

PROGRAM NOTES

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for

THE MOVING IMAGE STATE-WIDE:

13 TAPES BY 8 VIDEOMAKERS

Sponsored By

UNIVERSITY-WIDE COMMITTEE ON THE ARTS,

STATE UNIVERSITY OF NEW YORK

Programmed and Distributed By

MEDIA STUDY/BUFFALO

September 1978

To human beings, the most familiar two-eyed or binocular visual system is that of human eyesight. As we observe a scene, a set of entities arranged in space, each eye acts like a camera, focusing a two-dimensional image on its retina or innermost surface. The difference in location of the eyes results in each retina having a slightly different aspect of the same scene. In the processing of both retinal images at higher levels in the visual system - ultimately, the visual cortex of the brain - there emerges a single view of the scene, including the perception of depth or distance relationships. Tri-dimensional or stereoscopic vision is a distinctive characteristic of human binocularity.

To refer to the human visual system as the most 'familiar' binocular model, as I have done, is an understatement, for it is the system through which we directly experience the world and to which all our considerations of binocular vision must refer. It is also an overstatement because very few are aware of its workings. There are other two-eyed systems which exist in nature or can be imagined as conceptual constructs, but do not necessarily result in the stereoscopic perception of depth. In Double Vision, Peter Campus has used video to make seven alternative models of binocular vision "accessible to the intuitive, experiential being."

In each section of Double Vision; the images from two cameras, recording simultaneously, are combined into a single, two-dimensional monitor image, most often through superimposition. The two cameras are located within a large, nondescript loft, and their relationships to each other consistently provide new ways of viewing that space. The binocular models which Campus constructs vary widely, ranging from that which 'imitates' animal vision ("Copilia") to more radical models possible only through video ("Impulse" and "Within the Radius").

If video is not the only, it is the ideal medium with which to present alternative binocular models. Video is a 'real-time' visual monitoring system, real-time defined by a human sense of simultaneity between an event and the perception of it. Television is the first moving image technology that has allowed for 'live' or virtually contemporaneous display of an event and the event itself, and is therefore the closest analogue to organic visual perception. Much as organic binocular systems integrate the information from both eyes, two video camera signals can also be combined live in a variety of ways.

Regarding his video installations, Campus has written:

The video camera makes possible an exterior point of view simultaneous with one's own. This advance over the film camera is due to the videcon tube, similar to the retina of the eye, continuously transposing light (photon) energy to electrical energy.₁

In the retina, light sensitive receptors (rods and cones) act as transducers, sending electrical signals corresponding to specific light intensities along neural paths to the brain where 'perception' of an image occurs. Within the video camera, an electron beam scans the face of the vidicon tube, converting light intensities into a time-series of varying voltages. These voltages are re-converted into light/images on the surface of a television screen.

Three of the seven sections of Double Vision - "Copilia," "Fovea" and "Impulse" - need further explanation because their understanding depends on specific biological, physiological or technical information. In general, the sequence of all seven models can be said to progress from less to more complex relationships between the two 'eyes' and from those which simulate physiologically possible models to more extreme perceptual constructs. In each, Campus demonstrates that the video camera, as the closest technological analogue to the human eye, may alter our relationships to a preconceived reality by offering new juxtapositions creating 'alternative realities' - new modes of binocular or double vision.

"Copilia" (Section 1)

Copilia, a rare marine crustacean, is distinguished for its unusual scanning eye:

The eye of the tiny arthropod Copilia possesses a large and beautiful lens but only one light receptor attached to a thin strand of muscle. It is said that the muscle moves the receptor rapidly back and forth in the focal plane of the lens, scanning the image in much the same way as it is scanned by the light-sensitive tube of a television camera.²

With what we now know about transmitting spatial information by conversion into a time-series by scanning, as in television, it seemed possible that Exner was describing an organism the eye of which works on a principle now very familiar to the engineer.³

The scanning of the electron beam across the face of the vidicon tube is far more rapid, regular and precise than the movement of the Copilia's single receptor or posterior lens. The electron beam makes 525 horizontal passes, right to left and top to bottom, across the vidicon target every 1/30th of a second, converting light intensities into a linear electronic signal comprising one video frame. By comparison, the oscillatory movement of the Copilia's posterior lens across the plane of its large anterior lens is sawtooth in form, subject to "frequent spontaneous variations in amplitude and in frequency,"⁴ and has a maximum frequency of five scans per second. Furthermore, the two eyes move simultaneously in horizontal opposition, fast inward and slowly back.

It is this opposing, irregular movement of the Copilia's scanning eyes that Campus has chosen to imitate, as though the entire loft was the image plane of the anterior lens, and each of the two cameras was the Copilia's single receptor or posterior lens. Campus presents an extremely disorienting visual analogue to Copilia vision, for the erratic, opposing camera movements rarely allow the two superimposed images to coalesce into an intelligible representation of the loft.

"Fovea" (Section 4)

The fovea of the human eye is a minute depression near the center of the retina in which is found the greatest concentration of cones, the bright light visual receptors. While subtending only 1.7 degrees of the 240-degree visual angle of the entire retina, the pinhead-sized fovea attains a hierarchical distinction as the area in which the most detailed human vision occurs.

"Fovea" compositionally imitates the actual structure of the human retina. The 'fovea' seen on the screen is a hazy oval in the center which contains the distant image of a subject slowly pivoting with a camera at waist height. The peripheries of the screen - that which surrounds the superimposed 'fovea' - are the literal peripheries of the loft in closeup, as recorded by the pivoting subject's camera. The foveal image in the tape is also hierarchically eminent in a different sense, as it depicts the center which gathers visual information about all that surrounds it. It is also the source of that which we view on the peripheries of the screen.

"Impulse" (Section 5)

Both the human and the electronic eye transform light energy into electrical energy. Each stimulated retinal receptor (rod or cone) in the human eye triggers a signal corresponding to the intensity of light on a minute area of the retina; with more than 10 million rods and cones, an enormous number of electrical impulses are simultaneously issued. The electron beam in a vidicon tube scans the entire vidicon face with extreme precision thirty times a second, and the light intensity of 100,000 or more points on the vidicon face are converted into an electronic signal - a continuous sequence of voltages which vary in correspondence to the intensity of light at each point. Rather than simultaneous signalling of stimulated 'receptor points,' as in the eye, each point on each scan line of each video frame has a specific position in a temporal sequence corresponding to its spatial location on the vidicon face. The video image signal, as a time-series of distinct voltages, can be graphically displayed as a pulsating line or waveform on an oscilloscope. Oscilloscope time is plotted along the horizontal axis and voltage along the vertical axis. An increased intensity of light in a given portion of the image-signal will render an increased voltage reading on the oscilloscope at the corresponding position in time.

"Impulse" superimposes the image from an impulsively wandering camera and its representation as a signal waveform on an oscilloscope. The viewer is able to see changes in the abstract waveform corresponding to the changing intensities of light in the image of the loft, especially as the camera passes sources of extreme illumination, such as windows. While the dual depiction of a space as representational and abstract image/information simultaneously is possible only through electronic vision, "Impulse" also refers to the transformations of energy in organic visual systems - the conversion of light into electricity.

Footnotes

1. "Video as a function of reality," from Peter Campus, exhibition folder for the Everson Museum of Art, Syracuse, N.Y., 1974.
2. Wald, George, "Eye and Camera," Perception: Mechanisms and Models (Readings from Scientific American), Richard Held and Whitman Richards, eds., (San Francisco: W.H. Freeman and Co., 1972), pp. 94-103.
3. Gregory, R.L., Ross, Helen E., and Moray, Dr. N., "The Curious Eye of Copilia," Nature, Vol. 201, No. 4925 (March 21, 1964), p. 1166.
4. Ibid. p. 1168.

SELECTED WORKS, REEL 4 - William Wegman 1972, 20 minutes, b/w
sound

William Wegman began to make his short, witty videotapes in 1969. From the outset, the pieces were simple in concept, sparse in their elements, and improvisational in approach. By 1970, the tapes began to include Wegman as performer, adopting poses and roles and constructing stories around common objects as props. Wegman also began to use Man Ray, his Weimaraner, in the dual function of performer/prop. Wegman's influence in the area of narrative performance video is still evident, especially in California, where much artists' video reflects a concern with the conventions of commercial television.

Two quotes summarize Wegman's description of his concerns, his approach and his products:

I present a situation and develop some kind of explanation around it. By the time the story is over you get to know why that particular prop or mannerism was displayed.¹

Some of the pieces are exaggerations of normal situations and others are a cutting away. The activity or the situation is somehow adapted or bent out of shape and then reconstructed, but I perform it as though that's the way things really are. When I relate to something, I don't sound terribly surprised or upset about it; it's as though someone were telling a normal story about an everyday event.²

In the twenty tapes that comprise Selected Works, Reel 4, Wegman explores the form of the brief, comical narrative. At times, he is clearly presenting a skit, often a parody; in other instances, the pieces are less easily categorized as stories in a traditional sense. The humor derives from various strategies, but Wegman generally establishes contexts for his props and mannerisms that balance between the credible and the absurd, often through juxtapositions of description (sound) and representation (image) in unexpected and logically disorienting ways. The storytelling style is a deadpan monotone, lending itself equally to understatement ("Egypt," #15) or exaggeration ("Airplane Travel," #13). The story Wegman might choose to tell about a given object or mannerism is at once a plausible and a ridiculous construction. Often the meaning or story assigned to a prop is transparently arbitrary, with description and representation hanging together as tenuously as does the paper cup to the metal plate in the 'cocktail waiter's' presentation of his ludicrous invention (#6).

David Antin has referred to television as video's "frightful parent" in an essay which continues:

What the (video) artists constantly re-evoke and engage with is television's fundamental equivocation and mannerism, which may really be the distinctive feature of the medium. But they may do this from two diametrically opposed angles, either by parodying the television system and providing some amazing bubble or by offering to demonstrate how, with virtually no resources, they can do all the worthwhile things that television should do or could do in principle but has never yet done and never will do.³

It is obvious that many of Wegman's tapes parody commercial television genres, from direct burlesques of the salespitch, the demonstration or the lecture, to the more generalized talking head describing a trip, a job or an invention. In attributing arbitrary or outlandish meaning to his props and poses, Wegman mocks a parallel endeavor in television: the manipulative marketing technique of the commercial, which exaggerates the capabilities of saleable commodities. The 'more for less' principle expressed by Antin is also applicable to Wegman's tapes. By all standards, Wegman's unedited, static, texturally dull and spontaneously 'sloppy' video is in the technical netherworld, at least as defined by slick, fast-paced broadcast television. Yet by consciously minimizing technique with his already minimal technology, Wegman attains a cool, distant style conducive to the displacement or distortions of logic upon which his humor depends.

It is that aspect of his work which seems to focus upon themes of manipulation and truthfulness that will be considered here. It is not only through parody and the 'tightrope walk' between the credible and the absurd that these themes are developed, but also in the relationship of the artist to his dog, Man Ray. He is concerned with hierarchies of power which directly or indirectly reflect upon powerful one-way mass communications media.

The most direct parody of commercial television is the "New and Used Car Salesman" piece (#9). Wegman's attempt, with Man Ray propped on his lap, to convince the audience that he is a "kind person" is ironic, laden with contradictions and even a bit sinister. The voice is not synchronous with the lip movement, a poor overdub concurrent with a disparity between the statement that Man Ray is trying to break out of Wegman's grip and the image of the dog in relative repose. Moreover, this initial statement of Man Ray's uneasiness contradicts later statements of the dog's complete trust, seemingly the primary salespoint. Wegman's means of

demonstrating this trust are manipulative in the extreme, as he tugs at Man Ray's eyes, gums and genitals. If Man Ray serves as the means by which the kindness and honesty of this salesman is measured, then he is also a stand-in for the consumer who, if trusting this bogus pitchman, is equally likely to be wrenched in sensitive regions of the anatomy.

Through nonsynchronous sound and image, and contradictions, absurdities and distortions established between the story and its visual representation, and within the spoken text itself, Wegman questions the credibility of the speaker or authority and exposes the attempted 'manipulation' and its means. Pieces which reflect similar strategies are the portrayal of the movie critic (#5), the accident victim ("Time," #3), and the geography lecturer (#16). The critic, describing 3 films he saw, uses a sawblade as an analogue for the structure of each film, the blades seemingly arbitrary as illustrative props except on the level of the pun (between saw as noun and verb) and symbol (the cutting edge for the critical faculty). The displacement achieved by the critic's out-of-sync voicetrack further underlines this sense of the arbitrary, for the props and gestures, like the wild arm movements in the "Laundromat" piece immediately preceding, could have any number of stories tailored to fit. The shift of 'methodology' by this movie critic in his last statement ("...but I liked the first one...") and the way, in fact, in which all meaningful information has been excised from his analysis destroys his credibility. Similarly, the speaker's subtle but telling glance at his wrist in "Time" completely undermines any belief in his story or his truthfulness. Wegman's delivery of a geography lecture, using a small, distant and poorly resolved tennis ball as a model of the earth, is an intentionally uninformative demonstration. Tossing the ball to Man Ray at the completion of the lecture, he divests it of its significance: a negation of the integrity of the object that could be read as a commentary on consumerism and the mass marketing of dispensible commodities and information.

Man Ray is an essential element in Wegman's work, and has provided the tapes with much of their unique appeal. He is a sentient animate object, conducive to training yet willfully assertive in his own right. Wegman acknowledges Man Ray's dual roles of performer and prop, referring to the dog as his "art partner" while further stating:

In a way, he's like an object. You can look at him and say, how am I going to use you, whereas you can't with a person... You can manipulate him so that he doesn't feel manipulated, so that he feels he's doing something he's supposed to do or having fun, one of the two.4

"Spelling Lesson" (#20) is an ideal example of Man Ray as manipulated object, trained to respond to verbal cues in a predictable manner. Similarly, the absurdly funny opening piece, in which Man Ray leaps out of bed to the sound of an alarm clock, reminds one of nothing so much as a Pavlovian behavioral response. In several pieces, however, Man Ray reacts spontaneously and asserts himself in relation to the manipulative power situation in which he has been placed. The most passive response is one of apparent resignation at the rapid accumulation of torn scraps of paper which are being dropped on his reclining figure (#18). More telling is his reaction when called from opposite directions simultaneously (#8); after a period of scanning from one side to the other, he stares straight ahead, as though tuning out the bombardment of input from both. In "Dog and Ball" (#10), after five poses on a bowling ball, Man Ray spontaneously lies down, perhaps refusing to submit further. More ambiguous is his leaping and barking at Wegman's crouched figure (#11). Are we witnessing spontaneous reaction, trained response or, most likely, a mixture of the two?

In discussing "New and Used Car Salesman," I suggested that Man Ray was a stand-in for the viewer in a hierarchy of manipulative power. That metaphor might be extended to associate Man Ray's position and possible responses with those of the television viewer. Bombarded by equivocal information and manipulative techniques, the viewer may choose to respond in any of these fashions: trained positive response, as those in power would desire; desire; annoyed acquiescence or benign neglect; an assertive refusal to accept any more; or an even more assertive, vociferously negative response. As he reorients conventional attitudes through parody, Wegman's playful, non-didactic consideration of truthfulness and manipulation in television and other hierarchies of power suggests that these are all possible, if not all desirable, responses.

Footnotes

1. "Man Ray, Do You Want To..." An Interview with William Wegman by Liza Bear, Avalanche, No. 7 (Winter/Spring 1973), p. 43.
2. Ibid. p. 44.
3. "Video: the Distinctive Features of the Medium," in Video Art: An Anthology, Ira Schneider and Beryl Korot, eds., (New York: Harcourt. Brace Jovanovich, 1976), p. 182.
4. Avalanche, p. 40.

THREE TAPES: - Bill Viola
MIGRATION, THE SPACE BETWEEN
THE TEETH, SWEET LIGHT

1976-77, 30 minutes
color, sound

Introduction

Bill Viola has referred to his short video pieces as 'songs.' The term, used in its most general sense, is descriptive of Viola's sensibility regarding his works. The tapes are personal lyrical statements, articulated through symbolic imagery and gesture shaped and enhanced with video 'effects,' and further incorporate elements of performance and narrative. The importance of sound in Viola's work is also evoked by use of song as a descriptive term. Trained as a musician, he is attentive both to the expressive potential of natural and modified sounds and to the rhythmic structuring of aural and visual materials.

In production terms, Viola's work is most readily distinguished from that of others in this program by his use of portable color recording equipment and his access to sophisticated post-production facilities, which afford him rapid, clean edits, controlled dissolves and other structuring devices. The possibility of intercutting very brief and longer sequences allows for the juxtaposition of diverse materials with great rhythmic flexibility.

Unlike film, which has always allowed for shooting and/or physically splicing completely disparate single images or frames into larger complex units, precise structuring with small format video systems has consistently proven difficult. Videotape, which encodes signal information magnetically, is rarely edited by mechanically cutting and pasting together strips of tape. Video editing is an electronic process, and sequences are assembled by playing back original footage on one video deck and rerecording it on a second deck. Most inexpensive video equipment is inadequate for rapid sequences of editing, and a loss of sync between the two decks at any edit can result in the brief breakup and rolling of the image, as seen in the tapes of Peter Campus and William Wegman.

With the state-of-the-art computer editing facility at the Television Laboratory at WNET, Channel 13, in New York, Viola was able to make 'clean' edits within two frames (a video frame being the complete scan of the 525-line television raster by an electron beam every 1/30th of a second, which reconstructs the encoded signal as an image). Such brief edits may be done in rapid sequence or inserted into longer scenes as a kind of punctuation, and Viola uses both techniques in The Space Between the Teeth and Sweet Light. In the interaction with advanced technology, Viola is not primarily interested in exploring its potentials for electronic image manipulation as the Vasulkas are. Rather, he selects and uses specific capabilities of the equipment to organize accessible symbolic motifs in new ways, and the resultant pieces engage viewers in processes of revelation, catharsis and the creative act itself.

The three works by Viola are presented in the order in which they were completed. Although only 18 months separates the first from the last, each tape demonstrates an increasing sophistication in audio-visual composition.

MIGRATION

Migration is an outgrowth of a video installation which Viola realized in 1976 at The Kitchen in New York City and at Documenta in Germany. In a large room, a camera with a microlens was focused on drops of water as they regularly dripped from a pipe. The live camera image was displayed large by means of a video projector, and the sounds of the water drops as they hit a metal drum were electronically amplified. Upon scrutiny of the projected image and of the drops themselves, viewers discovered that each bead of water acted as a tiny fisheye lens, reflecting the immediate environment 'within' it. The real-time imaging capability of live, closed-circuit video made it the ideal medium to reveal this natural, observable phenomenon which, although continuously occurring, is normally unnoticed.

In the live installation, each viewer determined his or her own mode and degree of participation, and the pace at which new levels of information of interest could be engaged. Taped video allows no such participatory flexibility, and in reinterpreting the piece for videotape, Viola chose to structure the revelatory experience as a sequence of 20 metrically regular static shots, dissolving from one to the next. In each of the last 14 shots, the camera and viewer have been moved closer, focusing upon greater detail until the lenticular properties of the waterdrop, in which Viola's inverted face is seen, become apparent. The video camera, used like a 'pointing finger,' gracefully brings to the viewer's attention an optical event otherwise overlooked.

The tape, Migration, is more than a simple 'translation' of the previously realized installation. The necessary linear organization of events on videotape has allowed Viola to control elements of the experience in order to heighten the impact of the ultimate revelation. His use of the repetitive sound of a gong as accompaniment to the dripping water is one example of such control. The initial supposition that each sound of the gong coincides with a waterdrop striking the bowl proves to be false, and only at times is there a seeming correlation between sound and image. However, the tension between synchronous and non-synchronous relationships creates a heightened attentiveness in the viewer as to what new level of information or subtle detail will be revealed next.

The initial six shots also represent a level of control in shaping experience attainable only in taped video. Whereas all subsequent dissolves clearly advance toward some final unfolding, the opening sequences in Migration are more complex, and suggestively ambiguous, in function. On the one hand, the gradual resolution of the scene - the table and all contained on or about it - through a 'mask' of vertical bars establishes that the development of the piece will be a gradual process of clarification and revelation, almost meditative in mood. On the other hand, the apparent stasis of the camera in this opening sequence of shots - the absence of forward movement prevalent throughout the rest of Migration - makes these shots appear only to distend the otherwise direct progress of the tape.

Although not explicitly revealed, the apparent lack of camera movement at the outset of Migration was attained by the simultaneous contrary movement of two cameras, the second rescanning (shooting off a monitor) a portion of the first camera's image. In the studio setup, camera one was constantly focused upon some aspect of the scene, with each dissolve positioned nearer to the table. At the beginning of the piece, camera one was about 100 feet from the table, which therefore appeared very small on a display monitor. A second camera with a microlens was positioned near this display monitor, rescanning only the image of the table, a small portion of the entire screen. It is the second camera's image that is seen throughout the first six shots of Migration. The vertical bars through which the scene is gradually revealed are the stripes of light-retentive phosphors as they are arranged on the picture tube of the rescanned trinitron monitor. With each successive dissolve camera one was brought nearer the scene, while camera two recorded from the monitor the proportionate distance necessary to again view only the area of the monitor displaying the table. With each repositioning of camera two, it rescanned more of the screen and a greater number of phosphor stripes, thereby increasing the clarity or resolution of its image. By the seventh dissolve, an equilibrium was reached: the table occupied all of camera one's field of vision, or the entire screen of its display monitor. The second camera was then eliminated altogether, and the forward movement of camera one becomes apparent as the tape advances.

The arrangement of the two cameras in the opening shots is never made explicit to the viewer, nor is the source of the vertical bars. These shots might function simply to establish mood and process, but once their relative complexity is realized, it seems reasonable to speculate as to their meaning in relation to a broader set of concerns.

The use of an extreme close-up lens in both the first and last shots signifies an analogous function of the two sequences. The vertical bars of the phosphor stripes are, in fact, an observable although generally unnoticed aspect of display on certain video monitors. Moreover, the opening sequence suggests a consideration of resolution, or the visual acuity possible in any optical system. The vertical phosphor stripes represent one aspect of the limitations of resolution in the electronic visual system. Viola's face, as it is viewed in the pear-shaped waterdrop lens, is also poorly resolved.

Migration is about the acuteness or sharpness of human vision in a broader sense. A primary purpose of the work is to make viewers conscious of a common visual phenomenon which is observable, yet is of a scale smaller than is normally noticed. By bringing the optics of the waterdrop into view, Viola raises more complex issues of our awareness of and sensitivity to subtle, yet perceivable events continually occurring in the environment. The opening shots of Migration, by drawing attention to the limitations of acuity in visual systems, also serve, metaphorically, to draw attention to issues of limited vision in this sense of awareness about the observable world around us.

THE SPACE BETWEEN THE TEETH

What is the space between the teeth? There are two such spaces. One is between the upper and lower jaws, a boundary between the internal passageway from which Viola's screams are uttered and another external passageway - the long white corridor - down the length of which the screams reverberate. As the camera looks up the corridor, the vertical walls visually suggest the interstice between two adjacent teeth, even as the condensed traversals up the corridor propel the viewer to a close-up of Viola's two upper front teeth. If this latter space between the teeth is little more than a crevice where things get stuck (much as the camera seems to for periods of darkness and silence), then the former is an avenue allowing utterance and release. The Space Between the Teeth, in its structuring of gesture and symbol, is about unsticking the stuck: the process of purgation or catharsis.

The central element of this cathartic process is a series of screams by the artist, gestures at once literal and metaphoric. The image of water, symbol of ablution or cleansing, surrounds these central, primary gestures and underlines their significance. A running faucet from which Viola drinks at the beginning of the tape is a motif repeated near the end, as a camera advances through a kitchen to rest upon a faucet pouring into a dish-filled sink. In an 'epilogue' to the tape, a photograph of the subject viewed down the corridor is discarded - dropped off a bridge - and washed out of the field of vision in the wake of an unseen, passing motorboat.

The sequence of screams forms the center of the work, and can be divided into three sections, each suggestive of a successive stage in the cathartic process. The first is very brief: six screams accompanied by the tracking of the camera down the corridor as it withdraws from the subject. The initial phase isolates the screamer, distancing him from viewers and, in a larger sense, from society. The long and starkly lit corridor, with its reverberant acoustics and generator sounds, further impresses a sense of alienation of this individual.

Each of the 18 screams which follow is increasingly condensed through a sequence of rapid, two-frame edits which literally propel viewers up against, into, and beyond the space between the teeth and, just as abruptly, back down the corridor in a single jump. Each successive sequence begins with the camera further up the corridor, nearer the subject. A pause and ambient noise precede the next edited scream. A roughly metrical equivalence among all 18 sequences is maintained by intercutting materials of a length inversely proportional to the degree of condensation of the scream. The intercut image and sound, of two distinct types, is inserted between the close-up of the teeth and the jump-edit back down the corridor. The different intercut materials distinguish the second and third sections of this central portion of the tape: the first eight scream-sequences insert darkness and silence, while the latter ten portray the slow advance of a camera into a kitchen, eventually coming to rest on a faucet and sink.

As a totality, the progression of edited screams is toward greater compression, the structural equivalent of gradual cathartic dissipation. The aggressive visceral impact of the two-frame edits push against the movement of the sound, and up against its source as though to break through the metaphoric place where things get stuck. The first eight sequences, intercut with darkness and silence, are the most ambiguous. They suggest a transitional phase, an increased release of tension measured by increasing amounts of restful silence. They also suggest being entrapped in the interdental space, the calm eye-teeth of the storm.

The latter ten sequences which comprise the third section may be interpreted as a reintegration, much as the first section represented a withdrawal. The leisurely advance of the camera into a familiar space (as opposed to the strangely-lit brick corridor), accompanied by the familiar sound of a radio announcer, to view Viola again, rinsing a cup under the running kitchen faucet, all suggest a reinstatement of the subject into a common setting where the process of cleansing is just one, of many continuous, ongoing activities.

In The Space Between the Teeth Viola has achieved a more complex structuring of visual and aural materials, and effectively used a diverse range of sounds. The relationship of camera/subject movement is limited to advance and retreat, but the juxtaposition of long, static takes, extremely rapid metric edits, and the slow, uneven camera movement into the kitchen create and resolve rhythmic tensions in ways integral to the meaning and effect of the work. The uses of silence, natural ambient noise and spatial acoustics, such as the echo of the corridor, are also significant. The dynamo-like sounds in the corridor underline dehumanizing and alienating aspects of our society, even as the distant muddled voice of the radio announcer in the kitchen sequence represents a familiar means of communication, or connection between the individual and his culture.

Three distinct sounds are united in the brief 'epilogue,' the tape's final gesture of release. The overdubbed echo of a scream as the photograph falls is abruptly terminated by the natural splash of the photo against the water. In the distance is immediately heard a churning motor, reminiscent of the generator noise in the corridor. Through this association, the final machine-sound of the motorboat evokes future cycles of contamination and the need for purification, interlocking aspects of a continuous, regenerative life-process.

SWEET LIGHT

The title of Bill Viola's most recent tape contains a certain irony. The compulsion of moths and men toward sources of illumination, in both physical and metaphysical senses, is most compellingly depicted by images of annihilation: the smoke of moths burning in the heat of an incandescent lamp, and the brief intense searing of the artist's face upon the video camera and the viewers' eyes. The tape is a meditation upon this compulsion and its relation to the creative act - the passion for the all-consuming moment of inspired illumination - and the conclusion of Sweet Light with the artist's symbolic self-immolation is the work's primary statement.

Sweet Light is Viola's most ambitious piece, in its structuring of dynamically diverse materials: a slow pan, long static takes, a rotating camera and sequences of two-frame edits. The tape's three sections are interconnected by symbolic and structural motifs, including the use of the rapid edit to suggest instants of enlightenment and the reorientation of consciousness that occurs at such instants. Each section also juxtaposes, in a different manner, natural and cultural sources of light and sound - from sunlight to floodlight, from the noise of a generator to the nighttime chirping of insects.

In the first sequence, the predominantly natural light, pouring in the workroom through windows and doors, is accompanied by the underlying hum of a generator. The tranquility of the scene - insects on the windowsill, a sleeping dog and Viola writing at his desk - is interrupted by his violent crumpling and tossing of a sheet of paper. A rapid sequence of brief edits literally zoom in on the rolling wad of paper, resulting in a complete change in point of view. The redirected camera, at floor level, faces into the room and remains stationary for several minutes, focused upon the paper from which a moth appears to emerge. Viola has spoken of his interest in alterations in time perception and focus of attention at moments of accident or surprise, and the edits represent an equivalent, synthetic reorientation of the viewer at the unexpected violent gesture. The sequence also conjoins the paper and the moth - symbols of creative process and of 'soul' striving for illumination. The long, static take on the paper bears a structural similarity to the final section of Sweet Light as well: in which moths weave about in the foreground and Viola directly approaches the camera from a distance. Yet unlike the final section, all elements signify incompleteness of the creative process and an unfulfilled promise of illumination. The paper is a failed and discarded attempt at articulation. Viola's steps toward the camera are hesitant, only his legs visible as he veers to the right of the screen. The moth, too, is literally incapable of flight, its wings visibly singed by an unseen artificial light. Fixed upon the sheet of paper, the moth represents neither transcendent mobility toward, nor total consumption by, the powerful light, both of which are evidenced in the third and final section.

In the second section, the camera may be said to imitate the semi-erratic, dizzying circular flight of a moth around a candle. This sweet, tamed taper flame is the cultural center about which is gathered a conversant group engaged in benign, sustaining activity.

Punctuating the movement of the rotating camera, and demarcating its reversals in direction, are brief, searing portraits of Viola's face, overexposed, demonic in aspect and accompanied by a hiss, like that of frying meat. The intensity of these intercut portraits, and their suggestion of self-immolation, are as compelling as they are shocking, juxtaposed against the sequences of nourishing communality. Once again, the brief edits both interrupt and suggest instants of heightened awareness in a context of the tranquil and the commonplace. They are also precursors of the 'consummation' of the artist by light with which the tape concludes.

The moth-like movement of the camera in the second section of Sweet Light is replaced by the erratic movement of real moths before a static camera in the third section. The abstract weaving of lightlines are the trails of brightly lit moths, temporarily sustained as afterimages by the light-sensitive vidicon tube of the tv camera. The section refers back to the first part of the tape, not only in the formal similarity of the long static shot previously mentioned, but also in the inverse relationship of sound and image. Here an intense floodlight illuminating an open field is accompanied by the natural sounds of evening. In this section, the natural (moths) and cultural (artistic endeavor) are most mutually supportive, as both the actual and symbolic desire for and consummation by light are depicted.

As the moths-become-light weave their beautiful patterns, smoke gradually arises from the bottom of the screen. This smoke indicates the destruction brought on by the passion for illumination, and its source is the crematory pyre of moths lured too near the floodlight. Viola's final steps toward the camera and the light are again rapidly edited, and the brief searing portraits accompanied by the sizzling sound are followed by a blank screen and silence. The moment of most intense illumination is also one of consummation - symbolically, the annihilation of the artist and literally, the conclusion of the piece. The realization and completion of the creative act (in this case, the making of a videotape), is the result of the total giving of oneself to the 'light' - and it is with this vision that Sweet Light concludes.

AMA L'UOMO TUO (ALWAYS LOVE YOUR MAN) - Cara DeVito

1974, 20 minutes, b/w, sound

Like One-Eyed Bum, Ama L'uomo Tuo is a portrait in video, but unlike Andy Mann, Cara DeVito is the biographer of someone familiar, her own grandmother. Both tapes, like other documents of 'non-celebrities,' reflect the economy of cheap, reusable videotape. Andy Mann was able to let the portapak roll until he happened upon an interesting encounter, aware that the videotape could be erased and used again. DeVito, and others attempting in-depth portraiture can afford to tape their subjects at length, selecting and assembling passages of the greatest intensity later. Long, uninterrupted tapings, coupled with the capability to immediately play back one's image and voice help to make the subject more comfortable and intimate in the presence of video technology. Ama L'uomo Tuo is evidence of the range and depth of emotion and expression that can be captured on tape in this process. One-Eyed Bum, a single continuous take of a chance encounter with a stranger, is casual and non-dramatic - a real-time conversation. Ama L'uomo Tuo, by comparison, is heavily edited, developing the theme of feminine oppression which the subject's life exemplifies in a dramatic mode that builds to the climactic description of a forced abortion.

The power of Ama L'uomo Tuo arises from the strength of the subject and her stories and from DeVito's accomplished method of structuring this material. Three aspects of her method will be considered. The first is the thematic linkage of each shot to the next, often resulting in smooth, subtle transitions between sequences. The transition from the first dinner scene, where the family is engaged in conversation about a table, to the woman's account of being beaten for refusing to clean the bathroom, is an intermediary scene in which the subject speaks of telling her mother she'd never eat food prepared by hands that scrubbed the toilet. This 'intermediary' scene, however, is more than simply transitional; it also serves as comic counterpoint and as an expression of lost innocence central to the tape.

A second aspect is the dramatic, and increasingly charged emotional material is introduced as the work progresses. Ama L'uomo Tuo begins lightheartedly, with cheerful music accompanying rapid montage sequences establishing DeVito's grandmother in a contemporary environment. Her initial references to her husband, Benny, (his description of her as "lost bread," his training her to prepare dinner in advance) portray the figure of a rather minor tyrant compared with the brutal oppressor he later seems. Three incidents of violence by Benny are also presented in order of increasing intensity. The woman's punishment for refusing to clean the bathroom is a single blow (perhaps - a frozen frame accentuates her utterance, "...Bang!"). For dancing without permission, she receives a beating until she faints. For an unwanted pregnancy, she is forced to undergo a dangerous abortion from which she nearly dies. Each successive description of violence sharpens the focus

on the central issue of the tape: the degree to which cultural codes permit and reinforce the oppression of one individual or group by another. In Ama L'uomo Tuo, this abortion story is the longest and the most dramatically affecting, in both its specific brutality and the larger principles it represents. Benny has made decisions affecting his wife's body, her health and her life.

The grandmother's last statement, dubbed over a freeze-frame of her face, is ironic:

In Italian we say ama l'uomo tuo. Love your man and don't matter what. Love him with all his faults. And I think it's very wise words.

It is one of several such ironies by DeVito which constitutes a third aspect of her method. Ironic juxtapositions are most pronounced in the placement of the dinner scenes with DeVito's Uncle Tommy. His description of Americans as "too cold" as compared with Italians has been immediately preceded by the woman's account of a beating and will be followed by a description of an "old world" custom - the rejected suitor's cutting the face of his former loved one. DeVito uses other pronouncements by Uncle Tommy about the naturalness of a son taking after his father, and about "aggravation" to others being the grandfather's formula for long life to underline social reality - the continuance of the cultural values and beliefs that permitted the unjust and harsh impositions that the grandmother has described. Even her expressed belief in the "wise words" of the title and in their transmission - a belief that seems blinded to the example of her own life - bespeaks the strong grip of oppressive cultural codes.

"Always love your man." It is the only time the word love is uttered in relation to Benny. Yet the tape is about love in another way, the woman's love for her children revealed as a primary reason for her courageous endurance. While DeVito has fashioned a work with broad social implications, she never forgets that it is a work about one person's life, her values and her strength. In that sense, Ama L'uomo Tuo expresses the artist's love for her subject, and is one of the strongest and most moving video portraits to date.

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Andy Mann's chance video-dialogue with a nameless 'one-eyed bum' raises issues of economics and personal freedom on several levels. These issues are directly addressed as the subject 'philosophizes' about his environment (The Bowery) and the inter-relationship between money, power and freedom. One-Eyed Bum also exemplifies a freer, more spontaneous mode of observing and engaging the world through video, and this freedom is a function of the economics of videotaping.

One-Eyed Bum, unlike other tapes in this program, is not overtly the product of an electronic medium. Mann uses no video special effects or techniques of electronic image manipulation, nor does the tape refer directly to other properties of the medium, such as its live-time representation or immediate information feedback. Mann's approach is most closely related to the cinema verite documentary, and could have been shot on film were it not for Mann's method of portapak taping:

The content of Andy Mann's tapes cannot be divorced from the way he works: he has integrated shooting into his activity, so he makes tapes wherever he happens to be. He doesn't go on special trips for the purpose of taping, but allows the sites and subjects to involve him, the unity of location determining the unity of the tape.₁

The opening of One-Eyed Bum is representative of this approach. Mann follows an airplane, settles on a street scene, and seems to be simply looking and waiting for something or someone to interest or engage him, as the bum does, shouting "Hey TV!" Similarly, the tape concludes with the camera turning again down the street and waiting. Such a casual interactive approach to documentation would be prohibitively expensive in cinema, with a half-hour of sound-sync black-and-white 16 millimeter film costing a minimum of over \$500.00. By comparison, a half-hour reel of videotape is about \$12.00 and can be recycled or recorded over numerous times. It becomes obvious how Mann and other videomakers can afford to let the camera run, and approach video as a medium through which to interact with and gather information about new and familiar environments and situations.

Andy Mann's work and his method of taping, while unique, should be considered within a broader context of work by documentarians who have found the economics of video conducive to freer, more personalized, approaches to 'television reportage.' Among the aims of such makers has been the presentation of alternate views regarding socio-political issues, at times directed toward specific audiences, with the concept of video as a tool for social change. Such works range from intimate portraits of individuals as spokespersons for broader cultural concerns (as in Cara DeVito's Ame L'uomo Tuo in this program) to tapes concerned with issues of

importance to small grassroot communities or subcultures. As a social tool, cheap, reusable video has also made its impact in hospitals, schools and other institutions, providing immediate information feedback in therapeutic and educational contexts. In any case, the spontaneous exchange of One-Eyed Bum is a direct by-product of the relative freedom afforded by the inexpensiveness of taping with small format portable video.

The verbal exchange between Mann and his subject is founded upon an economic exchange: the bum requests a quarter for allowing himself to be photographed, and Mann offers him a dollar for being "a pain in the ass." The bum's immediate association of Mann with commercial television (Eyewitness News) is an association with money and power, themes which weave their way through his street philosophy. As he speaks of the "messed up" but economically well-off Bowery inhabitants who accomplish nothing, he asserts that "if I had a million dollars, I'd still be in the street." Wealth is presented as a potential source of psychological confinement, and while it might provide him the power to "do what I wanna do," the bum acknowledges that he has nevertheless attained, in extreme poverty, that which is most essential: "...the best thing in the world - just being yourself." He speaks of his role in the Korean War:

He say, "Now what do I have to do because I'm in your company and you're a sergeant?" I say, "You don't got to do nothing. I don't even know you." Just like I don't know you. I don't give a fuck what you doin' with that camera there, I don't give a fuck.

This brief soliloquy seems to summarize the bum's philosophy: that freedom is more important than power, and the 'irresponsibility' of freedom is best achieved through a low-budget lifestyle. Throughout, he suggests that he is a bum more by choice than chance.

There is an obvious analogy to be drawn between the one-eyed bum and the 'one-eyed' cameraMann. The artist, a virtuoso cameraperson, has opted for a low-budget style of working that has allowed him the freedom to integrate shooting into everyday activities. To return to an earlier association, an Eyewitness Newsteam, would be less free and thus less likely to take Mann's casual approach because of expense and 'responsibility'.

Much of the strength of One-Eyed Bum derives from this sense of a spontaneous, undirected exchange occurring between two street people - bums, as it were. Not to be overlooked as elements which make this tape a compelling work are Mann's direct, unaffected camerawork and the overall appeal of his subject. The one-eyed

bum, as captured by Mann on videotape, at times overpowers us with manifestations of a charming naivete intermingled with self-consciousness, an embarrassment at his own profanity or the cataract over his eye, and a revealing openness of expression and gesture.

Footnote

1. Borden, Lizzie, "Andy Mann," Castelli-Sonnabend Videotapes and Films, Volume 1, no. 1 (November 1974), p. 96.

Almost everyone has experienced the vertical roll of a television image, a technical irregularity which occurs when the sync of the monitor becomes 'unlocked' to the vertical sync of an incoming television signal. The vertical hold knob of the set permits adjustment of the internal vertical waveform oscillators that resynchronize the set to the signal.

Joan Jonas has said:

The vertical roll of the monitor was used in my work as a structural device with which activities were performed in and out of sync with its rhythm. I play with the peculiar qualities of the TV, imagistically and structurally. The vertical roll seems to be a series of frames in a film, going by slowly, ~~obscuring~~ and distorting the movement. Portions of the movement are lost as the mind passes or jumps the monitor. The vertical roll affects one's perception of the TV image and of the space around the monitor. Floors seem to rise when you look away from the continuous vertical roll.₁

The rising floor effect which Jonas describes is not a phenomenon I have experienced, but the description of the other effects are keys to Jonas' concerns in the tape. She performs a series of activities before a sometimes stationary, sometimes moving camera, the images from which are displayed, vertically rolling, on a monitor within the artist's view. Each activity is carefully framed in relation to the camera and articulates a spatial and rhythmic dynamism. Through this series of activities, Jonas explores the ways in which formal relationships between the camera images and the vertical roll of their display alter our perception of both.

The vertical roll of the image establishes a constant, regular visual rhythm, accompanied by a percussive audio cadence, against which other movements can be played. As the screen rolls downward, the upper and lower edges of the camera image are conjoined, separated only by a black bar which contains electronic timing information. Jonas' performance of body movements before the camera, and her movement of the camera itself, are designed in relation to the cadenced roll and contiguity of the edges of the image. She redefines our perception of the rolling movement of the monitor, of her own movement, and of the relationship of elements within the frame of the camera image.

At times, the camera image alters perception of the vertical roll. The vertical roll generally appears to move downward, sometimes seeming to stick at the bottom of the frame and jump back to the top. The downward direction of the roll is apparent in the initial sequence, as Jonas figuratively strikes a spoon

against the TV screen, and is especially noticeable in static or near-static scenes, such as the photograph of the reclining nude, or the image of her own slowly moving legs. We perceive the vertical roll differently in other instances. A regularly patterned piece of fabric, lowered into the frame, briefly exhibits a visual continuity between the top of one passing 'frame' and the bottom of the next; and the black rolling bar becomes a horizontal line of interference passing through a 'stable' image. In still other instances, the roll of the image seems to reverse in direction. Jonas' beating hands, which appear to clap together from opposite sides of the frame, cause the image to roll upward. Clearly, there is no change in the roll itself, only a change in our interpretation of its direction due to the juxtaposition of rhythmic movements.

Jonas also utilizes the vertical roll to alter our perception of the movement and relationship of elements within the image. The positioning of her hands, palm down at the bottom of the frame and up at the top and beating percussive time to the roll, uses the contiguity of opposite sides of the frame to create an illusory sense of hands clapping together at the midpoint of each roll. The masked woman pedals her feet in the air at a rate slower than that of the vertical roll. The phasing of these two rhythms make the slowly moving legs sometimes appear to kick violently. Vertical forms which fill the screen for any length of time, such as legs or the torso of the 'belly dancer,' create illusions of continuous forms slowly being pulled downward, revealing more of themselves. The effect is of a seemingly endless, serpentine creation - an extension of aspects of the human form.

The human body is the natural vehicle for the enactment of controlled movement, especially for Jonas, a performance artist whose live pieces incorporate dancelike motion. There is, however, an extra-formal element in her portrayal of the human form - an eroticism, possibly ironic, and maintaining an ambiguous relationship to these formal elements. The masked figure (called "Organic Honey...my alter ego" by Jonas), the torso outfitted in a belly dancer costume, and the still photograph of a nude woman, are all erotic images upon which the continuous roll enacts a sort of visceral violence. What is the relationship of this aspect of content to the overall formal considerations of Vertical Roll? Jonas' description of video as "an ongoing mirror,"² of the narcissism inherent in her work, and her claim of exploring a female psyche all direct us to consider her 'role-playing.' Notions of illusion and seduction - an interrelation of perceptual and psychological 'teasing' - come to mind, and so does the sensually suggestive quality of the vertical roll's incessant, aggressive thrust.

In the final sequence of the tape, Jonas creates yet another type of relationship between her role as performer and the formal

device of the vertical roll. Appearing in front of the rolling monitor, which we have been viewing as it was shot by a second camera, she seems to introduce a reality that supercedes or breaks the illusory plane of the tv screen and its vertical roll. Her withdrawal from our field of vision, however, reasserts the rolling motion, for the slow descent of her head creates an appearance of its being pushed out of the frame by the repetitive passage of the horizontal black bar. Ultimately, she introduces a notion of the relative nature of reality and illusion: that the so-called illusory relationships she has created within the structural context of the vertical roll are as real as others, and perhaps more meaningful in what they reveal about human perceptual processes.

Footnotes

1. "Panel Remarks," The New Television: A Public/Private Art, Douglas Davis and Alison Simmons, eds., (Cambridge: The MIT Press, 1977), p. 71.
2. "Joan Jonas," Video Art: An Anthology, Ira Schneider and Beryl Korot, eds., (New York: Harcourt Brace Jovanovich, 1976), p. 73.

FIVE TAPES: - Woody and Steina Vasulka 1973-74,
VOCABULARY, THE MATTER, HERALDIC VIEW, 25 minutes,
SOLO FOR 3, and REMINISCENCE color, sound

The tapes of Woody and Steina Vasulka exhibit concerns quite unlike those of other artists represented in this program. Their engagement with video over the past decade has been a consistent exploration of the electronic image - an investigation of the unique properties of the medium and the variety of ways in which images can be electronically generated, manipulated and modified. In their conceptualization about the nature of their basic material - the electronic waveform - and their development and integration of image-making techniques, the Vasulkas have described their process of working as more akin to that of the researcher than the artist (at least as the latter is conceived as the maker of aesthetic objects or expressive statements). Yet their self-reflexive use of video falls very much within a contemporary tradition of visual and literary artists contemplating and extending the nature of their materials. The Vasulkas remain the foremost explorers of the television medium. This is not to imply that their work is primarily didactic, for the tapes exhibit a sparse but meaningful use of symbolic imagery, a subtle wit and an immense beauty. The Vasulkas' tapes also exhibit the potentials of video to create new kinds of image experiences, while manifesting some underlying aspects of the medium which make these new types of imagery possible.

Crucial to the Vasulkas' experimentation in video has been the engagement with systems of new and specially designed videotools. Of this, Woody has said:

Our work is a dialogue between the tool and the image, so we would not preconceive an image, separately make a conscious model of it, and then try to match it, as other people do. We would rather make a tool and dialogue with it; that's how we belong with the family of people who would find images like found objects. But it is more complex, because we sometimes design the tools, and so do conceptual work as well.¹

The tools, often designed by other electronic artists, include video synthesizers, colorizers and keyers (described below). One might generally say that the concept of feedback takes on a special meaning in the Vasulkas' work: an interaction with new tools leads to further conceptualization about the medium which further leads to the design and construction of more advanced tools. The video camera, primary image source for other video artists, is simply another tool at the Vasulkas' disposal, neither preventing a tendency toward abstraction nor forcing their work into narrative modes. Rather, the real images gathered by the camera provide a concrete point of reference against which the radical nature of electronic image-processing techniques can be considered.

As the first Vasulka tape is titled Vocabulary, this note might well be called "Glossary." What follows are general definitions of the specialized tools mentioned, some more generally known than others, and of a technique central to the Vasulkas' work. The tools are the video synthesizer, colorizer and keyer; the technique an interface of video and audio signals.

Video Synthesizer

Video synthesizer is a general term for a system of electronic modules which can generate and/or alter video imagery in real time. There are various types of synthesizers, more or less general purpose as regards their capacity for image manipulation. Some synthesizers, like the Paik-Abe Video Synthesizer, are "image processors," dependent upon the input of live camera and pretaped images which they then transform. Image processing synthesizers usually perform the functions of colorizers and keyers (described below) as well as mixing many inputs in complex ways and even abstracting or distorting representational imagery. Another type is the "direct video synthesizer," like the one designed by artist Stephen Beck (to whom this categorical distinction of synthesizer types is indebted.²) Without the use of camera inputs, direct video synthesizers² produce, through electric generators, a full-color video signal which is most often displayed as abstract videographics.

The Vasulkas make use of yet another type of synthesizer, a Scan Processor designed by Steve Rutt and Bill Etra. The scan processor displays a video camera image on a small monitor, built into its console and specially prepared to reorganize the television raster, or the 525 lines which make up the screen. This raster reorganization or manipulation is done by a process of deflection modulation. In an unaltered television, deflection circuitry regulates electromagnets (the yoke) which in turn guide the movement of the electron beam in a precise, regular scanning pattern of 525 lines, top to bottom, every 1/30th of a second. The television screen of the Rutt-Etra Scan Processor contains a system of electromagnets and deflection coils into which the user can input signals which alter the scanning pattern of the electron beam across the face of the display in unusual, but predictable ways. In The Matter, as an example, generated sine, triangle and square waves are used to reshape the display raster, and the image of the dot pattern alters accordingly into analogous waveshapes. The altered Rutt-Etra image must then be recorded by a second camera pointed at its display screen, in order to impart the proper TV timing information that allows us to re-view the image on a standard monitor.

The Vasulkas also used the Rutt-Etra Scan Processor in the making of Vocabulary and Reminiscence, although in very different ways. In the latter tape, the image/signal from a portapak tape shot in Czechoslovakia was the input into the scan processor, and raster lines, according to their intensity, were vertically deflected in varying degrees. The result of this process has been described as "a typographical map of the brightness of an image."³

Colorizer

In black-and-white television (more properly known as monochrome) the picture is composed entirely of various intensities of light of a bluish-white nature. This signal is known in television terminology as the luminance signal. It conveys information of values (brightness). With color television an additional information-bearing signal is used to convey the hue (wavelength of the color) and saturation (intensity of the color) information, called the chrominance signal, or chroma.⁴

- 3 -

A colorizer is an instrument with which 'artificial' electronic color can be added to a black-and-white picture. Through internal circuitry, a chrominance signal, or signal subcarrier containing color information, is electronically generated and integrated with the monochrome luminance signal. In real time, the user can select colors of specific intensities as well as the areas of the monochrome picture in which each color is to be inserted. (The same color will be placed in all those areas of the black-and-white picture with the same grey value.) For example, one could decide that all areas of the lowest luminance - dark grey to black - will be colorized blue, while areas of white, or the highest luminance turn orange.

Colorizers of the type described above are not particularly conducive to the simulation of naturalistic tones. Artists using colorizers have, in fact, tended to exploit the nonrealistic aspects of electronic color, using vivid, deeply saturated hues, some of which exist nowhere in the world except on video display. By comparison with the colorizing techniques of other artists, the Vasulkas' use of Eric Siegel's Dual Colorizer is controlled, almost subdued in effect. Nevertheless, portions of Vocabulary and Heraldic View provide a sense of the unique and brilliant colors available by means of this type of videotool.

Keyer

A keyer is a tool which allows the user to 'cut out' portions of one video image-signal and replace them with portions of another. (It is an effect seen commonly on television news, as the images on the large display screen behind the newscaster are keyed in.) The basis of keying is a comparison within the circuitry of the keyer, between voltages or luminances. More simply, the user of the keyer decides upon a threshold level of brightness, and that any portion of an image-signal of a brightness above or below that threshold will be replaced by a second image/input. The effect is often one of revealing the second image as though it were behind the first; in actuality, we are seeing a special type of composite of two video signals.

The Vasulkas use George Brown's Multikeyer in Vocabulary, Heraldic View and Solo for 3. In Heraldic View, the 'openings' on the drifting abstract pattern which reveal the colorized camera image of a brick wall are keyed effects, with voltages generated by an audio synthesizer (also creating the soundtrack) controlling the rate and size of the opening keying effect. The appearance of electronic textures behind the ball and hand in Vocabulary is a similar example of keying. The Multikeyer which the Vasulkas use is also capable of more complex functions, such as the layering of the different sized numbers in Solo for 3.

Video/Audio Interface

Steina has said that the "art material" of their work is video and audio signals, voltages and frequencies.⁵ Of their early tapes, Woody elaborates:

What was really, truly significant to us at that time was something nobody really detected. That was to make pictures by audio frequencies, and to get audio frequencies out of pictures.⁶

Although in none of these five works is the sound totally derived from the image, or vice versa, the signal generating one is a means of controlling the other in The Matter, Heraldic View and Solo for 3. The waveform generated signals which reshape the dot pattern in The Matter are also the source of the electronic soundtrack. In both Heraldic View and Solo for 3, voltages from audio synthesizers control aspects of the image. In the former, the audio signal controls the keying of the image and in the latter, the sequencing of different cameras which are viewing, at different ranges, the number "3" is determined by the sound source.

Electronic Concepts by the Vasulkas

Vocabulary

Interactive modes of a camera image and internally generated electronic textures, in which the energy content of each input is compared through a videokeyer. In the second segment, a single input is divided and layered over itself in a reshaped and retimed raster.

The Matter

A dot pattern with its raster 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 generator controls the size and image drift. The identical image forming waves are the source of sound.

Heraldic View

An oscillator generated pattern drifts over a camera view. Sharp bursts of voltages generated on an audio synthesizer are interfaced with control levels of a keyer, determining the opening of the keyed image.

Solo for 3

Three cameras see different sizes of the number 3, while the fourth camera is set for feedback. The image planes, layered through a multi-keyer, are arranged through a switching matrix of the multi-keyer and sequenced by a digital musical instrument. The horizontal drift of the images is controlled by a variable clock.

Reminiscence

A Portapak video tape is displayed on a scan processor. The identical image signal is fed into the vertical deflection system of the scan processor, translating the energy structure of the image into a vertical position of scan lines.

Footnotes

- 1) Gill, Johanna, Video: State of the Art, The Rockefeller Foundation, June 1976, p. 48.
- 2) Beck, Stephen, "Image Processing and Video Synthesis," Video Art An Anthology; Ira Schneider and Beryl Korot, eds., (New York: Harcourt, Brace Jovanovich, 1976) pp. 184-7.
- 3) Gill, Johanna, p. 49.
- 4) Beck, Stephen, p. 186.
- 5) Gill, Johanna, p. 47.
- 6) Ibid.

Recommended for further reading:

Vasulka, Woody and Nygren, Scott, "Didactic Video: Organizational Models of the Electronic Image," Afterimage, Vol. 3, No. 4, (October 1975), Visual Studies Workshop, Rochester, N.Y.

Vasulka, Woody (as interviewed by Charles Hagen), "A Syntax of Binary Images," Afterimage, Vol. 6, Nos. 1 and 2, (Summer 1978), Visual Studies Workshop, Rochester, N.Y.