

THE SELF-ORGANIZATION OF STUFF

Stella Groenewoud

English summary

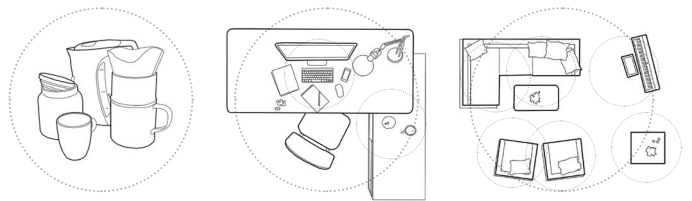
Stuff in and around the places we inhabit is traditionally understood in terms of order and chaos. One can 'tidy up' and sort stuff into categories that are stored in a space-saving pattern. Over time, however, these structures fall apart when neglected; stuff is uncoordinatedly moving around our 'messy' homes. An unavoidable human intervention is constantly needed to undo this process.

However, in the second half of the previous century in different disciplines the insight grew that particles in a system have the ability to form structure without our conscious interference. This process of spontaneous order, or self-organization, can be found in all forms of life around us; the growth of organisms, the movements of birds, the patterns in fur and even in the urban fabric.

For stuff, this is no different. It is not in the 'ordering', but in their actual use that things spontaneously form bonds with each other, and showcase emergent properties. These are firstly functional: a cup, hot water and a tea bag together allow the user to drink tea, whereas the separate parts do not. More interestingly, however, these qualities are also cognitive. The lay-out of our direct environment is an immediate 'mind-map' of reminders we constantly create for ourselves. The configuration of stuff is the communication of possibilities.

It is not the grid-like category-based order, nor the soup-like chaotic environment, but the crystal-like structure of self-organised stuff that is the main form of order in our direct surroundings. As architecture is always about order, why not

take the patterns that naturally arise as the organizational structure of a building? The structures are functionally optimal, cognitively logical, undesignably complex, and come completely for free.



In this design of a house, architecture both grows from and provides for the process of the self-organization of stuff. Stuff cells rise and fall in a system as directly and as three-dimensionally as possible, through a system of centered tables and an edge of mechanically moveable surfaces. Walls are semi-permeable membranes, that allow stuff to be part of multiple configurations at once, and form themselves around secondary servant-spaces from which the system can suddenly be observed from the backside. Both immediate adaptation and the unexpectedness of certain cross-links are conditions that shape the building and keep the system dynamic and alive.

This project does not give a finished solution to a problem, but rather questions the whole of how we create and follow order with architectural interventions. Order is more complex than drawing lines. When we live in and use a building, form, function and cognition constantly influence each other, and together create space.