CORSO DI ECCELLENZA

Proponente: prof. Claudia Cassatella (DIST)
Titolo corso: Landscape-based regional design for the built environment
Docente: Associate Professor Steffen Nijhuis, Delft University of Technology (The Netherlands)

Durata prevista: 10 ore, n. crediti 2
22-25 maggio 2018

Descrizione del contenuto del corso
This course addresses landscape-based regional design as a strategy for urban development. The objective is to get to know concepts for understanding, planning and design sustainable development of a region, as well as setting the scene for local projects.

Dottorati interessati: Urban and Regional Development, Beni Architettonici e Paesaggistici, Architettura Storia e Progetto.

LANDSCAPE-BASED REGIONAL DESIGN FOR THE BUILT ENVIRONMENT

SUBJECT FUNDAMENTALS
This course addresses landscape-based regional design as a strategy for urban development. The objective is to get to know concepts for understanding, planning and design sustainable development of a region, as well as setting the scene for local projects. It does that through design research and research-through-design as research strategies to explore the possibilities and identify the potentials for multi-scale spatial development. Explorative cartography is thereby an important tool for visual thinking and communication. The regional design shapes the physical form of regions based on the physiology of the natural and urban landscape and is about creating conditions for future development. Regional design strives to accommodate development via ecological approaches which regard the landscape as a holistic and dynamic system. It establishes robust and adaptive systems in the built environment, which are open to change. In order to grow and develop such kind of systems both must persist and adapt; its organizational structures must be sufficiently adaptive to withstand challenges, while also supple enough to morph and reorganize. The design is like an open-ended strategy, aimed at guiding developments or setting up future conditions for spatial development. As such landscape-based regional design provides spatial means for urban transformation, biodiversity protection, water resource management, recreation, community building, cultural identity and economic development.

CONTENTS
The course consist of two elements:
1) Understanding the urban landscape as a complex system: The urban landscape can be understood as a multi-scale complex system composed of subsystems, each with their own dynamics and speed of change. As a system the urban landscape is a material space that is structured as a constellation of networks and locations with multiple levels of organization at different spatial and temporal dimensions. Regional design shapes the physical form of regions based on the understanding of natural and urban systems and is about creating conditions for future development. Mapping will be addressed as a tool for exploration, analysis and synthesis of these systems and to identify conditions for regional and local urban development.

2) Landscape-based planning and design strategies: Landscape-based regional design works through the scales from regional to local, from general to specific, and maintains overall continuity as well as facilitates local contingency. This offers ways of balancing out services and qualities between parts of a territory. The focus is on strategies that acknowledge the interaction between landscape processes and typo-morphological aspects and facilitate ecological, aesthetic, functional and social relationships between natural and human systems. Landscape-based design strategies include area, framework and corridor perspectives (green infrastructure). Landscape-based regional design also recognizes the collective nature of the urban tissue and allows for the participation of multiple authors. The regional design creates a directed field where different stakeholders and other participants can contribute. In that respect landscape-based regional design is a transdisciplinary effort where specializations in engineering and ecology blend with spatial design thinking but also includes the ideas and knowledge of inhabitants. As such the regional design can be considered an integrative and innovative platform that organizes physical structures (“hardware”), people and knowledge (“software”), governance (“orgware”) and their interaction through space and time at different scales.

In short: Landscape-based approaches employ research methods, spatial organization models, planning and design principles from landscape architecture, urban planning, landscape ecology and geography, but also uses insights from systems thinking and complexity theory to engage into a more comprehensive form of regional planning and design that addresses the complex webs of relationships constituting the urban landscape.

**EXPECTED LEARNING OUTCOMES**

**Learning objectives**
The student is able to:
- Identify and describe concepts and principles of landscape-based regional design as a strategy for urban development
- Discover the use of selected methods and techniques for using maps and mapping in the process of knowledge acquisition and generation of planning and design perspectives
- Apply and discuss different landscape architecture strategies for regional planning and design;

**Delivery modes**

**Teaching/learning activities**

1. Introduction lecture: backgrounds, concepts and setup (ca. 2 hours)

2. Two workshops (2 * 3.5 hours): As scheduled there are thematic workshops with an introductory lecture followed by a short assignment focussing on the application of a particular method or
The hands-on exercises are elaborated in groups of 2 or 3 students. The outcome serves as tool to evaluate and reflect on the applicability of the method or approach. Each workshops will end with a short presentation and discussion of the findings.

- Workshop I: Understanding the urban landscape as a complex system. This workshop addresses mapping as a tool for exploration and analysis of natural and urban systems. In the practical exercise overlay analysis and cross-reference mapping will be used to explore the study area.

- Workshop II: Landscape-based planning and design strategies. In this exercise the application of framework and corridor approaches for spatial development of the study area is practiced, on one hand by developing an initial long-term regional strategy, on the other by identifying short-term local design interventions. For the relevant stakeholder will identified.

3. Student presentation/feedback (ca 2 hours): Student present the refined results of the two workshops by means of two posters + oral presentation (max 15-20 minutes) reflecting on the findings and the lessons learned

**Time planning**
- Monday afternoon: intro lecture
- Tuesday workshop 1
- Wednesday workshop 2
- Friday morning: student presentations

**TEXTS, READINGS, HANDOUTS AND OTHER LEARNING RESOURCES**

**Preparation**
- Collecting relevant regional maps (relief, water, urban tissue, networks, land use, etc.) and information on the study-area (to be determined).
- Bring drawing materials and computer

**Reading list**
Tentative reading list will be provided in advance