

# *gyo*scope

Algorithms

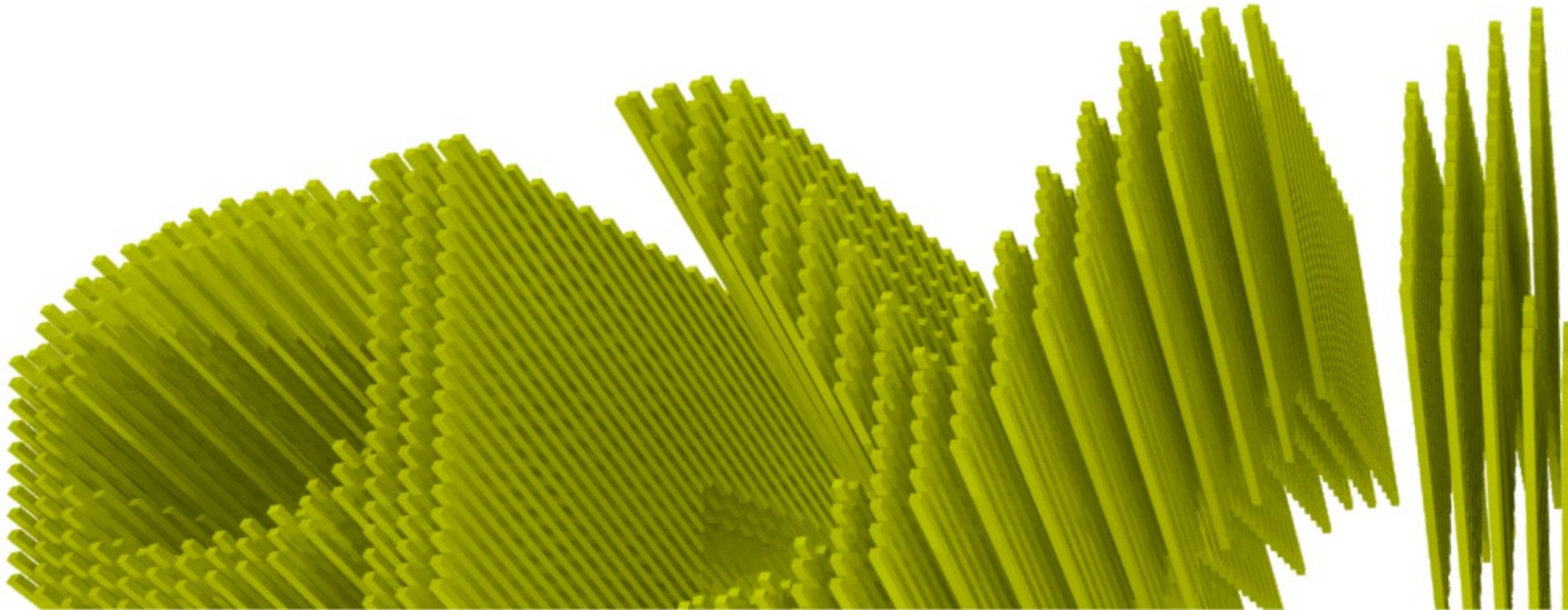
for your architectural design

Complexity driven individual solutions

Linear, non-linear, artificial-life-strategies

Perfect control over layered complexity

Ideal solutions for facades, forms and spaces



We discover the possibilities of new media and  
revive them new life.

In a technical world like ours generated architecture  
is becoming an important part of our daily work.  
Moreover, it has become a discipline of its own.

Since several years we are working on programmed  
structures in architecture.



## Who we are?

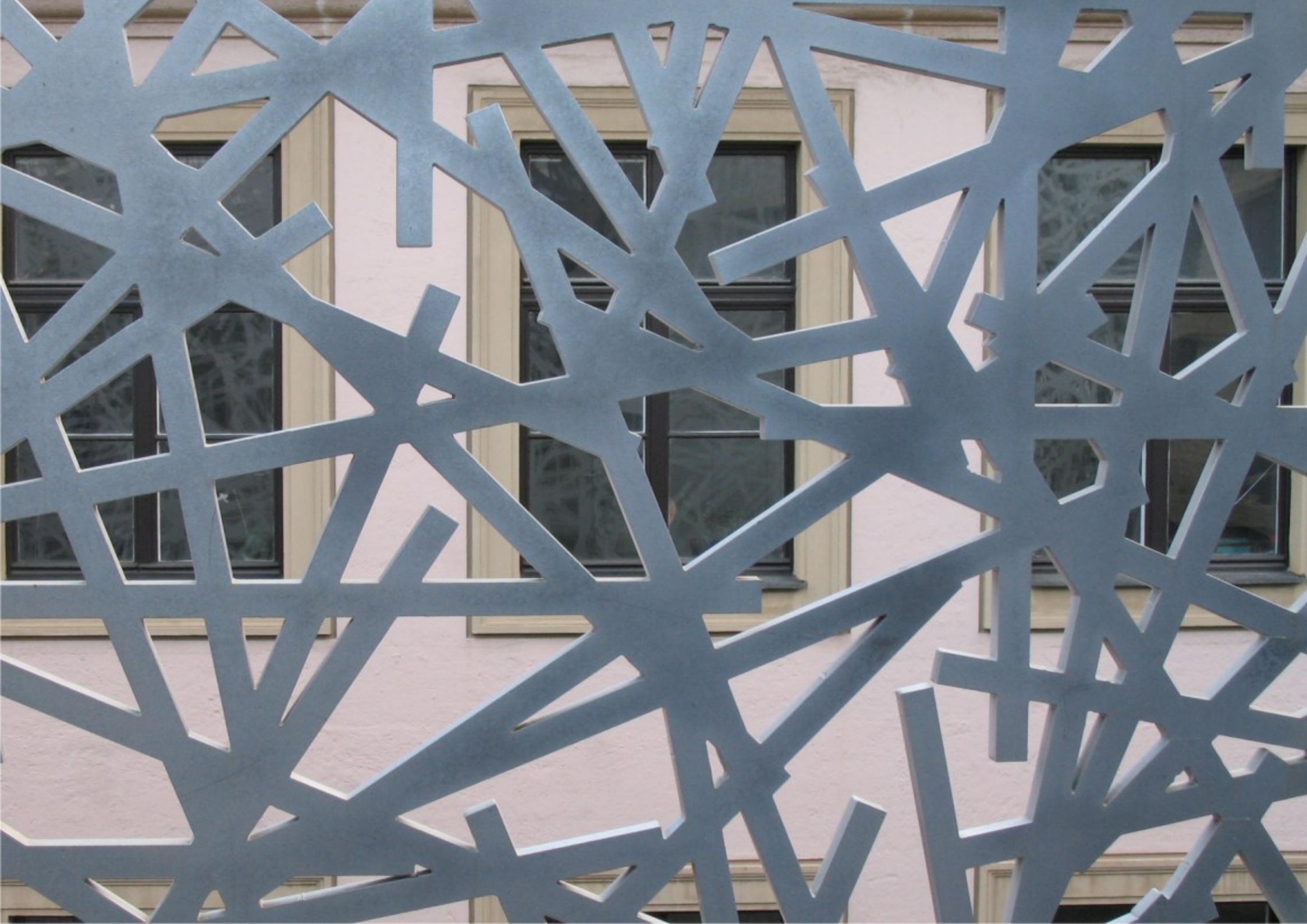
We are one of the first companies worldwide working with generated architecture. As architects and designers we are trained in programming, architecture as well as design. Our goal is the combination of design and programming.

## What we do?

We program solutions for your architectural design. We find the perfect solution for façades, furnitures, landscapes or organizing and optimizing spaces. We create 3-dimensional forms and structures, linear, non-linear and artificial life strategies (e.g. cellular automata, swarm behaviour) by algorithms.







## Experience new possibilities and worlds of complexity for your design!

You have a vague idea of a form or structure, but you don't know how to get it on your paper?

Where you come to a limit-our work starts with you!

We create your perfect individual solution – matching to the software you work with!

We deal with nearly all complexities. We organize and optimize your design in combined layers for optimal control and workflow. We even work out a range of varieties. Our aim is the organization of single elements to a whole organism.

You need changes?

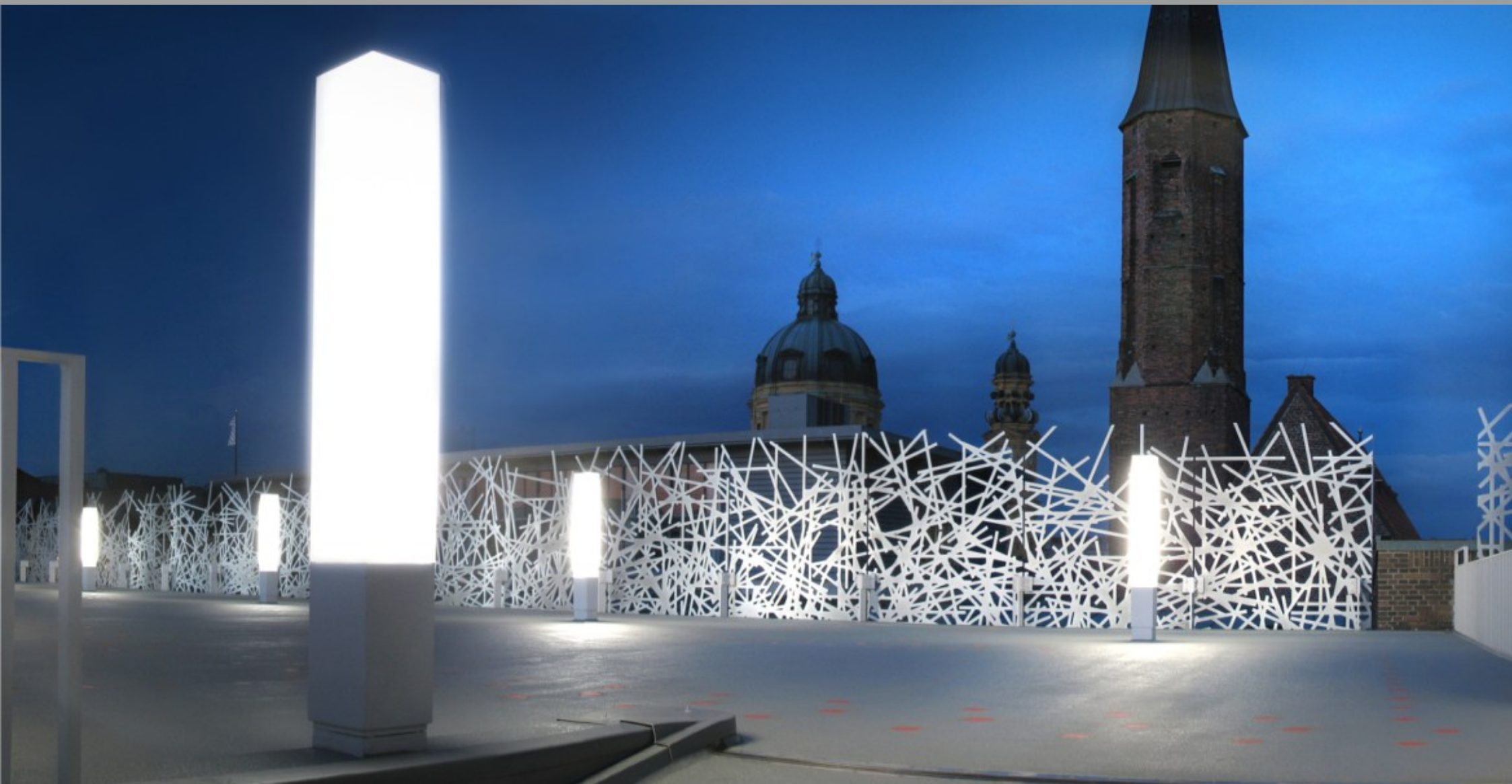
We refine any part of your work at any time instead of rebuilding the whole design.



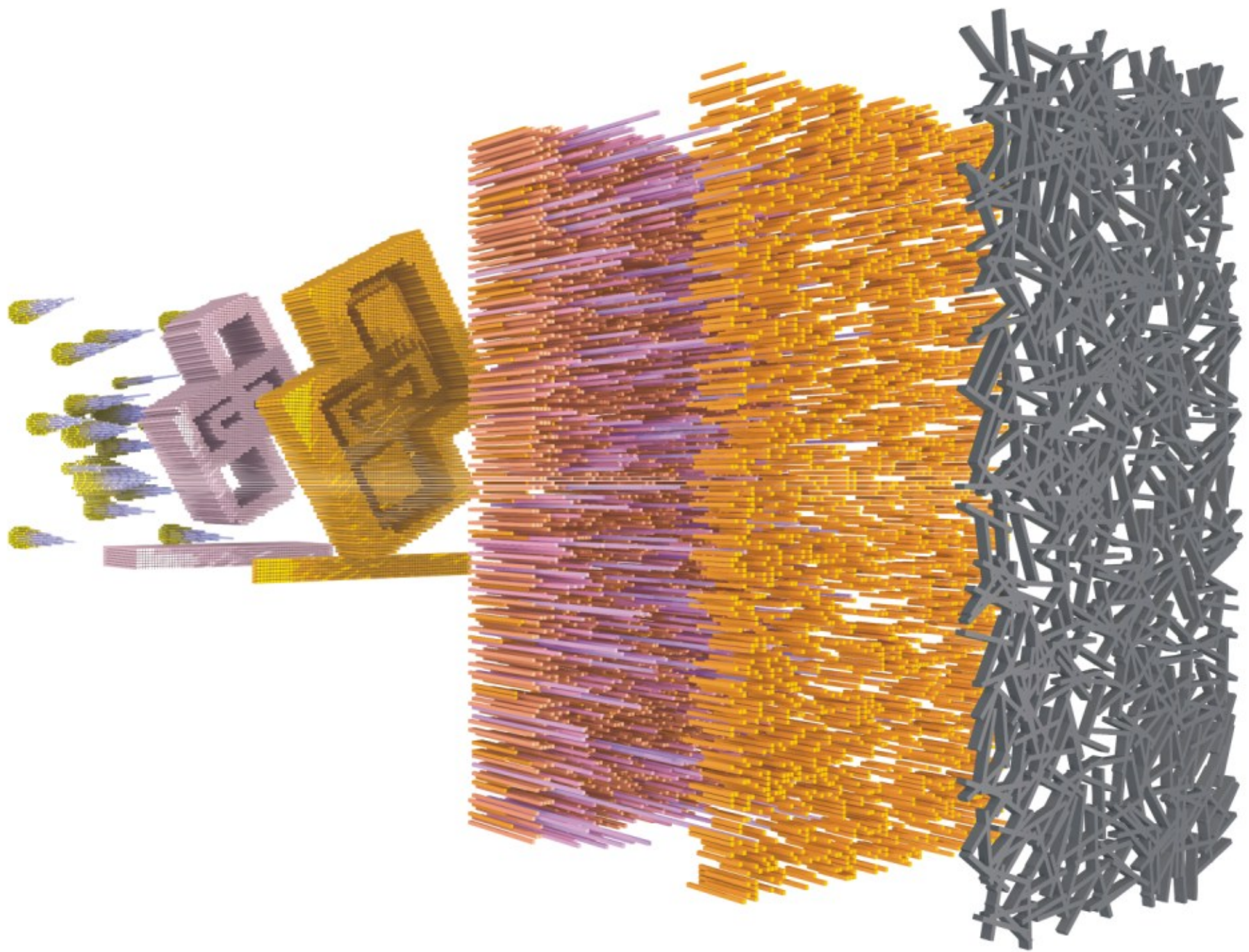
## Salvatorgarage

150m long facade for a parking garage in the heart of munich. Attractors and disattractors form the growing process following the technical structures of the building.

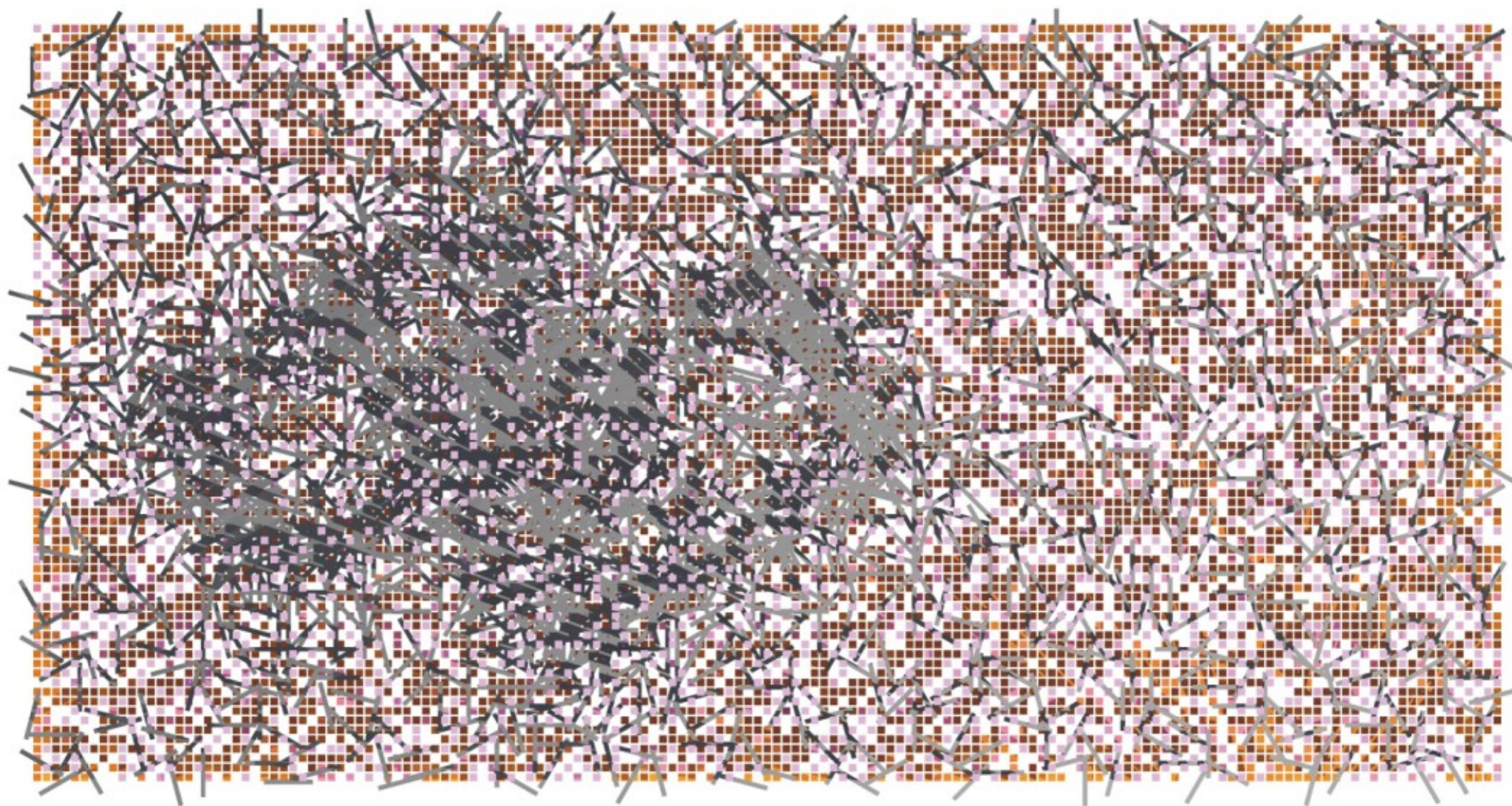










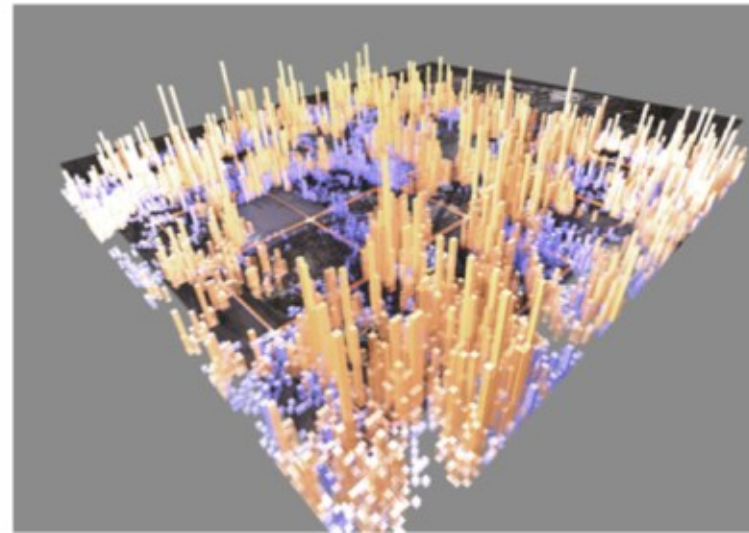
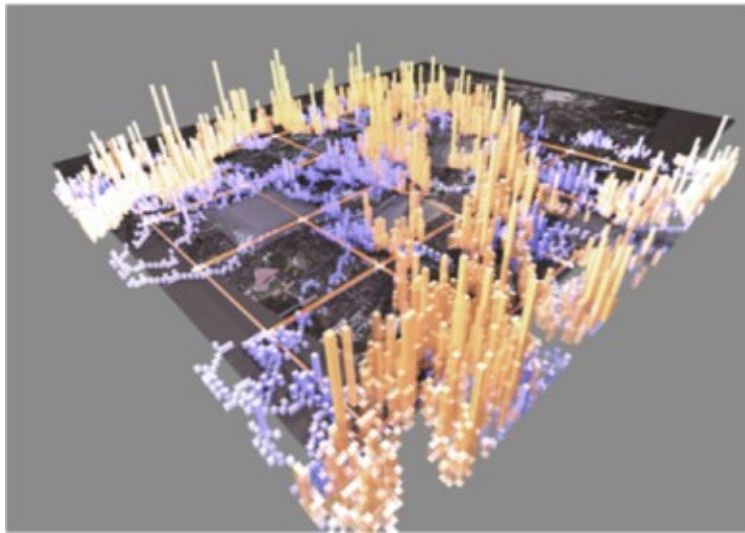
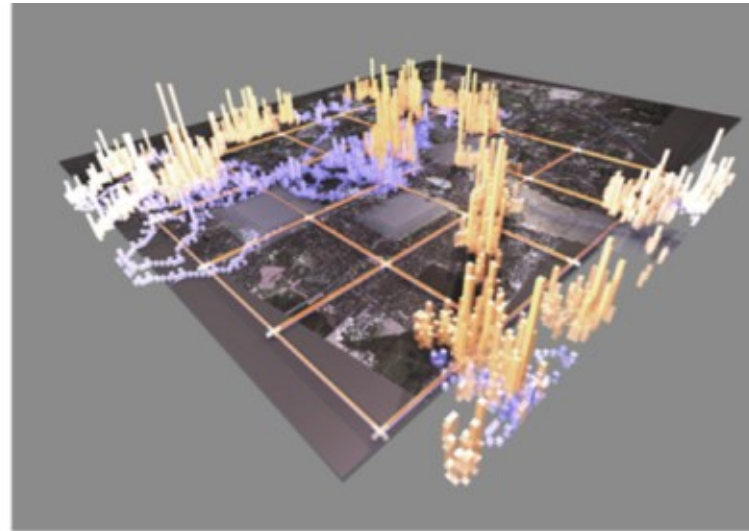
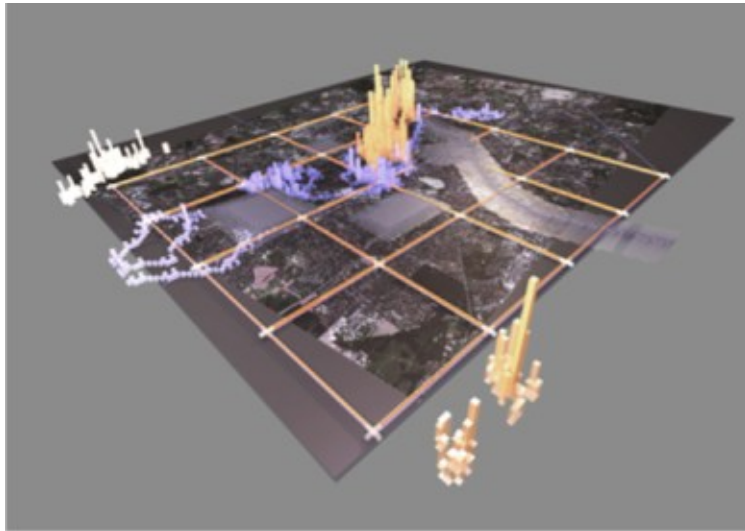




## Generative growth

Zoomtown (exhibition)

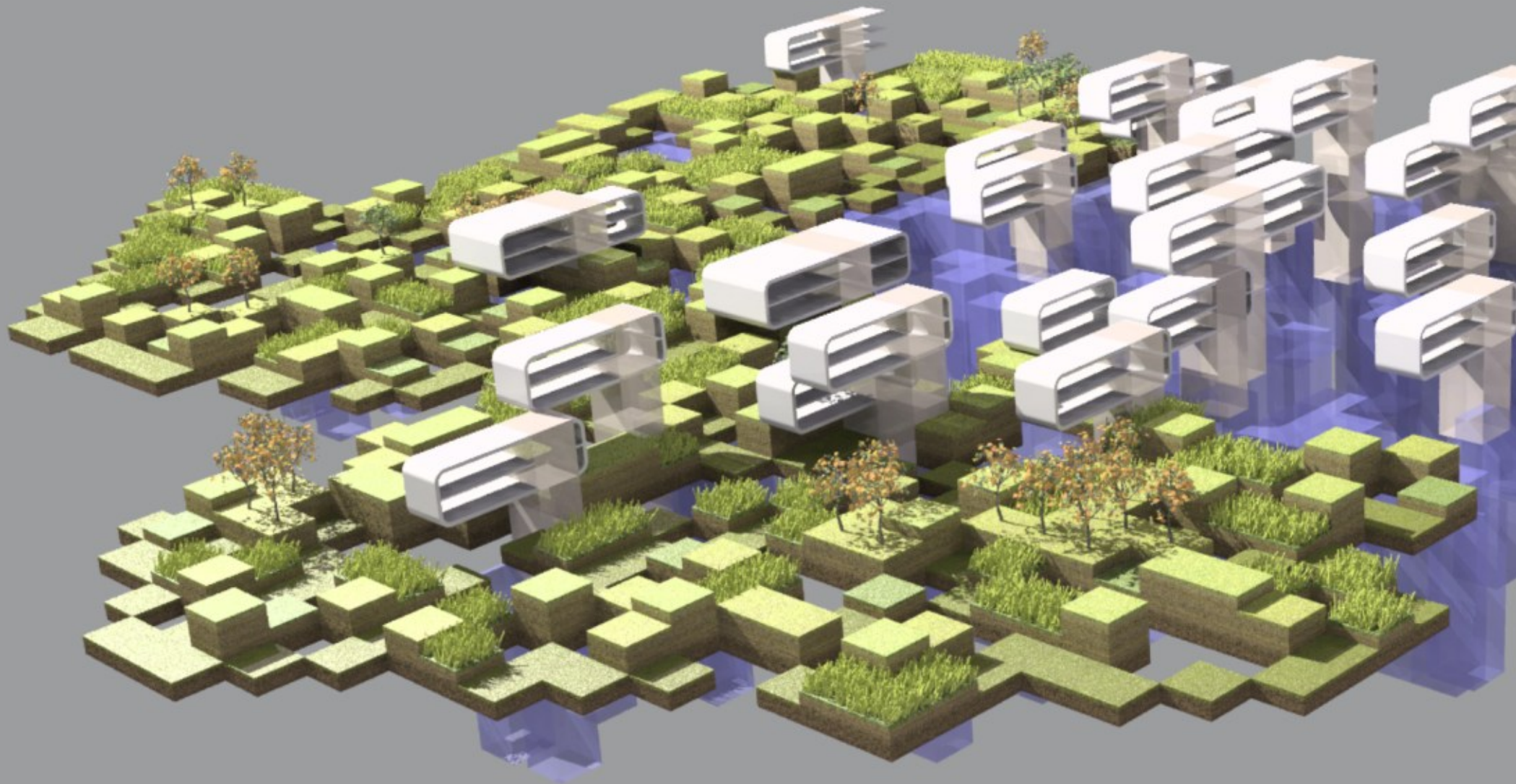
Studies on generative growth in an urban context - Munich





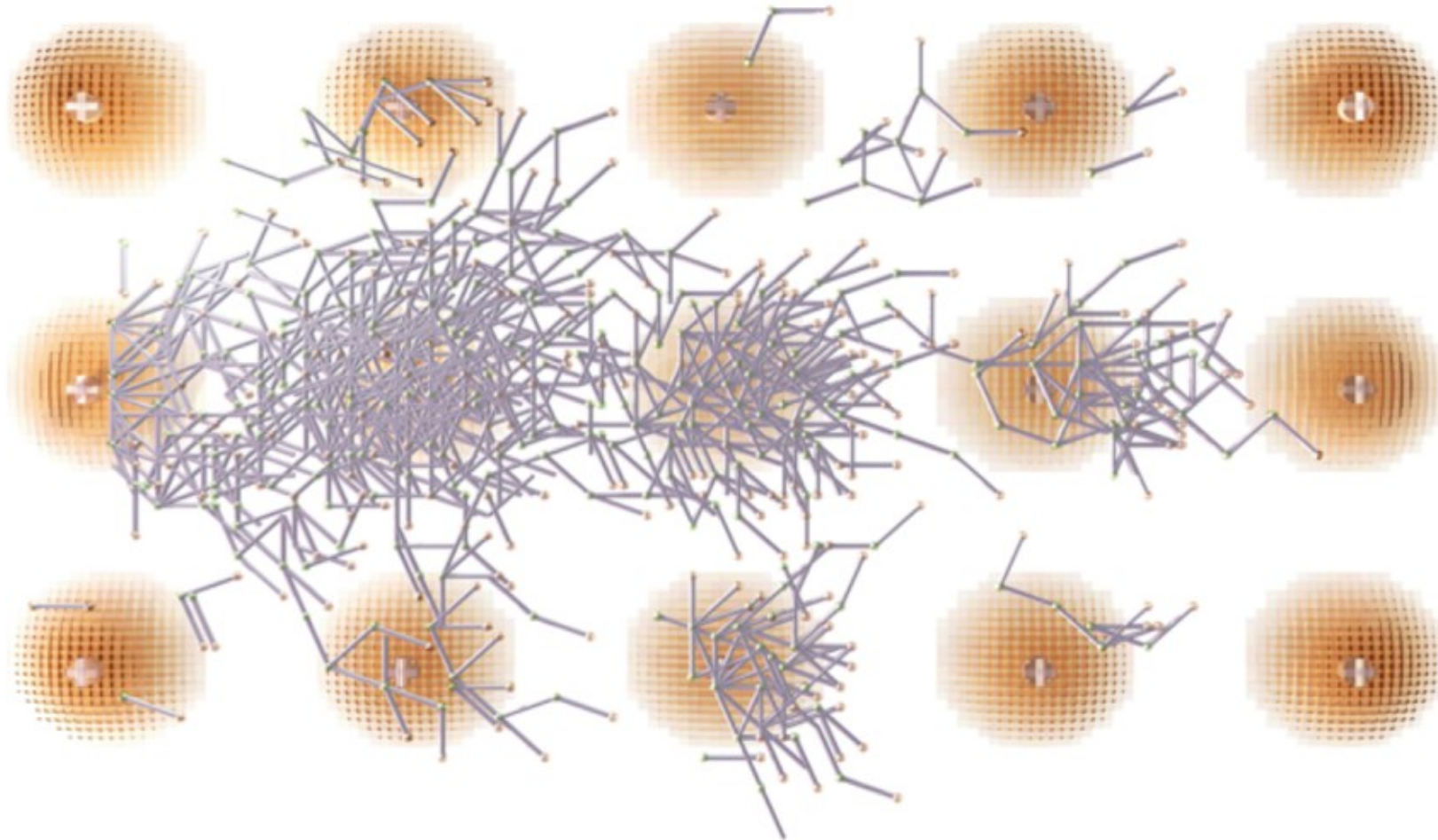
## Generative growth

Research for the interpretation of cellular automatas - green and urban elements fight against each other



## Attractors

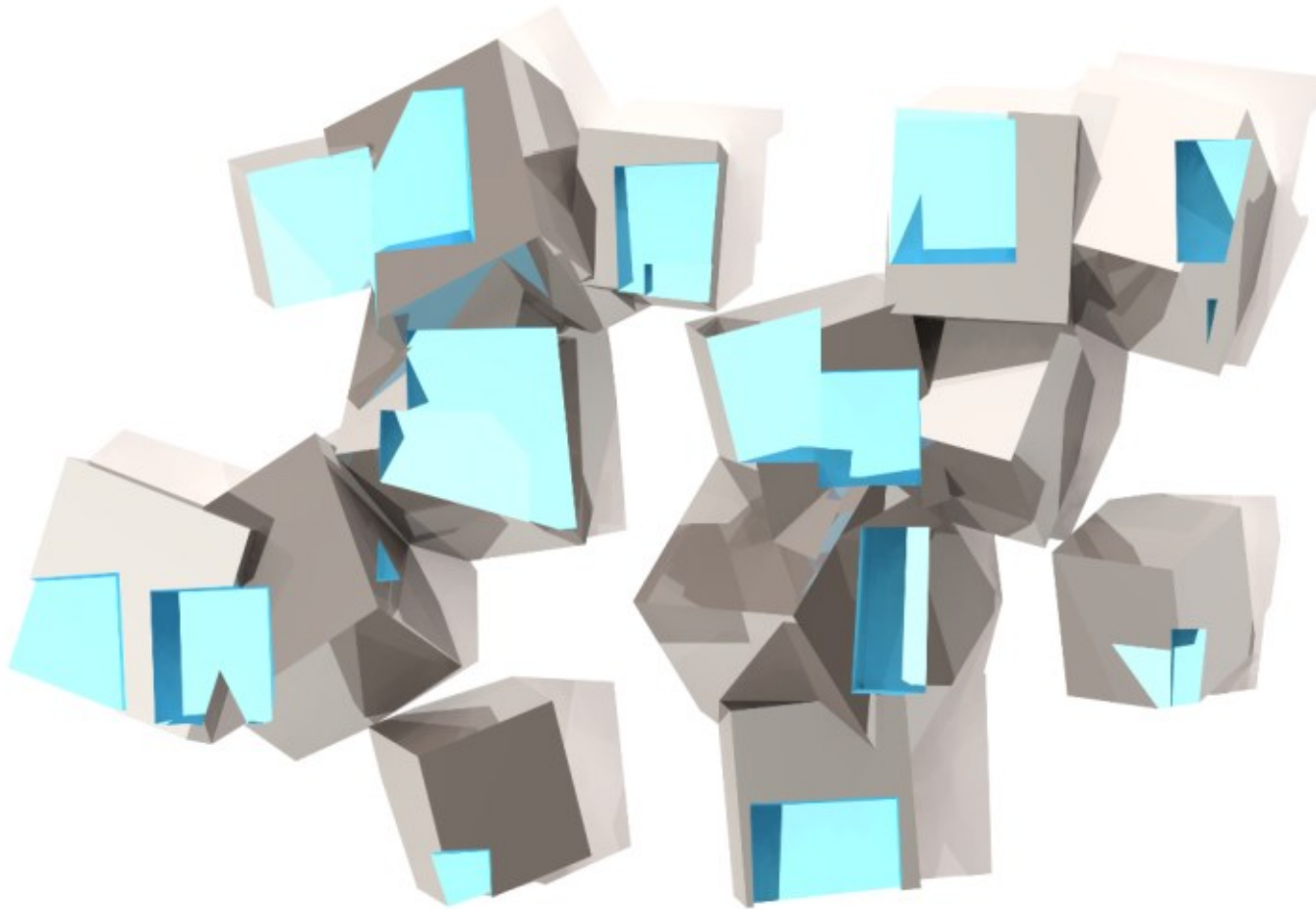
Basic influence of attractors on generative growth  
Attractors and disattractors can be combined  
in several layers and form the development of  
the growing structures.

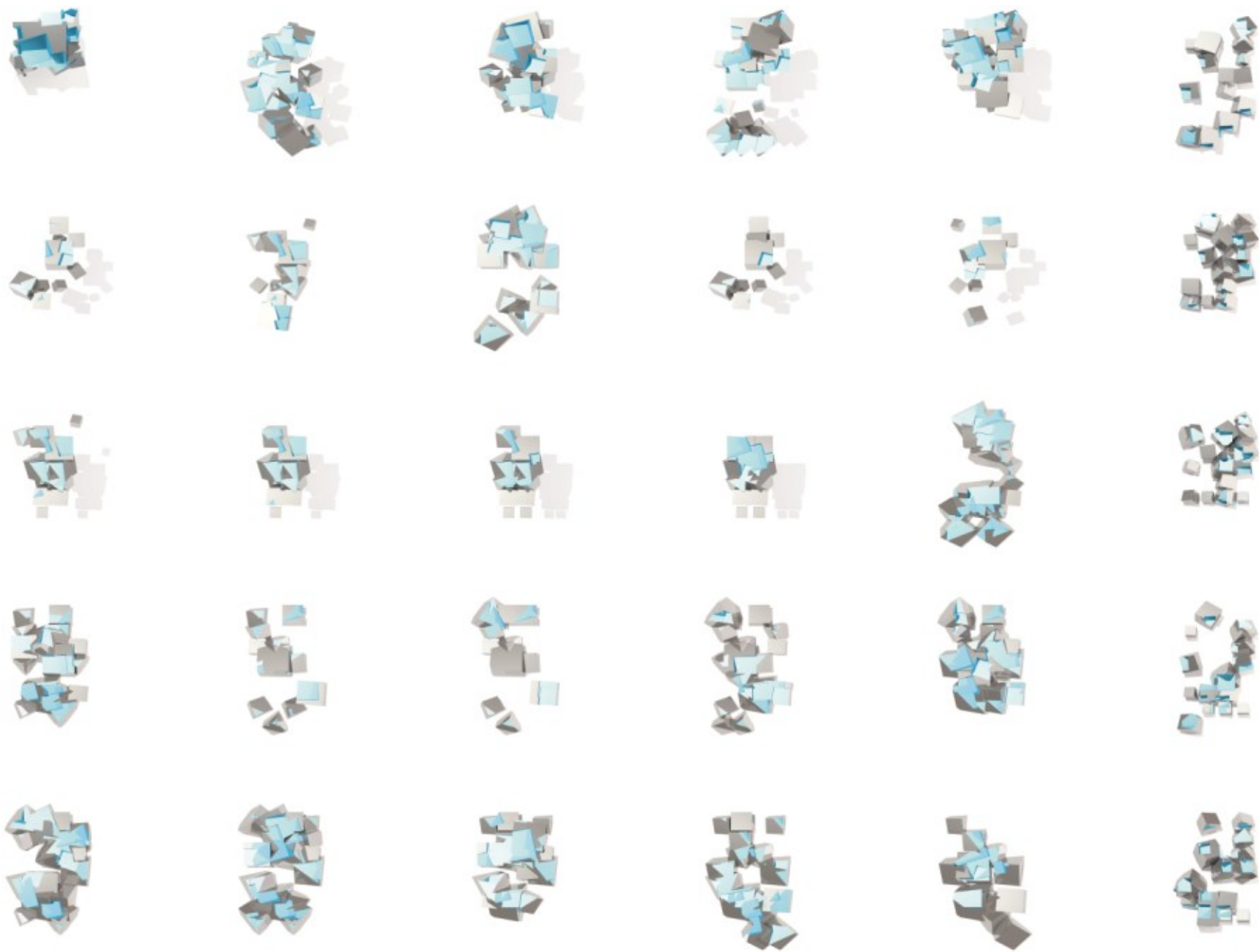




## Experimental seating-accomodation for the Muffathalle

Agents moving over a grid transforming cubes and  
cutout cubes used as seating







## Experimental seating-accomodation for the Muffathalle

Work in progress

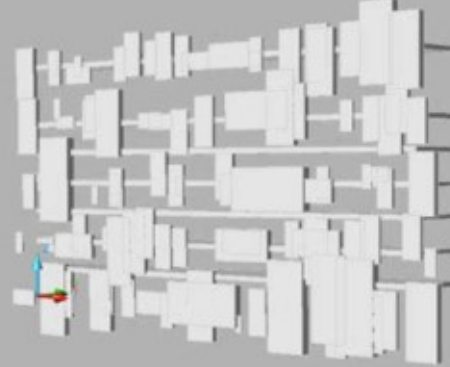
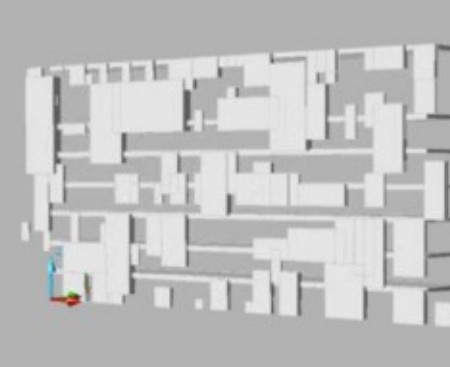
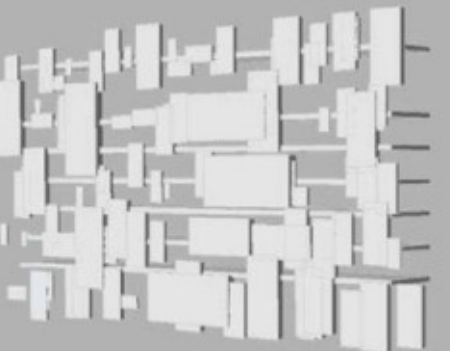
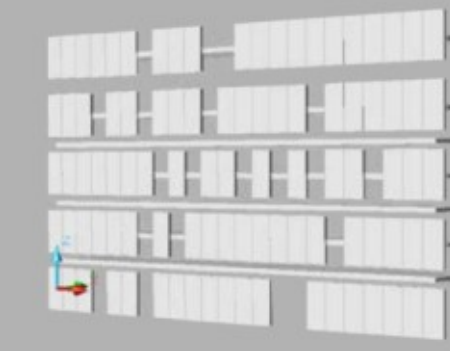
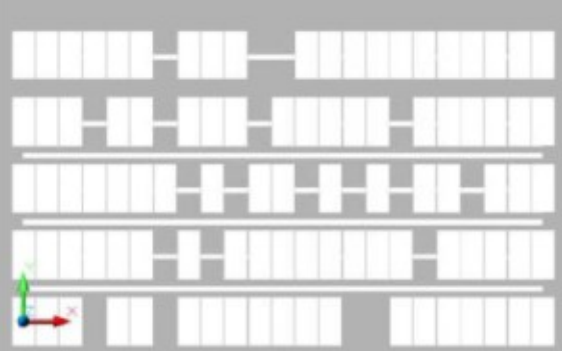
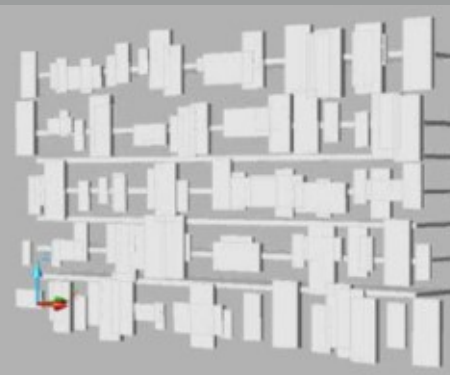
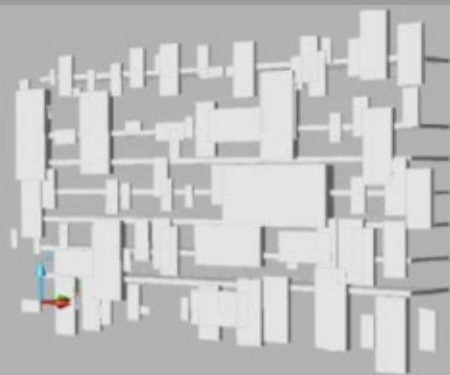


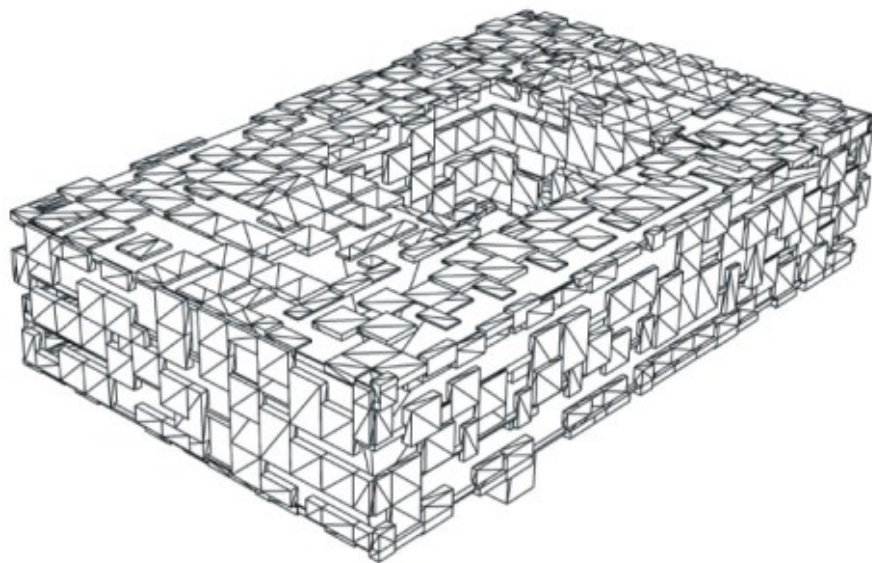
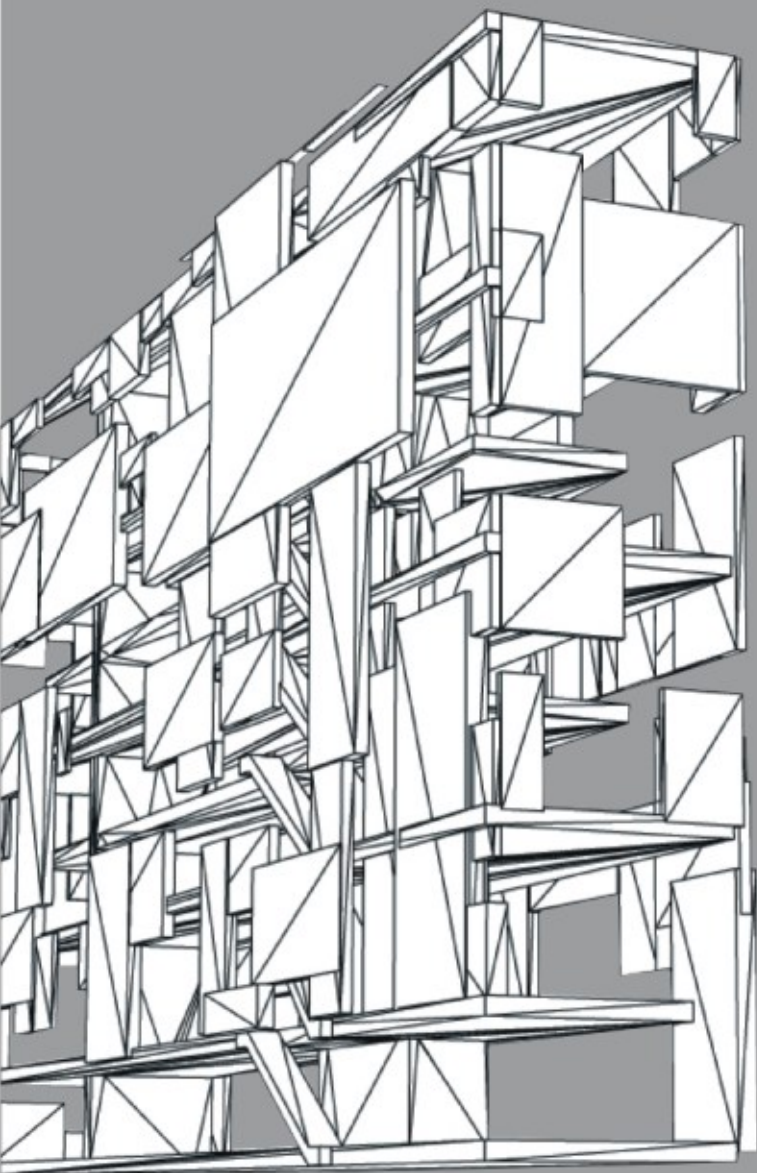
## Accumulata

The organization of the facade is solved by algorithms.







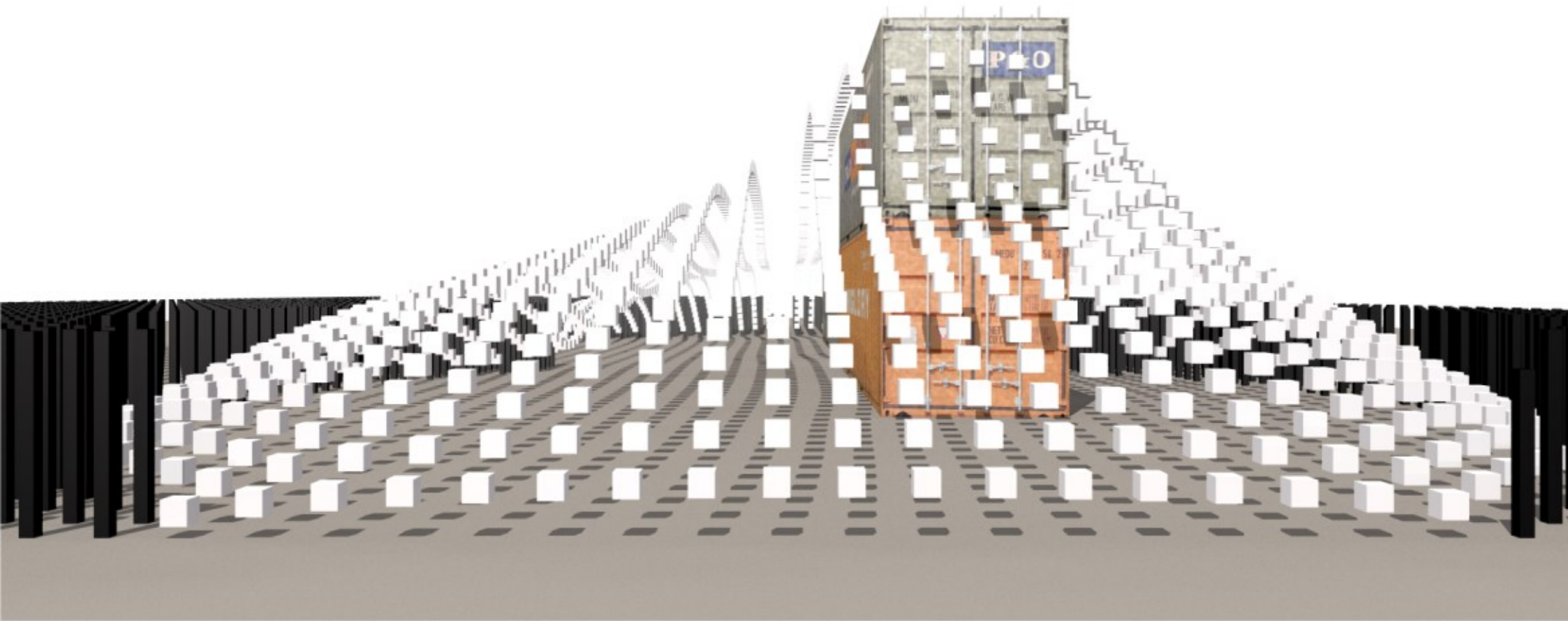


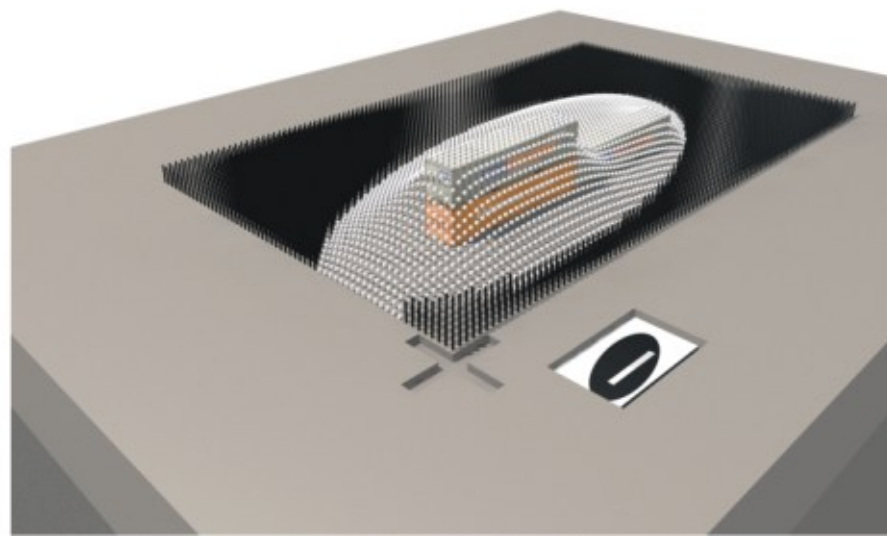
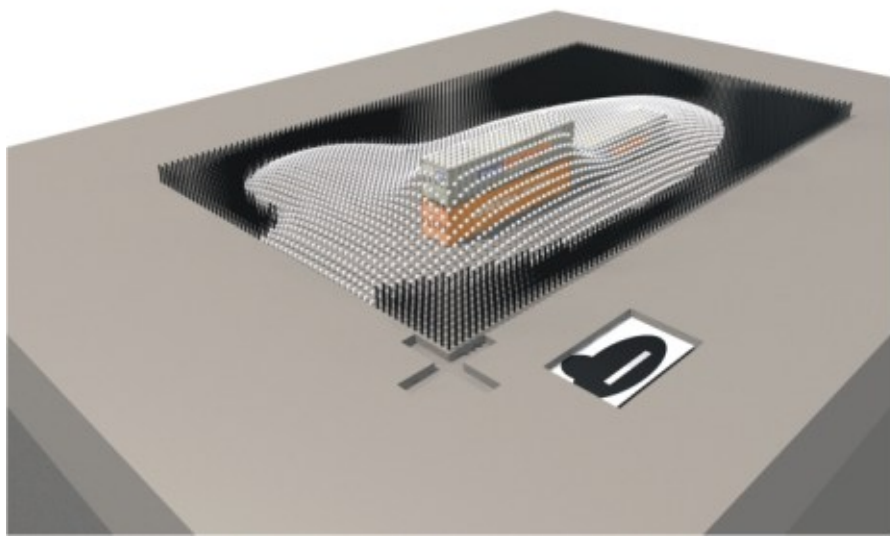
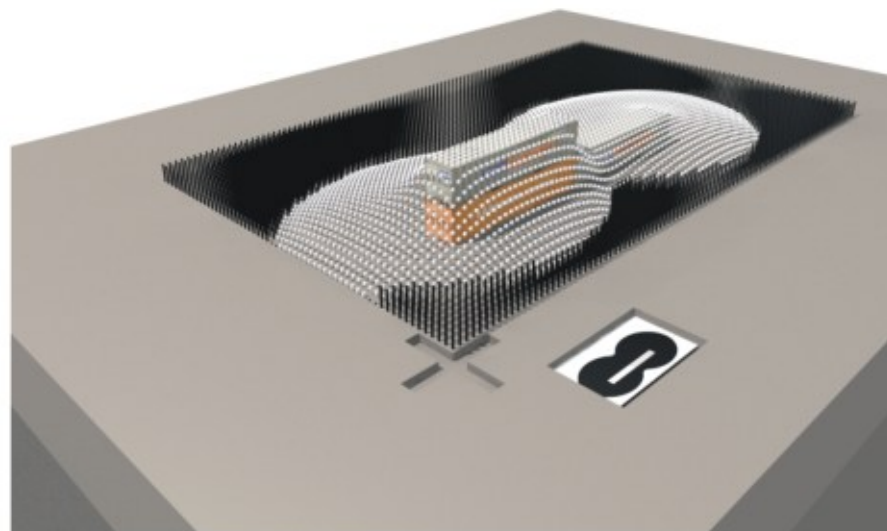
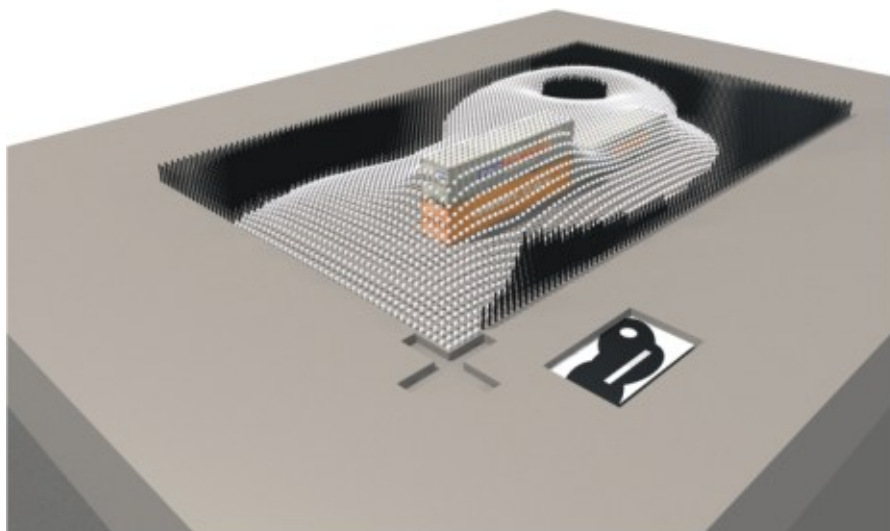




## Experimental portable pavillon

The hull of the pavillon is formed by a cellular automata. The form of the hull is determined only by the containers and the outer black border. An ideal hull with minimal tension is created.



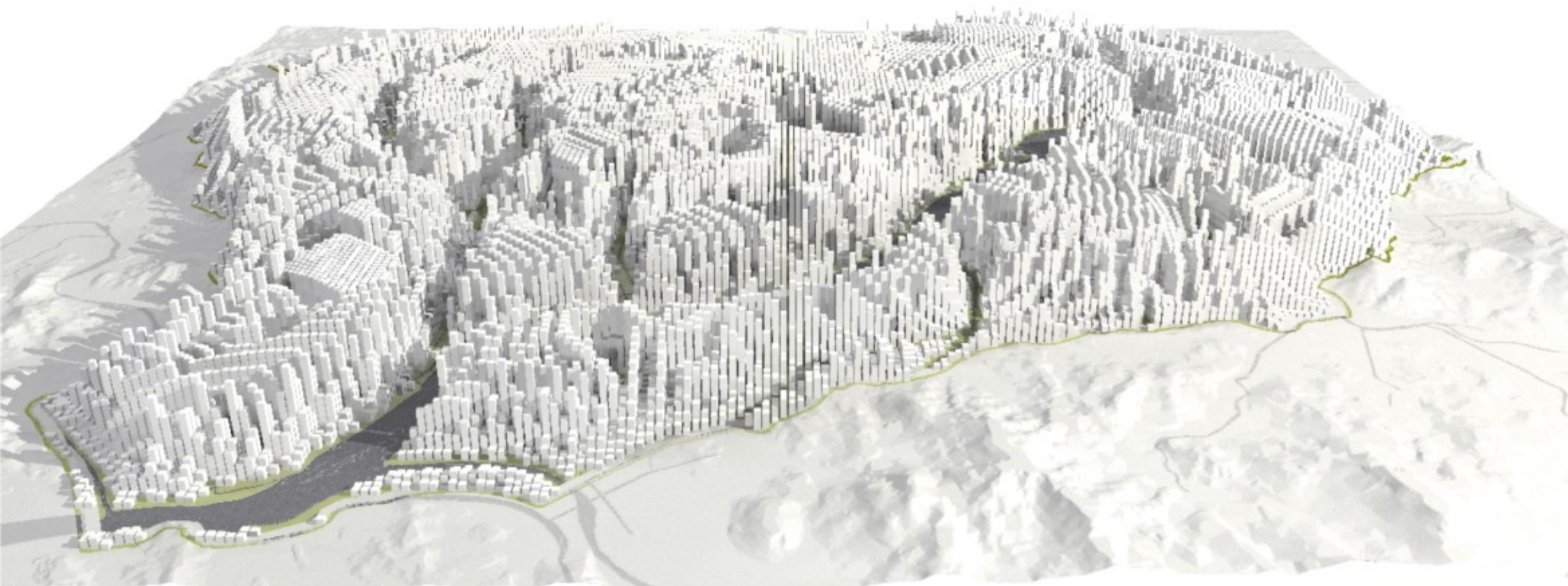




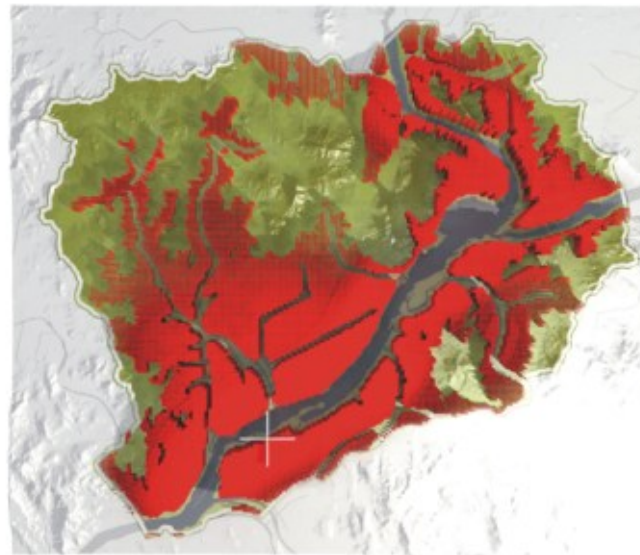
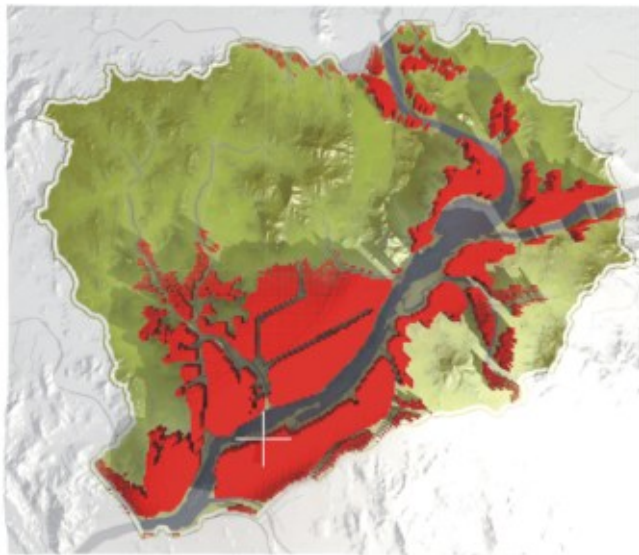
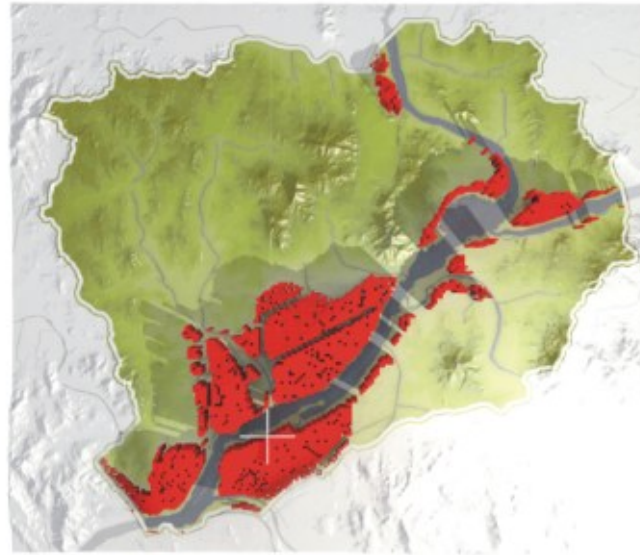
## Korea - a subtle city

City planning by algorithms  
A cellular automata shown here

20 different layers of precalculated data (wind, influence of topography, river, existing villages ...) form the final aggregation of the city



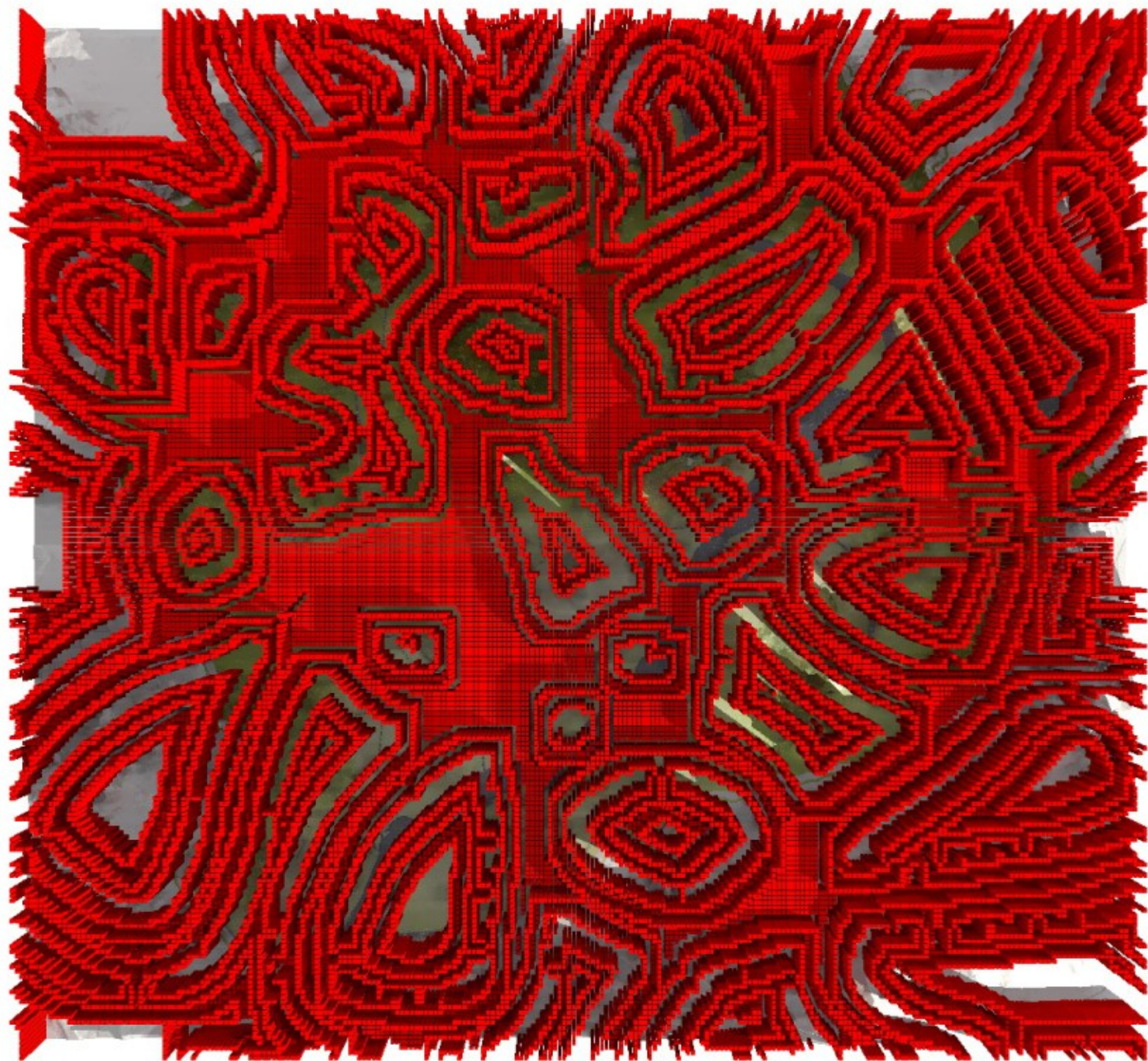
## Influence of topography on aggregation





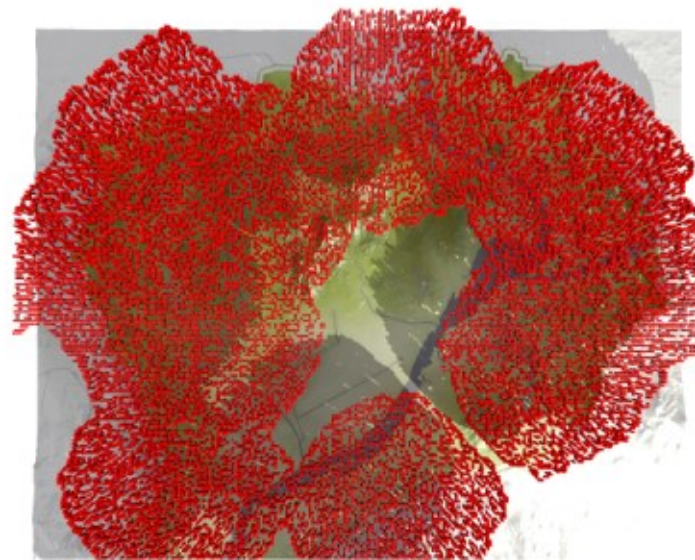
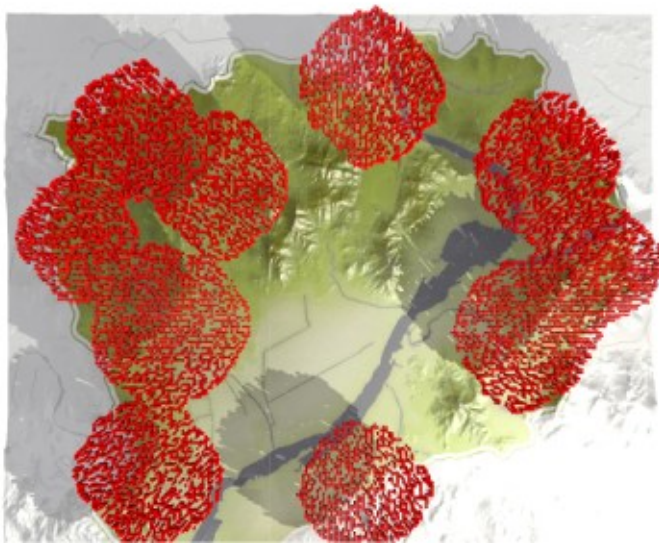
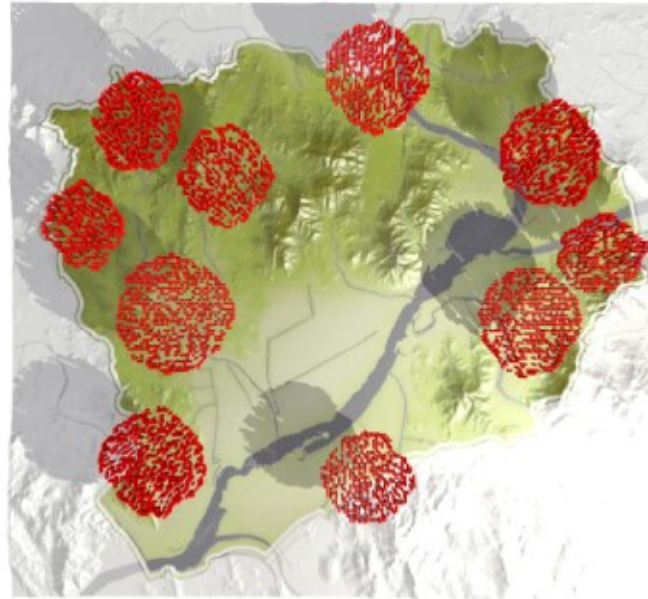
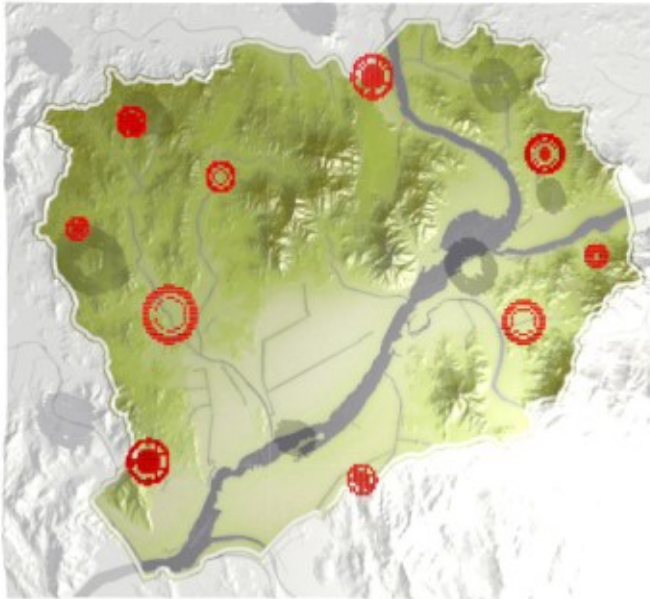








Concept of clouds as a seed for growth





## The final city

The combination of different layers and processes are combined for this experimental urban study.









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