Digital Design Methods I (2022F)
Institute of Landscape and Urban Studies (LUS)
D-ARCH, ETH Zurich

Assignment 1

`Digital Design Methods I`

OVERVIEW

Following the studio and the soil physics lectures, you should have learnt enough knowledge about enough knowledge of soil contents and textures. By understanding the soil legend, you should have manually constructed a complete soil profile drawing based on the soil profile information provided.

For the DDM-I course, you're asked to use what you learned in the first two Rhino sessions to complete a soil profile drawing of your given information in *Rhino*.

ASSIGNMENT

You should complete this assignment in three major consecutive steps:

1. Draw a series of 'triangle units' describing each of the horizons of your soil profile (you should define the density of the organic matter range so that it can be interrupted from the series).
2. Draw one selected horizon (by you) of your soil profile with the correct ratio of the three types of triangles, and fill the triangles will organic matters. The minimum number of triangle layer in each horizon is 2.
3. Compose all the horizons you have drawn into one complete soil profile.

The following Rhino commands should help you with this assignment: 1) `Polygon`, 2) `Offset`, 3) `Line`, 4) `Rotate`, 5) `Divide`, 6) `Trim`, ...

INPUT FILE

- `Assignment_01.pdf` (this file)
- `baseDrawing.3dm`

SUBMISSION

This assignment is a joint assignment with the design studio, and students will be evaluated on the completeness and quality of their submissions.

DEADLINE

- 16/10/2022

Submission(s) beyond the deadline will not be counted.

FORMAT

Please submit a `.pdf` file and the corresponding `.3dm` file to the submission on the server:
`\\nas22.ethz.ch\arch_lus_mscla_student\5_HS_22\02_DDM-I\90_Submission\AS_01`

The naming of the submission file should follow: ***LastName_FirstName_AS01.xxx***