
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 plant trees 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 infrastructures 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 frameworks, 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

10:00 Prof. Dr. Sonja Dürpelmann – UPenn Model Trees: Standards, Systems, and Science in the History of Urban Arboriculture

FRIDAY 16TH OCTOBER 2020

09:00 Welcome

09:00 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 Hürst – NBL Assessing traditional knowledge on forest uses

10:30 Coffee Break

10:45 Dipl.-Ing. Lisa Höpfl - TUM Historic practices 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 systems

14:30 Willfrid Middleton M.A. – TUM Utilizing 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 -