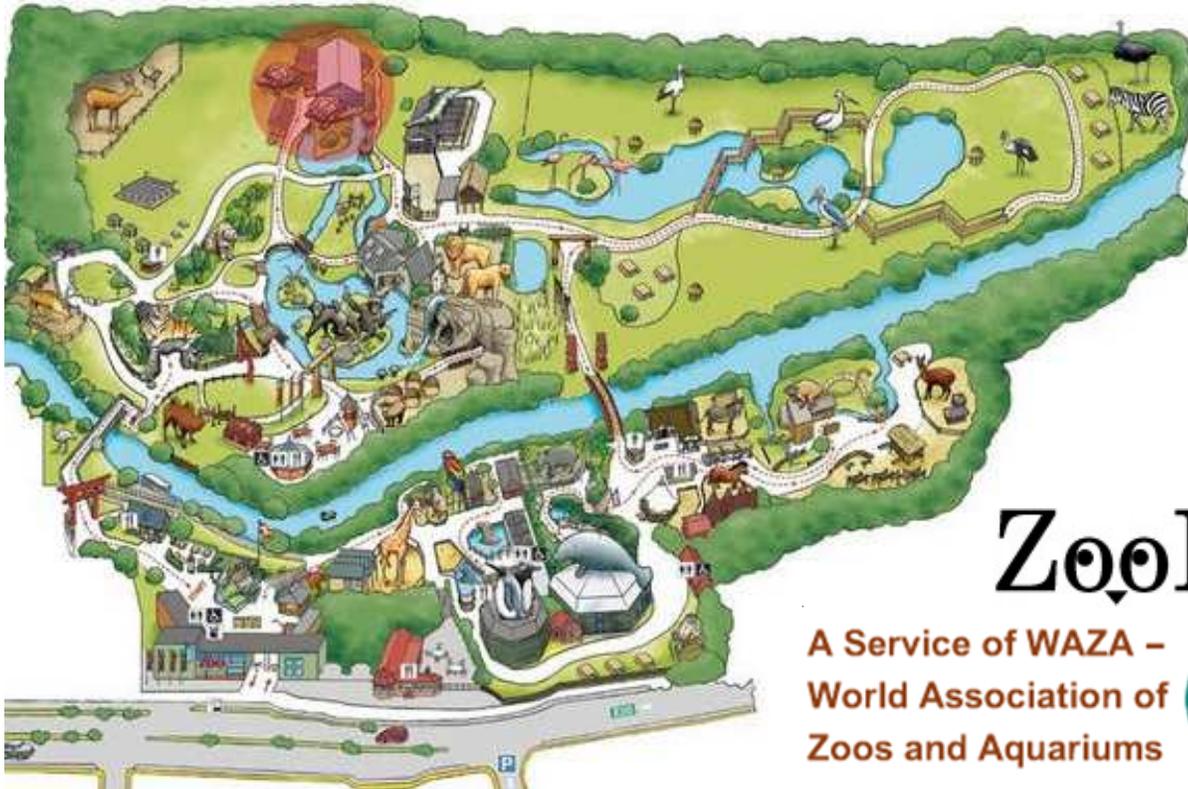


ODENSE ZOO

Tortoise Giants

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<http://www.zoolex.org/zoolexcgi/view.py?id=886>



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LOCATION: Sdr. Boulevard 306, 5000 Odense C, Denmark. URL: <http://www.odensezoo.dk>

KEY WORDS: breeding, conservation

ANIMALS:

Family: Testudinidae

Species: *Geochelone gigantea*

Common Name: Aldabra Giant Tortoise

Capacity: 0.2.4

DESCRIPTION:

Giant tortoises at Odense Zoo are kept in their native element of extreme drought and lots of light. The temperature and humidity are virtually the same as on their native island of Aldabra. Imitating the sun is no easy matter, but is the key to providing ideal breeding conditions for this species.

COSTS:

DK 4,500,000. Most of the design was done by Odense Zoo staff.

OPENING DATE:

13 June 2006

DESIGN:

Planning, architecture, design and interpretation: Odense Zoo staff, Odense, Denmark. Model and rockwork: Gaia Design A/S, Nyborg, Denmark

CONSTRUCTION:

- Greenhouse, heating system: Drivadan A/S, Sønderød, Denmark
- Electric installations and climate control: Anderup El A/S, Odense, Denmark
- Concret, ground & sewer works: Henrik Post, Den.
- Carpentry: Henning Halvorsen, Denmark

PLANTS:

The outdoor exhibit was planted with native and ornamental shrubs and trees. The indoor exhibit displays African tropical plants similar to those native on the Aldabra islands. The plant list specifies the Latin names of the plants used for this exhibit.

FEATURES DEDICATED TO ANIMALS:

Veterinary consultants and a field biologist participated in the project design and made recommendations for the new exhibit based on

climate observations on the Aldabra islands in the Indian Ocean. The indoor climate of the exhibit is controlled according to in-situ conditions on the Aldabra Atoll. There is a dry winter and a humid summer season simulated by varying levels of temperature and humidity. In winter, night temperature is as low as 22°C, while day temperature is 27 to 28°C max., and precipitation is simulated with 5 to 10 mm of rain. In summer, night temperature is 24 to 25°C, while day temperature is 31°C, and precipitation is up to 150 mm. During the dry season (two months in winter) the tortoises receive less food than usually. In nature they lose much weight during the dry season or even starve. At Odense Zoo the tortoises may lose up to 10 kg. The yearly cycle encourages the tortoises to breed.

FEATURES DEDICATED TO KEEPERS:

Keepers use a kitchen in the building which is visible for the visitors through a window from the exhibit hall. The climate control (heating, irrigation) and light cycle run automatically.

FEATURES DEDICATED TO VISITORS:

Visitors are prompted to use a one way path in order to appreciate the experience and to understand interpretation. Covered seating is provided at the entrance and at the exit of the exhibit hall. In the exhibit hall a small path invites children to leave the main boardwalk. They can walk in sand and explore special features along this path. A space for guided groups and a forbidden souvenir exposition to be added later.

INTERPRETATION:

Graphics and interactives educate about the physiology and biology of tortoises in comparison to humans and their evolution in comparison to dinosaurs. Two video screens show pictures from the Aldabra island. Sound from the natural site can be heard in the exhibit hall. In front of the kitchen a menu shows the feeding plan

for the tortoises. A simulated research room features a computer screen that displays data from the Aldabra island.

MANAGEMENT:

Heating of the exhibit hall is by radiators, humidity is increased by irrigating the indoor exhibit. Light levels will be adjusted with stronger bulbs. The temperature fluctuates day and night during the course of the year from a minimum of 22°C to a maximum of 32°C. During the rainy season from April to September rainy weather is simulated, whereas there is virtually no precipitation at all during the drought from October to March.

RESEARCH:

Research on the Aldabra island and a studying tour to other zoos was done prior to the design of the exhibit hall. A veterinarian collected tortoise blood samples on the Aldabra island's research station to serve as reliable diagnostic tools. The Aldabra Atoll is made up of four islands surrounding a lagoon.

CONSERVATION:

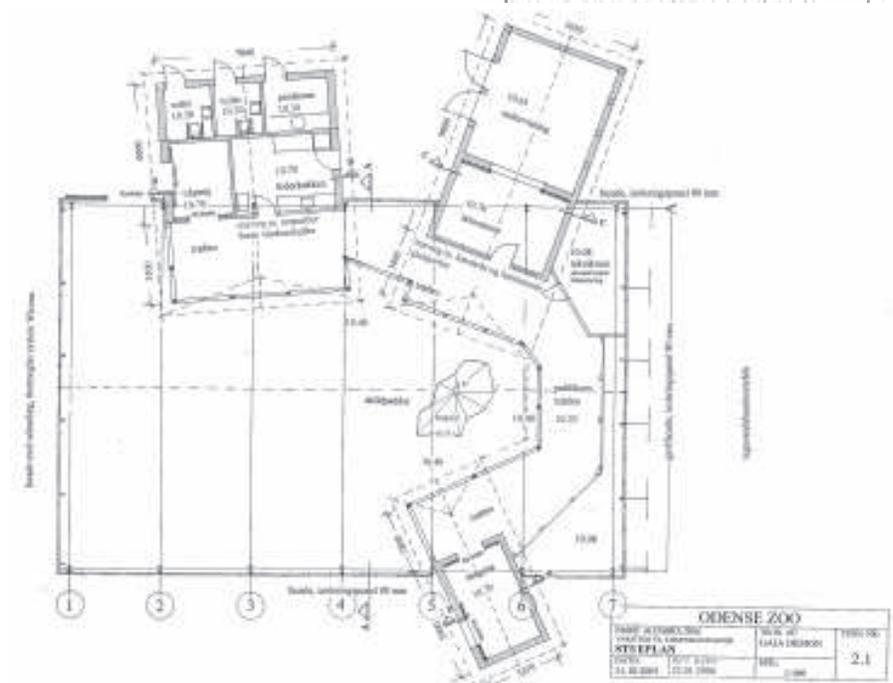
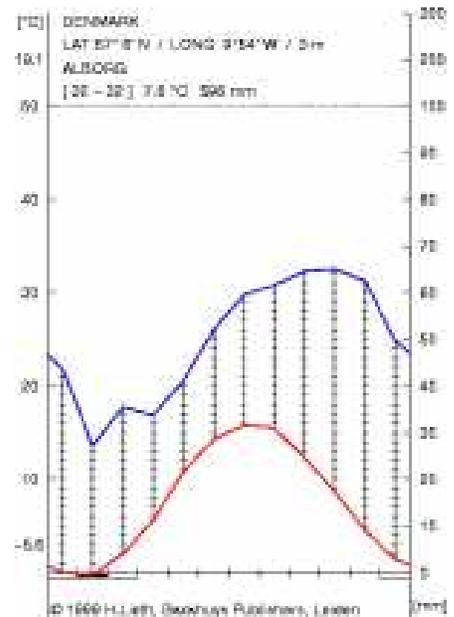
Odense Zoo participates in the EEP program for Aldabra giant tortoises. The exhibition hall is

built like a green house except for three walls which are covered and insulated. Two sluice doors on each end of the visitor path ensure that the warm and humid air is kept inside. Rainwater is collected and used for irrigation in the exhibit hall.

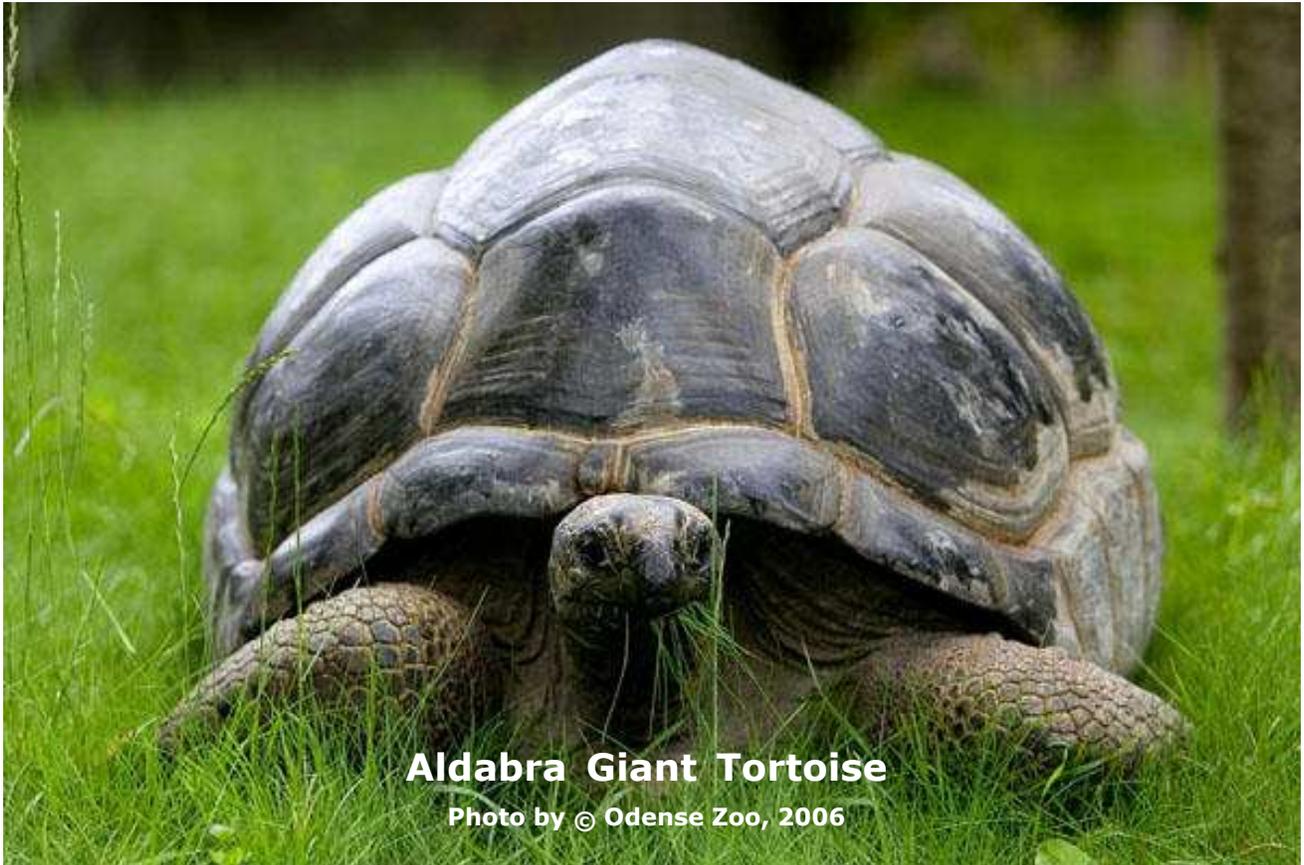
LOCAL RESOURCES:

Zoo staff and local companies have been in charge of design, construction and operation of the exhibit.

LOCAL CONDITIONS



Site Plan © Gaia Design 2006



Aldabra Giant Tortoise

Photo by © Odense Zoo, 2006



Water access for tortoises

Photo by © Monika Fiby, 2006