

Information Architecture

Fridays 13:00 – 16:00

051-0726-13 U 4 ECTS*

Visualize ComplexCity

Data is beautiful! With this in mind, students learn how to visualize information. Presenting information in an understandable way has the potential to enhance the design process considerably, especially in the concept phase.

The students will learn how to visualize urban-related data in a meaningful way using Blender and Python. The goal is to make raw data visible by the generic means of program code (Python). The resulting visualizations will be incorporated into urban video footage by using animation and rendering tools of Blender.

The weekly course “Visualize ComplexCities” investigates the potential of the visualization methods provided by Blender for urban design challenges. The final presentation of the student works will take place in the Value Lab.

The course will start on February 11th with an intense block course on the basics of Blender. You will learn how to animate, model, texturize, render. Furthermore we will have a look into motion tracking, the compositor workflow and the game engine of Blender. The aim is to know the software before we start scripting with it.

The case study area is Zurich. You will create video footage of an neighborhood that corresponds with your data and merge them together using Blender and Python. No previous programming knowledge is required.

Where: HIT H12

When: **INTRO WEEK from FEB 11 to 15**, Fridays 13:00 - 16:00

Supervision:

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- 11.02.2013 - **1 WEEK: Blender Introduction (& Basic Film Cutting)**
Animation, Modelling, [ShapeKeys, DupliFrames, Drivers]
15.02.2013 Textures, Rendering, Compositing, Motion Tracking, Film Cut
- 22.02.2012 **Programming Language: Python Syntax**
Overview: From Bits & Bytes to Language: Variables, Arrays/Lists,
Loops: rules to make humans and machines understand each other
- 01.03.2013 **Data Organization & Algorithms & Blender**
Object oriented vs. procedural, simple programming patterns, recursion, Fibonacci & sorting algorithms, shortest path
- 08.03.2013 **Space Syntax**
From shortest path to space syntax: implementation in Blender and Python
- 15.03.2013 **Segregation & Distribution Models / Open Data**
Modeling of social segregation in Zurich
- 22.03.2013 **Seminar week**
- 29.03.2013 **Good Friday**
- 05.04.2013 **Spring Break**
- 12.04.2013 **Visualization Development**
Finalize your idea / rendering
- 19.04.2013 **Visualization Development**
Finalize your idea / rendering
- 26.04.2013 **Visualization Development**
Finalize your idea / rendering
- 03.05.2013 **Final presentation of student works in the Value Lab**

* 90 h = 3 ECTS, 30h intensive week = 1 ECTS

The most recent outline will be found on the website of the Chair for iA.