Questions: Stefania Garassini, Milan

Answers: Lev Manovich, San Diego

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Q. Regarding Architecture, you mentioned the work of Frank Gehry as an example of the influence of computer on finding new solutions. Can you give me some other examples of architects whose work is in your opinion affected by the use of computers and explain me the nature of this influence?

A. Today, all leading architects and certainly all young architects are designing with computers. Just as in cinema and a number of other cultural fields, what was new and unusual ten years ago now completely taken for granted. It is impossible to summarize all the different ways in which the use of computers for design, construction, and presentation has affected the profession, but looking at it "from the outside" I would say that the most visible effect so far has been the wide adaptation of new "soft" forms. What is interesting is that these forms now appear in designs of architects of all generations, including mature architects who already developed their own personal languages such as Zara Hadid and Eric Moss. It is one thing to see these forms in the work of those who have actively been working and thinking about computers and information society throughout their careers such as Greg Lynn, Asymptote or UN Studio – but I was quite shocked to see Hadid and Moss going "soft" in their recent design proposals.

For me, the question of new forms in architecture connects to another question that I will try to deal in detail in my new book Info-Aesthetics: how can information society be represented symbolically? In particular, are there any spatial forms that may successfully symbolize this society the way simple

geometric, and later streamlined forms of modernism came to symbolize industrial society? Is it, for example, appropriate to read the "blobby" computer-generated forms I just mentioned not simply as a reflection of new software-based design processes and not as a negation of forms of modernism and post-modernism, but rather as symbols?

As a way to reflect about this question, I gave the following assignment to students in a three classes and workshops conducted in 2000 in Helsinki and San Diego: design a monument to information society. The idea of this assignment was to highlight that a new "post-computer/post-network" form may not look like form in its familiar sense of something complete, stable and finite in space and in time – something which blobs, ribbons and other computer generated representations recently favored by architects still are.

The first question leads us to a second question: how does computer/network changes our very concepts of form and representation? In the book I plan to discuss a number of new concepts of form in information society: form as constantly mutable; form as a distributed representation; form as emergence; form as signal defined in opposition to noise. I derive these concepts by looking at the basic ways in which computers and networks represent, organize, and communicate information.

While none of these new concepts of form may be fully realizable as a built, material architecture today, and therefore strictly speaking the attempts by contemporary architects to build such forms should be classified as failures, the result is some of the most interesting architecture being realized and imagined today. That is, the search of architects to do the impossible – to dematerialize architecture altogether, to make it constantly mutable, to turn it into a network distributed in space and time, etc. – results in a variety of innovative and inspiring aesthetic hybrids merging forms of traditional architecture and the characteristics of computer/network based representations.

Q. From which domain will the "Griffith", the "Fellini" of new media come from?

A. They have already come from all cultural domains. Many of the most celebrated cultural objects of our time are made with computers: for instance, Frank Gerry's architecture, Merce Cunningham's choreography, Andreas Gursky's photography. These and countless other artists use computer as a tool, so they don't call their work new media – but nevertheless, without computer they would not be able to make their aesthetic discoveries.

Q. How was Soft cinema accepted by the audience? Do you plan new versions of this work?

A. Soft Cinema (www.manovich.net/softcinema) is a practical project that shares a number of ideas with Info-Aesthetics book. The project consists from large media database and custom software that edits movies in real time by choosing the elements from the database using the systems of rules. The software decides what appears on the screen, where, and in which sequence; it also chooses music tracks. In short, Soft Cinema can be thought of as a semi-automatic VJ (Video Jockey)—or more precisely, a FJ (Film Jockey).

The screen design of Soft Cinema movies adapts the new interfaces of information culture such as financial TV programs and Graphical User Interface of a computer. No longer simply a means of accessing and manipulating information and news, these interfaces become a new way to present a narrative. While a voice over narrates a fictional story, smaller windows "augment" the narrative by showing character's memories, associations, narrative alternatives, and summaries.

The project was commissioned for the exhibition Future Cinema at ZKM. Soft Cinema is designed to take a number of forms during the next few years,

including linear versions, different installation versions, and a number of Soft Cinema catalogs. While the underlying software that drives the project remains the same, each movie presents different narratives and uses different subsets of my media database.

While working on the project I got more and more interested in designing the architectural solution for it. The presence of all kinds of electronic displays is an essential part of contemporary architecture. This new "screen architecture" already has its classics (for instance, Prada store in NYC by OMA/ Kram, or Facsimile project by Diller + Scofilio) but since in the near future every surface may become an electronic screen and/or a working computer, we are just at the very beginnings of what promises to become a whole new field. Working on a smaller scale of a media installation, many artists (Gary Hill, Doug Aitken, etc.) explore the similar issues of space/screen. The difference between two practices lies in the emphasis between the two elements: architecture and display. Architects' first priority is to cover up and organize physical space; displays are typically treated as additions to this space. Media installation artists usually proceed in the opposite direction: they start with images in space and then they construct some structure to organize viewer's interaction with these images.

Soft Cinema installation is a small experiment pointing towards the possible future when the merger between architecture and media would require us to have coherent strategies to deal with the new surface/screen. Referencing "brandscaping" (the three-dimensional design of brand settings), early algorithmic computer art, and the logic of modernist art movements (in which painting, graphic design, architecture, and industrial design were typically driven by a single aesthetic system), we used the same algorithm to generate the screen layouts, the layout of the Soft Cinema book, and the 3D layouts of the Soft Cinema installation. If Le Courbusier's system of proportions was based on the dimensions of a human body, our system takes as its origin the

dimensions of a DV NTSC image: 720 x 480 pixels. In addition, the contrast between various types of images (video, 2D animation, etc.) used in Soft Cinema movies is translated into the contrasting materials used in the installation.

As for reactions, it is too early to tell. However, the prototype of the project finished in September 2002 received an honorary mention in Image category at Transmediale 03 festival (Berlin, February 2003), so of course I am happy about this.

Q. Can you tell me something about your new book on infoesthetics? (In "the language of new media" you say that you intenionally don't want to use the word esthetics. Why did you change your mind?)

A. I already mentioned one of the questions that motivates the book in my answer to your question about architecture. The goal of the project is to scan contemporary culture to detect emerging aesthetics and computer-based cultural forms specific to information society. Its method is a systematic comparison of our own period with the beginning of the 20th century when modernist artists created new aesthetics, new forms, new representational techniques, and new symbols of industrial society. How can we go about searching for their equivalents in information society – and does this very question make sense? Can there be forms specific to information society, given that very concept of form as something solid, stable and limited in space and time becomes redefined with software and computer networks? Can information society be represented iconically, if the activities that define it – information processing, interaction between a human and a computer, telecommunication, networking – are all dynamic processes? How does the super-human scale of our information structures – from 16 million lines of computer codes making Windows OS, to forty years which would take one

viewer to watch all video interviews stored on digital servers of the Shoah Foundation, to the Web itself which cannot be even mapped as a whole – be translated to the scale of human perception and cognition? In short, if the shift from modernism to "informationalism" (the term of Manual Castells) has been accompanied by a shift from form to information, can we reduce information to forms, meaningful to a human?

There are a few reasons why I am using the term aesthetics in the title. On the one hand, I am using the term in the sense of an overall style or cultural zeitgeist – the way it is possible to talk about the aesthetics of modernism or aesthetics of post-modernism as something shared across all cultural fields. In this sense, info-aesthetics is simply an abbreviation for the aesthetics of information society, whatever it may be. It is not meant to refer to beauty.

On the other hand, one of the assumptions in the book is that in information society, cognitive work and information interfaces to do that work (which at this point equals to interfaces of popular software applications and human-computer interface itself) have become "contaminated" by the aesthetic in its traditional meanings of something beautiful and non-functional. Think, for instance, about OS 10 (the new operating system for Macintosh computers): icons pop up when you pass the cursor over them, windows open up with a little dance, etc. This interface is no longer driven simply by functional concerns, the ay the original interface of the first 1984 Macintosh still was. Similarly, think of the recent emphasis in product design (including the design of information appliances and computers) on curvy, anthropomorphic shapes that are meant to invoke an emotional response in the users, the way one may respond to a work of art or a human being.

The term "info-aesthetics" is meant to refer to this intimate relationship between information (information work, interfaces to do this work) and aesthetics that I think is one of the key characteristics of our culture.