mating system of the wild red panda) in the Sichuan province that the zoo will support. To this effort, a donation drive followed the opening of the panda exhibit that will be supplemented through the Friends of the Zoo Society. During construction of the enclosure, environmentally friendly materials (wood, reed, paint, etc.) were used, and the existing terrain and planting was not changed or damaged.

## LOCAL RESOURCES

Cooperation with construction contractors from the region. For example, the Chinese pavilion was built based upon a photo from the Sichuan province; primary support during the professional and artistic formation of the pavilion through Joachim Penz, an artist who specializes in Chinese art; landscape design and planning by our own master gardener and an architectural firm from the region; overall transposition of the landscape by ourselves.

Reminder : you can see these interesting photographs in living colour and full screen by clicking on the thumbnail in the Zoo Lex website.



Playground lower where children can observe red pandas with small binoculars. ©Axel Gebauer, '97



Keeper talks allow visitors to get closer to the animals and learn about its daily life. The keeper here clearly enjoys the trust of his charges.



Pandas' main times of activity are during twilight in the morning and in the evening when they cross open space and the creek in their enclosure.

Below : Educational graphics in panda centre at the entrance of the enclosure.

