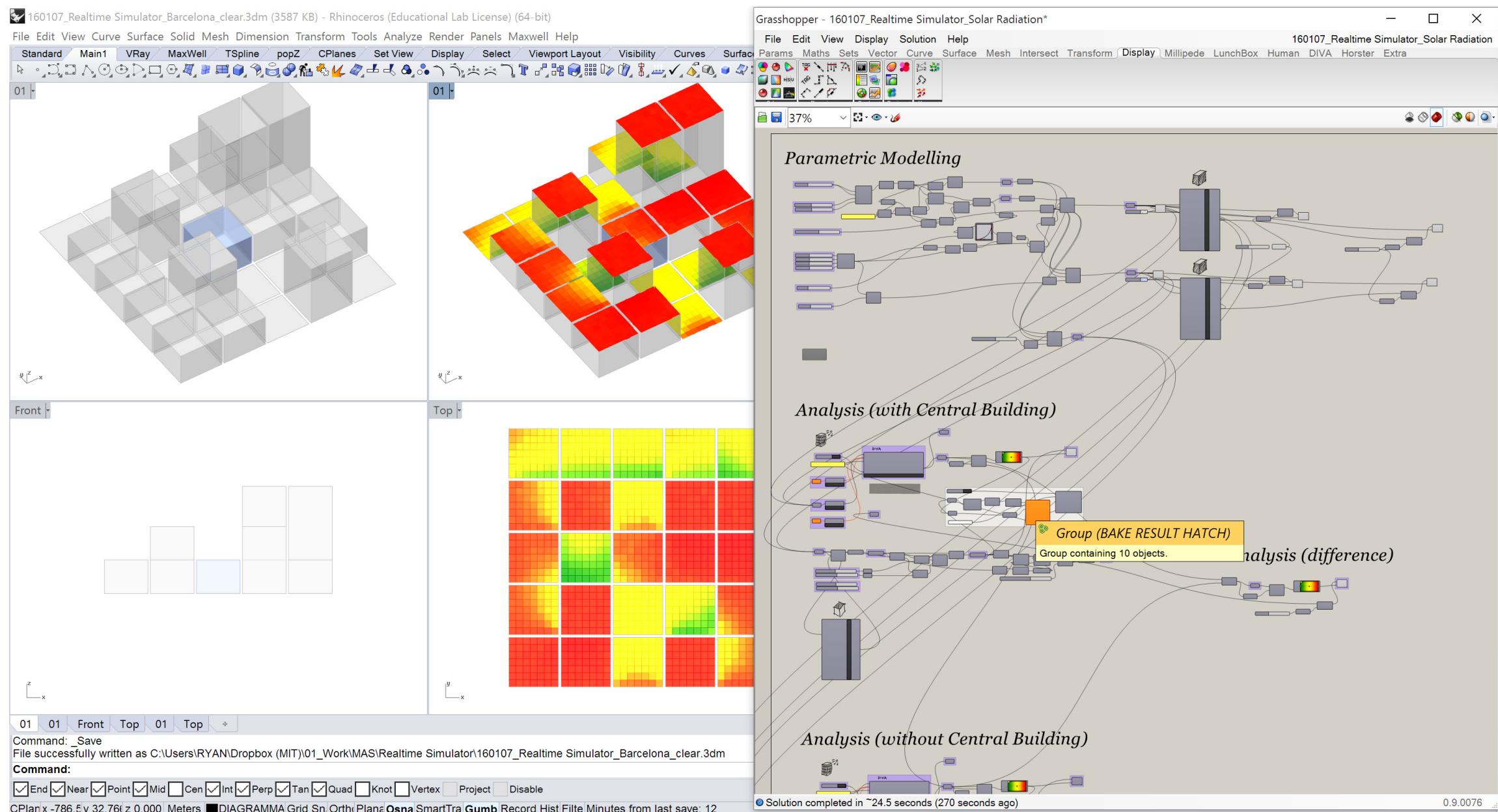


Machine Learning for Real-time Urban Simulation - Sample Training Dataset Generation

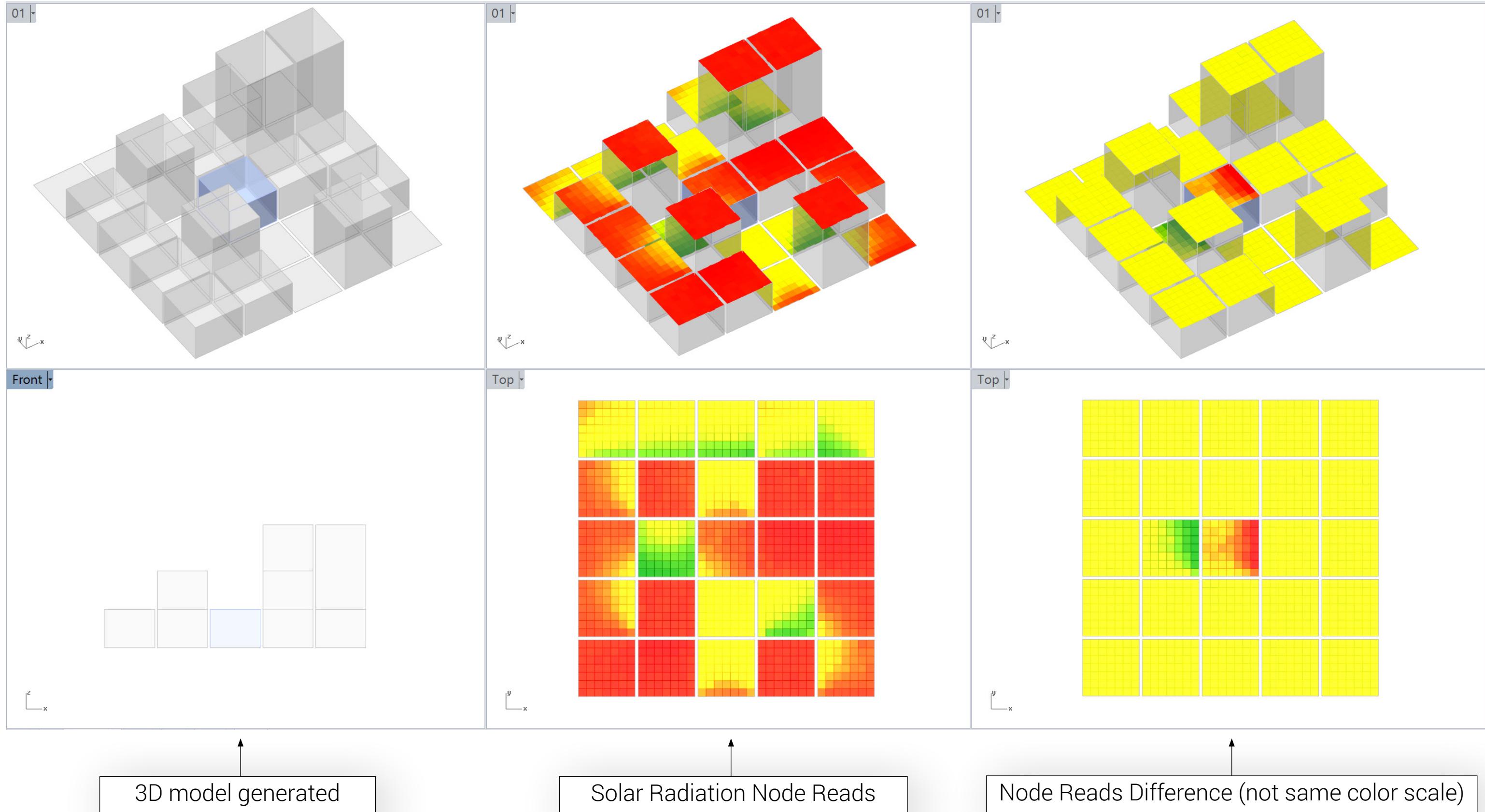


Six different 3D model viewports show the result of the Grasshopper modelling and simulation:
 Left two: axon view and front view of 3D model generated
 Middle two: color coded model shows result of node reads of the solar radiation simulation
 Right two: color coded model shows the node reads difference between the simulation of with and without the central building

Grasshopper script to generate random height context buildings, to run solar radiation simulation twice (with or without central building), and to export the input data (building height) and the output data (simulation result reads of roof analysis nodes, and the reads difference between with or without central building scenarios).

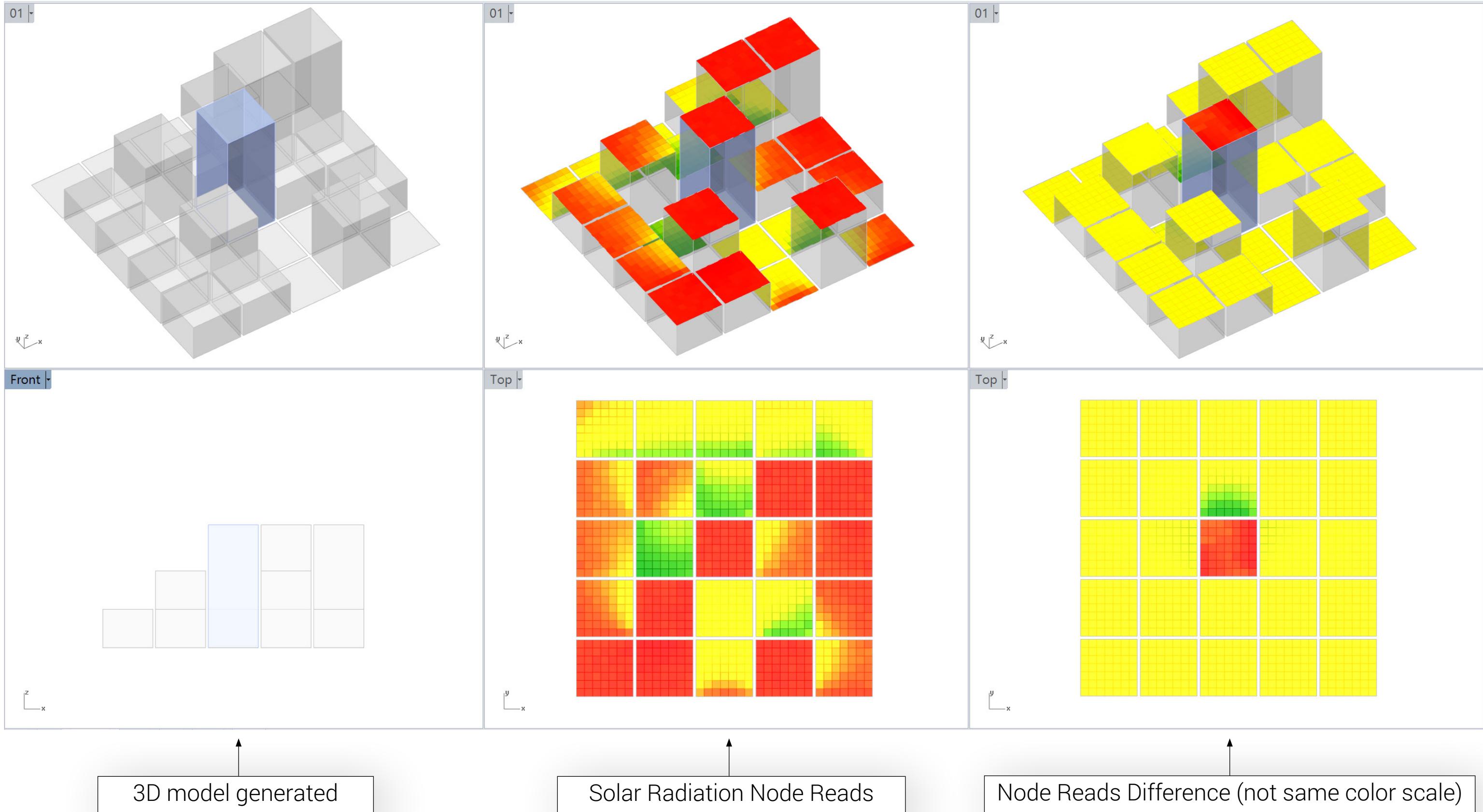
test 001:
model generating random seed = 0;
central building height = 25 meter.

Dataset file:
test001.txt



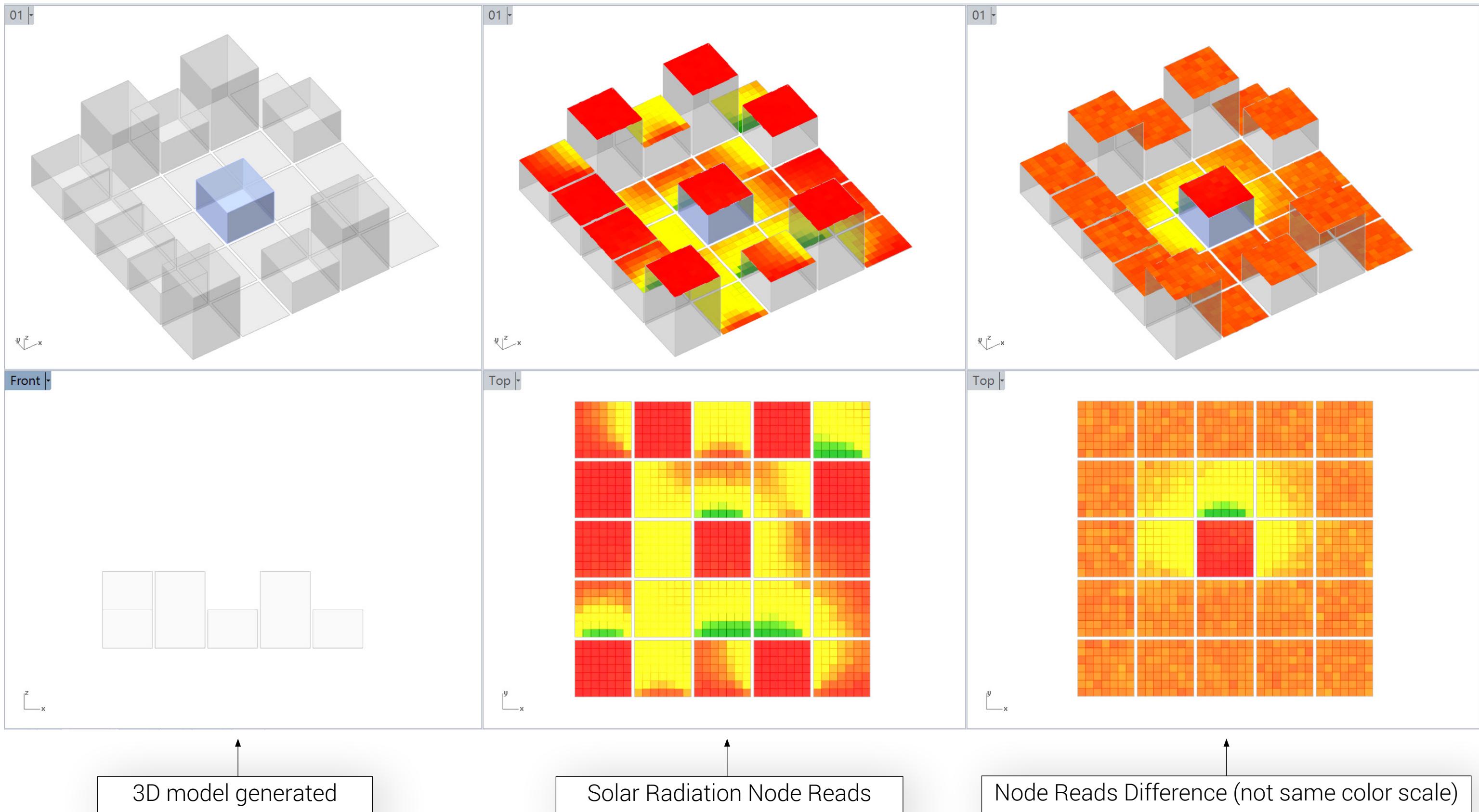
test 002:
model generating random seed = 0;
central building height = 80 meter.

Dataset file:
test002.txt



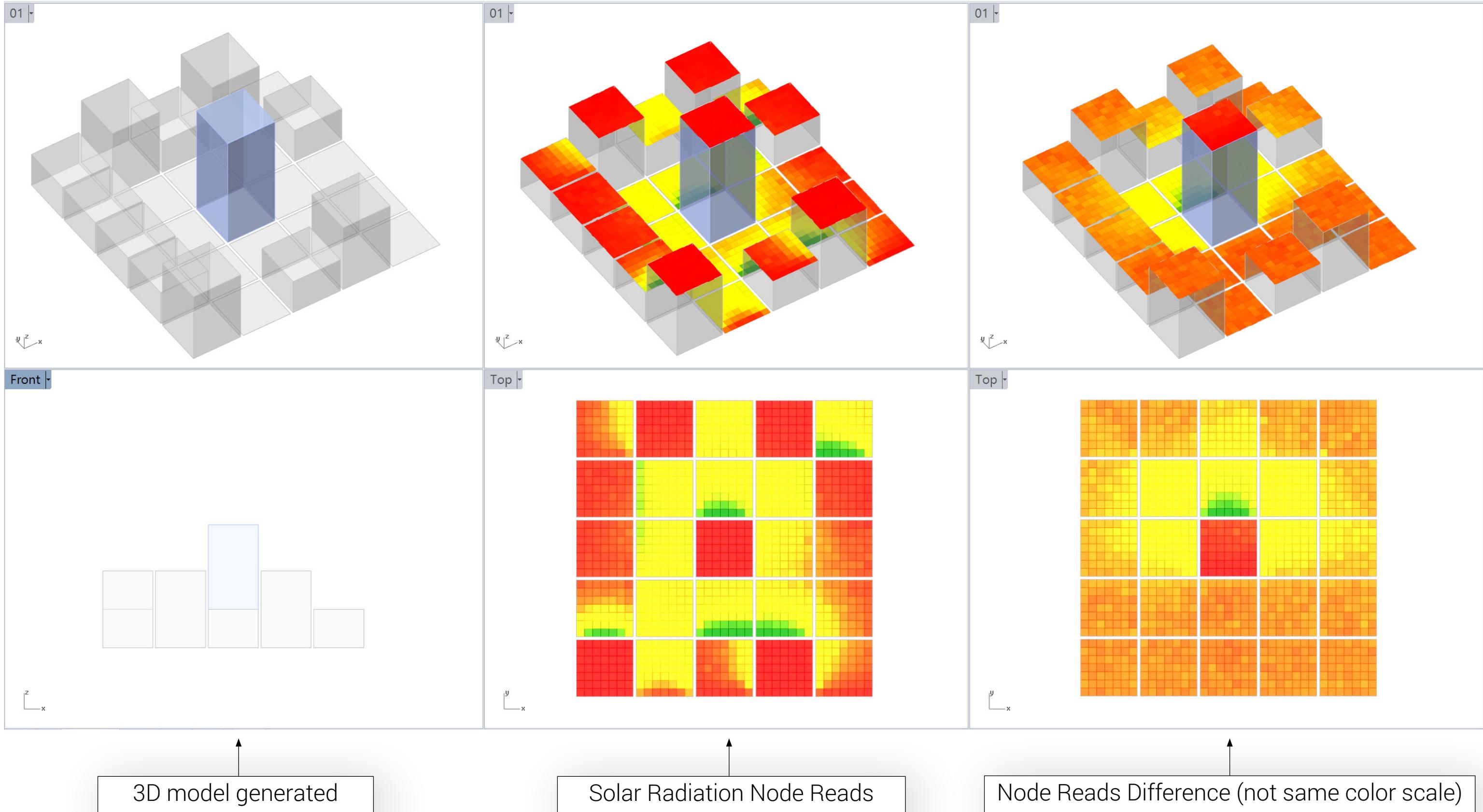
test 003:
model generating random seed = 10;
central building height = 25 meter.

Dataset file:
test003.txt



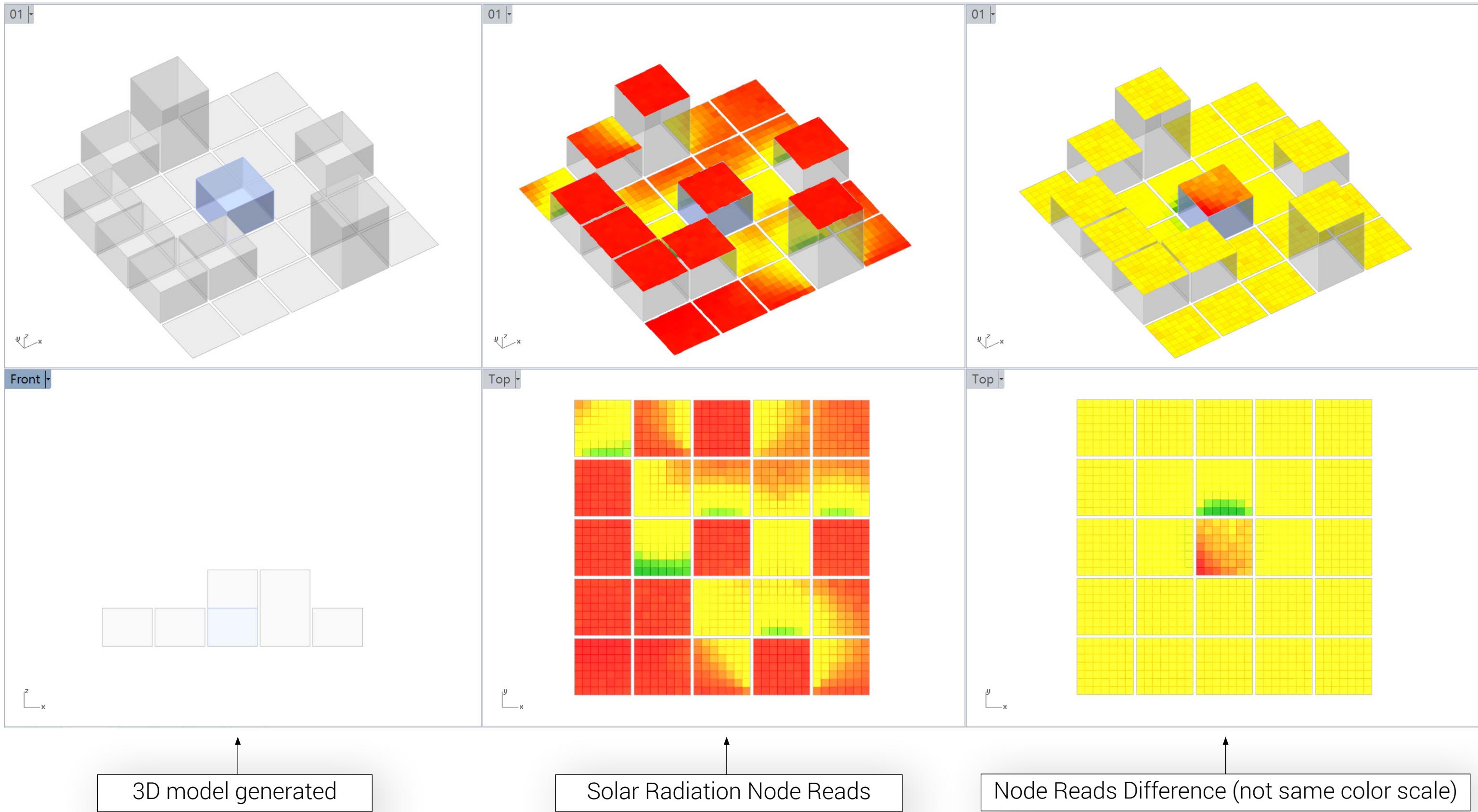
test 004:
model generating random seed = 10;
central building height = 80 meter.

Dataset file:
test004.txt



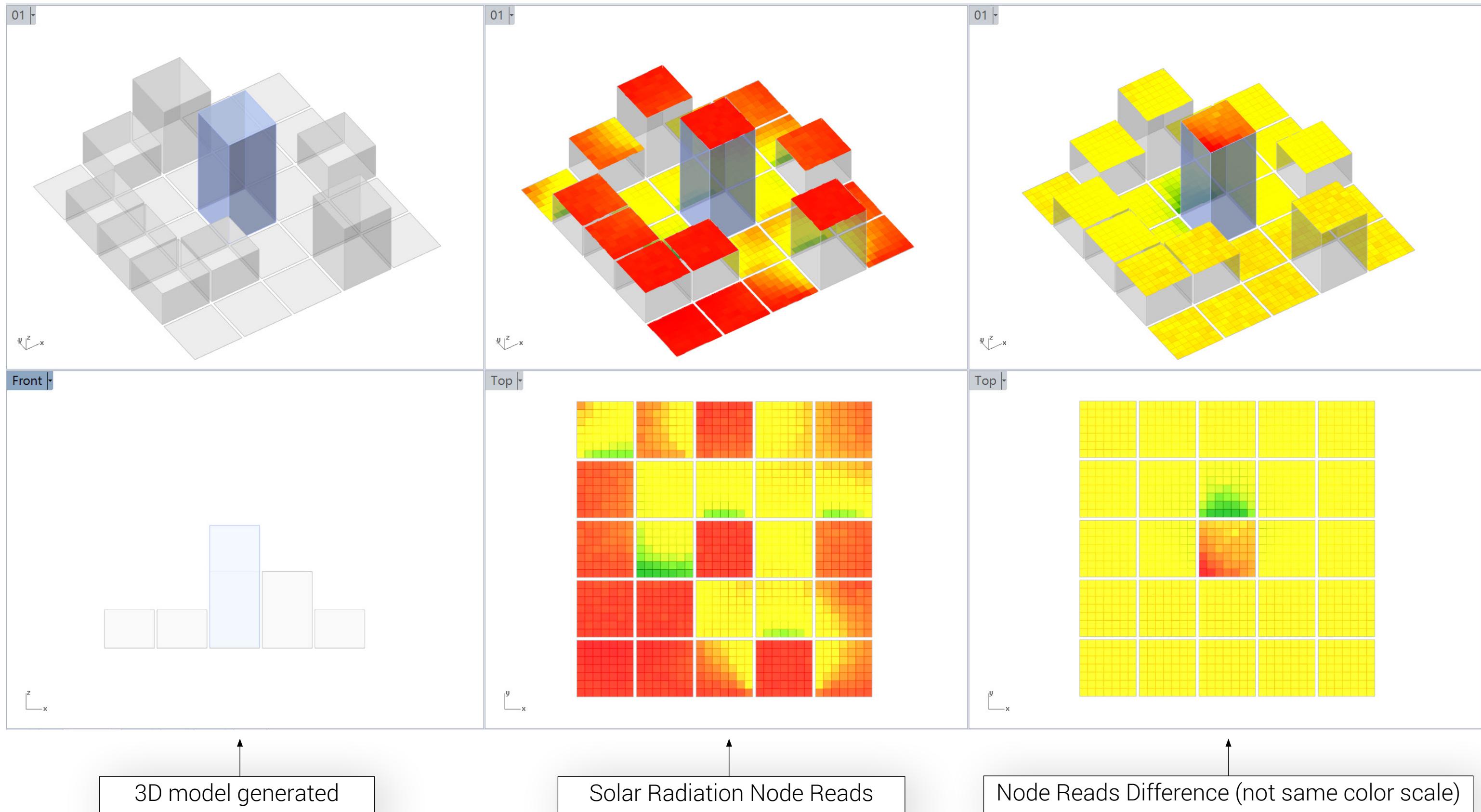
test 005:
model generating random seed = 20;
central building height = 25 meter.

Dataset file:
test005.txt



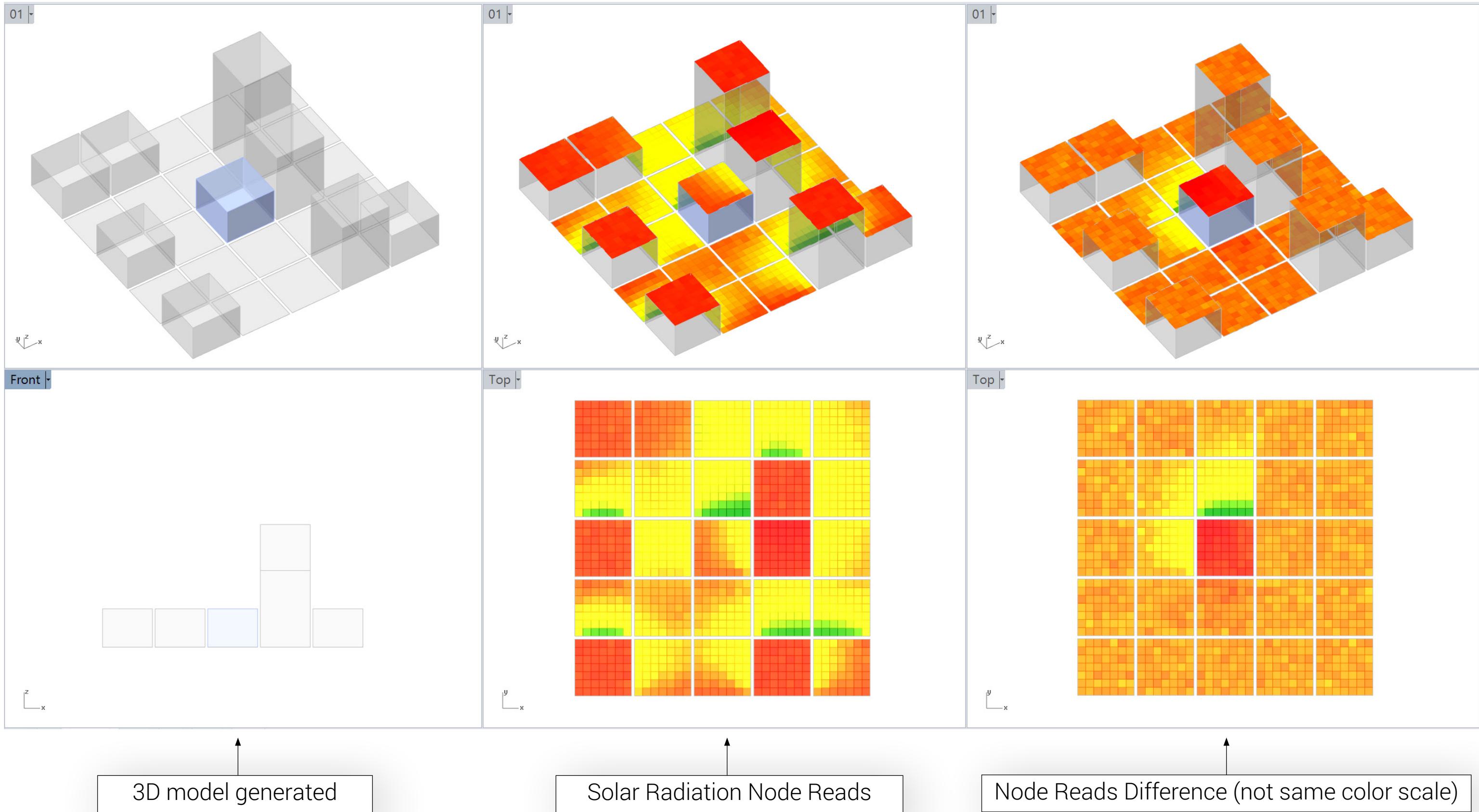
test 006:
model generating random seed = 20;
central building height = 80 meter.

Dataset file:
test006.txt



test 007:
model generating random seed = 50;
central building height = 25 meter.

Dataset file:
test007.txt



test 008:
model generating random seed = 50;
central building height = 80 meter.

Dataset file:
test008.txt

