# Science

A systematic way of linking city science and urban design is significant for progressing both sides. Both urban design and science can be enhanced by allowing individual intuitional knowledge as input to derive more generalizable evidence.

## Urban Patterns



SOM by Spatial Elements | SOM by Perceptional Elements
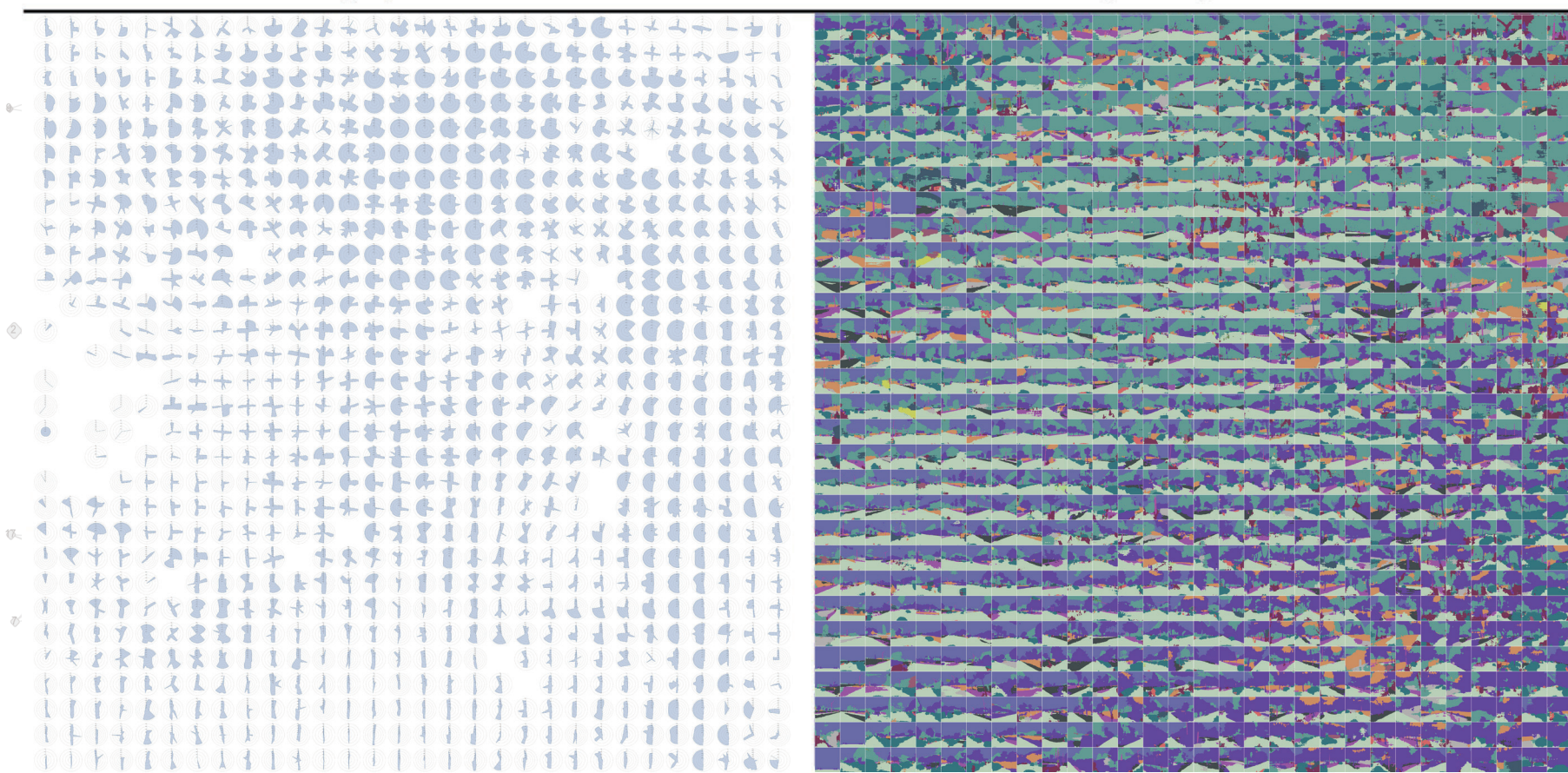
SOM by Street view imagery

# Design

Complex urban elements - the topics of science and design - need multi-source data and representations. We see a lack of digital modeling approaches for integrating heterogeneous data and facilitating interactions between humans and machines.
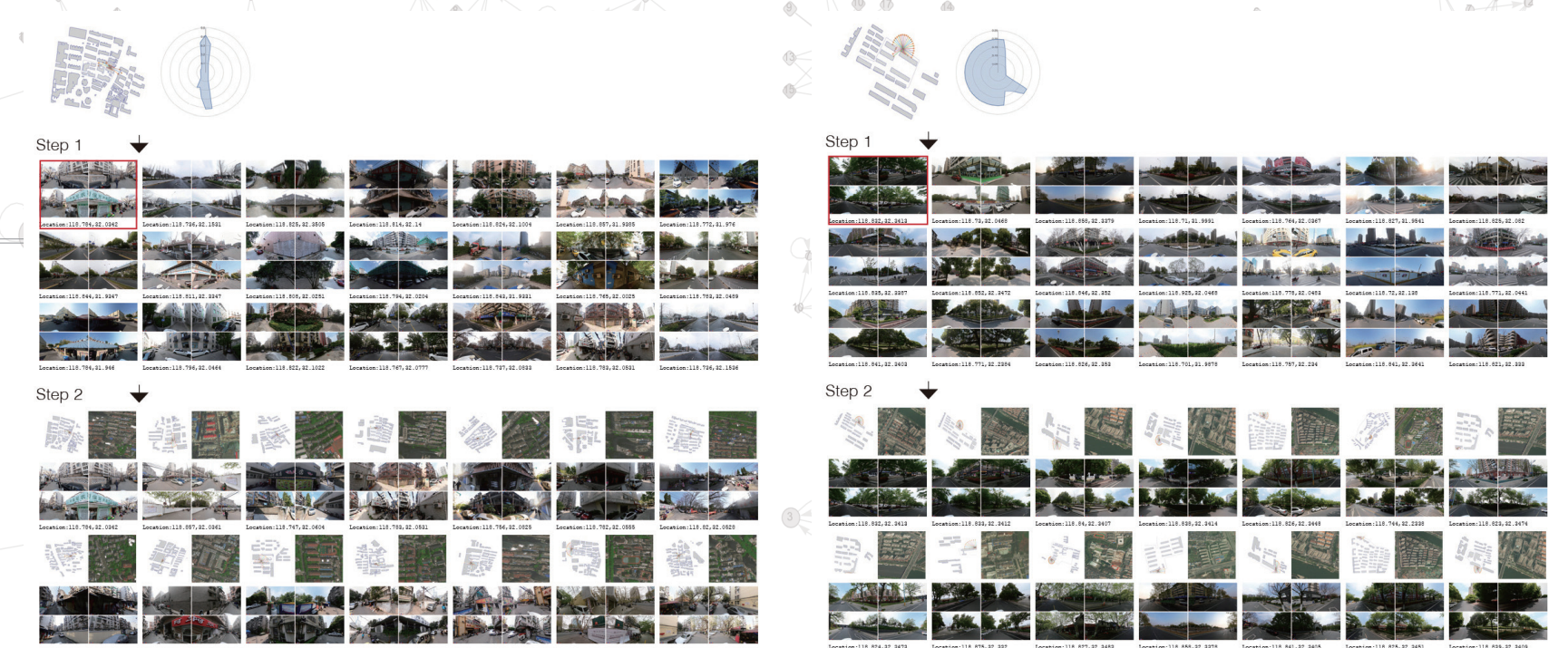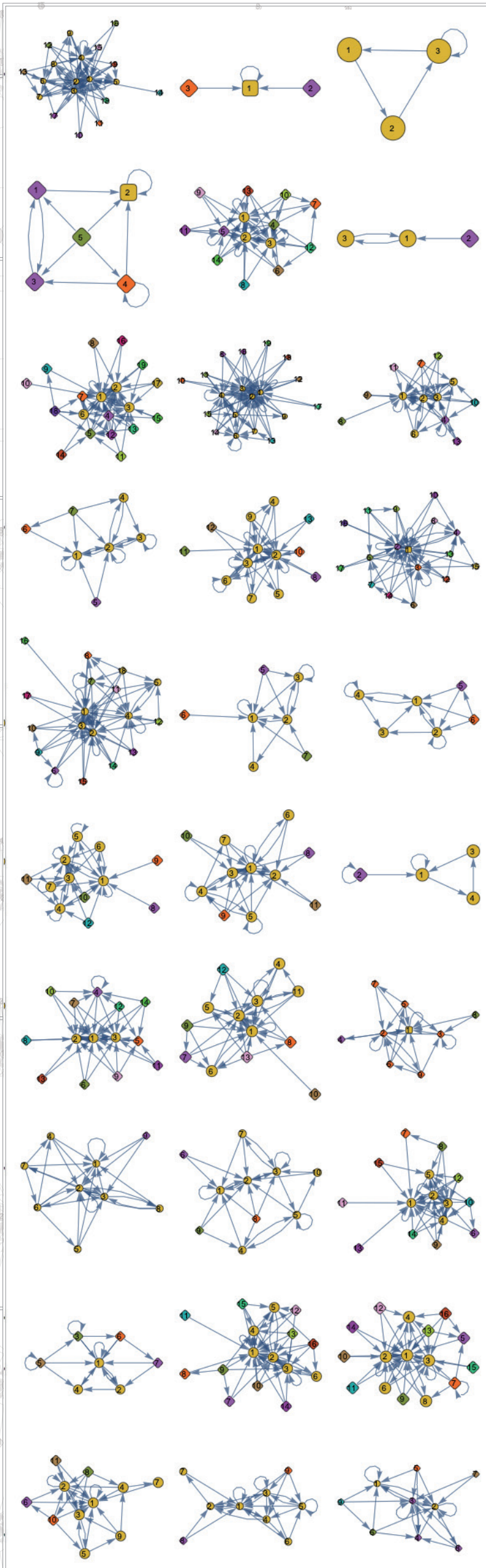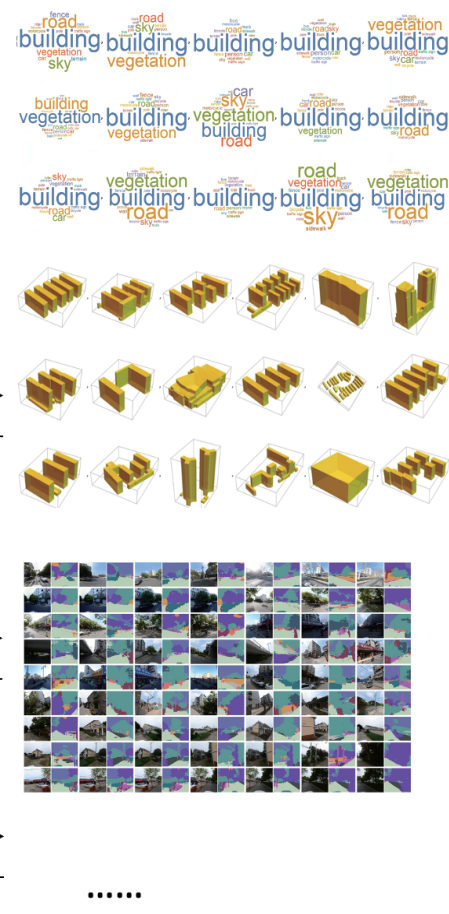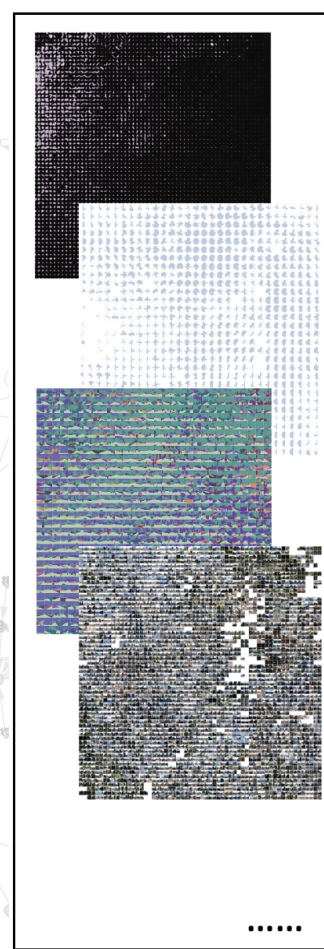
## Individual observations



We are working towards a methodology for linking and mapping city science and design strategies. It integrates data streams, associates topical semantic urban elements, and enables a dialogue between users and machines in digital models.

We showcase a search engine, providing an instrument for planners and designers to navigate among existing cases. By enabling easy retrieval of related cases, such a search engine could hence support case-based reasoning related to urban design hypotheses about which characteristics make a particular case good (or bad) and would provide evidence to support or contradict case-based assumptions.