

UNISCAPE Research and Teaching

Aalto University – School of School of Arts, Design and Architecture

- **REPRESENTATIVE(S) OF UNISCAPE:** Juanjo Galan
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- **UNIVERSITY:** Aalto University - School of Arts, Design and Architecture
- **DEPARTMENT(S) INVOLVED:** Architecture

EDUCATION PROGRAMMES

Bachelor or equivalent:

- Architecture Landscape

(• Digital Architecture_Introduction for Landscape Architects • Basics of Landscape Architecture 1A • Basics of Landscape Architecture 1B • Field Course of Landscape Architecture • The City and Community • City and Living Environment • Basics of Landscape Architecture 2A • Basics of Landscape Architecture 2A • Basics of Landscape Architecture 2B • History of Landscape Architecture • History of Modern Landscape Architecture • Techniques and Materials in Landscape Architecture • Field Course of Landscape Architecture • Urban lectures (urban planning) • Landscape and Land Use • Landscape and the City • History of Cultural Landscape • Management & Conservation of Landscape • Basics of Forestry • Bachelor's Thesis and Seminar • Special Project in Landscape Architecture • Landscape Architecture, a course with varying content • Special Project in Urban planning and City planning•Course with varying contents)

Master:

- Architecture Landscape

Major studies 90 cr, comprising advanced studies in the major (60 cr) and the master's thesis (30 cr). The scope of a master's thesis is 30 credits. The thesis seminar which may be a part of the degree requirements for a master's degree is not part of the thesis, but is a separate study attainment that is included in advanced studies in the major. Elective studies 30 credits comprising alternative studies in Landscape Architecture (minor, specialisation studies, individual courses).

COMPULSORY: • Environmental Administration and Legislation (selected according the course offering at that specific time) • Green Area Planning

ELECTIVE: • Streets and Squares, studio • Design of Special Environments, studio • Architecture and Landscape, studio • Advanced Course in Landscape Design, studio • Historical Landscapes, studio • Project Management in Landscape Architecture • History of Landscape Architecture in Finland • Plants in Cultural Landscape and Old Gardens • Field Research – Parks and Gardens • Readings in Landscape Architecture • Landscape Architecture, Special Project • Landscape Construction, Course with varying content • Interdisciplinary Project • Digital Landscape Architecture • Landscape Architecture Competition • Landscape of Production, Studio • Landscape Architecture and Research • Landscape Management, Studio

- Sustainable Landscape – EIA, studio
- Restoration and Management of Urban Biotopes
- Basics of GIS
- History of Landscape Architecture in Finland
- Landscape Planning Process
- Landscape Architecture, Special Project
- Landscape Architecture, Course with varying content
- Digital Landscape Architecture
- Landscape Architecture Competition
- Possible Cities
- Urban Laboratory
- Urban Renewal
- Cities in Transition, Studio + Research & Theory course
- Sustainable Urban Design
- Planning Theory and Urban Studies
- Methodology
- Urban Planning and Design, Special project
- Urban Planning and Design, Course with varying themes

Post graduate | Specialization | Ph.D. :

As part of the Doctoral Programme of the School of Arts: • Landscape Architecture & Research • Department of Architecture Doctoral Seminar • Introduction to Architectural Research

RESEARCH ON LANDSCAPE

main issues/ topics of research

01 LANDSCAPE DESIGN AND CONSTRUCTION

Research on landscape architectural design focuses on defining the physical shape of the environment. It operates at local and site scales and aims at creating meaningful, functional and sustainable landscapes for future. Design competences - developing and visualizing ideas and synthesizing concepts - are applied to produce detailed proposals for individual urban or rural spaces such as parks or squares, outdoor spaces of residential areas of built environments as well as large-scale infrastructure projects outside of urban areas. How the dreams come true?

Research on computational methodologies in landscape architecture and urbanism assumes that in an era marked by progressive digitalization, new ways of computational thinking and methodologies need to be developed.

The focus of research in this field is to explore methods for handling a high level of complexity in the designs when dealing with dynamic forces, at the interface between landscape architecture and urbanism - from specific sites to global systems.

As part of the international discourse on the themes algorithmic design, Big Data – Data Overload, the research and teaching enables the researchers to develop a strategy for combining visionary application fields of human interaction with large-scale environmental data flow in the realms of Mixed Reality.

02 LANDSCAPE PLANNING AND MANAGEMENT

Research in landscape planning and management in Aalto University is concerned with the definition of strategic and programmatic scenarios and alternatives for the sustainable evolution of the landscape. It operates in a wide range of scales and contexts, from regions to sites and from natural to highly transformed or urbanized environments.

According to the spirit of the European Landscape, research in the Aalto University Landscape Architecture programme emphasizes the role of landscape in multifaceted and interdisciplinary planning and promotes

landscape management as the necessary condition for the temporal and socially viable implementation of the envisioned plans, in addition to understanding the historical ground of landscape and landscape architecture. .

In this framework, landscape planning researchers are invited in Aalto University to integrate the different dimensions of the landscape and to transform the produced knowledge in transversal statutory landscape plans, comprehensive regional, master and local plans, sectoral plans connected to the cultural, ecological, infrastructural or productive dimension of the landscape, green regional and urban plans, as well as all the instruments for landscape and environmental assessment.

- Landscape Architecture
- Landscape Design
- Landscape Planning
- Green infrastructure
- Urban Green
- Urban Open Space
- Landscape Preservation
- Landscape Governance
- Landscape Planning
- History of Landscape Architecture
- Cultural Landscapes
- Simulation/Visualization
- Point Cloud Technology
- BiG DATA > Environmental Data
- Landscape Architecture
- Machine learning in Urbanism
- Resilient large-Scale Design
- Urban Design
- Mixed reality
- Parametric design
- Intersections between social and ecological systems
- Sustainable urban and regional planning
- Sustainable development
- Urban and regional metabolisms
- Landscape Management
- Landscape Characterization & Assessment
- Landscape evolution and dynamics

TOPICS

- LANDSCAPE ARCHITECTURE
- LANDSCAPE DESIGN
- LANDSCAPE PLANNING
- COMPUTATIONAL LANDSCAPE DESIGN
- URBAN PLANNING & DESIGN

BIBLIOGRAPHY

Design with Nature (Ian McHarg)

The Landscape of Man (Jeoffrey and Susan Jellicoe)

Landscape Perspectives (Antrop & Van Eetvelde)

Architecture and Landscape: The Design Experiment of the Great European Gardens and Landscapes (Clemens Steenbergen and Wouter Reh)

The Course of Landscape Architecture: A History of our Designs on the Natural World, from Prehistory to the Present (Christophe Girot)

The concise townscape (Gordon Cullen)

Land Mosaics (Richard Forman)

Codify: Parametric and Computational Design in Landscape Architecture (Bradley Cantrell, Adam Mekies (Editors))

The Planting Design Handbook (Nick Robinson)

Time-Saver Standards for Landscape Architecture (Charles W. Harris and Nicholas T. Dines)