M1

Landscape Modelling

James Yeo

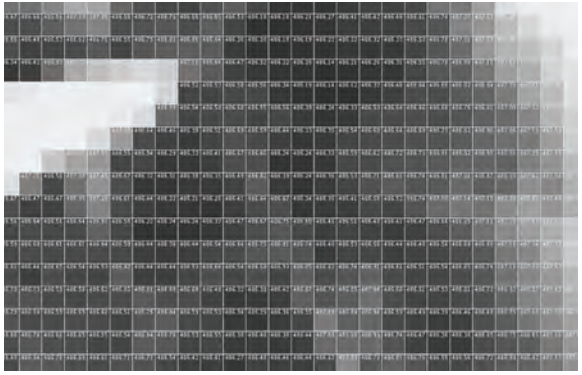
The course focuses on acquiring the necessary skills to model, analyze and produce topographic models in the design process. Both analog and digital techniques are used ranging from intuitive sand modeling to precise digital analysis. Starting with the first, students learn how to capture these models in 3D and continue their topographic model digitally. Computer modeling techniques are then used to output their models on the various CNC machines available. Various other possibilities for topographical modeling are also explored: for example showing the design process over time. The end result permits the integration of modeling in the landscape design process, not just for final presentations but as a dynamic modeling, verification and rapid prototyping tool.

M2

Analyse/ Data capturing

James Melsom
Matthias Vollmer

The course aims to empower the landscape designer with the tools of the surveyor - using Terrestrial Laser Scanning and Photogrammetry to capture the site, and allow deeper site understanding and analysis. The module shall introduce the combination of various site-data sources, such as GIS, photography, point-clouds and atmospheric data, and combine various software packages to allow the practical application of the data to project-oriented outcomes. An emphasis on flexible and non-destructive workflows allows designers and collaborators to analyse and reinterpret the landscape site, preparing the way for an empowered design process, with understanding of the historical, cultural, and spatial ramifications of landscape intervention.

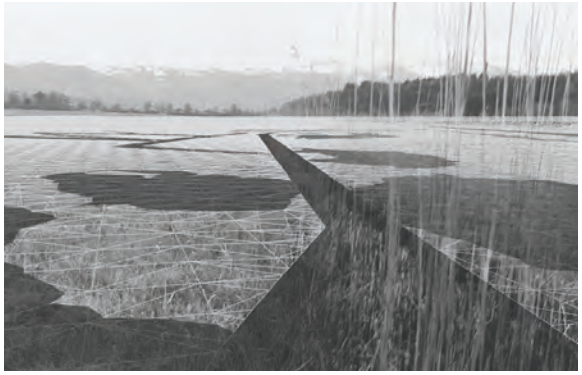


M3

Programming Landscape

Pia Fricker
Georg Munkel

The module uses the programming language “Processing” to introduce students to the principles of parametric design. Through several exercises which complement each other and a lecture series with guest speakers, the possibilities of ‘programmed design’ are learned and discussed. The goal is for students to recognize and define starting points for programming in a design. “Processing” is especially appropriate for integrating teaching and research. It was developed from a continuously growing group of people at MIT’s Media Lab and made available to the open source community. As a result, “Processing” allows ideas to be realized and prototypes to be created efficiently. Its procedural introduction makes it easy to master, giving the chance of a steep learning curve.



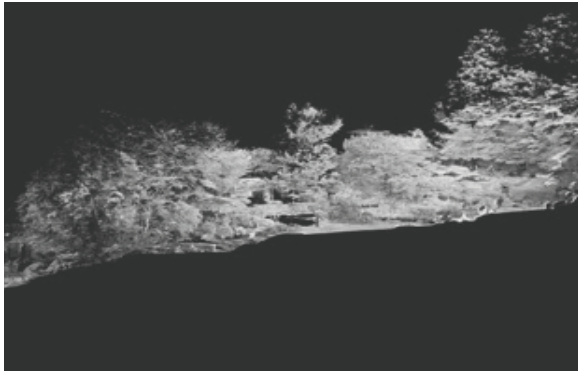
M4

Applied Programming

James Melsom

Guest:
Luis Fraguada

The second modeling and visualization unit works with various tools to supplement the possibilities for site interaction, modeling terrain and parametrizing the generation of landscape systems. The unit begins with the use of navigatable 360 degree panoramas, which can be used to document existing site elements, or present site changes. RhinoTerrain and Grasshopper form the core of the module, in which external data and editable parameters can be implemented to generate diverse landscape solutions. After an introduction to the possibilities within Grasshopper, the students each develop their own application to landscape generation and design. The final research explores existing landscape projects in which modes of working and possible landscape design workflows are proposed.



M5

Points and Pixels

Matthias Vollmer
Johannes Rebsamen
Guest:
Pascal Werner

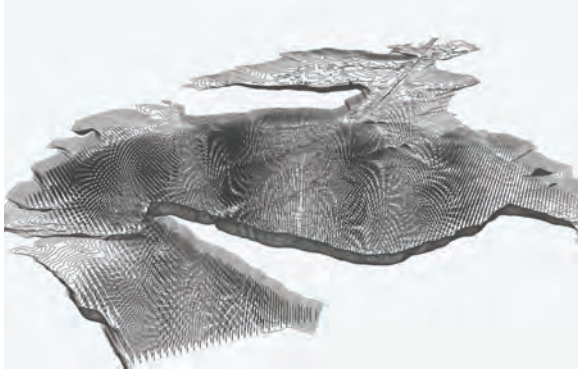
As a second step after the data capture and processing of module two, this module shall give the students the possibility to reveal their very personal view on the site. A way to express and discuss their perception of the landscape with all it's features. In the last part, we will add the students projects to create unique view of the site and a way to present the ideas and goals of every design

W1

Design

Frédéric Rossano

By combining analytical research, playful design exercises and film projections, we are stimulating ideas for landscape interventions to be further developed during the ongoing MAS LA year. Through a diachronic quick-scan of the site, different speeds of human motion and natural processes are integrated into a dynamic and holistic vision of this complex landscape. Out of these physical, narrative, and time-based investigations, intentions eventually emerge that lead each participant to a specific landscape strategy and intervention proposal addressing both the current site's conflicts and the long-term processes that need to be taken into account in solid sustainable design.



W2

Visualization

Philipp Urech

The visualization module addresses techniques about how to generate and represent vegetation, ground cover and landscape elements in relation to the topology of the site. The course will allow the planners to deepen their design further and to test various aspects such as scale, spatial qualities and topological modulation. Planting plans analysed and developed hitherto in 2d will be investigated in perspective, describing the scenography and patterns of vegetation of the design. Spatial qualities and ambiances will be supported by choices made in the materiality of the surfaces, soil (soft and hard ground) and vegetation (species, arrangement and integration with the surroundings).

W3

Design/Sandbox

Ilmar Hurkxkens

Starting point of the workshop will be your preliminary topographic design. From here, various alternate modulations will be explored in the sandbox. The chosen medium allows for quick topographic sketches that will be captured into a 3D model and critically examined for drainage, water levels and sculptural expression. This hands-on approach combines both manual and digital instruments as a speculative design tool to construct a precise landscape topology.

W4

Scenography

Pia Fricker
Magdalena Kaufmann
James Yeo
Guest:
Martin Burr

Questions like “How can we shape landscape? How can we form our virtual environment?” and “How can we visualize different atmospheres and time frames?” are addressed, discussed and tested through the integration of state-of-the-art visualization technologies. The challenge of the workshop is to explain the concept of the ongoing final synthesis project by visualizing a storyline and capturing a specific atmosphere within the given site.

W5

Theoretical Programming

Pia Fricker
Georg Munkel
Guest:
Karsten Droste

The overall objective of this workshop is the critical reflection of the implementation possibilities of programming within the context of the landscape architect's day to day work. From our experience, these projects often fail due to misunderstandings and wrong expectations from both the landscape architect and the programmer. In order to make a convincing appearance in the professional context, it is necessary to be able to speak the language of the other profession. Through various exercises, techniques are presented which can help overcome these hurdles.