Woody Vasulka: *The Utopia of an Autonomous World and Autonomous Work*[1]

The technical images currently all around us are in the process of magically restructuring our 'reality' and turning it into a 'global image scenario'.
Vilém Flusser*, Für eine Philosophie der Fotografie*[2]

The work of Woody Vasulka acts, surprisingly, more as research into the fields of techno-science and politics than into art and aesthetics.This can be observed by the fact that he questions, re-defines, re-mediates and alters a module, a situation, rather than focusing exclusively on information and mediation. Through the critical analysis of the tools and methods he employs, his work inducts a flux of explorations that questions our presumptions about society and perception.

According to Otto E. Rössler (the German biochemist and proponent of the new scientific field of *endophysics* and a new epistemological method called *the ultraperspective*[3]) "*the world is not the world in which we live*" but has become comparable to *an interface* through which we perceive, and inside which we act. The realm of electronics with its numeric computer processes and communication technologies ought to be seen not merely as a *universum* of data and information with which we must learn to coexist, but is rather a complex environment of sets of symbolic and expressive processes. Consequently, every new *interface* creates, claims Rössler, a *prism* through which we observe and experience the world, consciously or unconsciously, and which might have been induced by a new technological (and epistemological) model.

This environment thus determines every mode of reception and understanding of our environment, "controlling" our mind – creating a double feedback loop between neurophysiologic brain functions and the external space. Natural sciences and epistemology have, from Descartes through to Ray Kurzweil, been marked by a faith in the possibility of developing an operative autonomous language "cleansed" of contingency and perceptual inaccuracies caused by the nature of the human sensory systems, emotions and judgments. Such "artificial" language would become the perfect mirror capturing and "representing" objective processes, facts, and relationships. Mathematics or cybernetics as a substitute for metaphysics was to be the universal key to reality. Art, generally, would become easily disqualified from this realm of 'truth'.

Games of Simulation and Irony
The Turing Test is a control system for determining a mathematical computer's capacity to possess the quality we generally call intelligence. Alan Turing was inspired by a

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[1]   Published in *Lanterna Magika - New Technologies in Czech Art of the 20th Century*, KANT, Praha, 2002

[2]   *Vilém Flusser, Für eine Philosophie der Fotografie", Göttingen 1983*

[3]   Ultraperspective is "the capability of human beings to step into the shoes of another person. Endophysics is the science of those physical properties of the world which exist not from the outside but only from the inside. Both have in common the adoption of an "exterior" position. In the one case, the exteriority is "horizontal", in the other, "vertical". Ultraperspective is a macroscopic concept, endophysics a microscopic one. Both can be set up in either domain: animals acquiring the status of human persons, and objective features of the physical world acquiring the status of an observer-specific mirage. Mead and Lavinas, and Einstein and Bohr, are the protagonists. In the age of computer-assisted enlightenment, a new look at the ethical roots of science appears justified". O. E. Rossler, *Endophysik - die Welt des inneren Beobachters* (P. Weibel, ed.), PP- 9-12 (Merve-Verlag, Berlin, 1992)

parlor game with roughly these rules: There are three players, a man (A), a woman (B), and a third person (C) of either sex. The interviewer (C) is in the same room, but visually separated from the pair of participants. The objective is for the interviewer to discern the male from the female by posing a series of questions to each. At the close of the game, he guesses their gender based on the responses given. The new variation of the game, designed by Turing, is different in that a computer replaces one person of the pair. The interviewer's task therefore is to guess which partner is human and which one only pretends to be a sentient being. If the computer manages to fool the questioner, it can be considered "intelligent". The legendary test has, for the past 50 years, been a topic of discussion and a target of criticism in the disciplines of artificial intelligence, philosophy, and cognitive sciences. To this day, it basically separates the scientific-technological community into two antagonistic camps: techno-skeptics (or realists), and techno-utopians. It is one of the formative problems in modern-era dialectics. In other words, it is a conflict comprising such phenomena as anthropomorphizing machines, cybernetics, systems theory, and experimentation in applying mechanical and electronic models of the human mind.

The first view doubts the possibility of substitution, or parallelism of processes and programs inside a computer and functions of the brain, which neuroscience globally defines as "mind" or "thinking". The second position reflects the exponential curve of possibilities of computations in the last decades, presupposing a gradual replacement of an "imperfect" and approximate human brain with ever more complex computer systems.[4] Years ago, cybernetics designed a general framework, while science fiction created the Cyborg myth, and then postmodern critical analysis and technology developed a constructive unit – digital code. Correlating parallel thought systems with computation is a complex problem of industrial and postindustrial eras, but it carries over the concepts of a pre-scientific age. Layers of rational, mythical, and emotional planes of thought, faith and perception of the world play out their roles here as well.

The field of technological and cultural feedback – the art of electronic media application – is one of the development laboratories where this discourse and related experiments in all forms and contexts keep emerging. The work of Woody Vasulka can be understood as a relentless examination of this question, seeking the essence and nature of the autonomous reactions of our animal brain, perception, the phenomenology of the world, and seeking out alternatives in dialogues with the machine. It hovers on the dubious border between the definition of the organic (human), and mechanical (computer) structures, and the methodologies of the natural sciences, history, technology, anthropology, philosophy and art, which are all fields that are not inherently antagonistic. Unlike that of many of his contemporaries from the arts and sciences (for example Richard Buckminster Fuller), Vasulka's poetics and mechanisms of the '*theater of automata*' are not synergetic or utopian. They are, rather, heretical remarks on Modernity, on the past *époque* of Reason, and possess the amalgam of irony, and skeptical distance, enhanced by the faith in the strength and perfect functionality of the material

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[4] *Ray Kurzweil, The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. Viking Press, 1999

mastered in the constructor's thinking. His systems therefore go beyond any narrow delineation of a particular discipline and style. That may be why they have remained up until now rather marginal as far as the mainstream academic community of arts and sciences is concerned.

The initial strategies, equipment, and methods adopted by Vasulka in combination with the specific circumstances of his life ensure him a position in the contemporary art scene.

To give up the idea of a natural terminus of inquiry is to exalt the imagination defined as the faculty producing something that is above reason, the faculty that makes the ideas we already have come together. That is one of the links between the growing autonomy of the artist and the pragmatist's view of scientific descriptions of reality as ways of achieving human purposes rather than attempts to remain faithful to the intrinsic nature of reality.
Richard Rorty[5]

The Art of Memory

He was born as Bohuslav Petr Vašulka in Brno in 1937, two years before the Nazi occupation of Czechoslovakia. His formative childhood experiences of WW II (although relatively calm in the Moravian capital Brno), helped to foster his sensitivity to the relationship between an individual and the political powers that govern human lives. The six years of war meant the destruction of cities of hundreds of thousands and the disappearance of entire ethnic groups. A way of life died out, as did the credibility of concepts like 'humanism', 'nation', 'progress', 'ideology' and, to a certain extent, the interbellum style of 'culture'. The oppressive sense of volatility; the corruption of ideological systems designed to perfect the self-destruction of human emotions; the devaluation, corruption, abuse, and appropriation of literature and visual art; the murderous perfection of technical instruments – all this under strict government control systems – these phenomena were all emblematic for the generation growing up during the war. Critical awareness of the falsification in every form of poeticizing and pathos is a distinct element of every one of Vasulka's works and texts. The vestiges of the war machines he played with in childhood must have served as models for his later series of automatic machines and mechanisms. The author finished, transformed and altered the constructions, saddling them with a different purpose and meaning than they originally had as instruments of military technology of destruction.

After graduating from a specialized technical high school, and a brief bout in the workforce during the early 50s, he left for Prague where he enrolled at the *Film Academy of Performing Arts*. It was during the famous era of the *New Wave* of Czechoslovak film of the early 60s, a time of gradual loosening of the ideological grip on artistic language. There, he witnessed a cultural atmosphere of the state-ordained normative, orthodox and dogmatic formulas being eroded by a critical reflection of everyday life, and by subversive expressions in liberal literature, theater, music and

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[5]   Richard Rorty, Remarks at Moma, (Remarks written for the Museum of Modern Art (New York) symposium, "2000 Things in the Making: Contemporary Architecture and the Pragmatist Imagination")

visual arts. Yet aesthetics and poetics were felt to be essential to the need to amend life's conditions. a means of change geared toward a more human(e) state of society. They represented the effort to break the norms of mediocrity, hypocrisy, and stereotypes – the unwritten code of a totalitarian state. The role of the effect of the turbulent atmosphere of 1960s Prague, an era known today for its many interesting and still often under-appreciated personalities, qualities and movements, in forming Vasulka's artistic views, and the influence of his colleagues and teachers at FAMU (Film Academy) has so far been left largely unaddressed in academic literature.

The need for an inter-contextual system, the search for parallels and symbolic shortcuts in all layers of society can be found in the work of theater and film director Alfréd Radok (1914 - 1976) – one of many Vasulkas famous Czech contemporaries. Other examples are the essay-documentary filmmaker Karel Vachek (1940), the writer Karol Sidon (1942), or the culture, language and technology theoretician and media-philosopher Vilém Flusser (1920 - 1991). Even up until today, there has hardly been any critical inquiry into Vasulka's work in relation to the general atmosphere of that era and local culture. Although Vasulka is considered as one of the most acclaimed contemporary artists of Czech origin, and regardless of the influence of events in that country on his work and formative years, there has, to date, been little interest in exhibiting his work in Prague.

"To understand the whole of us and the world, we have to participate with the whole of us. Specifically, mixing verbal and non-verbal forms of knowledge – rational and intuitive –is necessary. "
Francisco Varela

During his studies and shortly after graduating from FAMU, Vasulka made several short documentary films in Prague. With his artist-collaborator and wife, Steina (Steinunn Briem Bjarnadottir, Iceland, 1940), he left Czechoslovakia in 1965. They settled in New York, the hub of experiments trying to revive the existing social and political system with rebellious counterculture.The place was buzzing with activities of various unorthodox and subversive concepts of art, science, society and spirituality, searching for prototypes for alternative models of the future. For several years, Vasulka worked still on film and freelance editing. Like his older compatriot, filmmaker and photographer Alexander Hammid (Hackenschmied, 1907, Linz – 2004, New York), he took part in carrying out several experiments with projection on multiple screens (with Swiss painter and inter-media artist Alfons Schilling (1934 – 2013), industrial films at Harvey Lloyd Productions and for the architect studio Woods & Ramirez' multi-screen environment *The Resources of Man* for the American Pavilion at Expo 67 in Montreal) and in the intense life of the Manhattan alternative scene, experimental film, music, performance and conceptual art. He kept a critical distance from contemporary mainstream visual arts and from the Hollywood industry. Encountering a Sony Portapack video camera in 1969 turned him onto what was then a groundbreaking, but still at that time exclusive, tool. This device was welcomed as a catalyst to subvert the Hollywood industry's cinemagraphically defined patriarchal image of the world, bound by the demands of

industry, commerce, and dominated by precision of narration, consumption, illusion and seduction.

Electromagnetic code became a new buzz term and a carrier of meaning for the sixties' art generation in United States and abroad. The portable video camera was regarded as a reasonably priced audiovisual instrument capturing sound, picture, and the passing of time, all within an electromagnetic black box. This piece of divise in combination with TV monitor became the *spiritus agens* of a well-needed change. Video translated into a emerging medium, free of the ballast of narrative, psychology, anthropocentrism and historicism. To Vasulka, video camera offered the delights of a 'neutral' stream of images, "*Machine Vision"* defined through physics, observed through layers of objective and fleeting frames on the retina and the TV screen. Like other artists of the late 60s, he regarded the video camera lens as the promise of a radical shift of paradigm. Its effects could match among other things the formal demands of a purist obsession with depicting the inner, immanent worlds of the mechanical Universe. They were to touch deeply upon the transformation of the social structure and the role of the artist.[6]

A new alternative social model was arising, not based on an existing commercial principle of personal style, artifice, individuality, and competitiveness. Instead, it was founded on the synergetic ideas of collaboration, sharing, and interdisciplinary teamwork between artist, inventor a technician. Vasulka turned this first prototype of 'brotherhood' into reality for the first time in 1971 with the project *The Electronic Kitchen*. Along with Steina and Andres Mannik, he founded, and operated for several years, a low-cost electronic open-media scene. The role it played in the history of new media was just as important for the development of video art, experimental music and performance as were the corporate-funded projects of Billy Klüver and Robert Rauschenberg (EAT / *Experiments in Art and Technology, 1965*), or the series of events *Explorations* by Gyorgy Kepes or Elaine Summers and Phill Niblock's *Experimental Intermedia.* In a modified form, *The Kitchen* still exists in New York today. As a model of a joint non-commercial, idealistic place of communication it has been emulated by artistic initiatives throughout the world.

The same year, Woody Vasulka, Steina, and Eric Siegel founded the group Perception, creating joint projects with Steina (a classical violinist by training) as *'*The Vasulkas*'*. Two years later, Vasulka was approached by Gerard O'Grady and became a professor at the *Center for Media Study* in Buffalo, upstate New York. There, he influenced many contemporary artists and collaborated with the likes of Hollis Frampton, Tony Conrad, Paul Sharits, Peter Weibel, or the documentary filmmaker James Blue.[7]

After *The Kitchen*, The Vasulkas devoted their team and solo efforts as well to collecting and archiving their work alongside the work of their friends/colleagues – artists and

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[6] Surveying the First Decade: Video Art and Alternative Media in the U.S. 1968-1980, Video Data Bank http://www.vdb.org/titles/surveying-first-decade-volume-1

[7]   Karen Mooney, Videoscope, Volume 1, Issue 2 (1977) http://www.experimentaltvcenter.org/gerald-ogrady-perspective-buffalo

theoreticians (*Vasulka Mediaarchive*). Along with composer David Dunn, Vasulka was invited by Peter Weibel to design the exposition for the festival *Ars Electronica*, *Pioneers Of Electronic Art*[8] in 1992. At the core of their interest was the research and development of new optical and sound devices and machines. They also focused on theoretical problems of the new medium structure (along with the author of the ground-breaking critical work, *Expanded Cinema* by Gene Youngblood[9]), and a critical analysis of new phenomena such as codes, frame sequence, image generation and scanning, the problems of 'non-narrative' sequencing, electromagnetic data, etc. Their joint works bespeak of continuity with European Avant-garde art (*Golden Voyage*, 1973, a re-interpretation, or remediation, of paintings by René Magritte) as well as dialogue with the work of independent American movie makers (Stan Brakhage, Jonas Mekas.) To analyze electronic image frames, time unit sequences and their possible applications, they constructed in close cooperation with artists/technicians (e.g. Don Buchla, Jeffrey Schier, David Dunn, and others) and a wide range of audiovisual machines, summarized under the title *The Vasulka Imaging System* (Eric Sigel's *Colorizer*, George Brown's *Multikeyer*, *Rutt/Etra Scan Processor*, etc.). These contraptions transformed video-taped images and sounds into 'structural' or 'abstract' motion light areas.

To translate video signals, in 1976 they began using a new revolutionary medium: digital computer software (*Digital Image Articulator, Imager*). His latest projects, realized at the *Art and Science Lab* in Santa Fe have been stored in a large digitized archive accessible to the public through the Internet. In 1980, Vasulka left his position at the University of Buffalo and moved with Steina to New Mexico. Located in a small city in the Southwest of the US, the Santa Fe ambiance was as different from New York as it was from Prague. During the 1980s, the city became a new shelter not only for this artistic couple, but also for many others, including technicians, and theoreticians of new scientific research.[10] The Vasulkas established a space where they fostered an evolving team of artists, inventors, technicians and theoreticians – the *Brotherhood*.

In New Mexico, Woody Vasulka spent several years examining the possibilities developed in experiments beyond two-dimensional analogue video image. In his video works *The Commission* (1982) and *Art of Memory* (1987), he dealt with the tradition of narration and the romanticizing myth of the artist. He drew on the visual archeological era of depicting the film image, and the history of European civilization of the 20th century. Simultaneously he continued deconstructing the electronic image by turning to the core of the code and the research of the possibilities of non-linear time. Gradually,

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[8]   EIGENWELT DER APPARATEWELTPIONIERE DER ELEKTRONISCHEN KUNST June 22 - July 5, 1992
        https://www.vasulkakitchen.org/sites/default/files/document/dunn_david_ed_pioneers_of_electronic_art.pdf

[9]   Gene Youngblood, Expanded Cinema, intro. R. Buckminster Fuller, New York: Dutton, 1970 *in*
http://www.vasulka.org/Kitchen/PDF_ExpandedCinema/book.pdf

[10]   The Santa Fe Institute was founded in 1984 by scientists George Cowan, David Pines, Stirling Colgate, Murray Gell-Mann, Nick Metropolis, Herb Anderson, Peter A. Carruthers, and Richard Slansky. All but Pines and Gell-Mann were scientists with Los Alamos National Laboratory. In conceiving of the Institute, the scientists sought a forum to conduct theoretical research outside the traditional disciplinary boundaries of academic departments and government agency science budgets, https://www.santafe.edu/

he abandoned the isolated video image and screen (the way he abandoned the celluloid strip years before), and for the past two decades has focused on constructing a complex, dynamic "theatrical" model of the world. Finally, the virtual and real space, the moving and reacting mechanisms, the spectator and the electronic image, text and sound, have all fused into a computer-controlled, immersive hybrid medium. This machinery was meant to be "a door of perception" to a space free of the effects and laws of political, ideological, and economic systems. Contrary to the traditional video perception mode, which left the viewer outside, isolated by the monitor from the processes or events depicted, this would be an expanded model of experiencing the environment without the stereotypes of observing a static perspective and centric space. Vašulka labeled the new series of assemblages *Hybrid Automata* and *Brotherhood*[11]. This was a variable, complex, technological and philosophical entity. Its genealogy was tied to the history of science, magic, and art. It could be interpreted as an attempt at a contemporary resurrection of the ideas of an alchemical '*Great Work*' – of an idiosyncratic clustering of magic and science, matter and energy, and a never-ending dialogue between man and machine, as a dialogue with apparatus as his/her extension and as his/her *doppelgänger*[12].

The Brotherhood

In the media sense, space is what you create. It's machine-made space, and these are manufactured pieces of information that are drawn into a cognitive context, and it eventually becomes a product of machinery. This carries through to the computer... (since) all modalities of space are represented in that machine by simply organizing data structures. It is basically a new territory of representation of the world... this is non-centric space.
Woody Vasulka

The term *Brotherhood* evokes ambivalent ideas linking an ancient tradition of secret scholarly societies with military aspects of technical innovation. The assemblage of a cybernetic environment called *The Brotherhood* encompasses two unswerving dialectic aspects: the hermetic and the evident and observable (albeit with a slight ironic distance). His assemblages are transmuted, modified, re-animated mechanisms of the machines constructed in research laboratories of the military zone in Los Alamos, and underwritten by American taxpayers. A "secret brotherhood" of NASA's development technicians and scientists put all their ingenuity and intelligence into building complex 'devil's machines'. Their concrete purpose is at first unclear to the layman but soon easy to make out: control, spatial orientation, monitoring, identification of target, and "neutralization" of the enemy. These obsolete and nostalgic victims of progress end up motionless in a technological trash dump near the laboratories. But in the studio of an artist/constructor they can receive a new life. Creators take up the steel rods, pulleys,

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[11] Woody VASULKA, The Brotherhood: A Series of Six Interactive Media Constructions, July 17–Sunday, August 30, 1998, ICC Gallery A, D, NTT InterCommunication Center [ICC], Tokyo

[12] Art of Memory ─ the title of Woody Vasulka most famous narrative video is borrowed from the hermetic tradition of Giordano Bruno, Robert Fludd, Francis Bacon, René Descartes, and Leibniz. Vasulka was interested in the history of Hermetism and I sent him to the USA a copy of *Opus Magnum*, edited by Vladislav Zadrobílek. Trigon, Prague, 1997, Further see: Joseph El Khouri: Inside a Memory Theatre, August 1973

motors and electronic circuits and transform these lethal killing machines into a much more complex interplay of pneumatic motion, reactions, lights and feedback. The electronic memory of the mechanism contains not only the impulse to kill its victim but to perform a wondrous purposeless theater, an automatic permutation of an eternal performance, *teatro mundis*.

The apparatus of *The Brotherhood's* mechanical body has been removed (by law or accident?) from the hideout of invisibility and secret military instruments, and salvaged from the trash heap or recycling. It has been exposed to the light of the coldly poetic, ironic and otherwise demonic laws of the Artist. Vasulka's artisan community sought in the machine a different functionality, concealed behind the innocent mask of military engineers, adding up parts, inserting elements from disparate fields and systems such as art, alchemy, history, anthropology, politics, merging them into a spectacle of *Hybrid Automata*. The artists/constructors generated software algorithms that corresponded to the poetic and epistemological purposes of their creators. At the same time, they reflect the vibrations and permanent transformations of the ambient technological park, current social changes, and the natural landscape.

Vasulka's critical glossary on the state of development of technical tools and their symptomatic social formations is symbolized here in the act of re-evaluating the depository of global militarization, and in the act of animation as a revival of immobile matter by control systems, by casting a magic formula on the autonomous, cyber-android creature of the robotic Brotherhood.

The Entity/Machinery, *Brotherhood* demonstrates a protean dual-interface: daytime-male-logical-mathematical, and nocturnal-female-lunar-fantasy-mien. Daylight highlights its functionality, authority, morphology, and anatomy. The silicon and steel, wired skeleton of the terrifying machining table can evoke the executioner's sophisticated equipment from Kafka's famous short novel, *Penal Colony*. The *Brotherhood* will reveal the second, nocturnal visage after the lights are shut off and the evening theater period begins. Wires, cables and constructions descend into the dark and mobile parts appear in a luminous kinetic non-material performance, interlocking the observer with the machinery in an almost organic way. Every spot inside the organism offers the spectator a different angle of perspective of space. The machine area and human area are intermingled and interwoven.

Animus & Anima

Diverging from the rich taxonomy of anthropomorphic automata and robots, *Brotherhood* does not simulate the morphology of the human body. Rather, it is a metaphor, module, situation, and a scheme. It consists of the hardware and software, both male and female elements. The 'male' element has a prevailing numerical theme (tables titled *Stealth, Translocation, Scribe*), while the 'female' – Maiden shines with admirable grace and charm, as if embodying a natural antipode of the constructor male identity. Maiden is devoted to the phenomenon of sound, simulation of speech,

communicating through artificial music – the level of language least governed by rationality. Its existence seems to be constantly under threat. The fundamental powers, *Eros* and *Thanatos,* of the mechanical inferno are paraded and unmasked like in a grotesque opera. Vasulka's accompanying explanation for this part uses terms like *kamikaze* and *self-destruction*.

In his novel, "*L'Ève future" (Future Eve),* Auguste Villiers de l'Isle-Adam created at the end of the 19th century the character of *Hadaly* – an artificial woman, as the human factor reflecting on the industrial development principle, as an imitation of a mechanical machine, born, animated and destroyed by male erotic desire. *Hadaly*, created by the artist, Edison, was supposed to serve the hero, Ewald, as an electronic and pneumatic surrogate of Alicia Clary – a moody living woman. Alfred Jarry's novel, *"Le Surmale"* (*Supermale*) came several years later. It depicted the modern-day conflict between man and machine as a phenomenon of evolutionary struggle. The hero's neurotic reaction to the constantly increasing productivity of the machines is to adapt his own body to a mechanical basis. Jarry's image of the machine as a feminine element was tied to a new element of mechanical reproduction – the phonograph. The pataphysical instrument cabinet and the Universe of doctor Faustroll, supplemented with mechanical organisms like phantasmagoria machines/creatures of Raymond Rousell's protosurreality, fit into a complex historic framework that perhaps could serve as the *Brotherhood's* inspiration.

Maiden reacts to the spectator/intruder in response to the speed at which he approaches her. After she is 'awakened' from her electronic sleep by ultrasonic sensors, she reacts with gestures, images, sounds and words, guided by immanent mathematical formulas. She has a shadowy phantom – like a face with an expression of suffering, marks of aggression and the tragedy of masculine war. The entity of the *Brotherhood* evokes ambiguous feelings of reverence over the mechanical perfection of energy surging into moving matter, and the fear of unpredictable behavior by the hybrid mechanism surrounding the observer.

Does *Brotherhood* observe, perceive and analyze human manners and motions, or is it the mental processes of the observer that are animating the soulless parts of the machine? The Turing test has still not been successfully passed and the final analyses are defined by principles of ambiguity and miracle. *Brotherhood* has been a summary of all of Vasulka's work to date, leading toward research and feedback between reality and fiction, geometry and poetry, automatism and autonomy, man and his environment.

Miloš Vojtěchovský, June 2002, Prague

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(this list is of course very outdated)

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