

El Palacio, Vasulka Interview, Introduction

As internationally acclaimed pioneers of electronic imaging, Woody and Steina Vasulka have been at the forefront of technological innovation for over twenty-five years. Since the late Sixties, they have sought, with some insistence, to expose the materiality of electronic perception. By analyzing the behavior of audio and video signals, which has culminated in designing and building customized, electronic devices, the Vasulkas have developed a phenomenology of open technological systems, that suggests alternate framings of a transpositional human destiny. Since their early video experiments, they have also become increasingly interested in interactive environments, which helps us to revise our understanding of human intent amid cybernetic systems.

Woody and Steina immigrated from Europe to America in 1965, and they have lived in Santa Fe since 1980. Their show at the New Mexico Museum of Fine Arts is both a tribute to two local heroes and an acknowledgement of their international repute. Recently, amid preparations for an upcoming exhibit in Japan, Woody and Steina were gracious enough to answer some questions about themselves and their machines.\*

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## Biographical sketch of Steina and Woody Vasulka

Steina was born on January 20th, 1940 in Reykjavik, Iceland. Her maiden name is Steinuun Briem Bjarnadottir. In the thriving metropolis of the capital city, she was exposed to theatre, dance, film, and music. Studying violin and music theory throughout her schooling in Iceland, Denmark, Germany, Steina eventually went to Prague, Czechoslovakia in 1959 to attend the Music Conservatory. Steina and Woody met in 1962, when she asked him if he knew how to fix motorcycles. As a graduate of the School of Industrial Engineering in Brno, Woody had little trouble fixing her bike. In Prague, Woody had been making documentary films, while studying at the Academy of Performing Arts. Steina and Woody got married in 1964. While Steina didn't want to live in Czechoslovakia, Woody didn't care to live in Iceland, so they travelled to America in 1965, settling in New York City.

In 1969, Woody and Steina became enchanted with the medium of video at the Howard Wise Gallery on 57th Street. After intensely exploring both cinema and electronic sound, Woody found video to be a revelation. Already knowing that music was not meant to be her profession, Steina also became very intrigued with video and its possibilities for exploring visuality. In 1971, the Vasulkas opened The Kitchen, a performance space dedicated to the electronic arts, music, theatre, and film. Numerous tapes were produced by the Vasulkas at this time, capturing some of their ongoing experiments. They left The Kitchen and moved to Buffalo in 1973. They have continued to explore the medium of video with some measure of independence since 1974, preferring to develop their ideas in separate directions.

The Vasulkas moved to Santa Fe, New Mexico in 1980, where they continue to live. They have been exhibited around the world, both separately and together, in group shows as well as in solo exhibitions. They continue to compose challenging electronic material and to construct custom electronic devices, while continuously speaking and writing to educate others to their complex medium. Through their life-long dedication to the exploration of vision through electronic means, Steina and Woody Vasulka are as prolific and prodigious as any people working in the fields of electronics and the arts.

David: Why did you come to America?

Steina: After we got married, I wasn't going to live in Czechoslovakia, and Woody wasn't going to live in Iceland... How easy it was to make a decision! We only came to America for a year. We were just going to check it out. At that time, especially coming from Czechoslovakia, America was a benign place. We all wanted to investigate it, because we knew that it was a great country. We didn't come to America to 'make it'. We didn't come with the immigrant's dream. We just came.

Woody: It was a curiosity. My generation severed all these loyalties to nationalism and political alliances, so I was adrift since I was born. When we were facing deportation, we didn't blink an eye, because we don't come from a loyalist generation. We had no obligations, and we still don't have any obligations. I come from this dream, probably of the Jewish tradition, of migration, and, hopefully, intellectual migration. What did they say? "Why do we need roots if we have wings?" It was a nice Jewish slogan. So, this is our line from the Jews to the Slavs- the aspiration of the world citizen, of world art, and no alliances.

Steina: Remember when the series "Roots" came out? I was just incredulous- "Why do they want to know their roots? We are in America!" This is what I was running away from- those damn roots- because I know even my thirty-fourth grandfather by name. I don't want that. And then there is all this talk about community here; that's another thing we run away from, both me and Woody. We don't want any community. The great thing about America is that there is no community. You don't have to go down the street and say "Good Morning" to your neighbors. It was great to come to America, because we didn't have any obligations to anybody. So we started our own community of people who were drifting over-- Czechs, Eastern Europeans, and all kinds of people- who had done the same thing, who had gotten themselves to the States, and we had sort of a blast! Then, we fall into video.

Woody: That's very simplified: "We fall into video."

Steina: Well, we drifted into video... Now we were doing video, and we had our video friends. It was very interesting in the early times of video, because it was stretched from coast to coast, and it was held together by people called The Cosmic Messengers. They would drive buses from coast to coast, and they would come from California and tell us what they were doing. And we would give them our tapes to take with them...

Woody: It's stratified [in America] by profession and by interests to the contrary of Europeans, socialized by clannishness or [by] some traditions. After all, we do not have anything to say to people who do not have our same interests. It's a further breaking down of the community, which is set up to love your neighbor. This breakdown by profession is an escape from the obligation of unconditional love.

David: How did you come to video?

Woody: I didn't find any way of creating the texture of my vision in film. It was beyond both my interest and my abilities. My first encounter with video came at the Howard Wise Gallery in the form of electronic feedback. Suddenly, I saw how electronic image related to electronic sound. This decided my future by making me realize what I was about. It was that simple. That texture and that behavior, which is not present in film, became a phenomenology that I had to look into. Video has an immediacy and an aspect of time manipulation, since the frame can be altered, and of colorization, keying, and feedback- all of which elude the modalities of the filmic image. Through our experiments in the Seventies, we deconstructed the electronic image, rather than synthesizing it. We analyzed the properties of the video signal. It has always been the motive of our work to look into another domain, to identify it, and to learn how to inhabit it.

David: Are you having conversations within the same technological language, or are you developing your own languages?

Steina: I speak seven different languages, because speaking Icelandic doesn't get you anywhere in the world. So, in this sense, I am a linguist, but, when it comes to syntax, the conventions bore me- I'm against them. I fall back on another

convention, which is music, because I did study music. I know something about phrasing, about highs and lows, about the architecture of sounds, so I fall back on that when I'm doing my work. That was the big seduction of doing multiple channels, because music is composed of different channels. I don't have the gift of knowing what images should follow other images, but I know what sounds should follow other sounds. Like the case of Hieroglyph, it wasn't until I had the sound together that I understood how to edit it. I was totally guided by the sound and by the rules of sound. So, Woody always laughs at my edits, and the only feedback I get is that it's wrong, so I go back and I try again. At a certain point, Woody says "This is okay," and I trust that it's okay. He gives me a funny kind of feedback, because he doesn't tell me how to do it; he just says it's wrong- "Go back and edit it again." What about you, Woody? This is where we're most different.

Woody: I had rejected film. I was dissatisfied with what I thought film was. So, I was extraordinarily lucky to come to this new way of doing things- electronically. There was also a bit of history about it from my service in the [Czechoslovakian] Air Force. I was a radio telegraphist. I understood about the [electronic] signal, since I knew how it bounced around the stratosphere and interacted to make sound textures. For me there's this connection between the instrument, the signal, and composition that dates back to when I was seventeen years old, and there is a relation between these sound textures and electronic music-making. Later I discovered film, and the switch was very organic from sound-making to picture-making. We both were dedicated simply to looking at the terminology. We were not interested in composition or Art, though, of course, our only reading of it was aesthetic. The behavior of the signal, a professing of the signal, became almost religious. The observation of time, energy, and its dynamic state was fantastic. So, this became a major period of practice, and there were not very many people interested in this direction.

Steina: We had access to video equipment from various sources, but when we started we had no signal-generating equipment. So, the first thing we bought was an audio synthesizer, because you have to have a signal generator, and we bought it as much to generate audio as to generate video. I always think that this is important- that when we laid our money down it was on a synthesizer.

David: Did you finally manage to kill the author?

Woody: The author is being killed, not by the instrument, but by the concept of participation, or interactive space, in which the narrative is no longer driven by the author. But, finally, most of the investigation of such systems is given to the observers, and the syntactical relationships that are so important to authorship in literature, poetry, music, and film, suddenly become the domain of the observer, who is completely unprepared for it, of course. We call it total degradation of authorship by participation, and an integral part of the new strategy of engagement. A new set of syntactic relations has emerged, in which the author has been plunged into a participatory space. It's a syncretic moment where a personal, hidden agenda [of the author] can be followed only by associated minds and navigated freely in preparation for authorship.

Steina: One of our early turns was to systems' performance, because we realized that we had a dialogue; that whatever the system was, if it was mechanical or electronic, like when we point the camera into the monitor, that it too started performing in front of your eyes. Now you can interfere with it, you can change the pattern, but whatever the result is, it's just a lot of human interaction. But, if you are recording when you are not there, you could see this wonderful pattern coming back, that the system has performed for you. So, we learned very early to not take an active role, but to go into a dialogue. The system is always there, and, at a certain point, the system takes over, and you become its servant. The system is, in fact, performing.

David: How can you describe the apparent confluence between consciousness and electricity?

Woody: It's true that electronic arts may have a privileged position in the history of art, because they have initiated different organizing principles. However, this may be illusory because we do not know if the future will follow the prescription of making art or of being conscious in this way. It could easily be rejected, in which case History will look at this as an extraordinary, insignificant, maybe interesting glitch, but one that would not be placed as a centerpiece for the evolution of human consciousness.

David: Are you attempting to reconfigure the circuit of human consciousness?

Woody: Every generation tries to reform the world because they are immediately confronted by an unjust, illogical, and completely improbable world. In a strange way, the modern movement was reformist. It tried to replace religion with a new way of thinking, and the art became enough to replace the spiritual need of the society at the time. The Modernists always wanted to change the world, but as Bunuel said: "We wanted to change the world, but instead we changed art," and this was the bitter pill to swallow.

David: How does the machine relate to this?

Steina: Technology is not something one has to accept or reject any more than Nature, for instance. It is just here. And just as with Nature, there is an opportunity for dialogue. When we turn the machine on, we ask, "what can we do together today?" If my technology does not talk to me, I get nothing done.

Woody: The original idea of the machine as automata goes very far back—something that belongs to the world of the gods rather than the world of man. The machine is a divine power that is summoned to re-structure the human experience, to bring it closer to Spirit. At the beginning of this century, technology was essentially tended by high priests. They were servants who helped maintain a separation between the populace and themselves. The Sixties threw a monkeywrench into this arrangement, because these priests and the established order had to be dissolved. This was a Promethean struggle of taking the fire from the gods and bringing it to the people. By aligning themselves with technology, this generation of youth disassociated themselves with the establishment while maintaining the knowledge. They brought the knowledge of the code to the populace. Despite the mythological justification, I believe this process has occurred because I did meet these people who built machines with the idea of utopian integration and who thought that these machines would impact society to produce the social justice which was outside of human supervision.

David: So, the utopianism got sublimated into the technology itself?

Woody: Yes, that was the belief at the time, while now the establishment is trying to monopolize the knowledge again, to commercialize the knowledge. We can see this struggle with the Internet. This trivialization of the knowledge of technology has a very specific trend towards strategizing commercialization.

Steina: I have a friend who's interested in the aesthetics of computer generated spaces, which at the consumer level are mainly games. There's one game he was into where the object is to destroy six enemy helicopters. He shoots down five, and he keeps the sixth going, so this game won't close on him. He can hover in space. He can see how it was built and go places. Eventually, the sixth one would shoot him down and finish his game, but in the meanwhile he had time to look at things aesthetically. Why wouldn't they just put a toggle and let you just hover in the space for hours if you wanted? He wanted to have a dialogue with his mind, and he didn't want those damn helicopters to be in his way but, that's the way the game is set up. In a way we have been so betrayed by virtual reality. Instead of being this perfected aesthetic space for us all to be in, so that we can dialogue with our minds, it has become this mindless war machine.

David: How can you describe the transition from analog to digital processes?

Woody: At the State University of New York in Buffalo, we were experimenting with building different electronic devices that required using codes for describing energy. There were various codes whose languages were impacted on the state of the energy within the machine. We saw that the television image was purely composed of energy that was approximated by the [analog] devices, through the timing circuits that controlled the raster. The question of how to replace this approximate time-energy event with a totally numerical mesh was an introduction to the translation of the analog to digital. Each point on the screen became associated with what is called "an authentic address", whereby a numerical counting system defined every pixel of every screen of every event as a sequence within a re-programmable matrix. This has philosophical consequences. In the analog world there is an infinite amount of changes, since every moment in time has a different state of the energy. In digital, we have frozen or interrupted the fluid analog world, which is basically a discrete framing of time. Once you translate into digital, the space between the points is



eliminated, so that the frozen moments are the only reference to the original, infinitely changing event.

David: So the mind fills in the gaps between these points?

Woody: Human perceptual processes, like psychoacoustics, fills in the space between the points, if they are frequent enough, and digital media only exist because we can disregard the holes in the transmission to perceive relatively continuous representations. So, the machines that deal with digital code are constructed according to a different architecture than those constructed in an analog sense. The machine has imposed onto us the questions of discontinuity of the code and reproduction of the code, and I am surprised that the intellectual position seldom takes them into account.

David: Do you think that the nanosecond between points within the digital code has an impact on the intellect?

*A GOOD QUESTION*  
Woody: It's an interesting question, but I would surmise to say that even if it has a very great significance to a thought-process perceptually it is meaningless because it represents itself and covers up this process. In a way, the intellectual world is happy not to deal with it, because it is not intrusive and there is no observable evidence. I don't think that it affects or re-designs our perception of the narrative system.

David: Steina, how did All-Vision come about?

Steina: When we got technically advanced enough to not need each other's assistance, Woody plunged head long into the Rutt/Etra machine, leaving me to ponder about machines and optics. I had wanted to challenge the camera's vision, usually hard-wired to eye-level and pointed at the main event. First, I mounted the camera on my car, then on ever-spinning turntables. I let the camera see the world through moving mirrors, and finally a mirrored ball. When people look at All-Vision, they see themselves and, therefore, assume it is about them. But then they leave and All-Vision keeps going.

David: What are the best conditions for viewing your work?

Steina: Rather than having one thousand viewers per monitor, I would prefer one thousand monitors per viewer. I generally do not like to show in a gallery or museum. I like showing my work in alternate spaces-- warehouses, hangars, and outdoors. Galleries and museums do not like dark spaces or loud noises; they like paintings.

David: Woody, how do you account for the difference between how film and video effect the eye?

Woody: Since it's discrete in both cases, film is much more crude, because it is 24 frames a second, whereas in video there are 60 phases every second, which produces twice the number of dynamic events. That means if you go to the movie house, you read less of the dynamic resolution and more of the pictorial resolution. If you're not a television viewer, then when you watch film your mind fuses the images seamlessly. The mind wants to collaborate with the image, and it is no longer completely controllable, but rather absorbed by the system to render information faithfully and to reproduce the narrative mythology.

David: Can you explain your shift from experimenting with the signal to constructing mechanical, virtual environments?

Woody: Before, I was very interested in the non-materiality of the image. Video interested me because it was only the surface that was essential- events produced a stream that hit the surface and emitted light. I found that very good, and then I looked at the organizing principles of it. There were the magnetically suspended beings in technology, and I found that very good. Then I studied how computers made images based on the software. It was an interesting possibility to dematerialize the image. It [the image] is not directly tangible but suspended in some force-fields, and you organize the force-fields, which was a very elegant way of looking at image. But while I was producing a large amount of tapes that were based on this principle, I was collecting these large pieces of military material- structures that indicated that they had some sort of intelligence. They contain a human, ritualistic character. For example, it is a ritual of the machine to calibrate. It's like in the morning you open your eyes and you say: "Where am

I? What am I doing here? What am I going to do next? Where am I going to go? Why am I going there? Which way should I go?" These are basic, primitive questions that the machines, that are guided by a navigational system, have to ask. The complex of [a machine] going from one place to another is an enormous extension of human knowledge. The first piece I made like this was called Theatre of Hybrid Automata, which is David Dunn's term, and it deals with the adaptation of this celestial polar navigator- a device that was locked on [the star] Polaris to maintain the coordinates of a vessel flying above the clouds at night on its way to the target. This piece deals with the ritual of calibration; that was the dominant reason for the piece. The next one, Table 2 [from "The Brotherhood" series], has a more sinister purpose. The rack itself was used for finding coordinates in a bombing computer. It is the same machine that accidentally bombed a village in Cambodia, described by Spalding Gray in Swimming to Cambodia. I converted it into an audio-visual device that basically explores the theme of technological ethics. There's no loyalty in the machine in the way it destroys, or constructs, but it does it in a pure way; there is no ethical definition.

David: What about the machine's lack of ethics intrigues you?

Woody: I used to think that machines had their own ethics, because they purified the mind by the mind's ignorance. They, in fact, criticize the mind, because the mind is too complex, while the machine is simple. So, before you put any mythology into the machine, it is already there, and the civilized world has to try to contain that machine and corrupt it with its ethics. However, machines are assuming more and more responsibility, and the more that they are becoming like us, the more they exhibit their own complexity of behavior, or preferences. That's where difficulties arise about assigning responsibilities, since there becomes a question of shared meaning. Since I only build primitive machines, I cannot really know what intelligence is, besides observing certain protocols that suggest an intelligent presence. No one really has the language for it.

David: How do your installations investigate these questions?

Woody: It's problematic because I didn't do them as totally predictable, and I never wanted to make them rational or understood. They are meant to be

OR TEST & FAIL

approximated; they are just pointing. They should not be telling anything, which is a problem because you program yourself to fail. There has to be something more. Your instinct has to be correct, otherwise it cannot be done. They [the installations] do struggle, despite their deficiencies, because there is a spirit within them that takes over. I had to put my trust in these systems, which became responsive and which turned into a collaboration.

David: Woody, what is non-centric space?

Woody: I developed this term to avoid a disclarity of polymorphous space. We understand space in theatrical terms, space as a globe and where the galaxies are; we have some idea about what space is. But in the media sense, space is what we create. In photography there is a frame which presents space within a cognitive unit, which fills us with a sense of place. Then this framing shifts, as film has the ability to present one piece of space intercut with another piece of space, and suddenly the mind collaborates. It's called "cinematic space", and people can exist in that space, and stories can be there, and many events can happen in such a space. 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 through machinery. This carries through into a computer, with the major difference being that the computer represents all media- not only sound and image, but also alphabetical systems, numerical system, Renaissance space, matrices of recalculated space, non-existing polygonal, octagonal space, inversions- all the modalities of space are represented in that machine by simply organizing data structures, which is completely miraculous.

David: It is, then, literally a new territory.

Woody: It is basically a new territory of representation of the world, and as far as media, or narrative systems, or entertainment, or artistic generators, they [computers] are the unmatched conceptual spaces. And, perhaps we can talk of their place in human consciousness, since we cannot help but be affected by them, but what is our evidence? Through computers we have discovered an escape from filmic narrative, which has confined us. Now computers can be treated as a data system, and we can program several ways of decoding or observing this space. The data-space contains all structures of information, so

suddenly you come to polytopic or polychronic events, that are not subject to human psychological formulations. They free you and let you criticize the previous system, which is the filmic. Every new medium has the most important function of containing the previous medium, but has something in addition. It's the idea of a new medium criticizing the old one, which is basically the driving force behind my thinking. In order to look critically at cinematic space, you have to invent new spaces from which to look, otherwise you are captive, continually perpetuating cinematic narrative. This is non-centric space. I still allow certain forms of narrative to occur, like the event which drives the interest of the system. It is not the narrative which is prescribed, since it's not an autonomous event. Now the question is what is the event that occurs within this space. In fact, I do not know how to define this space; I only know what to call it.

David: It's an oceanic vastness, while being very specific to common experience.

Woody: If you don't provide an event based on a narrative system, the event happens anyway. How do media noise and feedback define more of this space? The feedback into a system means that the results are continuously permutating, and then we come to this event from a pure density of information. There is a vast adventure in letting the system be the driving force. We would behold patterns and a variety of visual and acoustic events, even tactiles, if you hook yourself up to it, that probably are as rich or more than any narrative system can present. It's a hypothesis, but it is probably very much what could happen and should happen. Feedback is the basis of aesthetic structuring of our electronic world. The chaotic attractor is one way to interpret this space, because a continuously moving, dynamic system can be interpreted by a point that traverses this space, and that point makes the narrative voyage. Another way of incorporating the system feedback is with synthetic organizing structures that compose themselves through the medium. See, there are plenty of images and sounds on their own, without thinking of the human condition. But, I'm trying to separate these two worlds continuously, because I believe that this other [machine] world purifies us and that the old one is corrupting us. We know that we cannot be really at peace with the world. I can't believe that people could come to the consensus that the world, as it is, is the right one. It's a beautiful idea- very Buddhist or Zen- that we can actually make this world into a perfect

thing, but I think that it's a sham. I don't think we were born to make peace; rather I think we came to struggle with this world.

David: What do you see as the natural extension of this metaphysical view of technology? Is it a complete cybernetic integration?

Woody: I think mankind is now trying to create an alternate poetic source for itself. As Nature was for the poets of the nineteenth century, suddenly we [technologists] want to be autonomous from the god-made. It is sterile, yet populated by the same amount of intensities- desires, fantasies, and transformations- so that we can finally leave this earth. It's the idea of leaving this earth as a place of discomfort, that has already affected our whole generation. It's too heavy on us and does not actually let us be fully human, but rather confines us to smaller and smaller categories. It's a mode of transcendence, whereby God is no longer your ruler and [whereby] we assume the responsibility of the gods. We are having to migrate as the world becomes too populated with the human establishment, when it becomes too filled with compromise, so as to escape to new territories.

David: Are you a strident disillusionist?

Woody: Politically, I was bred as an anti-illusionist. This was the Left's desire to see through the window of the world and to find an underlying social truth- one that was not manipulated. Rather than hiding the process of creation behind an illusion, like Hollywood, we insisted on investigating the means of making images technologically, which has become our reality. This is the reality of the electronic signal and emergent properties of the machine that inform it. Video has developed its own phenomenology, distinct from the narrative of film, which extended the vocabulary of the moving image. This is the crucial driving force of the avant-garde.

David: Steina, what is the distinction between yours and Woody's work?

Steina: We obviously influence each other a lot, and luckily we like each other's work. An aesthetic distinction is for the viewer to decide.