Johan Pijnnappel - In 1979 Ars Electronica grew out of an idea of Hubert Bognermayr's, of an electronic music and video symposium. What was the initial aim of Ars Electronica at that time?

Peter Weibel - Hubert was an electronic pop musician, and he wanted to make an event around electronic pop music. So he approached Dr. Hannes Leopoldsdorfer from the ORF (Upper Austrian Broadcasting and Television), the Austrian radio and television station. They started together with scientists and artists like Herbert W. Franke, who was a chemist and one of the first people to move into digital art in the way of Max Bense, an art based on calculation. He chose the name Ars Electronica. They wanted to make a more or less popular event showing the influence of electronics on pop culture.

Since 1984 there has been less concentration on spectacular inventions, and more on Utopian social possibilities. What were these, and did they work?

- There was a change in 1984, because they invited me to participate as an artist, and consultant, and in 1988 a new director, Karl Gerbel, was appointed at the Brucknerhouse, who wanted greater influence on Ars Electronica. It should be mentioned that Ars Electronica is supported by two institutions, the ORF and the LVA (Lotzer Verbandsstiftung) of the Brucknerhouse. The ORF has dealt with the Prix Ars Electronica, since 1987, whilst the Brucknerhouse finances and represents the festival.

Initially as artistic consultant, and later as artistic director, I could give a new outline of how electronic art could be, and invited theoreticians such as Flusser, Vitrato, Baudrillard and scientists to give the background frame of reference for this movement. My view is that the artist is always influenced by the world view of the scientist. Pictures which are given to the world by electronic artists are closer to the models of the world given by the scientist, and therefore are closer to reality. The advantage of electronic art is to give us a more advanced picture and model of the world than other artistic media.

Each year Ars Electronica has a theme. What were the developments and what artists represented them?

- I entered this field, in 1984, with the publication of my book The Aesthetics of the Digital Art. Therefore,
David Flinkelein and Otto E. Rostler, in the late 80s. Classical physics is based on the assumption that we are external observers of the world and that our observation does not change the world. However, after quantum physics it was clear that observation is not a separate process, does alter what is observed, and this is the Heisenberg principle. Endophysics states that in physics all laws are relative observations, as we are internal observers. Therefore there are no absolute internal laws.

I realised that this is in fact the point of electronic media. In the natural world we have the illusion of being external observers; when touching something it appears not to change. But in the electronic media the basic principle is interactivity. Even a painting, like a laser, emits when not touched, and you do not have to put a video cassette into a recorder to watch it. This is the lowest degree of interactivity. All these multimedia events only come into existence through one’s observation. In the electronic world we are merely internal observers, the world becomes an interface problem. The art product is not a picture anymore; it is not a two-dimensional window on the world but a door to multi-sensorial events; an artifical environment consisting of a dynamic system of different, variable states. One is not the director of that system, one is an event horizon. These events can be visual, tactile, or as. The observer is both an external and internal observer – inside the event, part of the system that is observed. A Head Mounted Display unit allows virtual worlds to be entered, but what is seen in the helmet includes fragments of the observer’s own body, part of this virtual world.

The electronic picture is no longer just a picture; but a dynamic system of virtual events and variables controlled by the observer on the context that we are doing is constructing context controlled event worlds, based on the virtuality of the storing process, where information is not locked, but free-floating and therefore immediately changeable. The instantaneous variability of the information creates a dynamic system with lifelike behaviour that I call virtuality. Virtuality, variability and virtuality are the main characteristics of interactive electronic media.

This concept led to my interest in genetic algorithms, or the rules of growth. So in 1982, I organised a Genetic Art – Artificial Life. This festival was attended by many people including many individuals from the Santa Fe Institute – renowned as the birthplace of the complexity theory – and many female artists like Orlan, from France, who performs plastic surgery on her own face. Through our exploration we have had virtual worlds, endo and nano physics and it became clear that the computer not only creates virtual environments and worlds but also infects the real world, allowing its intelligence into our physical environment. Why I came up with the title Intelligent Ambi in 1988 the Symposium The Philosophic Foundations of Artificial Intelligence developed, in USA in the 70s, by Technology movement. What were they: – First of all it is important to make clear theory no longer comes only from hard facts, but also from the social, economic, and cultural context. Second, the term “artificial” means that we are not simply creating a simulacrum of the real world, but are constructing a new world through our own actions. This new world is not just a copy of the real world, but is a new reality that is created through our actions. Therefore, it is important to consider the role of the artist in this process. The artist is not just a creator of art, but is also a creator of reality. The artist can change the world by creating new realities. This is what I call Intelligent Ambi.
David Finkelstein and Otto E Rosler, in the late 80s. Classical physics is based on the assumption that we are external observers of the world and that our observation does not change the world. However, after quantum physics it was clear that observation, as in the case of quantum mechanics, involves interacting with the observed world. The observer is an integral part of the observed event, and this is the Hausdorff principle. Endophysics states that in physics all laws are relative observations, as we are internal observers. Therefore there are no absolute laws.

I realised that this law in fact the point of electronic media. In the natural world we have the illusion of being external observers; when touching something it appears not to change. But in the electronic world the basic principle is interactivity. Even a painting, like a technological environment, could require you to put a video cassette into a recorder to watch it. This is the lowest degree of interactivity. All these multimedia events only come into existence through one’s observation. In the electronic world we are merely internal observers, the world becomes an interface problem. The art product is not a picture anymore. It is not a two-dimensional window on the world with one or more variables of the subject: you are not defined anywhere. Instead it is a situation which can be changed, that is necessary to survive. It is essential that there is change in the real world to access the various positions of the subject. The classical subject was defined by controlling objects. Now due to interactivity, it must be learned that one is not a master by enslavement. Until now human beings had been the only creatures who could control space, creating symbols and meaning. However now we have computers that can do this, therefore we no longer have a monopoly. The situation is changing its position and the subject has to learn not to be master by having to create a space around. Love is one of the things that is a subject and yet merge with somebody else. The aim of love is not mutual domination. You need, becoming a part of another subject that you feel in tune with, which has the same ideas, the same feelings. Technology teaches us to understand how we can control our physical environment.

The second point, which is easier to understand, is the future of geopolitics. The tectonic global city means urbanity, freedom, individuality and when it happens, the geopolitical boundaries and geopolitical behaviour will no longer be valid. In Italy the people have said they don’t want politics any more, they want media. And America was very close to saying the same when considering Ross Perot. The question is how to make politics in a tectonic age.

PAGE 26: Peter Weibel, Virtual Worlds 1: The Text-World

ABOVE: Peter Weibel, Virtual World 3: The Text-World

Peter Weibel, Virtual World 1: Space and Architecture
Politics founded on geography is barbaric – one only has to consider the situation in Bosnia – even when you think of the city, which is an obvious geopolitical idea of how to organise social life in a certain territory. It doesn’t exist anymore; today politics have to be made without cities, without borders. This question which remains unresolved, but a start has been made rethinking technology, territory and politics.

This point was discussed in my essay Technology and Territory by Baudrillard spoke about this subject and about the fractal subject. Kittler and Helmut von Forster, as a cybernetician and a constructivist, raised the problem of how the real world is vanishing. More and more, simulations of the world and reality become equal and reveal how the real world is artificially and socially constructed by us.

I always compare this to avant-garde music when the pause was emancipated by Cage and Webern. Webern was the first, in his famous Bagatelles, to say that a pause is equally as important as a sound. Then there is the famous book called Silence in which Cage says a silence is the same as a sound. Now instead of break and pause we have fiction, symbolic, imaginary and simulation. These elements are as important as reality in our actual world. Reality in electronic worlds becomes a wall built by fictitious bricks and therefore variable, changeable, and controllable by man. These three arguments have been put forward as a contribution from media philosophy to the electronic world.

Technological progress is very fast and has a tremendous influence on the way men look and deal with themselves, and the earth. What are the important subjects of influence our view of life?

- I will answer this question in two ways, as it has consequences in both the art world and the so-called real world. New technological interfaces have such a deep influence on our perception that art changed completely in the 80s. These experiments with art and technology became known through Robert Rauschenberg and others, including Andy Warhol. People realised that the eyes didn’t see as well as a camera, which is why when Frank Stella was asked who the greatest artist was he gave the name of a baseball player. He was fascinated by the player’s eye because he could synchronise so many things, like a specifically trained mechanical eye. Therefore, in minimal art and in media art the mechanicisation begins to be the subject itself.

There is a place, Enforced Perspective, by Bruce Nauman, from 1976, where 36 different cubes exist. He realised you can’t see a cube as a cube, because it is always seen from a different point of view, so you can only show different forms of perspective using distorted cubes.

The next step was to explore the technology itself, and experiment with this new medium of the picture. Natural perception could be substituted with the technological: this was the answer of the structuralist avant-garde, whose film structure was based not only on perception but also on language. Conceptual art was leaving the arena of natural perception and moving to another area, where language was the model and not perception. Then came video and computer art which fuse technological and artificial perception together with language to form context art. An excellent example of this medium is Jeffrey Shaw’s Legible City. This is the state of technological art in the 90s, social context is used as a model for the text and the context becomes the text.

It is clear that how we perceive the world is the product of millions of years of evolution. We cannot accelerate this process, but we can accelerate the technological interfaces that make it possible to see, think and act faster. The world is becoming increasingly complex; we have more and more information to process and we need the help of televisions, telephones, computers and satellites just to be able to function. Our bodies could cope with requirements of this technological world unaided, so we have been forced to create the virtual body. As technology improves so do our own abilities.

A virtual body does not have to look like a robot: that is an old-fashioned idea because there is no need to imitate existing hardware. What the virtual body is doing, is imitating the software. There were people who said a robot should be like a body and should do everything at the same time, write, think, and have emotions, but this is neither possible nor necessary. Instead, you will have many, many little robots around you, who don’t look human, and who have only very small, local functions; for instance, a machine based on muscular reaction for opening a door. This will be our virtual body and we have already started: we have telephones, televisions, and a variety of other appliances which are starting to create this virtual body, which creates a radical transformation in our perception of the world. We need new organs to help us to function, to improve our quality of life, in this environment.

By the end of 1995 there will be a permanent Ars Electronica Institute, in addition to the festival. In what direction does the future of Art and Technology lie. Will it be more game oriented or will the bike be towards simulations of biological processes?

- The answer is the transfer of the experiences in the art world to the real world. To understand this we should consider other examples of transfer. In the 50s and 60s there was avant-garde cinema and it produced MTV. This is a model of the transfer of knowledge which is the real function of the avant-garde. It will be similar for the electronic media. Artists like Jeffrey Shaw, Lynn Hershman, Cyber Worlds, Paul Sermon and myself are working with high-powered computers, anticipating the real world in ten or fifteen years. All the subjects we have at my Institute for new Media in Frankfurt, and at Ars Electronica – telematic communications, networks, virtual bodies, multimedia environments, computer-controlled environments – will be consumer durables in ten years time, everyday items in regular households. There will be intelligent buildings and more intelligent households.

What I see is that our research and experiments will not only have an enormous influence on the consumers but also in hospitals, factories and all other public areas. When you go into a railway station or museum you will be surrounded by machines helping you to communicate; whilst the virtual body will have an enormous input into medical technology, from drug design to virtual operations. People who now experiment on the real body can do simulated operations, before they try the real body. Scientific visualisation will have an enormous effect on how fast people learn. They will learn in a transcontinental environment, wired to a network controlled by autonomous agents that are capable of learning and adjusting themselves.

I have nothing against video games Hobberman’s Bar Code Hotel, because bar very interesting philosophically. The war three levels of codes. First we have a real world, which are not things in their own 3D quotes, but the real world they are all alike so are neutral. Then there are words on the boxes – but in fact the words you anything more. The real information code, the third level. We do not interact of objects or language anymore, but on the

This is my final idea about the world: communication between different codes faces, more or less immortal. When the Dutch artist Mondriaan introduced Neo-plastic realism that the picture became three-dimensional and that form has to be substituted by G which he called Veve Gesammtung. At the end of the century we talked about Gesammtung, next century we will talk about codes. We variable versions of the subject but we variable zones and types of possibility. Some be visible as a picture, a word or a code will always be dominant. In Bar Code codes make the decision of how it is visible is visible and in what form, or Gesammtung. This world of codes will be central in century, and this is what has to be explored.

Perry Hobberman, Bar Code Hotel, interactive installation, Banff Centre for the Arts, Banff, Alberta, Canada, 1994.
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I have nothing against video games like Perry Hoberman’s Bar Code Hotel, because bar codes are very interesting philosophically. The work exhibits three levels of codes. First we have a real object: the boxes, which are not things in their own right; they are all alike so are neutral. Then there are letters – words on the boxes – but in fact the words don’t tell you anything more. The real information is the bar code, the third level. We do not interact on the level of objects or language any more, but on that of codes.

This is my final idea about the world which is a communication between different codes and interfaces, more or less immaterial. When the wonderful Dutch artist Mondrian introduced Neo-plasticism, he realised that the picture became three-dimensional and that form has to be substituted by Gestaltung, which he called Verve Gestaltung. At the beginning of the century we talked about Gestaltung, but in the next century we will talk about codes. We now have variable positions of the subject but we also have variable zones and types of visibility. Something can be visible as a picture, a word or a code, but the code will always be dominant. In Bar Code Hotel the codes make the decision of how it is visible, when it is visible and in what form, or Gestalt, it is visible. This world of codes will be central in the next century, and this is what has to be explored.