

MATRIX I, 1970-72

Steina and Woody Vasulka began working in the pioneering days of video art in the 1960s and 1970s, when artists interested in the medium were largely concerned with the social and political implications of television. In an era when "the establishment" as a political body was generally under attack, the seamless flow of commercial and institutional information in the form of broadcast images, texts, and sound was subject to intense scrutiny and criticism. Artists took possession of the television medium to generate alternative strategies of production, offering it as a site for aesthetic investigation rather than as a space for commercial entertainment and institutional authority.

In contrast to many of their peers, the Vasulkas focused on the technological infrastructure of television, rather than on the social issues surrounding it. Four years after their arrival in the United States in 1965 (they met in Prague in the early 1960s), they began creating collaborative works that utilized their respective skills: his as an engineer and film editor, hers as a musician. In 1971, along with Andres Mannik, they founded the Kitchen, an alternative space in New York where artists could experiment with sound and electronic images. With a more scientific than intuitive approach, the Vasulkas began testing the limits of existing technologies to explore the formal properties of digital and analog imagery, the materiality of electronic signals, and the temporal relations between audio and video.

Matrix I represents their first attempt to formalize many of these early experiments. A twenty-screen video array (or configuration of multiple monitors) that knits together a selection of the Vasulkas' investigations into the phenomenology of sound and vision, *Matrix I* brings together a selection from the artists' 1970-72 *Matrix* series of video-array projects.¹ The Vasulkas were early proponents of multimonitor video configurations, an initial departure from the convention of single-channel works that would eventually lead to video installations.

For the *Matrix* series, the Vasulkas worked with engineer George Brown, a frequent collaborator in these years, in adapting a keyer—a device that regulates the combination of two visual signals—into an apparatus capable of layering multiple images; this approach is typical of the artists' interest in modifying technology for aesthetic ends. The sound in *Matrix I* is generated, in part, by patterns of random electronic signals. These signals also generate images, which themselves generate sound. The result is a sequence of pulsing abstract forms that move horizontally across the video monitors; although the same image appears on each screen, the impression is of synchronized waves moving across the field of monitors. This horizontal movement, which might seem mundane to the sophisticated viewer of the 1990s, was another technical breakthrough; up until that point, experiments in scrolling and simulating the passage of images between different screens had been limited to vertical movement, as in Joan Jonas's *Vertical Roll* (1972).

In some respects, the abstract, geometric character of *Matrix I* is reminiscent of the experiments in film and nonobjective form conducted by artists in the 1920s. In the work of Hans Richter and László Moholy-Nagy, for example, abstract shapes are manipulated into moving compositions that simulate rhythm, musical harmony, and the contrasting values of opacity and transparency. The desire to create form from technical process is an inherently Modernist impulse. While acknowledging a general interest in such aesthetics, however, the Vasulkas credit the less austere painterly investigations of Salvador Dalí and Maurits Cornelis Escher, with their distortions of visual perception, as more immediate influences. The artists





pages 50–51: Steina and Woody Vasulka, *Matrix I*, 1970–72. One-channel video and two-channel sound installation, 30 minutes, black and white, 1.63 x 3.18 x .48 m. Collection of the artists.

left: Steina Vasulka, *Borealis*, 1993. Two-channel video and four-channel sound installation, 10 minutes, color; installation space variable, approximately 5 x 9.75 x 9.75 m. ZKM/Center for Art and Media Karlsruhe.

also cite the significance of Bela Jules, whose essays on the nature of "Cyclopean vision"—the fusion of left- and right-eye cognition to create a third-eye viewpoint—bear specifically on the effects achieved in *Matrix I*,² where multiple camera setups were employed to create an overall composite image.

1. While the *Matrix* series includes experiments in both black-and-white and color, *Matrix I* includes monochrome images only. A second work, *Matrix II*, which is not in this exhibition, is a twelve-monitor video wall that incorporates their experiments from this series in color.
2. Conversation with the author, April 1996.

Matthew Drutt

BOREALIS, 1993

Steina Vasulka uses rotating cameras in her installations as instruments to explore the phenomena of time and space, recording her surroundings without any interference to create documents of given forms and sounds. In *Borealis*, Vasulka establishes a spatial relationship between the visual and acoustic elements of nature. Fragmented landscape images, which the artist recorded in her country of origin, Iceland, in 1992, appear on four free-standing, transparent screens in a darkened room. Two mirrors set up in conjunction with two projectors disseminate the images to the screens; because of the screens' translucent material, the images are visible on both sides. The viewer is surrounded by a play of recorded sounds and moving, free-floating depictions of water, rock surfaces, and soil, becoming captivated by the images of natural phenomena and experiencing a direct confrontation with the physical power of the elements.

The electronic manipulations employed by Vasulka and her husband, Woody, in both their collaborative and individual projects, produce strange effects that seem to subvert natural laws, confusing our perceptual beliefs. In *Borealis*, the video material is manipulated in such a way that we see the flow of water in reverse, returning to its source; through cross-fading, minute shifts in the soil appear to swell to the size of avalanches; and precise superimpositions transform natural rock formations into complex, virtual sedimentations. The main theme of *Borealis* is the movement and flow of nature. Because of the open arrangement of the large screens, the visitor can feel entrapped by the power of nature in the gaps that are left between them. The enhanced visual and acoustic presence of the recordings allows the viewer to participate in a visual and sensual experience while being drawn closer to the textures of the natural elements.

Borealis incorporates landscape within an architectural configuration, fusing both elements to create a new, artificial genre made possible by the medium of video. The projections on the screens interact with the space around them, while the planes themselves, in their random placement and their orientation toward the projectors, create their own spaces—they act as an incidentally arranged subarchitecture, offering both fixed and changing scenes in which the viewer has no option but to react to the ceaseless movement of the images. Despite the material presence of the screens, the motion of the images suggests a purely illusionary tectonics of planes. The architecture of the floating screens seems to fade under the immateriality of the images. In contrast, the projected images fill the space with their extraordinary mass, the emphasized materiality of their content superceding their virtual character. Close-ups of small sections of landscape and enlargements of detailed surface textures grow in the video projections into towering formations. Concentrated fragments of nature can turn into mountain ranges and landscape panoramas. Their monumentality represents their ability to withstand the forces of time, climate, and evolution. As architecture and landscape interact, each simultaneously constructs and deconstructs the other.

Since her move to New Mexico in 1980, Vasulka has drawn on the landscape as a recurring theme in her work. It is not the romantic implication of this traditional artistic motif that interests her, but the influence of machines on geographical and geological conditions. Unimpeded by the art-historical associations of the landscape genre, Vasulka views the scenery she encounters in the Southwest quite pragmatically, as an extension of spatial dimensions and perspectives that allows her to expand her artistic configurations. The whole of the Southwest, she has said, now serves as her studio.¹ This impulse to move the studio outside, into nature, evokes a long succession of plein-air movements with widely varying artistic intentions, from Impressionism in the nineteenth century to the earthworks of the 1960s and 1970s. Vasulka's manipulations of nature are most closely related to Robert Smithson's large-scale landscape interventions, some of which were only accessible through the mediums of film and photography. Like Smithson, who called himself a "site-seer," Vasulka uses her camera to penetrate deep into the geological and physical structures of earth, stone, and water. Works such as *Summer Salt* (1982), *The West* (1983), and *Geomania* (1989), which are based on an optically deconstructed approximation of detailed landscape textures, bring to mind Smithson's approach to natural realities. While Smithson used heavy machinery to move large amounts of earth, in Vasulka's work this feat is accomplished by her use of video. Like Smithson's earthworks, *Borealis* is composed of a number of precisely choreographed pieces of nature that reorganize geological processes; in Vasulka's work, this is accomplished by means of depth adjustments, optical echoes and reversal effects, superimpositions, and other electronic manipulations. *Borealis* seems to tell the history of the earth in a fragmented text composed of the sediments of time. The viewer's experience is that of a traveler, who, via the real-time projections, develops a sense of the duration of an observation. While Process and performance art of the late 1960s and early 1970s brought real time into the galleries and museums, *Borealis* employs geological and paleontological measures of time, which leave little space for human intervention. The pixellated structure of Vasulka's medium—the digital image—relates to the geological and archeological structures of the subject of her recordings. Like a cartographer, she documents the graphic and structural elements of natural sites, her digitalized projections forming "maps" of the landscape.

Smithson did not consider his inclination toward earthworks as biographically predetermined, and Vasulka, also, though her work is concerned with the landscape of her birthplace and immediate surroundings, resists a mythical/female or purely aesthetic interpretation. Her landscape adaptations underscore the phenomenological interest of a place where pre- and posthistorical aspects meet in one material formation. Vasulka leaves behind painting, sculpture, and architecture, using video to enter a timeless world of ideas where she transposes history and entropy, material and erosion into the transparency of a visual language.

1. Steina Vasulka, quoted in Marita Sturken, "Steina and Woody Vasulka: In Dialogue with the Machine," in *Steina and Woody Vasulka: Machine Media*, exh. cat. (San Francisco: San Francisco Museum of Modern Art, 1996), p. 46.

Ursula Frohne

BIOGRAPHIES

Steina Vasulka was born Steinunn Briem Bjarnadottir in 1940 in Reykjavik, Iceland. She studied violin and musical theory, and in 1959, she received a scholarship from the Czechoslovak Ministry of Culture to attend the music conservatory in Prague. In 1964, she joined the Icelandic Symphony Orchestra.

Woody Vasulka was born Bohuslav Peter Vasulka in 1937 in Brno, Czechoslovakia. He studied metal technology and hydraulic mechanics at the School of Industrial Engineering in Brno, where he received a baccalaureate degree in 1956. Later, he attended the Academy of the Performing Arts in Prague, where he directed and produced several short films.

The Vasulkas met in Prague in the early 1960s. They were married in 1964, and moved to New York in 1965. There, Steina worked as a free-lance musician and Woody as a multiscreen film editor. In 1971, together with Andreas Mannik, they founded the Kitchen, a performance space for the media arts in New York. During these years, they collaborated extensively on investigations into the electronic nature of video and sound, to produce documentaries about theater, dance, and music. In 1974, the Vasulkas moved to Buffalo, New York, where they joined the faculty of the Center for Media Study at the State University of New York. At this

point, their interests diverged. Woody turned his attention to the Rutt/Etra Scan Processor, and in 1976, worked with Don MacArthur and then Jeffrey Schier to build the Digital Image Articulator. Steina began experimenting with the camera as an autonomous imaging instrument in work that would later become the *Machine Vision* series. Since 1980, the Vasulkas have lived in Santa Fe, New Mexico.

The Vasulkas have been artists-in-residence at the National Center for Experiments in Television at KQED in San Francisco, and at WNET/Thirteen in New York. Individually and collectively, they have received funding from the New York Council on the Arts, Creative Artists Public Service, the National Endowment for the Arts, the Corporation for Public Broadcasting, the John Simon Guggenheim Memorial Foundation, and the New Mexico Arts Division. Both received the American Film Institute Maya Deren Award in 1992 and the Siemens-Medienkunstpreis from ZKM Karlsruhe in 1995. In 1988, Steina was an artist-in-residence in Tokyo on a U.S./Japan Friendship Commission grant. In 1993, Woody received a Soros Foundation fellowship to lecture and present work throughout Eastern Europe.

Among the exhibitions that have been devoted to the Vasulkas' work are *The West*, Centre Georges

Pompidou, Paris, 1984; *Focus: The Vasulkas*, Institute of Contemporary Art, Boston, 1986; *Steina & Woody Vasulka*, Hitachi Showroom, Tokyo, 1988; and *Woody and Steina Vasulka: Machine Media*, San Francisco Museum of Modern Art, 1996. Group exhibitions in which their work has appeared include *Projected Video*, Whitney Museum of American Art, New York, 1975; *Festival International d'Art Vidéo*, Locarno, Switzerland, 1984; and *Biennial Exhibition*, Whitney Museum of American Art, 1989. In 1992, the Vasulkas organized *Eigenwelt der Apparate-Welt: Pioneers of Electronic Art*, an exhibition of early electronic tools at Ars Electronica in Linz, Austria.

Steina has taught at the Akademie für Angewandte Kunst in Vienna, the Institut für Neue Medien at the Städelschule, Frankfurt, and the College of Arts and Crafts, Reykjavik. Since 1993, Woody has been a visiting professor at the Faculty of Art Polytechnic Institute, in Brno, Czech Republic.

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SELECTED EXHIBITION CATALOGUES

Steina and Woody Vasulka: The West. New York: Fine Arts Center Gallery, State University of New York at Stony Brook, 1987.

Steina and Woody Vasulka: Machine Media. San Francisco: Museum of Modern Art, 1996.

American Landscape Video: The Electronic Grove. Pittsburgh: Museum of Art, Carnegie Institute, 1988.

Traversals: Instructions to the Double. Long Beach: Long Beach Museum of Art, 1990.

Eigenwelt der Apparate-Welt: Pioneers of Electronic Art. Linz: Ars Electronica, 1992.

Critical Mass. Santa Fe: Museum of Fine Arts, 1993.