# AFTERIMAGE
# 1982
## *The 7th Annual Ithaca Video Festival: a traveling exhibition produced by the Ithaca Video Projects ,Ithaca, N.Y.*
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The Vasulkas are among the handful of artists who, for the past 10 years, have been designing and building tools to interface with video. For them, video has meant the ongoing investigation of the video signal and the tools which generate and process it-whether they be cameras, waveform generators, or computers. Pre-production-whether it involves writing a computer program, as in Woody's Artifacts, or setting up an optical system, as in Steina's Urban Episodes - determines the structure of their works. Their tapes are always real-time machine performances, whose length is determined by the amount of time it takes to complete a pre-programmed operation. There is little or no post-production.

The three Vasulka tapes in the festival illustrate well the range of their concerns. Artifacts is described as a kind of "report" on two years 'work with the Digital Image Articulator, created by Woody Vasulka and Jeffrey Schier. It consists of a series of camera-generated and computer-synthesized images which are combined and processed according to algorithmic functions. For example, a camera-generated image of a hand and a computer-generated texture are superimposed and transformed by means of a program based on the four Boolean logical operations. In another segment, a sphere is multiplied into a grid of spheres, which rapidly zooms forward and backward. This is accomplished by means of "re-mapping," or reassigning a table of numbers in an algorithm. In yet another bit of technical wizardry, we see Vasulkas hand holding a sphere, over which is keyed the same image in miniature. The smaller image is composed of square blocks, a result of its having been fed through an analog-to-digital converter.'

The process of digitizing creates a checkerboard effect, visually not unlike the half-tone dot in a printed photograph. The number and size of the squares means better resolution. In Selected Treecuts, Steina utilizes the limitations of the system to call attention to the process. Using a computer programmed switcher; a camera-generated image of a tree is rapidly switched between digital and analog, and between color and black and white, creating a flickering, grid-like effect.

*From: Urban Episodes, by Steina Vasulka (Picture)*

The Vasulkas interest in the pre-programmed performance of a machine (what Steina calls "machine vision") extends to Urban Episodes. Instead of using a computer, she designed a contraption which would perform the four basic movements of the camera-pan, zoom, tilt, and rotation-and set it up in downtown Minneapolis. Various devices were mounted in their turn on the end of an eight-foot pole-its length determined by the lens's depth of field-which was then attached to the camera. They include a rotating prism, horizontal and vertical mirrors, all motorized by batteries of varying voltage, as well as a non-motorized mirrored sphere, which provided a fish-eye reflection. The whole contraption was then mounted on a battery-operated turntable to create a slow pan. Each of the six episodes features a different combination of devices. For instance, the rotating lens was paired with the motorized mirror to create a tilt effect; the motorized zoom lens, focused on the rotating prism, created a kaleidoscopic effect; in the first and last episodes, the mirrored sphere was combined with the motorized zoom lens, and then with a rotating lens, to catch yet another view of the surrounding buildings, people, and vehicles. In a rare moment of intervention for the Vasulkas, the segments are smoothly edited together, one pan picking up where the previous one leaves off. The ambient sounds of footsteps, buses, and church bells, coupled with the slow movements of the optical system, creates a remarkably tranquil perspective on a bustling metropolis, one which blurs the difference between what is reflected and not reflected so as to render space almost unintelligible.

Some viewers will have difficulty watching these tapes, which seem to have an arbitrary length and purely visual content. Undoubtedly, the Vasulkas' tapes lack the syntax of conventional video, but they do reflect the syntax found in the logic of the computer, and are by no means arbitrary. Woody Vasulka sees Artifacts, for example, as a skeletal collection of 'words' which cannot be meaningfully structured until he develops a large enough vocabulary.

Because writing computer programs is so time consuming, developing this vocabulary is slow.  This process, essentially a formal one, is philosophically based on what the Vasulkas call the "architecture of the tool," in which the end result is as much the product of the machine as the artist.  It is in this sense that their work functions as research.  Ultimately, their work demands a lot of the viewer, for it is only by understanding the Vasulkas' infectious fascination for and commitment to the medium, as well as the technology itself, that one can truly appreciate the integrity of their work.

*Multiplied digital frame from Artifacts, by Woody Vasulka (picture)*

*End*