

Remix Aesthetics and Semiotic Animals

Progress by Unfinish

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Editor's Note: For almost fifteen years, computer art pioneer Frieder Nake and digital media artist and theorist Mark Amerika have been collaborating on practice-based research methodologies focused on computer art, algorithms, remix, database aesthetics, and semiotics. During Amerika's last stint in Bremen, where Nake is Professor of Informatiks at the University of Bremen, the two started composing a series of theoretical papers that experiment with "versioning" the research/writing process. The version below is the most recent remix composed by Nake after having received a new text from Amerika.

What could it mean to live in times of remix aesthetics?

The narrow view still considers aesthetics as something like a theory of beauty.ⁱ But aesthetics is primarily *not* about beauty. It is about experience: the experience of sensory perception. "An intense experience," Alfred North Whitehead tells us, "is an aesthetic fact". (Whitehead 1979: 279) The art of life is turning one's ongoing experience into an enduring aesthetic fact. Besides, the modern view of aesthetics as the theory of sensual cognition (as opposed to rational cognition) was founded by Alexander Gottlieb Baumgarten in 1750/58 in a book written in Latin and hard to understand.

What does this have to do with digital art?

The Digital Computer

Digital art, as we here think of it, especially the genre of art that is composed primarily on and for the Internet, relies on a computer-supported, collaborative work environment (and here, "work environment" can also mean socially-mediated playzone). The computer is, first and foremost, a machine. Its origins are found in the age of the machine, which is the age of industrial production. Before its initial release as a commodity into consumer culture, the computer was discussed as a turbocharged number cruncher, an electronic brain, an automatic calculator and, later, as a social networking device. More recently and more seriously, the computer emerges as a tool (or toolkit) for everyone, and for artists in particular. This metaphorical approach is soon superseded by the media discourse.

Mind you: in the existentialist sense of the word, the computer *is* no tool, nor *is* it a medium per se. We only perceive of the computer *as if* it was a tool or a medium. With software's phantasmal capabilities in simulating processes, we may identify the computer as the machine of the *as-if*.ⁱⁱ

By necessity, we see good reason to interpret the computer also as a semiotic machine. A semiotic machine manipulates signs, as opposed to a mechanical

machine, whose subject matter and operations would be of a more corporeal nature. Insofar as processing signs is mainly an act of interpretation, it goes almost without saying that in the *strong* sense of the word "semiotic" *there cannot be semiotic machines*. For signs are entities to be interpreted, and computers cannot interpret. They operate but have no choice to do this or that, according to their independently motivated decisions. If we decide to give a machine access to signs we must be prepared to accept that the machine must and will first transform the signs into something it can handle.

In a *weak* sense of the term, however, computers can, on a low and trivial level, deal with signs. When we enter signs into a computer they inevitably become signals. Signals are signs in trivial interpretation. It is a trivial interpretation because it is organized in such a way that only *one* interpretation is possible. An activity of determining the one and only one interpretation, however, should better be called a *determination*. Determination thus turns out to be the limit case of interpretation. Determination is that kind of interpretation that can be done by computation or calculation. Intuition does not play a role in determination. Neither does context and situation.

And yet, as a machine, the computer plays its role in processes of social production and re-production, i.e. of labor. The computer has been analyzed as "the machine that machinates"ⁱⁱⁱ mental labor (Nake 1977). Mental labor results in, and relies on, documents of great variety, from works of art to schemas, blue prints, laws, and hundreds of other forms. All of these are signs: things that stand for other things and that must be interpreted.

Obviously, the kind of labor and work the computer is applied to is planning, controlling, and modeling: mental labor. It follows that the computer must be identified as a semiotic machine – even though we have said already that this machine is dealing with signals only, not signs in the full sense of the word. "Signal" is the correct term on the physical level of analysis. One level up the interpretive ladder, we may safely speak of software as the stuff on a computer. Software comes as programs and data.

We may identify three ways of perceiving the computer^{iv}:

1. The computer as automaton, i.e. the machine of computability.
2. The computer as tool, i.e. the machine of interactivity.
3. The computer as medium, i.e. the machine of performativity.

In the algorithmic and digital realm, performativity embraces interactivity, which in turn embraces computability. One does not appear without the other. But in our perception, the earlier phases tend to disappear as we begin to immerse ourselves in performance and use the computer as both a compositional and distributed medium for our creative acts and the occasional works of digital art that result from our activity.

Remix

New media technologies and the computational processes that drive their machination, both enable and inform the development of digital art. The use of these new media technologies by humans to create art is part of an ongoing attempt to develop one's life experience as an enduring aesthetic fact. This performative function of the aesthetic agent to integrate the use of computers in the development of new forms of digital art is part of the art of *remixing*, that is, of selecting data from the available source material everywhere and consequently altering that data to create new experiences for the agents who invent them.

Once *remix* has attained the status of an aesthetic and artistic activity, we all appear *as if* we were born aesthetically inclined remixers. In this regard, the selection and manipulation of data is always a judgment call and our trace of decisions reveals our particular aesthetic activity. The activist Net artist (MA), for example, might ask: "Can this data I am accessing and remixing into a newly configured work of postproduction art lead to novel forms of creativity heretofore unrealized?"^v One can even remix these same philosophical texts they turn to for occasional stimulation when thinking about their work. For example, we can take the following quote from Vilém Flusser:

Information is a synthesis of prior information. This holds true not only for the information that constitutes the world, but also for man-made information. People are not creators, but players with prior information, only that they, in contrast to the world, play with a purpose, to produce information. The evidence for this difference, this intention, is that human information is synthesized far more quickly than so-called "natural" information. New architectural styles and scientific theories arise from earlier ones much faster than mammals arise from reptiles, for example. And this is because "nature" plays without purpose, by sheer chance, and human beings play using dialogue. (Flusser xxxx: xx)

and remix it through our own selected filters that we might label "Ad Reinhardt" and "Piet Mondrian":

Data is a synthesis of prior data. This holds true not only for the data that constitutes the world, but also for the metadata that *spurs the creature on* while they create their intense aesthetic experiences. Human creatures are postproduction mediums who remixologically inhabit prior data, and they may, if they wish to sync themselves with nature, employ a purposeless play so that they may simultaneously and continuously postproduce the (meta)data into avant-garde forms of Art-as-Art. The evidence for this more ludic lifestyle practice whose intention is to locate the pure prehension of play is that the creature as novelty-generator is unconsciously synthesized into its compositional environment as if it were the most natural thing in the world with no preconceived agenda attached to society's ongoing creative class struggle. It is the opposite of work ("Work in art is work."). It is an ongoing natural selection of the source material triggered by deep unconscious projection. And this is because "nature" plays without purpose, by sheer chance, and human creatures have the capacity to play with their human nature.

The semiotic animals^{vi} whose aesthetic inclinations and activities allow them to be referred to as that rare human species we call *artist*, creatively generate their works by synthesizing prior data into novel forms of aesthetic fact. On the other hand, society [the distributed network that perceives the work and therefore interprets it] creatively transforms these works into works *of art*.

If this is indeed the case [and who is to say it is not?], then why should the semiotic

animals even bother playing with their semiotic machines and their computational processes if everything (or, at least, a lot) depends upon the generative semiotic animal performing their creative acts for society? Can we not resist these machinic processes and divine an antagonistic avant-garde stance that attempts to render computational mediation useless and irrelevant?

Algorithmic Art

In the history of computing, the semiotic machine of computability eventually became the haven of *the machinic principle in art* (Broeckmann^{vii}). The machinic principle had, of course, existed in art long before the computer intruded into the world of aesthetic production. But when this happened as actual fact, the machinic principle (in the form of the algorithmic principle) constituted an entirely new approach to art. The work of art was no longer a single piece. It was no longer an individual good. The single piece, masterly as it may have been composed, disappeared into a whole class of works, from where it re-appeared as nothing but an instance of that class. The disappearance of the individual work behind an infinitely large class of works is equivalent to the *algorithmic revolution* in art.^{viii} As is always the case, this revolution had been paved by many others, and often.^{ix}

Echoing the avant-garde writer Antonin Artaud whose manifestos on "The Theater of Cruelty" indicated the dawning of a virtual environment for interventionist or *hactivist* performance, we maintain: there will be no more masterpieces (Artaud 1959: 74-75). Certainly not in the digital domain. The masterpiece belongs to modern and pre-modern times. In postmodern or digital times, the artwork is to be found in the class it belongs to. The concept of a class is abstract: you cannot perceive a class. It only exists in our mind. Perceivable is the individual and concrete work belonging to the class. Being concrete, the perceivable is not the whole. We perceive parts, and we think of wholes. The art critic requesting to be shown the masterpieces of algorithmic art only shows his incompetence vis-à-vis algorithmic art.

Algorithmic art appears as part of the lineage of conceptual art that begins with Marcel Duchamp (1887-1968) as the revolutionary figure who informs the art world that it is time to break away from the purely retinal process of visualizing artworks. Duchamp, in a short speech he gave in Houston in 1957 entitled "The Creative Act," imagined the artist as "a mediumistic being who, from the labyrinth beyond time and space, seeks his way out to a clearing [...] All his decisions in the artistic execution of the work rest with pure intuition ..." (Duchamp 1957)

Algorithmic Art as we conceive it is conceptual insofar as the algorithm (the program) stands for the entire class of works. The algorithm is the concept (more precisely: the algorithm represents the concept). Algorithmic art appears at the same point in time when conceptual art appears. But algorithmic art goes beyond conceptual art: its concepts are executable beyond the mediumistic tendencies of the intuitive artist.^x

The algorithm, or the program, behind a work of algorithmic art is text and machine at the same time. Both, text and machine, stand for the class. Nevertheless, executable text and infinite sets of works appear as two totally different phenomena. Obviously, we still have not learned how to accept this challenge.

Algorithmic art also appears at the same time as video art, particularly in Germany in the first part of the 1960s.^{xi} We might conclude: video and conceptual art unite in algorithmic art. Historically, this would be wrong, but as an aesthetic rendering of history as mythology it is promising.

Nam June Paik, who invented the term "information superhighway," once said about computer-mediated art: "Cyberneted art is very important, but art for cyberneted life is more important, and the latter need not be cyberneted." (Paik 1966)

"Cybernetics," said Paik, is "the science of pure relations, or relationship itself" and "has its origin in karma." (Paik 1966) Could the "social machine" we think of as the World Wide Web and the emerging interdisciplinary fields of Web Science and Digital Art embody the essence of this relationship?

The introduction of the Internet as a medium takes the developments of computer-based art to another level or, if you will, another playing field. We say playing field because in some ways, aesthetics and athletics are complementary fields where the artist/player is often exerting her energy unconsciously while generating her next creative move. Recent studies in evolutionary psychology have investigated what it means to be "aesthetically fit" (Miller 2001), and artists are also researching their aesthetic performances in relation to professional sports (Amerika 2007). With this in mind, we ask ourselves: "What does it mean to be aesthetically fit and what is the relationship between the semiotic player who uses computers to make art and the desire to create intense experiences as enduring aesthetic facts?"

Semiotic animals and machines

Humans are semiotic animals. Semiotic animals playfully interact with semiotic machines and open up their aesthetic potential in search of new forms of novelty. This search for discovering new forms of novelty via algorithmic, semiotic, mediumistic processes is part of a desire to create an intense experience that once again reveals the hidden beauty of the world. But isn't this search for beauty totally old-fashioned and out of sync with the contemporary trends of the day? Or, since beauty is in the eye of the beholder, do we not seek to create these intense experiences for whosoever shall find beauty in them no matter their final outcome?

Such thoughts bring up a couple of important questions: "What is aesthetic potential in the field of digital art? Is it an array of algorithmic possibilities to materially render images by executing computational processes that are often broken up into hundreds of miniscule steps called clicks?" We are tempted to say that the aesthetic potential has nothing to do with computational processing but everything to do with the semiotic animal. The difference between the two is clearly that the human being, as the potentially creative artist, discovers his or her own sensuality while engaged in embodied acts of *making*, of making creative work. But such a clear-cut statement would be absolutist, and we are absolutely convinced that the work of art in the age of remix aesthetics is a much more nuanced concrescence of preprogrammed determinations and perpetually postproduced aesthetic performances.

"'Creativity' is the principle of *novelty*" (Whitehead 1979: 21), which in an age of aesthetics coincides with a technocapitalist culture of information where innovation is

conceived as the development of new technological solutions that many of us intuitively seem to perceive as being "cool."

In *The Laws of Cool*, a smart investigation that interfaces the concept of knowledge work with the culture of information, Alan Liu wonders aloud what it will take to make knowledge in higher arts and humanities education cool enough to reconsider as source material for our ongoing remix of life as an enduring aesthetic fact:

"Here, then, is the song of cool, as I have learned to hear it in contemporary culture. In the register of consumerism first: *This tee-shirt with a corporate logo or this TV show with its advertisements: what does it have to do with "me"? It's just a medium, like air or water. "I" am the one who knows how to wear, sample, assemble, mix, or filter that medium with "style." I am a great hunter.* And the matching song of producerism: *These standards, routines, procedures, protocols, and programs that rule my life: what do they have to do with "me"? They are just my environment. "I" am the one who knows how to browse, search, sample, mix, or filter them with cool technique. In the forest [network] of information technology, I am a great hunter.* (Liu 2004; emphasis in original source)

In 1993, during the developments of what was then called an *avant-pop* aesthetic strategy, we [those of us participating in and promoting it as a "new" or "nu-anced" art movement] called this kind of hunter-sampler a literary minded Net artist, one who would *surf-sample-manipulate* (SSM) data from the available source material everywhere and postproduce it into an enduring aesthetic fact (even if it may have constantly been on the verge of falling apart as an ad hoc collage-construction) (Amerika 2007). Today, we could call these emerging hunter-samplers *remixologists* or, for simplicity's sake, *postproduction artists* (PP artists), that is to say, artists who employ whatever new media technologies are at their disposal at any given time to further develop their aesthetic styles while postproducing / remixing the select bits of source material that is available *while making*.

Creatively linking, tagging, or otherwise intersubjectively connecting this manipulated / postproduced / remixed source material over the network contributes to the construction of what Tim Berners-Lee has called the Semantic Web (Berners-Lee, et al. 2001). This Semantic Web and the "social machine" it produces enable the creation of a new form of interdisciplinary science known simply as Web Science.

Given the breadth of the Web and its inherently multi-user (social) nature, its science is necessarily interdisciplinary, involving at least mathematics, computer science, artificial intelligence, sociology, psychology, biology, and economics. We invite computer scientists to expand the discipline by addressing the challenges following from the widespread adoption of the Web and its profound influence on social structures, political systems, commercial organizations, and educational institutions.

For the record, we highlight the significant disappearance of the arts in this interdisciplinary outreach and must ask: "Is there a need among artists and humanists to construct their own version of an interdisciplinary media arts practice that takes into account the development of a more speculative form of Web Science, one not bound by the reductionist methodologies of the scientific endeavor?"

The artist, writer, and DJ, Paul M. Miller, has written about a *rhythm science* (Miller 2004), and recent literary theory, particularly in relation to electronic literature and experimental forms of web publishing, has been informed by the *science of writing* or

what Jacques Derrida calls *grammatology* (Derrida 1974). Critical theorists and art historians like W. J. T. Mitchell have contributed to the development of an interdisciplinary field of study focused on *image science* (Gronstad and Vagnes, 2006). Perhaps we could mash-up these assorted sciences of web, rhythm, writing, and image to investigate a new science of *remixology*, that is, the science of constructive postproduction. This science would take into account not only the digital arts in relation to the World Wide Web, digital imaging, rhythms, and writing, but would also include studies in semiotics, visual culture, art history, and entrepreneurial business practice.

Such a strange combination of art, media, semiotics, technology, and business challenges us to develop a critical media theory as well. For example, as artists or reality hackers whose goal is to "wrest freedom from necessity" (Wark 2004: section 122), are we becoming nothing but a digitally rendered image of an always-already "futurist" artist whose love of technology reveals the hidden truth of an avant-garde practice co-dependent on the continued material success of the military-industrial-entertainment-academic complex? If we find these convergences problematic, what kinds of scientific investigations and artistic research practices would enable us to intervene in these processes so that the "social machine" of the World Wide Web does not become an all-encompassing surveillance mechanism that monitors our consumption habits and networking behavior? What kind of strategic methodologies should be invented to assure future artists that the "social machine" they interact with transforms into a "social medium" that facilitates the ongoing postproduction of art practice as an enduring aesthetic fact?

The semiotic animal is, in fact, a postproduction medium. As a postproduction medium, we create novel forms of creative action by interacting with semiotic machines. In this interactive engagement we constitute and refine the age of aesthetics. As postproduction mediums, semiotic animals have the potential to play with semiotic machines as part of their ongoing performance and if per chance society deems this performance and its outcomes artistic, the work the artist (post)produces will then be referred to as art (Amerika 2009).

But digital artworks are not just a final result or outcome of an interactive, computational process. Digital artworks are themselves semiotic creatures that are always processing. They are hybrids, and as hybrids they often appear monstrous. In the semiotic domain, there is permanent, elegant monstrosity: sign processes can, by their very nature, never end. They are principally infinite, no beginnings, no ends. They are ideally programmed to run loose in a culture of information spreading their viral aesthetics into the network.

Unfinish

The aesthetics of digital media will be an aesthetics of *unfinish* (Lunenfeld 1999: 7). To unfinish something is not to leave it in an unfinished state. Duchamp once referred to his "Large Glass" work as a "delay in painting" and when he was ready to leave the work behind, he declared it "finally unfinished." To unfinish a digital artwork is to directly challenge the commercial art object as commodity and denies the work from becoming a traditional masterpiece. Even the simplest work of digital art, one whose everyday production requires the interactive process of *playing with the work*,

only then reveals itself when the audience pays active attention to its potential and tickles it for some kind of meaningful experience. Digital forms of art point to a participatory process where the audience is on par with the artist and there are no more masters anymore, and thus no masterpieces. There are only processes and processes of processes, where the semiotic machine machinates and the semiotic animal conducts the creative act as part of an aesthetic agenda that seeks its way out to a clearing.

Digital art then appears as deeply democratic, even romantic, but without the neglect for quality that often brutally mars a democratic movement.

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ⁱ This can be seen when computer science or researchers in Human-Computer Interaction (HCI) take to Computational Aesthetics, or Aesthetic Computing, or aesthetically judge interfaces or interaction. It could also relate to the early works of Net art that were intentionally created to "crash your computer" or, as stated by the follow-up generation of Net artists, "crash your browser with content."

ⁱⁱ Hans Vaihinger (1852-1933) has developed an influential philosophy of the *As-If*.

ⁱⁱⁱ We use the word "machinate" where the German would be "maschinisieren" which might also be translated by coining the word "machinize". To *machinate* is different from *mechanize* insofar as the latter mainly refers to a particular (i.e. historic) kind of machination whereas computers are definitely not mechanical machines (even though some parts of them are).

^{iv} These three views of the computer are justified when we take as starting point its origins in the world of machines. It rather directly leads to the automaton as a quasi-autonomous machine. The ideology of the computing machine as a tool is used to transform it into a market commodity. When the internet gets powerful enough (through browser software) to enter households, the medium metaphor appears.

^v Is this a genuine quote or one that is being invented on-the-fly as part of this version? Maybe add an endnote about pla(y)giarism as "playful self-appropriation."

^{vi} The German mathematician, inventor of fractal dimension, Felix Hausdorff, used the term *semiotic animal* to identify the human being within the animal kingdom.

^{vii} Andreas Broeckmann has presented this principle of the machinic in many lectures. The book (Broeckmann & Jaschko 2001) indirectly develops it in the case of art.

^{viii} *The algorithmic revolution* was the title of an exhibition curated by Peter Weibel and shown at the Center for Art and Media (ZKM) Karlsruhe, Germany, from Oct. 2004 to Jan. 2008.

^{ix} We may discover algorithmic elements in the work of Claude Monet, of Josef Albers, of Vasarely, of Andy Warhol, and many more.

^x Early net artists also identified with Duchamp as an early progenitor of net-based artworks. In an interview with Tilman Baumgärtel in the June 26, 1997 online edition of *Telepolis*, Vuk Cosic is quoted as saying: "This sounds like a conspiracy theory now, but if you look at many conceptual tools, that were invented by Marcel Duchamp or by Joseph Beuys or the early conceptualists, they have become a normal everyday routine today with every email you send [...] in a way we are Duchamp's ideal children." Cf. <http://www.heise.de/tp/r4/artikel/6/6158/1.html>

^{xi} The first exhibition of computer art opened on Feb. 5, 1965, in Stuttgart (Georg Nees); the second one was in April 1965 in New York (A. Michael Noll and Bela Julesz); and a third again in Stuttgart, on Nov. 5, 1965 (Frieder Nake). The supposedly first exhibition of video art took place at the Parnass Gallery in Wuppertal in March 1963. It featured the work of Nam June Paik. Cf. <http://www.medienkunstnetz.de/works/exposition-of-music/>