

VASULKA MASTERS  
TOOLS & TECHNOLOGY

FILL IN  
TOOLS/  
CREDITS/  
TECH DESCRIPTIONS

1 - 2 - 3 - 4

SPECIAL TOOLS:

Eric Siegel: Dual Colorizer  
George Brown: Programmer, Multikeyer and H.D. Variable Clock

CREDITS:

Exercise for four cameras and digitally controlled six input keyer with images of the numbers 1,2,3,4, joined later by oscillator textures and the colour blue. The images are routed through the control matrix of a multikeyer which re-arranges the order of the image planes. An interfaced tone generating sequencer relates the tone changes to the switching of the video sequences. Variable frequency clocks control the horizontal drifting of the images.

A So Desu Ka

SPECIAL TOOLS:

CREDITS: Dancers: Saburo Teshigawara and his ensemble  
Co-editor: Hope Atterbury  
Funding: Hirofumi Mora of the Hitachi Corporation  
The Japan/United States Friendship Commission  
The Rockefeller Foundation  
The American Film Institute

Adagio

SPECIAL TOOLS:

CREDITS:

Art of Memory

SPECIAL TOOLS:

Rutt/Etra Scan Processor  
Jeffrey Schier: Digital Image Articulator

CREDITS: Protagonists: Daniel Nagrin, Klein.  
Voices: Doris Cross  
Collaborators: Bradford Smith, Steina, Penelope Place, David Aubrey.

Artifacts

SPECIAL TOOLS:

Jeffery Schier: Digital Image Articulator

CREDITS:

Bad

SPECIAL TOOLS:

CREDITS:

BAD is the mnemonic command for the B-Address register of our Buffer Oriented Digital Device. There are several functions in this register, namely: Up/Down, Left/Right, X and Y maps, and 9 variations on resolution, here manifested as stretching or squeezing of the image. The tape starts with the register at Zero and adds One at a pre-programmed speed. For sound, the most active bits are selected, translated through digital/analog converter to voltage controlled oscillators. Then blue is added on the darkest gray (black) and red on a middle gray, leaving the remaining image Black/White.

Bad is a play on a computer performance. By a simple command: "add one", the machine scrambles for its pictorial and tonal expressions, succeeding at random.

Digitized abstractions of colour fields and grids are electronically manipulated by sound.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Black Sunrise

### SPECIAL TOOLS:

George Brown: H.D. Variable Clock

### CREDITS:

Energies organized into colourful abstractions of electronic images, mostly a round shape, and sounds that result by interfacing the video signal with a sound synthesizer.  
Created with an audio synthesizer and video keyer.

## C-Trend

### SPECIAL TOOLS:

Rutt/Etra Scan Processor  
Eric Siegel: Dual Colorizer  
George Brown: Multikeyer and H.D. Variable Clock

### CREDITS:

An object-like waveform is slowly turning and drifting before the backdrop of video noise. The object is actually a camera view from a window onto a street, retimed by an external clock, scanned by a scan processor and accompanied by the street noise.

A camera view from a window is displayed on a scan processor. The identical image signal is connected to the vertical deflection system of the scan processor, translating the energy of the image into a vertical position of scan lines. The displayed raster is shaped with locked waveform generators and retimed by an external clock causing a slow drift.

## Calligrams

### SPECIAL TOOLS:

### CREDITS:

## Cantaloup

### SPECIAL TOOLS:

**CREDITS:** Cantaloup by Steina in cooperation with Jeffrey Schier and Woody Vasulka. A production of the TV Lab at WNET/Thirteen

Cantaloup is an informal documentary on the Vasulkas' Digital Image Articulator, a sophisticated imaging device they designed with Jeffrey Schier. Using a cantaloup and the three artist/designers as image material, Steina explains the capabilities of the machine, including its real-time imaging ability and the articulation of images into a digital code. She describes the varying sizes of pixels (picture elements), the layers (or slices) of color and tone that can be derived from one image, and techniques such as "grabbing" the image and multiplying it. This document offers a highly informative, spontaneous demonstration of a complex imaging device.

## Chaco

### SPECIAL TOOLS:

### CREDITS:

"Chaco" is a sequence of landscapes, ancient earthworks and changing skies, interacted through electronic keying. It is an excerpt from yet untitled work in progress. Due to climatic and geographic conditions in this region, any action of man stays recorded for a long period of time. The rearing works of art and developing scientific instruments of landscape proportions. Santa Fe, N.M. Apr-83

Video recording equipment here is in interaction with electro-optical devices developed and programmed to capture and express Chaco Canyon in New Mexico.

## Decay I

### SPECIAL TOOLS:

Eric Siegel: Dual Colorizer

### CREDITS:

A face, pre-recorded on a videotape, is manually forwarded on the playback to produce image decay. Colourful abstractions of a form to electronic sound.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Decay I

**SPECIAL TOOLS:**

Eric Siegel: Dual Colorizer

**CREDITS:**

A face, pre-recorded on a videotape, is manually forwarded on the playback to produce image decay. Colourful abstractions of a form to electronic sound.

## Digital Images: The TV Program

**SPECIAL TOOLS:**

**CREDITS:**

## Distant Activities

**SPECIAL TOOLS:**

Eric Siegel: Dual Colorizer  
Rutt/Etra Scan Processor

**CREDITS:**

Video feedback processed and controlled through a keyer. Sound is from video signals interfaced with an audio synthesizer.

## Don Cherry

**SPECIAL TOOLS:**

**CREDITS:** Collaboration: Milosh, Elaine

## Doris Cross

**SPECIAL TOOLS:**

**CREDITS:** Interviewer: Woody Vasulka  
Camera: Steina

## East Europe 1

**SPECIAL TOOLS:**

**CREDITS:** Camera: Woody Vasulka

## East Europe 2

**SPECIAL TOOLS:**

**CREDITS:** Camera: Woody Vasulka

## ECCE A

**SPECIAL TOOLS:**

Jeffery Shier: Digital Image Articulator  
Rutt/Etra Scan Processor  
Protagonists: Jim Pomeroy, David Alfaya, Leonard Hoffman, Daniel Nagrin

**CREDITS:**

Commissioned for Archimbaldo Effect Exhibition, Palazzo Grassi Venice

## ECCE B

**SPECIAL TOOLS:**

Jeffery Shier: Digital Image Articulator  
Rutt/Etra Scan Processor  
Protagonists: Jim Pomeroy, David Alfaya, Leonard Hoffman, Daniel Nagrin

**CREDITS:**

Commissioned for Archimbaldo Effect Exhibition, Palazzo Grassi Venice

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Events in the Elsewhere

### SPECIAL TOOLS:

Rutt/Etra Scan Processor

### CREDITS:

A report on interfacing Joan LaBarbara's voice to electronic image-making instruments.

## Evolution

### SPECIAL TOOLS:

### CREDITS:

A three segment tape containing fundamentals of the early works. Image originated from sounds (Buchla-Feedback), sound activated by feedback of spot-like lights and flashes, then horizontal drift with negative images of evolution from ape to man, text ads, sperm under the microscope, a street scene, monitor and abstract feedback patterns, images rescanned).

Audio synthesizer and special effects generator.

## Exor

### SPECIAL TOOLS:

Jeffery Schier: Digital Image Articulator

**CREDITS:** Exor was made possible with funds from New York State Council on the Arts.

This 4 minute segment was later incorporated into the opening scene of Cantaloup.

## Explanation

### SPECIAL TOOLS:

Eric Siegel: Dual Colorizer  
George Brown: Multikeyer  
Rutt/Etra Scan Processor

### CREDITS:

A generated crosshatch pattern, displayed on a scan processor and tilted by a locked waveform, is keyed over a synthetic landscape. A pair of slow ramp generators, connected to the height and width controls of the displayed system, provide gradual changes in size and position of the image. The ramp generators are the simultaneous source for sound and image.

## Flux

### SPECIAL TOOLS:

George Brown: Field Flip/Flop Switcher:  
Rutt/Etra Scan Processor:

### CREDITS:

Two image sources are put through the same input of a synchronizer and switched constantly multi-directionally: the flow of water and the video noise, slowly scanned.

A two character material, water flow and video noise are the basic sources of multi-directional movement within switched frames or slow scanned noise fields.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## From Cheektowaga to Tonawanda

### SPECIAL TOOLS:

Rutt/Etra Scan Processor  
William Hearn: Four Zone Colorizer  
George Brown: Flip/Flop Switcher

### CREDITS:

A travelogue in three chapters, From Cheektowaga to Tonawanda is a first tape in a collection of works, I call Machine Vision. The "Machine" in this tape is my car.

In the first chapter a tape material is processed through a "Four Zone Colorizer" (designed by William Hearn).

In the second, two tapes of opposite views are played back simultaneously through a "Flip/Flop Switcher" (designed by George Brown).

In the third chapter, the same image material is processed through a "Scan Processor" (designed by Rutt/Etra).

From Cheektowaga to Tonawanda is a first tape in a collection of works, I call Machine Vision. The "Machine" in this tape is my car.

## Golden Voyage

### SPECIAL TOOLS:

Eric Siegel: Dual Colorizer  
George Brown: Multikeyer and Programmer.

### CREDITS:

In this homage to Magritte, loaves of bread travel through electronic landscapes, assembled from camera images and pre-taped materials, layered through a multikeyer. The horizontal image-drifts result from a retimed horizontal drive of the camera. Other movements are produced by panning, zooming and by a turntable.

By 1973, we had understood the basic principles of layering images through a process in video called keying. We conceptualized a multilayering instrument, brilliantly executed by George Brown, capable of prioritizing and layering six camera images in real time.

This free arrangement of images, had initiated a series of false perspective studies with logical, hierarchical relationships violated.

In comparison, the work of Rene Magritte had stricken us as being premonial to many electronic imaging concepts, to the process of keying in particular. It was his painting "Golden legend", which gave the theme to "Golden voyage".

The Vasulkas, Santa Fe, 1980

## Heraldic View

### SPECIAL TOOLS:

Eric Siegel: Dual Colorizer,  
George Brown: Multikeyer and H.D. Variable Clock,

### CREDITS:

An oscillator generated pattern drifts over a camera view of a brick pattern. Sharp bursts of voltage generated on an audio synthesizer are interfaced with control levers of a keyer, determining the opening of the front image to the background image.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Home

### SPECIAL TOOLS:

Eric Siegel: Dual Colorizer  
George Brown: Multikeyer, Video Sequencer/Video Keyer and Field Flip/Flop Switcher  
Steve Rutt: Line-locked Strobe

### CREDITS:

Still life transformed through the inner dynamic of electronic image processing and layering in three sequences:

1. Apple, shoe, book, instruments, bread: horizontal drift of layered planes, separated by keying.
2. Teapot, cup, onions, lamp: two images are switched by a video sequencer. The lamp scenes uses strobes locked to the video field rate.
3. Salt, bottle, bowl: image planes separated by keying and the bowl image is keyed by itself.

## Horloger

### SPECIAL TOOLS:

### CREDITS:

## Igor

### SPECIAL TOOLS:

### CREDITS:

## Immortals: Morphs Fires Waters

### SPECIAL TOOLS:

### CREDITS:

## In Search of the Castle

### SPECIAL TOOLS:

Jeffery Schier: Digital Image Articulator  
George Brown: Multikeyer and Programmer

### CREDITS:

Originally a study of wide angle lens performance, the videotape became later suitable for variations of algorithmical processing through the "Vasulka Image Articulator".

Fisheye lens distorted imagery of urban landscapes seen from a car, creating a surround vision. images and pre-taped material.

## In the Land of the Elevator Girls

### SPECIAL TOOLS:

Rutt/Etra Scan Processor

**CREDITS:** Assistance: Hirofumi Mora, Japan-United States Friendship Commission. Produced by IMATCO/ATANOR for Television Espanola S.A, E1 Arte del Video.

Digital Arts software

## Interface

### SPECIAL TOOLS:

### CREDITS:

## Kei Takei

### SPECIAL TOOLS:

### CREDITS:

A documentary of Kei Takei's performance in the Mercer Street Kitchen.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Keysnow

### SPECIAL TOOLS:

Geroge Brown: H.D. Variable Clock

### CREDITS:

## Land of Timoteus

### SPECIAL TOOLS:

Rutt/Etra Scan Processor

Geroge Brown: Flip/Flop Switcher

### CREDITS:

Imagery of Iceland, rocks, water, landscape and Woody sitting at the sea, is presented by switching from one image to another. Time and space are in a continuous shift, variables of electronic mixing.

Video Keyer and audio synthesizer.

## Lilith

### SPECIAL TOOLS:

William Hearn: EAB viedo lab

### CREDITS: Collaboration with Doris Cross.

The portrait of the artist Doris Cross is rendered multidimensional through the use of shifting natural backgrounds, zooming back and forth, slow motion effects, and layering of colourized images. The voice is electronically distorted.

Image of a vibrating circle or a moving hand, the viewer becomes aware of the process that only the moving image represent

## Linz Master

### SPECIAL TOOLS:

### CREDITS:

Documentary on the making of the catalogue and exhibition Eigenwelt Der Apparate-Welt / Pioneers of Electronic Art / Ars electronica 1992

## Machine Vision

### SPECIAL TOOLS:

Turntable/Camera with Zoomlens/Mirror sphere

Turntable/Camera with Zoomlens/Rotating prism

Turntable/Camera with Rotating lens/Moving mirror

Turntable/Camera with Zoomlens/Moving mirror (vertical)

Turntable/Camera with Rotating lens/Mirror sphere

### CREDITS: Joe Forth: tool inspirations

Josef Krames: optical engineering

Woody Vasulka: machine engineering

A special credit in this installation is to be extended to Joe Forth of Cheektowaga, my resource for electro-mechanical surplus goods, to Josef Krames for optical engineering and to Woody, the machine builder. Additionally, there is in this exhibit a continuous playback of two of my tapes; "From Cheektowaga to Tonawanda" and "Flux" (see list of tapes in distribution).

### Hardware:

Mirror sphere, Turntable with Power supply, Programmed Zoomlens, Rotating lens, Mirror sphere, Moving mirror, Rotating prism.

A Video Tape Presentation: Machine Vision

Machine Vision accepts the concept of observing and defining a set of attitudes that challenge established human perceptual habits.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Matrix: The TV Program

### SPECIAL TOOLS:

George Brown: H.D. Variable Clock

### CREDITS:

A matrix of monitors stacked in configuration of 2 to 4 rows high.

## Nam June Paik Interview

### SPECIAL TOOLS:

**CREDITS:** Interviewer: Ester Schwartz  
Interviewee: Nam June Paik  
Camera: Steina  
Production: Woody

Half hour Schwartz Interview with Nam June Paik in Vasulkas' loft in Buffalo, NY for cable.

## Noisefields

### SPECIAL TOOLS:

George Brown: Field Flip/Flop Switcher  
Eric Seigel: Dual Colorizer

### CREDITS:

Colorized video noise is keyed through a circle. A switch selects between the normal and the inverted mode at various field rates. The energy content of the video modulates the sound.

## Objects: The TV Program

### SPECIAL TOOLS:

part of 6 programs for television

### CREDITS:

## Orbital Obsessions

### SPECIAL TOOLS:

Studio settings are recorded: circling with the monitor held in front of the circling camera, a second camera viewpoint is inserted into the picture. The process of the making of the tape is both commented and documented. Other "obsession" involve zooming and modes of switching between two images including the use of mechanical camera devices like rotation, positive/negative, a.o. Besides the electronic sound there is a rare part with classical music mixed in. The tape incorporates the previous works by Steina "Sound and Fury", "Signifying Nothing" and "Switch!, Monitor!, Drift!".

### CREDITS:

## Orka

### SPECIAL TOOLS:

single channel from three channel installation of Orka.

### CREDITS:

## Pariah

### SPECIAL TOOLS:

Rutt/Etra scan processor

36 mintue monologue by Tim Thompson.

### CREDITS:

## Participation

### SPECIAL TOOLS:

### CREDITS:

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Pen

**SPECIAL TOOLS:**

**CREDITS:**

documentary of the work of 4 prisoners instructed by Jerry West at the penitentiary in Santa Fe, New Mexico.

## Progeny I

**SPECIAL TOOLS:**

**CREDITS:**

Rutt/Etra Scan Processor  
Jeffery Schier: Digital Image Articulator

## Pyroglyphs

**SPECIAL TOOLS:**

**CREDITS:** In close collaboration with Tom Joyce

## Reminiscence

**SPECIAL TOOLS:**

**CREDITS:**

Rutt/Etra Scan Processor

A portapak recording of a walk through a farmhouse in Moravia, a place of Woody's youth, is displayed on a scan processor, including the original sound. The identical image signal is connected to the vertical deflection system of the scan processor translating the energy of the image into a vertical position of scan lines.

## Selected Treecuts

**SPECIAL TOOLS:**

**CREDITS:**

Rotating Prism  
Switching Zoom Lens  
Jeffery Schier: Digital Image Articulator

In an investigation into the abstract qualities of digitized images, trees as natural material are manipulated and compared to analog representation. Electronic sound is triggering the process of switching back and forth.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Selected Works

### SPECIAL TOOLS:

### CREDITS:

Steina: Selected Works

Bad 1979, 2:14 min.

Urban Epicodes 1980, 8:50 min. Optical Instrumentation: Josef Krames. Produced by KTCA-TV, Minneapolis.

Summer Salt 1982, 18:48 min. (Sky High 2:42 min;

Low Ride 2:5g min;

Somersault 5:14 min;

Rest 2:16 min;

Photographic Memory 5:10 min.

Total program: 1979-82, 29:52 min, color, sound.

Steina's works from the late 1970s and early 1980s are exercises in the phenomenology of vision and the redefinition of space and landscape, as articulated through mechanized, optical and electronic devices. Bad is a technical exploration of several commands in the Vasulkas' Buffer Oriented Digital Device, which controls digital imaging functions such as up/down and right/left movement, as well as the stretching and squeezing of the image. Steina uses her own face as visual material, rhythmically dismantling and reconstructing her self-image. Urban Episodes is a striking phenomenological study in an urban landscape, an exhilarating restructuring of physical space that defies expected modes of seeing and the laws of gravity and reflection. In a public plaza in Minneapolis, Steina set up a motorized, rotating Machine Vision device, which includes mirrors and two cameras that pan, tilt and zoom. Summer Salt is a dramatic exploration of the phenomenology of space and vision, as Steina uses mechanical and electronic devices to physically investigate the Southwestern landscape. This artificial vision allows the viewer altered perceptions and spatial perspectives. The five segments include dynamic exercises with Steina's mirrored globe, the physicality of unexpected camera placement, and electronic manipulation of the textures and colors of the landscape.

## Sketches

### SPECIAL TOOLS:

### CREDITS:

Rudolf quote

## Solo for 3

### SPECIAL TOOLS:

### CREDITS:

George Brown Multikeyer, Programmer, H.D.Variable Clock

Eric Siegel Dual Colorizer

Three cameras see different sizes of the number 3, while a fourth camera is set to a feedback. The images are routed through the control matrix of a multikeyer which re-arranges the order of the image planes. The image planes are sequenced by a digital music instrument. Variable frequency clocks control the horizontal drifting of the images.

## Soundgated Images

### SPECIAL TOOLS:

### CREDITS:

George Brown: Programmer, Multikeyer, H.D.Variable Clock

Rutt/Etra Scan Processor

Eric Siegel: Dual Colorizer.

Abstract feedback and electronically manipulated images generated through sound. Horizontal image-drifts result from a retimed horizontal drive of the camera.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## The Commission

### SPECIAL TOOLS:

Rutt/Etra Scan Processor:  
Jeffrey Schier: Digital Image Articulator  
Harald Bode: Vocoder:

**CREDITS:** Protagonists: Robert Ashley, Ernest  
Gusella, Cosimo Corsano, Ben Harris,  
Andrea Harris, David Ossman.  
Set Design: Bradford Smith.  
Camera: Steina.  
Editor: Peter Kirby.  
Audio Mix: Baird Banner.

## The Legend

### SPECIAL TOOLS:

Jeffrey Schier: Digital Image Articulator

**CREDITS:** Protagonists: Daniel Nagrin, Klein  
Crew: Steina, Bradford Smith, Penelope P.  
Place, Robert Althouse

## The Matter

### SPECIAL TOOLS:

Rutt/Etra Scan Processor  
George Brown: Multikeyer

**CREDITS:**

A generated dot pattern is displayed on a scan processor. Three basic waves, sine, triangle and square, generated by a locked waveform generator, are applied to shape the display. A slow ramp controls the image. The identical waves are the source of sound.

## The Theater of Hybrid Automata: Demo

### SPECIAL TOOLS:

**CREDITS:**

## The Theater of Memory

### SPECIAL TOOLS:

Rutt/Etra Scan Processor:  
Jeffrey Schier: Digital Image Articulator

**CREDITS:**

### Techniques used:

Research and establishment of techniques for audio and video processing, selection of tools, software programming and various media through which to accomplish this work.

### Intermaterials:

Digital and analog processing of images and sounds provide the elements necessary for production of the intermaterials, which are the actual building blocks of the final composition.

## The West (single channel)

### SPECIAL TOOLS:

George Brown: Soft keyer

**CREDITS:** Video: Steina  
Audio: Woody

Wave form generator  
motorized turntable  
spheric mirror

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Soundsize

**SPECIAL TOOLS:**

**CREDITS:**

## Spaces II

**SPECIAL TOOLS:**

George Brown Multikeyer  
Eric Siegel Dual Colorizer  
Programmer

**CREDITS:** Produced at the National Center for  
Experiments in Television, KQED, San  
Francisco

Three layers of textures and shapes are collaged through two cascaded video keyers. The independent control of the horizontal camera drives induces various horizontal movements of image planes. Sounds result from video signals interfaced with an audio synthesizer. Originally designed for a multi-monitor horizontal installation.

## Stasto

**SPECIAL TOOLS:**

**CREDITS:**

## Steina: The TV Program

**SPECIAL TOOLS:**

**CREDITS:**

## Summer Salt

**SPECIAL TOOLS:**

Jeffery Schier: Digital Image Articulator

**CREDITS:**

Birdeye Lens attached to the camera. The five segments are subtitled:

Sky High

Low Ride

Somersault

Rest

Photographic Memory

## Switch!Monitor!Drift

**SPECIAL TOOLS:**

Rutt/Etra Scan Processor  
Eric Siegel Dual Colorizer  
multi-monitor horizontal installation.

**CREDITS:**

A portapak camera recording of a renaissance town in Southern Bohemia, including original sound, is displayed on a scan processor. The identical image signal is connected to the vertical deflection system of the processor translating the energy of the image into a vertical position of scan lines.

## Telc

**SPECIAL TOOLS:**

Rutt/Etra Scan Processor  
Eric Siegel Dual Colorizer

**CREDITS:**

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Tissues

**SPECIAL TOOLS:**

**CREDITS:** Video: Steina  
Audio: Woody

Various camera images are randomly inserted onto a pre-recorded tape. These forced edits, forced because no editing system was then available with the SONY 1/2 Inch Open Reel (CV), become the source of abrupt voltage changes in the audio when looped through a sound synthesizer.

## Tokyo Four

**SPECIAL TOOLS:**

**CREDITS:**

## Transformations: Six Programs for Television

**SPECIAL TOOLS:**

**CREDITS:**

Although we work with the medium of television, we do not create, perform or compose our work for television broadcast. Our work has evolved through the channels of video, which has its own forms of presentation and exists in its own cultural environment. Only recently have we attempted to summarize our work in a broadcastable format. Through the local station here, with a grant from the National Endowment for the Arts and Corporation for Public Broadcast, we have transferred and edited six half hours of material, recorded from small format videotapes between 1969 and 1978. Each program lasts 29 min. and centers on a single theme as indicated in the titles.

Matrix	1969-72
Vocabulary	1973-74
Transformations	1974-75
Objects	1975-77
Steina	1975-77
Digital Images	1977-78

Buffalo, N.Y. 20-Mar-79

### The Vasulkas

With a 1978 grant from the National Endowment for the Arts and Corporation for Public Broadcasting, we have edited six half hours of broadcast oriented programs consisting of our exploratory and experimental works with video from 1969-1978.

These 1/2 hour programs, were produced and broadcast (Nov 1979) at WNET Channel 17, Buffalo, N.Y. Each program lasts 29 min. and centers on a single theme as indicated in the titles.

Matrix	1969-72
Vocabulary	1973-74
Transformations	1974-75
Objects	1975-77
Steina	1975-77
Digital Images	1977-78

The character of the programs is informational as well as aesthetic and could be used in context of technological art series.

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Urban Episodes

### SPECIAL TOOLS:

Optical Instrumentation: Krames, Joseph  
Turntable  
Zoomlens/Mirror sphere  
Rotating prism  
Rotating lens/Moving mirror

CREDITS: It was produced for KTCA, St. Paul,  
Minnesota, with funds from NEA.

In all six episodes, I always used this turntable, creating a perpetual movement from left to right, or camera pan as it is called.

Then on the turntable I placed this long platform to distance the camera, mounted on one end from various optical devices mounted at the other. In this instance, it is a moving mirror taken from some precision optical device that I picked up in a surplus place. The continuous rise and fall movement translates into image language as tilt, although strictly speaking tilt is created by a up or down movement of the camera itself.

And as you see, the mirror is 1/2 transparent and color coded. This is a rotating prism, which had to be aligned carefully, especially since in that episode (as well as some others), I was using a continuous zoom lens, meaning, that a decession switch would engage at either end and reverse the direction.

This rotating lens, unlike the rotating prism is attached directly on the camera. To summarize: pan, tilt zoom and rotation covers the basic moving image possibilities, although mathematical graphics language translates the three dimensions of pan, tilt and zoom into the cartesian coordinates of x, y and z, with the rotation defined as a coordinated x-y movement.

Finally, there was the mirrored sphere, giving the viewer opportunity to see simultainuously a long shot and wide angel as well as front and rear view. As I just finished shooting, the mirror fell off the platform and broke into 1000 pieces.

Each episode has a specific visual concept and is available as 6 separate installations, each for the same rental cost.

- Episode I: Turntable/Camera with Zoomlens/Mirror sphere
- Episode II: Turntable/Camera with Zoomlens/Rotating prism
- Episode III: Turntable/Camera with Rotating lens/Moving mirror
- Episode IV: Turntable/Camera with Zoomlens/Moving mirror (horizontal)
- Episode V: Turntable/Camera with Zoomlens/Moving mirror (vertical)
- Episode VI: Turntable/Camera with Rotating lens/Mirror sphere

### Hardware:

Color Camera With C-mount lens  
Turntable with Power supply  
Mirror sphere  
One 25" color monitor

Turntable with Power supply, Programmed Zoomlens, Rotating lens, Mirror sphere, Moving mirror, Rotating prism.

## Video Ballet

### SPECIAL TOOLS:

The sound is generated by the dancer's movement.

CREDITS: Charles Hayworth, dancer

# VASULKA MASTERS TOOLS & TECHNOLOGY

## Violin Power

### SPECIAL TOOLS:

### CREDITS:

Various parts of violin performances by Steina that manipulate live the electronic images and also reincorporate parts of the Beatles "karaoke" (Let it be). or vice versa. The shape of the "windows" varies. op Switcher, Dual Colorizer, horizontal drive of the camera.

"Violin Power" is a demo tape on how to play video on the violin.

## Vocabulary

### SPECIAL TOOLS:

### CREDITS:

George Brown: Multikeyer  
Rutt/Etra Scan Processor  
Eric Siegel: Dual Colorizer

A program designed to convey in a didactic form the basic energy laws in electronic imaging. The process of keying, timing and system feedback is discussed visually.

Vocabulary is designed to convey in a didactic form the basic energy laws in electronic imaging. Here, a hand as a metaphor for expression and gesture and a sphere that symbolizes form are processed with a keyer, colorizer, and scan processor.

## Vocalization I

### SPECIAL TOOLS:

### CREDITS:

Rutt/Etra Scan Processor  
Donald Buchla: sound module

Joan La Barbara  
Collaboration: Woody; Morton Subotnick

Documentation of interactive sound/image installation and performance.

## Voice Windows

### SPECIAL TOOLS:

### CREDITS:

Joan LaBarbara

Steina's scat performance visually opens up another layer of an image, from urban Santa Fe to the underlying landscape of New Mexico or vice versa. The shape of the "windows" varies. Joan LaBarbara.....

## Voyager / Computer Graphics

### SPECIAL TOOLS:

### CREDITS:

Digital Arts software  
A sampler of computer-generated images.

