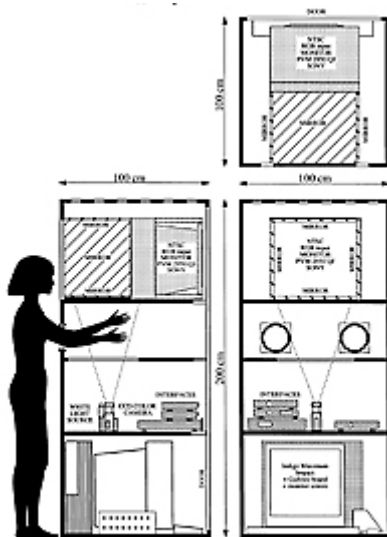


GEN MA — Genetic Manipulator Christa Sommerer/Laurent Mignonneau



GENMA — developed for Ars Electronica Center, Linz/Austria, supported by ATR Media Integration and Communications Research, Kyoto, Japan — is a machine that enables us to manipulate nature. Nature exemplary is represented as artificial nature on a micro scale: abstract amoeboid artificial three-dimensional forms and shapes. Principles of artificial life and genetic programming are implemented in those forms or "creatures", allowing the visitor to manipulate their virtual genes in real time.

Most of the CD-ROM and interactive art works present pre-designed and preprogrammed paths of interaction, giving the viewers a variety of different choices and paths to follow. An exploration of unexpected new paths is of course limited. Therefore Sommerer and Mignonneau have been working with evolutionary biology and becoming more and more interested in how natural evolution can function as a tool of creation processes. Giving up total control over his art work and even the images themselves, the artist of course takes a very new position. He reduces his influence to providing a framework within which the visitors themselves now become responsible for what they will perceive.

The visitors to the installation themselves function as randomizing factors, giving the art work a particular form and development. Human factors on a micro and macro scale, such as for example frequency of movement, speed of movement, body tension, human pulse ... can be chosen as randomizing parameters. Transmitted by interface and protocol to the computer and linked in real time to image events on the screen, they guarantee a great variety of non-predictable image generation.

Looking into a glass window, the visitors see those creatures in a graphic display projected in front of him. By putting both hands into a kind of glass box, the visitors will be able to catch hold of these virtual creatures. Using their hands they can manipulate the creatures' genetic code, thus changing and modifying the appearance of each of them. The genetic code of these forms is schematically displayed separately. By now selecting parts of these genetic strings, the visitors can in real time observe the impact of their manipulation.

By engaging in interaction and more intensive experiments, they will learn at the very beginning how to create complex forms out of seemingly simple structures. Taking parts of

the genetic strings, cutting, pasting or multiplying them, adding mutations and variations, *GENMA* allows the visitors to explore the tools of genetic manipulation and satisfies our inner wish to change and transform nature as we know it.

GENMA is a kind of dream machine that allows us to "play scientist", and as we watch ourselves doing so, it also mirrors the absurdity of this action and interaction. By using science, namely the principles of artificial life as a source for creation, *GENMA* is also an attempt to address the question of what it means to manipulate and what impact it will have on us in the future.

Nevertheless, *GENMA* isn't based in the common "good-bad" classification or in the sense of "political correctness", but is a tool for reflecting our fascination in the unknown and unexplored.