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## The New Enclosure for Keeping Black Rhinoceroses in the Leipzig Zoological Garden

### A) History:

Apart from the rhinoceroses kept in the Leipzig Zoo before and till the Second World War, the first wild caught pair White Rhinoceroses (*Ceratotherium simum simum*) came to Leipzig (ISB # 0007 and # 0008) on 23 August 1968. Especially for their accommodation a wooden house built in 1908 and used for keeping different cattles before, was changed for rhinoceroses. 5 separate stables with an electric heating were created and the original cattle enclosures were redesigned in 2 smaller (200 and 250 m<sup>2</sup>) and 1 bigger enclosure (600 m<sup>2</sup>). The last one had an 80 cm deep and 3 m broad water moat and a 1,30 m high lattice bordering to the visitors way. The other sides of the enclosure were secured by massive 2 m high steal lattice. As the rhinoceroses did heavy damages on the house with their horns, it was secured by additional wooden palisades later.

Furthermore, the Leipzig Zoo bought a wild caught pair Black Rhinoceroses (*Diceros bicornis michaeli*) (ISB # 0166 and 0167) on 25 June and 27 November 1971. They were accommodated in the same house and lived together in one of the smaller enclosures or separately in one of them. Then the big enclosure was available for the White Rhinoceroses. Nearly 15 years later the female of the Black Rhinoceroses died and there had not been any success in breeding. The male we sent to Berlin Zoo in breeding loan on 5 April 1988. There he became father of altogether three female young with three several female. In this breeding loan Berlin became owner of this





male, while Leipzig had the claim for two young. Then it was decided that we wanted to concentrate only on keeping Black Rhinoceroses.

On 21 July 1993 we gave away the pair White Rhinoceroses and received altogether 1,2 Black Rhinoceroses on 23 September, 6 Oktober 1993 and 14 June 1994 from the Berlin Zoo (ISB # 436) and Dvur Kralove (ISB 450 and # 481). They have been accommodated in the same way as so far. As they have never been aggressive until today with an age of 5 ½ - 6 ½ years they live together in all three enclosures.

#### B) The new rhinoceros enclosure:

In connection with the reshaping of the water-fowl pond in 1996 the new construction of the rhinoceros enclosure round the old house was planned. It was possible to extend the area by including a previous visitors way and a green area.

The aim of the reshaping and new construction is to create capacities for optimal keeping of three adult animals. Of course the enclosure has to allow to keep female with young as safe as aggressive animals. A 2.500 m<sup>2</sup> large, structured enclosure will be developed which allows the visitors to observe the rhinoceroses from different view-points and distances. Reshaping the enclosure we set a high value on a rich structure concerning to the natural habitats of the Black Rhinoceroses in Africa.

Different natural materials create an attractive area for the animals and interesting views for the visitors.

As rhinoceroses have the habit to polish their horns at suitable places it was aimed to create no sharp-edged objects, or - if this is unavoidable - to produce it from „soft material“. This should guard against a deformation of the horns.

While reshaping the water-fowl pond last year two approaches to the pond were created for the rhinoceroses. They are bounded by wooden palisades and have suitable





footholds and palisades under water. Until the reconstruction of the rhinoceros enclosure this year the present enclosures have been bordered to these approaches by provisional barricades of walls of sharp-edged stones, big tree-trunks and electric fences. So we have first experiences with this kind of barricade but the whole enclosure can not yet be assessed as the building steps will be finished only in autumn this year.

### **1. The structure of the enclosures**

The available space of the enclosure is divided in three, but optional four separate areas.

The part 1 (area: about 210 m<sup>2</sup>) is not visible for the visitors. It can be used as separation enclosure or for the habituation phase.

The parts 2 and 3 have a size of 210 and 300 m<sup>2</sup> (plus 100 m<sup>2</sup> water area). Normally it should be used as one enclosure. The visitors can look in from a distance of about 30 m over the pond.

The basic item of the rhinoceros exhibit is part 4. With an area of about 1.400 m<sup>2</sup> (plus 300 m<sup>2</sup> water area) it is also the biggest part of the enclosure. From the East the visitors can look to the rhinoceroses over the pond, while to the West a dry moat, where the animals can walk on, is the border to the visitors way.

### **2. The borders and partition of the enclosure**

While enclosure 1 and 2 do not have a direct approach to the pond, whereby it is safe for newborn animals, the rhinoceroses of the enclosure parts 3 and 4 can directly go to the pond over an about 18° inclined slope. It is not possible to escape by passing through the about 1,50 m deep pond because of concrete palisades ending shortly





below the water surface. The dry moat where the rhinoceroses can walk on has a 1,50 m high concrete steep-wall.

All other borders are high-grade steel cables combined with wooden palisades. This are 5 horizontal cables with a distance of 30 cm and a diameter of 12 mm. As pillars we took sleepers used before for excavators (conifers with a size of 22 x 28 cm), put in concrete foundations with a distance of 3 m. If necessary you can connect an energizer to the steel cables as an additional securing. Trees and other plant isles are protected by big stones together with electric fences and wooden palisades against undesirable stepping on.

### **3. The gates**

The gates beside the house are solid, self-supporting sliding gates with wooden planks. It is 150 cm broad. The gates are operated manual. Then the keeper is standing in a „security-room“ which is protected by palisades. The gates between the part-enclosures can be used optional and are only folding-doors (steel frame with cable covering).

### **4. The equipment of the enclosures**

The aim is to coat the whole enclosure area with a robust turf. An adequate foundation allows that you can drive on selected areas with heavy cars as well as the rhinoceroses can walk on the whole enclosure constantly and independent of the weather.

Plant isles, big stones and decoration wood offer obstacles and shadow and the animals can use it as a hiding-place.

The about 100 m<sup>2</sup> great wallow in a central enclosure part which is visible very well for the visitors should stimulate the animals for further activities. The wallow has a





clay seal protected against destruction by a fleece and an adequate gravel-coating. The water level can be regulated manual according the requirements.

As the enclosures 1 and 2 do not have an approach to the pond, a concrete channel with constantly running water has been installed as watering place.

### **5. First experiences with the new enclosure**

Some parts of the enclosure have been using for about 8 months now, because of the construction course.

It was showed that walls of sharp-edged stones (size about 30 - 50 cm) is not enough as an enclosure barrier. The animals learned very fast to create ways through the barricades with the horns and it would have been possible for them to across the barrier there.

An additonal securing by a provisional electric fence „energizer Gallagher M 1500“ (7,8 KV output) proved to be effective, but one time it was completely destroyed by the animals during the habituation phase. Such a barrier allone is not recommended for using as an enclosure-barricade.

Big stones and big lying trees (diameter 120 cm) proved its worth as barriers.

The animals went to the pond seldom, but use it regularly as watering place.

So far there are no experiences concerning the palisades and steel-cable barricades.

Water-fowl staying together with the rhinoceroses at the enclosure sometimes have never been attacked.

