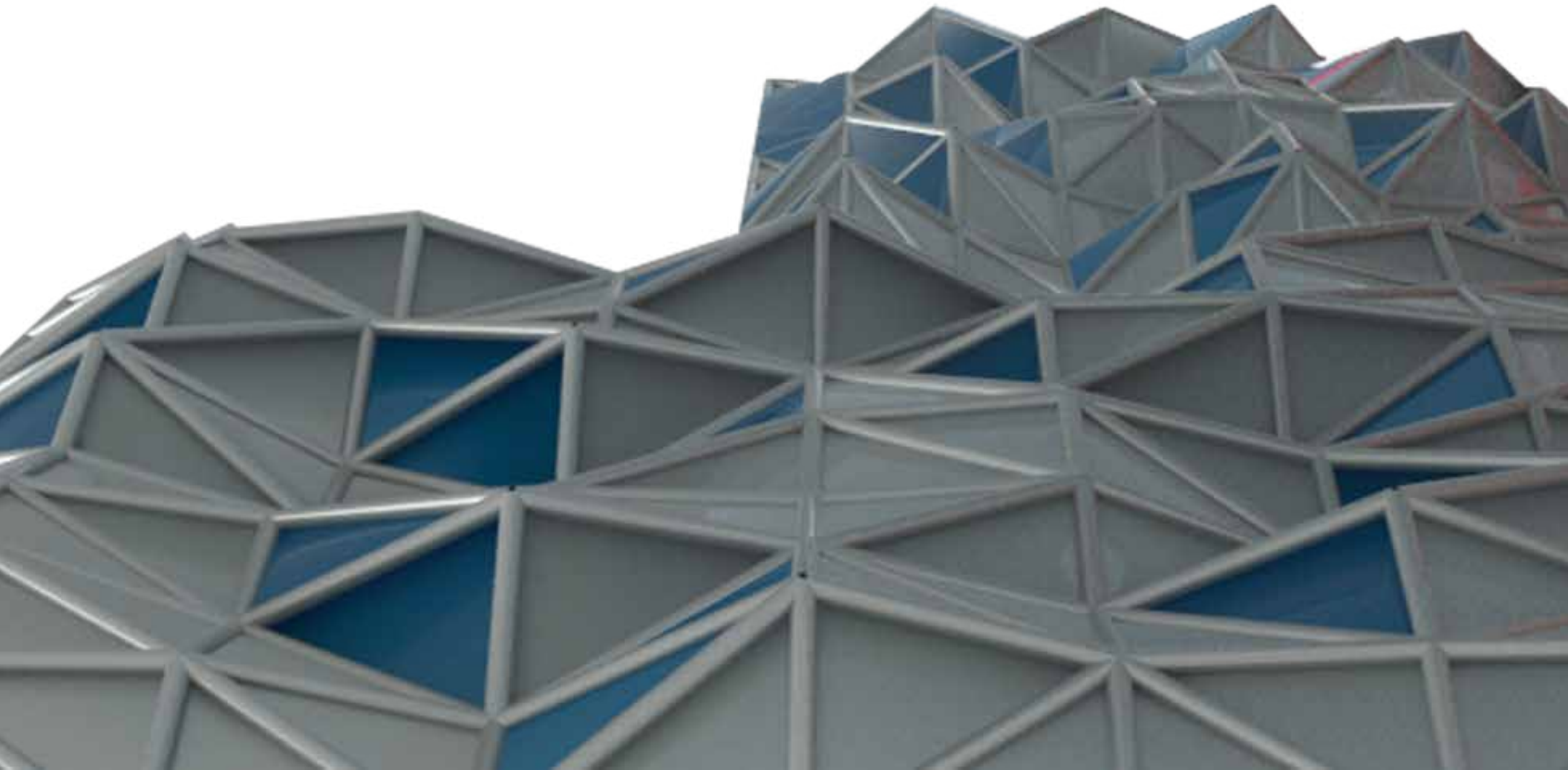
Shape Up
GENETIC OPTIMIZATION

COMPUTATIONAL DESIGN

SUJAL KODAMADANCHIRAYIL SURESH

TUTORS
RODRIGO AGUIRRE
ALDO SOLLAZZO

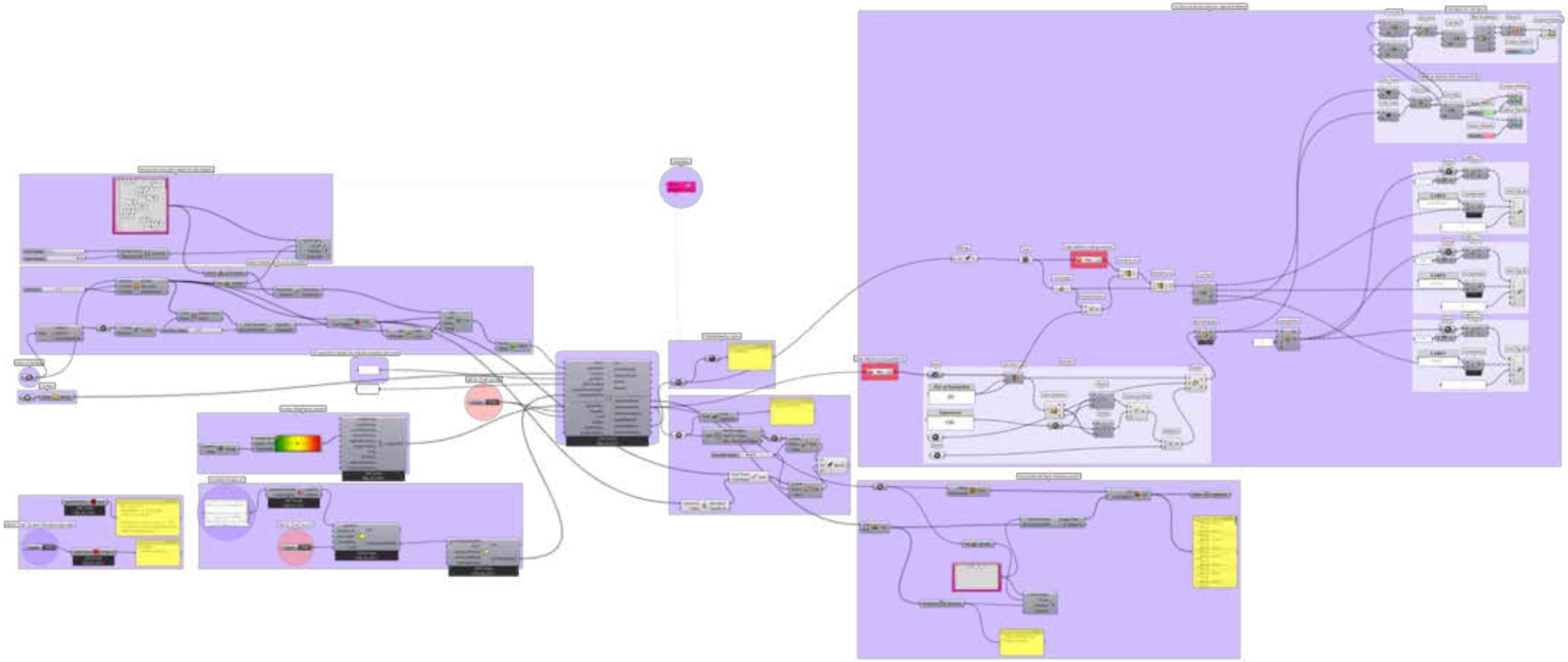


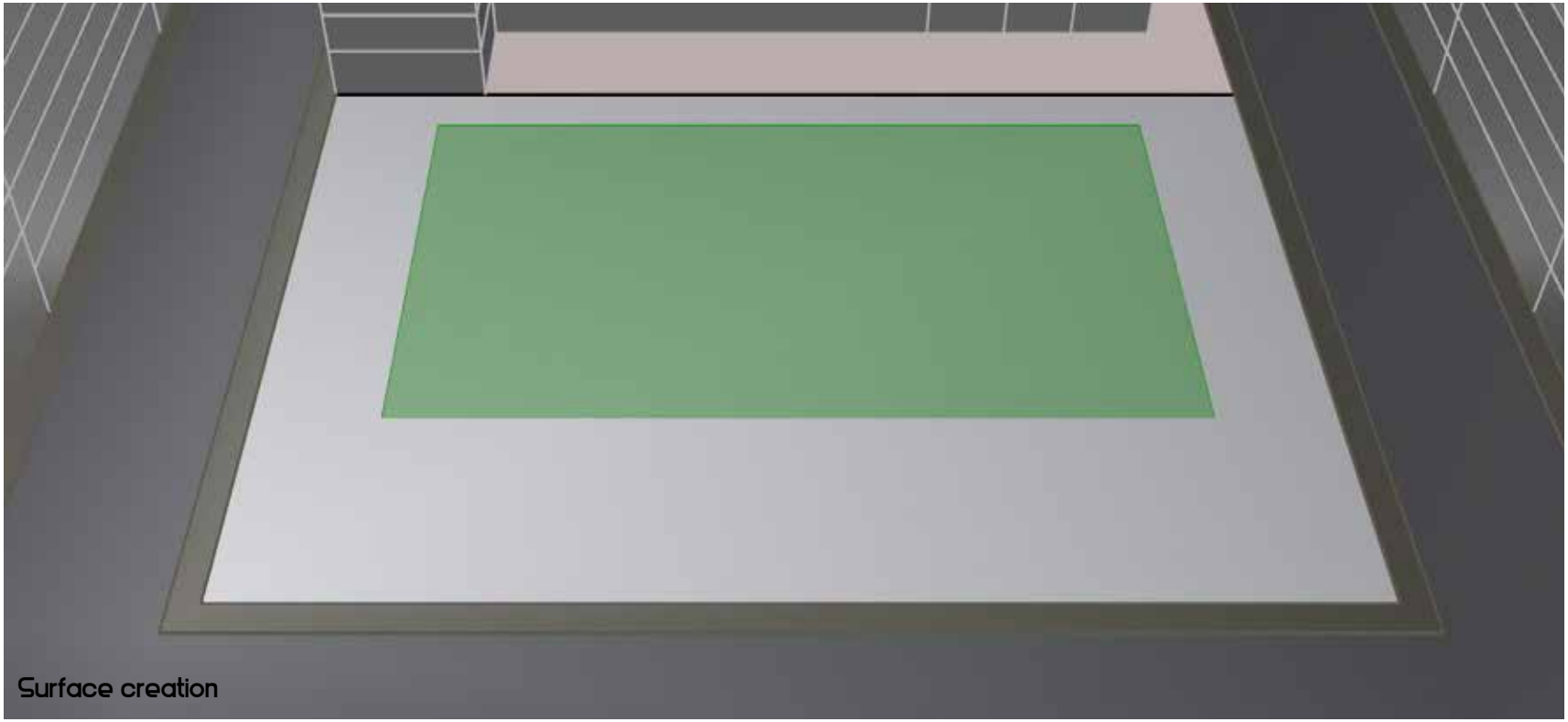
Grasshopper Script

Mesh creation

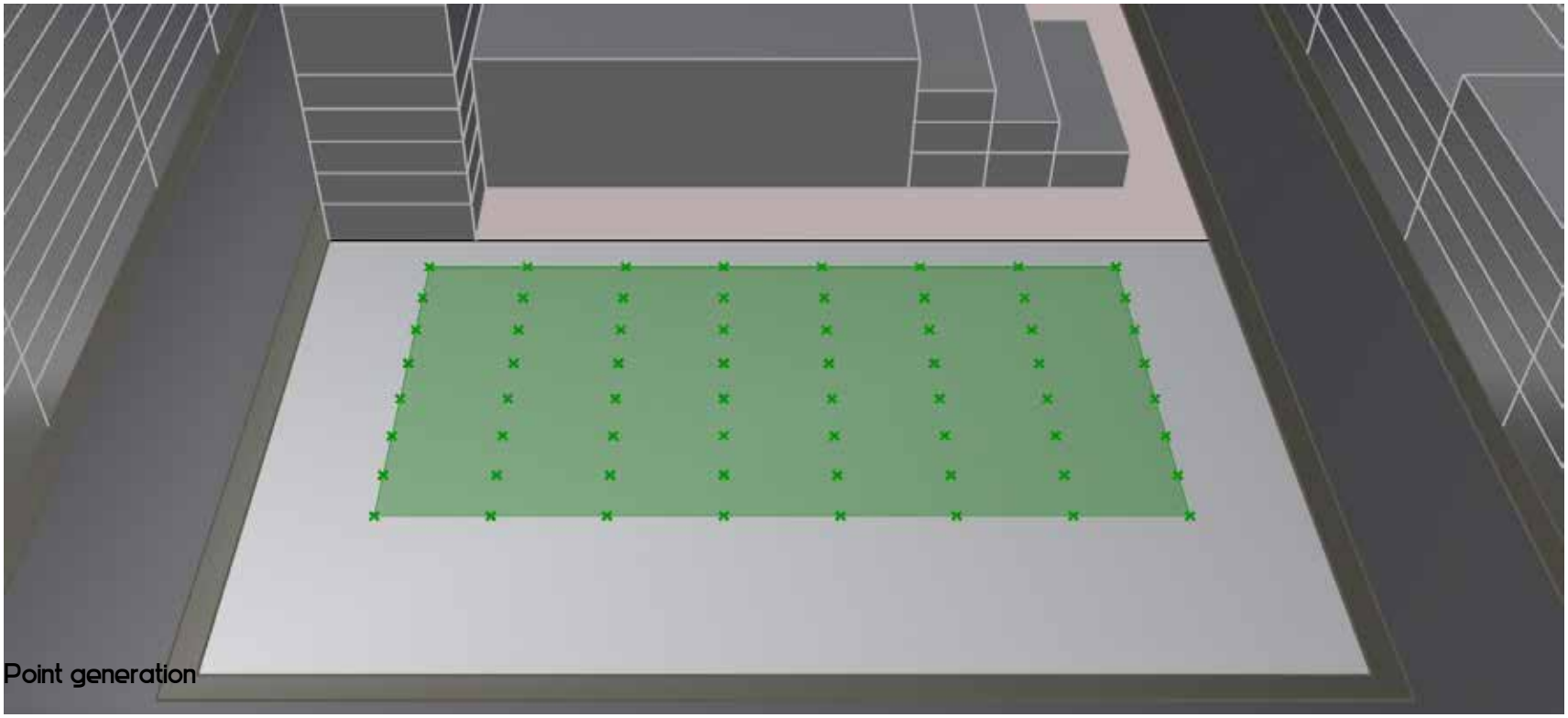
Ladybug analysis

Options generation

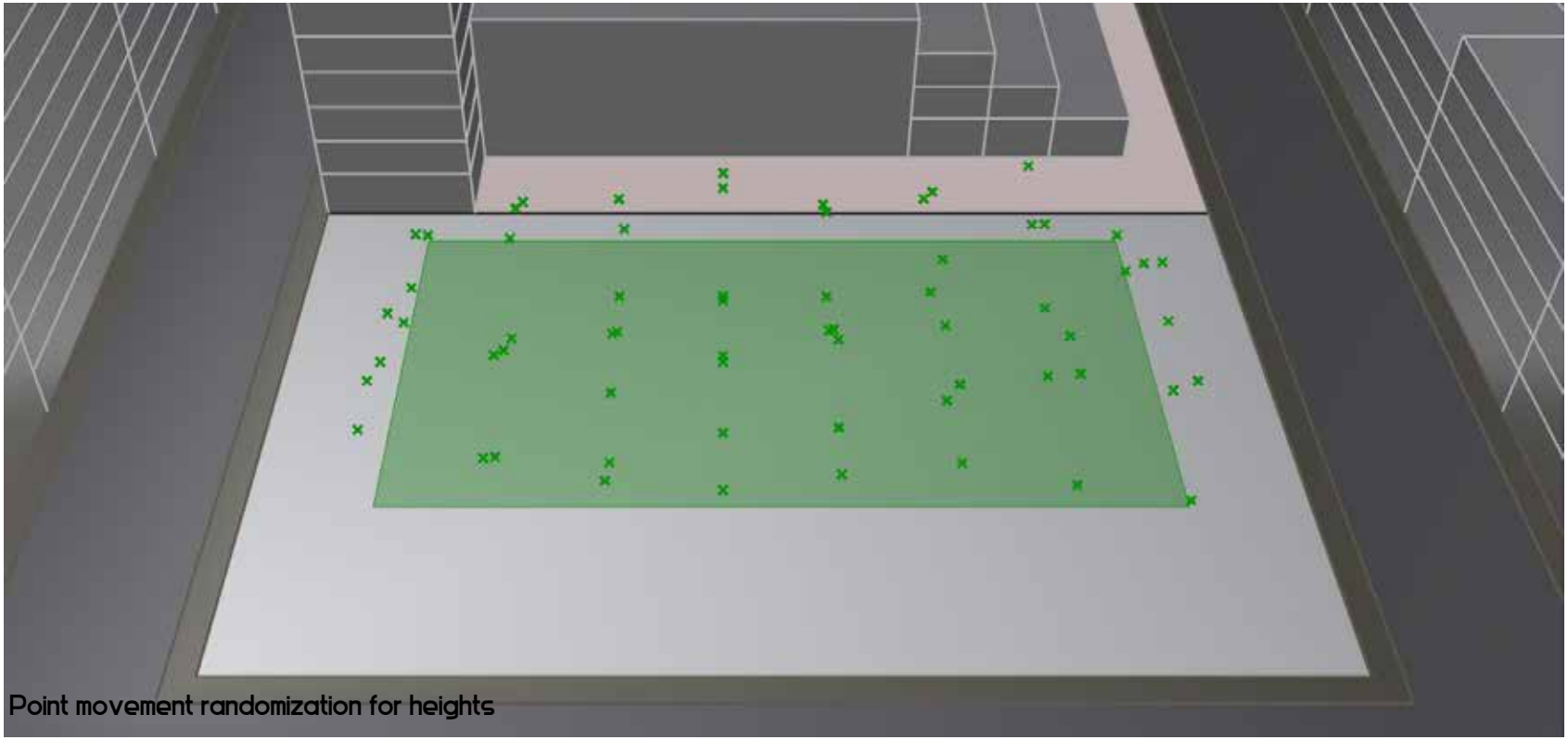




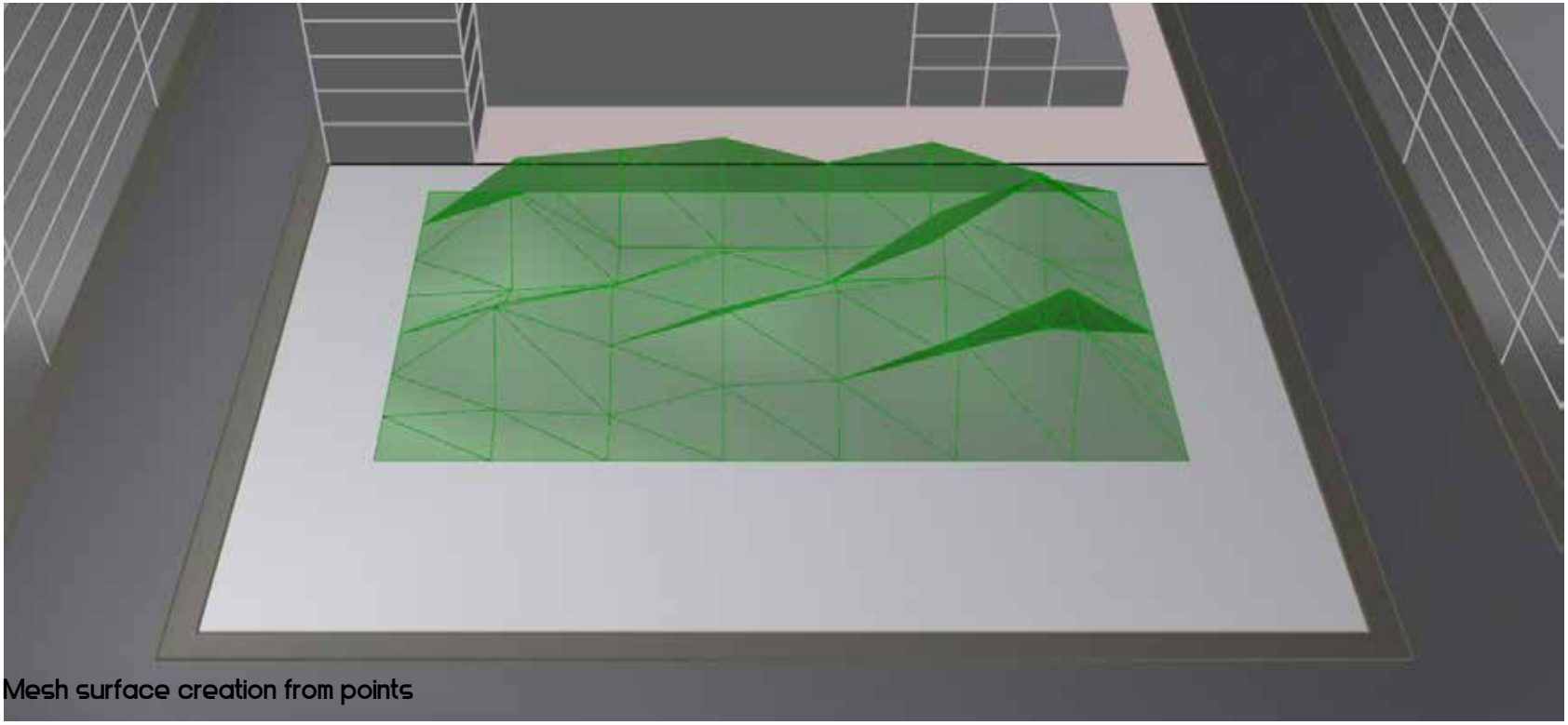
Surface creation



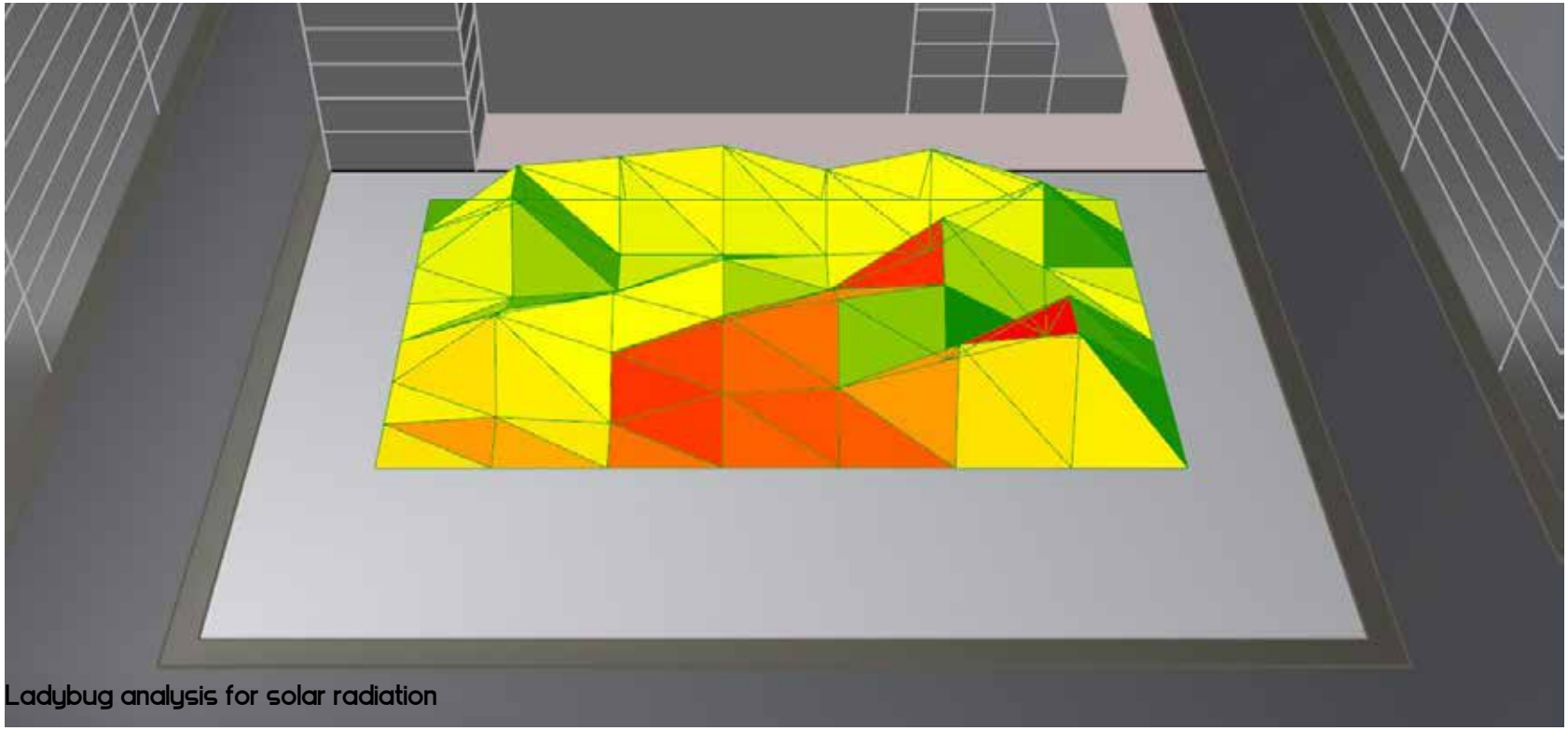
Point generation



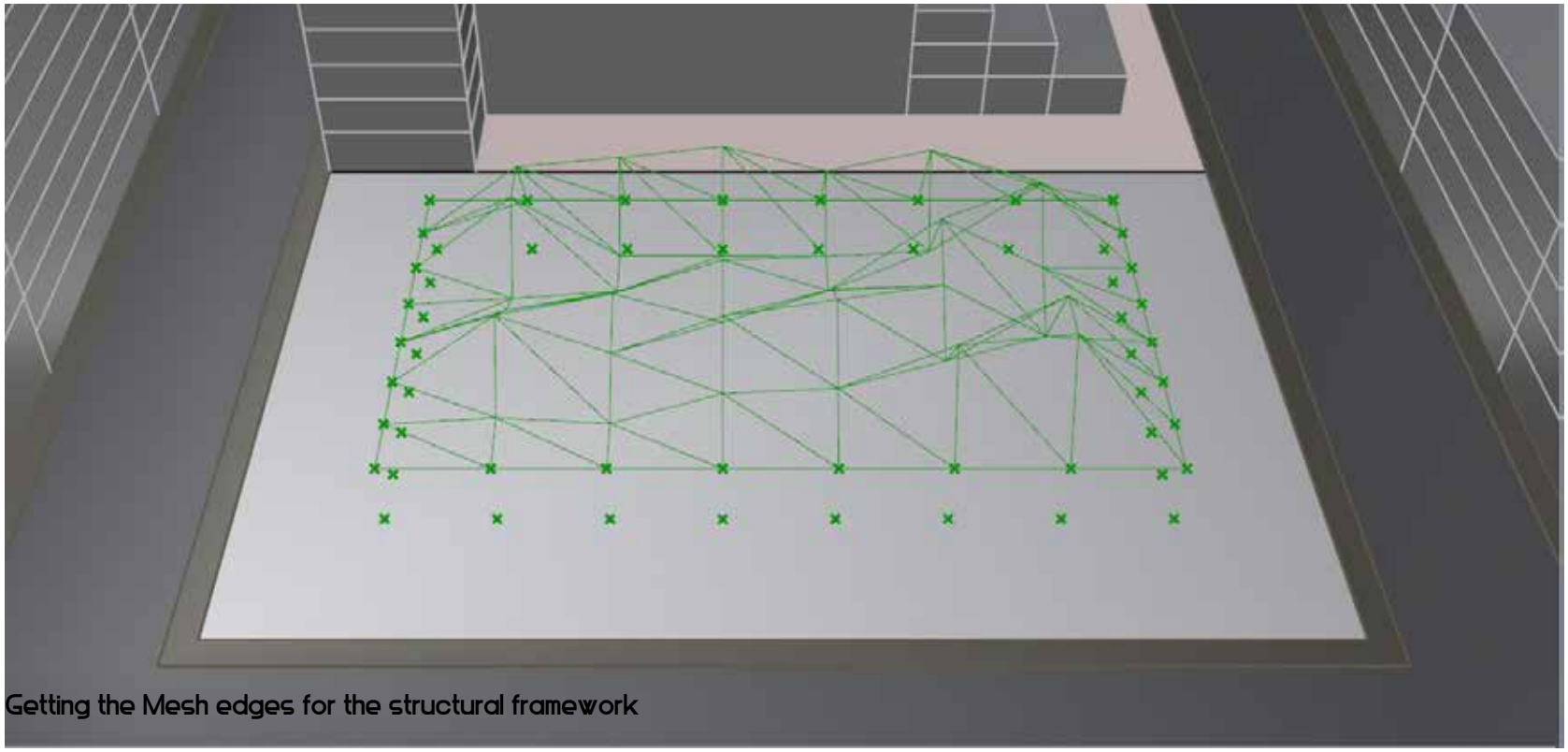
Point movement randomization for heights



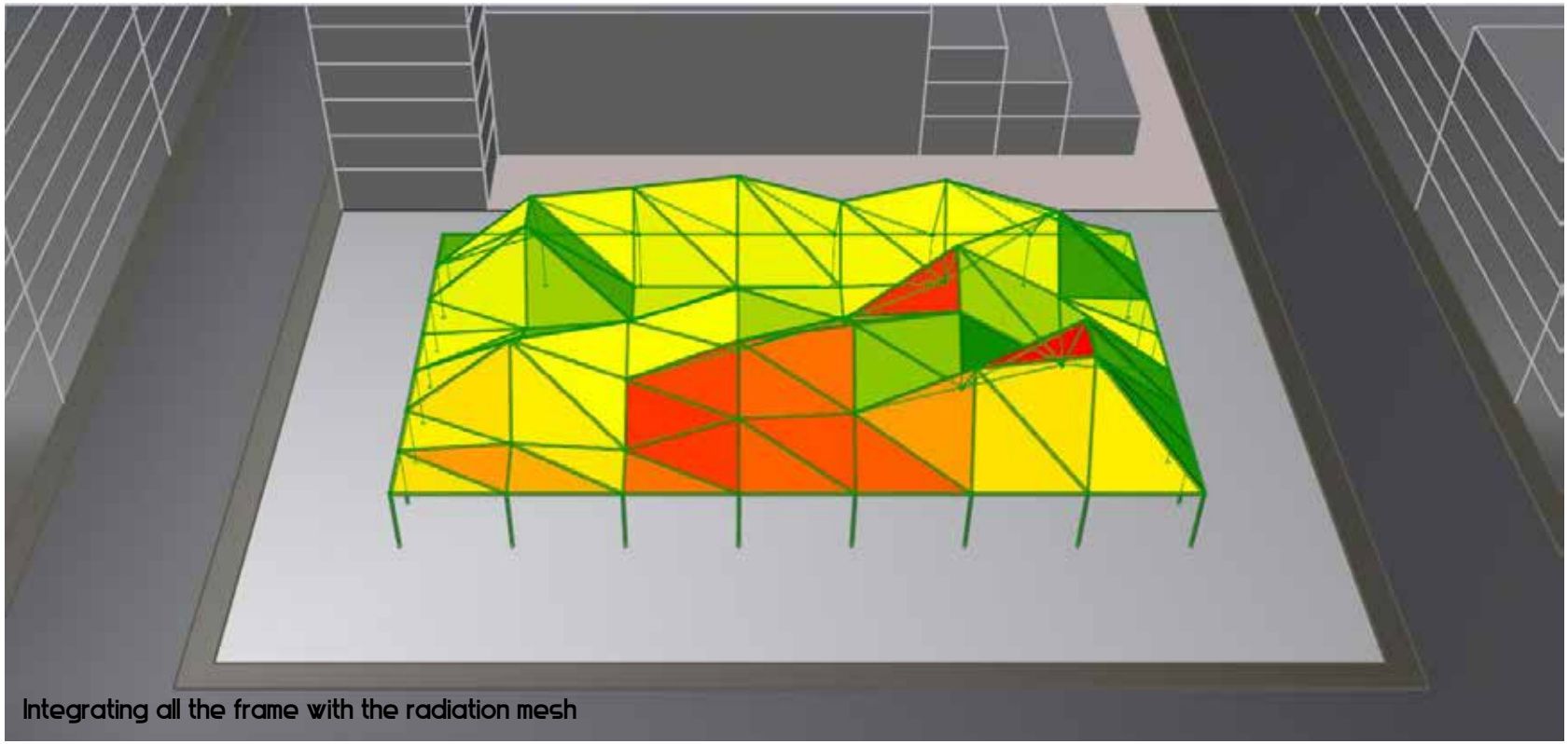
Mesh surface creation from points



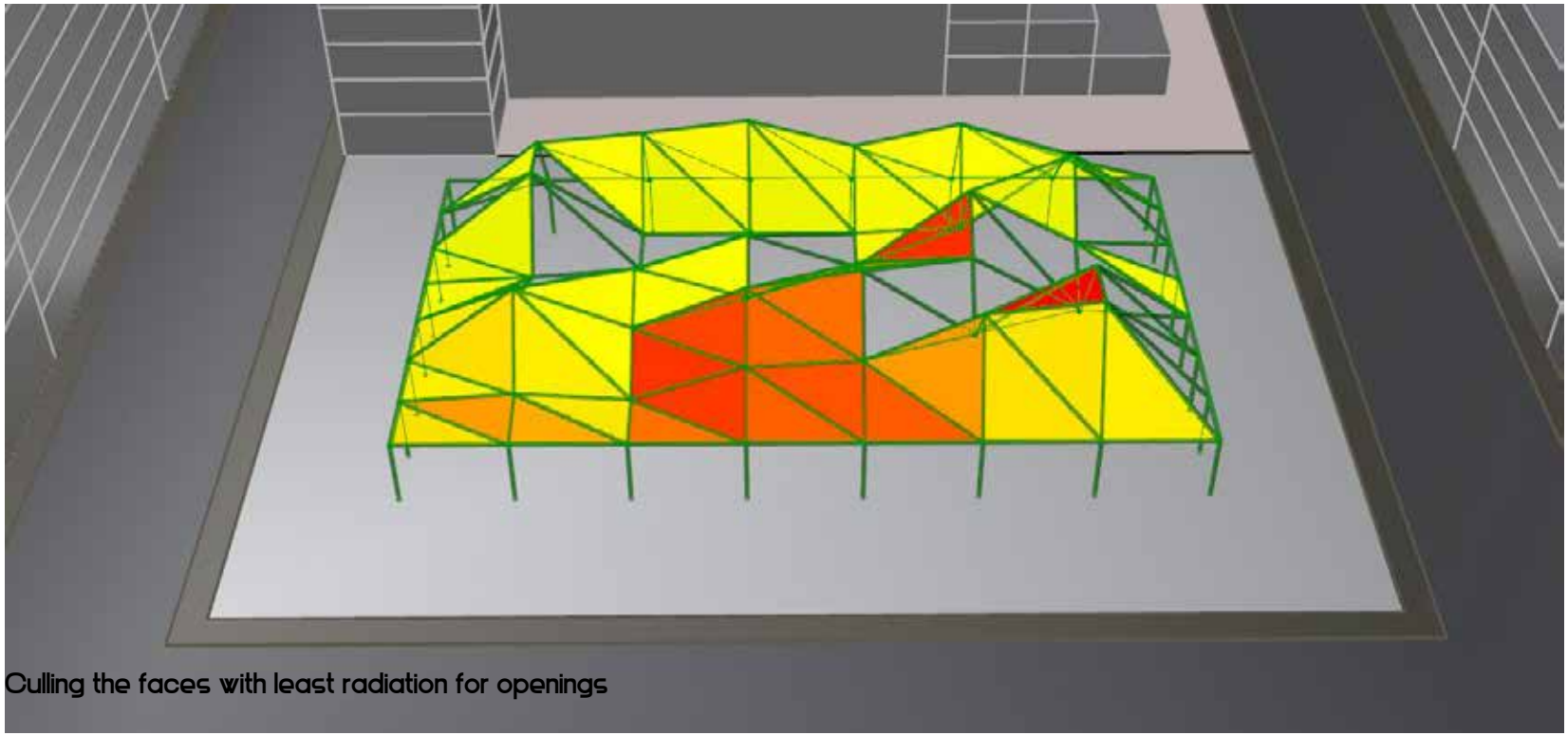
Ladybug analysis for solar radiation



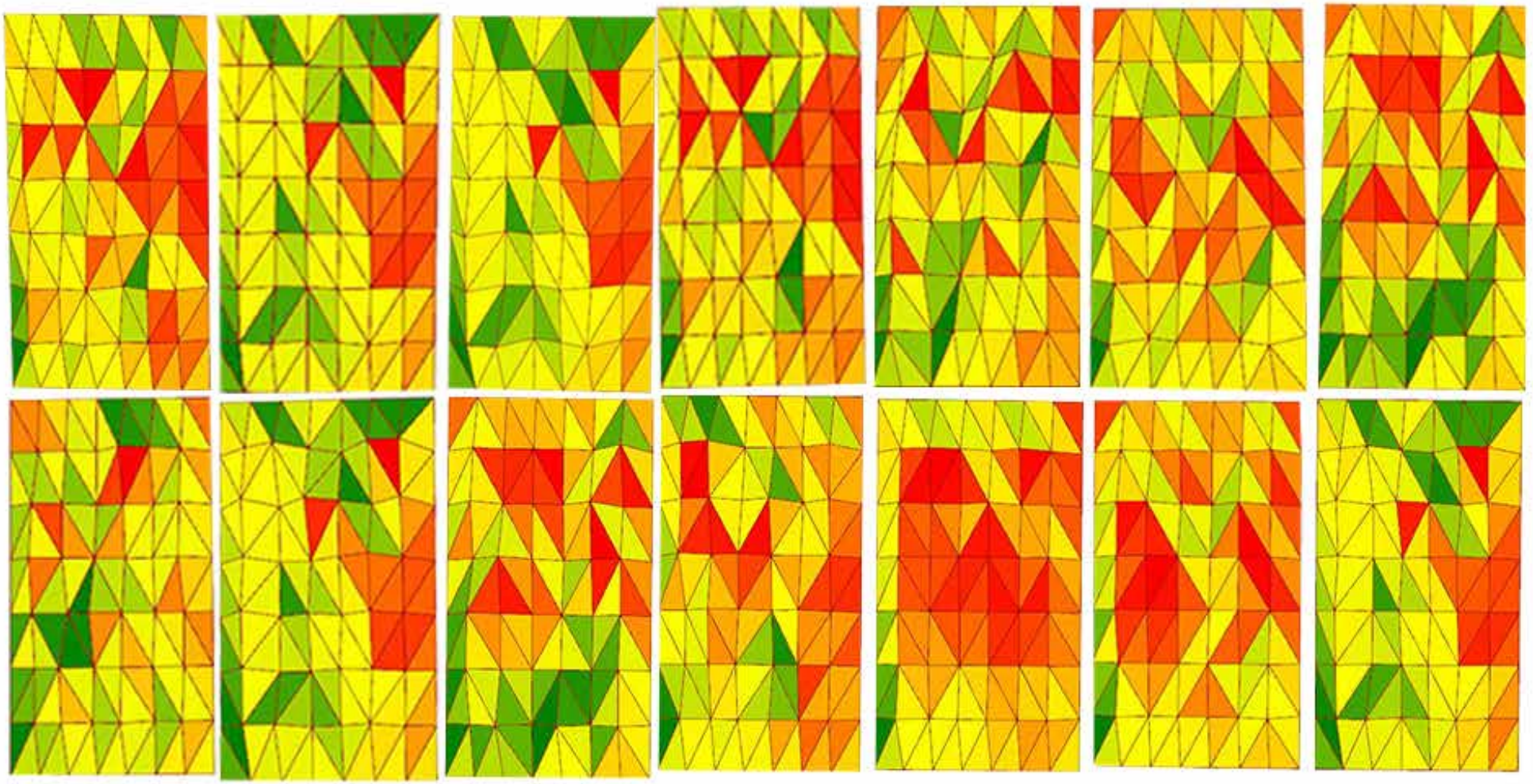
Getting the Mesh edges for the structural framework



Integrating all the frame with the radiation mesh



Culling the faces with least radiation for openings



Some of the best radiation meshes from the results of Galapagos