Next Generation Building

Professor Kas Oosterhuis

FOUR DECADES OF EVOLUTION

1992. First decade of *digital* architecture. In the eighties of last century, the first decade of digital architecture, we explored 3d modeling with advanced software like Mechanical Engineering software of Intergraph. We organized events like Artificial Intuition, to train the intuition suing the logic of the computer. At home we experimented intuitive 3d modeling with the Atari 1024ST, we used the computer to sketch freely and be inspired by what we saw. IT opened up new worlds of imagination.

2002. First decade of *nonstandard* architecture. In the nineties we realized our first nonstandard architecture buildings, buildings that were conceived as inhabited sculptures, we invented the event multidisciplinary multimedia events Sculpture City and The Genes of architecture. We developed streamlined, smooth and in its basis symmetrical designs as to evoke the logic of building bodies. We wrote about architecture as the design of vectorial bodies, bodies in speed, bodies in friction. The evolutionary body plan became the tool kit for our nonstandard architecture. In this decade we built the Elhorst/Vloedbelt, the Saltwaterpavilion.

2012. First decade of *interactive* architecture. In the early zeroes of the 21st century we embarked on the logical next step in nonstandard architecture. We wanted to maintain the information stream, we did not want to freeze the animation, as was suggested Greg Lynn. We wanted the building body to stay alive. I was invited to run a chair at the TU Delft and started a research group with the provoking name of Hyperbody, free after hypertext [one dimensional] and Hypersurface [two-dimensional, we owe this term to the late Stephen Perella]. Hyperbody's numerous interactive prototypes are now considered to be icons of interactive architecture. Interaction as a bidirectional exchange of data, information and knowledge became the natural position wherefrom to look at the world. That world is a stage, while the people and the buildings are the actors on that stage.

2022. First decade of robotic architecture. Now looking forward to the basics of the coming decade, we indulge ourselves in robotic architecture in all phases of the lifecycle of a built construct. We use robotic algorithms in the design process, we use production robots in the manufacturing process, we use robots in the assembly process, and we use robots in the operational phase of the construct. In fact we will deal with *swarms* of these acting bots, in a close cooperative effort between bots and people. We will design inside the evolution of the Internet of Things and People. We are aware of the fact that we live inside evolution at large, we evolve together with matter and machines, information matters and info materializes.