



„PIXEL, POINT, PRINT“

.161.514 SE Workshop 2
.Seminar SS22

UTILIZING 2D IMAGES AS A MEDIUM FOR THE
MANIPULATION AND MATERIALIZATION OF 3D
SHAPES

^(en) *In recent years there has been an increasing focus on 3d point clouds in architectural design processes. Due to their lightweight representation and the availability of 3d capturing devices and processing tools, 3d point clouds have become a powerful geometry class for representing physical spaces, objects and concepts. While the benefits of using point cloud visualization are established, design methods with point clouds and their physical materialization remain underexplored.*

The workshop will establish an interplay between points, pixels and prints, by utilizing 2d images as a medium for the manipulation and materialization of 3d shapes. Together we will test workflows, where we utilize point clouds to encode complex 3d models into 2d pixel plots. The resulting images will be used as input for 3d printing. The goal is to explore traditional image editing techniques as a design tool for the generation and production of new 3d shapes with discrete qualities.

By the end of the week, you will be familiar with techniques that allow you to encode 3D point clouds to exciting, high-res 2D pixel plots. Additionally, you will gain knowledge about clay printing/modeling with different material properties. The workshop is a collaboration between i.sd Innsbruck and TU Graz.

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