

VIDEO AND ABSTRACT EXPRESSIONISM

Hermine Freed

If the content of formalist art is form, then the forms in a video art work are a function of its content. Just as formal similarities can be found in minimalist sculptures or abstract expressionist paintings, videotapes tend to be stylistically unique, although there are likely to be conceptual similarities amongst them. These similarities often arise out of inherent qualities in the medium which impress different artists simultaneously. If minimalist sculptors have explored the nature of the sculptural object, then video artists tend to explore the nature of the video image. As the range of possibilities is broad, so are the sources, ideas, images, techniques, and intentions. Nevertheless, similarities can be found in tapes of artists as seemingly dissimilar as Campus, Nauman, and Holt, and some of those similarities can be related to their (unintentional) resemblance to abstract expressionist paintings. I refer not to electronic video which mimics the visual qualities of abstract expressionism, but to certain fundamental conceptual attitudes visible in abstract expressionist painting and much of the best video art.

Just as minimalism eschews the personal, video and abstract expressionism are rooted in it. Just as minimalism denies the importance of process, abstract expressionism and video rely on it. Just as minimalism avoids psychological incidents, abstract expressionism and video embrace them. Just as space is concrete in minimalist sculpture, it is elusive in both abstract expressionism and video.

This comparison may seem surprising since the choice of video as a medium grows more out of conceptual art considerations than painterly ones. Although the major concern here is the conceptual concerns common both to video and abstract expressionism, it must be noted that on the simplest level, the pictorial, video is closer to painting than to sculpture or conceptual art. It may be argued that video is viewed in a sculptural box (a TV monitor) and that image-making is of secondary importance, yet it is viewed frontally with a flat, pictorial image that has the same limited framing edge as a painting. (Yes, the tube projects a deep space, but the screen is flat. Yes, the edge is variable, but limited nonetheless.) In most video art tapes, all activity takes place within a still frame. The incidents may change, the image may change, but there is rarely evidence of camera activity. Although one may ascribe this to the simple avoidance of technique, the relationship between the video image and painting is much more significant. Indeed, if we examine the works of those artists for whom the manipulation of the camera is of major importance, we find that the goal and focus of their work is technology and technique rather than content.

Underlying abstract expressionist painting is a concern for Freudian and Jungian psychology. Gesture is related to free association and its unconscious processes, form to the collective unconscious and the primitive myth. The power of the unknown is manifest in its abstraction. Video shares this conscious involvement with psychological processes, but its models are more likely to be found in contemporary psychology: R.D. Laing, Gestalt therapy, and phenomenological psychotherapy. Video artists are more likely to be interested in making the unconscious conscious and to concretize rather than mythologize experience.

One might imagine that Laing has worked with video through his descriptions of interpersonal perception. He clarifies that our understanding of ourselves is normally based on inner processes—thoughts, feelings, perceptions, experiences—

whereas others view us through our behavior. Through video, we can view our behavior and personal interactions removed from immediate feelings and experiences. Laing speaks of the ego boundary as the extension between man and society. The works of Acconci, Benglis, Campus, Holt, Jonas, Morris, Nauman, Serra and myself operate on that boundary line.

Peter Campus and Bruce Nauman have both made live video installations which involve the viewer directly. In Campus' *Shadow Projection* the viewer sees himself projected on a screen from behind with a shadow of his image superimposed over the enlarged color image. He stands between the screen and the camera (the interface between seer and seen), turns to see himself, and is frustrated because he is confronted with the camera and can never see his image from the front. (This is the reversal of a "normal" situation. As the viewer turns toward the camera, others outside camera range can see his image from the front, but he cannot. Normally, others can see us from behind, although we cannot).

Nauman's *TV Corridor* (1969) also turns the viewer into a real-time subject. A TV camera is behind the viewer who walks along a corridor towards a monitor. As he approaches the monitor he perceives himself walking away from it, from behind, as if dislocated from himself. He must keep in line with the camera to keep his image in the monitor, concentrat-



Hermine Freed, *Two Faces*, 1972. Courtesy Leo Castelli Gallery.

ing on his image of himself and his placement in space at the same time. It is a work involved as much with spatial disorientation as it is with self-perception.

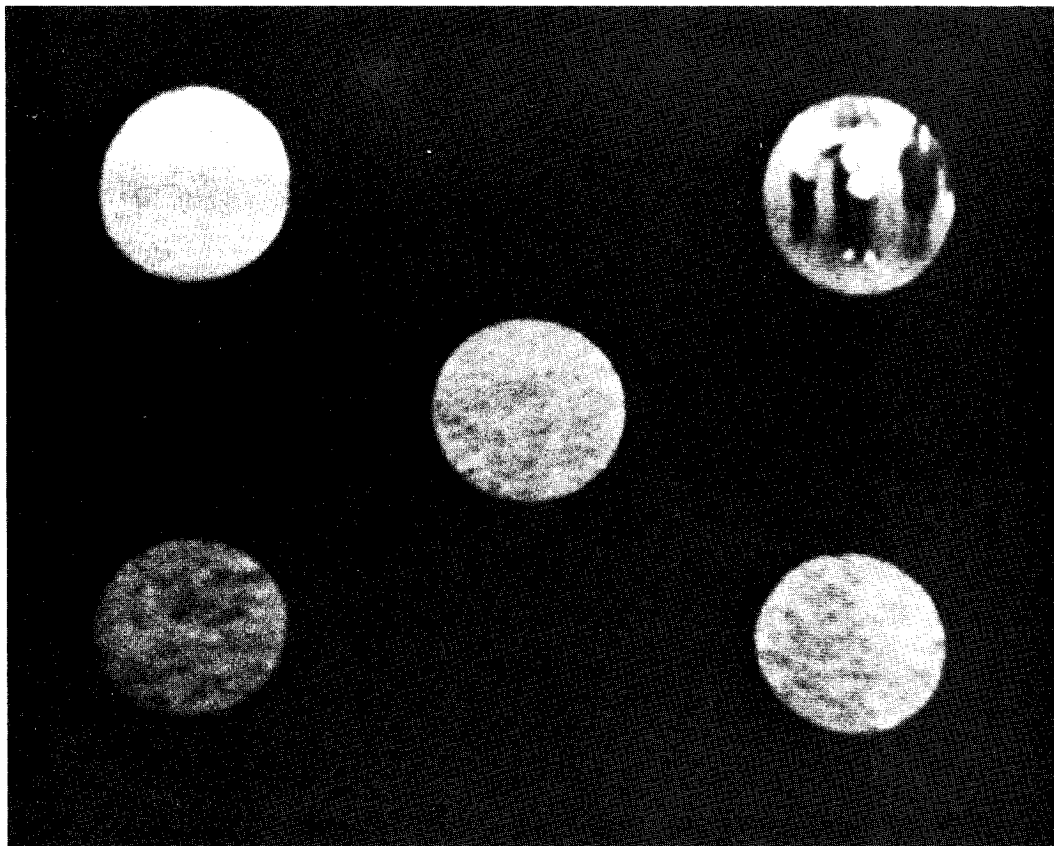
Richard Serra, Lynda Benglis, and I have made tapes which illustrate the psycho-feedback aspects of video. Serra's *Boomerang* and *Match-Match Their Courage* are recordings of the subjects' responses to themselves when faced with a video monitor with their image and headphones of their own voices in real time. My tape, *Two Faces*, is involved with the objectification of the self on a personal level as it is a product resulting from a video encounter with myself. The video image is the left and right sides of my face looking at and interacting with each other nonverbally. Action and response are, necessarily, the opposite sides of the same coin, yet the perception of the situation is that of the self outside itself.

If many artists have become involved with real-time response to self and/or others, others have dealt with the elusiveness of

objectivity which is intensified in the video experience. Nancy Holt's *Locating* tapes record the views of two people about an apparently objective situation. She isolates a fragment (in a circle) from a scene while the two people attempt to "read" that fragment. That image is hidden and another revealed. The reporters try to reconstruct the images they saw previously to create a total picture. Their points of view are frequently so

the verbal information about it. The images are the residue of events. A third person narrator describes subjective emotions and events in an unemotional tone, constantly editorializing on the text. We are involved in the line between what is seen and what is known, what is experienced and what is felt, what is present and what is an accumulation from the past.

Nauman's *Pacing Upside Down* seems, in this frame of mind,



Nancy Holt, *Locating*, 1971.
Courtesy Leo Castelli
Gallery.

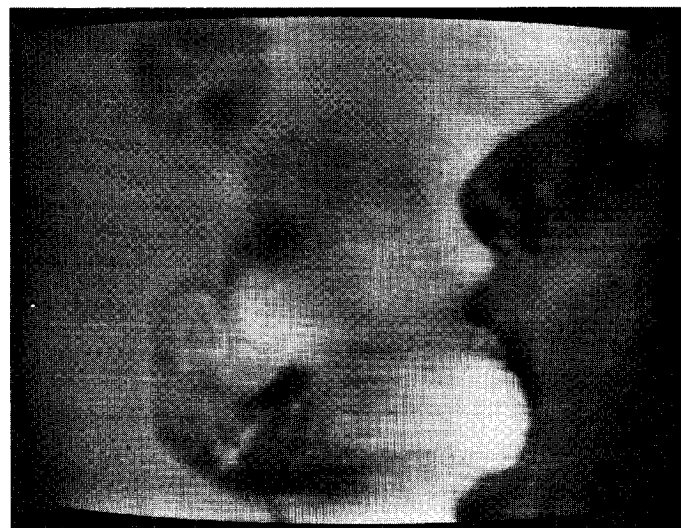
widely divergent as to question the possibility of arriving at objective perception.

Holt's tapes allude with several others to the impossibility of isolating experience that is also found in a great deal of abstract expressionist painting. In most abstract expressionist paintings, form and gesture extend beyond the framing edge of the canvas, suggesting boundlessness. In video works, the camera records a scene which is literally only a fraction of the total vision of the person behind it, and which may record little or nothing of his experience. Just as emotions and experiences are implied in the abstract expressionist gesture, there is frequently no visual reference to inner experience through a camera image; that reference is often made through the sound track. When the total image is revealed at the end of Holt's tapes, it is still a mere fragment of a larger view from which it was taken.

In *Mumble*, Lynda Benglis reports events which are taking place during the taping process which seem to have nothing to do with the images on the monitor ("the cat just jumped on my lap," "The phone is ringing in the other room"). Ideas are apparently discussed but we never really hear them. We must take Benglis at her word. Characters, briefly described, are just mere presences. These descriptions are Benglis' real experience during the taping process, the gesture, so to speak, of her work, all but removed from the visual content which is frequently counter to the verbal information. Events as well as images extend beyond the framing edge.

In *Exchange*, Bob Morris contrasts visual perception, experience, emotion, and events. The tape is ostensibly about the making of the tape, yet little of the visual information supports

to be a performance metaphor for Pollock's painting. In this work, Nauman paces in an undefined space, with his hands touching straight over his head, for 55 minutes. The camera is upside down, and a small slice of the wall, slightly askew, is visible at the bottom of the frame. In contrast, a small rectangle is drawn on the floor with its sides paralleling the edges of the monitor. The fact that the real space is askew and the depicted shape is straight functions to dislocate the space, especially as Nauman walks toward the wall. Nauman walks in and out of the frame, although his presence is always felt by the sound of



Lynda Benglis, *Now*, 1972. Courtesy Leo Castelli Gallery.

his footsteps. Extensions beyond the edge and the fact that the work has no particular beginning or end, just a constant rhythm, parallel the all over quality of Pollock's paintings with their disavowal of central focus.

Perhaps one of the closest links between video and abstract expressionism is their mutual involvement with process. Rarely is a videotape totally scripted and rehearsed before it is taped. One quality of the medium which differentiates it from film is the greater possibility of spontaneity. Often in the process of recording a videotape, ideas suggest themselves which had not been a part of the original plan. Video is organic; it can be replayed immediately and reworked. It is possible to erase or tape over unwanted segments and to redo edits until they work. In this sense, it is closer to the process of painting an abstract expressionist work.

zoom back and forth, switching from one camera to the other. Both are focused on Jonas who is moving her arms over her head. The result is a literal space jump and an apparent time warp. The gestural quality does, in a superficial way, resemble abstract expressionism, both in movement and in the accidents which take place in switching the cameras.

It ought not be inferred that all video art relates to abstract expressionism. Only a few years ago there were no rules for the use of video as art; each person who chose the medium did so for his own reasons and invented his own rules. What is remarkable is that so many people, working on their own, came up with such similar ideas. In most cases, these similarities can be related to inherent qualities of the medium which impressed several artists simultaneously. It is only now that these works can be compared to abstract expressionism.



Bruce Nauman,
Pacing Upside
Down, 1969.
Courtesy Leo
Castelli Gallery.

Keith Sonnier is more interested in the process than he is in the product and considers his tapes artifacts of the activity of working with the medium. A great deal of his work actually ends up looking very painterly. *Animation 2*, in its collage technique (using multiple video tracks fed by a computer from television), resembles Rauschenberg's work in content as well as form, with layers of cultural and personal experience laid on top of one another.

Finally, video is the culmination of the frustrations of artists—from the futurists and Duchamp through the abstract expressionists—in their limitations of time. The futurists dealt with the time problem (to oversimplify) through repetition of the image. The abstract expressionists incorporated the time involved in production into the work through gesture; the product is a record of their physical activity. Time is a given in video which has been approached with many different attitudes. There are many artists who insist on real-time recording with no editing whereas others feel that the medium is ideal for working with non-sequential time.

Richard Serra and Joan Jonas' *Anxious Automation* is an early tape involved with time-space confusion. Two cameras



Joan Jonas and Richard Serra, *Anxious Automation*, 1971.
Courtesy Leo Castelli Gallery.

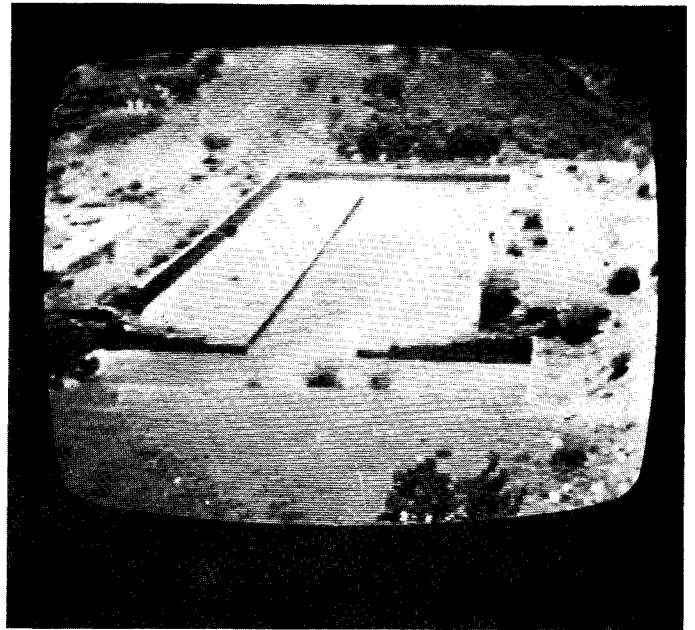
XOCHICALCO

Joel W. Grossman
Lynn Kohl

Recent advances in the portability of equipment have made video available for experimentation in a variety of new subjects and problem areas. One area where video has been particularly useful has been in the presentation of visual interpretative material for museum exhibitions. These presentations have, however, involved the taping of objects or subjects close at hand. Video has not been utilized to present archeological or art objects in their foreign cultural context.

With this in mind, The Brooklyn Museum in cooperation with El Instituto Nacional de Anthropologia e Historia decided to experiment with the newest one-half-inch black and white portable video equipment to determine whether it would be possible to make a high quality, low cost, bilingual documentary. We wanted to see if, in fact, this new equipment was of sufficient quality, mobility, and durability to produce a viable audio-visual product under the rigors of an actual foreign field situation.

The subject of the documentary is one of the most spectacular archeological centers in central Mexico. Located atop a high ridge in the western mountains of Guerrerro, the ruins of Xochicalco consist today of a series of plazas and mounds within a ring of what appear to be defensive walls. While

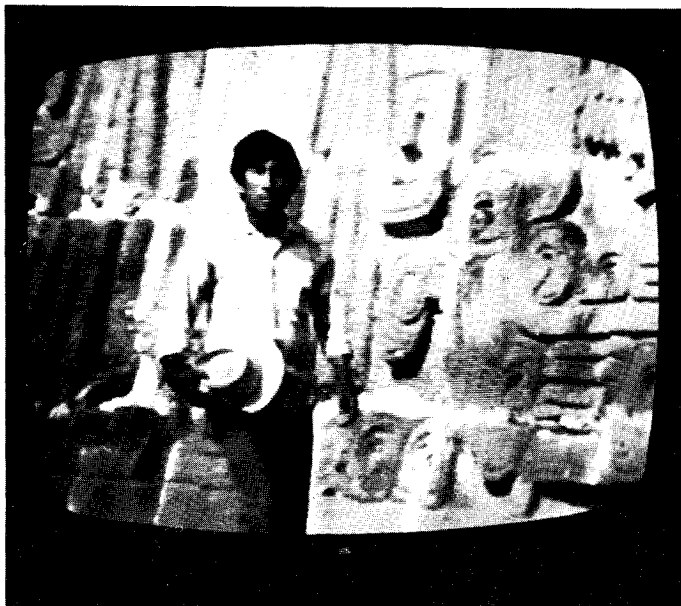


"I" shaped sunken ball court. Teams would try to bump a solid rubber ball through the rings on either side of the ramp.

most of the structures consist of mounds of uncleared rubble, a few areas have been cleared and partially restored by the Mexican government. To date, these efforts have revealed stepped platform structures, apartment complexes, a sunken ball court, and a series of deeply buried underground tunnels and chambers which very likely served as solar observatories.

The temple of the Plumed Serpent is on the highest and central portion of the site. When reconstructed it revealed some of the most spectacular stone relief carvings known in central Mexico. The four facades depict a repeating theme of calendrical glyphs and human figures poised between the coils of the plumed serpent, Quetzalcoatl.

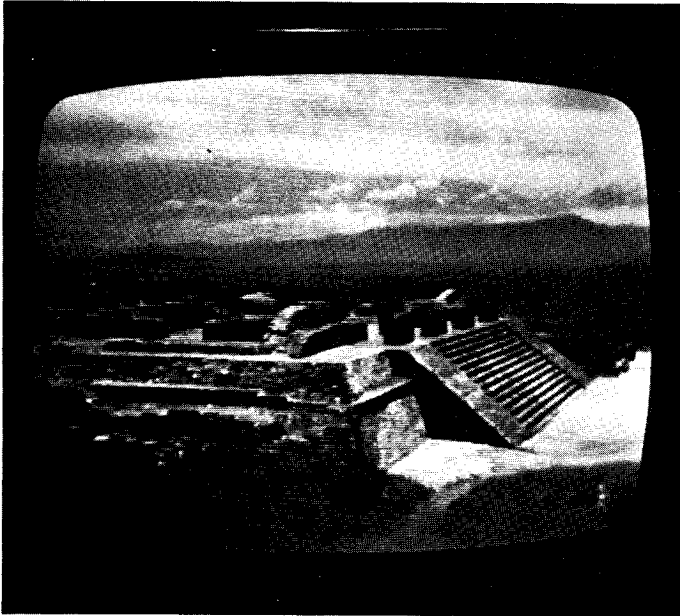
The purpose of the visual scenes and narration was to describe the site not simply as a spectacular physical monument, but rather as a clue to the ideas and goals of the ancient urban planners who built it and the people who lived there. The documentary thus included not only views of Xochicalco, but also shots of sculptures, stelae, and artifacts (from this site and others) to illustrate stylistic and cultural parallels. The idea was to provide students with the most current evidence and diverse interpretations of the significance of this ancient urban center in terms of the general development of Pre-



Santiago Analco Ramirez, a multi-lingual Nahuatl Indian who narrated major portions of the video tape in English and Spanish.



Santiago describes details of seated nobleman.



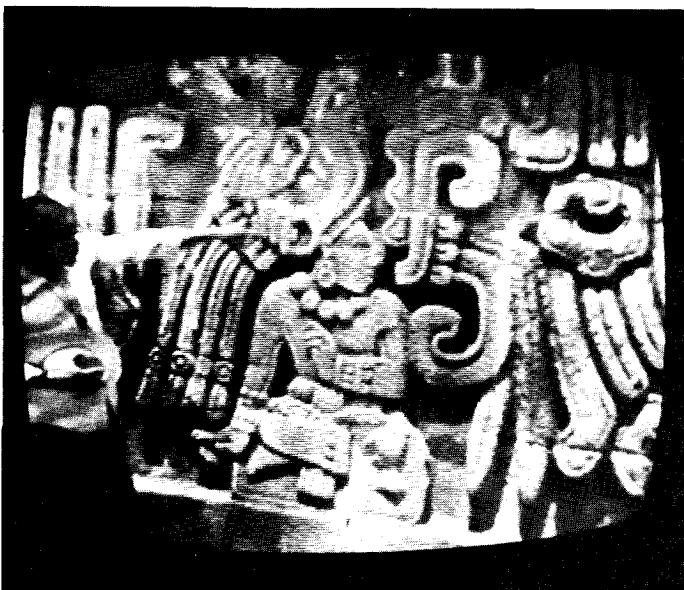
A partially restored temple structure at Xochicalco.

Columbian cultural history. Above all, we wanted to test the usefulness of video as a tool to disseminate research results to students two to four years earlier than is presently possible through normal avenues of publication.

The overall quality and impact of our black and white video documentary is excellent. Although it lacks the brilliant color of film, the video medium conveys a sense of immediacy which film cannot. The video tape equipment was reasonably portable under high altitude conditions. With a crew of three—archeologist Dr. Joel Grossman, Indian narrator Santiago Ramirez, and video-maker Lynn Kohl—we were a small, mobile self-contained unit.

Video tape can be recorded at lower light levels than those required for exposing film. This film eliminated the need for a heavy power source and bulky lighting equipment. The low light level capability was especially valuable in solving photographic problems often encountered at archeological sites: the presence of underground rooms and poorly lit chambers. We found it possible to tape a sequence in underground passages and caverns with only the light of a kerosene lantern.

Perhaps one of the most versatile features of video tech-



Close-up of calendrical glyph with ancient numerical symbols explained in Spanish English, and Nahuatl.

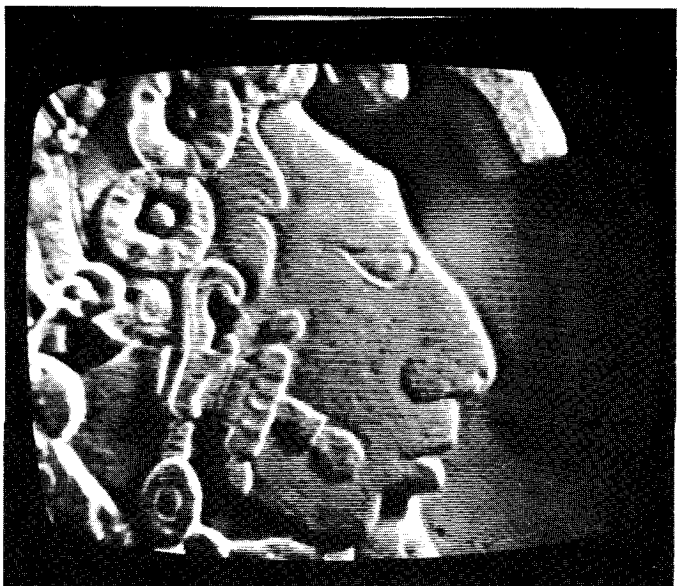


Entrance of long subterranean tunnels leading to ceremonial chambers.

nology for this foreign field project was its "instant playback" capability. Unlike film, video tape requires no processing and can be viewed immediately after recording. In this particular project, where perspectives varied, the archeologist, narrator, and video-maker could view the shots, discuss the work, and suggest changes in the field as the production progressed.

The simplicity and speed of instant video playback provided numerous opportunities for institutional cooperation while on location. For example, while we were taping in Mexico, Dr. Jorge Angulo of El Instituto Nacional de Antropología e Historia had the opportunity to make suggestions and check oversights. The same sort of input was possible as the documentary was being edited later at The Brooklyn Museum. Michael Kan, the Curator of Pre-Columbian art, selected collection pieces which could be used as stills in the tape to better illustrate key arguments.

This option for cooperative input together with the technical ability to add and retract visual elements permitted us to consider new ideas and acquire more relevant imagery as the tape evolved. The flexibility of video proved easily adaptable to the fluidity of archeological interpretation which changes with each new find.



Close-up of a face from the Mayan site of Yaxchilan, illustrating similarities in style to the seated figure at Xochicalco. All photos courtesy Brooklyn Museum.

VIDEO TIME IN WALTER

Bob and Ingrid Wiegand

Time—real time, past time, time distortion, time interlace—is a central reality of video. (Artists who have worked with other, more timeless media, such as painting or photography, often do not learn this until friends, who ask to see what they are doing, fall asleep while the tape is running). Film is about time, too, but as long as the size and texture of the video image and the viewing situation (lighted rooms vs. darkened theaters) differ for video, video time will have its own characteristics and possibilities.

When we made *Walter*—a very tight, non-narrated, half-hour documentary on an individual—the time aspect came to dominate the structure entirely. Eleven hours of footage on a complex individual confronted us. We cut it down to two hours of first-class footage and began to look for the structure inherent in this material. We found that most of the footage followed one of three basic time structures: in the first, Walter was teaching a gymnastics class shot in real time, virtually without interruptions; the second was an hour of footage of Walter sailing and racing his catamaran over a two-hour period; a third and major part of the footage involved Walter remembering and telling stories about his life, a time period covering chunks of his fifty-odd years.

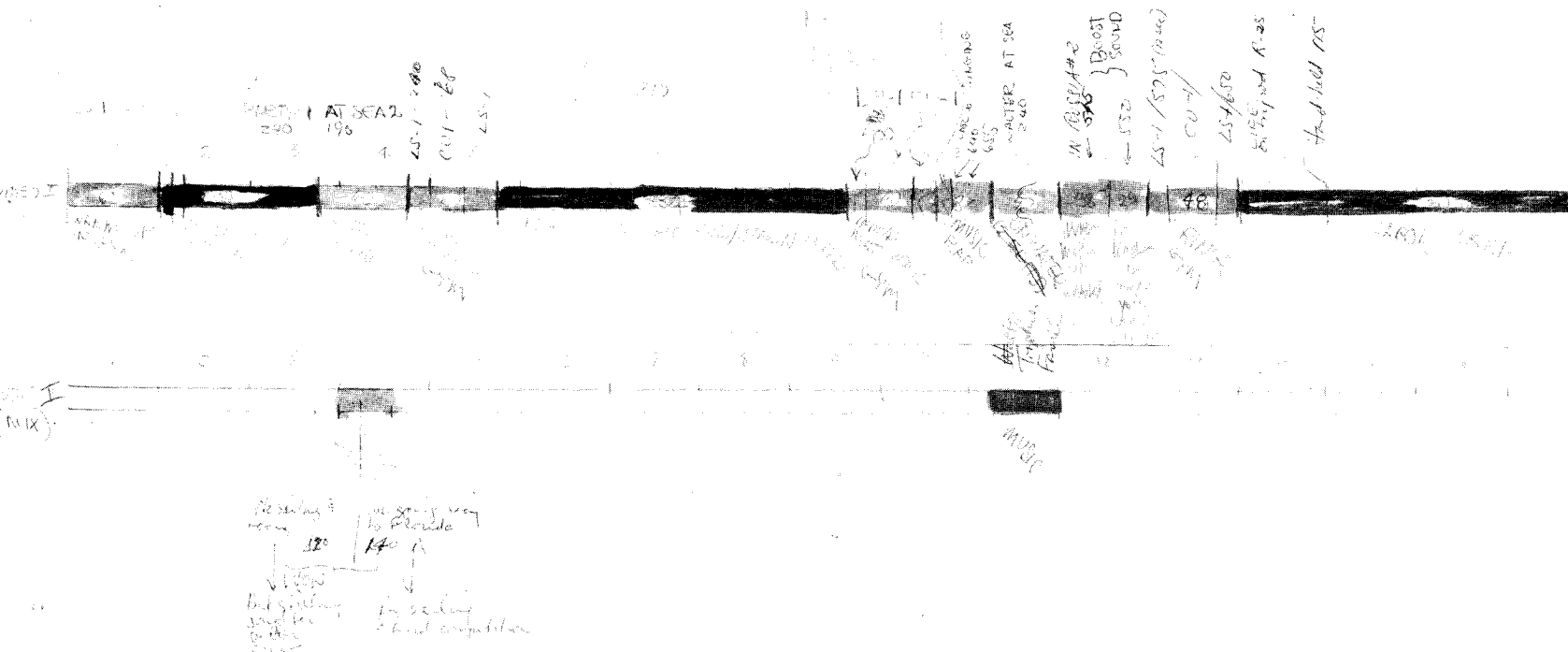
With these elements in mind, we made a time-line kind of chart on graph paper, tentatively arranging different time series in relation to each other. The actual time *sequence* was maintained, that is, the second part of the gym action is shown after the first; Walter's years in a Nazi slave labor camp follow an event from his college years. The net effect is of a weaving of time; each thread appears and reappears, but the sense of continuity is maintained.

The structure of the final piece and some of the final changes are shown in the video time chart. The gym sequences form the basic topological, or surface, structure of the piece. They appear to continue even when they are not on. They are the present not only because they are shown in real time, but also because, more than anything else, they represent Walter's present in terms of content. But in this real-time structure there are "holes" or "windows" from which other time elements emerge. Each section of sailing and racing footage is viewed in real time, but the intervals in which it is *not* seen are shorter than the "real time" that elapses.

The largest spaces are occupied by Walter's talking about his past life. The shortest of these is four minutes, and only one has an edit in it. (In fact, only two sections are broken by edits in the final tape.) Some of them cover years. The slave labor camp section runs from Walter's arrest to his liberation; the memories of his childhood cover an unspecified period before he started school at the age of eight. These sections do not only cover large spaces of time; the effective real times between them are long, as if big loops of time are compressed or speeded in front of us, and behind the other sections shown.

The piece does not always follow this scheme to orthodoxy. Parallel-time operations are also used. For example, parts of the racing footage are made more dense by carrying a second layer: Walter's voice-over narration of his involvement with sailing, racing, and the sea over various time periods.

Finally, however, all these "time loops" swing into the present. The gym class ends; the sailing section closes with "trophies won this year"; the memories finish as Walter says: "That's what helped me and that's how I come to success."

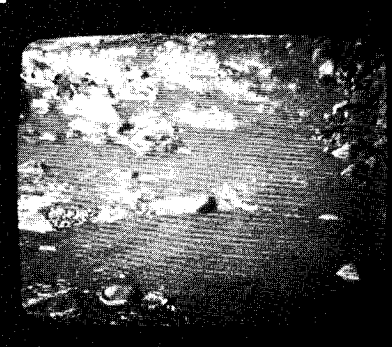
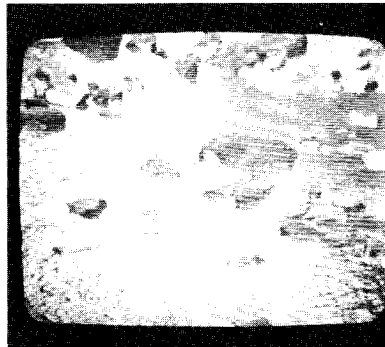
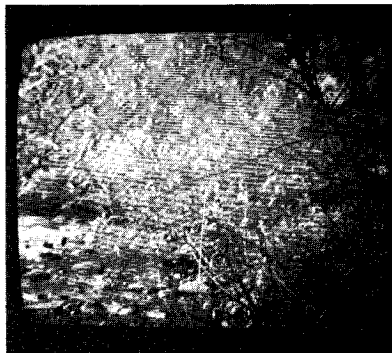
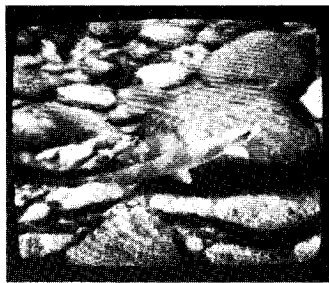
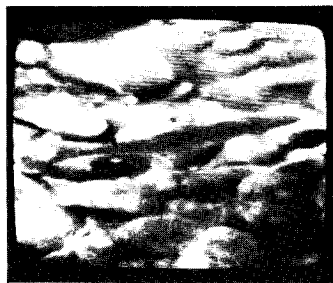




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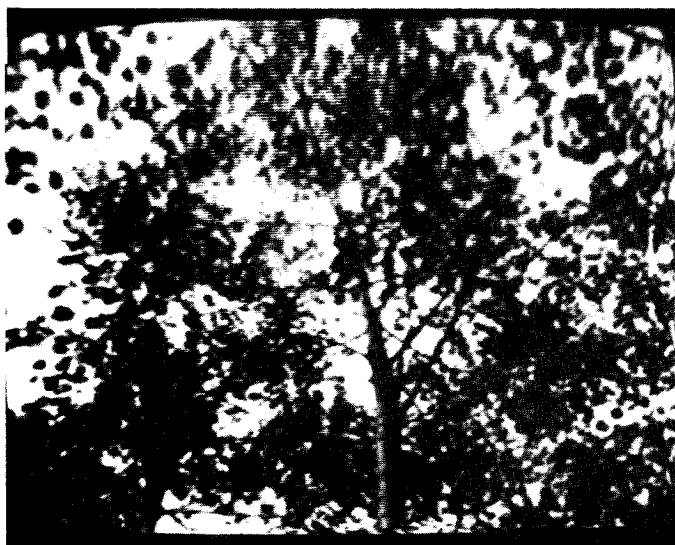
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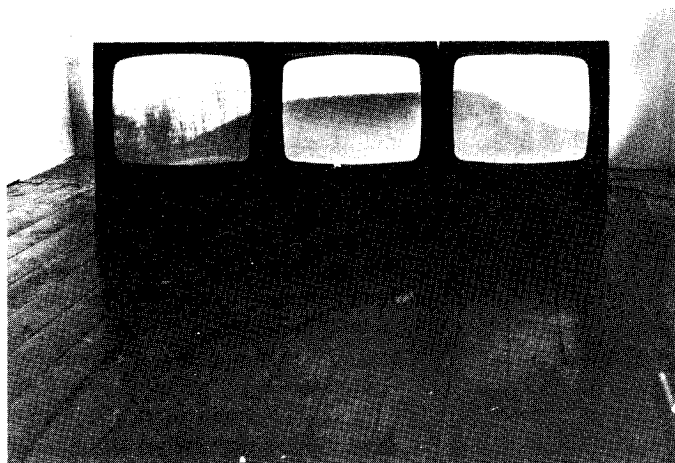


THE VIDEO WINDOW OF DAVIDSON GIGLIOTTI

Russel Connor



Davidson Gigliotti, *Quaking Aspens*, 1973. Courtesy Media-Bus.



Davidson Gigliotti, *Hunter Mountain*, 1973. Courtesy Media-Bus.

Davidson Gigliotti, *Structure of Dry Fly Fishing*, 1974. Courtesy Intermedia.

"Video" to my mind conjures up a hubbub of activity, daring feats, moments of beauty, and happy absurdity. But soon "adult experience" usurps the field to present a rather mysterious, untidy, and occasionally brutal competition called "video art." There are still moments of brilliant individual play, but the pitch of action becomes more frantic. The one mood which neither "video" nor "video art" suggests to me is serenity—until I encountered the work of Davidson Gigliotti.

The measured eloquence of Gigliotti's art owes as much to a family tradition in carpentry as it does to formal art training. In 1962 he abandoned a brief foray into journalism and part-time sculpture to become a professional carpenter. It is a craft which he still studies and practices. Carpentry, he has said, has given him an appreciation of elegant systems.

By 1969 he felt the need to return to art, which, by this time, had drifted away from the familiar constraints of object-making. Attracted by the work of Hans Haacke and other conceptual artists, he reserved his appreciation for art "practiced on a conceptual level" rather than for a particular style of art production. In that year Gigliotti purchased a video portapak as "an ideal vehicle" (though technically flawed) because it came closest to dealing with pure information.

Since then he has been making video tapes as a member of the Videofreex. Videofreex was a name that suited the times and style of the group, which then aspired to produce the sort of alternate television documentaries now being made by TVTV (*Lord of the Universe*). The group's current name, Media Bus, more accurately reflects their present central activity of spreading video literally around the state in a series of training workshops supported by the New York State Council on the Arts, and serving as consultants in video applications to libraries, colleges, museums, and historical associations. They retained their original name as authors of an extremely valuable, no-nonsense handbook, *The Spaghetti City Video Manual* (Praeger, 1973) whose principal author was Parry Teasdale.

Some of the workshops are held at Maple Tree Farm in the Catskills where they have lived and worked since leaving Manhattan in 1971. Thanks to the warm encouragement of his colleagues, Gigliotti has been able to devote most of his time to independent pursuit of personal artistic goals. The path is not always video or identifiable as art; he has made hundreds

of drawings in search of a perfect free-hand circle, taken to the woods for a project involving labeling varieties of trees with their names in Latin and English, and drawn deep satisfaction from a period of planting white oak trees.

The profound peace in Gigliotti's multiple channel video works embraces a perpetually active universe. In *Quaking Aspens* (1973), the leaves of shifting branches ebb and flow in densely textured counterpoint to the movement of the clouds. It was taped in minute-and-a-half segments several times a day for a month with a fixed camera and edited down to twenty minutes. "Ideally, the video image should be like looking out an open window; the sound should be like sound coming in from an open window." As impatient as he is with the primitive resolution of the picture, Gigliotti admits to a paradoxical, romantic attachment to scan lines; his perfectly exposed, precisely focused close-up photographs taken off the tube are fine graphic prints in themselves.

Outside his window at Maple Tree Farm extends a flat section of roof; the surrounding hills present a wide panorama. Gigliotti assembled three video tape recorders and three cameras with long lenses attached to a moveable bar on the roof, and three monitors inside his room with which to check the alignment of the adjoining pictures. The cameras were under-scanned so that he could see the edges of each image in the viewfinder. The public result was a half-hour piece called *Hunter Mountain*, shown at the 1973 Avant-Garde Festival in a baggage car at Grand Central Station.

In Gigliotti's most ambitious work to date, the intelligent window again looks out on nature, but this time the inquiring presence of humanity is strongly implied. It is as if all the lengthy observations of trees, mountains, and clouds, of the habits, whims, and strategies of nature, were a preparation for an examination of the ingenuity of man. *The Structure of Dry-Fly Fishing* (to be shown at the Kitchen in early 1975) considers his central interest—using video as a tool for the study of recurring human conventions, "in art and related areas."

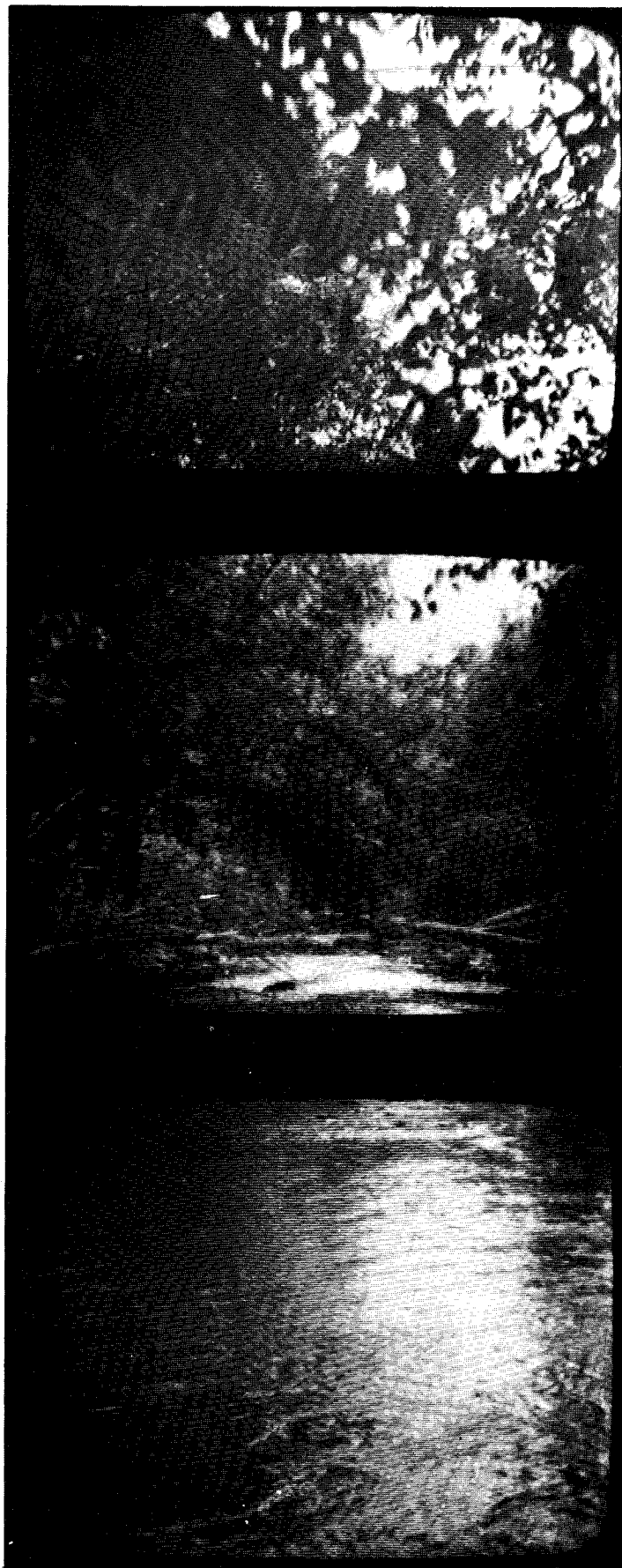
Structure of Dry-Fly Fishing is a complex video artwork on the order of a piece of sculpture. At its most apparent level it is a sixteen channel video landscape piece, composed of several three, four, and six channel elements. The program is twenty-five minutes long. Presented on the screens in information related to trout, the trout environment, the propensity of trout to eat mayflies as they hatch, and other material from which the structure of dry-fly fishing is derived.

Unlike most other fish, trout live close to man. They pay attention to the surface of the water and beyond because a large proportion of their food comes from there. They see the sky, the branches of overhanging trees, bugs that drop into the water, and mayfly duns hatching on the surface. They see humans going up and down the banks. As we developed a body of knowledge about them over the centuries, they too developed a limited body of knowledge about us. It became so that, in clear water, a baited hook was often too clumsy a ruse to override their natural caution. The present day sport of dry-fly fishing arose in response to this situation.

The essence of dry-fly fishing is mayfly imitation. The angler must present to the trout a tiny lure of the appropriate size, made of fur and feathers of the correct color, tied in imitation of a mayfly, usually in flight. It must land on the surface of the water like a newly hatched mayfly, without a splash. It should float with the current naturally, imparting no evidence of being attached to a line.

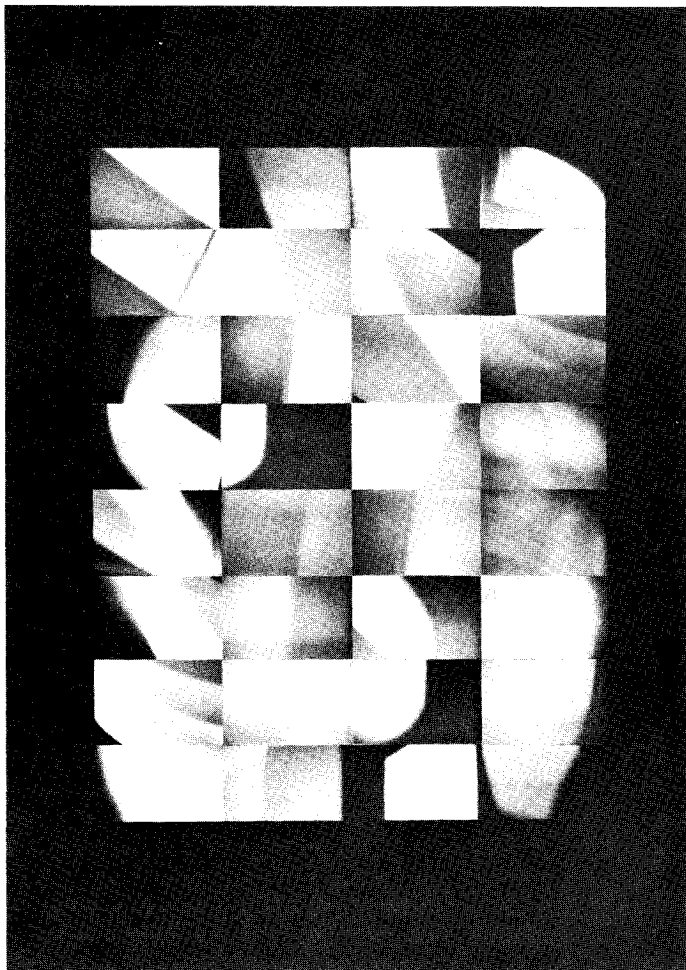
These and other parameters which add up to the rules of the dry-fly fishing system are the results of the observations and conclusions of thousands of anglers over several centuries. The literature of dry-fly fishing is immense.

It is the position of the artist that this elegant system, the



Davidson Gigliotti, *Structure of Dry Fly Fishing*, 1974. Courtesy Intermedia.

product of so many minds, contains within it many important elements relative to the way humans solve certain kinds of problems, and in fact provides important clues to the nature of human mentality. The artist hopes to provide, within the context of the piece, some of the information necessary to carry the viewer through the steps of observation and discovery, and to grant some insight into the dynamics of human structuring.



Victor Sullivan, *Video Lithograph*, 1974.

ELECTRON/ORGANISM

Victor Sullivan

Since the beginning of the eighteenth century the glow of an evacuated discharge tube had puzzled the investigators of electricity, but not until the late nineteenth century did this light between electrodes promise to bring about a revolution not only in physics, but also in communications.

The light—found to disappear in vacuum, color the sides of a glass tube with fluorescence, cast shadows, and even move light objects—was called “cathode rays” by Sir William Crookes in 1876. By 1894 Johnstone Stoney had suggested an alternate name—electrons. Three years later J. J. Thompson removed any doubt concerning some consequences of an electron particle theory by confirming Perrin’s discovery that cathode rays carried a negative charge. By measuring the magnetic deflection of the rays in different gases, he observed that the mass-charge ratio of the particles remained the same and that their mean free path depended only upon the relative density of the transversal medium. He concluded in “Cathode Rays” (*The Philosophical Magazine*, London, 1897) that:

“... we have in the cathode rays matter in a new state, a state in which the subdivision of matter is carried very much further than in the ordinary gaseous state: a state in which all matter . . . is of one and the same kind; this matter being the substance from which all the chemical elements are built up.”

This was the first step toward the discovery of the inner structure of the atom.

In 1905, following both the theory of Thompson and a lead

by Edison, Lee de Forest invented a device that was to provide revolutionary possibilities for the generation of electronic signals. The triode valve or vacuum tube with its two properties, amplification and feedback, was at the same time an observing instrument and a tool, the first fully flexible cybernetic device to operate on information rather than on power. Perhaps the most characteristic product of twentieth-century technology, it gave us radio, television, and ushered in the age of the computer.

Revolutionized by de Forest’s vacuum tube and brought into its present solid state era by the 1948 transistor of Brattain, Bardeen, and Shockley, electronic communication by the turn of the century may be developed into a primarily laser technology. But for the immediate future we can expect inexpensive home video systems and battery-operated receivers, direct broadcasts from satellites, conference television, rapid transmission and reception of facsimiles, and Picturephones. There will be an increase of home education by video and programmed learning, and television could become three-dimensional.

This revolution in communications technology has had its aesthetic parallels. In emphasizing the consecutive relation of input-output, a definite past-future order, communications technology has placed itself in the Bergsonian irreversible duration of evolution and organism, in a world in which there is always something new, the world in which we communicate. Though some may recognize a schism between technological and aesthetic forces, electronic communications has become the backbone of an electographic art.

Making a distinction between technological instrumental values and nontechnological expressive ones is less useful, perhaps, than the recognition that different aesthetic values attach themselves to different technologies. Technological change may not lead immediately to the production of great or even good art, but once it has become pervasively part of the social structure, it sets the condition for the emergence of new aesthetic values. Not only is the thought of every age reflected in its technique, the technique of every age is reflected in its thought.

Both Dürer’s and Schongauer’s engravings from the early sixteenth century and the lithographs of Goya, Delacroix, Daumier, Manet, Degas, and Toulouse-Lautrec from the nineteenth were at once results of technical innovations, devices for social communication, and a means by which the monopoly of art by a small group was broken down. Now we face a parallel revolution, but one even more widespread, involving greater numbers of people and greater numbers of nations. Who will be the electographers of the late twentieth century, and what images will travel a wired earth?

Technology may effect change, but the nature, direction, and magnitude of that change is conditioned and controlled by the prevailing socio-cultural structure and its predilection to adopt new goals or to adapt existing means. Whenever new tools create possibilities for doing new things, or for doing old things in new ways, subgroups within the system must decide whether, to what extent, and in what way they want to be influenced—and restructure themselves accordingly. Electronic communication technologies provide not only a means for expressive innovation but also a challenge to the structural base of art dissemination. When the process of art, its criticism, and some of its products can be transformed into a transmittible signal, who will deliver it and to whom and at what price?

In an emergent post-industrial society, with a well developed capability for electronic communication, perhaps the social structure, guided by functional rationality, and the culture, concerned with self-justification, will create symbiotically, a sensitively attuned, widely distributed electographic art.