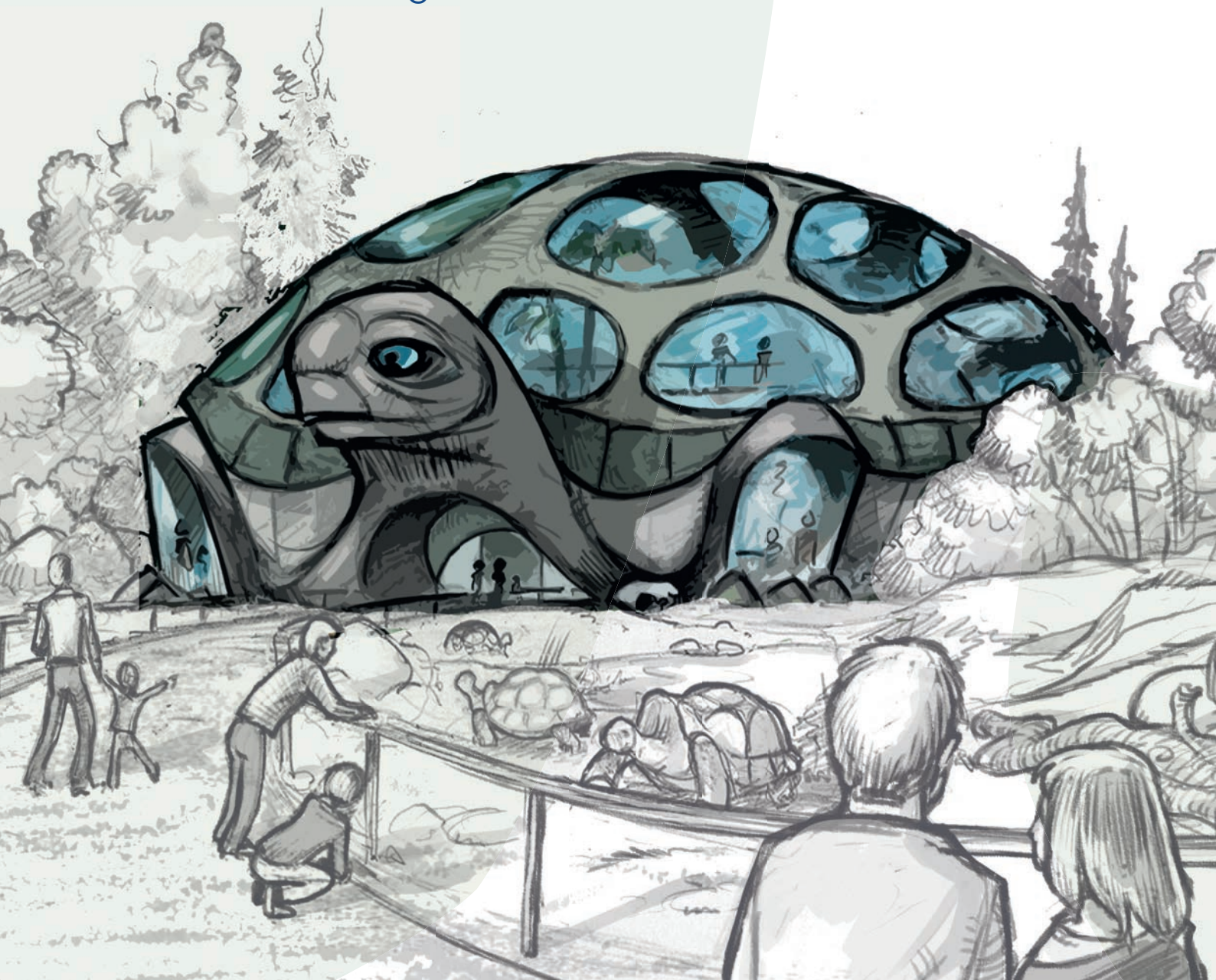
AN EPICENTER FOR BIODIVERSITY AND CONSERVATION

TURTLE ISLAND

Protecting the Most Endangered Animals on our Planet



TEAM

DR. PETER PRASCHAG (AT)

Zoologist & Project Manager
court-certified expert for
animal protection and
conservation

TORSTEN BLANCK
(AT)

Zoo Manager

DVM SHANNON DIRUZZO
(USA)

Veterinarian

GREGORY GEORGE
(USA)

Animal set designer

DI DR. REINER PRASCHAG †
(AT)

Architect

PROF. DR. THOMAS
HILDEBRANDT (GER)

Veterinarian,
IZW Berlin

MAG. ALFRED WALL
(AT)

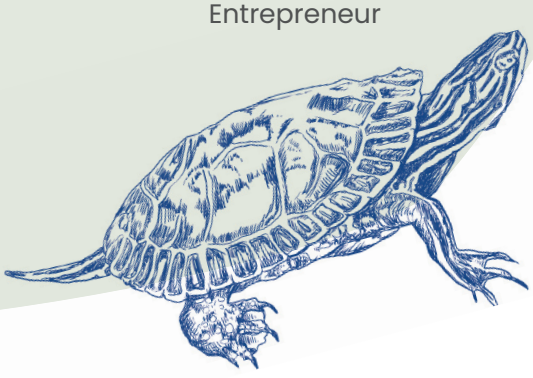
Entrepreneur

DR. ALEXANDER OLEK
(GER)

Executive Board

ANITA PFEFFINGER
(AT)

Marketing, Management



INTERNATIONAL COOPERATION AND PARTNERSHIPS

To support our mission of conserving the world's most endangered and overlooked turtle species, we are continuously expanding our network with international scientific institutions, universities, and organizations worldwide who share in our passion.

EUROPEAN ASSOCIATION OF ZOOS AND AQUARIA
EAZA

K F B G
Kadoorie Farm & Botanic Garden
嘉道理農場暨植物園

TIERGARTEN SCHÖNBRUNN

ALLWETTERZOO MÜNSTER

臺北市立動物園
TAIPEI ZOO

ZOO Zagreb

ZOO PRAHA

প্রকৃতি ও জীবন
NATURE AND LIFE
NATURE AND LIFE FOUNDATION

TSA
turtle survival alliance
www.TurtleSurvival.org

AFRICAN CHELONIAN INSTITUTE
Research - Education - Conservation

IUCN/SSC
TORTOISE AND FRESHWATER TURTLE SPECIALIST GROUP

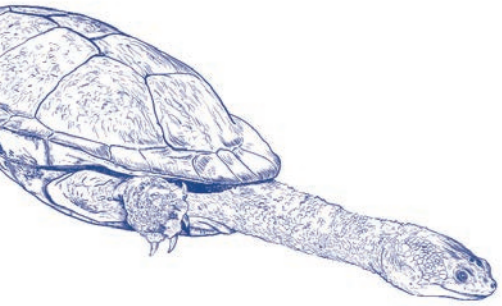
AUFFANGSTATION für REPTILIEN
München e.V.

UNI GRAZ

universität wien

Leibniz-Institut für Zoo- und Wildtierforschung
IM FORSCHUNGSVERBUND BERLIN E.V.

Freshwater Turtles & Tortoises of India
FTTI



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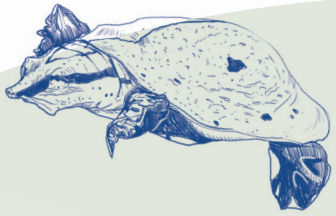
EST. 2013

RESCUE. RESEARCH. REWILD.



WHY SAVE TURTLES?

- **Paragons of Longevity** – Having survived over 200 million years, including the dinosaur extinction event, turtles serve as a symbol for evolutionary success.
- **Amazing Predators** - Without turtles, wetlands can turn into barren mudflats in just 8 months!
- **Biodiversity Hotspots and Ecosystem Engineers** – Discarded turtle egg shells feed beach grasses, which stabilize our shorelines.
- **World's Best Gardeners** - With long-distance seed dispersal, turtles ensure plant diversity and survival.
- **Waterway Sanitation Experts** - Freshwater turtles clean up waterways five times faster than natural decomposition processes.
- **Umbrella Species –** Tortoise burrows provide homes for 500 other species, ensuring the survival of hundreds of co-occuring species.

TURTLE ISLAND INTRODUCTION

Turtle Island is the most comprehensive research and breeding center for endangered turtle species. We are leading the charge on turtle conservation with the largest and most diverse collection of turtles on earth.

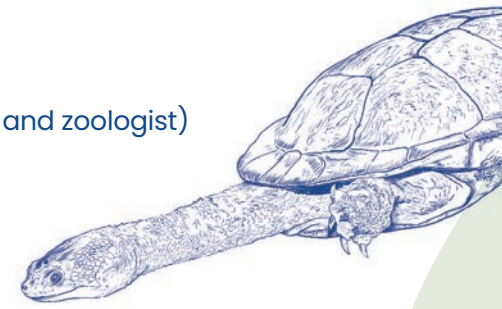
As a recognized scientific institution, our goal is to link in-situ (inside the habitat) and ex-situ (outside the natural habitat) research with the purpose of saving as many turtle species from extinction as possible.

For four decades, the founders of Turtle Island have been actively involved in turtle conservation. Alongside the tireless dedication, knowledge, and support of private donors and volunteers, we have made major breakthroughs in species conservation – already saving multiple turtle species from extinction! With great appreciation, Turtle Island continues to rely on our supporters to ensure the wellbeing and survival of the oldest and most threatened vertebrate species on our planet – the turtle.

We are

- a recognized scientific institution, research facility, and zoo, focusing on the conservation and breeding of the world's most endangered and overlooked turtle species.
- a CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) certified institution (registration number AT033).
- a research station for the taxonomy and biology of turtles, with a focus on reproductive biology and ecology.
- Austria's only official shelter and sanctuary for confiscated or unwanted turtles.
- an European Association of Zoos and Aquaria (EAZA) studbook keeper for 11 turtle species.
- facilitators of in-situ reintroduction projects (e.g., Vienna Zoo and other internationally renowned zoos and research stations).
- public awareness advocates and educators for species conservation.

Turtle Island in Figures



- Founded in 2013 by Dr. Peter Praschag (internationally recognized scientist and zoologist)
- Comprised of 4 scientifically recognized centers, located in Austria
- Approximately 3100 turtle specimens in total
- Home of 295 turtle taxa
- We house 37 of the 50 most endangered turtle species
- Home of approx. 90% of the turtles within the two most endangered genera worldwide (*Batagur* & *Cuora*)
- Successful conservation breeding of more than 170 species
- Eight of these species were the world's first captive-bred successes
- Successful breeding of three species that are already extinct in the wild

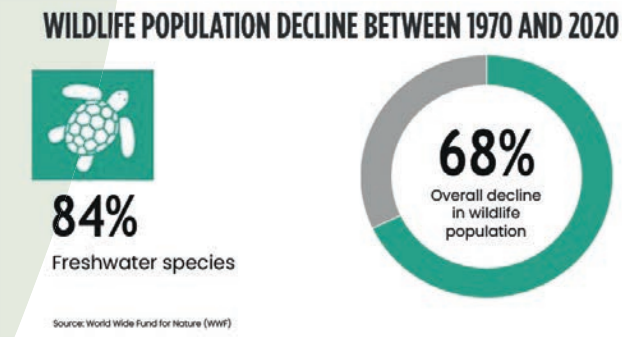
UNDERSTANDING OUR GLOBAL CRISIS

The world today has entered into the sixth mass extinction event since the dawn of life on Earth; and for the first time, a single species is responsible - humans. Anthropogenic activities are altering the climate of the planet, destroying habitats, and changing the natural balance of the world completely.

More species are now disappearing than during the harshest ice ages that previously swept the earth. As the cause of this continuously evolving catastrophe, it is our responsibility to work towards protecting the species who share our planet.

The Living Planet Index monitors population trends of 4,000 species and shows an average of a 68% decline in animal populations, with aquatic and wetland inhabitants particularly affected, suffering an 84% loss in just 50 years. This alarming trend will cost the world many billions of dollars in economic losses and may even exceed the costs of climate change.

Biodiversity conservation is now seen worldwide as a global policy imperative. It is essential to treat biodiversity as an irreplaceable asset, preserving it wisely for generations to come. While the global ecological crisis is undoubtedly severe, Turtle Island has developed a careful strategy to do everything in their power to restore the wellbeing of our planet.



PROJECT MANAGER

Peter Praschag, Ph.D.

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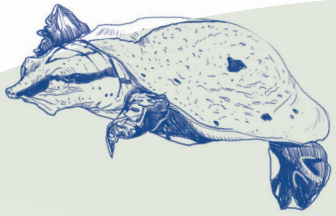
Atlanta, GA 30345

office@turtle-island.org

www.turtle-island.org



TURTLE ISLAND – THE PROJECT

Turtle Island significantly contributes to the conservation of our world's most endangered vertebrate group, turtles, while increasing the knowledge base of these symbolic animals.

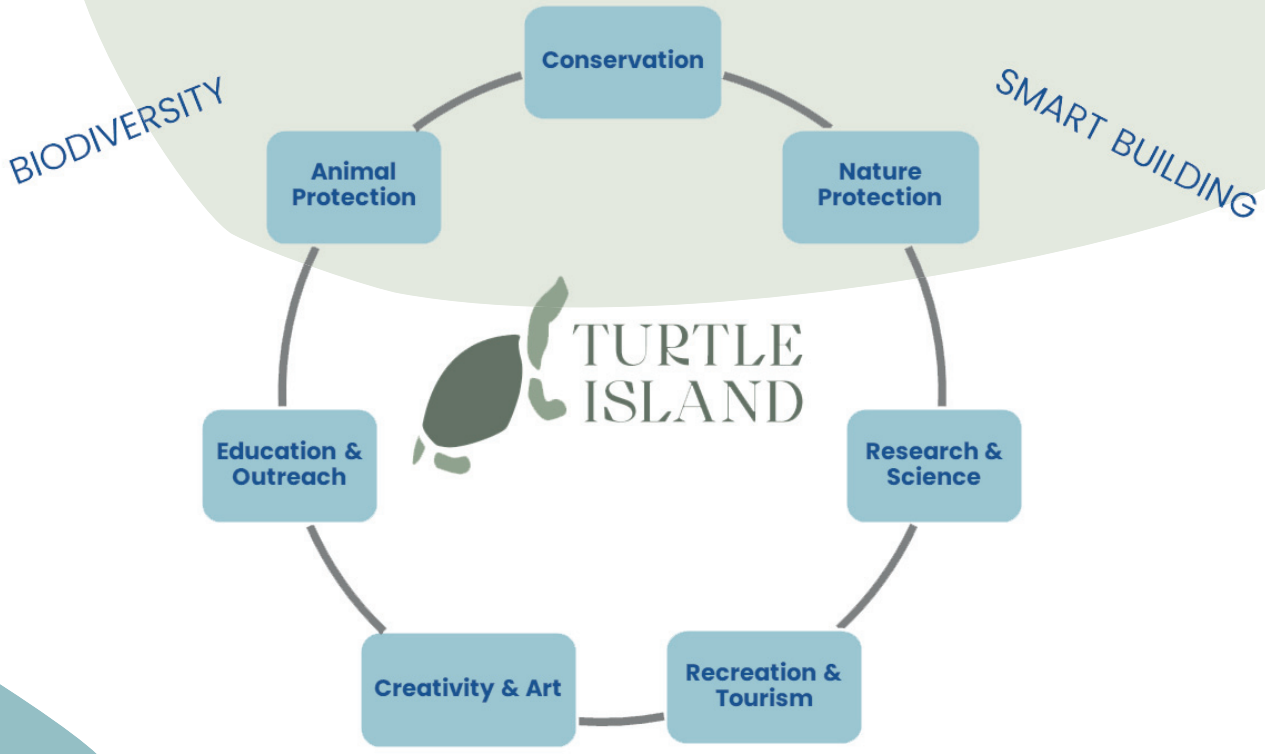
As we grow, we plan to evolve and amplify our impact with the creation of a comprehensive park for both scientific and tourism purposes, derived from our four research facilities and four decades of experience.

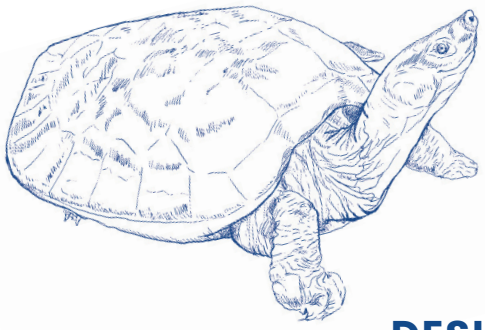
Our plan is to combine a conservation breeding station with an animal display facility to merge landscape design, conservation, art, education, and recreation into one unique experience.

Our intention is to involve, educate, and inspire the public in this critical effort to preserve the wellbeing of our planet for future generations.

Premise

The central objectives of zoological institutions today include
(1) connecting humans and wildlife.
(2) education.
(3) conservation through rewilding and habitat preservation.





DESIGN & IMPLEMENTATION

An Overview

The overall project will require a piece of land (>10,000m²), which may be located anywhere in the world. The park will include a large dome building for animal display, art installations, and education, along with three greenhouses for scientific research.

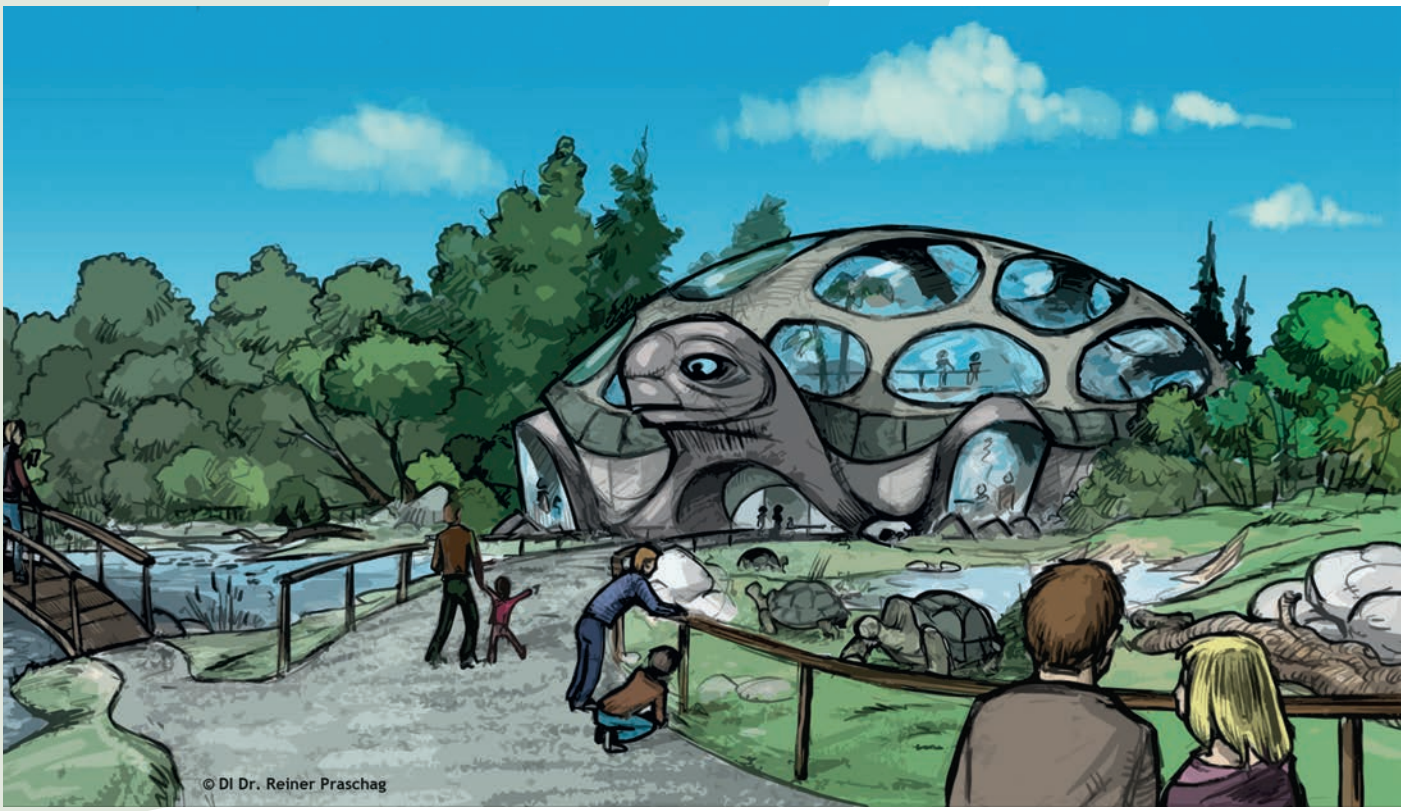
Outside exhibits, gardens, and parking lots will occupy the remainder of the land.

We envision the dome as the park centerpiece. Designed for visitors, it will house rare and extraordinary animals from all climate zones. The dome's architectural appearance will symbolize the shape of a turtle, according to the plans of zoo architect Dr. Reiner Praschag.

Visitors will enter the dome under the outstretched neck and head of the turtle, which will hover above the entrance. The ridge will take the form of a spine, with the ribs serving as rafters, and the shields - in the form of transparent domes - allowing daylight to flood the central body.

There will be three additional greenhouses (5,000m² total), focusing on conservation, breeding and research.

Each will host a different climate zone (tropics, subtropics and Mediterranean), representing the natural habitats of turtles around the world.



Smart Design Technology

In collaboration with exhibit architects, Turtle Island will be designed to minimize its carbon footprint and subsist on renewable energy to limit our burden on natural resources.

We plan to use "smart" technology in our facilities, meaning that the infrastructure will be designed to optimize energy efficiency, safety, and functionality.

The entire facility will be designed as a closed system to the greatest extent possible, minimizing resource consumption. This applies to the building materials as well as the operations.

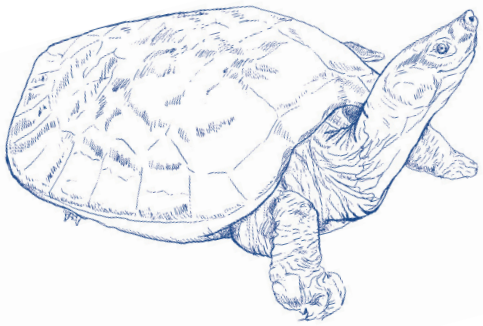
We intend to operate our buildings on solely renewable energies and to utilize state-of-the-art sustainable design practices for the engineering, construction, and operation of the facilities.

The Visitor Experience

Our goal is to incorporate precise geological formations, sedimentation, and plantings that will provide visitors with valuable insights into the biology of the animals and how they have adapted to their respective habitats.

With a view of the oversized turtle dome, visitors will be guided along paths and over walkways throughout the outdoor facilities. There, they will encounter birds, amphibians and other reptiles. Guided alternately over wooden log paths and bridges, the mysterious world of bogs, swamps and ponds will open up to them.

In the case of bad weather, a short, partly covered path will allow quick access to the interior of the Turtle Island Dome.

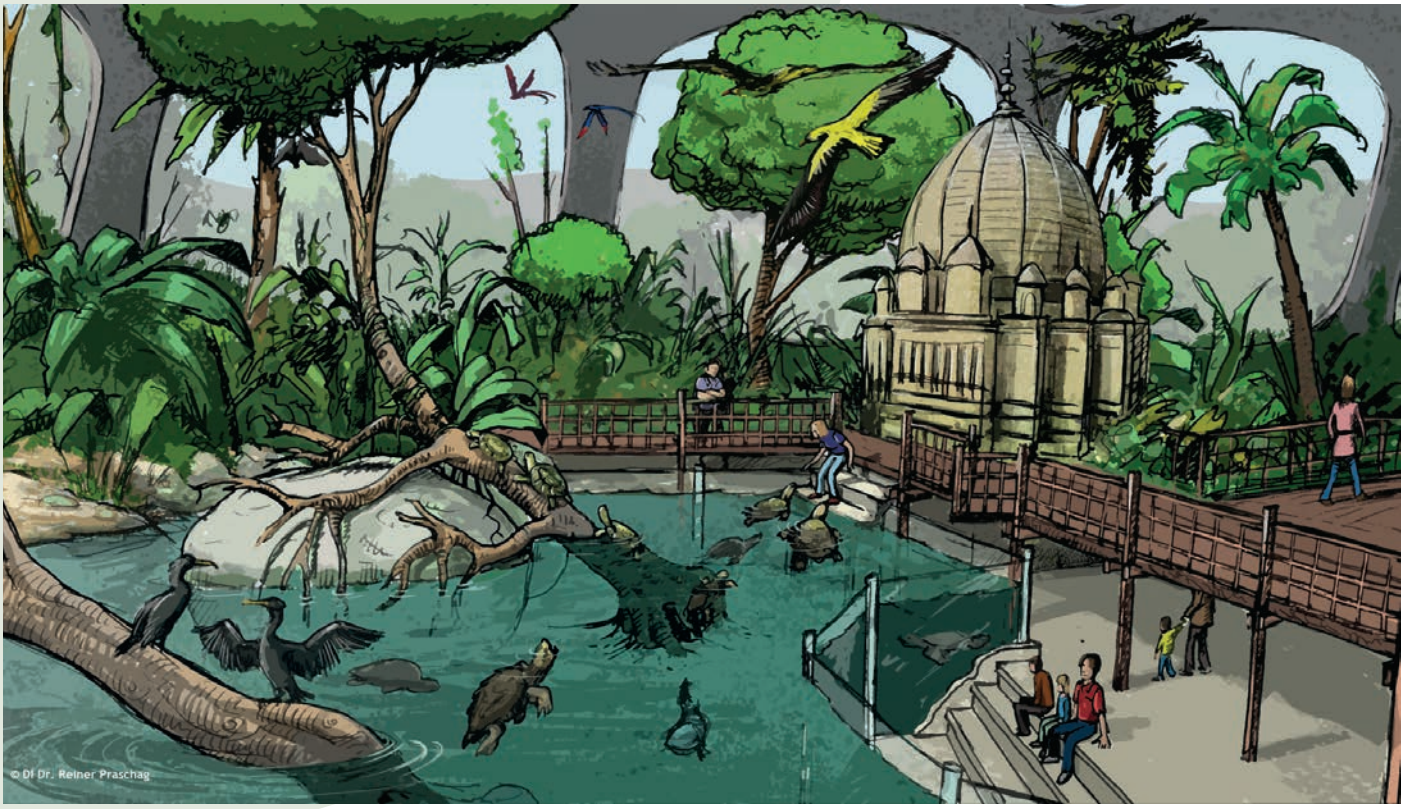


Once inside, the spacious, two story entrance hall will immediately draw the eye to the underwater worlds. A visitor's arena for about 30 people will provide optimal observation of giant turtles, crocodiles, and fish of the Ganges and Brahmaputra, two of the largest rivers in the world. The visitor will be guided through the specific landscapes in two levels.

The lower level will give insights into the life of various ecosystems. A large aquarium with a surface area of 23 x 10 meters and a water volume of about 500,000 liters will be the centerpiece. The aquarium will be fully visible from all sides and can be temporarily partitioned off if necessary.

As a special attraction, the sacred Tantra temple, which overlooks the Brahmaputra river in India, will be replicated on the riverbank at Turtle Island. Following ancient tradition, visitors may feed the soft-shelled turtles (*Nilssonia nigricans*), who are revered as holy in Indian culture.

From all the paths of the upper level, the visitors will overlook the water features. In addition to the waterscapes, three large exhibits are planned for the breeding of three endangered species: giant Galapagos tortoises, gharials (one of the largest crocodile species from India) and Komodo dragons. The visitor rooms will be separated from the display areas to limit ambient noise.



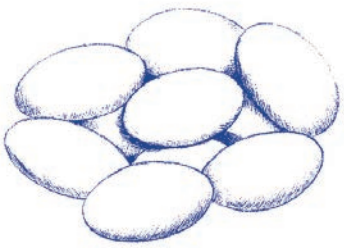
Additional space will be given for the conservation breeding of rare species, as it requires separate structural arrangements for juveniles, gender separation, mating, egg laying and incubation. Finally, a restaurant will be adjacent to the entrance hall, allowing visitors to enjoy meals while observing animal life.

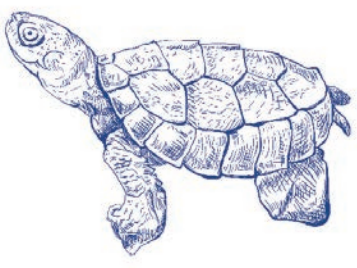
To further expand Turtle Island, three greenhouses (totaling 5,000m²) will be divided into three climate zones.

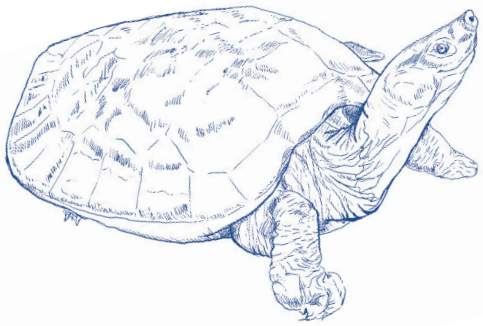
- Tropical house - 2,500m², includes research laboratory - 500m²
- Subtropical house - 2,000m²
- Mediterranean house - 500m²

The extensive grounds will include administration and seminar rooms (250m²), a service yard (300m²), including storage rooms, delivery areas, a workshop, and ample parking.

All structures will be blended into landscaped outdoor areas and exhibits with spacious ponds and lush gardens.







GOALS AND OBJECTIVES

Conservation

Turtle Island combines ex-situ (outside the natural habitat) conservation measures with in-situ (inside the habitat) measures for highly endangered species, with the ultimate goal of species protection and rewilding.

For species with very few surviving specimens, assembling breeding groups in human care is the only chance to save the species for the future. It is prudent to establish several breeding groups outside the countries of origin to minimize the risk of catastrophes, such as a threat to the breeding project by political unrest or disease. Our goal is to optimize our connections with other ex-situ institutions worldwide to further promote in-situ projects, including habitat preservation, research, and rewilding.

Our focus is on highly threatened and overlooked species. Due to the bureaucracy and untimely identification of threatened populations, the current list of endangered taxa lags behind the true status of these threatened animals. This may result in an animal becoming extinct prior to ever achieving endangered status. To combat this, we take preventative action, based on our own preliminary studies, to ensure the survival of these populations.

Nature Protection

We will ensure that our visitors are educated about the threats to global fauna and native wildlife.

We intend to encourage local protection measures and individual initiatives, educating our visitors on the importance of taking action for sustainability and conservation.

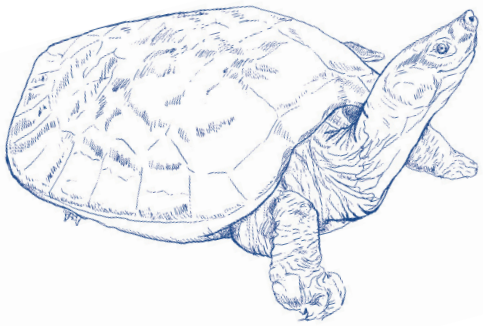
We will present the life cycles of our planet and the rhythm of its seasons. In conjunction with local efforts, we plan to conduct field studies, protect and restore natural habitats, and facilitate reintroduction projects.

Animal Protection

Illegal animal trafficking is the third largest illegal business in the world, behind drugs and arms. Due to continuously improved airport controls and regulations for animal husbandry, the number of confiscated wild animals is increasing. However, there is an acute shortage of sanctuaries worldwide. In most cases, confiscated wild animals are distributed to non-professional, pet-oriented animal shelters or passed on to zoos.

To mitigate this shortage, we will combine our conservation breeding center with a rescue facility for confiscated wild animals.

With international cooperation, confiscated wild animals and abandoned animals will be distributed to specialized facilities, where breeding groups can be created to support the species.



Research & Science

Knowledge of species diversity and their endangered status form the basis of all nature conservation. Taxonomic studies, including genetics, are a necessary tool for conservation measures. The study of animals in human care provides important insights into their biology and ecology, which we can apply to their native habitat.

We have contributed significantly to this field for four decades, gaining an international reputation. We are the first and only institution to successfully breed numerous turtle species. Without these measures, if the species in lost in nature, they will be gone forever. Therefore, human care in this case is the only method preventing extinction.

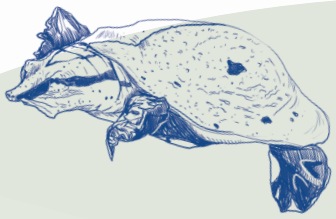
Frozen Zoo - Stem Cell Backup

For the survival of the rarest species, it is essential to utilize all methods available to us. One such method is to collect and preserve gametes (egg and sperm cells) by cryopreservation (storage in liquid nitrogen) for artificial insemination and possible species restoration. Dr. Thomas Hildebrandt at IZW Berlin, a world renowned zoological institution, is the world's leading expert in the field of wildlife reproductive biology. In several experimental series, we are jointly developing methods for the permanent storage of gametes.

Universal Fingerprint

International researchers in the field of genetic analysis and forensics (see LFFA in Germany) want to develop a universal test, called the "Universal Fingerprint of Life," with which all living beings and their progeny can be identified and characterized.

In this situation, we would use blockchain technology to make the information available in a secure, forgery-proof manner. The purpose is to protect endangered species and, ultimately, to stop the illegal trade of animals. There are approximately 360 taxa of turtles. This has been established as an ideal mathematical number to model this technology. Due to the unparalleled diversity at Turtle Island, our facility provides the best conditions to develop this test.



Education & Outreach

One of our primary goals is to raise public awareness of the threats to flora and fauna, which is fundamental to any conservation effort. We plan to pay special attention to our youngest visitors, the future ambassadors of our planet, by awakening their sensitivity to nature in our education programs. We will provide first-hand opportunities to learn about and appreciate our environment.

Additionally, we will host educational days for local schools to discover Turtle Island. We are currently involved in programs for young women to develop their education and nurture their curiosity for science.

By these means, we hope to engage future generations in the protection of these important animals.

Recreation & Tourism

According to the founder of zoo biology, Prof. Heini Hediger, a zoo has the exceedingly serious task of serving urban populations with a substitute for the nature that they are lacking.

"Such institutions are, so to speak, in the service to the mental health of the strained metropolitan man." (Hediger 1977). As an ecotourism facility, Turtle Island plans to positively impact the area by providing nature experience, recreation, and education.

As a result, this will influence the local economy, creating jobs and attracting tourists to the area. Conveniently, our weatherproof design allows for the enjoyment of our facilities year-round.

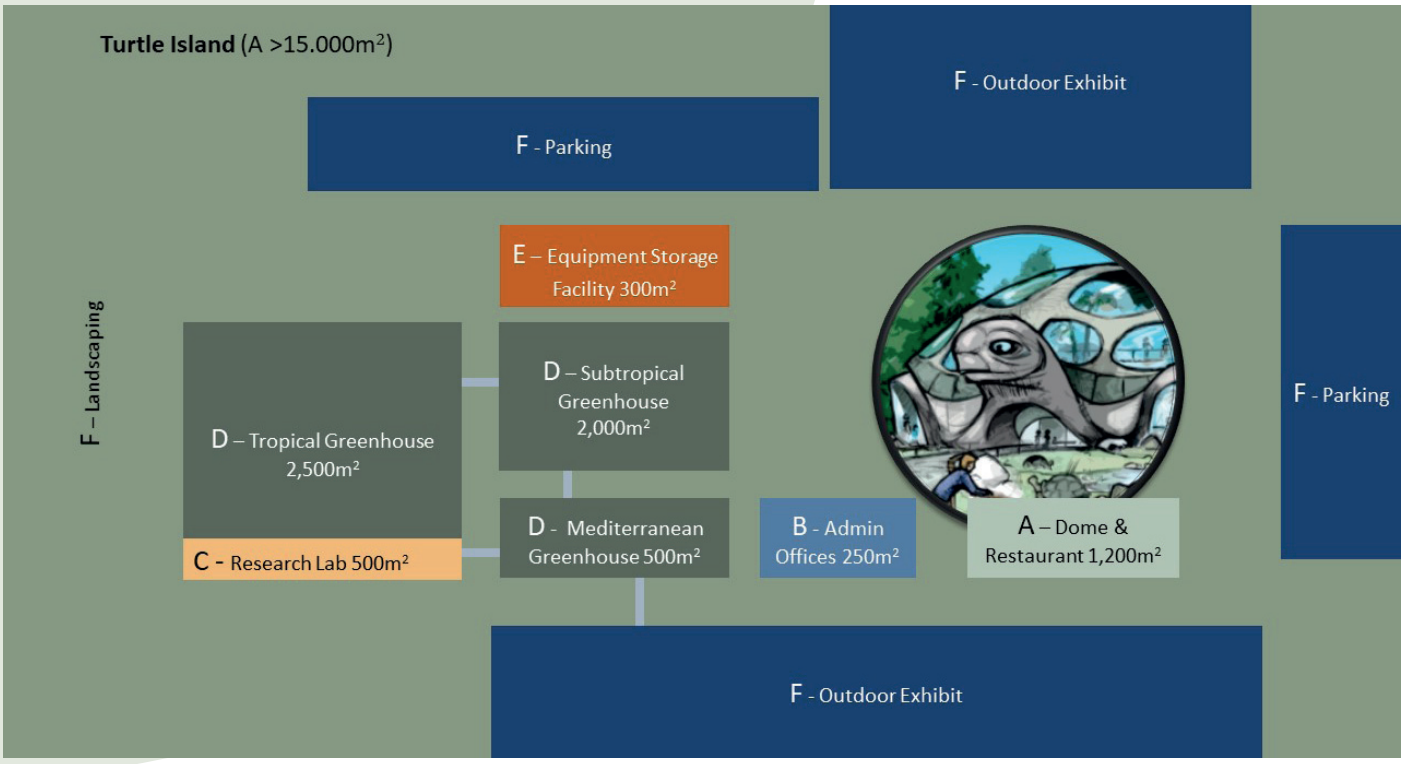
Creativity & Art

The addition of art installations, correlating to the natural environment of these animals and their influence on cultural practices and art will enlighten visitors. Our intention is to provide a holistic appreciation for the value of these animals in a cultural context.

For a more engaging experience, we will provide children with the opportunity to explore their creativity with workshops guided by local artists.

COST ESTIMATE & TURTLE ISLAND GENERAL PLAN

Code	Construction	floor	m^2	$/ m^2	net cost ($)	gross cost ($)
N/A	Land & Development (public sector donation)	N/A	15,000	$ -	$ -	$0
N/A	Project development (preliminary costs)	N/A	N/A	N/A	$450,000	$450,000
A	Dome and restaurant structural design (including restaurant)	1st	1,200	$2,000	$2,400,000	
A	Elevated trails	2nd	300	$2,000	$600,000	
A	Ancillary rooms (breeding, sanitation, heating)	Ground	1,200	$2,000	$2,400,000	
A	Exhibit design	N/A	850	$2,000	$1,700,000	
A	Roof "Turtle shape"	N/A			$3,115,000	$10,215,000
B	Administration offices & sanitary facilities	1st	150	$3,700	$555,000	
B	Seminar rooms	1st	100	$3,700	$370,000	$925,000
C	Research laboratory (inside tropical greenhouse)	1st	500	$2,000	$1,000,000	$1,000,000
D	3 Greenhouses (with different climate zones)	1st	5,000	$2,000	$10,000,000	$10,000,000
E	Equipment storage facility	1st	300	$700	$210,000	$210,000
F	Outdoor enclosures and facilities, pond landscapes, paths, bridges, footbridges, grounds, planting, parking lots, etc.	1st	3,000	$400	$1,200,000	$1,200,000
	Total Cost of Construction (excluding land & development)					**$24,000,000**



BLUEPRINTS


KOMODO | WARAN
TUNNEL
WARAN
HOCHSTEG
TUNNEL
WARAN
TEMPEL-KULISSE
ETABLAGE
LIFT
GROSSE FLUSSSCHILDKRÖTEN
SHOTS
BACH-TERRASSEN
HOCHSTEG
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SUBTROPEN
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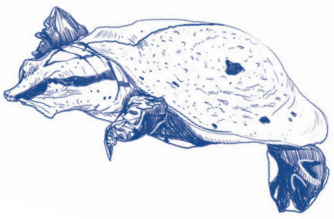

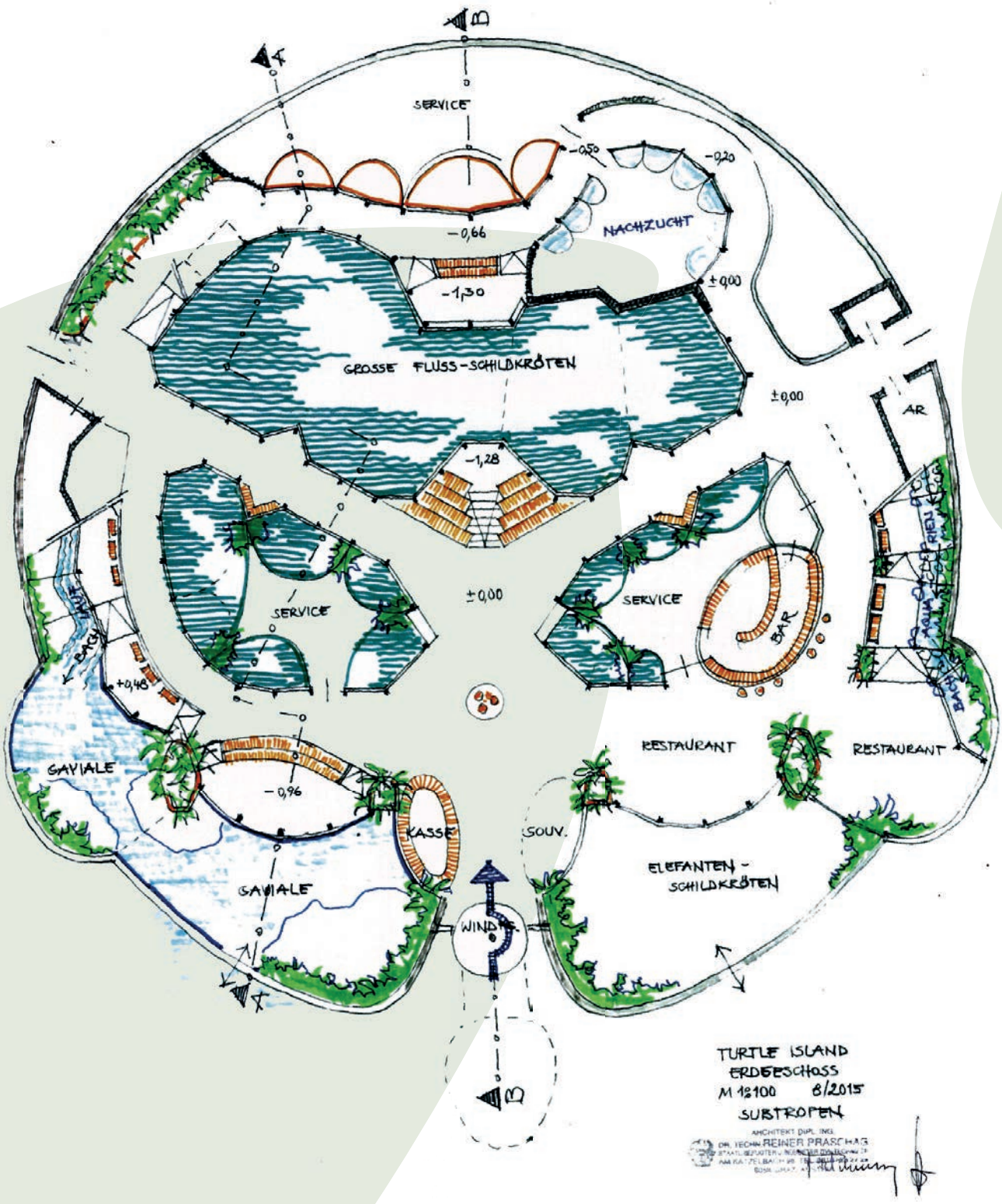
SERVICE
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GROSSE FLUSS-SCHILDKRÖTEN
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SERVICE
SERVICE
BAR
BACH
+0,48
RESTAURANT
RESTAURANT
GAVIALE
-0,96
KASSE
SOUV.
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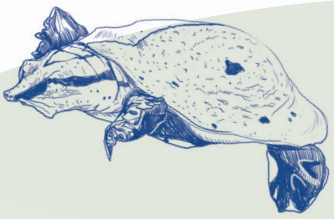
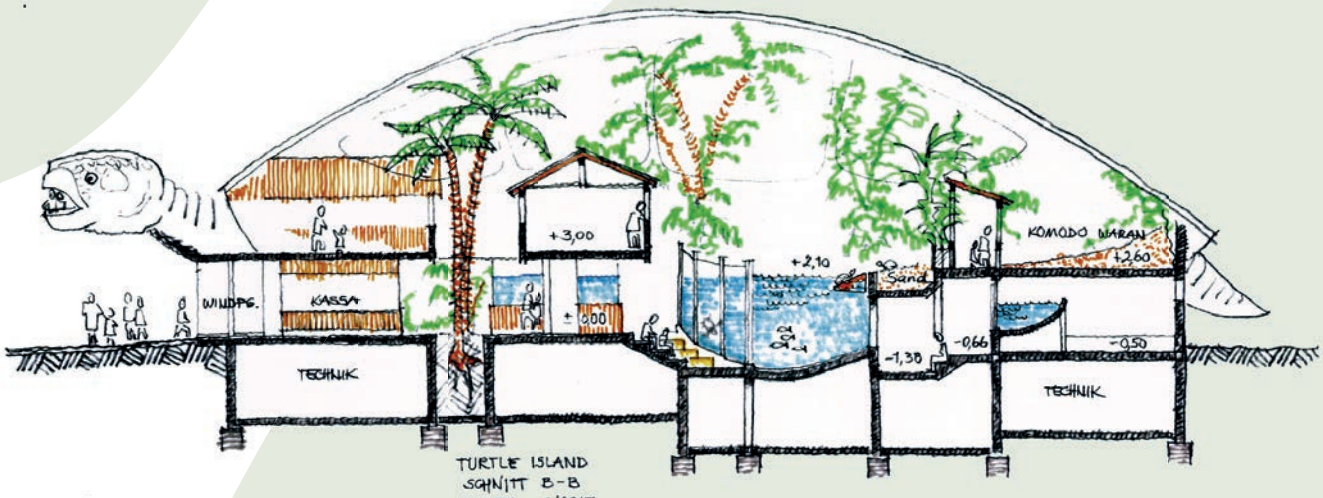
DR. TECHN. REINER PRASCH A.G.





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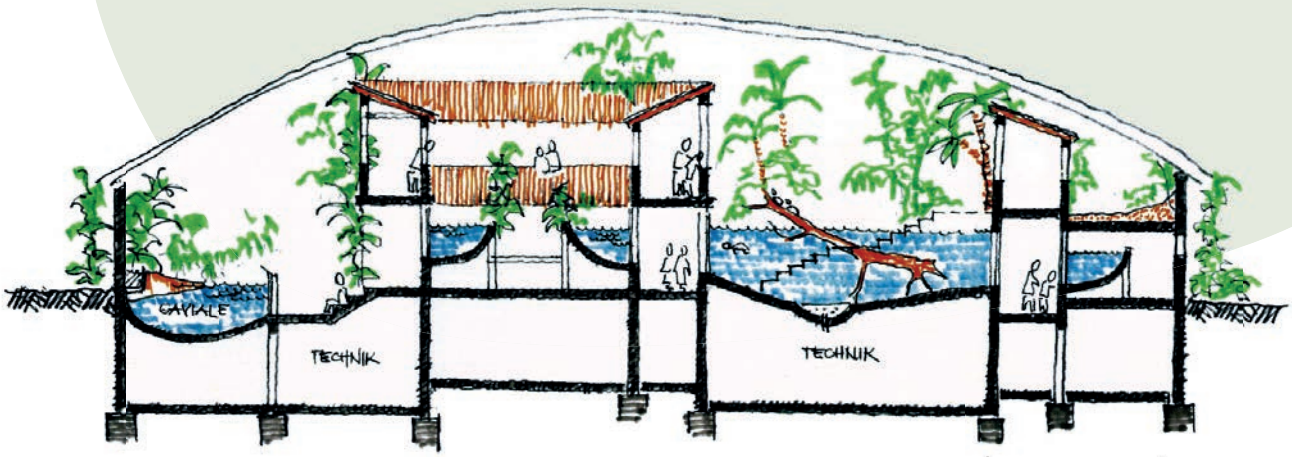

TURTLE ISLAND
SCHNITT A-A
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TURTLE ISLAND

We all live on a
“Turtle Island.“

Everything that lives,
everything that wanders on feet,
fins or wings, and
everything that breathes,
whether through lungs,
gills or skin, lives on
Turtle Island.

Life on the island defines it.
By what lives on the island,
we know where we come from
and where we go,
what we see and the stories we tell,
and every walk is a walk
over the green back of a turtle.

(Marcel Robischon from „Vom Verstummen der Welt“)