Mapping landscape architectonic compositions with GIS

*Stourhead as a case-study*

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Mapping landscape architectonic compositions with GIS

Subject:
Mapping landscape architectonic compositions by means of GIS-based methods and techniques

Aim:
The aim is to describe and explore the possibilities of GIS-based mapping of landscape architectonic compositions as vehicle for acquisition of spatial design knowledge

Description:
This study regards GIS as a digital tool that provides new ways of modeling, analysis and visual representation of landscape architectonic compositions to acquire spatial design knowledge

The emphasis is on GIS-concepts/tools for the analysis, simulation and evaluation of the landscape architectonic design ‘from the inside out’, as an observer moving through the space
Research: critical information-oriented case

Architectural landscape;
Stourhead landscape garden,
Wiltshire UK;

Views and sightlines planned combining formal, transitional and progressive elements. The composition incorporates the concepts of visual perception: organisation of visual logic, space-making, composing views and the control of movement

Source: Nijhuis
Architectural landscape: the Stourhead-case

Digital landscape models of Stourhead landscape park

Source: Nijhuis
Architectural landscape: the Stourhead-case

3D visibility analysis (eye-level) of composed views
Development of relative space visibility (4D: space and time) following the main route

Source: Nijhuis
Architectural landscape: the Stourhead-case

The shape of a walk: 4D-analysis (space + time)
Architectural landscape: the Stourhead-case

Evaluation of the perception of space

Contemporary maps and images

Crowd sourcing: geotags

Source: Nijhuis
Example urban landscape: Venice

Exploring the architectonic quality of Piazza San Marco
Example urban landscape: Florence

Examining the visual dominance of the Cupola

Source: Nijhuis
Example urban landscape: Florence

GISc-based 3D print + projections
Example cultural landscape: Noord-Holland

Visual landscape character assessment polder landscape
Cultural landscape: the Noord-Holland-case
Contributions to academe

Research
Scientific development discipline

Education
Teaching

Service
Knowledge transfer + applications

Academy
Society

Adapted from: Milburn et al. 2003
Contributions to academe (selection)

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