

Yearbook 2016/17

Master of Landscape Architecture

# **Hochschule Anhalt**

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# Introduction

# Modules

Atelier Urban Design Design of Urban Spaces Contemporary Aesthetics Atelier Landscape Design Architecture and Design Excursions & Events Master Thesis Prize Winners Insights Students Professors & Associates

#### Dear MLA-Students,

I would like to welcome you all to our beautiful campus in Bernburg.

It provides all you need for your upcoming year in Germany: Housing on campus, learning on campus, living on campus, and party time on campus.

For the majority, it will be the first stay in Germany. You might notice soon that certain things are different here compared to your home country. Yet we are trying our best to guide you through the first steps of your studies. If you have questions regarding your course, feel free to contact us in the department. It is mainly me, as the director of the MLA program, as well as Mrs. Dr Eckhardt as the Chief Coordinator, who you can approach by email or in person. We are all ears to hear about your wishes and suggestions in order to make your studies most convenient and fruitful.

Have a nice time at our university :)

Prof. Einar Kretzler MLA-Director

# INTRODUCTION

#### Dear friends of landscape architecture,

in this second edition of MLA Yearbook, we would like to present the works of our students starting at Anhalt University in the year 2016. Feel invited to join in. The selected topics and projects presented in this book just show you a small range of all the academic work that we have been carrying out in the MLA course, together with our past and present students. We state our appreciation for every single design plan that has been drafted, developed, drawn and presented by our learners so far. And we are thankful to everyone who was, is and will be involved in our projects - in the steady pursuit of achieving the best outcome possible.

#### Dear students,

probably many things have already happened since you arrived in Bernburg for the start of your Master's studies at Anhalt University. While working on your course projects, you also introduced the staff in the department to rich and wide-ranging backgrounds of cultures and professions. We consider this to have an impact on the town of Bernburg as well as the region of Saxony-Anhalt, but also even further away on Berlin and abroad.

While you were going your own way within an unfamiliar culture, new language, different climate, and as a student among unknown classmates and teachers, you could prove yourselves to be hard-working and capable of fulfilling teamwork, intercultural and communication skills. Last but not least, your aim to become a highly qualified landscape architect is reached - the same as all members of staff made their efforts to prepare you to their best knowledge. Now you will move on to looking for employment as a landscape architect, who is well-trained in the methods and means to problem-oriented, as well as artistic and creative solutions. We wish all of you the best of luck for the further stepping stones you may be facing in your career. We would be pleased to stay in touch with you and follow your story. It is time for you to go out and keep looking for new ideas in the professional world

"As landscape architects we don't always need to make design statements; some of our best work is invisible. The profession is about delivering creative and sustainable solutions to real problems." (Tom Armour)

#### Prof. Dr. Nicole Uhrig



MLA Students, year 2016/ 2017

# **SIEMENSBAHN & SPREEINSEL**

Conversion of a Former Railway Track & River Island as Missing Link Winter Term 2016/ 2017 Prof. Dr. N. Uhrig, Dipl.-Ing. M. Kuntz, M.A. D. Kim

### BACKGROUND

The future of the abandoned railway track and former "Siemensbahn" in Berlin lies in the conflicting fields between industrial culture, monumental heritage, future urban development in the surrounding area as well as the requirements for recreation, green connections and ecology.

#### TASK

MLA students developed ideas and proposals for the revitalization of the forgotten railway tracks in the north-west of Berlin. From a landscape-architectural perspective, various scenarios on the future of the Siemensbahn will be discussed and different focuses will be set. In summary, the guestion can be asked "which future model appears to be viable and imaginable? Does Berlin need a green connection in the Jungfernheide-Spreeinsel-Schlosspark network, a cycle track, an urban park for recreational use or an ecologically valuable biotope network? How could the Spreeinsel serve as a link between Schloss Charlottenburg Jungfernheide and how could Siemensbahn improve the bicycle and footpath connection? Regarding the expected housing development in the neighborhood shall it be recovered as train connection in the future and do we need a concept for interim or temporary use for the next years?

#### RESULT

The ideas range from easy-to-implement improvements to comprehensive design proposals, which can be considered as the basis for further development. Three main approaches were chosen: temporary use concept, Recreational focus and ecological focus. Thus different design topics came up. Such like adventurous green connection, linear park, elevated walk way and tree top path, jogging- and cycling tracks, open air stages, integration of surrounding allotment garden and gardening culture, ecology and nature protection, animal friendly design, biotope improvement, renaturation of river banks or rediscovery of historical traces. Especially in the context of the uncertain future and political disagreement on the topic of Siemensbahn students wanted to show different alternatives and scenarios for a future development to start a discussion for citizens and politics.

#### Cooperation:

City of Berlin, District Authority Charlottenburg-Wilmersdorf, Department of Urban Development, Building and Environment (Wilhelm-Friedrich Graf zu Lynar)





# EXPERIENCING THE FOURTH NATURE

Khaula Dar, Subhashish Mondal, Vinitha Mohan, Mohammud Obeidat

Fourth Nature is the concept linked towards nature overtaking the man built structures. This project focuses on the human sensory experience of how nature is dominating the Siemens abandoned railway track. The project divides the site into three zones: Nature park as a quiet and nature protection zone, no public entry directly from outside; Siemens park as a semi protection zone recreational and nature protection with multiple entry; and recreation zone with more recreational and public activities.





















# ECOLOGICAL TRANSITION

Maryam Esmaeilzadeh, Neda Mahmoodi, Akshay Hattiholi

The main concept is planning an ecological network among large scale green spaces. The aims of the concept are design ecological corridors at several spatial and temporal scales; provides quality habitat in a corridor whenever possible; increasing inhabitat area and inviting different species of flora and fauna; linking the city

to the natural life; developing ecological approaches to provide a comprehensive ecological planning for the city. Zone 1 of the site is for education and exploration of nature along the link, zone 2 is sport and recreation along the nature,

zone 3 is for viewing and memorial time with nature.







WOODLAND



# **SIEMENS SKY PARK**

SB Chowdury Topy, Dhaval Shah, Jessica Seriani, Reshma Bhanderi

The Siemensbahn railway project: human sensing (sound and colour), urban value and public survey give us important information from people surround the site (inside and outside view). Based on the survey result, bicycle track combined with green space will be a good solution for people right now. They will have a green buffer connection from north to south for recreation and fresh air which separate the industrial and residential area. For the connection between Jungfernheide and Schloss Charlottenburg, the railway track will be transformed to Siemens Sky Park which let people move easily and quickly across the important places in this area.











# VORÜBERGEHEND

Haripriya Singh, Mohammad Fakhrul Hasan, Sharvey Salkar, Serena Baquero





#### IMELINE: development of use of the track along the years.

















# MODULES **DESIGN OF URBAN SPACES**

# QUICK SKETCH ASSIGNMENT: CLOISTER BERNBURG - REGAINING PUBLIC SPACE

Winter Term 2016/ 2017 Prof. Dr. N. Uhrig

#### BACKGROUND

Bernburg's cloister area is a well-known location for striking summer events and it is frequently used by students having class inside the historical building. Unfortunately open space facilities are not sufficiently elaborated. The space neither shows convincing amenities nor a good quality of stay. Moreover no footpath connection to the adjacent beautiful Kurpark is provided what makes the area seem disconnected.

#### TASK

Your redesign for Bernburg's cloister open space shall make it more inviting and livable for students and public. The design must respect the massive need of free space for every year's cloister festivals. Local spirit and identity should be reflected. How to connect the cloister area with the adjacent Kurpark and Kurhaus? Please give a smart, convincing and budget-friendly proposal.



# HISTORICAL LINK

Jessica Seriani Hermanto

The idea is to make Cloister as an one stop of history and botanical place in Bernburg. At least there are 4 points nearby the Cloister, Kurpark and Kurhaus that important for the people in Bernburg for daily life: Bernburg Train Station, Bernburg Bus Station, and Karlsplatz, especially for HSA students. There are not much changes in



the design of Cloister Building to keep history that already stick to the building. The building material and the space that already exist in Cloister has a goodd interaction with the nature and the people in Bernburg. So it will be more wise just to strength the elegance of the history in the building with less intervention.





Green connection



#### Connection



#### Design Ideas

# THE SPIRIT OF CLOISTER

#### Khaula Dar

First Impressions of the Site were very strong based on the uniqueness of charachter, and historical aspect of closter. The objectives of the design is to encapture the spirit of Closter, by keeping the same functionality of the space. Two doors have been added to connect the space to the Kurpark, one of them being located at the Wolfgang steps.

The proposed design respects the Large spaces for various activities such as the Markets and the Christmas Festivals. Therefore adding minimal design elements such as sitting areas and pathways enhance the open spaces for encouraged public gatherings.







Micro landscapes



Perspective

# SIMPLY BEAUTIFUL

## Pranati Chaphekar



Master Plan




Perspectives



# **CONTEMPORARY AESTHETICS** MODULES





















# MODULES **ATELIER LANDSCAPE DESIGN**

# **BERNBURG LOOP**

Recreational Development at the Rural Fringe of Bernburg North Summer Term 2017 Prof. Dr. N. Uhrig, Dipl.-Ing. M. Kuntz, M. A. D. Kim

## BACKGROUND

Saale river and the southern part of Bernburg is established for local and regional cycling tourism. Many families, seniors and young people go for excursions especially at the weekends. The north of Bernburg, on the other hand, seems to be of little interest to such activities, although interesting things could also be discovered there.

## TASK

The goal of the project is to develop a tourist route with a bike path that connects the city of Bernburg and river Saale with the northern rural region. Existing location qualities and tourist potentials as well as hidden points of interest are to be discovered and put into value from in an aesthetic, social, organizational, ecological and economical perspective. The route will also be used to establish a knowledge and information service that is based on the areas of teaching and research at Anhalt University of Applied Sciences in the area of "Life Sciences" including other topics to serve different kinds of user groups.

## RESULT

The students have developed proposals for the development of a cycling and tourism concept for the north of Bernburg. From a landscape-architectural perspective, the idea of "Bernburg Loop" will reflect different themes and focuses on strengthening local tourism. Thus, the cycle path can be understood as a cultural itinerary, as a nature trail and as a science related discovery path, which makes the research and teaching areas "Life Sciences" of Anhalt University visible in the surroundings. The design results range from easy to implement improvements to extensive design proposals and could be considered as the basis for further development.

Cooperation:

City of Bernburg, Planning Department (Markus Senze) Cycling Club ADFC Sachsen-Anhalt (Uwe Schlegel)

HSA Administration (Sabine Thalmann) HSA, FB1/LAU (Dr.-Ing. Marcel Heins, Prof. Dr. Matthias Pietsch)













# WUNDERKAMMER

Sharvey Salkar Serena Baquero Pranati Chaphekar



## Why 'Wunderkammer'

'Wunderkammer' is a place where a collection of curiosities and rarities are exhibited. We relate this project to a 'Wunderkammer' as the bicycle track travels through many hidden elements which are unknown, unseen and unexperienced. We would like to stage theses elements with our minimal design intervention.





- ] . Clear indications of the Routes
- 2 . Consistent Character of the Route
- ${\bf 3}$  . Emphasizing the inherent qualities
- 4. Design Inputs: General Structures
- 5. Special Track Integrating all the user groups: Children, Students, Seniors, Handicapped people



## **Priority Chart**





Master Plan : Bicycle toute





## Detail of 'The Three Courts of Bernburg'







**Before & After** 

# **TREASURE HUNT**

Bayu Hafiz Bao Guotai Jessica Seriani Haripriya Singh



Each point of attraction has its own local identity and character, they all are very different from each other and each one of them is special and unique in its own way. It's our job to bring out the beauty of each of these sites. We imagine each one of these point of attraction as a precious stone, which awaits to be chiseled out into its most suitable shape by a jeweler and at the end all these stones are strung together to make a beautiful piece of Jewellery.

HISTORICAL LOOP

# OINT OF INTERST. **EXISTING BICYCLE PATH MISSING LINK**





**RECREATIONAL LOOP** 





## CULTURAL LANDSCAPE LOOP



BERNBURG BICYCLE PATH











### MARKETING AND IMAGE **BERNBLIRG KEYWORDS**

LOGO TRANSFORMATION

**BERNBURG APPS** 

Bernburg Logo represent 'The Crown of Anhalt' tagline

BERNBURG

🔴 Water Body 🛛 🛑 Cultural Landscape 😑 Industrial 🛑 Historical 🛑 Bicycle Road

Bernburg



## fun + challenging + up to date + active + valueable + flexible + MAKES YOU WALK



APPS USER

NEARB)

- Connect the missing link, do im-provements, provide clear sig-
- nage
  Make more fun activities in Bern-
- Burg (color/music/water run/cy-cling)
   Provide new brochure, introduce new points of interest
- More publications in social media (Facebook, Youtube, Instagram)
- Make an Invasion!

### **ADVANTAGES**

- Por City:
  Registrants is database
  Flexibility: Points of interest can change every season
  Online shop/advertisement
  Easier publication of city history
  No boring place

For User: city souvenir as reward



# MODULES **ARCHITECTURE AND DESIGN**

# **ARCHITECTURE AND DESIGN**

SITE AND MASTER PLANNING

## WINTER TERM 2016/2017, PROF. DR. A. KADER

The course will be performed by lectures, exercises and a field trip, consisting of the following parts:

- A Lecture and discussion about "Theory of Architecture" and "Site Planning"
- B Excercises of urban designs as a practical application of the material learned during the lectures.
- C Excursion to Dessau with visits and of the Bauhaus Building, the Bauhaus Master Houses and other relevant buildings from the Bauhaus era as well as examples of contemporary architecture.

With an overall view on design and functionality, both topics are treated with a particular focus on sustainability and energy efficiency. Within the topic "Site and Master Planning", relevant skills, tools and strategies for a sustainable urban design will be lectured and discussed.

After an introduction about the necessity and the challenges of an increased global energy efficient way of thinking, the course will start with the principles and basic components of urban planning. Different working methods, palnning techniques and drawing scales will be presented and analyzed. The goal is especially to show how buildings, neighborhoods and even entire cities can be designed with a high integration of ecological aspects. Further more the students get an intuition and a feeling for the interrelations between sustainability and building form.

The topic "Theory of Architecture" covers the teaching of relevant theoretical aspects of architecture and design with a special emphasis on sustainable and climate adapted concepts. From the past and from today, a broad overview of project examples in various surroundings and climate zones will be investigated. The qualities or failures of different building types and urban structures will be critically evaluated regarding to their aesthetics, functionality and overall energy performance. The aim is to convey important theoretical knowledge and to understand the relations between building and environment.

After the completion of the course, students will be able to apply relevant skills, tools and strategies for a sustainable and energy efficient planning. Further more you will increase your knowledge of the current state of architecture and design regarding aesthetical, functional, energetic and climatic factors.

# HAMLET – AN URBAN TOWN EXTENDED TO THE CITY OF PUNE MAHARASHTRA, INDIA

Sharvey Dhananjay Salkar

ADDRESSING THE ARCHITECTURAL DESIGN AND ARCHITECTURAL "CULTURE" OF PUNE





Collection and dropoff areas in the internal of the urban town



# CONCEPTUAL RESIDENTIAL MASTER PLAN PROJECT IN TIRANA, ALBANIA

## Subhasish Mondal

## **Project Vision**

The aim of this exercise is the initial development of a master plan for a multifunctional urban "Eco-District" for about 20000 inhabitants as exemplary urban module for a metropolitan area. The city district will be ecologically and energetically optimized.





Topography 360-260 M. 260-160 M. 160-60 M.



Based on the sunpath diagram these are the shadow area generated by the land topography



Maximum wind flows from the east and north east direction which directly hits the sloped terrain.





**Road Network** 

Green Connection

Public Semi-Public Centers



Conceptual Cluster Plan Scale 1:5000

# CITY CELL, RIO DE JANEIRO, BRASIL

## Serena Baquero Guillen









# EVENTS + EXCURSIONS

2016 - 2017

## **BALTIC SEA WORKSHOP**















## **FUTURE FLOWER SHOW DESSAU**











# **TWIN EXHIBITION 'MOVING HORIZON'**

ANHALT UNIVERSITY - GERMANY 12 - 30 JANUARY 2017 | BERNBURG (SAALE) GALLERY

# MOVING H O R I Z O N TWIN EXHIBITION

3

R

ARCHITECTURE UII - INDONESIA 12 - 30 JANUARY 2017 | OPEN ARCH GALLERY







# **RUHRGEBIET - DUISBURG NORD**
























#### **BAUHAUS DESSAU**









### **BERNBURG VINEYARD**













# GARDEN KINGDOM WÖRLITZ



















#### **MINING AREAS COTTBUS**





# EXPO INTERNATIONAL GARDEN CULTURE

#### INDIAN, CHINESE & BAUHAUS GARDEN













# **MASTER THESIS**

# ABSTRACT

#### "A WAITING LAB". POST-INDUSTRIAL PARK DESIGN IN KÖNIG-LUDWIG-TRASSE RECKLINGHAUSEN, GERMANY

#### **AUTHOR: BOYUAN CHEN**

Bernburg, April 2017 1st Supervisor: Prof. Dr. Nicole Uhrig 2nd Supervisor: Dipl.-Ing. Thomas Mielke

Submitted in partial fulfillment of the requirements for the degree of Master of Landscape Architecture Anhalt University of Applied Sciences

Waiting, is a longing towards the future, a courisity for the new coming things and the border of respect. A lab, is the place for trying, testing, discovering the uncertainty. Therefore, a waiting lab which combines the desire to later and the experimenting for now. The redevelopment of the KLT diliapidated site presents the responsibility to revitalize the landscape, and offer several possibilities for people to wait, observe and explore themselves from active zone to dirt way that is in order to find themselves in both man made and natural landscape.

And this project identifies the environmental concerns including fauna and floral as far as human recreation and amenities. The Idea of converting an industrial brownfield into a wild nature piece which also serves as an urban park space is proposed. More specifically, the project reveals the relations between a former coal mining site of König Ludwig Trasse and the appearing wildness. The redesign of the site aims to establish its new functions to benefit the passers-by, to offer a delightful habitat for the richness of biodiversity as well as to lead a trail for discovering the beauty of industrial nature otherwise hidden.

Since the size of the site is around 1,800,000 square meters and could not be perceived as a conservation area but an open lab for recreating different types of habitats, such as wet prairie, shrub zones, the woodland zones from the abandoned. It is also promising to regenerate a healthy and sustainable biotope to welcome the vegetation and animals to live, hunt, nest, mate, etc.



#### DESIGN PROPOSAL

Transforming Process



Transforming



**DESIGN PROPOSAL** 

Design Principle



Accessibility

Programmes

#### **DESIGN PROPOSAL**

Concept



TOPOGRAPHY

RHYTHM

HARDSCAPE

Design Overview







Master Plan





# PRIZE WINNERS

#### YEN NGUYEN

# PLACE BRANDING IN PUBLIC SPACE DESIGN - THE CASE OF CITY OF GLAUCHAU

In the era of globalization, cities are trying to adapt their profiles to create a better competitiveness. They tend to promote their distinctive and unique images. To a great extent, these efforts are made through physical transformation and active city branding, in order to attract talent and creative companies. In the case of shrinking cities, this strategy plays an even more essential role. Especially for small cities in the margins of large ones, or in the rural regions. Their tasks are not only to invite new people, but rather to keep the existing population and perform a smart shrinkage development.



2nd prize in "Glauchau...Ankommen-Abfahren-Bleiben!" bdla Mitteldeutschland Student Competition, April 2017



This context has raised the argument of this thesis, which questions the role of landscape architecture, particularly in open space design, in the branding process of a city. And how place identity, an important component of place brand, can be applied in the design.

To have a practical examination, the city of Glauchau has been chosen to be the case study, as it shows the typical characteristic of a small shrinking city in the eastern Germany. The main purpose of this thesis is therefore to create a design concept for public spaces in this city, in which the identity of the city need to be expressed and observed. The special characteristics of topography and greenery are main factors that are focused in the concept. Along with other important characters, a concept that applied Glauchau identities to public space has been made.

#### SARATH SARASAN

# ECOPHILIC LANDSCAPE ARCHITECTURE AND ITS APPLICATION IN REVITALIZATION OF KOTTULI ISLAND, INDIA

Wetlands, one of the most efficient ecosystems of the world, are rich in floral and faunal biodiversity and harbour wonderful quantity of species including numerous endangered and threatened ones. Wetlands shape breeding and feeding grounds for numerous resident, neighbourhood and migratory water birds and several lesser recognized species. As a substantially productive life supporting element, waterlands have immense socio-economic, ecological and aesthetical significance. The natural splendor and diversity of animals and vegetation makes wetland aesthetically fascinating. The project tries to lessen the effects caused by urbanization such as area loss, habitat fragmentation, and habitat alteration by the application of ecophillic principles. The project tries to find out a solution for the existing problem of water pollution by creating flexible spaces that can be responsibly used by people and yet functions as biological filter.

It also tries to analyses the availability and quality of public spaces in the study area in order to accommodate every day life activities. This project addresses the need for the revitalization of Kottuli wetlands, its importance how it can be sustainabily rejuvenated and can be benificial for the people in and around the area as a public space and eco- tourism hub.

Attention is given to analyse the reasons for failiure of previous interventions and to

view matter on a city scale. The research part involves new innovations in the feild of public participation and how principles ecophilic landscape design can be implimented in the project.



1st prize in "My 3D Landscape" DLA Student Poster Competition, May 2017



# **STHDISN**

# **GIS IN LANDSCAPE PLANNING**

PROF. DR.-ING. MATTHIAS PIETSCH

Landscape planning supports sustainable development by creating planning prerequisites that will enable future generations to live in an ecological intact environment. Existing Geographic Information Systems (GIS) offer the needed capabilities concerning the whole planning cycle. Data capturing for inventory purpose, scientific-based analysis, defining objectives, scenarios and alternative futures and planning measures can be carried out by using GIS. Transforming the existing planning process to a process-oriented one with new ways of interaction technical enhancements are necessary as well as a new planning and design style. Therefore teaching methods must be changed to a more process- and workflow oriented thinking using the advantages of the different software tools like GIS, CAD, visualization and Building Information Models (BIM).



While landscape planning is based on analytical processes objectives and measures are drawn from scientifically landscape analysis and normative democratically legitimized goals. Scientific models and methods (e.g. landscape ecology) must be used to get the best results but in the end the decision is made by politicians in discussion with the public.

Therefore it's necessary to work with as much as possible transparency. GIS tools and methods offer capabilities that are helpful in the whole planning process.

Easy to use and free available software tools for vector and raster datasets are available but on the other hand god designers and expert knowledge is needed develop sustainable landscapes.

If landscape architects are able to work in interdisciplinary teams using the right tools and methods in combination with ecological, social and economic knowledge the landscape planning and design process can be improved in the future.

# LANDSCAPE THEORY: THINKING AND ACTING IN LANDSCAPE ARCHITECTURE

PROF. DR.-ING. NICOLE UHRIG

Even though landscape architecture theory currently has little backing and, in comparison to other sciences, does not want to meet the usual patterns of theory and science, it should not be misunderstood as "luxury" or "add-on". Rather, it is attributed to the basic equipment of the professional field of landscape architecture. "Theory" is regarded as a model of reality, initially independent of implementation. As basis for practice, it allows a look at the future and gives recommendations for possible action. It thus opens up various opportunities in finding solutions of well-known and new problems. How is it possible to produce a convincing, coherent and aesthetic, socially, ecologically and economically appropriate landscape design without theoretical reflection in the run-up to concept development?

How would the results of our work look without reference to existing models of action, theories, models and future scenarios? Probably not very convincing, sometimes unsustainable. The question "What is proper science?" and "What is landscape architecture theory?" is justified and should be discussed.



However, this should rather be done in the context of a healthy self-understanding and identity as a landscape architect, less under the pressure to conform to established patterns of scientific codes of other disciplines.

Contemporary landscape architecture has always been inspired by a wide range of other conceptual models and theories. Traditionally, a landscape architectural education imparts knowledge from natural sciences, sociology, art and design.

Consequently, consideration of theories from those disciplines is obvious. But also approaches from other scientific disciplines such as cultural studies, economics, medicine, etc. should be considered depending on the task and planning context at times, to develop a wide cross-overall picture.

A colorful set of theoretical concepts, specifically tailored for the project, comparable to a box filled with special tools, could give orientation in planning action and could be a great help for design and problem solving. What are the characteristics of landscape architecture theory today? Should it not be: knowledge-based, results-oriented and practice-oriented, critical, present-minded while simultaneously reflecting historical knowledge, inclusive for cross-discipline thought models, methodological pluralistic, dialectical, transdisciplinary, eclectic, creative?

Digging and raging creatively in the fields of theory is the motto. A broad and non-dogmatic theory approach increases the ability to solve complex planning problems for sustainable landscaping and paves the way to the best possible planning solution depending on the respective task.

(read more: Uhrig, Nicole: Landschaftsarchitekturtheorie – kreatives Wühlen und Wüten in den Feldern der Theorie. In: Berr, Karsten (Hrsg.): Landschaftsarchitekturtheorie. Aktuelle Zugänge, Perspektiven und Positionen. Springer VS. Wiesbaden 2017)

### NATURAL SWIMMING POOLS AT ANHALT UNIVERSITY

#### PROF. DR. WOLFRAM KIRCHER

Since 2008 three exemplary naturally filtrated swimming pools demonstrate different planting variants of the filter zone. Each filtration area comprises 20 % of the total surface (swimming area = 80%). The water of the swimming zone is drawn off through a skimmer and released back through the filter zone, where 500 liters per m<sup>2</sup> and hour percolate bot-tom-up through special gravel layers. Each Natural Swimming Pool is  $3 \times 8 \text{ m}^2$  in size.





# THE THREE FILTER VARIANTS AND THEIR PLANTINGS:

**Biofilm accumulating Substrate Filter** (System "Teichmeister") with planting 20 cm inundated: Initially this variant was planted with cypress grass (Cyperus longus, left image), but its visual effect did not satisfy. In 2013 this planting was substituted by by a mix of sev-eral helophytes (right image with yellow blooming Iris pseudacorus). Till 2017 no negative effect on the efficiency of the filter is detectable.



# Biofilm accumulating Substrate Filter with wet meadow vegetation:

The filtration substrate layer goes narrowly above water level. Plants from Central European nutrient-poor lime fens such as broad leaved cotton grass (Eriophorum latifolium, left image) provide a diversified naturalistic vegetation image. In mid summer perennials from North American wet prairies improve the flower effect (right image with blazing star, Liatris spicata).



#### The Rock Garden Filter:

The filter body consists of four troughs, placed in terraces along a slope and filled with filter gravel. The water is pumped into a horizontal distribution pipe on the bottom of the upper trough.

It percolates bottom up through the filter gravel and spills over the horizontal edge into the next trough. It flushes this filter body and analogously runs through the next trough till it reaches the swimming area as shown in the section drawing. This filtration effective construction was covered with quarry rough rhyolite stones to achieve a wet rock garden.





above: section drawing through the Rock Garden Filter: on the Anhalt University campus not the illustrated terraced stone setting was performed, but a design in the naturalistic style with parallel stone crevices (images below).

Below: in the permanently percolated rock garden many alpines as well as small forbs from wet prairies and fens thrive well and need not much maintenance.





#### The research project was funded by:

German Ministry for Education and Research (BMBF)

NSP company Balena GmbH, D-Gemmingen

Petrowsky Waterplant Nursery, Eschede Anhalt University, Bernburg



#### Read more:

Wolfram Kircher and Andreas Thon: How to Build a Natural Swimming Pool – The complete guide to healthy swimming at home.

Drawings by Thomas Zlobinsky, Filbert Press, 2016

#### Students Starting 2016



Dhaval Shah



Akshay Hattiholi



Sharvey Salkar



Neda Mahmoodi



Serena Baquero Guillen



Haripriya Singh



Shaho Ismail



Maryam Esmaeilzadeh Mehmandoust



Pranati Chaphekar



Khaula Tahir



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Bayu Hafiz



Muhammad Obeidat



Jessica Seriani Hermanto



Muhammad Fakhrul Hassan



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Vinitha Mohan



Subhasish Mondal



Reshma Bhanderi



Christensen Alexander



Guotai Bao



Zhe xu



Donghui Lin



Farnaz Alinaghian



Bowen Qiao



Yucai Deng



Azin Reyahifar

# **Professors & Associates**



Prof. Einar Kretzle





Dr. Elke Eckhardt



Prof. Dr. Wolfram Kircher



Prof. Dr. Matthias Pietsch



M.A. Daeyong Kim

Prof. Dr. Kai Tobias



Dipl.-Ing. Meinhard Kuntz



Prof. Dr. Alexander Kader





Prof. Dr. Alexander Schmidt



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Dipl.-Ing. Kristian Tourneau



Dipl.-Ing. Ruediger Amend



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Prof. Dr. Adrian Hoppenstedt

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## **ILLUSTRATION CREDITS**

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