

from design to meta.desgin

inter_trans_view

Philippe Franck, Transcultures
Manuel Abendroth, LAb[au]

2003

for the Belgian art magazine
l'art même nr.18



From DeSign to MetaDeSign

inter_trans_view

Philippe Franck, Transcultures & Manuel Abendroth, LAB[au]

for:

L'art même

the Belgian art revue by the French community Brussels / Wallonia

<http://www2.cfwb.be/lartmeme>

<http://www2.cfwb.be/lartmeme/no018/pages/page3.htm>

question1: multimedia art / digital art
question2: hypertext / hypermedia
question3: historic references
question4: interactive art history

From DeSign to MetaDeSign

In LAB[au] Manuel Abendroth, co-founder of this laboratory for architecture, urbanism and artistic multimedia production, carries out a work of theoretical research. On the Web or through installations and performances, LAB[au] elaborates a "metaDeSign" that exploits and investigates the implications of new technologies of computation and communication in spatio-temporal structures as well as in their forms of representation. Quite an adventure that potentially takes a meta-designer into a view back to a future made from the multiple versions of a techno past yet to be (re-) discovered.

Question1:

The terminology "multimedia" is often associated to new information technologies but also refers to interdisciplinary. What is your understanding of this notion in relation to specific techno-artistic works of the past century?

The term "multimedia" as it occurs to me, does not make much sense in regards to new technologies. It would rather refer it to non digital art. Yet, multimedia art research does allow one to understand some of the changes occurring in digital art. From an historical point of view, I think one can talk about multimedia with futurists and Dadaists, who broke the traditional categories of art such as painting and sculpture... Let's take for example the polyphonically sculptures of Luigi Russolo or the Dadaist creations produced by the Cabaret Voltaire : they do not fit in classical categories of art, especially as they call upon various media while questioning the artist practices and the status of the artist itself. As a consequence, it was not only the use of different media and technologies, but also of a new conception of art as well as the role of the artist. The question that we face today is how technology influence the production of artefacts, and therefore the production of signs and language, and how new artistic practices emerge from these new signs and languages. With digital technologies, any information is the result of a computation - data process - and communication - data transfer. Any content whatsoever (text, image, sound...) is a reduction to a binary sequence that allows it to be transferred through various channels, to be interconnected or to be formalized in any possible way. It is therefore a system that, by using one basic unit, homogenises information, which is why I would rather talk about one medium, or one "hypermedia" rather than "multimedia".

"Broadway boogie Woogie" for example, one of the last paintings by Mondriaan at the end of his life (1944) that recalls New York City from the top of a skyscraper, listening to some jazzy sound. In this painting, Mondriaan was relating his works about pictorial space with those of architecture and music. Much like Kandinsky's paintings were based on the music of Mussorgsky, it is an analogy system that correlates visual, sonic and spatial codes. With digital technologies, it is no more an analogy since the various sources of information are based upon the same basic unit and their relation must be programmed or represented thus constituting a language, a system of signs. In the relation between image and music, several pieces by Xenakis are sound examples of these "programmatic relations" - I'm thinking especially about the Polytopes - such as all the forms of audio-visualizers (visualisation of pitch/volume or any parameter of sound).

In regards to digital technologies, it is obvious that there are no multiple media, as suggested by the term "multimedia" - but one, unique, medium, a hypermedia that unifies all forms of expression (sound, image...) and that can be interconnected and related through programming.

Question 2

In LAb[au], you are very much interested by great pioneers of cybernetics and communication theorists (Mc Luhan, Wiener and the likes) particularly in your researches on hypertext. What are today's main conclusions to be drawn for "hypermedia creation"?

Hypertext, maybe because of its name, is often understood as a form of writing, some sort of narrative mode. And yet, the hypertext was defined by Nelson, the inventor of the term, as a system of information indexing allowing interconnecting distinct documents through hyperlinks while giving the necessary instructions for its display on a screen. The prefix "hyper" describes the supplementary layer of information qualifying a document in relation to its location, its indexing in a structure, and allows the interconnections with other documents. The "meta" layer qualifies the semantic level (hyperlink) and all the graphical elements representing them (signs). according to this definition of hypertext which goes back to the sixties, one can say that today, the increase in computational power of data processing devices allows to interconnect different types of information (documents, texts, images, sounds...), which goes beyond hypertext, to become a hypermedia. The question of hypermedia thus refers as much to the logic of information structuring as to the inter-relational logics of these various forms of expression, such as a visual dance, a spatial text, or their form of representation, thus to the logic of sign and language. As a result, it is necessary to carry out a work both theoretical and of production in the field of new media, in order to elaborate a new language and a methodology specific to the digital medium. It is with this objective that since the creation of LAb[au] we work on the conception of methodologies that we group under a more general approach articulating our concepts: MetaDeSign. It is essential to know and to understand a medium. One must therefore know its history and also understand what the original intentions that provoked its development were.

Question 3

Among the avant-garde of modernity that have positioned themselves in this dialog between art and technology, what are the founding actors or movements of this ever-interacting relation ?

In our opinion, and in the artistic field, the works or movements that were the most "visionary" do not come only from artistic exploration but certainly more from a theoretical and methodological approach intending the articulation of the system of signs to the specific modalities of media/technologies in a coherent form. The works of artists from the Bauhaus and the Russian constructivists are very clear in their relation to technology and methodology, proposing the founding of a new art and artistic status through an approach based on the social political changes, which are obviously in relation to technological progress. What, in the example of the Bauhaus, is the industrialisation with the emergence of design, or in the case of the Ulm school, the post-industrialisation with industrial design, correlates today to the informational revolution and MetaDeSign. With each technological advance, new codes (semantics) and methods (practices) emerge.

Furthermore, these are often revealed by their name. The emergence of the concept of "design" around the Bauhaus (particularly El Lissitzky) was intentionally to qualify the artistic issues at stake in relation to technological and social changes in order to reintroduce them in the very concept of art. Yet to talk about a system of signs and "significance" indicates not only the meaning that something has for us, but also our intention towards it, which brings the technological sphere right into the center of engagement but also to the one of disciplines. It is therefore a definition of the artistic field entirely integrated with the other spheres, as much in the cultural as in the social, economical or even ideological level. But let me go back to your interrogation on the various avant-gardes and their founding in the relation between creation and technology. I will refer to a famous quotation by Marshall McLuhan, "the medium is the message". Technologies are not independent systems but are integral parts of our sensory and cognitive systems; thus they determine the modes of communication/ expression, such as the way we perceive and conceive our environment. It is also why the current technological revolution has such an impact in both the esthetical as well as the ontological level.

Question 3

With the generalisation of digital technologies, the potential of technology and human-machine interface through interactivity between the creator and the receiver becomes a crucial question. How did these concepts emerge in the XX century and how were they treated in the artistic field?

Without going into too much in details, one can say that each work of art, each form of art establishes a specific relation between the creator and the receiver. If one considers, for example, an Op Art painting that plays with visual phenomena, it is obvious that, in the very conception of the work and the way it is exhibited, the artist purposely included the visitor as much on the level of his sensory system (the eye) as on the cognitive reaction (its movement). These specific modalities determine the significance of the work (to be a painting - to be art...) and establish a close relation between the artist, the work, the visitor and the cultural context.

But to have any sense concepts such as interactivity and interface design must be restrained to digital technologies and its technical but also perceptual and cognitive specificities. With the digital medium, any information is the result of a process of computation and communication; it does not exist before this process. An image that we see on a screen is not recorded as such in the computer but is the result of an instruction (an algorithm) that leads to a process: binary sequences that are interpreted through a language in order to produce a certain visual representation, significance. What is fantastic is that the same binary sequence could be used to produce, let say, a sound. In short, information is a process that is modifiable at any time depending on both: a system of language and a system of representation to achieve significance. With information technologies, interaction between information and the user reveals even more the design of the process as an open system, up to the possibility of modifying entirely the initial information. So, information technologies, through new forms of organisation, recording and data processing bring new forms of senses, such as processual and reticular thinking. In regards to this definition of interactivity based on the active participation of the user in the process of information and to its structuring, we are, in my opinion, only at the beginning.

As to the historical question and artistic creation, I would locate the emergence of programmatic artworks at end of the 50's a moment: when Nicolas Schoeffer presented his first cybernetic sculpture, when the first sound visualization and image synthesizers such as the animac <http://www.audiovisualizers.com/toolshak/vsynths.htm> have been realized, when Nam June Paik or Gerald O'Grady started their first experiments, even if at the time, the concept of programming language was still scarce and technology was more analogue than digital.

If one talks about interface, and besides the keyboard, the first hardware and software interface was a US military application in the fifties, which was part of an air surveillance system that allowed operators with an optical pistol to interact with the planes represented by small crosses on the circular screen.

But the real first "modern" interface to become a standard was the mouse, which was developed in the early 70s by an American engineer from Xerox Park, Douglas Engelbart, one of the first research laboratories to become interested in the structuring of information in graphical form, essentially for office application. They also invented the term "GUI" (Graphical User Interface), and they were also at the origin of the "desktop" concept, which became the main interface for all operating systems (Windows, MacOS, Linux...). These two concepts constitute a relatively new field in the research for interfaces between man and machines.

In my opinion, the movie "2001: a space odyssey" by Stanley Kubrick manages to relate a broader version of technology with the question of intelligence, human evolution and culture.

On this website: http://www.2001exhibit.org/2001_splash.html there is in the category "art" a large collection of computer screens (graphical interfaces) through which astronauts visualise processes and interact with HAL (2001's AI computer). This goes back to 1968, before the very existence of these systems ! Even if they were not real interfaces but mere projections and animations, it is amazing how Stanley Kubrick and his team managed to anticipate a future so rightfully out of the technology of their time and how well they integrated the fundamental question of computer and technology. Yet, generally speaking, I think computer games and musical experimentations are the main vectors of exploration in the field of interfaces.