

# AUDIO / VIDEO INSTRUMENT SPECIAL INSTALLATIONS

Following are three instruments included in the exhibition and identified as special installations due to characteristics that distinguish them from the custom built personal tools in the Audio/Video Instrument section: FEEDBACK was an ubiquitous phenomenon; the SONY PORTAPACK - both CV & AV - was an industrial introduction that put video in the hands and on the shoulders of anyone who could pay (including artists and activists); and, CLOUD MUSIC is an audio/video installation that was a collaboration by three artists in real-time that relies on inventive, sophisticated electronics.

—MaLin Wilson

*no date* **Experimental**

**VIDEO FEEDBACK WITH AUDIO INPUT  
MODULATION AND CVI DATA CAMERA**

1969 **Industrial**

**SONY CV PORTAPAK**

1974 - 1979

**Robert Watts,  
David Behrman  
& Bob Diamond**

**CLOUD MUSIC (Hybrid audio/video installation)**

Courtesy of The Robert Watts Archive, Sara Seagull and  
Larry Muller in collaboration with David Behrman,  
and Bob Diamond



# VIDEO FEEDBACK

## With Audio Input Modulation and CVI Data Camera\*

**SKIP SWEENEY** was born 1946 in Burlingame, California. BA in Theater Arts 1968 University of Santa Clara, California. Founded Electric Eye 1969 a group for video performances and experiments. Co-founded 1970 with Arthur Ginsberg Video Free America. Selected Group Exhibitions: 1971 Video Show Whitney Museum of American Art, New York. 1973 Video as Art Paris. Works: Philo T. Farnsworth Video Obelisk San Francisco. 1971 Video for Heathcote Williams's AC/DC Chelsea Theater Center, New York (with Arthur Ginsburg. 1972 Visual effects for Allen Ginsberg's Kaddish Chelsea Theater Center, New York (with Arthur Ginsberg). 1975 Video Art Institute of Contemporary Art, University of Pennsylvania, Philadelphia. Events and Performances 1971 University Art Museum, University of California, Berkeley. 1972 Video Free America Studio, San Francisco. 1973 The Kitchen, New York; Repertory Dance Theater, University of Utah, Salt Lake City. 1974 Avant-garde Festival New York. Lives in San Francisco.

*Following are excerpts from an interview(1978) of Skip Sweeney by Woody Vasulka about his early experiments.*

Skip: The first tools that I had were just a CV studio camera. I would leave a set-up in my basement back room. A camera shooting into a monitor, just the simplest camera and a monitor at an angle. And, the first tool was my finger on the contrast and brightness knobs - that drastically affected the response of the feedback . . . and, playing with the zoom, focus and tripod with its angle.

In my first explorations I set it up at almost 180 degrees, shooting at almost the same angle as the screen. Position became critical. Generally, I ended up wanting to be perfectly centered, finding the true axis in the tube. I was also playing with the termination switch. Using termination gave me increased gain. The next step - almost automatic - was trying to record some of this stuff, and I instantly discovered that a different affect was gotten by trading off contrast and video gain and super video gain with low iris and low contrast.

*Woody: So, would you go into a much more precise description of how you actually achieved control, because feedback is normally very hard to control.*

Patience . . . I also found something early that gave me a tremendous amount of control that other people don't get when they start playing with feedback - the use of a mirror. By placing a mirror that was angled, and by its angle creating a circle. In other words, if the angle was more than 30 percent the image was circular. For example, if I brought a hand between the camera and the screen, I would see hands from above and from below but, if I put a mirror up, the image was repeated and kaleidoscopic.

The mirror was generally angled below the camera, balanced on piles of something. How far up you moved the mirror, how far down you moved the camera - all those relationships completely changed the image. In fact I discovered you didn't need a mirror, a piece of glass at that angle had so much reflective capability. But, by using the mirror I instantly got feedback where the range was amplified . . . you had to practically knock the camera over

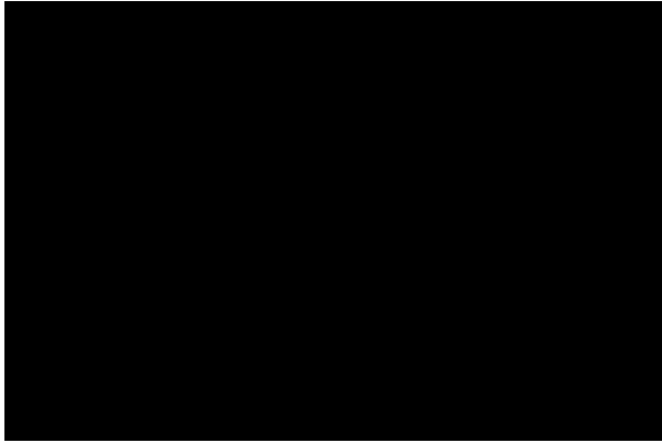
**VIDEO FEEDBACK** is a dynamic flow of imagery created by the camera looking at its own monitor. It was often (and still is) the first phenomena that seduced users of video by its sheer beauty. Although everyone who discovered feedback was transfixed by it, feedback seemed an uncontrollable, roiling effluent byproduct of technology - one of those natural mysteries, appreciated but untamable. The acknowledged master of feedback was Skip Sweeney, organizer of the first video festivals and founder of Video Free America in San Francisco. To Sweeney feedback was "a religion - a wave to ride." Throughout his video work Sweeney has approached video as a real-time tool with an on-going involvement in video as live performance.

Included in this catalogue is a thorough scientific explanation "Space-Time Dynamics in Video Feedback" published in 1984 by Dr. James P. Crutchfield, Physics Department University of California, Berkeley. Sweeney, of course, was working with feedback in the late 1960's, and coaxed to life the complex images later technically described by Crutchfield.





FEEDBACK



FRAME 196 step through next 5 frames



NANO C frame 23666 to 504000



NANO C frame 11731 to 18452



STEP BACK



STEP FORWARD

Skip Sweeney, ca. 1983, with feedback set up at the Exploratorium, San Francisco, California. HW: Setchell-Carlson Television. Photo by Susan Schwartzberg.

to lose an image.

. . . There was a whole other discovery - the Setchell-Carlson camera with a detail knob. I ruined three cameras fiddling with them, not knowing how to get them back into a legitimate signal. My tape JONAS' FAVORITE was a combination of finding that you could get tremendous detail on the Setchell Carlson. Everyone else always had the contrast and brightness set high, and I got into turning them in low ranges and playing with the internal controls - the gain and the beams. I started getting the ability to control the speed of the images. One of the first corollaries I developed was the more you turned up the target voltage and the lower you turned the iris in combination, the slower the image got until you could really get it to crawl like slow motion. And then, by removal of the pedestal, by dropping the pedestal down, the blacks became completely black. Pushing the beams high I got the waterfall effect, where things would roll off as if they were rolling off the edge of a cliff. I could get feedback that was either pouring into itself, pouring out of itself or floating.

*I know you have been involved with Bill Hearn's VIDUUM.*

A the time my interest in the VIDUUM was its ability to generate an image. I didn't do the VIDUUM any justice at all because I didn't care for the kind of complicated images the VIDUUM could create. I cared only for the very simplest images. That's something I struggled with from the very beginning:

to try to achieve an image completely isolated from anything else. In other words, I wanted a simple black image where the white was keyed through and the image was simple kinds of circles that pulsed or waded to the sound of the music.

I guess the MOOG VIDUUM started to whet my appetite for keying and colorizing.

. . . I knew what I wanted to be able to do. I was very frustrated by not being able to turn something that was light, e.g. the white image of the MOOG VIDUUM to look dark. I couldn't do it because the George Brown Colorizer had no effect on the gray level. I think I developed an aesthetic of reversing what I was given, making brighter images dark and darker images bright, having the gray level be the heart of the colors I got.

*To what degree do you feel that you have influenced those particular elements.*

Those elements of Bill Hearn's colorizer? I feel like I'm the conceptual architect . . . because it is exactly what I asked for. I asked for gray level control, separatable key levels and gray level and chroma and hue. I wanted control over each separately. Alan Shulman deserves a certain amount of credit. Alan was always working with Hearn when that first colorizer was built.

\*Please refer to pages on the CVI DATA CAMERA in the Audio/Video Instruments section.



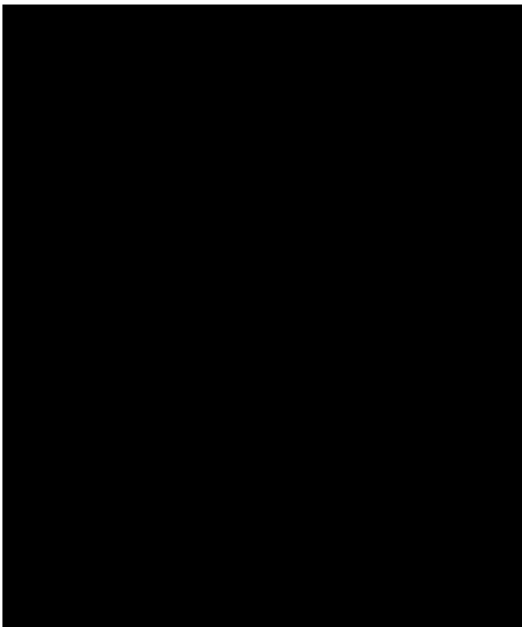


# SONY CV PORTAPACK

Industrial, 1969

**THE INTRODUCTION** of the portapack into artistic formulation was paramount. In the late 1960's the use of video was confined to close circuit installations, a very elegant solution to the use of video in the gallery. With the invasion of tape on the scene it took some time to settle the problem of exhibition. Speaking to Steina about reel to reel machines Bruce Nauman put it more directly: "I almost dropped video when tape was introduced; when the tape ran out there was no one in the gallery to rewind it, thread it and run it again."

It was an entirely different story for the socially engaged. The portapack was considered a revolutionary tool, almost a weapon against the establish-

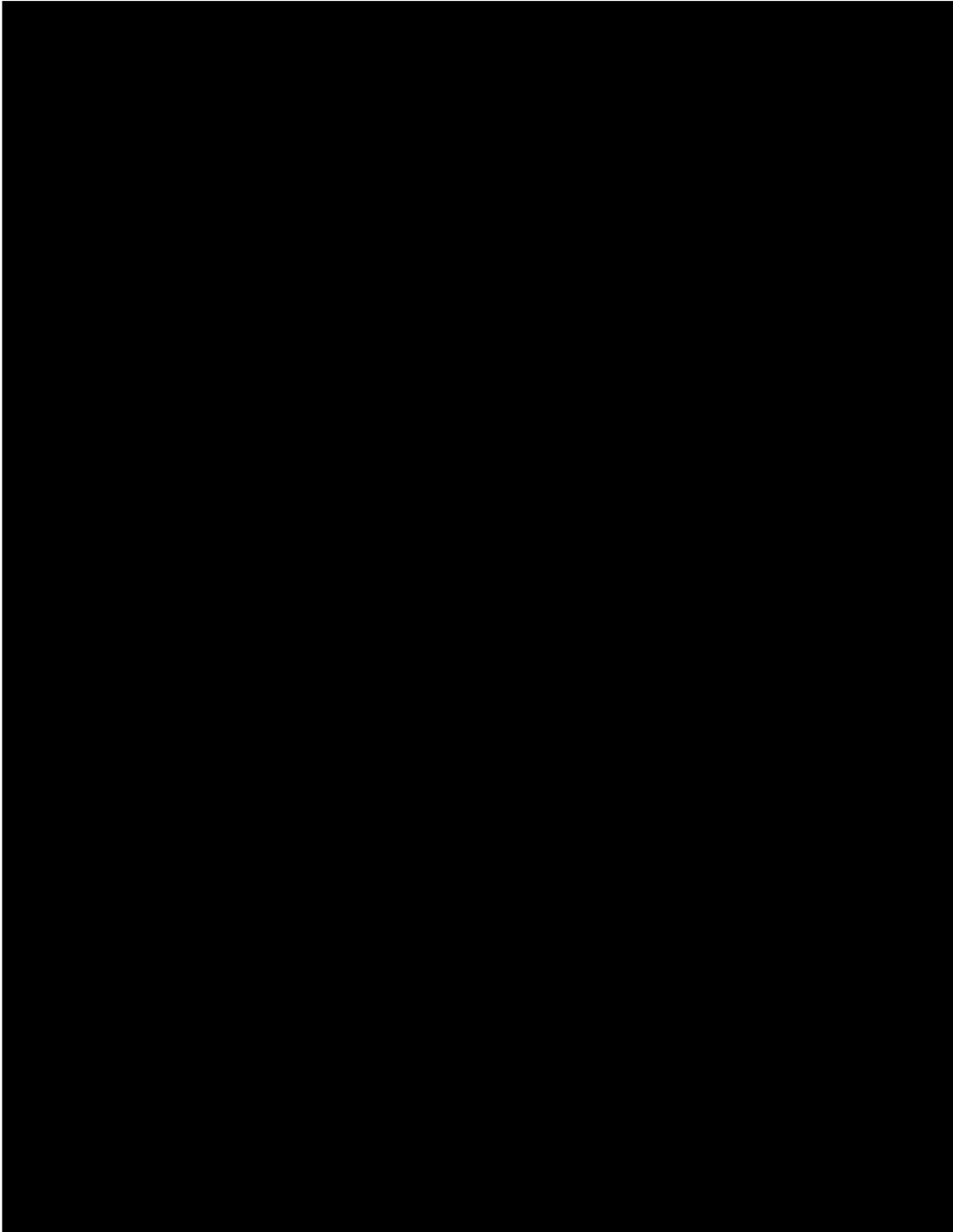


ment. Overnight it dissolved the hegemony of documentary films. A vast number of genres sprang up (including the notorious 30 minute single take), and the documentary branch was never the same again.

The middle ground was also interesting. With tape new networks of distribution were quickly established. Video became truly international. It was easy to duplicate, mail, and view. With the introduction of the video cassettes in 1973 it became even easier, and harmonized with the exhibition purposes of video. By the mid-1970's video as art was fully entrenched in the galleries, with many developed genres, forms and concepts.

Only a few people tried to develop the so-called "abstract" genre. It failed in the first decade entirely. We and other people dealing with early synthetic images used tape primarily as extended studio material (input), and secondarily as a method of documentation of these new processes and phenomena unexpectedly popping up in front of our eyes. —Woody Vasulka





Steina and Woody Vasulka with portapack equipment, San Francisco, 1972. Photo:Warner Jepson.

# CLOUD MUSIC (Hybrid Audio/Video Installation), 1974-1979

Robert Watts, David Behrman & Bob Diamond

Courtesy of The Robert Watts Archive, Sara Seagull and Larry Muller in collaboration with David Behrman, and Bob Diamond

**BOB WATTS** Born 1923. Studied engineering and art history. Professor of Art, Rutgers University. Associated with Fluxus. Produced Yam Festival and Monday Night Letter with George Brecht. Died 1989, Bangor, Pennsylvania.

**BOB DIAMOND** Born 1946, New York City. Engineer. Developed computer system for WNET-TV (Channel 13), New York City, in association with Nam June Paik. Founder and technical director of WPA theater, New York City. Beginning in 1972 designed and produced custom video circuitry and patented several designs. Currently President of Imagine That, Inc., San Jose, California.

**DAVID BEHRMAN** Born 1937, Salzburg. Well known electronic music composer, long time association with Sonic Arts Union. Performed with John Cage, David Tudor, Frederic Rzewski and the Merce Cunningham Dance Company. Producer, series of contemporary music recordings CBS. Lives New York City.

**CLOUD MUSIC** is an installation developed collaboratively during the years 1974 to 1979. It consists of a video camera (black & white 1974-78, color thereafter), which scans the sky; a video analyzer, which sense the changes in light produced by passing clouds; and a home-made electronic sound synthesizer, which responds musically to the passage of clouds overhead. For this historical exhibition a black and white camera is being used.

## EXHIBITION HISTORY

1974 Canadian/American Sky, Electric Gallery, Toronto.  
1976 Experimental Television Center, Binghamton, N.Y.  
1977 The Annual, San Francisco Art Institute at Fort Mason.  
1979 Re-visions, Whitney Museum of American Art, N.Y.  
1979 Fur Augen und Ohren, Akademie der Kunst, Berlin.  
1981 New Music America '81 Festival, San Francisco.

## CLOUD MUSIC

Video camera (A) points at the sky.

Specially designed video analyzer (B) superimposes six electronically generated crosshairs upon the video image. Each cross hair may be positioned anywhere.

Composite image (sky plus crosshairs) is sent to the video monitors (C).

The video analyzer generates six control voltages. Each voltage is proportional to the instantaneous light value at the point where one of the cross

hairs is positioned. As cloud surfaces pass these six crosshair points, the voltages vary in response to the clouds' light content.

Digital electronic music system (D) receives the six voltage outputs from the video analyzer. The music system senses voltage changes made by the analyzer and converts the changes into harmonic progressions and dynamic shifts.

Sound from the music system is sent to a six channel loudspeaker system (E). The loudspeakers surround the viewing space and the video monitors.

Cloud Music is intended for installation during times of the year when weather conditions favor a likelihood of high daytime cloud activity.

**BOB WATTS:** "I discovered when I first arrived in New York City in 1946, from the midwest, that I no longer had the same visual access to the sky. It was apparent that no longer could I judge the weather by checking out the sky morning and evening as was my custom. I considered this to be a handicap to my accustomed life style, and still do. This incident shocked me into the recognition that the sky was an important aspect of daily living and that it was important to me to be able to see it whenever I chose. Sometime later, some fifteen or twenty years, the sky (as clouds) made a more direct appearance in my work as an artist, in multiple exposures on movie film and photographic montage.

Since 1965 clouds, sounds, indeed the whole phenomenology of the natural environment has

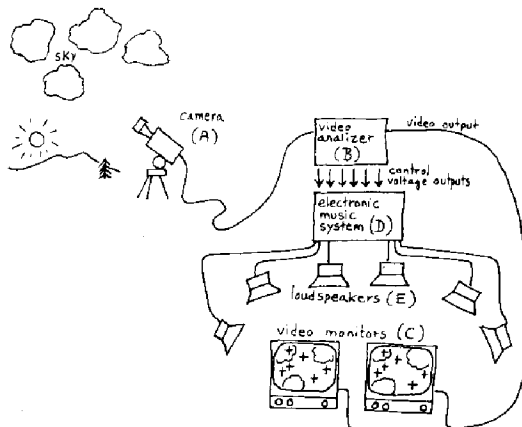


Diagram and summary, ca. 1975, David Behrman.