

# 3D MODELLING OF PÁTKA RESERVOIR AND SURROUNDINGS

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# STUDY AREA – PÁTKA RESERVOIR

- ✓ *The Pátkai reservoir is one of the largest artificial lakes in Hungary. It covers an area of 130-312 hectares, depending on the water level, and is fed by the Császár water, which flows near the village of Pátka, and the Rovákja stream, which flows through the village. Due to droughty weather in recent years and the low water level of Lake Velence, the Pátka reservoir is operated at the minimum operating water level.*

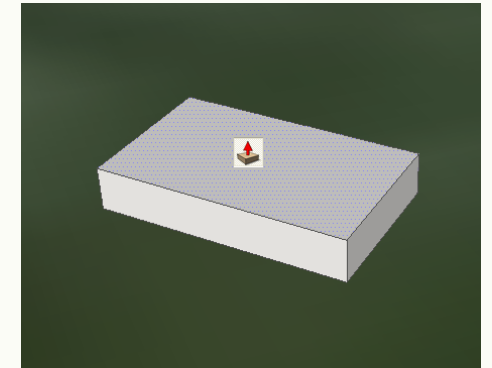
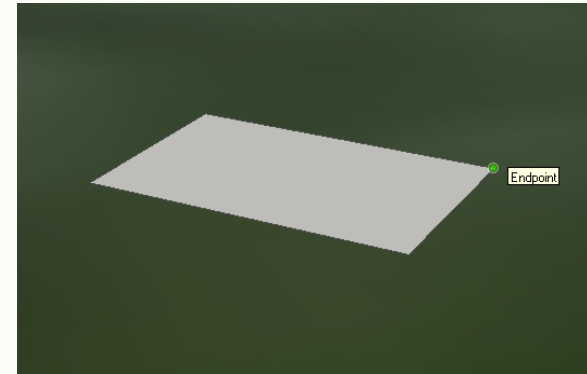
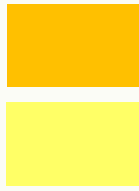


# MODELLING IN SKETCHUP

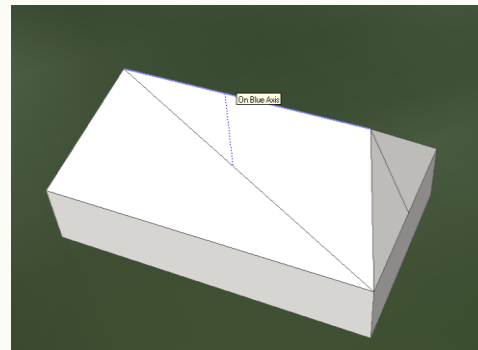
We chose a model detail that gave the smallest, most lifelike model. We also aimed to get the most beautiful result with the least amount of work and the most efficiency. We chose the number two of the LoD levels.

We needed to create:

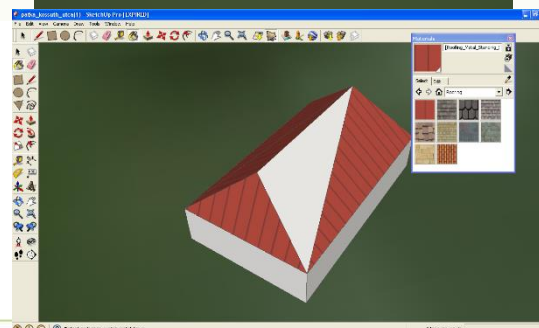
- roofs,
- a floor plan model,
- walls,
- simplified textures.



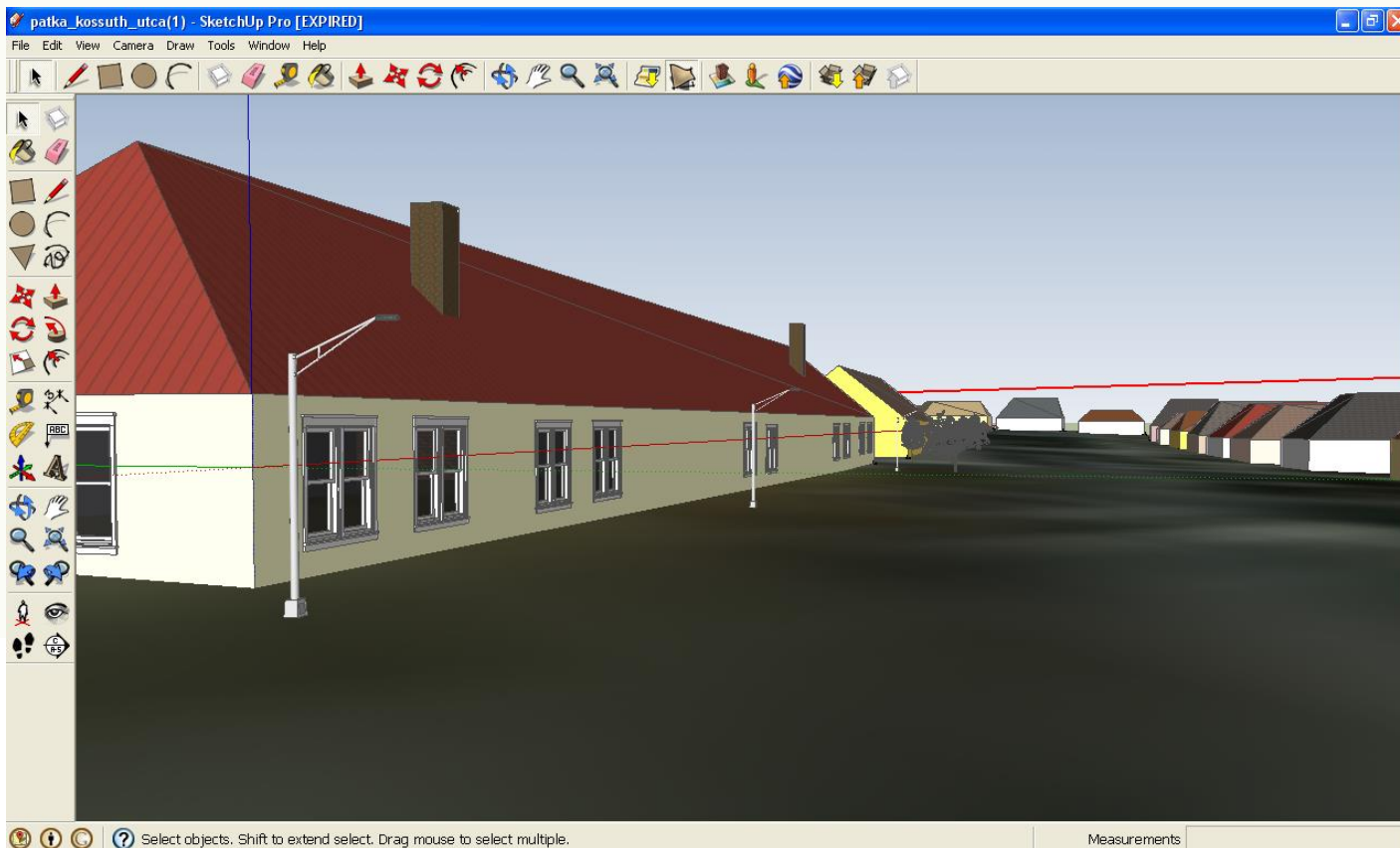
Drawing the foundations of a house, specifying the height of the house



Drawing the roof and texturing

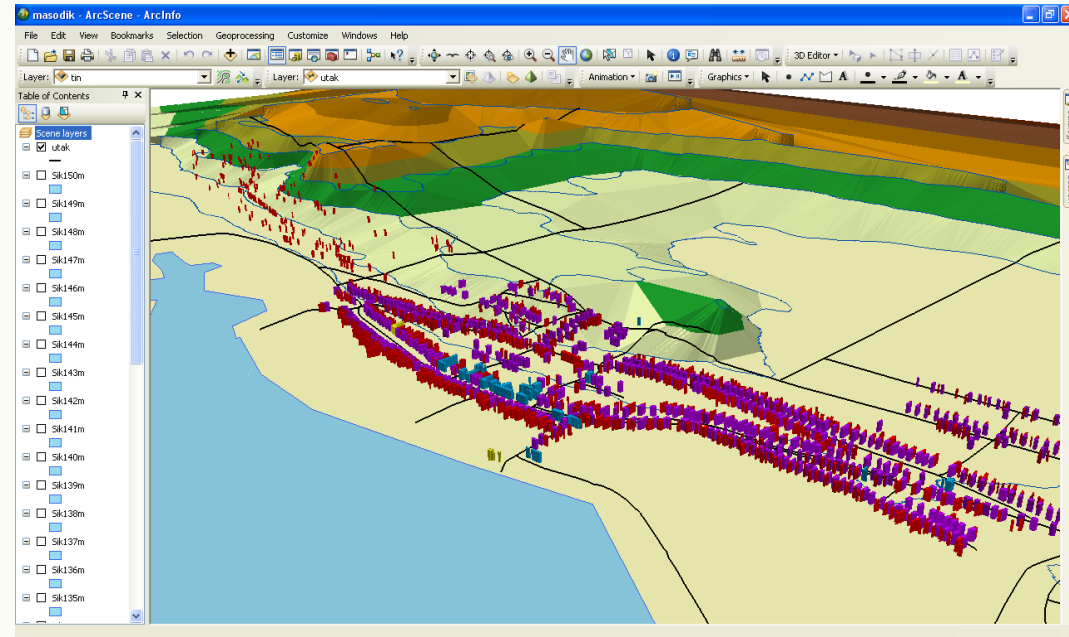


# THE 3D MODELL



# MODELLING IN ARCGIS

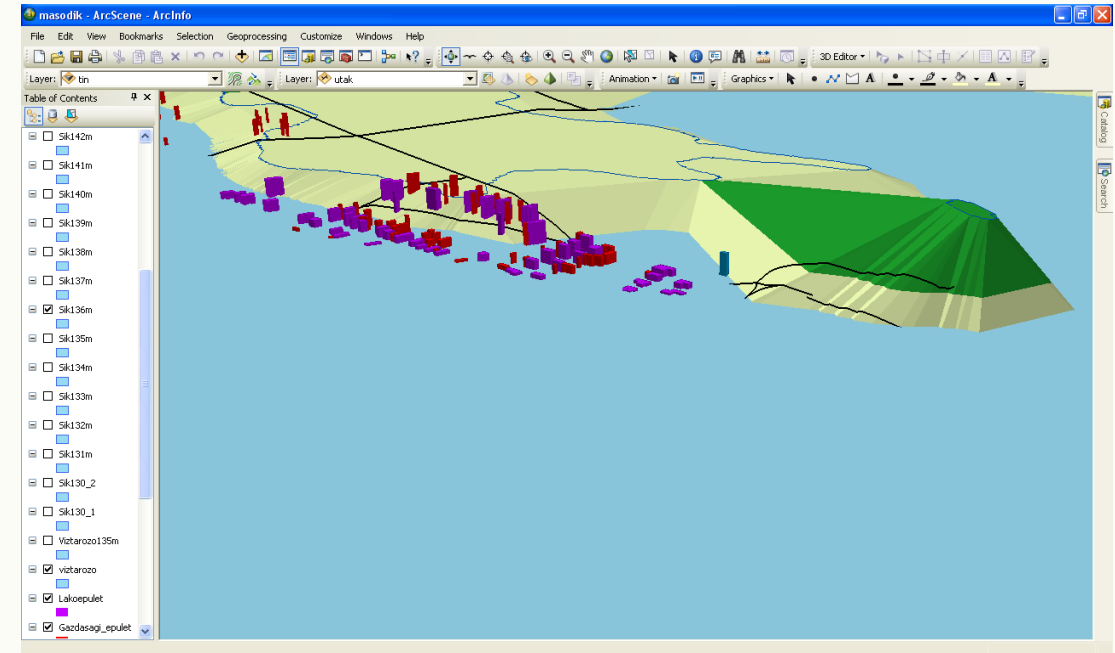
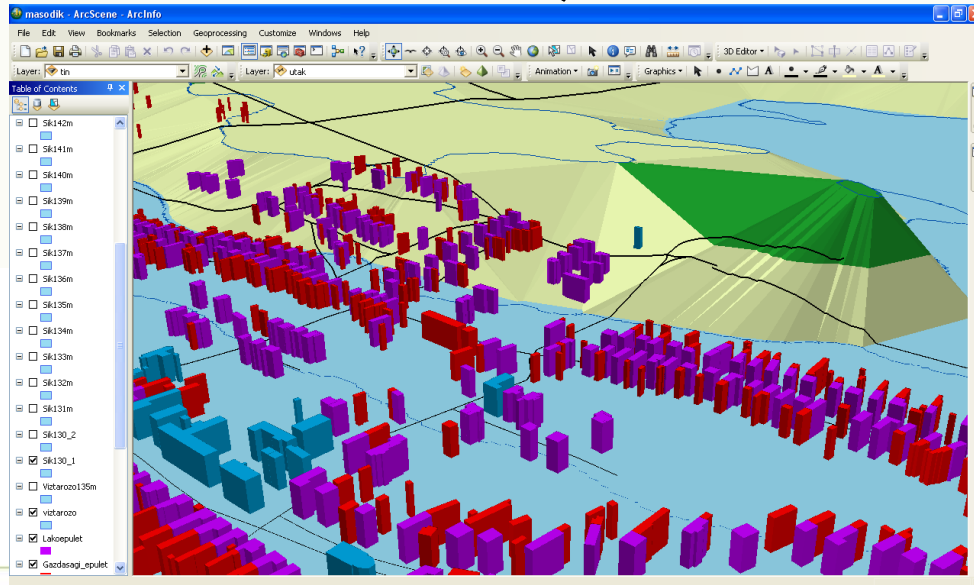
- (1) Creating TIN model;
- (2) Adding road network and other data;
- (3) Defining different water level





# MODELLING IN ARCGIS

- (1) Creating TIN modell;
- (2) Adding road network and other data;
- (3) **Defining different water level (+1m, +6m)**



# Acknowledgement

We express our acknowledgment to the Bilateral Chinese-Hungarian Project No. 2019-2.1.11-TÉT-2020-00171, the project title is “Investigation of the characteristics of surface shapes in rural environment based on point clouds and remote sensing data”.



**Investigation of the  
characteristics of surface  
shapes in rural environment  
based on point clouds and  
remote sensing data**

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Chinese Academy of Sciences

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**THANK YOU FOR YOUR ATTENTION!**

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