New initiatives in landscape architecture: inclusion of ecological principles in herbaceous planting design

Landscape architecture is about solving specific solutions for green spaces in an artistic way, based on knowledge from ecology, sustainability, social needs and materials. Central in landscape architecture is planting design. Theories from plant ecology are used to investigate how species should be composed to be sustainable plant communities. Specifically theories concerning community structure, species combination, susceptibility to invasion and the mechanism that control community development through time and space. This is a new interdisciplinary approach to planting design between professionals in landscape architecture, plant ecology and horticulture. A mutual understanding between these sciences is crucial to a successful research. For landscape architects it will be a renewal to collaborate with plant ecologist and botanists, using their knowledge on species and plant communities as a scientific foundation. This approach will expand the understanding and perception of the single species and its use among the involved professions. Especially deeper understanding of a species ecological habit, aesthetical value, tolerance and competition is wanted. Also knowledge on community design and establishment is wanted especially concerning low maintenance cost without compromising high aesthetical quality, dynamic species combinations and diversity. The landscape architect needs concrete tools and knowledge databases to consult in her job.