

WEIHENSTEPHANER FORUM 2020 | AE 5

# ARBOR - TECH

15-16  
OCT

Symposium via Zoom

*Link to the online event:*  
[www.ar.tum.de/gtla](http://www.ar.tum.de/gtla)

Arbor-Tech is the 2020 edition of the Weihenstephaner Forum and the fifth edition of the international Architecture and Environment Symposium series.

In the context of climate change and accelerating urbanization, urban vegetation is more important than ever. With their size and biomass, trees are the most important elements for creating required and pleasant living conditions. However, the established techniques with which we plan tree planting and then implement and maintain them are often not suitable to meet the increasing demands and expectations in progressively disadvantageous growing conditions. The design approaches are therefore often very limited. Historical examples of targeted manipulation of growth, show how trees can be made to perform functions that go far beyond those of a naturally grown tree or a tree that usually grows in our cities today. Examples of this include the living bridges in India, the 'Tanzlinden' or hedge laying. Likewise, new technologies in researching and maintaining trees add an important factor in reviving and rethinking the way past cultural techniques can be reinvented for today's needs.

At the symposium, we will discuss innovative forms of green architecture and green infrastructure that result from an integrated process of „co-design“ and „co-evolving“ of people, trees, practices and technologies. The starting point are the human-plant-environment interactions of historical or vernacular approaches. The aim is to learn from these examples and to apply them to our current framework, new approaches and design visions, and to develop new approaches that, in addition to landscape architecture, architecture and urban planning, could also become relevant in disciplines such as agroforestry.

## Program

### THURSDAY 15TH OCTOBER 2020

#### Evening lecture

19:00 Prof. Dr. Sonja Dümpelmann - UPenn  
Model Trees: Standards, Systems, and Science in the History of Urban Arboriculture

### FRIDAY 16TH OCTOBER 2020

#### 09:00 Welcome:

Prof. Dr. Ferdinand Ludwig &  
Prof. Dr. Michael Hensel

09:15 **Prof. Dr. Ferdinand Ludwig**  
Introduction Morning Session

09:30 **Prof. Dr. Monika Egerer**  
Promoting urban ecosystem services:  
Evidence and ways forward

10:00 **PD Dr. Matthias Bürgi - WSL**  
Assessing traditional knowledge on forest uses

10:30 **Coffee Break**

10:45 **Dipl.-Ing. Lisa Höpfel - TUM**  
Historic practises and techniques of tree  
manipulation - Background and systematic

11:15 **Dr. Defne Sunguroğlu Hensel - TU Wien**  
Ecological Prototypes: The role of green  
construction and design in urban restoration

11:45 **Discussion and Conclusion of Morning Session**

12:15 **Lunch Break**

13:15 **Introduction Afternoon Session**  
Prof. Dr. Michael Hensel

13:30 **Prof. Dr. Thomas Rötzer - TUM**  
Growth and ecosystem services of urban trees - simulation  
studies using the process-based growth model CityTree

14:00 **Qiguan Shu M.A. - TUM**  
Topological tree skeleton models for designing and  
managing urban green system

14:30 **Wilfrid Middleton M.A. - TUM**  
Utilising photogrammetry for structural analysis  
workflows in living architecture

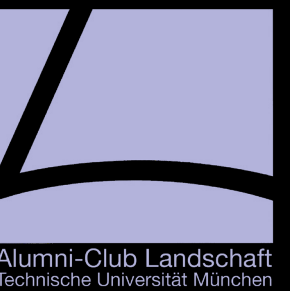
15:00 **Coffee Break**

15:15 **Dr. Mohammad Asrafur Rahman - TUM**  
Cool trees for our cool cities: optimizing the  
benefits at local scale

15:45 **Dipl.-Ing. Andreas Detter (Tree Consult Munich)**  
Inspecting trees for strength and stability.  
Non-destructive methods from the practice of  
a consulting arborist

16:15 **Discussion & Final Comments**

17:00 - end -



co-organized by  
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