

During the two years at the Institut für Neue Medien I have concentrated on the investigation of the possibilities for automation in the art creation process. I have approached this research from an conceptual point of view.

Tools that supply automation during the making of an art work already exist, and are being used by artists in an wide area of applications. However, I have been looking for an automation tool that affects artistic thinking at a more abstract and basic level.

If there exists something like an artist's formal language (where every artist uses his or her own version of this language, but all languages belong to a certain class), one could think of a tool that supplies automation at a level where it will affect such a language. In fact such a tool might call for the development of a new class of formal art languages, and it is clear that if an artist is going to be using such a tool, this will influence his or her way of thinking from the moment of conception of the art work.

There is a lot of research going on in the scientific community. Many new programming paradigms are being developed, like dynamics motion control, inverse kinematics, behavioral systems, artificial life systems, fractals and L-systems.

These paradigms are all implementations of more or less complex, life-like systems into the binary world of the computer.

I have looked at these paradigms from the following point of view:

how could those paradigms be used as an artist's tool?

how will implementations of these paradigms affect the artist's thinking?

A virtual world can be represented in the computer: in the virtual world are its inhabitants (objects). The inhabitants behave according to laws and rules that are described in the program. Each individual object follows its own set of rules, which may be very simple, but as a group the inhabitants will show an emerging group behaviour. Such a group behaviour can be rather complex, even if the underlying rules are simple.

Artificial intelligence researchers are looking for life and searching for rules that cause life-like behaviour.

Being an artist, and not looking for life, I would like to reconsider the set of rules. Rules can describe many things, for instance physical behaviour according to laws of gravity and collision, or individual behaviour like "avoid the others and fly forwards". But rules could also describe what an object might look like, or how a viewer might interfere in the system and change the set of rules.