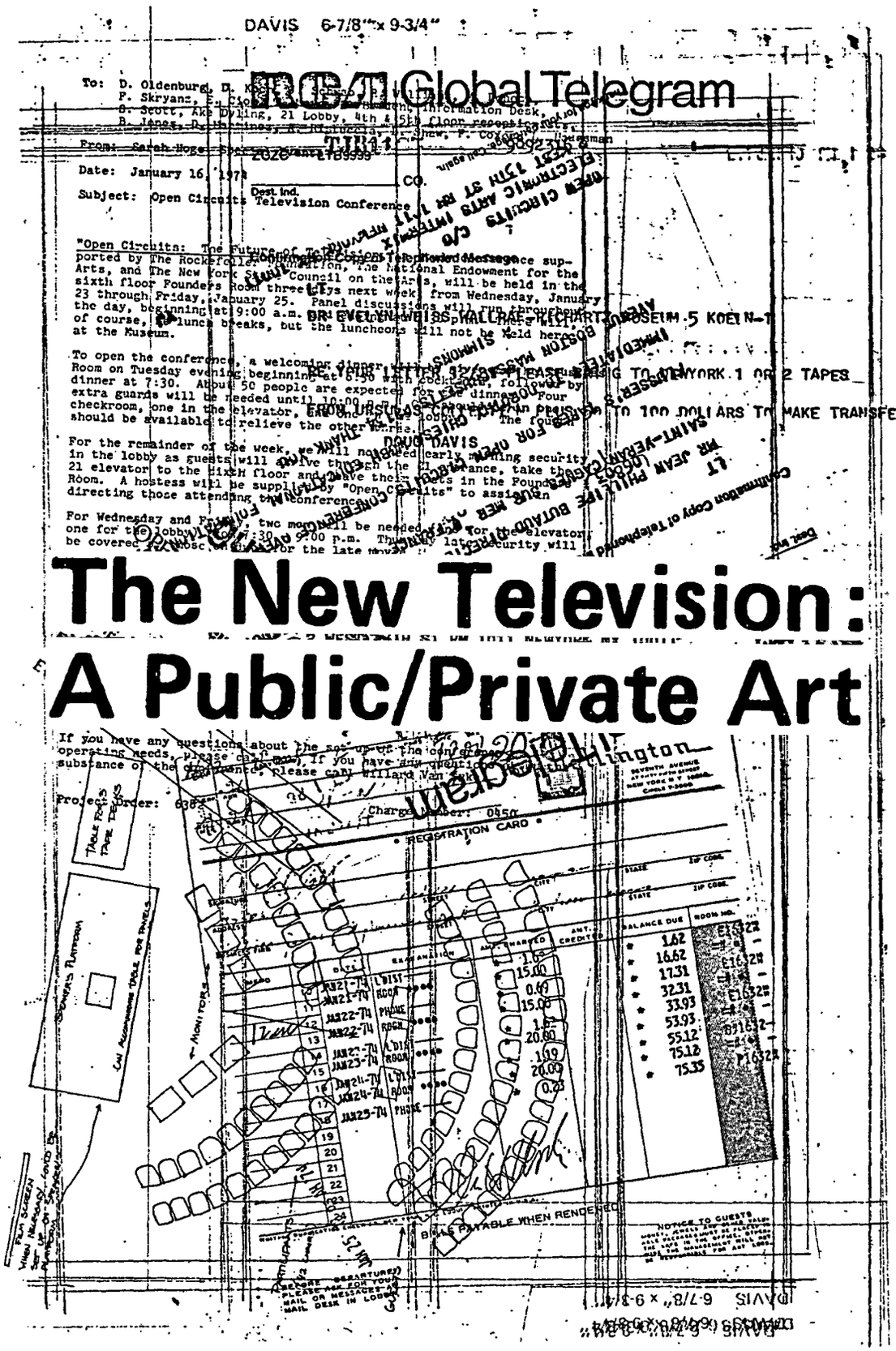

The New Television: A Public/Private Art

Essays, Statements, and Videotapes

Based on "Open Circuits: An International Conference on the Future of Television" Organized by Fred Barzyk, Douglas Davis, Gerald O'Grady, and Willard Van Dyke For the Museum of Modern Art New York City

This book was edited by Douglas Davis and Allison Simmons

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Preface

This book is based on a conference attended by artists, critics, scholars, and television producers at The Museum of Modern Art in New York City in January 1974. Although this volume bears the stamp of that time, it also presents ideas and conclusions about the nature both of television and of contemporary art that seem to us valid for all times and worth further dissemination.

Entitled "Open Circuits: An International Conference on the Future of Television," the conference appeared at a decisive moment in the early development of "alternative" work in the medium.* It had become possible for artists to work on their own with videotape—free from the heavy bureaucratic and financial pressure imposed by television stations—as early as the mid-1960s, when the first low-cost VTR systems appeared on the consumer market. But this work took place in creative isolation. It was not until 1970 that the parameters of a large, international body of activity were visible. It was also then that the established television structure began to open up to artists; critics began to write about the phenomenon; private and public sources of financial support—once scarce—started to multiply. "Open Circuits" responded to this critical combination of events. It fulfilled an obvious need both for an occasion and a catalyst. It brought a stimulating mix of people from around the world to one place, each one involved in his or her way in a redefinition of television—searching in fact for a *new* television, at once more personal and more imaginative in nature. Here they exchanged ideas and often fought over them. The result was anything but smooth and soothing. "Open Circuits" was a provocation, not a pacifier. It sent its participants and its public home in a combative, determined mood, primed with new ideas.

That they acted upon what they saw and heard is proven by the mercurial pace of activity since 1974. Now there are video collections and exhibitions in almost all the major museums of contemporary art in Europe and the United States. Galleries and public workshops involved with video have multiplied, and universities and art schools include video as an expected part of their curricula. The exuberance which informed early work in video (which was largely the result of its potential for political impact) has been controlled and disciplined by a variety of factors, including the motivation of the artists themselves. They have been furthermore joined by other artists in both Europe and the United States. Video is no longer the province of a few pioneers; it is becoming as common as pencil or paint. The Open Circuits conference was thus an event with implications for the future as well as the past.

*The Phrase "Open Circuits" is borrowed—with gratitude—from an early manifesto by Nam June Paik.

For their invaluable assistance with this project from the start, we would like to express our gratitude to several individuals and institutions. The generosity, patience, and personal efforts on our behalf of Howard Wise, through Electronic Arts Intermix, Inc., were crucial. Russell Connor participated effectively in our early planning, as did Howard Klein and Norman Lloyd. We thank The Museum of Modern Art for lending us space and assistance for the conference. Finally, we would like to thank The New York State Council on the Arts, which provided assistance for the project from its planning stages to its conclusion, and The National Endowment for the Arts, The Rockefeller Foundation, The CBS Foundation, and the JDR 3rd Fund, whose generous support made the conference and the compilation of this volume possible.

Fred Barzyk

Douglas Davis

Gerald O'Grady

Willard Van Dyke

Captions and Credits for Illustrations

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Introduction

Television and Art:

A Historical Primer

for an Improbable Alliance

Allison Simmons

The rough, slatted pattern of light and dark on page 1 of this book is an early television image of Felix the Cat, beamed from New York to Kansas in the late 1920s by engineers at the Radio Corporation of America. A papier-mâché model of Felix, already a familiar media image from comics and cartoons, was placed on a turntable and his photoelectrically converted image transmitted to the sixty-line receivers of the first few thousand video enthusiasts. Less than fifty years later, we were receiving similar rough, slatted television images from the moon, images picked up by a lunar camera, transformed into radio signals received on earth, and converted by a computer into a moving picture on millions of TV screens (with more than 500 lines of resolution) around the world.

Even in a society whose economics necessarily align innovation with progress, it is hard to overestimate the significance of this extraordinary leap. Television is, of course, only one of this century's proliferating modes of communication. It is also the most recent in a series of developments, beginning in the nineteenth century with the earliest photography, and later including film, which have initially sought to reproduce virtual images—first static, then moving—through mechanical, chemical, and now electronic processes. However we may evaluate television's specific effects, it has permanently altered the world we live in. The relative dearth of such evaluation is curious, but it is clear that the "global village," insofar as it has been created by international and now extraterrestrial televisual connection, is not the New Atlantis.

As early as the second half of the nineteenth century, inventors in many countries endeavored to transmit pictures by wire. Patent applications for several such devices were submitted in 1880, by Alexander Graham Bell, among others. The method of transmission involved mechanical scanning by rotating discs, converting an image to electrical impulses which could be reconstituted as an image by a similar mechanism at the receiving end. By the 1920s, mechanically scanned pictures were successfully transmitted by radio wave in both the U.S. and Europe. The first electronic scanning device was patented in 1923 by a Russian immigrant, Dr. Vladimir Zworykin. The "iconoscope," as Zworykin called his invention, which employed the Braun cathode tube to transmit moving images, came to the attention of David Sarnoff, of the Radio Corporation of America. RCA joined with a number of other radio companies—General Electric, Philco, Zenith, the Allen B. Dumont Laboratories, and the Farnsworth Company—and intensified efforts to develop television. By 1939 the cathode ray tube (CRT),[1] the basic element in a modern TV set, was perfected. On April 30 of that year, the National Broadcasting Company, an RCA subsidiary, brought television to public awareness by broadcasting the dedication of the RCA Exhibit Building at the World's Fair. Visitors to the Fair could both hear and see Sarnoff on television monitors saying,

> . . . It is with a feeling of humbleness that I come to the moment of announcing the birth in this country of a new art so important in its implications that it is bound to affect all society. It is an art which shines like a torch of hope in a troubled world. It is a creative force which we must learn to utilize for the benefit of all mankind.

These are somewhat ironic words in the light of the subsequent history of broadcast television programming, which began, on a limited basis, ten days after this speech.

> The operational structure of early television derived from radio. The National Broadcasting Company was founded in 1927, and operated the Red and Blue Networks until 1941, when, in the interest of competition, it was forced to sell the Blue Network, which became the American Broadcasting Company. The year 1928 saw the formation of the United Independent Broadcasters' Network, which, under the leadership of William S. Paley, in turn became the Columbia Broadcasting Company. The tremendous success of radio broadcasting made it necessary to regulate the allocation of signal frequencies to prevent interference, copyright violation, and a host of other problems. The Federal Radio Act of 1927 and the Communications Act of 1934 both tried to establish a structure for broadcasting, the latter act pronouncing the vague and unchanged criteria for station licensing as "to serve the public interest, convenience, and necessity." The Communications Act also insisted on protection for broadcasters under the First Amendment and founded the Federal Communications Commission. On April 30, 1941, the FCC authorized the development of commercial television and allocated 18 VHF (very high frequency) channels for this purpose.

Development of TV was slowed by World War II, but advanced rapidly after 1945. The first network, connecting New York, Washington, Philadelphia, and Schenectady, was opened in 1946, and the "Model T" television receiver, with a 10-inch picture tube, became available on the consumer market for $375.00. Government controlled television also began to appear in Europe at about this time. By 1948, however, frequency problems in the U.S. had grown so severe that the FCC declared a freeze on the assignment of all new channels until 1952, when by its Sixth Report and Order, it established twelve VHF channels (Channels 2-13, 54-216 megacycles) and seventy-two UHF (ultra high frequency, 420-890 megacycles) channels (Channels 14-83), with two hundred and fifty-two channels, mostly UHF, reserved for educational programming.

> In the years following the Sixth Report and Order, the power of the major television networks was consolidated. In business, the discovery of television's impact as an advertising medium spurred the nationwide network linkage of cities. At home, the output of the then prevalent 21-inch screen increasingly influenced daily life. Color TV became available in 1955, and by 1963 was widespread. Early studio techniques were invented for altering and enriching the television image.[2] In 1967, after excessive debate, a Public Broadcasting Service was established, funded through government and foundation support and viewer contributions.

In the mid-1960s a gradual but important reversal of direction—toward decentralization—began to affect the structure of television. One factor precipitating this change was the passage of a law in 1964 specifying that all new TV sets incorporate the capacity for both VHF and UHF reception (previously, UHF had required special equipment), and increasing the number of channels reserved for educational programming to 329, thus greatly expanding the viewer's choice. Another factor was the growth of cable television both in the United States and abroad. This system transmits the electrical TV signal directly from its source along a coaxial cable to TV sets in the homes of individual subscribers. The number of channels a cable TV system can offer is a function of its wiring, rather than the number of available and licensed radio frequencies to which over-the-air telecasting is limited. Cable TV first came into use in the late 1940s as a means of improving reception in areas where mountains, high buildings or distance interfered with broadcast signals. Its potential as a carrier of specialized programming began to be realized in the 1960s; a few years later, many of the larger cable television systems in the U.S. were to have the capacity to deliver as many as forty channels of information.

> A third factor contributing to the fragmentation of the original broadcast structure was the emergence of an alternative to the huge, cumbersome, and very expensive broadcast studio equipment on which television had hitherto been made. In 1965, Sony introduced a hand-held camera and portable video tape recorder (VTR) which used ½-inch tape (instead of the 2-inch tape used in broadcast studios). This equipment was relatively inexpensive (from $1,000 to $3,000, between 1965 and 1970), and though primitive by broadcast standards, its black and white video recordings were eminently suited to closed-circuit display. The Portapak provided an invaluable tool to educators, students, businessmen, lawyers, psychiatrists, artists, and others who, with little or no technical training, could suddenly make "personal" television. With the portable VTR, television broke out of the monolithic structure of network broadcasting, which programmed for a mass audience, and offered the means to create programming as heterogeneous as the viewing public.

addition to this diversification in the U.S., the 1960s saw the expan- of television around the globe. Many nations instituted state-con- led public broadcasting systems which varied greatly in quality, and ch (at least in non-Communist countries) frequently included reruns mitations of American TV programming as staples. Communications llites began to transmit data and live news coverage from various s of the world. In accordance with the exploratory spirit of the six- (a spirit which was, for the first time, as much provoked by as re- ed in the media), efforts were undertaken toward the end of the de to develop new forms of television: 10,000-15,000-line CRTs, TV, a 4-foot by 6-foot CRT only 1 foot thick (high resolution pro- on systems with 4-foot by 6-foot screens are presently on the mar- color laser transmission, optical fiber transmission, self-adjusting

monitors, and wall-size plasma screens. Though progress on these projects was slower than enthusiasts had anticipated, the immediate availability of video cassettes and the introduction of video discs, in addition to ¾-inch and 1-inch videotape, provided an increasingly flexible choice of video format.

On a practical level, this turbulent activity has resulted in the television of today, still dominated by network broadcast television, and even in its persistent moves toward diversification, beset with problems of equipment standardization and financial survival. On a theoretical level, however, the effects of television's sudden omnipresence have met with little significant scrutiny beyond statistical and sociological analysis. Marshall McLuhan's importance resides first in the repercussive timeliness of his books, *The Gutenberg Galaxy* (Toronto: University of Toronto Press, – 1962) and *Understanding Media* (New York: McGraw-Hill, 1964). From the 1940s on, a number of books appeared which anticipated or paralleled aspects of McLuhan's thinking on changes in communications technology and their impact on successive cultures. Among these were H. J. Chaytor's *From Script to Print* (Cambridge, England: W. Heffer & Sons, 1945), Milic Capek's *The Philosophical Implications of Contemporary Physics* (Princeton, N.J.: D. Van Nostrand Co., 1963), Siegfried Giedion's *Mechanization Takes Command* (Fair Lawn, N.J.: Oxford University Press, 1948), Harold A. Innis's *The Bias of Communication* (Toronto: University of Toronto Press, 1951) and *Empire and Communications* (London: Oxford University Press, 1950), William Ivins, Jr.'s *Prints and Visual Communication* (London: Routledge and Kegan Paul, 1953), Lewis Mumford's *Technics and Civilization* (New York: Harcourt, Brace & World, 1963), and Abbott Payson Usher's *The History of Mechanical Inventions* (Boston, Beacon Press, 1959). Though McLuhan's *The Mechanical Bride* appeared in 1951, the 1960s provided an ideally receptive audience in disaffected students and others who increasingly questioned the right of various authorities to mold public opinion and private values by failing to make available information other than that affirming an academic or economic *status quo*. Students demanded that college curricula be "relevant"; nothing was more relevant to their lives than the media which modeled them. In conjunction with writings by such authors as those mentioned above, McLuhan's work, which appealed stylistically as well as conceptually to a media-conditioned readership, provided both a stimulus for and a tool with which to begin the formal study of media as an academic discipline.

Concerning television specifically, early speculations on television's effects led to the following familiar conclusions:

- TV has diffused our understanding of past and present. By presenting us with many vivid events at once, television breaks down our sense of history, cuts us off from a sequentially ordered past built on the structure of family and community. (Studies of oral tradition have shown that a shortened memory is one of the earmarks of increasingly urbanized, technological society.)

- TV has fostered an ambivalence between activity and passivity. Television's juxtaposition of banality and real human disaster creates a moral and aesthetic numbness, encouraging passivity, even apathy and manipulability. Yet television is intensely involving and creates a strong sense of active participation. The specific participation TV demands is fantasized identification with a winner or loser in a conflict situation, a game/ritual, whether a war, a Western, a political debate, a soap-opera marriage, or a pro football game. Imaginative participation usually acts as a surrogate for real action, and by stressing external behavior rather than interior reflection, promotes thinking in stereotypes. Generalized good-guy/bad-guy thinking (which is typical of young children) in turn reinforces the viewer's feeling of powerlessness with respect to the present one-way structure of broadcast television, and to industrial and governmental influence over his or her life. One result is indifference, which is a way of "tuning out" the experience of helplessness.

- TV blurs the distinction between the real and the fictitious. The importance of this distinction as affected by television was demonstrated in an experiment in which two groups of children were shown the same videotape of a violent encounter between police and students. One group was told that the tape was just a TV show and wasn't "real," and the other that it was a newsclip of an actual event. When they played together afterward, the first group was peaceful and friendly, but the children in the second group were noticeably agitated and immediately selected aggressive toys, such as guns and tanks. Even as adults, we are not often sufficiently conscious of how a "real" newsclip may distort a real event by selective presentation. It is certain, though, that sheer repetition of a TV message leads to its credibility. The millions of dollars spent on air time by corporations and politicians to expose us repeatedly to a positive "image" of themselves or their products or programs testify to this.

- TV has intertwined the traditional concepts of public and private. Much of the early enthusiasm about TV focussed on the paradox that the private TV viewing experience in one's living room was simultaneously a social event, shared with millions of others. McLuhan's now familiar thesis that the instantaneous, inclusive information and "cool" (low-definition) image of the television medium involved the viewer in completing a communication process which would ultimately result in a "global consciousness." It is ironic that the first generation to have grown up with television, the youth of the sixties, felt itself alienated rather than interconnected with society. In fact, the protests of the

sixties were aimed at the segregating, hierarchical stratification of industry, education, and government, whose inequities technology (and communications technology in particular) had increasingly exposed. But optimism about the cohesive potential of television has been countered with another view: that television is an intensely private, fragmenting medium whose force derives more from the solitary nature of its reception than from any sense of communality it may evoke. The use of television as a medium for personal, mind-to-mind communication is just beginning to be explored.

The relation between our visual perception of the TV image and our understanding of that image has been noted by such eminent art historians as E. H. Gombrich, who wrote in 1972: " . . . It is the limited power of vision that has made television possible: the changing intensities of one luminous dot sweeping across the screen build up the image in our eye."[3] Gombrich's purpose here was to argue against an equation of art with communication, stressing the dependence of the image on code and context for interpretation. It is in the central problem of visual perception that the first connection between art and television lies, since television has exercised such a complex influence on our perceptions generally. But considered in the light of certain important ideas that emerge from the history of art in the twentieth century, the odd appropriateness of this connection becomes more apparent.

Reacting as it did to the *fin-de-siècle* withdrawal and rarified idealism of Symbolism, the Dada movement, started in 1916 in Zurich, was vigorously opposed to the romantic idea of the artist as aloof from society, answerable only to an individual, transcendant vision of "beauty." To the Dadaists it seemed that this view of the artist had its roots in the principle of unbridled striving for supremacy which brought about war, World War I specifically. Dada was emphatically political; it was, in the words of Hugo Ball, " . . . a gladiatorial gesture . . . a public execution of false morality." That "false morality" constituted the values of European bourgeois society, including its attitudes toward art.

This attack on academic tradition, on "good taste," had been recently anticipated in Italian Futurism, and was soon to be advanced by the Constructivists as well. While not so flagrantly iconoclastic as Dada, both Futurism, in its concern with the energy and movement of industrialization, and Constructivism, in its overt support of the Russian Revolution of 1917 and interest in industrial materials and machinery, sought to liberate art from what they considered to be oppressive middle-class, capitalistic conventions.

Duchamp's famous "readymades," products of a mass-production technology, directly flaunted the traditional idea of the unique art object. Just as the Dadaists objected to the romantic notion of the artist, so they disdained the attribution to an object of an idealized beauty beyond everyday reality. The result was that Dada directed attention away from the object itself and toward the viewer's experience of it, which necessarily involved his or her conceptions about art. Meaning was no longer in the "content" of a work (the object itself), but in the perceptions it elicited.

Surrealism, which stemmed from Dada, continued in this direction. By exploring the spontaneous productions of the unconscious, the Surrealists sought to effect a disorientation (*dépaysement*) of objects or images which would provoke, or in Eluard's phrase, "*donner à voir*," the perception of new relationships. The experimentation with media other than the conventional graphic and sculptural materials initiated by Dada and Surrealism was taken up, albeit with differing ideological motivations, by subsequent movements, leading to an investigation of photography, film, sound, light, kinesis, and computers as means of making art. The Bauhaus, for example, instilled craftsmanship through experiments designed to reveal the nature of various media. Though ultimately closer to Constructivism than to anything else in its formal bias, this school specifically encouraged work in film and photography. Indeed, the photographer-painter Laszlo Moholy-Nagy, who taught there, declared that "the illiterate of the future is the man without a camera." Since television (like photography and film before it) provided a new visual language, it was inevitable that artists would attempt to speak through it.

There are no credible factual accounts of the earliest steps taken by artists to work in television, either by telecasting films made with an eye for home TV reception (as opposed to the telecasting of films created as films *per se*), or by actively producing works within the context of television itself. We know that the Hungarian-born artist Nicolas Schoffer (whose basic media are light and kinetics) created a work on film for telecast in France in the mid-1950s, but little more. In Germany, Wolf Vostell—an artist with strong affinities to Dada—composed a happening ("Ereignisse für Millionen") dedicated to television. More important, he assembled a group of broken, mistuned, paint-daubed, and even gunshot TV sets which were exhibited in 1959 in Cologne and four years later at the Smolin Gallery In New York. In 1963, Nam June Paik, a Korean composer also working in Cologne, displayed thirteen TV sets with variously distorted images, entitled "Electronic TV," in conjunction with an experimental music exposition at the Galerie Parnass. Subsequently, Paik acquired in 1965 what was probably the first portable videotape recorder available in New York, and on October 4 made a taxi ride videotape of Pope John's visit to the city which he showed that night at the Cafe Au Go-Go. A statement he distributed at the time predicted that "as collage technique replaced oil paint, the cathode ray tube will replace the canvas."

Paik had become interested in television after 1958, when he traveled to Cologne to work in the electronic music studio directed by Karlheinz Stockhausen, where John Cage was also then working. Paik's early TV experiments stemmed partially from the influence of Cage, but also from an acute sense of the significance of new technological developments: laser, cable, and microwave TV; videophones, video discs and cassettes. He was not alone. The mid-1960s were characterized by an increasing awareness throughout the western art world of the impact, significance, and potential of contemporary media. In Britain, a group of artists associated with the Institute of Contemporary Art, most notably Richard Hamilton and Eduardo Paolozzi, veered sharply away from conservative British aesthetics by incorporating images from popular culture—products of machine or media—in collages and sculpture. Enthusiasm for Pop in Britain, critically supported by Lawrence Alloway, was resoundingly echoed across the Atlantic in the U.S., which offered abundant resources for an art centrally concerned with the effects and underpinnings of mass culture.

In Germany, the ZERO group—originally organized to exploit media like light and sound—evidenced a growing interest in television. In 1968, Otto Piene, its leading figure, collaborated with an American, Aldo Tambellini, in creating a live, on-the-air telecast over WDR, the central TV station in Germany, entitled "Black Gate Cologne." One of the spectators was a young German art dealer, Gerry Schum, who shortly thereafter opened the first "gallery" devoted exclusively to the exhibition of films and videotapes, The Television Gallery, in Düsseldorf.

In the United States, Paik's interest in videotape was shared by a number of artists who found the camera and portable recording deck—as well as the TV set itself—inviting tools for work oriented in many different directions, from street documentation to the recording of performances to the use of the videotape itself as the performance (or "canvas") of the work. Crude "video synthesizers" were invented by engineer-artists, allowing virtually anyone to manipulate dials and create colorful, radiant abstractions for display on nearby TV monitors. Monitors themselves were altered, painted, stacked, arranged, or assembled as see-yourself sculpture (with cameras installed inside them). Now and again, primitive telecasts of this work were managed in friendly public and commercial television stations. The artists included Paik, of course; Vito Acconci, Stephen Beck, Peter Campus, David Cort, Douglas Davis, Frank Gillette, Les Levine, Douglas Michels, Bruce Nauman, John Reilly, Ira Schneider, James Seawright, Michael Shamberg, Eric Siegel, Keith Sonnier, Rudi Stern, Thomas Tadlock, Aldo Tambellini, Stan Vanderbeek, and Andy Warhol.

Much of this work was exhibited in four early, ground-breaking exhibitions. "TV as a Creative Medium," organized at the Howard Wise Gallery in New York in 1969, was the first in the United States. It was quickly followed by "Vision and Television," in early 1970, an ambitious exhibition at the Rose Art Museum (a part of Brandeis University, in Waltham, Massachusetts), curated by Russell Connor, who later joined the New York State Council on the Arts as director of its pioneering Film-TV-Media Division. One year later, in 1971, the Finch College Museum of Contemporary Art in New York invited ten artists to create tapes in its museum (with equipment rented for the occasion), which were transformed into an exhibition for the month following. Later that year, the Whitney Museum of American Art hosted "A Special Videotape Show," a month-long anthology of tapes dating back to Paik's first experiments. Several galleries were also active in encouraging and displaying videotapes during this period, most notably Leo Castelli.

As often happens, the chance availability of a tool—as well as a nascent market—influenced the basic nature of an art form. The decision made by the Sony Corporation, the world's leading manufacturer of consumer-oriented television products, to concentrate its sales efforts during the 1960s in the United States made "personal television" possible there well before it was possible in Europe and Asia. But although videotapes by American artists could be played back over high-resolution, direct-access cable television systems, as well as in closed-circuit installation, ½-inch videotape could not be successfully transmitted, at first, over the air. Despite its oft-proclaimed desire to disseminate beyond the traditional confines of arts and letters, therefore, video art between 1965 and 1970 was a hermetic organism: the work was displayed in galleries, universities, lofts, tiny video theaters (like the Electronic Kitchen in New York), and written about largely in art magazines or periodicals devised within the movement itself (such as *Radical Software*, edited by Ira Schneider and Beryl Korot, first published in 1970).

For this reason, and because the television industry itself was obviously in need of fresh creative thinking, several charitable foundations began to smooth the route of access for artists to the broadcasting structure. The Rockefeller Foundation's Artist-in-Television program dates back to 1967, when small seed grants were made to Public Broadcasting Stations WGBH in Boston and KQED in San Francisco to subsidize experimental activities that would match artists from the outside with younger members of the producing staff. After a number of experiments with special effects, with collages of abstract imagery and daily events and even a simultaneous broadcast over two radio and two TV channels, WGBH's Fred Barzyk produced in 1969 "The Medium is the Medium." Paik, Piene, Kaprow, Tadlock, Tambellini, and James Seawright all contributed to this program, each exploring a different aspect of the television medium. One year later Barzyk produced an even longer and more complex anthology, "Video Variations," based on experiments with the medium, telecast against the music of the Boston Symphony Orchestra. Eight

Taken in sum, they demonstrate—as does this brief historical paradigm—that the alternative video "movement" was a complex, many-sided phenomenon at the point at which the "Open Circuits" conference convened, early in 1974. What had once been described (by outsiders, not by the critical participants themselves) as a simple-minded attempt to "democratize" the medium had refined at least three main and often conflicting approaches:

1. *Political*—artists directly involved either in the production of documentary videotapes focussed on social issues or in reshaping the broadcasting structure itself, through managing and filling cable and UHF broadcast time
2. *Imagist*—work deeply engaged in new means of creating images, via synthesizer, computer, or a combination of both
3. *Conceptual*—nondocumentary artistic activity directed primarily at videotape as the object-medium, but with major emphasis on concept-idea-performance, rather than the creation of innovative formal images.

These differences of approach—complicated and intersected by structural oppositions as to how experimental video should be shown (on closed-circuit systems in galleries and museums, or at home, over cable or broadcast TV)—come to vivid life at "Open Circuits." They are reflected in this book, and doubtless form the basis for a later synthesis, as some approaches die and others evolve.

"Open Circuits" thus stands both at the end and at the beginning of two energetic spurts of creative and practical activity, in television as well as art. In the broadest sense, it marks an end to innocence. The easy platitudes about a new "global village" and oversimplified optimism about changing television can no longer be sustained. Neither can the conviction that television is "just another new tool," or—more bluntly—"the latest thing," a view held within the traditional sector of art critical opinion. Evelyn Weiss, Curator of Modern Art at the Wallraf-Richartz Museum, describes in this book how her attitudes on this issue changed, during the early 1970s. Many others, witnessing the complexity and energy involved in "Open Circuits," have doubtless transcribed the same cycle. Television is not simply another tool. It is not in fact a tool of any kind, but an incredibly complex system of instant visual communication, eclipsing any other medium preceding it, including printmaking, photography, and film. It is a system which permits the artist everything and denies him (by its immense challenge) everything at once.

is therefore now beginning is a period during which those creating, producing, or thinking about television can begin to work from a solid base in information and experience. It is by no means a period bound to produce succcess, for art (the most obdurately personal area of human activity) and television (the most public, at least in outward organization) have very little in common. That is precisely why their convergence is at once so provocative and inevitable, of course. As we have tried to show in this essay, both art and television have been straining in recent decades against their respective pasts—art to find a larger, public medium in which to act, television to find a smaller, personalized role, akin to print rather than spectacle. It remains to be seen whether either side, by embracing the other, can find itself.

Notes

1 The cathode ray tube (CRT) is a vacuum tube whose inner face (our TV screen) is coated with phosphors. A beam of variably charged electrons (three beams, red, blue, and yellow, in most color tubes) is shot from a "gun" at the rear of the tube, scanning the screen horizontally across each "line of resolution," thirty times per second. This creates the TV image by causing phosphors in different areas to glow with different intensities. The electrical signal which produces the beam of electrons reaches the receiver either through the airwaves, as in broadcast TV, or through direct connection with the source of the signal, by coaxial cable or microwave relay, as in closed-circuit and cable TV. The signal itself is originally produced by a TV camera, which records a picture on its own tube's photo-sensitive surface. The picture's pattern of light and shade is here transformed into a pattern of electrical charges. This pattern is scanned by a "pickup" beam of electrons and converted into a varying current which can be instantly displayed on a monitor, transmitted, or recorded on magnetic tape for immediate or future playback, as with audiotape (but not film).

2 Some of these are:
Keying. In black and white or color, keying allows the imposition of a picture from one camera into that of another. With chroma-key (color keying), the color of one of the electronic color guns is made, in effect, to disappear, creating "holes" in the TV picture wherever that color is picked up by the camera. The picture from a second camera can then be made to appear in the "holes." Keying can also be achieved by wiping or partially matting out the intake from one camera.
Video feedback. This process allows the camera to take its own image in a monitor, and makes possible the creation of an infinite number of abstract images.
De-beaming. By reducing the current required to produce a clear picture, or de-beaming, moving images can be made to leave shadows, which with color can be brilliantly hued.
Switchers and special effects generators. These permit a number of video sources to be mixed or altered, often in a complex manner.
Other visual media are sometimes used to extend television's capabilities. For example, one or several slide or film projectors may be "multiplexed" (fed together) into a television camera. This set-up is called a film chain.

3 "The Visual Image," *Scientific American*, 219 (September 1972), p. 91.

Gregory Battcock

The Sociology of the Set

The first major event in the history of modern visual communication within the immediate Western tradition occurred in ancient Greece. It was a development linked closely to philosophical, political and social change. The development was confined to the field of sculpture and is illustrated primarily by the Archaic Koros and Kore free-standing, stylized figures representing nude men and clothed females.

The development of sculpture in the form of the Koros is important because it indicates an appeal to a new visual attitude -- one that introduced the mechanics of the displacement of space as an intelligible, abstract, yet energetic visual language which coincided with the general cultural ambiance of the period. The Koros was more than a representation of a period -- it actively helped determine the overall identity and content of the culture.

Thus a new medium, represented by the Archaic statue, is born by having been separated from its parent form, i.e. the wall (architecture). The new form is a form precisely because it is a workable exercise in visual and non-visual

What actually happened in ancient Greece is this. Within the area of sophisticated visual communication, investigations into the displacement of space as a workable communicative system led to the movement of sculptures away from the wall. Previously, as we know from our studies of Egyptian culture, large scale works that displaced space were flat against the wall or actually part of the wall (or they were the entire building, walls and all). The development of free-standing sculpture was largely a result of dissatisfaction with the communicative potential of architecture.

communication. (I say "non-visual" concepts. Virtually all significant visual systems illustrate non-visual concepts with visual materials. We are forced to conclude that visual communication is not necessarily visual at all. It does not have to be seen to be read.

In one way or another the origins of all visual forms can be traced to architecture. Yet architecture is perhaps the only one of the fine arts that has not been able to free itself from its own heritage and necessarily remains primitive and impotent to determine its own content. It

because displaced space is not something one can "see.") The Archaic statue employs visual elements, like stone, to illustrate essentially abstract or

alone remains exactly what it appears to be; deception is minimal. Architecture illustrates precisely what it is, and therefore cannot become art. Unlike sculpture, it does not displace space: it encloses it. By moving the statue away from the wall it became possible to perceive the essential non-visual elements -- which have thus been liberated from the tyranny of an architectural heritage. The tyranny of architecture lies in its monumentality and immovability. The new statue entered a realm of movable, transportable and private objectification. It became a vehicle for the transportation of communicative abstractions. Contemporary man and his environment still are adjusting to the effects of this Archaic innovation. One result was that the authority of the architectural enclosure was not subject to provocation.

So, we have identified two major developmental steps in the birth of a new, vital medium. They are the severance of ties with architecture, the mother form, and secondly, the evolution into the realm of the portable.

A relatively new form, painting, was just as successful in separating itself from its tyrannical heritage. Its parentage was, once again, architectural -- fresco and mosaic art. Painting, in the Western tradition, existed and was able to initiate a new communicative scheme when it claimed a back side. Thus ~~the form~~ it liberated itself from dependence upon architectural form. At that point (sometime in the Duecento?) flat pictorial illustration ceased to be a simple, passive idiom within the sphere of architectural decoration, unable to serve the progressive Medieval sensibility. The birth of this new medium features characteristics somewhat similar to the first, and once again coincided with major social and economic revolution.

In Siena and Florence in the Duecento, the moveable painting came into its own. The new surface was not the same as the surface of the fresco or mosaic work because it had its own edges and therefore a back side. Non-portable things don't have backs -- only vital communicative phenomena are portable. The new surface was a portable surface, the new form was an independent object. The painting was thus unique. It was moveable even though it may not necessarily have been moved.

Portability is an essential lineament in the identification of communicative forms; it plays an important part in the distribution of visual communicative energy. All the most vital communicative phenomena are portable. Their origins are generally immoveable forms.

In all visual-non-visual communication two factors are of importance: portability and privacy. One allows for the other. Yet privacy is an anti-social condition. Under certain circumstances, however, it becomes social. Portability is to service, disposability and distribution what privacy is to dignity, sanity and individuality. Active art requires both.

The culmination of painting and sculpture as viable communicative forms coincides with their integration into comtemporary distribution systems, that see art as distribution and thus, transportation. The object that best represents the fusion and defusion of painting and sculpture is the jet airplane -- the typical Boeing 707, 707B, 772 and 747, for example. Or, just as typically, the Douglas D.C. 8, 9 or 10 -- or Caravelle, to name only a few. These objects are designed in much the same way as were the sculpture programs of the typical Gothic cathedrals, or other public medieval systems. However, there are significant differences.

The contemporary design program -- the way the airplane is painted on the outside -- emphasizes the portability of the airplane -- hence the horizontal is stressed as opposed to the vertical. The vertical suggests monumentality while the horizontal is a metaphor for transportation. Trains, buses, cars as well as airplanes bear painted stripes. The stripe is, in effect, a contemporary crucifixion.

At least two airlines no longer paint stripes on their planes--Northeast and Hughes Air West. More will follow. The reason is that people rarely see the airplane they are travelling in anymore. In fact they can hardly see any planes at all at new airports. Their visual importance diminishes. We need a new visual system that will be portable, have both a visible front and a back, that travels through air, that is liberated from architecture and the monumental, that is related to the landscape, and that is of horizontal rather than vertical inclination.

Television is the third of the three major events that have helped shape the visual communicative behavior of man. The first two we mentioned earlier, the Archaic Koros and the Primitive paintings of the Duecento, were created by artists who were vastly different workers from those who claim to be artists today. These were artists who worked within the popular sensibility and imagination; nothing they produced would have ever been called "Pop Art".

The third development occurred, more or less, in America (with the assistance of Japan and Germany, to be sure) in the mid-nineteen sixties. I do not refer to Minimal Art or the stirrings of the Conceptualist schools, though both of these artistic phenomena are, to some extent

result of this major shift in visual programming.

In the mid-nineteen sixties people started moving television sets away from the wall. The implications of this phenomenon, as has already been indicated, are enormous.

The discovery, an almost instinctual one made by a combination of explorers, was probably initiated by the Abstract Expressionist painters, whose chief contribution was to tell us that painting was exhausted as a viable communicative system. Also they added a coup de grâce to the sickness discovery that paintings had a front and back. To the Abstract Expressionists who, for the first time, painted the surface while it was flat on the ground, paintings also had a top and a bottom. This discovery coming head over heels on the realization that paintings have a front and back, suggests that not too much else can be done with the viewable surface, at least for the time being. The conceptualists intently accept this dilemma.

By moving the television set away from the wall, the notion of portability is introduced to television. We were confronted with the transportation of television, a new discipline that opens up an era for visual video communication of importance equal to that of the era of sculptural communication begun in ancient Greece and the innovations in the Duecento in Siena and Florence. It now appears that painting is to cinema what visual-non-visual communication is to video.

By moving the television set away from the wall one moved it away from its mother, architecture, upon which it was dependent though badly nourished, and into the realm of everyday object. The television became thought of as an object like any other and became a more direct manifestation of the person than of his enclosure.

It became a less totalitarian medium, in effect. Also, as a personal object, it became a more private object. The parallel that immediately springs to mind is the development of moveable type printing which allowed for the portable, private book, and the transformation of the information distribution systems of the fifteenth century.

One is also reminded, at this point, of several other contemporary phenomena that seem to contain some of the flexibility of portable television. Clothing such as denim outfits is very important. The decorations -- flags, stars, rainbows and military insignia -- that are sewn on clothes are not a form of jewelry but rather have replaced paintings on one's clothes, thus on one's self. Also some types of furniture, such as file cabinets, come to mind. They can be placed upside down and look the same as when they are rightside up. They don't require the stabilization of architecture for their identification.

Television finally asserted its unique identification as something distinct from architecture and, by extension, that heavily architectural medium, cinema. Long before moving the set away from the wall, we began to prepare our lives for the eventual separation.

Years ago we stopped lining up chairs in front of the set and eating popcorn and other cinematic refreshments marketed for consumption in the home, where they don't belong. Popcorn is a public confection. Instead we have "T.V. Dinners," not "Movie Dinners."

It appears that visual media come into their own when they are set free from architecture and become

transportation, even though they may be a form of still transportation. The tyranny of transportation itself is what we now have to contend with. ~~This is the big problem.~~ Ultimately, when the environment becomes totally portable we will find that transportation will no longer involve movement, it will serve as concept. A major result of all this, and there have been numerous indications that this consequence is already upon us, is a final diminishing of those critical faculties cultivated by the connoisseurs -- the principles of art appreciation. There will be a shift in esthetics from attention toward the art object to attention toward the receiver. The distinctive condition of television sets, setting them apart from Archaic statues and Medieval paintings, is that the sets are not themselves art objects and represent a liberation of the observer from the tyranny of the object. The sets themselves do not possess esthetic (and economic) value in their own right, but only when they are in working order. a television set that doesn't work has no value unless it's fixed. Thus we encounter an art object that exists only as far as its ability to evoke intelligible and reasoned response, without possessing those misleading and distracting factors normally identified in traditional "art" by the dealer, the connoisseur and the esthetician.

The most significant threat to the supremacy of portable television as the visual medium of the modern era is, perhaps, the telephone booth. Its ancestor, the sedan chair, is substantial enough to offer room for speculation. With the portability of the telephone, there is reason to believe that a marriage of television and telephone will offer a new and potentially energetic medium for the artist.

Hollis Frampton

I shall admit at the outset that I am a filmmaker. That is to say that I expound, and attempt to practice, the art of film; and, even, that I have gone so far as to make a number of films. Having admitted that much, I might as well also call the question: what am I doing here? Is it as *amicus curiae* (secretly—hankering after a backseat consummation with my first Portapak) or in the sinister role of *advocatus diaboli* (my trusty Bolex tucked into that same spot where all but filmmakers hide their concupiscence)? I could say, of course, that I have come to "observe" . . . and that would be true.

A few years ago, Jonas Mekas closed a review of a show of videotapes with an aphorism to the effect that film is an art but video is a god. I coupled the remark, somehow, with another, of Ezra Pound's: that he understood religion to be "just one more unsuccessful attempt to popularize art." Recently, though, I have sensed a determination on the part of video artists to get down to the work of inventing their art, and corroborating their faith in good works . . . so that, sensing so much, I find that I am here to admire, as well. And, if I can, to help.

large part of the business at hand is, I take it, to understand hat video *is*. It is a long-standing habit of artists (in the life of he race it might be our most valuable habit) to postulate a resent that is more privileged than the past. Video art, which by now virtually alone in having no past that is shady nough to worry about, joins, on this occasion, in that relentss search for self-definition which has brought film art to its present threshold of intensity and ambition . . . and which, ndeed, I understand to be the most notable trait of the whole ext of modernism, throughout the arts, and in the sciences as well.

Moreover, it is doubly important that we try to say what video is at present, because we posit for it a privileged future. Since the birth of video art from the Jovian backside (I dare not say brow) of that Other Thing called television, I for one have felt, more and more, a pressing need for precise definition of what film art *is*, since I extend to film, as well, the hope of a privileged future.

But we know that what an art is, or what it is to be, is to be seen, rather than said. I turn, then, to the mournful Aristotelian venture of trying to say, of film and video art, not what they are, but what they severally are not, and how, and what, they are like.

The Withering Away of the State of the Art

But again, and yet again, this chimaerical problem of sound rises up to strike us down in our tracks, film and video artist alike, and we cannot forever solve it by annihilating it. Sooner or later, we must embrace the monster, and dance with it.

4. Finally, film and video share, it now seems, an ambition I have heard stated in various idioms, with varying degrees of urgency. It first appears whole, to my knowledge, in a text of Eisenstein dating to 1932, at a time when a similarly utopian project, involving the dissolution of the boundaries between subject and object, *Finnegans Wake*, was in progress. That ambition is nothing less than the mimesis, incarnation, bodying forth of the movement of human consciousness itself.

Now that we have seen how film and video art are similar, how are they like things other than each other?

I think it is clear that the most obvious antecedents of cinematic enterprise, at least in its beginnings, are to be found in painting, an art which, justly losing faith in itself as a technology of illusion, had gradually relinquished its hold on a three-dimensional space that cinema seized once more, for itself, on its first try. The Lumière brothers' passenger train, sailing into the sensorium straight out of the vanishing point of perspective, punctures the frontal picture-plane against which painting had gradually flattened itself during nearly a century. Early accounts of the situation tell us that the image had power to *move* the audience—clean out of the theater—and "instruction" be damned. The video image assumes the frontality that painting has since had continual difficulty in maintaining.

On the other hand, it would seem that video, like music, is not only articulated and expended in time (as film is), but indeed that its whole substance may be referred to in terms of temporality, rhythm, frequency. The video raster itself would seem a kind of metric stencil, *ostinato*, heartbeat. As such, like music, it is susceptible of being quantified, and thus expressed completely in a linear notation. In fact, it is quite commonly so expressed. I do not refer to anything like a musical "score," of course. The notation of video is called tape, and it is perfectly adequate. The film strip of cinema is not a notation, but a physical object which we are encouraged to misinterpret under special circumstances. Video has, and needs, no such artifact.

Finally: how do film and video art differ, in fundamental ways that define the qualities of both?

We might examine first the frame, that is, the dimensionless boundary, that separates both sorts of image from the Everything Else in which that image is a hole.

The film frame is a rectangle, rather anonymous in its proportions, that has been fiddled with recently in the interest of publicizing, so far as I can see, nothing much more interesting than the notion of an unbroken and boundless horizon. The wide screen glorifies, it would seem, frontiers long gone: the landscapes of the American prairies and the Soviet steppes; it is accommodating to the human body only when that body is lying in state. Eisenstein once proposed that the frame be condensed into a "dynamic" square, which is as close to a circle as a rectangle can get, but his arguments failed to prosper.

In any event, cinema inherits its rectangle from Renaissance easel paintings, which tend to behave like the windows in post-and-lintel architecture. The video frame is not a rectangle. It is a degenerate amoeboid shape passing for a rectangle to accommodate the cheap programming of late night movies. The first video image I ever saw, on a little cathode ray tube at the top of a four-foot mastaba, was circular. At least I think I believe that's what I remember I saw.

Things find their true shapes most readily as they look at themselves. Film, looking at itself, as the total machine that is cinema, rephotographs and reprojects its own image, simply reiterates to unmodified infinity its radiant rectangle, asserting with perfect redundancy its edge, or perimeter, which has become for us inhabitants of film culture an icon of the boundary between the known and the unknown, the seen and the unseen, what is present and possible to consciousness and what is absolutely elsewhere and . . . unimaginable.

But let video contemplate itself, and it produces, under endless guises, not identical avatars of its two-dimensional "container," but rather exquisitely *specific* variations upon its own — most typical content. I mean the mandalas of feedback, in whose graphically diagrammed illusion of alternating thrust and withdrawal, most often spiraling ambiguously like a pun of Duchamp, video confirms, finally, a generic eroticism. That eroticism belongs to the photographic cinema as well, through the virtually tactile and kinesthetic illusion of surface and space afforded by an image whose structure seems as fine as that of "nature"; video, encoding the universe on 525 lines precisely, like George Washington's face reduced to a dot-and-dash semaphore on the dollar bill, resorts to other tactics.

And as the feedback mandala confirms the covert circularity, the *centripetal* nature, of the video image, it offers also an obscure suggestion. If the spiral implies a copulative interaction between the image and the seeing mind, it also may become, when love is gone (through that systematic withdrawal of nourishment for the affections that is "television"), a navel—the mortal scar of eroticism past—and thus an *omphalos*, a center, a sucking and spitting vortex into which the whole household is drawn, and within which it is consumed.

If I seem to be verging on superstition, please recall that the images we make are part of our minds; they are living organisms, that carry on our mental lives for us, darkly, whether we pay them any mind or not.

Nonetheless, if video and film ultimately unite in an erotic impulse, a thrust away from *thanatos* and toward life, they diverge in many particulars. For instance:

1. We filmmakers have heard that hysterical video artists say: "We will bury you." In one instance—and it is a very important one—I agree entirely. That instance is the mode we call animation. I have always felt animation, in its assertion of objecthood over illusion, to be an art separate from film, using the photographic cinema as a tool, as cinema uses the means of still photography (24 times every second) as a tool. Film and video typically extend their making processes within a temporality that bears some discoverable likeness to real time; and that simply is not true of the animated film. But I suspect that video will soon afford, if it does not already, the means of fulfilling, in something "like" real time, every serious ambition animation retains. And that, of course, would mean a wonderful saving of time, out of the only life we may reasonably expect to enjoy.

2. For the working artist, film is object as well as illusion. The ribbon of acetate is material, in a way that is particularly susceptible of manipulations akin to those of sculpture. It may be cut and welded, and painted upon, and subjected to every kind of addition and attrition that doesn't too seriously impair its mechanical qualities. Upon that single fact of film's materiality, an edifice has been erected, that of montage, from which all film art measures its aesthetic distances.

In short, film builds upon the straight cut, and the direct collision of images, of "shots," extending a perceptual domain whose most noticeable trait we might call *successiveness.* (In this respect, film resembles history.) But video does not seem to take kindly to the cut. Rather, those inconclusions of video art during which I have come closest to moments of real discovery and *peripeteia* seem most often to exhibit a tropism toward a kind (or many kinds) of metamorphic *simultaneity.* (In this respect, video resembles Ovidian myth.)

So that it strikes me that video art, which must find its own Muse or else struggle under the tyranny of film, as film did for so long under the tyrannies of drama and prose fiction, might best build its strategies of articulation upon an elasticized notion of what I might call—for serious lack of a better term—the lap dissolve.

Here the two arts of film and video separate most distinctly from one another. Film art, supremely at home in deep spaces both visual and aural, has need of intricate invention to depart from the "frontal plane" of temporality—an aspect purporting to be neither imperfective nor perfective, but Absolute. Conversely, video, immanently graphic, polemically anti-illusionist, comes to spatiotemporal equilibrium through a dissolution, a fluidification, of all the segments of that temporal unity we call Eternity, into an uncooked version of Once Upon A Time.

Hence the mythification of the seven o'clock news, and the grand suggestion that the denizens of the talk shows are about to be transformed into persons: one feels, almost, Daphne's thighs encased in laurel bark. Hence also . . . distantly . . . television's deadly charm. Is it a cobra, or is it a mongoose?

3. Sigmund Freud, in *Civilization and Its Discontents*, suggests that civilization depends upon the delay of gratification. I might caricature this to mean that, by denying myself one hundred million lollypops, I'll end up with a steam yacht . . . and go on to envision a perfect civilization entirely devoid of gratification. But every filmmaker must perforce believe in part of this cartoon, since filmmaking involves long delays, during which the work more than once disappears into the dark night of the mind and the laboratory. I remember, on the other hand, the first time I ever used video. I made a piece, a half-hour long, in one continuous take. Then I rewound the .

notation, and saw my work right away. That was three years ago, and to tell the truth some part of my puritanical filmmaker's nature remains appalled to this day. The gratification was so intense and immediate that I felt confused. I thought I might be turning into a barbarian . . . or maybe even a musician.

4. The photographic cinema must be "driven," as synthesizer folk say, from the outside. But video can generate its own forms, internally, like DNA. It is the difference between lost-wax casting and making a baby. The most important consequence of this is that video (again, like music) is susceptible of two approaches: the deliberative and the improvisational. Certain video artists have rationalized the synthesis of their images into closed fields of elements and operations, *raga* and *tala*. It is mildly paradoxical that this work, which seems to me, with respect to the density of its making activity, to correspond to the work of Méliès in film, need produce no record whatsoever, and may suffer itself to remain ephemeral, while the Lumières of video, the improvisational purists of the Portapak, are bound absolutely to the making of tape notations. (I do not doubt that the exterior *experience* of work of either sort may be fully replete.)

5. There is something to be said about video color. One might speak of its disembodied character, its "spirituality," were one inclined. That the spirituality in question is as vulgar as that of the painting from which (I conjecture) it took its bearings, is not surprising. The decade of the sixties saw—or rather, mostly did not see—the early development of the video synthesizer contemporaneously with the hardening of a posture, within painting, that aspired to founding a chasm between color and substance. The photographic cinema, viewing its unstable dyestuffs as modulators of primal Light, mostly stayed at home and tended to its temporal knitting during a crucial period in chromatic thought.

For those who take note of such things, it will eventually become clear that video won out: were it not for the confusing matter of scale (video, after all, is "furniture," and has the protruding status of an object within living space; whereas public painting has gradually assimilated itself to the "heroic" scale of public cinema) video images should rightly have replaced a good deal of painting.

6. If the motion we attribute to the film image is an illusion, nevertheless the serial still frames of cinema are discretely apprehensible entities that may be held in the hand and examined at our leisure. When these frames are projected, they are uniformly interleaved with equal intervals of total darkness, which afford us intermittent moments to think about what we have just seen.

Conversely, the video field is continuous, incessantly growing and decaying before our eyes. Strictly speaking, there is no instant of time during which the video image may properly be said to "exist." Rather, a little like Bishop Berkeley's imaginary tree—falling forever in a real forest—each video frame represents a brief summation within the eye of the beholder.

7. Since the New Stone Age, all the arts have tended, through accident or design, toward a certain fixity in their object. If Romanticism deferred stabilizing the artifact, it nonetheless placed its trust, finally, in a specialized dream of stasis: the "assembly line" of the Industrial Revolution was at first understood as responsive to copious imagination.

If the television assembly line has by now run riot (half a billion people can watch a wedding as consequential as mine or yours) it has also confuted itself in its own malleability. We're all familiar with the parameters of expression: Hue, Saturation, Brightness, Contrast. For the adventurous, there remain the twin deities, Vertical Hold and Horizontal Hold . . . and, for those aspiring to the pinnacles, Fine Tuning. Imagine, if

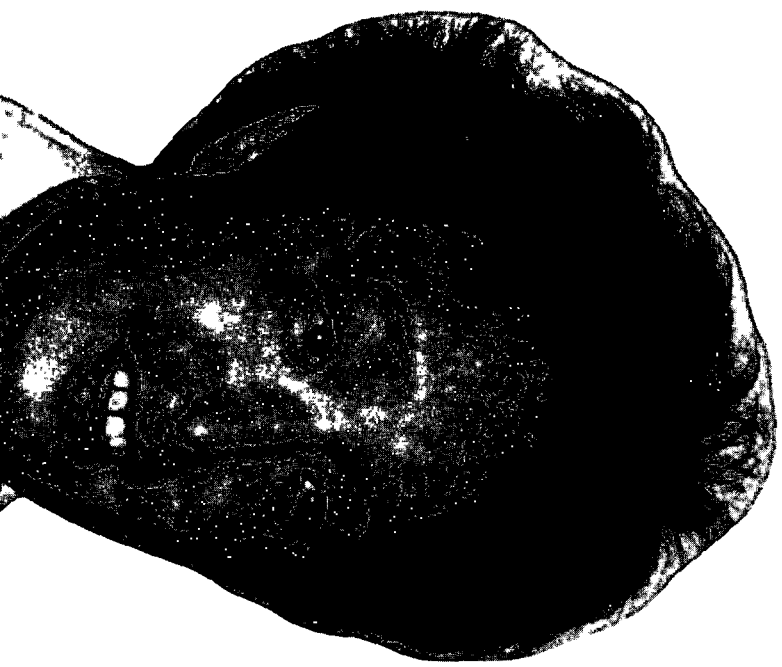
you will, the delicious parallel in painting: a canvas of Kenneth Noland, say, sold with a roll of masking tape and cans of spray paint, just in case the perceiver should care to cool the painting off, or warm it up, or juice it up, or tone it down.

The point is obvious: Everyman has video to suit himself, even to turning it off or on, at minimal expense and effort. I am tempted to see, from one household to the next, an adequation of the broadcast image to the family's several notions of the universe. What a shame it is, we must often suppose, that other people persist in having their furniture so poorly adjusted.

Were we but intelligent enough, we might recognize here a window into the individual mind as unique and valuable as that afforded us by the 21-centimeter radio band into the universe outside our atmosphere.

I would like to close out these conjectures of mine, as suddenly as I can, by embroidering upon an anecdote. It is about an encounter between two fertile artists: Nam June Paik and Stan Brakhage. Both of them have served their visions so long that they have cast aside, in their thought, the withered rubbish (read "hardware") that bears the bitterly ironic rubric "State of the Art." I can imagine Paik showing us video in a handful of dust; and Brakhage striking cinema from flint and steel. Well, anyhow, Paik was showing Brakhage his newest synthesizer, putting it through its paces. I can imagine Brakhage, as he watched Paik elicit from the contraption, at the turn of a wrist, visions of his inner eye that he had labored for twenty years to put on film, feeling tempted by a new and luminous apple. "Now," said Brakhage to Paik, "can it make a *tree*?" I can imagine Paik's ready smile, that seems to come out of innocence, a little slyness, and the pleasure of feeling both ways at once.

"Too young," Paik replied. "Still too young."



Nam June Paik
The Video Synthesizer
And Beyond

1963

The Fetishism of Idea seems to me the main critical criterion in contemporary art.

> Thirteen TV sets suffered thirteen sorts of variation in their video-horizontal-vertical units. I am proud to be able to say that all thirteen sets actually changed their inner circuits. No two sets had the same kind of technical operation. Not one produced only the simple blur which occurs when you turn the vertical and horizontal control button at home.

The waves from various generators, tape recorders, and radios were fed to various points to give different rhythms to each. This rather old-fashioned beauty, which is not essentially combined with a high-frequency technique, was easier for the normal audience to understand, maybe because it had some humanistic aspects.

> There are as many sorts of TV circuits as French cheeses. For instance, some old models of 1952 are capable of certain kinds of variation which new models with automatic frequency control cannot do.

> Maybe one needs ten years to be able to perceive the delicate differences between thirteen different "distortions"(?), as was needed to perceive the delicate differences between many kinds of "noises"(?) in electronic music.[1]

1. Color TV experiments

a. Three tape recorders are added to the convergence circuit, so that the convergence circuit is modulated over the waves from the tape recorders. . . . Any black and white image gets a random color picture.

b. Three TV cameras are fed to each cathode of the red, green, and blue electro-guns of the color picture tube, so that one shadow-mask picture tube shows three different images in three separate colors at one time. The brightness of the three images is controlled by the amplitude of three tape recorders at the reversed phase.

2. Black and white TV experiments

a. The picture is changeable in three ways with hand switches: upside-down, right-left, positive-negative.

b. The screen can become larger and smaller in verticle and horizontal dimensions, separately, according to the amplitude of the tape recorder.

c. Horizontal and vertical deflection of a normal TV is changed into spiral deflection. Any normal square image is varied into a fan form. (A special yoke-oscillator-amplifier is made for this.)

d. There is a TV screen (negative) in matchbox size.

e. The TV picture is "disturbed" by strong demagnetizers, whose place and rhythm give rich variety.

These experiments took place in Tokyo in 1963-1964 with the technical help of Shuya Abe and Mr. Hideo Uchida, whose ability and creativity I cannot emphasize too much. My cooperation with these top engineers broadened and changed my *Lebensanschauung.*[2]

1965

These two projects of experimentation and education are aimed at a third stage—the development of an adapter with dozens of possibilities which anyone could have in his own home, using his increased leisure to transform his TV set from a passive pastime to active creation.[3]

In my videotaped electrovision, not only do you see your picture instantaneously and find out what kind of bad habits you have, but see yourself deformed in twelve ways, which only electronics can do.

• It is historical necessity, if there is necessity in history, that a new decade of electronic television should follow to the past decade of electronic music.

• Variability and Indeterminism are underdeveloped in optical art as parameters. Sex is underdeveloped in music.

• As collage technique replaced oil paint, the cathode ray tube will replace the canvas.

• Someday artists will work with capacitors, resistors, and semiconductors as they work today with brushes, violins, and junk.

Laser Idea No. 3: Because of VVHF of lasers, we will have enough radio stations, Cage-only stations, Mozart-only stations, Bogart-only TV stations, underground-movie-only TV stations, etc., etc., etc.[4]

$$\int_{t\,=\,\text{you}^5}^{\text{me}} (\text{cybernated art})\, dt - \frac{\text{art for cybernated life}}{dx} = \frac{3}{\infty}$$

1966 Newton's physics is the mechanics of power and the unconciliatory two-party system, in which the strong win over the weak. But in the 1920s a German genius put a tiny third party (grid) between these two mighty poles (cathode and anode) in a vacuum tube, thus enabling the weak to win over the strong for the first time in human history. It might be a Buddhistic "third way," but anyway this German invention led to cybernetics, which came into the world in the last war to shoot down German planes from the English sky.

• The Buddhists also say

Karma is samsara

Relationship is metempsychosis

WE ARE IN OPEN CIRCUITS[6]

I. The systematic study of *scanning* in symmetric and asymmetric, geometric and ageometric, deterministic-probabilistic-indeterministic, periodic and aperiodic ways. The main reason for the quick success of my electronic art was that I gave up very early the production of video signals (information quantity: 4 million bits per second), in order to concentrate my efforts on the creation of unusual scanning patterns (very manageable information quantity: 15,000 to 50,000 bits per second). The addition of a third deflection yoke and triple modulation was especially a breakthrough. The quick switching of various deflection patterns (spiral, oval, triangle, etc.) with adequate gate circuits, as in chromatron color TV, will enrich the variability by far. I am confident that the introduction of the computer to this already well-explored area will bring immediate success.

As the first step I will establish many machine-independent subroutines, which may be used by other programmers like twelve-tone rows of raga in Indian music.

a. Subroutines of various basic forms, ranging from geometric to irregular form like bacteria

b. Subroutine of place inside a frame

c. Subroutine of size

d. Division of raster to many fields and their interchangeability

e. Stretch and shrink each field in various directions

f. Subroutine of combination of all five subroutines and the superimposition of realistic images. As human laughter and a dog's bark are superimposed in Vocoder, so Picasso's face is scanned into the face of a yawning cat.[7]

1967
TV will kill *Life* magazine just as *Life* killed *Collier's*.[8]

1968
The use of the "synthetic face" for police identification and cosmetic surgery will enable us to construct any kind of face on a TV screen e.g., a suspect who has the long contour of John Wayne, the melancholy eyes of James Mason plus Chou En-lai, half-bald like Yul Brynner, with an oriental flat nose, but with the sensual mouth of, say, Oscar Wilde and wearing glasses like James Joyce's, and with the sex appeal of Henri Vidal.[9]

1969

"Participation TV" comprises three or four color TV sets which show multicolor echoes, or fog, or clouds which are electronically produced. Sometimes you can see yourself floating in air, dissolving in deep water.[10] The versatile color TV synthesizer will enable us to shape the TV screen canvas: as precisely as Leonardo

as freely as Picasso

as colorfully as Renoir

as profoundly as Mondrian

as violently as Pollack

as lyrically as Jasper Johns.

In the long-range future, such a versatile color synthesizer will become standard equipment like today's Hammond organ or Moog synthesizer in the musical field, but even in the immediate future it will find wide application.[11]

The video synthesizer is the accumulation of my nine years' TV shit (if this holy allusion is allowed), turned into a real-time video piano by the Golden Finger of Shuya Abe, my great mentor. Big TV studios always scare me. Many layers of "machine time" running parallel engulf my identity. It always brings me the anxiety of Norbert Wiener, seeing the delicate yet formidable dichotomy of human time and machine time, a particular contingency of the so-called cybernated age. (I use technology in order to hate it more properly.) . . .

In the heated atmosphere of the TV control room, I yearn for the solitude of a Franz Schubert, humming a new song in the unheated attics in Vienna. . . . Ironically a huge Machine (WGBH, Boston) helped me to create my antimachine machine . . . this is a place to thank beautiful people there . . . Michael Rice, Fred Barzyk, John Folsom, David Atwood, Olivia Tappan, etc. . . . you just never know.

1974 and Beyond . . .

We have had one hundred days of energy crisis. Amongst the Niagara Falls of comments and laments, there have been only two articles, by Peter Goldmark and Douglas Davis, which pointed out the close relationship of transportation and telecommunication.

Travel is one method of communication but not vice versa. Therefore if people could find a new and cheaper and more efficient way to communicate, the necessity to travel, drive, or fly would naturally decrease. Here various broad-band telecommunications methods will come into play. For example, if we connect New York and Los Angeles with a 5-foot diameter pipe (full of cable, which will be replaced later by fiber optics), then a N.Y.-L.A. telephone call will become practically free of charge and color picture phone calls with graphic displays will become as cheap as today's telephone. If we interconnect several cities with conference calls, this will become more efficient than face-to-face communication, because it is almost impossible for several people from different cities to get together, though important decision making often requires this kind of meeting. New forms of video, which are being pioneered by video art, will stimulate the whole society to find a more imaginative way of telecommunication, which leads directly to energy savings.

Where will so-called pleasure driving go? Much of its function will be absorbed by the video synthesizer. Pleasure driving is a form of communicating with oneself. Since very few people have the guts to confront their inner selves, or even to confess to their priests or psychoanalysts, they resort to the automobile . . . a machine.

Yes, the lonely crowd communicates with itself via a machine. This psychological ontology is exactly the same as playing with the video synthesizer, which modulates itself (its image, or abstract, semiabstract pattern controlled by the player) in a thousand different versions. I see students play with the video synthesizer all night and compare the colors of the sunrise with those on the screen. My past experience with artists and art students shows me that some day a video synthesizer in every home will substitute for much of today's frustrated pleasure-driving—a kind of electronic Nirvana, without the consumption of energy and without the hazard of taking drugs.

Notes

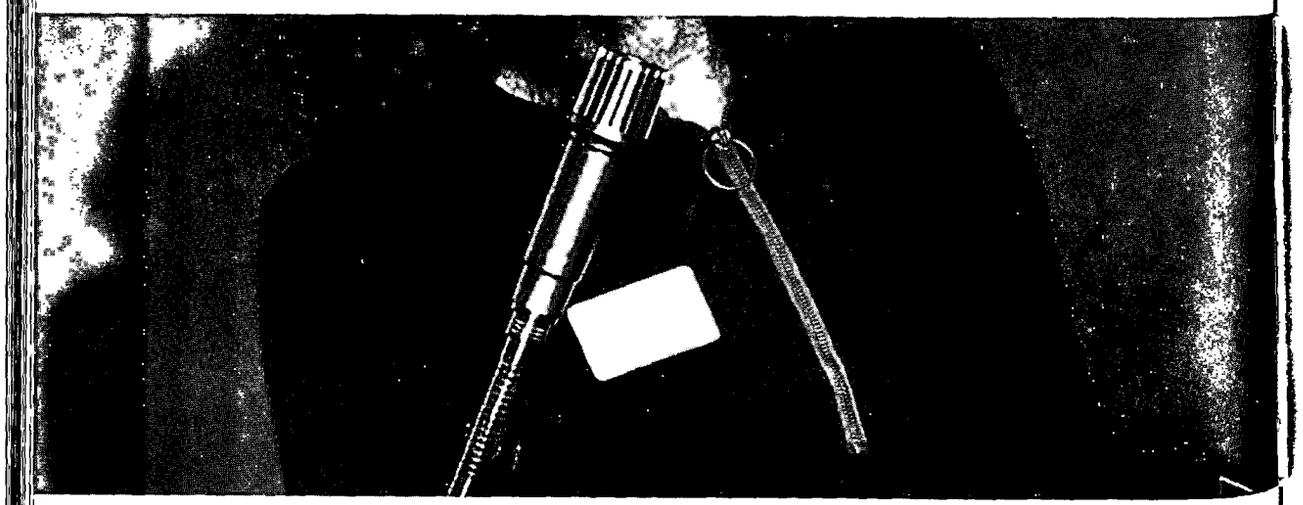
1 *Fluxus* newspaper, June 1964.
2 Invitation to a New School concert. January 1965.
3 Proposal to New School for Social Research, Spring 1965.
4 Invitation to Café Au Gogo, New York City, October 1965.
5 Catalog, Electronic Art, Bonino Gallery, November 1965.
6 Manifesto, Something Else Press, 1966.
7 Proposal to Bell Labs, 1966, published by Fylkingen, Stockholm, 1967.

8 *Westside News*, August 1967, from "Electronic Zen" by Jud Yalkut.
9 Interview by Jud Yalkut, *Arts Magazine*, April 1968.
10 Invitation to "TV as a Creative Medium," Howard Wise Gallery, New York, 1969.
11 Proposal to WGBH-TV, Boston, 1969.
12 *Radical Software*, Summer 1970.

All articles are printed also in *Video 'n' Videology*, ed. Judson Rosebush, Syracuse, N.Y., Everson Museum, 1974.

Video Synthesis

When I was an eight-year-old kid in Chicago, my father gave me a little crystal radio set for my birthday, and that started me off spending a lot of time down in the basement, tinkering with electronic equipment, radios, and television sets. At an early age I had a lot of talent and interest in electronics and electricity as well as music, flow, time. The genesis of the synthesizer goes pretty far back in my mind, and when most other people were occupying themselves with other things, I was in there learning electronics. I used to sketch out TV schematics. I didn't know what I was doing at first, but I knew that sooner or later I would be able to make sense out of the whole thing.



Stephen Beck

Well, the day arrived five or siz years ago. Almost exactly in parallel with Paik's development of the synthesizer, I was working on my own version of electronic graphic arts. I was at the University of Illinois, Urbana, at the time. I was determined to work with electronic imagery. More than anything I was fascinated by the experience of color, with what color could convey, express, like "green with envy," or "red with rage," or "true blue." With this motivation and access to a color television set, I began in 1968 to construct the Number 0 Direct Video Synthesizer.

In 1970 I was fortunate enough to be invited by Bruce Howard to be an artist in residence for a year at the National Center for Experiments in Television in San Francisco. This enabled me to make a big jump from the ideas and designs I evolved, most of which developed in two or three weeks' time and yet took three or

four years of very patient work -- thousands of soldered connections -- before the real thing materialized. In the process I gained the ability to sit down and play images as one can sit at a piano and play music.

In 1972, on Channel 9 in San Francisco, I had an opportunity to bring the synthesizer into the studio, and to perform in a live broadcast, the first of a series of works which involved playing "live" imagery with recorded music. I had the most incredible day -- while I worked, my eyes were constantly on the screen. I've never really watched what my fingers and hands are doing, but for a moment while watching it, I could glance over and see my hands moving around, independent of anything that I was trying to make them do. At the same time, I had a great sensation of penetration or eruption of this imagery into me, through me, through the synthesizer onto the screen. If you play a musical instrument, you can start playing, and become somewhat detached, by yielding to something that's more than yourself, and you can play beautiful music and sounds. You can have that same experience with images.

The whole idea of the synthesizer as I conceive it is that of an electronic sculpting device. The circuit cards are the "works," the inside where it's all happening, hand-crafted. There are between thirty and forty soldered connections which are structured on these circuit cards. These don't make the image per se, but they give me a means of shaping and sculpting and forming the electronic current flow, which, when translated into the video picture, takes on quality and shape and texture and form, movement and color -- the basic visual ingredients I work with.

It's an architecture of its own at this level, and if you were able to stick your head in back here, it might give you some sense of just what the connection is between the technology and the graphics. You see, there are thousands and thousands of individuals responsible for the parts and components which go into making up the synthesizer. So in no way can you think of any one of us synthesist artists as being separated from this tremendous base within the culture itself. I don't really see the problem of a separation between art and technology; you can't have one without the other.

The principle of operating a synthesizer involves connecting circuit cards with patch cords to other circuit cards to establish a relationship between the basic inner ingredients. In other words, video is like food: I've got flour, salt, and honey, the basic ingredients -- but I have a very flexible and open-ended recipe with which to interrelate them. I approached video graphics trying not to come up with an infinity of images but with a very good set of interrelationships between basic image ingredients.

I'm always being asked, "Did you make the synthesizer and then see what kind of imagery it would make, or did you know what kind of imagery you wanted to make with it and then construct the instrument?" This is the way it happened. I had a clear sense of electronics, and in order to model or structure the technological bits and pieces into some workable graphic structure I spent about two years looking at everything I saw from behind the retina, behind the eyeball, from within, and finally arrived at a graphic model on which to base the synthesizer. Any structure is only as useful as you want it to be, and this structure enabled me to build the instrument. I wouldn't swear by it,

but it does represent for me a connection between the vision, the graphics, and the technology.

The quality of movement, dynamics, or shade, as I look at my work right now, is probably the least developed, and I'm trying to focus on this the most. And then extending the plane and surface one more level into that of circular volume and space for perspective.

Another quality I decided on was texture. Texture and form or texture and line are inseparable, and the relationship of these elements comes to bear on the image, but when you build a circuit, that doesn't matter. What does matter is these tangibles and the ability to relate them. Once I had defined them, I was able to build and extend my work with graphics much closer to where my own visions are right now.

Another quality that I've used in my work is video feedback. I think it's one of the most interesting aspects of video, the imagery that results from the television set in a self-meditative state. Input is focused on output, its eye focuses on its vision, and in this meditative state it creates specific graphic imagery.

The role that spiritualism, mysticism, esotericism play in social and political change is crucial. If we don't balance our nature, which contains all things, if we don't constantly keep in touch with all the different sides of our nature, we run the risk of becoming too materialistic or too mystic. This is a problem I am concerned with in my work. If you every look at the back of a dollar bill, you'll see a pyramid and a spiritual eye ready to be placed on it. To me, the pyramid which is on every buck that runs this country is waiting to be combined with the spiritual eye: all the pocketbooks together with the practical achievement and visual knowledge that we've come to so far.

I have spent much of my life making images; and for anybody else to see them, of course, these images must take some physical form, and the physics of any medium defines the characteristics and limits the possible forms. This fascinates me. I've worked in paint, film, and video, and it is the way in which an action you take leaves its mark that seems particularly interesting about each medium; how different tools require different action; how similar actions taken with different tools have different results. A coarse hog's bristle brush is quite different from a soft red sable brush. They make you paint differently. They leave different marks even if you use the same stroke. You may prefer the feel of one over the other or you may like the demands one makes over the other, or you may like the results of one type of stroke or action over the other. You may, in fact, be a sable brush painter as opposed to a bristle brush painter or, on the other hand, you may be a copper plate engraver, or a 16mm sync sound filmmaker, or a 1/2-inch Portapak videotape maker or a 2-inch high-band-color-chroma-keyed-synthesizer-modified-videotape maker. Each has its own feel, its own demands, its own mark. I enjoy discovering for myself what it feels like to be making different kinds of marks with different kinds of tools. I may prefer one medium to another for a period of time or for a certain type of work, but I don't consider one to be superior to another. Just different.

Ed Emshwiller

Not only do the tools make their own marks, but each individual artist is like a different tool. Each person leaves his own mark. Therefore I have central shapes, forms and themes that are my signature and follow me whether in painting or film or video.

In order to begin a work, I always find it useful, in fact necessary, to have one or more concepts or themes to explore. These initial themes or concepts enable me to begin a work and make up a highly flexible base or armature onto which I can add further reflections, intuitive moves, improvisations and responses to the demands of the medium. Though I enjoy doodling, free association, non-structured activities, I find greater satisfaction in discovering a form or finding a pattern and rhythms which can bring focus and intensity to a work. I don't mean that my work need be either literal or emotionally charged, but that in some way its elements should relate to each other through form, affectively and effectively, in a way that doesn't happen in random relationships. The search for this form is, for me, one of the main reasons for making any given work. Each work becomes a process of discovery, a learning experience, and usually the finished product is far removed from the initial impulse.

With that in mind, these are a few of my recollections of the making of some videotapes: I'll start with my first videotape, "Images." I had been invited by Charles Levine to be interviewed (as a filmmaker) and to show examples of my work on cable TV. I had access to the Brooklyn College TV studio if I worked in collaboration with a student producer/director, Dave Davies. It was an opportunity to use a well-equipped color studio, and I wanted to try out as many things as I could. (I was never particularly interested in most Portapak documents of the "real" world. Instead, I've always enjoyed imaginative works or portrayals of subjective states and perceptions. I also like to use visual and aural elements in ways that I haven't done or seen before.) I wanted to do a tape which would incorporate in one continuous half-hour take all Charles Levine's requirements for an interview, plus examples of my film work, pictures of my studio, and a sampling of my painting. Mixed in were live images showing the TV studio and control room where everyone participating in the taping was shown, and where a dancer danced and a biographical story was read. It was to be a self-portrait, a parody of interviews, and a collage of live and recorded images all at the same time. I wanted to include very precise camera actions at times and leave room for considerable improvisation at other times.

The students who served on cameras, audio, and switcher had never done such a complex tape before. We rehearsed part by part, then had a beautiful complete run-through. Then we taped it. This time things didn't go as well as that first rehearsal, but that's what we got, since our allotted time had expired.

The experience of making this tape left me with several impressions. First, I realized that in order to make the kind of tapes I was interested in, I would have to collaborate with a number of people. As a painter I had worked alone and was solely responsible for the painting. As a filmmaker I worked with others, but I still had the feeling of working as an individual even though the work was a collaboration between me and the person or people in front of the camera. In making videotapes which include multiple cameras, VTRs, switchers, and so on, a number of people are needed to help with the technical end. I had to accept the fact that the skills and sensibilities of many people would be used in the shaping of the tapes. For me, video production is analogous in some ways to a musical concert. The videotape maker is like the composer/conductor who is dependent upon the abilities and cooperation of the musicians. Whether they are doing a formal, precise, defined work, or jamming in a freewheeling improvisation, their skills can make or break the work.

Another thing I learned, which I had anticipated but hadn't experienced, was the importance of immediate playback. When we finally got everything together during our one afternoon taping session, we were able to view the work immediately after making it and criticize it then and there. It was like painting, immediately accessible, not like film, with its anxiety until the lab returns a print. But, unfortunately, in this case a second "take" wasn't possible.

One more thing about video that was confirmed for me in making that tape was the extraordinary flexibility one has in combining images and in moving from one image to another. This is very important to me because I like to deal in my work with various states of consciousness, often involving external "reality" and subjective feelings, and it is in the various ways in which images meet one another, as in poetry, that provide many of the "truths" that I find most interesting. In my later tapes, using post-production mixing and editing techniques, I had still greater freedom in fusing and juxtaposing different elements. When I was an action painter I had the experience a number of times of having painted past the point when a painting worked best. I wished that I could go back to an earlier stage, but I couldn't. Both film and video have a great advantage in having total recall in that respect. Unless you have chopped up the original in film, or erased the original tapes, you can reassemble or return to any stage of the work at will, economics permitting. And both media permit, through keying or matting and superimposures, the combining of various original elements in different ways. I often use A, B, and C rolls in filmmaking, but video is better yet in this regard. Not only is it easier to mix and key, but it also holds up well through many generations. (That is, 2-inch high-band color video does. Not so with 1/2-inch color.) When you go through four generations in film, contrast and grain build up excessively. In making a recent tape, "Pilobolus and Joan," at times we went to nine or ten generations with little loss.

Also, in my work in TV I have had access to computers and synthesizers which not only permitted me to combine different images but to transform them, to change their form and color. "Thermogenesis," my first tape using computers, was done with five simple black and white drawings. All movement and color was added by moving various switches, sliders, pots, etc. Of course it took people who knew how to get the various movements through those switches, sliders, and pots. For that I was fortunate to work with Walter Wright, who was accompanied on second computer by Richard Froman.

Image Maker Meets Video, or,

I had great reservations about doing that first computer tape. First of all I had seen a number of computer tapes. They tended either to be pretty variations of Lissajous patterns, stiffly "mechanical" transformations, or flashy zap cute commercials. All have become clichés. I was afraid this might be the range of possibilities and none of them appealed to me very much. Also I was doubtful about how much I could control the pacing, the sensual quality of the movement, since, in this situation, once having made the drawings, the only action I could take was to tell Walter and Richard what kind of movements I wanted, what I wanted to avoid, and the tempo I wanted. In both painting and hand held filming, I enjoy the body satisfaction of physically giving form to the work. To be so far removed from this direct physical participation, as I was with the computers, I was afraid I'd be completely frustrated. Not so, as it turned out.

Amazingly to me, the pots, sliders, and switches responded to manipulation by Walter and Richard like any other instruments. We had real time transformations continuously visible on the monitors. Ideally I would have liked to have the skills to make some of the transformations personally, but the experience was, once again, analogous to a musical performance. Watching the monitors, giving instructions, waving my arms, asking for changes, gave me plenty of sense of direct involvement.

I think the most impressive thing about working with the computers is how much animation can be done in a short time. Animation for "Thermogenesis" was done in one day. To have done it by film would have taken months and months. "Scape Mates" animation took two day's computer time, one day's studio rehearsal time, two day's shooting time, two day's editing time and half a day for putting on the audio track. This does not include the time when I worked on my own in preproduction planning, making the artwork to be animated, making preliminary editing decisions on 1-inch VTRs, and making the sound score. Even so, the total time involved was much shorter than it would have taken in film.

In working on "Thermogenesis" and "Scape Mates," one thing that struck me in a negative way was that the monitors on the two computers were not precisely matched in their adjustments. When we would set up the colors for the background on Richard's computer, I would find those colors different on the monitor at Walter's computer (which was in another room). This dramatized for me a characteristic of video one has to face. The way you see the work when you make it may be very different from the way others will view it simply because monitors or receivers may be adjusted differently. As a painter, I knew that a painting looked different in the north light of a studio than it looked under artificial light in a gallery. At times it was bothersome to know that the character of the work would change if it were hung where the light was of a different temperature from that of the studio where it was painted. As a filmmaker I learned painfully that there are an incredible number of ways the character of a film is changed: variations in film-stock lots, variations in processing, bleaching from printer and projection lights, variations in projection lamp intensity and projected image size, plus differing amounts of ambient light. Video is much worse in that respect. With only four different controls--luminance, contrast, saturation and tint--you can get hundreds of variations. Each monitor or receiver will be set in such a way that only one in a dozen could be called close to the "original." A painter generally expects his work to be seen as he painted it. A filmmaker hopes his will be shown as he intended. A video maker expects it <u>not</u> to be seen as he intended unless he is present and adjusts the monitor

Psyche to Physics and Back

self. Whether you like it or not, the viewer is collaborator in the way the work is shown.

ther problem is the appearance of the horizontal nes of the raster if one is close enough to the een, and still closer, the fixed dot pattern. of these characteristics can be esthetically loited or used as a positive value if one wants but most of the time it is distracting. And coarse pattern makes for poor resolution of tail when one is close. The viewer has a choice; y close and see dots or get back and see a ll screen.

t brings up the whole matter of audience distance the viewing environment. I had been aware of ese problems, of course, but had them brought home t forcefully while working on my most recent deotape, "Pliobolus and Joan." My wife and I laborated on that tape. I was in our living om showing her a rough assembly, when I felt she d missed the point of one scene. It was as if e hadn't seen what I thought was the most impor- nt element. I said "Look at it again." She still n't see what I meant so we ran that part again. ally she moved closer to the monitor, a mere ree feet, moving from nine feet to six feet away m the screen. Then she saw what I was talking out. Obviously viewing distances and screen size important considerations. Moving a dozen rows a movie theater usually doesn't make as much fference as a few feet in front of a TV screen. e small, fairly coarse screen with its fixed sphors is simply not very good for certain btleties, textures and details, Therefore there a pressure to use simple, posterish images. The ose-up talking head is the television image. In is miniature space I often feel that infinity lies out four feet behind the screen. Because scale is eaningful to us, the small size of the screen is ally bothersome in a situation where you're showing rk to a large group of people. I have mixed elings about multiple-screen works. Sometimes they are used in an exciting multiple image and sculptural sense, but other times they just seem to be an effort to take up more space, to create more psychic weight by enveloping the viewer. In situations like that I think a single big screen is better.

Which brings me to thoughts about future developments. I would certainly like to work with higher-resolution, larger-screen video. I would like to have automatic reproduction of color and contrast. I would like more versatile computer-snythesizers and colorizers. I haven't used the CMX editing system, but that and computer assistance in mixing could be very helpful. Most of these developments depend on money. In that regard, I would like to see support for more centers and workshops having sophisticated equipment, especially where there are no union complications. I would like to see lots more artists supported so that they could work in TV and I'd like to see the stations showing their work now and then, because video art is virtually nonexistent on broadcast TV.

Looking further ahead I would like to see and work with a moving, color, holographic 3D image system. Beyond that, one thinks of the age-old science-fiction-like dream of the child-artist-god who brings into being and transforms at will whatever his heart desires. Whether the means be microsurgery combined with world bank computers and telepathy or the genii in Aladdin's lamp, the only limitation would be one's imagination.

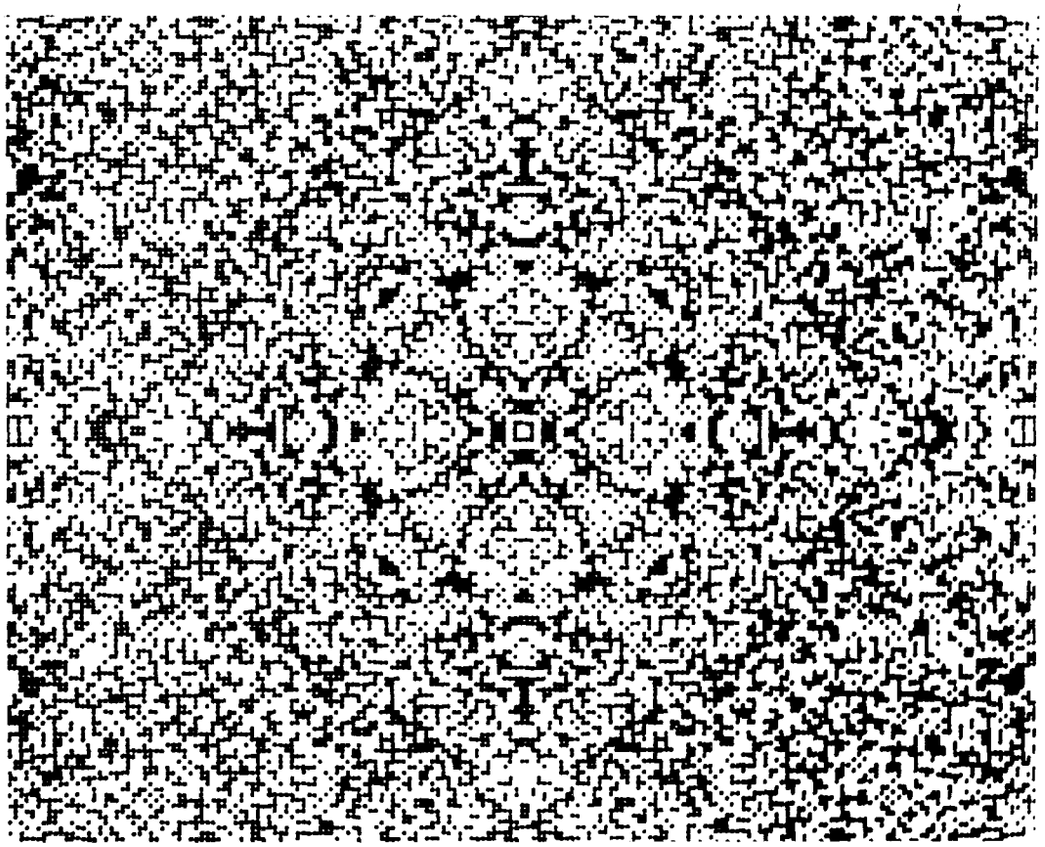
But even with such seeming omnipotence, the basic problems of creating a work would remain: deciding what elements to start with; then responding to their physical manifestation; then adding to or changing or removing elements according to some system of logic or sense of rightness; continuing to explore, modify, correct until through. It will always be a matter of posing problems and solving problems, but a pleasurable struggle no matter what the medium.

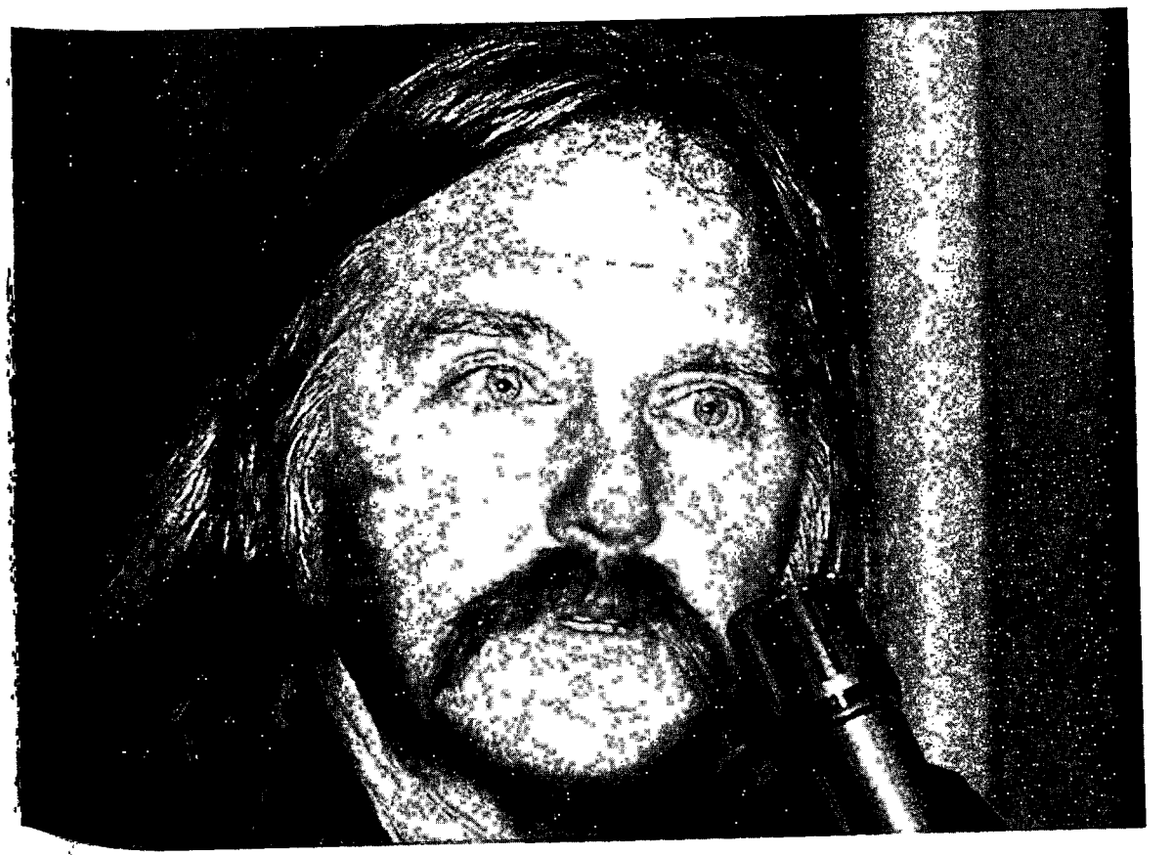
Social Imagistics Stan Vanderbeek

(... or some thoughts about some experiences I have had in video, and some thoughts and experiences I would like to try in video....)

The term social imagistics is a "meta-word" meant to suggest a new social media consciousness. I believe that artists today are seeking a new social aesthetic, on a new social scale of art and communication. This scale is global. My concern with art and media consciousness focuses on individual and group consciousness, simultaneiety and balancing of the senses. A new medium like video has opened new orders of social forms. In America there are more radios than people, more TV sets than bathtubs. In 1973, 500 million people watched Princess Anne's wddding by satellite coverage.
When I say "new scale" it is useful to consider how quickly sociological aesthetics and technology have changed in the past sixty years.

It is inevitable that we will have great art in video and artists-in-video. Consider video at twenty-five years of age in a primitive state. Consider video as a model of the human nervous system, which is also in a primitive state. Consider how little we know about the human nervous system. Most research in dream phenomena, for example, has been undertaken only in the last twenty years. Very few attempts have been made to build facilities for video research and development on a regional or a national scale. One of these, a three-year program called Artists-in-Television, was initiated at WGBH in Boston in 1967.





While I was at WGBH, I produced an hour-and-a-half-long experimental work called "Violence Sonata," which was simulcast two-channel sight and sound with a computerized telephone hookup vote-in system. The work was designed to use the TV studio as a live and prerecorded theater for a small live audience and for a live "telecast." I concluded from this experiment that TV studios are probably the best "new" theater spaces in the country for live theatrical video-media events. The concept was to integrate the home audience in the Boston area with the live audience in the TV studio and for the community to participate in a stylized version of "violence-information-dada-data" presented theatrically in order to try to release the social tension outside in the streets without violence. (At the time, every university in Boston had an average of one bomb scare a day for about a year.) The telephone vote-in technique is worth mentioning as a model for local and national feedback systems.

"Violence Sonata" was divided into three sections: "Man to Man," "Man to Woman," and "man." At the end of each half-hour section the audience at home was asked a question which could be answered with a yes or no. There was a telephone number for each response. Anyone who dialed one of these numbers got a busy signal and hung up, and this way the votes were registered by a computer. (This was done by using the unused switching phone banks of a large insurance company in Boston, closed for the weekend.) A computer answered the calls and high-speed digital equipment calculated the results in seconds. It cost the viewer nothing to make the call, and in a short period of time a large vote was obtained.

Such experiments with local (or national) "feedback"systems could be used to keep the body social in touch with itself. Whenever a TV station offers a phone number encouraging viewers to participate in a program, the circuits are jammed in 15 seconds. The people watching want to join in.

It is possible that the first computer/video interfacing was done in 1974 by Bill Etra with his synthesizer and a computer at the University of South Florida in Tampa, where I was teaching. The circumstances were quite primitive, but they constituted a first step in video-computer interaction. This raises the question of training artists in new media. There is no adequate school or workshop at the moment, even in standard filmmaking, not to mention video synthesis, computer graphics. multimedia, and specialized forms of new technical graphics. So the video artist must invent his own education. I have never taken any formal courses in cinema, video, or computers to keep my work going. I have always found the tools and started working with them. What seems clearly called for are regional and national media research centers to explore several basic sets of ideas: symbol systems, visual-aural perception, information systems, undefined aesthetics, image storage and retrieval, dream theaters.

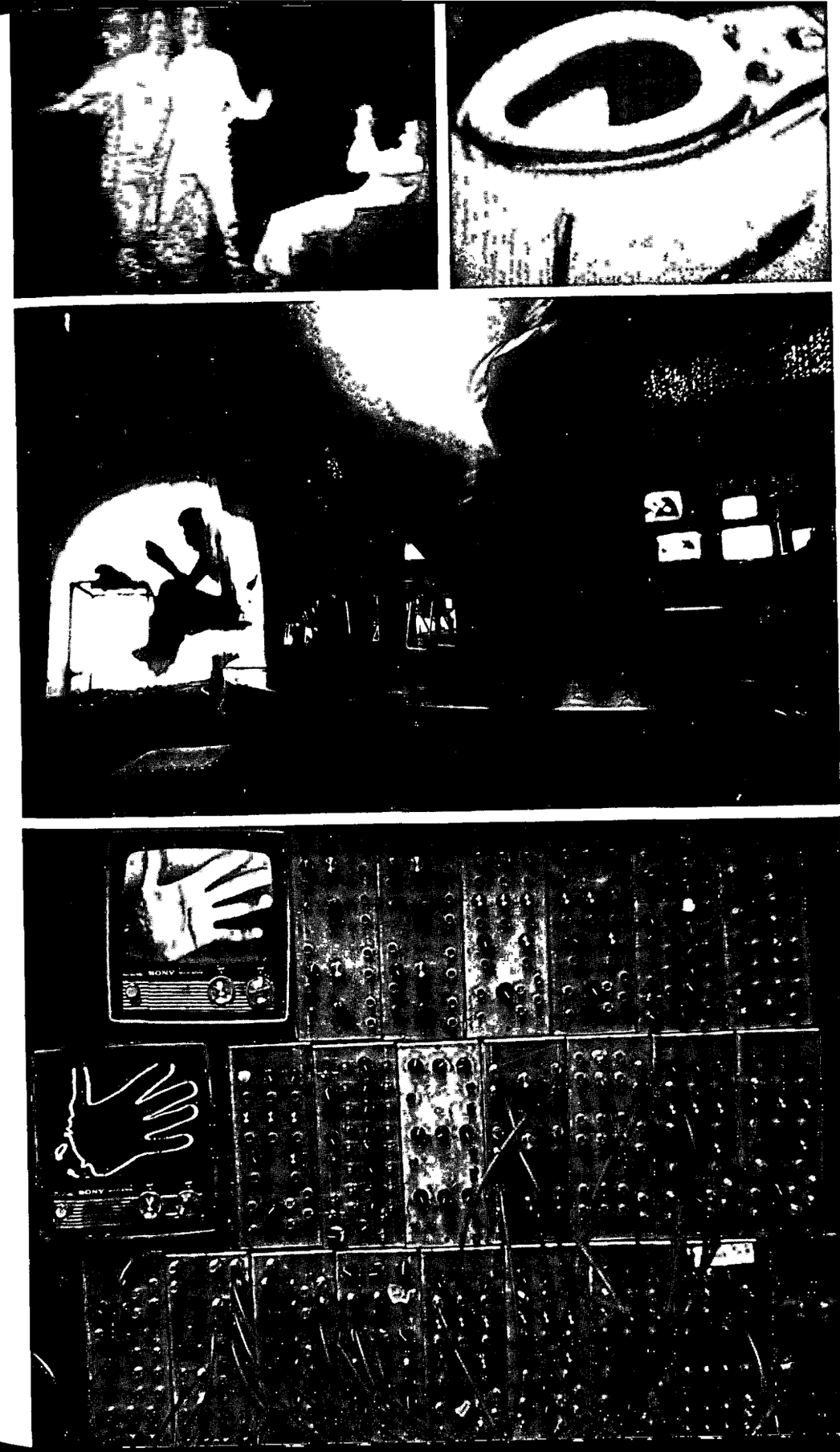
I have been working on two projects. The first is a telecommunications hookup with the CBC in Toronto and their ANIK satellite, and a planetarium in Atlanta, Georgia, part of a test for an ongoing series of exchanges between Canada and the US. The satellite is not in heavy use at this time and has open circuits available, a back door for artists' access. The planetarium theater space is essential for "dream" or "perceptual" theaters, where I am experimenting with endlessly cyclical images. The works are designed to be eight sleep hours long, totally surrounded by sight and sound silence. The audience is encouraged to fall asleep and dream. The eight-hour

version is entitled "Cine Dreams," the four-hour version "Cine Naps." These are antinarrative audiovisual works intended to unify an audience with its unfocused self-consciousness. Low-light-level video and video projections show the audience to itself in near darkness. These works are the start of my work toward a common international dream symbology. I hope that they can be tried in planetariums all around the world. The "Cine Dream" planetarium works are related to broadcast video in that I am convinced that television is a sleeping pill for the average audience.

I am working on a second video project at NET-TV Lab called "Newsreel of Dreams," to explore how images and sounds can be used to induce or make a visual imprint that might appear in the audience's dreams. This is a generic form of cine-image-izing with audience feedback, and I believe this is crucial for a national dream (theater) consciousness. I anticipate a national dream celebration holiday someday. (If I hadn't believed it, I wouldn't have seen it with my own eyes.) Most dreams are video-like mental movies. Most video is dreamlike and surreal.

TV is a manifestation of the inner self and of social mechanics, or society's attempt to find ways to communicate, as well as of the precognitive dream/image. Martin Luther King's TV speech "I have been to the mountain ..." was followed by hundreds of letters from people who had visions and premonitions of his death.

I suggest that TV is an external noo or form of an inner landscape. We could find precognition there, the split differences of cognition coming together in the bio-video-matrix of our future, the art of the future caught in the future of art, talking to us at home from the living room's inner eye.



Video work by imagist artists, and an image processor (full captions on p. xii)

Robert Pincus-Witten

and Frank Gillette

Frank Gillette:

Two ideas have affected my work. One is the lexical--and conceptual--contributions made by a German biologist, Ernst Haeckel. In the 1860s he introduced the idea of ecology as the structure of inter-relationships between any set of organisms and their environment. The second derives from the work of Norbert Wiener and his associates, particularly Arturo Rosenblueth, in the early 1930s. This is cybernetics, essentially a study of a world view that con umes all conceptions of separations between self and environment, of ego and other.

My interest lies in developing ecological systems, or technological contexts which are in fact experientially ecological, in such a way as to demonstrate or manifest these potential conceptions of the world, i.e., those defined by Haeckel and Wiener.

There seems to be an unexpressed fear that videotape invokes, the fear of H.C.E., Here Comes Everybody (Joyce, Finnegans Wake). This fear underlines the point that hierarchy, or value, in art has always been in the direction of inaccessibility; rarity has always been somehow the measure of value. The more rare it was, the more inaccessible the experience, sensation, or technology was, the higher on the hierarchical scale in the total aesthetic scheme. Videotape and the whole phenomenon of decentralization of communications media reverse this trend --this historical continuity--and topple this ingrained hierarchy. Anyone with sensibility enough to achieve access to Portapak equipment can make statements which are directly translatable into satellite signals, data processing systems, and the most Protean of computer networks. The fundamental apprehension for all of us is that this reversal is toppling our conditioned hierarchical perception in which values are established aesthetically, that somehow the natural criterion has reversed itself. The new criterion that is established as such redefines accessibility to a wide swath of media in such a way as to provide H.C.E. with import.

t seems to me that artistic processes, or aesthetic processes, if you ill, have always been processes of isolation. You isolated collected aterial, or ideational material, in such a way as to produce an ntienvironment. What television--or decentralized communications edia--represent is a reversal of that isolative tendency. Television akes possible instead the direction and the composition of processes ua processes, as opposed to isolating objects or static images.

nd this is, in my opinion, the intrinsic revolutionary import of ideotape technology as the medium of an art form. Instead of con-emplating objects, as an aesthetic loop, so to speak, we can now otentially contemplate processes. The real revolution is moving from static image to evolving process. In that move, we are destroying all the arcane, hierarchical conceptual structures that required a quarter of a million years to develop. In two generations, we've oppled their exclusivity.

y personal interest is in developing a body of work which manifests these ideational shifts, composing these new behaviors and processes in such a way that they emerge recognizable and impacted--discrete and describable in their changes--in this movement from image to process.

Robert Pincus-Witten:

My question is directed to Frank Gillette. You spoke of the enormous effect that two types of ecology had on you--a biological historian's and an information theorist's ideas concerning certain kinds of information. The restlt is that you become an apologist for the separatist nature of technology. In some sense, that world vision which animates you as a good person is misplaced in the belief that the medium is going to realize this human desire you have. It's not video which is the solution to the vision as you state the vision; it's the

Crayola bos. It's for everybody and it's cheaper. Video's a terribly cumbersome medium, even if in five years it'll be less so. And it is not a medium to which the humankind of which you are so conscious has access; it's an exceptionally inaccessible medium. So, what I don't understand is the intellectual ellipsis between your presentation as a human being and a world vision which is essentially human, and the absolutely inhuman belief in the excellence of the technology to realize your world view.

Frank Gillette:

It's not the ubiquity of television that makes it accessible. It's the ubiquity plus a redefined world view, that redefines informational process, away from print or universal literacy, toward universal accessibility into those processes which produce information in a new context. That's what I mean by accessibility.

Robert Pincus-Witten:

You see, this is what's disturbing to people who regard themselves as video artists distinct from artists. The hackles rise as soon as the frames of reference, in terms of pictorial structure, are derived, shall we say, from painting. For centuries, painting was described in terms of poetry. Now it is ut pictura video. We see video defined in terms of painting. The aesthetic terminologies are not determined by the technology; they are determined by external issues which are larger than the particular consciousness of the artist functioning vis-a-vis the immediate problems of the technology.

Robert Pincus-Witten Panel Remarks

I was nervous until this moment--not because I'm nervous about speaking publicly but because I feared offending and alienating a group of artists without whose efforts this conference, "Open Circuits," would not have taken place. If we look back at the churning history of Modern Art, we see that, in a certain sense, the "Nine Evenings: Experiments in Art and Technology" held in October 1966, riddled with counter-vailing currents though it may have been, represents, say, the Armory Show of video, film, and performance art. By contrast, "Open Circuits" carries with it an awareness of polemic and epistemic ambitions parallel to the foundation of the Abstract American Artists in 1936, a group like early members of the present video movement, which incorporated much European activity despite its name.

My frustration is with certain assumptions of the founding figures of the video movement, the most dangerous of which, either stated or unstated, is the utopian myth of the Future. Video art--like all "tech-art" as distinct from a set species like painting of sculpture--constantly rationalizes. Its rationale takes the form of believing that its masterworks will be produced in the future: "we are just beginning," "we are just developing the tools." That cry was heard at the World's Fair of 1889 when the Eiffel Tower was built and a new technology of architecture emerged; it was heard in 1900 when, at that World's Fair, light, the motion picture, and the automobile were celebrated as the harbingers of the 20th century. This myth was perpetuated in the very name of the Italian Futurist group whose core premise explicitly rejected the past and implicitly the present, a present which in its very instant of realization had become the past.

The myth was perpetuated for example when Moholy-Nagy, in exile from the Nazis, designed the sets for Korda's Things to Come. The idea stressing futurity as somehow embedded in "tech-art" is stressed again by Doug Davis' recent history of the video movement, Art and the Future. Paradoxically, the reverse is true. "Tech-art," unlike painting, which is devoted to the brush--a tool stabilized for some 30,000 years or more--is devoted to tools that date

Time!Time!Time!The Context of Immediacy

The leading idea which is present in all our researches, and which accompanies every fresh observation, the sound which to the ear of the student of Nature seems continually echoed in every part of her works is— Time!— Time!— Time!

Douglas Davis

What is immediacy? What do we mean when we say that television is "live"? Asked in a cultural context, these are new and provocative questions, occasioned only by a medium invented during our lifetimes. The discussion of contemporary art has never considered them; you will not find the implications of "live" art discussed in any of the standard histories. Clement Greenberg's Art and Culture pays no heed to them, nor should it; neither does an advanced and radical work of theory like Joseph Kosuth's Art after Philosophy, nor any of the essays lately published by the Art-Language Press.

Despite its newness, the issue of "live" television cuts across the entire spectrum of creating and receiving attitudes. Documentary video at its purest often distinguishes itself from film by running on, without editing; recent work in performance art is frequently accompanied by live, unrecorded playback on monitors; my neighbor, who is—impossibly enough—an investigative reporter employed in Jersey City, says that the most memorable event in his lifetime was watching Jack Ruby shoot Lee Harvey Oswald on his television set.

Furthermore, the answers to the questions I posed at the start are grounded deeply within us, and in our cultural past. They are not obvious. I came to them decidedly post-facto, after years of working and thinking. At some point—I can't remember when—I decided to investigate time as a material, in the same way that I once investigated (in "Numbers," 1970) the depth and density of the video image, without preconceptions. But time has kept me longer than the physics of the screen. There is still much to learn. The mysteries of instant transmission are rich mysteries. But I am beginning to understand its inherent authenticity—why, for us, the perception of an event occurring, or appearing to occur, as we watch is intrinsically more meaningful than an event, obviously prerecorded, from an earlier time.

Our reaction to live transmission is not cerebral. Thinking about immediacy, as opposed to creating or reacting in live time, is burdened by the cultural past. It is only recently in the evolution of man that he has begun to understand and deal consciously with dynamic time. When Einstein identified time

as the fourth dimension, he meant that it is impossible for us to describe accurately any element in our universe that does not exist in passing time, as well as in length, breadth, and volume. We live in moving time as the bird lives in the sky. But for generations art has attempted to transcend time. Aristotle claimed the superiority of poetry over history because it deals with the universal rather than the particular. Joshua Reynolds called down all the heavens and the sages in his Discourses ("the general opinion of the enlightened part of mankind," including "the poets, orators, and rhetoricians of antiquity") when he recommended to young painters that they rise above mere imitation of immediate reality to "an ideal beauty, superior to what is found in individual nature." Shakespeare's sonnets, and the rhetoric of Shelley, are filled with praise for poetry because it lasts, while mistresses age and despots wither. It is only in the last second of its existence that Western culture has begun to relinquish its struggle with time, a struggle that had been reinforced in time past by a belief in an eternal universe, existing outside of time and space. Now we know that the universe is in constant molecular flux, that even the outer structure of the universe is oscillating, expanding here, retracting there, and that the universe itself is an event, not a constant, with a beginning and an end. ("Time!—Time!—Time!" wrote a geologist, one hundred years ago, calling it "the leading idea present in all our researches. . . .") Cubism and futurism reflect this new sense of space-time in painting. Jean Tinguely speaks for it in moving sculpture. ("Live in time, with time. . . . Do not try to retain it. Time is movement and cannot be checked. . . . Be movement!") In the late flowering of performance art we see an intense preoccupation with activities that start and end, that are neither preservable nor collectable, because they exist in the four dimensions.

I do not have to remind you that this turn away from the static and vestigial concept of time has received mixed reviews. The critic at large in the fine arts, the arts normally held to be above time, is particularly ill at ease in the presence of the fourth dimension. He does not want art to pass by, fleeting like life; he wants it to stand still, for the delectation of future generations. Jung points out in his introduction to the I Ching

hat Western man has traditionally regarded the present tense s inferior to both the past and the future; his ethic demands lways the pursuit of a goal; the present is not there for itself but as a step toward a later, better time. Jung countered this dea with the concept of synchronicity: what happens to us now is always important, not simply because it happens, but because it triggers a psychic response that is literally beyond rational understanding—in brief, that there are varying but constant points of simultaneity in life, linking what occurs in the world and in our minds.

At this point, I am beginning to define this new instinct, or attitude toward time that I mentioned before. If I am right, this nascent definition also begins to explain our response to television, and to its unique ability to put us in touch with events occurring during the time we watch. When we talk about the differences between film and video, we can point to many qualities, but the main difference, for me, occurs right here. Now I must quote from myself, because I can't describe this division better than I did in a 1972 essay: "Film is always prepared for us, its time telescoped by the making hand. In the theater we inhabit the same time in which the players perform, but we know that the next step, and the step after that, has been predetermined by the playwright. What we have come to call 'live' video links with 'life' in a highly concentrated form; when we are watching 'live' phenomena on the screen we participate in a subtle existentialism. Often it is so subtle that it nears boredom. Yet we stay, participating. The endless moon walk, the endless convention, the endless (in another way) 'American Family.' In all cases, the 'live' dimension kept its audience there, before the small screen, alone, at home, waiting, because it knew that anything might happen next, as in life."*

Video is not life, of course, any more than art is, but the two can come together, in a rhythm synchronized by the dynamic view of time. Not that these ideas were formed in my mind

*"Filmgoing/Videogoing," AFI (American Film Institute) Report (May, 1973) pp. 50-52.

when I began to investigate the process of composing—or videotaping—in live time. Many of us decided very early that video is an instant, continuous recording tool. But most of us did not use this fact as the core strategy of making. I taped, looked at what my camera had recorded, then edited, or distorted the recorded image through consoles and synthesizers. I turned away from these methods, but in anger, not in thought. I wanted to leave the television system as much as possible. Save for rare moments, I hated the pressure and the compromises required by editing in a television control room. I hated even more the tedium of editing on clumsy half-inch decks, the only ones I could afford.

In other words, I didn't feel free—from the politics and the mechanics of editing, from a method that seemed associated with another art and time. What excited me was holding and directing the camera, not fussing over it later. Yet I did not want simply to document reality: that task was being taken care of well by others. I wanted to document another kind of reality, a reality that would be formed and shaped during the time the camera was on, not by sets or dialogue or narration, but by imagery alone, and by what those images suggested to the viewing mind. In other words, to discover an art that would truly exist in and be in time, the time occupied by the tape, and in no other time.

But even this begins to get too philosophical. What really drove me—what still drives me—is the exhiliration of acting in live time. To know that the moment the camera turns on is the moment of record or of broadcast is to experience a heightened reality, to perform at another level. It is quite probably indescribable, because I'm not talking simply about the excitement of going onstage. I mean, I think, what Jung means, that a heightened attention to the possibilities of the moment draws out of us a psychic response that is in tune with that moment. Time and again, I find an image emerging from this process that could not have been planned or edited in leisure. We have discarded "live" television in the past decade in the search for mechanical perfection. For me, live video is a heightened state of working.

I experimented in run-on recording during most of 1971, following, as I said before, many colleagues. But the first sustained work was accomplished late that year and early in 1972. These are the four "Studies in Black and White." The first "Study" was made with a portable hand-held camera. I had determined on the course of action beforehand: to begin outside the gallery in the street, to move slowly through it, focus on the reversed television set playing alone in a darkened room, then retreat slowly backward to where I began. I made this tape three times, on three separate days. The first two attempts failed, because the rhythm of entry and withdrawal were wrong. But I was determined not to edit, to keep performing until the tape recorded what I wanted it to record. This was in no sense rehearsing, each time I went through the work I experienced it in a different, unrepeatable way. I still feel that way, watching the rhythmically "right" version.

The next three tapes in the "Black-White" series were made in one day, at the Egg Store in New York City, a small half-inch video facility. They were made in company with friends, several studio cameras, a small console, camera mixer, and special-effects generator. They make heavy use of vertical and horizontal split-screens, keying and reverse color, and layering of images. But all of these qualities were recorded on the tapes in continuous time; there was no stopping and repeating. The last "Study" makes this even clearer: I sit at a console, learning to use it in front of you, asking questions of my friends and suggesting movements to the cameramen. What you see is what I see, and find, in the same time.

In this "Study," I felt completely at home. It read to me then, and still does, as a living organism growing in front of you and reflecting at the same time unto itself, a layer upon layer of the immediate, a Chinese box in time. I knew when I made it that the result might be interpreted—for good and for bad—as an exercise in virtuosity. But I don't feel that "living" television requires a homemade look. Neither does it require the reverse. I was not practicing or developing a method, or a process. The end of the tapes was, and is, the image. I wanted to act in live time first for myself and finally, completely, for the viewer—because it achieves that end.

The making of "Studies in Color II" is another example. Like "Black-White I," it was made three times. Both of the early tapes were recording perfectly, on a street in lower Manhattan, when pedestrians ducked in front of the camera and waved at the last moment. Both nights this meant packing up the equipment and going home; "Color II" must begin thirty minutes before sunset, so that the image gradually withdraws, with the light, into darkness, and thus is not repeatable on any occasion, once ruined. The last and final work was made at the Television Laboratory, on East 46th Street, in the late spring of 1972. You may recall that at the last minute a dog advances from the rear and barks. At the time I thought he, too, was going to wave at the camera, or worse. Now I see that his appearance there reminds the eye that the image is unfolding on a real street, in the real world—thus preserving it from abstraction, and synchronizing its avenues of attack.

"Studies in Color II" unfolds—in television time—with agonizing slowness, that is, thirty minutes. Yet in human time, thirty minutes is a second. We can barely finish a telephone call, prepare dinner, or make love in 30 minutes. I wanted to bridge the gap between television time and human time, to allow that image to unfold as naturally as I thought it should, as slowly as a bird crossing the sky. TV time corrupts life, politics, and art by speeding it up, brutalizing issues and minds, and, paradoxically, castrating the sense of actual time passing. "Color II' was with the expectation that has been bred into us to expect nothing but swift transitions on a television monitor. So did "Talk-Out!," which took place at WCNY-TV in Syracuse, as an adjunct to an exhibition at the Everson Museum, late in 1972. Our aim was to "broadcast" a museum exhibition in live time to its wider public, and to have a dialogue with that public, responding to what it saw, on the air. From the start, we knew that we needed duration—time for conversation to unfold in depth, time for the viewer to think and respond. Amazingly, WCNY found that time. "Talk-Out!" was broadcast for three and one-half hours, an eon in TV time, comparable only to baseball games, moon walks, and assassinations.

I say again that this does not mean simply making television by my method rather than another. I'm not talking about lengthening programs or giving up editing (which I have begun to do again, with new pleasure). I'm talking about acting in time with buried and primal needs, not in time with the equipment or a stereotyped image of the audience. "Studies in Myself II," which you also saw, is an attempt to learn about myself, on as deep a level as I can manage, in concert with others, with the world. As in "Black-White IV," the process of creation unfolds before you: form, content, and time are one. "The Santa Clara Tapes," seven five-minute repeating loops, made just a few months ago for an exhibition at the De Saisset Museum in California, desert the camera, and through it, the system, even more: the camera is spun around, plunged into a nude model, dangled out of a window, broken against your face. The hands knocking on the screen are not a metaphor. They really want to break free, into a human contact beyond the screen.

In each of these cases, I hope, there is a sense of time passing, the same reality which you occupy as you watch. We have erected elaborate safeguards in the past against that reality, both in art and in life. But in our reaction to live television I think I see the beginnings of a new desire to contact reality im-mediately, to borrow a phrase from Ihab Hassan. This is entirely an attitude of mind, not a technical method. Though video is the source medium, it can express itself beyond video, in film, painting, and theater as well, and has. It is a reversal of values, of what we all, collectively, think important. Immediacy, finally, is in the eye and the mind of the viewer: a heightened awareness brought on by the sense of an authentic presence. The time that passes in that state is irreversible, but it is also irreplaceable. The clock has counted out the time we have just passed through. Finished, it stands as a metaphor for my subject: moving and finite, but now still, at pause, and gone.

Notes on Video as an Artistic Medium

Wulf Herzogenrath

The Three Elements of Video

Because of its electronically produced image, video yields three elements which were simply not available in other media of artistic expression such as painting, photography, theater and film:

1. Instant control of the picture
2. Numerous electronic possibilities
3. Picture playback on monitors

1. To our eyes, reality appears simultaneous with its reproduction -- reality and reflection are juxtaposed. Reality can be drawn directly into the artistic process. This new aspect can be exploited particularly in live closed circuit environments. Nam June Paik's meditation in front of his own image as "Video-Buddha," Bruce Nauman's "Video-Corridor," "Interface" by Peter Campus or Don Graham's room with mirrors and delayed picture playback are excellent examples of such artistic utilization. In day-to-day work with video, the instant control of the recording on the monitor is a decisive new aid which alters the working process itself. In addition, picture and sound are always synchronous without any special personnel or technical help, so that a single person, outfitted with the compact video equipment most in use, can produce a completely finished tape.

2. The electronic possibilities for picture mixing and alteration (distortion or reversal) as well as various kinds of feedback are artistically useful. Colors can be changed and made "synthetically" and forms can be graduated and repeated in unlimited space. Recordings produced with time-delay can be combined with real-time. These possibilities (which are similar to those of electronic music) were extended by Nam June Paik and his friend Abe through construction of the first videosynthesizer and have since been used by many artists in diverse ways (e.g., tapes by Paik, Emshwiller and Beck, among others).

3. The transmission of the video picture is tied to the monitor, the TV set. This small cubical object is more like a sculpture than a projection surface. Its availability as a compact form has not yet been exploited. There are a few expensive projection systems which can produce an enlarged picture. The picture area on the ordinary monitor has a fixed ratio of about three to four, a convex surface, and rounded picture corners. As many monitors as desired may be hooked up to play a single tape, or a few monitors may be arranged in a comparatively small space in rows, blocks or pyramids. This potential for combination can provide form as well as content. In addition, either previously recorded images or live "reality" can be seen in different rooms and combined with still other new pictures. (Examples are Frank Gillette's installation with three tapes and monitors, tapes by Acconci, or Allan Kaprow's closed-circuit project with two families.

Comparison with Film (five film criteria by Siegfried Kracauer)

The new meaning of these three fundamentals of video art is defined by comparison with film. Siegfried Kracauer, one of the most influential film theorists, once demonstrated the special properties of film in a similar manner -- this time, to differentiate film from photography and theater.

1. Representation of physical reality.
2. Editing and mixing.
3. Technical possibilities (slow-motion, superimposition, negative reversal).
4. Portraying discrete movements.
5. Imitation of reality; authenticity.

If we carry these film criteria over to video, it becomes evident that the gap between film and video is just as great as that between theater and film.

As for the first criterion, every videotape is more directly linked than film to physical reality since sound and picture are recorded and played back synchronously. From watching TV and its news and live broadcasts, as well as from firsthand experience with demonstration installations in trade or department stores, everyone is familiar with video technique in registering "authenticity." The quotation marks are necessary since no playback can be authentic -- every playback replays reality according to its own technical possibilities. Thus, reality on the monitor is always a two-dimensional reality converted into electronic signals and reproduced in artificial color, whose picture segment and selection are based on manipulation -- even if such manipulation has fewer opportunities to intrude than in a film composed with various camera settings. Still another aspect of "physical reality" could be interpreted along with Kracauer: the superdimensionality of the film star and his emotions to which the movie goer must respond -- along with an unknown crowd of people, all seated next to each other in the dark. In contrast, the monitor at home, in an exhibition or artist's studio, is always small in size -- it gives its visual information to only a small group of viewers. Here TV and VT are completely equal; this almost intimate form of communication makes it possible to address the viewer personally and provide him with tools for further development of ideas. Again, this authenticity -- whether real or apparent -- could make possible either a greater personal involvement or a greater apathy.

The second special film criterion of Kracauer, editing and mixing, is intentionally avoided by many video artists in order to achieve a higher degree of realism. Mixing with video can also mean the use of several tapes and monitors at the same time. This occurs only in exceptional cases with film (World's Fair panorama and multivision, or Andy Warhol's "Chelsea Girls").

In the third area of technical possibilities video far surpasses film, for the possibilities of electronics mean an almost limitless expansion in which all the means available in film and video can be utilized. In fact, significant films have carried video pictures over onto celluloid since the desired selection of colors and picture distortion could only be realized with the help of video ("2001," "Emerson, Lake and Palmer," and other pop music films).

For portraying movement, the fourth criterion, and for using it as an artistic element as in film, the monitor is too small. In this case it is far surpassed by film. Quick movements, large overall views, panorama, etc., cannot be reproduced in the field of video; it is too intimate a medium.

With the fifth aspect, authenticity, video really comes into its own. Just as film was in certain respects an improvement over theater (as for instance, in the documentary filmed with amateur actors on location), so here video represents a decisive step forward. Films by Andy Warhol ("Empire State Building"), Agnes Varda ("Cleo from Five to Seven") have utilized the possibilities of filming in real time, but they remain exceptions. By contrast, real time and time continuum are basic elements in every video installation which involves the viewer by means of camera and monitor, and play an important role in many tapes.

In order to write about more than just the use of video in general, I would like to introduce three essential areas for the specifically artistic use of video.

1. "Video as mirror:" video as an instrument of recognition, of perception of one's own limitations, reversal of left and right, mirroring and illustration of the reflections of one's own ego, confrontation with oneself. Tapes by Joan Jonas and Peter Campus as well as the time-delay installations of Frank Gillette or Dan Graham belong to this category. This is perhaps most marked in the video-installation "Interface" by Peter Campus: the viewer steps in front of a glass surface on which he sees two lifesize, incorporeal versions of himself. One he recognizes as his mirror image (with the usual left/right reversal), the other is a projection of himself (with left and right as he is seen by others). Several other artists also use video in this sense to deal with perceptual relativity and our conception of time and space. Naturally, there are ties here to Minimal and Conceptual Art, since many video artists active in this area were formerly Hard Edge painters, the results of whose painting and intellectual postulates led them to this form of video installation. It is precisely such irreconcilable questions of identity and tautology which are themes of contemporary art; the Romantic motifs of the double-self, of reality and appearance can here become visual themes.

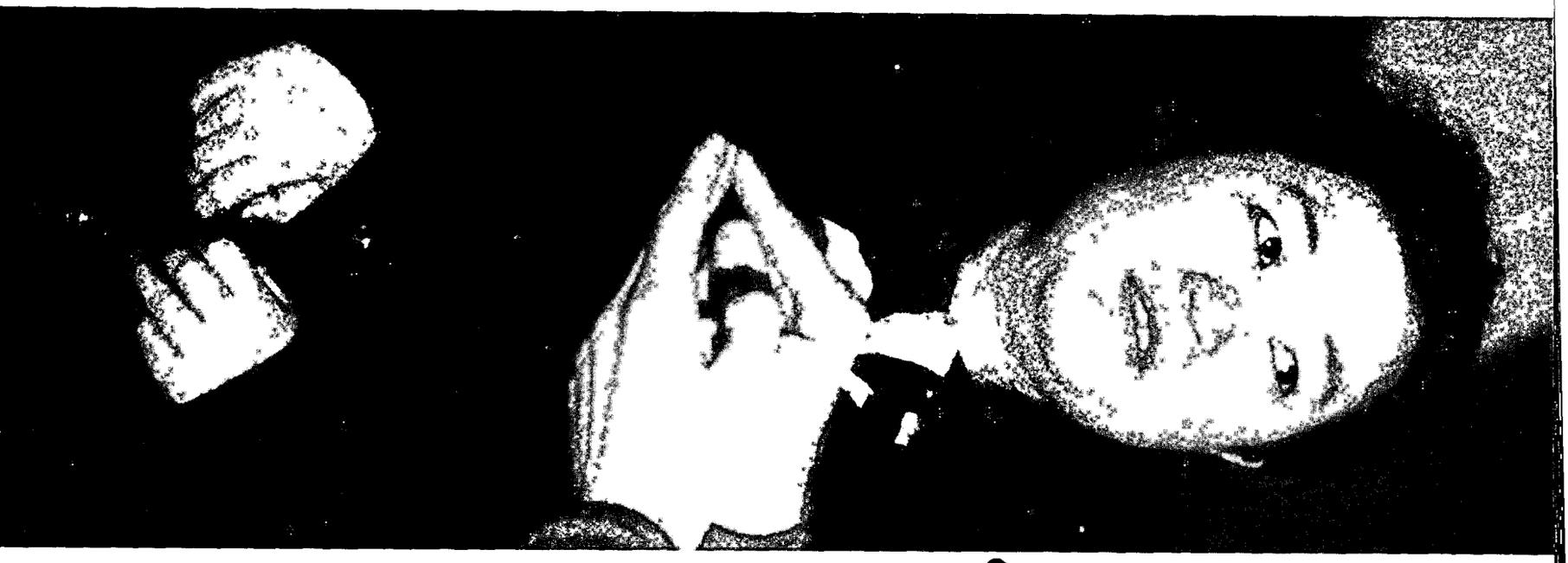
2. Video as documentary medium. Photos (real or invented) and objets trouvés are combined by artists into works which evoke a quality of the subject or owner and thereby become topographies of people, events or memories. In this area video comes closer to reality -- that is, video serves as a record of the event itself -- e.g., a tape by Baldessari in which a person imagines what sort of stories could fit certain banal photos. In addition to technical videotapes which portray an artistic process (which might have been as effectively filmed), there are tapes in this documentary form which could only originate in video. An example would be Knoebel's "X-Projection", one of the most effective video productions of Gerry Schum. In a continuous forty-minute night journey, a floodlight becomes an "X-light" which always appears different according to the object illuminated and its location with respect to the camera (since trees reflect light differently than do walls, streetlamps burn out lightbeams, etc.). The Telethon Group in Los Angeles takes another approach, editing only excerpts from commercial TV, combining beauty contests, political speeches, advertisements, talk shows or sports into new works which are partly nostalgic, partly critical. In exhibitions this group has played their tapes on a TV in a reconstructed typical American livingroom with all the appropriate documentary details. The range of documentary and artistic video thus extends here from "found" collage to more formal material.

3. Video as electronic medium. The electronic image makes possible completely new forms and synthetic colors, picture mixing, alteration and feedback between the picture transmitted and the camera. This especially characteristic property was also present in the very beginning of video's development as an artistic medium. The first decisive steps took place in Cologne. Nam June Paik was a composition student of Karlheinz Stockhausen and learned the fundamentals of electronic music. In the first Fluxus-Actions, Paik and Wolf Vostell altered, distorted and segmented the broadcast TV picture. These actions in galleries and before the art public were the beginnings which Paik pursued vigorously in the U.S. after his arrival in 1965, which resulted in the Paik/Abe synthesizer.

While electronic music has gained considerable advantage over instrumental music in timbre, nuance, rhythm and textural complexity, it must however be asked to what extent electronically produced pictures express something beyond themselves. Perhaps we are still too much in the beginning stage to judge this now -- especially when we are more interested in artistic results than in working methods.

Actually, however, video would have a future not only in scientific, educational and therapeutic fields, but in art as well if Walter Benjamin's thoughts are followed through -- viz., the public will accept an avant-garde film -- since it is aimed at mass reproduction -- sooner than a painting, sculpture or similar artwork which is surrounded by an aura of uniqueness and is available only once. This is where the mass medium of TV can set the pace for the distribution of artistic VT, for video is in itself aimed at reproduction and distribution and in its ideal form of general distribution it unites both authenticity and the representation of reality. At the same time, it meets the "legitimate demand that the individual today has to his own representation" (Walter Benjamin). The distribution of Super-8 films could never fulfill this demand since the result for the individual of its creation, screening technique and degree of verisimilitude is basically distinct from the film shown in a theater which results from ~~the~~ a finely coordinated collaboration between direction, camera- and lightingmen, scriptwriter, actors, editor, producer, etc. This distinction does not exist between public programs and video programs shown on the same TV set inasmuch as the viewer considers the TV picture a reality in which he has a share, which reflects his own problems and desires (even with such screenplays as Orson Welles' American film on the landing of extraterrestrial beings or the German "Millionenspiel" by Wolfgang Menge). This could also explain the unusual success of the exhibition of artistic video installations in the first museum to devote itself to this new art medium, the Everson Museum of Art in Syracuse, New York. With video, the grasping of ideas, involvement in the work, familiarity with some of the technical aspects, and confidence in the relevance of what is to be viewed make difficult problems more easily accessible to the public than the painting, sculpture, or other "object" art formerly denoted by the term avant-garde, whose aura of elite knowledge consciously or unconsciously rendered approach more difficult.

Shigeko Kubota



Women's Video in the U.S. and Japan

Men think: "I think, therefore I am." I, a woman, feel: "I bleed, therefore I am." Recently I've bled ten thousand feet of half-inch tape, every month. Man shoots me every night;...I can't resist. I shoot him back in broad daylight with a vidicon or tivicon, taping in over-exposure. Video is Vengeance and Victory of Vagina. I like video because it is heavy. With a Portapak I travelled all over Europe, Japan, and Navajo territory with no male accompaniment. The Portapak tore down my shoulder, backbone and waist. I felt like a Soviet woman railroad worker.

On these travels I made a videotape entitled "Europe on ½ Inch a Day," a very different view of Europe than that presented in the best-selling traveler's guide book, "Europe on Five Dollars a Day." I made another tape, "An American Family," while living with a Navajo family on a reservation one summer. This too is made from a very different perspective than PBS's "An American Family."

I'd like to talk briefly about a few more tapes which insist upon a different perspective, tapes made by women or focussing on some aspect of the women's movement. Many important early video works made by women were shown at the first Women's Video Festival, held in 1972 at The Kitchen, in the Mercer Arts Center, one of the cradles of video art. The Kitchen went down with the crumbling Broadway Central Hotel one morning in the summer of 1973. I am one of many early video-birds, who fondly recall its openness, its naive but good-humored, non-elitist atmosphere, so rare in New York's career-oriented art world.

The 1972 Women's Video Festival opened with an award-winning short by Steina Vasulka. Close-ups of her mouth, twitching and grimacing in accompaniment to the Beatles' "Let It Be". Somewhere behind its humor and satire I feel a certain "tristesse" which Steina might not like to reveal, but which penetrates into my socks like spring snow.

Also shown was "Lesbian Mothers", by David Sasser and Queer Blue Light Video. This provocative tape documents the lives of several mothers who live communally in a small urban apartment and try to raise their children with pride and dignity, although they are unwed, lesbian and on welfare. Also, Jackie Cassen, who once made a tape of a bar full of men watching baseball while three Americans landed on the moon, showed a tender portrait of a tigerlike lady at the N.Y. Avant-Garde Festival: Charlotte Moorman performance of Yoko Ono's "Cut Piece" (Documenting Charlotte's performance) (the audience comes on to the stage and cuts off the performer's dress),

Jackie Cassen used a few seconds' tape delay to amplify and accentuate the latent feminism of Yoko's work, which was composed in 1963 before the feminist movement's full emergence. "The Rape Tape," by "Under One Roof," showed four courageous young women on camera, describing, in the first person, the horrible experience of being raped, and analyzing the male mentality which rewards this crime with voyeuristic reportage.

Susan Milano, who organized this Festival with Shridhar Bapat, made a tape about an old circus woman, who spent her whole life satisfying male voyeurism by exposing her tattoo covered body -- a miserable example of conditioned womanhood, craving triple exploitation. The Festival concluded with a live video and dance performance by Elsa Tambellini and Judith Scott. Judith danced while a TV camera attached to her body picked up images of the other dancers, the audience, the floor and ceiling; and these images were shown live on monitors, mixed with Elsa's powerful images of working men (e.g. a construction worker with an air hammer or a butcher working with a meat-grinder.

The second annual Women's Video Festival (1973) was enlarged to include 57 artists (and was covered by a woman reporter from the CBS Evening News). Particularly significant at this Festival were tapes by women who had invaded what was hitherto a preserve of male technocracy, and were working with electronic video synthesis. Olivia Tappan, Meyer, Kubota, Vasulka, Klein, Jane Wright, Louise Etra, Doris Chase, and others, created works using various modes of electronic image generation, often combined with music and dance.

Another notable woman now working in video is Shirley Clarke, who has made many successful feature length films, including Connection, Coòl World, and A Portrait of Jason. She selected from the wide range of video techniques only those which cannot be duplicated with film. The

whole penthouse of Hotel Chelsea, three rooms, one terrace, and three roof-top gardens, are interconnected by video and audio to create a series of cybernated toy boxes where artists, architects, environmentalists, psychologists, sociologists, socialists, and doctors can experiment with a new psycho-therapy, a new kind of High Life instead of High Art.

It is important to note that the success of video movement (male and female) is in large part due to the hidden devotion of such woman organizers as Phyllis Gurshuny and Beryl Korot of Radical Software or Dorothy Chiesa and Olivia Tappan of WGBH, Boston, who have worked hard with little material reward.

Two years after the first Women's Video Festival, I planned an exhibition organized by Video Hiroba (the first Japanese video group), "Tokyo-New York Video Express," in Tokyo, in January 1974. The show presented three nights of video: the first night, live video communication and videotapes; the second night, video environments and videotapeS; and the third night, live video and music performances. The exhibition drew a full house every night. I brought videotapes by my American friends with me, carrying a heavy suitcase, a mobile video library, across the Pacific. Alternating between Japanese and American videotapes, we achieved not vertical communication from top to bottom, but lateral communication from friend to friend.

Among the women artists represented in "Tokyo-New York Video Express" was Fujiko Nakaya, a fog sculptor, and the official representative of Video-Hiroba, Ms.
Nakaya studied in Washington, D. C. where she was introduced to the work of Rauschenberg, David Tudor and Billy Kluever. She was instrumental in realizing the multi-million dollar Pepsi-EAT Pavillion at Expo '70 in Osaka, Japan. She is now interested in using video to encourage social interaction. Her first project (with Kobayashi) was an experiment in

communication among the supporters of Minamata victims. Nakaya is also concerned with the integration of old people and children with technological society by means of a video data-bank, which would combine and "recycle" wisdom and experience, and hopes for the future. In another more conceptually inclined video tape, she tries repeatedly to get an egg to stand up on a table, stating, "It's primitive technology."

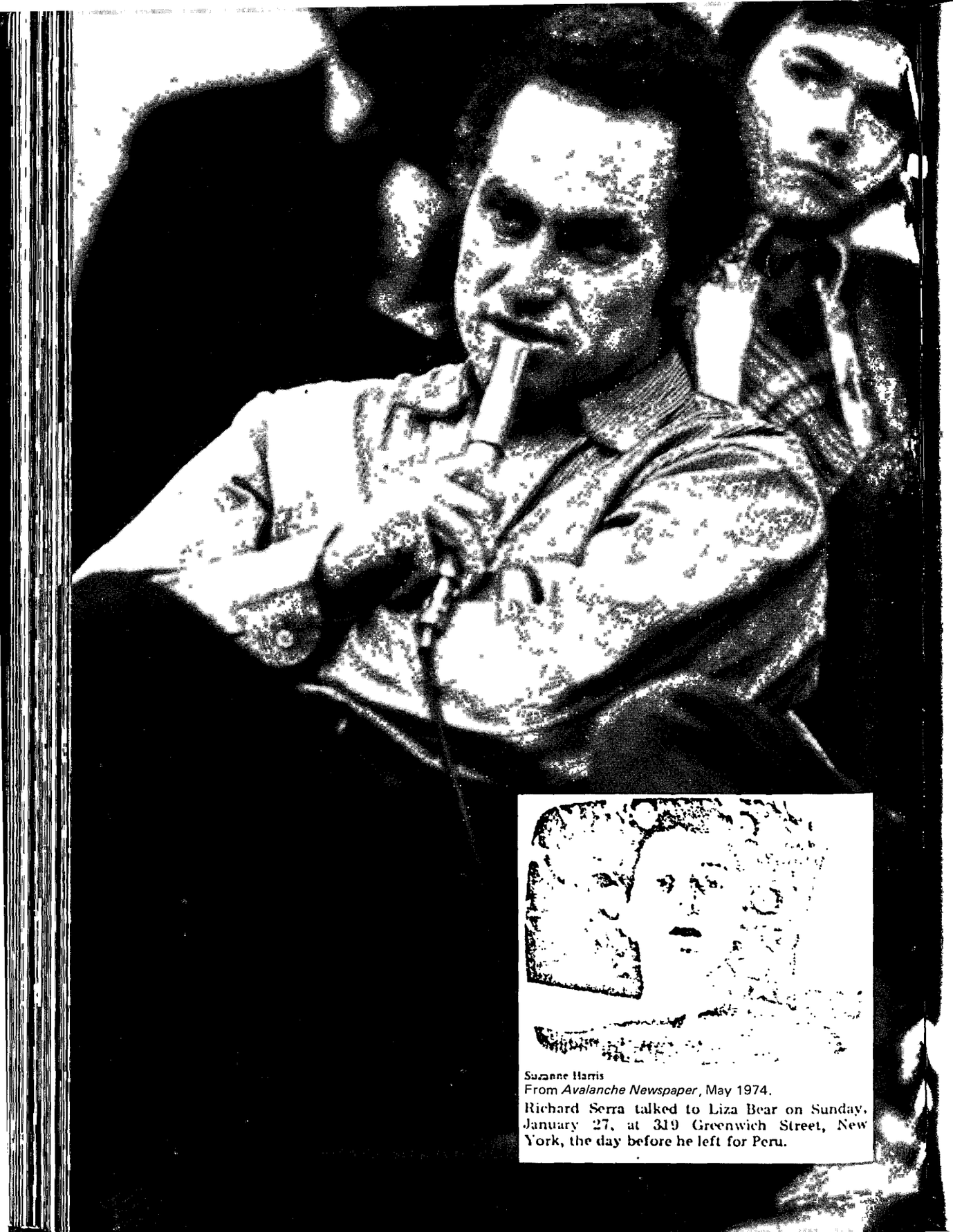
"A Work of a Woman," by Ms. Idemitsu, another Japanese video artist, shows a close-up of male genitalia for 15 minutes. The concentration of this image makes you think that you are viewing a medieval landscape, with high mountains, deep water, and a hermit looking up at a full moon. The low definition and grainy picture of the Portapak suggests the quality of worm-eaten century-old rice paper.

I would like to mention, in closing, a videotape with the long English title, "Being a Woman in Japan: Liberation Within a Family," made by Ms. Michishita, formerly a journalism student at the University of Wisconsin. Currently, she is organizer of cultural events at the American Embassy in Japan, which has shown quite a few American video art pieces. Michishita's tape, perhaps reflecting her journalistic background, is of a documentary nature. She visits her home, a small town in central Japan. A family crisis occurs: one of the female members becomes ill and is hospitalized. The women in the family discuss what to do, and at one point

Michishita's mother says:

"Women can do everything that men do. . .
we just do it <u>better. . .</u>"

That is the difference.



Suzanne Harris
From *Avalanche Newspaper*, May 1974.
Richard Serra talked to Liza Bear on Sunday, January 27, at 319 Greenwich Street, New York, the day before he left for Peru.

Richard Serra

There's one place where Schechner says to Hovagymyan, "You're in trouble," And he says, "I'm not in trouble." And it's obvious that he means, not only am I not in trouble in this program, I'm not in trouble in my life, or in the world, or sitting here in 112 Greene Street. Spalding had a similar double take in that situation.

"Prisoner's Dilemma" {Interview}

Liza Bear

It's too bad if some people didn't read those layers of ambiguity, because I thought they were very clearly there.

RS:

That's not the level of "Dragnet." That awareness, that take on the process of how the show was being made, is not what "Dragnet" does at all. In fact, Schechner even reinforced that by trying to pull himself away and saying to Spalding, "We are making a television program, we're going to send the tapes to your mother in Rhode Island," which then took you one step back into the game. It gave another reason for the presence of the cameras. So I think there were multi-levels within the tape.

LB:

In the acting, and also in the interplay between acting and performing, right?

RS:

Yes. What happened was that the non-actors had to try to have the same overview of the situation that the professional actors had, rather than just do a Strassberg number. I think there was a kind of raw interphase there between what's documentary, what's acting, what's performing, what's within the TV context. And I'm very interested in the questions the audience ask themselves when those layers of meaning are presented to them. If that's what they consider entertainment, fine. But if they don't understand the multiplicity of the syntax, then it's so much propaganda.

LB:
How did the idea for "Prisoners' Dilemma" develop?

RS:

I made an earlier videotape, "Surprise Attack," which used a game theory that went: If you hear a burglar downstairs, should you pick up a gun or not pick up a gun? It was taken from Schilling's book "The Strategy of Conflict." About a year and a half ago Robert Bell and I had talked about the possibility of making a film on a train going to Las Vegas which would deal with game theory. And then when I saw him in New York recently he'd just finished a paper on deterrents which mentioned this specific prisoners' dilemma. I read the paper, and in my trying to dope out the pros and cons of it, what I would do if I were in that situation, I found that my own thinking fascinated me, so much so that I thought it must have an awful lot to do with the way I think about anything...I don't know....

LB:
I think it certainly does!

RS:

But anyway, it fascinated me to the point where I wanted to involve myself in making a tape, so I asked Bell if he would like to do it with me and he said yes. So we decided on the format. I was really interested in doing a cops and robbers tape, and he was interested in doing a quiz program. And what was so nice about the thing for me was that all the people who worked on it were very very generous and warm, and the production as a company was one of the better things I've been involved with in my life. I mean, it was just a lot of fun.

Harald Szeeman

During my long years of study in the history of art I always regretted that a 20th-century reading machine did not yet exist. You may have seen reproductions of the reading machinæ from the end of the 16th century, a kind of windmill set in front of the reader which is turned to facilitate comparison between different meanings, and different texts as the preferred form of thinking, writing, approaching knowledge — even prophesying. Formal studies with a professor who insisted on iconography, but not on iconology, made me wish for a machine that offered an easy method of producing audio and visual information and transmitting knowledge in private, without the technical difficulties and expense of film. How boring the efforts were to compare thousands of reproductions in hundreds of books of the different Footwashings of Christ, and how useless compared to the result. How beautiful a one hour tape would have been which included all the important references, in a medium you could stop in order to read written information before continuing with the visual material. And how wonderful it would have been to study either alone or in the company of a couple of fellow students with a machine that delivered material for further discussions rather than just accepting one interpretation of one phenomenon of a given time period. Unfortunately video arrived too late to aid my studies, and even now, after almost a decade in existence, it is not yet used in this way.

The early years of video were marked by the exploration of the inherent potentials of the medium. The recording of events without the cost of developing and editing made it very easy to document all the performances of exhibitions like "Happening" and "Fluxus" and to play them back immediately after the event as fresh, uncorrected information and as a necessary part of such a show. In major exhibitions like "Documenta 5," there was a video studio where for the duration of the hundred day show, artists and curators, critics and visitors, friends and enemies had the opportunity to explain their views on tape, and all tapes were available on request. The ease of handling video and the non-manipulated quality of video documentation are the medium's major attractions for the exhibition organizer. To the artist video offers even more advantages: the ability to produce new works in a new medium at home.

Most of these artists' tapes are autonomous works, and the viewing and selection of them is, except for the time needed to see the work, roughly the same as the work of the curator in front of a painting. According to the subjective visualization of each artist's intentions, these tapes may constitute one activity among others (Serra, Weiner); they may function as part of a more complex sculptural structure (Nauman); they may document a personal performance (Acconci), or a non-reflective crisis (Morris); or they may be studioplays which can only be composed in the video medium (Wegman), and so on.

Video is often used in closed circuit situations as an extension of space in a controlled *event* and is therefore as important as the visitor and the environment in the creation of a time-space unit. This *event* may be the work, communication itself (Douglas Davis), or a scenario in which everything is made relative and attention is focussed upon a simple object rather than the performers or the specially built set (Howard Fried). Often these video essays are extensions of the whole museum situation today where not only the objects but the whole process of production/reception becomes an esthetic object, discarded from life, in suspended time, artificial space. The terms of participation, freedom through technique, turn very often in this special field to definitions of the limits of experience, and the desired extension is very often a statement about the impossibility of a screen-future.

I tend to find more satisfactory results in the tapes of artists who use video strictly as a tool to create works: for instance, the highly rhythmic and dynamic exercises of Richard Serra and Joan Jonas, sometimes as dramatic as ItaloWesterns, or poetic and narrative tapes like the most recent by Lawrence Weiner, or the humorous visual evidences and non-evidences

Video, Myths, and the Museum

of William Wegman. This preference is determined by the inherent thematics (or "writing with the camera") of the individual artist, the continuity in the intentions of one creator. This one-man approach gave until now the best results in this one-man technique.

Nam June Paik exploits video's technical flexibility to visualize phenomena which could hardly have been imagined before. With video, he examines the notion of delay through the illusion of a real "real-time" event, and has invented an electronic image-machine which gives birth to an unlimited number of images, obviating the choice of any one image. The creation of such an image-machine is an old dream of poets like Alfred Jarry and Raymond Roussel, and artists, e.g., Tinguely's "Métamatic" and Piotr Kowalski's "Machine Didactique," one producing drawings, the other one negatives of sculptures. But the most perfect is to be found in L'Invention de Morel by Adolfo Bioy Casares. On a lonely island stands a single building called "the Museum." An escaped convict flees to this island. One day he discovers several people walking and talking, whom he watches, afraid of meeting them. He discovers that every few days these people repeat the same activities and conversations. He subsequently discovers that these people are only complex projections, and that for an eternal life as images in time and space, produced by an elaborate projection system, they have paid with their lives. The registration of a person's life kills organic matter: the image presupposes death. The man falls in love with one woman belonging to the group-memory and decides to renounce his life and to survive forever as an image of her lover. He will die a little bit more every day to become an increasingly perfect three-dimensional projection in a self-determined part.

In Casares' story and in the suggestions and wishes of the above mentioned authors, we encounter a theme which might illustrate particularly well video's potential as a means of exploring myths. In the hands of the museum this theme could enrich the usual tasks of acquisition, exhibition, and explanation. The exploration of certain myths in both visual arts and literature, or the history of more complex subject matters -- not yet myths -- becomes with video a direct and flexible method of investigation appropriate

to the subject. Here are some examples of possible applications of video in a museum or art history context:

1) The myth of the Celibatarian Machines. This term was proposed in 1954 by the French writer Michel Carrouges after a comparison between Marcel Duchamp's "Large Glass", and "The Bride Stripped Bare by Her Bachelors, Even" (1915-1923), and Franz Kafka's "torture machine" in his novel The Penal Colony. Beside fundamental differences of content -- in Kafka, the machine is an image for religion, between the destruction of the Old Law and the beginning of New Times; and in Duchamp, the machine is an image for the erotic relationship between Man and the Commanding Woman -- there are many similarities in the form and the function of the image (though Duchamp's "Large Glass" is not a real machine). In both there is a commanding upper zone (the Word, the Woman) and a corresponding reaction in the lower zone. There are other Celibatarian Machines based on the same system to be found in Alfred Jarry's "Surmâle" and "Doctor Faustroll", in Raymond Roussel's "Impressions d'Afrique" and "Locus Solus" and the above mentioned Casares' story. With machinces that create art, art as an autonomous parallel to nature, as a real equivalent to and concentration of life which follows its own logic, the artist is the Commander, the Word, the Inscription or the Woman. When the commanding zone is no longer functioning, when belief in Order has disappeared, then the mechanics triumph, destroying without sense. The only hope of preserving the dignity of the system is that the machine itself -- as Jarry proposes it -- fall in love and destroy itself in Love and Smoke. This vision of a machine which can reproduce the most intimate feelings and thoughts and activities is a pessimistic embodiment of the old triad of feelings: Belief, Love and Hope. Iconographically, the Celibatarian Machine is the new Gesamtkunstwerk in form of a machine or even a computer (Duchamp) and it replaces, mechanically, the Femme Fatale cherished by the Symbolists. She was in her time the symbol of the complicated and mostly fatal relationship between man and woman, law and life, heritage and progress, instinct and brain.

A modern myth like this is difficult to visualize. Until now this was only possible through an illustrated book or a trip to Philadelphia to see the Duchamp piece (or to Stockholm, where there is an authorized copy in the Moderna Musee). But with video visualization is easy. Step by step the different

propositions for the machines may be questioned and their equivalent zones compared, with immediate reference to written material. Such a video tape would of course be more efficient if some of the machines existing only in literature could be reconstructed (even if they don't work, which in Roussel's case is inevitable). I will try in the fall to visualize this myth in a show in Hamburg. I hope not only to make a video-tape afterwards but also to find solutions to some of the problems presented by content-oriented exhibitions. But even if the Celibatarian Machines prove too difficult, imagine an anthology like The Great Mother, An Analysis of the Archetype by Erich Neumann as a tape, describing and comparing all the elements of this more ancient and universal myth.

2) One of the most interesting sections in "Documenta 5" was devoted to the museum. It was not a history of the museum and its architecture, the evolution from Cloisters to Guggenheim to Pasadena to Le Havre to the National Gallery in Berlin, but an examination of the meaning and psychology of the sacred place today. Several artists proposed works in the form of museums. Herbert Distel constructed his museum in compartmented drawers presenting a collection of contemporary art in tiny dimensions, in accordance with collections of current works (i.e., from Albers to Wegman) in the majority of contemporary museums. In contrast to this museum of the establishment was Marcel Broodthaers' "Museum of the Eagles." By taking advantage of a common symbol, the eagle, and the ambiguity of the sacred space, "museum," Broodthaers rephrased the dialectic between the object and the intervention of the artist, by declaring the eagles as "not art objects" (a combination of Duchamp's declaring any object in the museum as art and Magritte's play on reality, "a painted pipe is not a pipe"). Ben Vautier presented a cupboard with gestures and activities in the form of little objects and labels indicating the date and character of the event: the museum of megalomania, the remembrance shrine or album. Claes Oldenburg's museum in form of a mouse had two sections modeled after the animal's ears. One side held $1 junk bought during his journeys, the other side models for his sculpture, creating a constant oscillation between the found object and the created object. This reflected the theme of "Documenta" which consisted in the differentiation of three realities within the reality of all the possible images.

Also exhibited, of course, was Marcel Duchamp's museum in a suitcase, and throughout the show other "museums" could be found as well: the reconstitution of objects belonging to Christian Boltanski as a child (the photo album of the family D., all items a person preserves to delay deaths); the museum of psychotic art with a reconstruction of Adolf Wölfli's cell and his autobiography of twice his size; the museum of religious folk art with the triangular image (the saint, the event, and the donor) of the votive tablet, where only the power of the miracle and the belief of the donor fill the stereotyped image with intensity, and so on. The museum is a major theme and artists use the notion of the museum and form even in inventing new "museum" designs to combine with their works on other levels. The presentation form is content and form and therefore constitutes the work. There are a lot of tapes to do on this theme. They could deal with eclecticism, comparing all the styles simultaneously used in the World Exhibitions during the second half of the 19th century: Egyptian, Greek, Roman, Indian, Gothic, Renaissance. They could illustrate changes in the way we look at monuments: Stonehenge, for example, was seen in the 14th century as a lot of upright stones, seen in the age of early archeological discovery as a sculpture rising against the horizon, and seen in 20th century photography with views along the axis, from above, and from below with the camera placed so that the stones rise huge against the sky.

Artists use today all the known forms of presentation, even the passage or "the way of preparation" from cave culture, as in Theks' environment. And light: I can't imagine a Flavin light sculpture outdoors, but I can see it as the lightbeam coming out of the Grave of the Unknown Soldier (Melbourne), understood immediately as the negation of death in the face of high ideals like freedom (he died for ideals and therefore lives in the memory of the people). This negation of death is exactly what younger artists try to achieve by using the museum and filling it with souvenirs. In the Sixties the formula was to open the museums to new ideas; in the Seventies younger artists point back to the old meaning of the museum as the "new" idea, not belief in progress away from death, but in conservation.

That the museum as a content and the presentation form as a work are very real problems was particularly clear in "Documenta 5" where the main

difficulty for the visitor lay in the terrible effort to change his inner distance and, according to it, the outer one too, in front of each item or each situation. This difficulty resulted from ignorance of the meaning of the place, of the freedom it provided to show and speculate. If the museum is in a certain way a collective memory, then this memory must also illuminate its reading. Explanations of single objects may be of use, but how much more effective is a short videotape (nearer, after all, to the visual experience a museum suggests than all the information pamphlets the visitor can collect, take home and often not read). We tried at "Documenta" to give the public an audiovisual interpretation of and orientation to the exhibition. Of course, Bazon Brock's explanation became itself a work and was therefore considered an artistic innovation. But his audiovisual preface was the first important step toward creating a museum-language which has nothing to do with the language of art history.

3) This need of a theme, as loose the connection may be, Gerry Schum felt immediately when he first attempted to present TV-art and used video tape as a means of distributing films. His video show in early 1969 was a real exhibition of a whole new generation's work with a new medium. It was the superposition of one innovation on another. Schum presented non-presentable art, like earthworks, with an added dimension: the simultaneous creation of an authentic work of art and a document, like pioneer photographs of the discovery of the desert. When afterwards artists produced their own tapes in the studio, this document-dimension almost disappeared and the one-way reception for the spectator was reestablished.

What I propose for video is a future in the service of difficult content-orientated visualization of iconographical themes, of myths of our time and of the analysis of the institution which enables us to do our work: Video as today's notebook and todaybook. Very soon video will approach such themes; the material is already available. So to video as an instrument for situation-reflection, for a single artist's expression, for event-documentation, let's add video as an instrument for exploration of the collective memory. I know that this use of video by the museums is not for the near future. There are too many financial, structural and staff problems. Of course there are a

number of museums in Europe able to show artists' tapes and documentary tapes of special interest in an art context. But the only museum in Europe with a fully equipped video studio, the Folkwang Museum in Essen, has discovered that the financing of hardware and the difficulty of fighting for such an innovation are not the main problem. It is easier to install a video studio than to buy a piece by Bruce Nauman for the collection because you can argue on the "irrational" grounds of progress and technical innovation. But to pay for the software and to give the right director freedom of action is more difficult. With a video studio, you need not only the material, and a technician, but also a director with the same freedom a curator of paintings and sculpture has, or should have, today.

Such a video curator needs more money to produce. I know that in this article I am not speaking for all museum people, but only for those in search of a more complex identity for their task than that of selecting art, or directing the dissemination of information about art in a given institution. I speak for those who think that exhibition-making is an autonomous mode of expression, that in the gap between artistic production and administration, there is enough space for creative interpretation. The example of L'Invention de Morel stands for others.* I know that many little steps must be taken in the museum to create the new job of the video curator. His function will be to change the one-way system of production-reception into a triangle by adding a second production point. This will confront the institution with a problem of distribution which, except for catalogs and the editing of graphic works, they have not encountered previously. There are plans to create, as an adjunct to the museum structure, a new, independent, and hopefully creative distribution and production section at Plateau Beaubourg in Paris. The possibility of including such an organization's video production initiates immediate competition with recognized professional associations even in the early stages of planning. This facility, working with new content, could provide the alternative to public TV.

* A film of Casares' L'Invention de Morel, directed by the Italian Emidio Greco, with Anna Karina, Giulio Brogi, John Steiner (1 hr. 50 min.), was shown during "la semaine des réalisateurs" at the last Cannes Festival in May 1974.

Russell Connor

Common decency, one might think, would suspend, at least for a while, any more articles on the potential of cable television. At this point, "Recent Trends in Cement-Mixing" would, by contrast, leap off the shelf at me. God knows that the communications specialists, socially concerned futurists and just plain video freaks who are working to alert the public to cable are doing invaluable service. I just need a rest from those reports, surveys and cosmic projections. I gave at the office (three years at the New York State Council on the Arts, reviewing applications from groups engaged, among other things, in showing videotapes on public access cable).

Whatever value the following account may have must rest in simple pragmatism: a record of six months spent in producing arts programming for cable television. Those interested in the important legal, economic, sociological and technological issues will find substance here by indirection only (for a comprehensive guide, try Walter Baer's "Cable Television: a Handbook for Decision Making," Rand Corp., 1973). My aim here is to describe some recent experiences in finding a place for, and presenting, the arts on cable television -- that is, film, video, dance, poetry, painting, sculpture, music, architecture, crafts, and so forth.

Although we shuffle modestly when described as an "attractive model," Cable Arts is interested in liaison with arts organizations and cable systems across the country. It is necessary, therefore, to recognize that we were born of singular circumstances and good fortune that are not easy to duplicate. These include a grant from the New York State Council on the Arts, the cooperation of New York City's Office of Telecommunications and its Municipal Broadcasting System, the remarkable human and technical resources of WNET and its Television Laboratory, and the talents of two gifted directors from public and commercial broadcast television, Fred Barzyk, WGBH and Roger Englander, CBS. The immediate product presented on cable television in Manhattan was a thirteen-week series on the visual and performing arts.

The perspective which I brought to this enterprise is, I think, the fairly common one of a painter hopelessly hung up on theater, film and television. This happy affliction once led me to accept the role of television lecturer with the Museum of Fine Arts in Boston on a weekly series called "Museum Open House," produced by Patricia Barnard in association with the public television station WGBH-TV. That was ten years ago. The program sauntered ("ran" seems somehow excessive) for four years, a surrealist experience involving such challenges as extolling the color of Matisse and Albers in black and white -- and from that period dates my professional concern with the fragile, frustrating business of presenting the arts on television. And, I might add, with the art of television itself, a concept that embarrassed me at the time by its pretension.

A project involving such boldly democratic goals as an arts series on television enters the arena of "elitist" versus "popular" criticism, risking impalement on noble lances. "Real art is difficult, serious, remote, aristocratic," (Thomas B. Hess), is perhaps the iciest, most succinct statement of the elitist view. My own favorite is an earlier summation of "appreciationism" by the great historian Erwin Panofsky. "He who teaches innocent people to understand art without bothering about classical

A Is for Art,

C Is for Cable

languages, boresome historical methods and dusty old documents, deprives naivete of its charm without correcting its errors." I love the flinty integrity, the musty, medieval roll of that sentence as much as I am appalled by its relegation of art to a private, intellectual preserve.

Cable Arts has not presumed, I hope, to teach people to understand art. We think it a large enough goal to present the widest spectrum of traditional and contemporary artistic expression available on film or videotape in a context that illuminates the works and engages the viewers, without condescension or pedantry. The adventure beyond that is up to them, limitless and open for pursuit to its most arcane reaches. We try, through research and consultancy, to ensure that the choice of works shown is buttressed by weighty critical opinion beyond, and often opposed to, our personal tastes. Sometimes we just cheat and show what we like, and we work religiously at not being sanctimonious.

Cable television will eventually allow for the most scholarly, didactic, and elitist presentations of the arts as well as more popular, entertainment-oriented ones. We'd like to test response to a lively coexistence of traditional and advance-guard directions in the arts and to bring art sharply up against life now and then to hear what the people have to say.

All very well, you say, but get on with it -- why cable, why Manhattan? However critical may be the fight for survival of many of this city's arts organizations, big and small, it remains awkward to demonstrate to a citizen from, say, Splitlip, Idaho, that the average New Yorker is shriveling in his soul from lack of opportunity for culture or television (with eleven broadcast stations -- seven VHF and four UHF). Why not give that grant to keep a dance company on its toes, or to help WNET -- which already commands the minority audience who would care about an arts series -- to launch one of its own? Of the possible 700,000 cable subscribers in Manhattan, only 109,000 have signed up since 1965. The stampede to join the wired nation seems to be still in the corral.

The story of the city's problems in getting the largest urban cable experiment in the country going has been told elsewhere. (David Rubin, "Short Circuit in the Wired Nation," More, Sept. 1973). I'd like to stay on the arts track, and it's apparent I can no longer avoid a little portentous potentializing. The twenty-year franchises New York City awarded to Teleprompter and the Sterling Manhattan Cable -- which roughly divided Manhattan around 79th Street -- in 1970, contained many farsighted features. They required that each company provide in its area two city channels (A and B) and two public access channels (C and D), in addition to all regular broadcast channels and its own "company" channel.

Cable subscribers in Manhattan set the dials on their television sets permanently at an unused channel frequency (Channel 12) and choose programs from the rotary selector dial on a little box usually placed unattractively on top of their sets -- the right side numbers two to thirteen; the left side letters A to N. The only letter after D currently in use is J, on which Teleprompter originates Spanish-language drama, sports, variety, and children's shows.

The audience for the commercial company channels' fare of off-Broadway plays, news, city-oriented talk shows, cultural and entertainment calendars, sports and movies, usually becomes visible on the ratings only during the basketball or hockey games.

The present audience for the letter channels is even tinier. Few people bother to look at that right side of the dial, and it will take a massive promotional effort to draw attention to it. But the Federal Communications Commission and many cities around the country are watching what happens on Manhattan's letter channels. It is vital, no matter how often we get the feeling that we are projecting slides on the other side of the moon, that a foot-

hold for the arts be created now amidst the diversity of minority interest programming which cable promises.

In contemplating how best the arts might be wedded to cable television, it seemd important first that a series be designed to test the medium's underused, unique abundance of time. Each program could have a "run" like a play or a movie. That meant block-time scheduling -- the same program running every night for a week at the same time. Viewers would be free from the tyranny of conventional television scheduling. They could watch television as they might read a magazine, "dipping in" at leisure, reviewing films or videotapes of particular interest, recommending sequences to friends. It would require at least two hours a night. I felt the arts deserved at least the same courtesy extended to "All in the Family": prime time.

Although it has been argued that a varied time slot -- four o'clock to six or eight o'clock to ten one day, ten to twelve the next and so on -- would make it available to a wider audience, it seemed to me that a fixed time was the key to developing a "magazine" audience which knew a program was available for browsing any night from eight to ten. If we could afford the space to advertise a complicated, staggered schedule, we would rather use it to list a "table of contents" so that one knew when to find a particular segment. And to switch metaphors, we liked the idea of a curtain time. Each two-hour program would touch on some aspect of one of the arts and be announced as "This Week -- Dance: New Spaces"; or "This Week -- Music: City Sound."

None of this latitude was available at the time on the city's, or rather the people's, lively, now-famous "electronic soapbox" -- the first come, first served public access channels, C and D. Arts programs there, including film and video as art {usually 1/2-inch videotape and often exciting}, might find themselves competing for attention between a tenants' association meeting and a tape on VD prevention. Usually only the artist and his friends know when his work is on -- the newspapers won't list public access programs -- and often they live in an area without cable.

The city's Office of Telecommunications offered us time on A or B {unused but scheduled eventually for interconnection of city agencies}, exploring for a limited experiment the thesis that one of the functions of a city channel might be to celebrate and enhance the cultural life of the city. We chose A, for Art, to help remind people where we were on the dial. The city's offer was dependent on the State Arts Council's supporting the series.

The Arts Council, concerned that several cities in the state would soon be required to provide municipal, educational and public access channels, supported the idea {request, $112,500; grant, $75,000}.

The Television Laboratory of WNET {originally supported by the Council as the Artists Television Workshop, later expanded with substantial Rockefeller Foundation aid}, directed by David Loxton, offered a hospitable, professional environment for assembling the programs, and the most sophisticated electronic pallette for the exploration of the medium itself. We hoped to incorporate as many technical formats as possible, processing them when necessary through the Lab's digital time base corrector.

Art programs included 1/2-inch and 1-inch helical scan videotape, 2-inch quadruplex {normal broadcast} videotape, and 16mm film, all mastered onto 2-inch quadruplex. From this master, 1-inch and 3/4-inch dupes can be made for distribution. {Teleprompter, in the northern half of Manhattan, cablecast the series on 1-inch tape. At the same time, down at the southern tip of the island, the city's UHF channel, WNYC, transmitted the 2-inch tape to Sterling Manhattan Cable, who relayed it to their subscribers.}

Aside from studio production of titles, credits, intros, bridging sequences, a few interviews {and one lovely two-hour celebration of poetry, with a galaxy of New York's best young poets}, occasional forays with a 1/2-inch video Portapak constituted the only original material in the initial series. We focused on what we expect will remain one of the

major activities of Cable Arts -- the dissemination of the best available films and videotapes about the arts. While we have a program devoted to video art, we have yet to essay one on film. This is partly because our ambitions demand that the independent film have a series of its own; partly because each of our programs was as much about film as about the subject art.

"Providing a showcase" is such an exploitative code phrase that each quill must quiver, and ball point retract, at the prospect of writing it down. "Serve as an outlet" has the virtue of humility but is only sightly less suspect. "Create new audiences" is the slyest of all -- a filmmaker who scorned such an appeal to use his work, with its accompanying payment in McGovern buttons, would be hurting the chances for recognition of the entire independent film movement, and confessing himself a snob as well. Nevertheless, rescued from the cheerless pit of cynicism, those are legitimate goals which any third-grader knows how to restore to respectability: pay the artist fairly. We don't do it {insulting rate scale on request}, at least in our view, and the initial series couldn't have been assembled without the good will of artists and distributors -- those who could afford the gesture and those who couldn't but who believed in the idea of what we are trying to do.

It may be useful to concentrate in some detail on one program that was fairly typical in the way it was conceived and put together. The producer's unholy muses of expedience and economics hovered twitchily over our crammed schedule. It testifies to the abundance of good, seldom-seen films and tapes on the arts that, in opting for a work that was immediately available, we never had to settle for a lesser work. Remember, these two hours were designed to hang around the house for a week. I wouldn't ask my own mother to sit through the whole program, even if she had cable.

The premiere program, "New York Counterpoint," was unusual in that it presented several arts rather than one, but its style and content mix set a pattern for the series. I had just completed a film {with Creative Television Associates} for the Metropolitan Museum called "Art in Public Places." It was a rambling, often startling tour of painting and sculpture around the streets, plazas and parks of Manhattan.

Since our debut was to be on the municipal channel, it seemed appropriate to begin with the subject of artists and the city. That theme might have embraced a film on the Ashcan school, if a good one existed, and Emile de Antonio's recent study of the New York art scene {if we could get it}, a series of videotaped interviews with artists in their studios, or a panel of artists and critics chewing over art and the city. It evolved somewhat differently, as the contents of the program indicate:

"Art in Public Places." 16mm, color, 28 minutes. Produced and directed by Fred Barzyk, Creative Television Associates. Cinematographer, Dan Drasin. Written and narrated by Russell Connor {1973}. There was a sort of baby boom in the pedestal population between the Civil War and World War I. On much of it, pigeons have raised criticism to its loftiest heights. But there were a few men of genius around, like Augustus St. Gaudens, Daniel Chester French, and John Quincy Adams Ward, and Manhattan is favored with some of their finest works: St. Gaudens' "General Sherman," French's "Four Continents" and "Admiral Farragut," Ward's "Indian Hunter with Dog." Modern artists face extraordinary visual competition in a towering modern city. The film shows large pieces of sculpture by Picasso, Moore, Arp, Calder, Nevelson, and Noguchi and works by younger artists like Agam and Ginnever. Large exterior murals, often on walls exposed when the adjacent building is torn down, are appearing in increasing quantity around town under the sponsorship of the City Arts Workshop and City Walls, Inc., who believe that they bring color, life, and a pride of ownership to some grim corners of a tough town. The artists include Pekarsky, Crum, Anuszkiewicz, Belkin and d'Archangelo.

"A Lady Made That?" 1/2-inch black and white videotape, 15 minutes. Andy Mann, edited on 1-inch tape

(1973). Citizens in Central Park express strong views about the relative merits of "General Sherman," by St. Gaudens, erected seventy years ago; and a recent, neighboring work in Corten steel by Louise Nevelson, called "Night Presences." An impish Irish gentleman inquires, concerning the latter, "Is it art, or a form of madness?" and suggests that a fine modern equivalent to an equestrian statue might be Patton on a tank (pressed for an ideal location for it, he says he'd like to have it follow him around New York). A young man doesn't like either work, preferring the "presence" of a 1600 B.C. Egyptian obelisk in Central Park. A group of black children from Brooklyn enthusiastically champion the Nevelson over the St. Gaudens because "it's art...the way it's designed...it's pretty," and say they'd like to see something like that in their neighborhood. A keen-eyed eighteen-year-old has been "checking out" sculpture and fountains around midtown with his friends lately, and concludes that "there's more to modern art than just an easy shape." He likes buildings set back from the curb so that people can sit around. A suspiciously articulate young man, who turns out to be a teacher and sculptor who has shown at the Museum of Modern Art, makes an eloquent plea for involving the artist in the original site planning, so that he can get a feel for it and for the community that lives and works there. An elderly lady, confronting an abstract sculpture across from Radio City Music Hall, reverses her negative opinion after hearing her husband's approval ("Do you have an opinion, George?" George loved it).

"Signs." 16mm, color, five minutes. Tunbridge Films. By Rhody Streeter and Tony Ganz, originally for WNET's program about the city, "The 51st State" (1972). "You can't just take anyone off the street to do this, you know -- it's got to be in you." This view of another conspicuous form of painting in public places (billboard signs) manages to be both affectionate and funny without being patronizing.

"N.Y., N.Y." 16mm, color, 12 minutes. By Francis Thompson (1957). In this famous film, Thompson took Manhattan, splintered it into a million fragments and reassembled it with an artist's eye.

"Broadway Express." 16mm, black and white, 18 minutes. By Michael Blackwood (1959). Of all the pungent, hard-hitting documentaries to emerge in the fifties, few were more direct and compassionate than Blackwood's dense observation of subway life.

"Hometown." 16mm, color, 28 minutes (seven-minute excerpt). By Crabb, Brown for Exxon and the Business Committee for the Arts (1972). Maybe propaganda, but for the good guys; a celebration of the pride and dedication of performing arts groups who work for their own communities in different parts of New York City. We selected a street performance by the "Everyman Theatre" on Staten Island and an exuberant sequence from a performance of "West Side Story" by "Puerto Rico Sings" in Manhattan's lower East Side.

"National Flower of Brooklyn." 16mm, color, 17 minutes. By Tom McDonough under a grant from The American Film Institute (1968). McDonough's portrait of the major public work of his hometown catches every wacky and poignant nuance of the bridge's colorful history, and adds a stunning visual tribute to its architectural majesty.

"Steel Drummer." 1/2-inch black and white videotape, 7 minutes. By Andy Mann (1972). Andy Mann's simple portrait of a radiant, gifted musician spreading happiness in Central Park closes the program.

(Other programs in the thirteen-week series focused on such topics as music, dance, poetry, architecture, and painting. A complete schedule can be obtained from Cable Arts, 101 West 57th Street, New York City, 10019.)

However much I might wish to exult that we, with considerable help from our friends, have produced twenty-two hours of quality arts programming for $75,000 as compared to, say, $250,000 for one hour of "Ironside," that would be in its way as misleading as to say that broadcast television, to which Americans contribute $10 million daily in advertising support, is free.

Next step: an arts channel.

From The AFI Report (American Film Institute), vol.4, no.4 (winter 1973).

Video in America Bruce Kurtz

Video in Britain Edward Lucie-Smith

a hill in the distance disappears and the total image is the white of the mist. Sonn, however, the mist passes on and the scenery in the background reappears, phantom-like. This is delicate and beautiful, and should never be categorized as an ecological videotape. In his "What I Saw On Sunday" Hagiwara videotapes the gradual transformation of a puddle on the ceiling of a house as it is reflected there by sunlight, and disappears as the sun goes down. There is a clear concept of time in both of his works, revealed through a quality of Zen-like meditation -- time itself transformed into the time in his mind.

Unlike the lyrical video works of Hagiwara, my "Metastasis" is an attempt to create a strong, convulsive sphere of beauty. Because of my use of highly developed electronic video technology, my style is rare in Japan. The device (Data Color System) I used could not only interpret monochromatic graduations to chosen colors, but was also capable of controlling the width of the colors. I chose a toilet seat as the symbolic material for this piece, to focus upon the original rhythm of life: the transfiguration of cells -- the movement from nonexistence to existence to nonexistence.

Like my films, most of my video works have a tendency towards the mysterious, the illogical, the unreal, the hallucinatory, the magical -- the irrational occurrences of life. Video is a fascinating medium for me. This electronic technology enables me to enter the world I described before, and within this experience it enables me to examine my own personal world. In "Mona Lisa" I experimented with the idiom of a personal "trip," a journey into self, through a device called Scanimate, which was just introduced in Japan.

There have been no purely abstract video pieces made in Japan. These will probably appear as new trends develop in the future. Our history of video has just begun. But we are now a contemporary people. Our new consciousness and technological ability will enable us to advance rapidly from our late start in video if we can overcome our financial and institutional difficulties.

Jorge Glusberg

In Latin America an art does not exist, but its impetus exists, in line with its revolutionary situation. The conflicts caused by the unjust social relations that prevail in most Latin American countries can't help but appear in the artistic aspects of culture. Solutions found by overdeveloped groups for their problems cannot be of help in our social environment. Our artists are highly conscious of the needs of our different national realities; they have offered regional expression of these needs — for all the changes affecting human life which the underprivileged of today, the potential privileged of tomorrow, are fighting for.

The video alternative here has a manner of communicating peculiar to its development by artists and video operators who work in the Third World. The Latin American artist, nearly without exception, actively collaborates in or comments on the process which his country is going through; not by adopting demagogical positions but by trying to utilize languages which include regional ideological problems corresponding to his own revolutionary situation. Of course, the artists' capacity to modify the social environment is very limited. For that reason it is difficult to speak of a revolutionary attitude in terms of this television alternative, since it is difficult for artists to provoke actions comprehensible to mass spectators.

President Allende pointed this out during a speech delivered in Colombia in 1971, when he reminded students, intellectuals, workers, that before being a good revolutionary, one should be a good student, a good intellectual, a good worker. For that reason, we cannot yet speak of the attitude of Latin American artists as revolutionary. We can say that they have a different moral basis.

The works of the Latin Americans are not yet revolutionary, since these artists still must learn to videotape, to rearrange and edit images, and, through their work, to propose changes and social transformations. In spite of the artists' intentions to approach popular themes, in spite of their sympathy with the "people" and the struggle against social and economic injustices, they continue doing works which reach only a limited public. This audience has some knowledge

of European culture, unlike the vast public, and alone is familiar with the political language of the Europeans (domination by bourgeoisie, to which these artists themselves belong).

We can point nevertheless, to a fundamental difference: Europeans engage in theoretical discussions of political problems, and Latin Americans necessarily include these problems in their works, since they live them daily.

In this early stage, we could say that rather than works, the Latin American operators of alternative television produce documents, composed of their reality, evidence of what is happening in their respective countries, influenced by the Cuban and Peruvian experience and the successes, unfortunately interrupted, of the Popular Unity in Chile. The idea of the young artists who work with this new tool of art and culture, with so many possibilities in the near future, is to oblige television to stop being a colonizing instrument of alienation, a repeater of foreign values, and to convert their lives and their art into testimonies of the struggle for liberation in the countries in which they are working. It isn't that they work directly for the people, but in effect transform themselves into motivators of actions and their works into instruments of communication.

Our personal opinion is that in spite of these aims, the achievements up to now have been nothing more than consumer products for the small middle class elite. But it is true that other factors hamper the artists' intentions; the incomprehension of works is, in part, a necessary consequence of the audience's lack of access to certain facts, and of the unending debate concerning the function of vanguards at every historical moment.

It is indisputable that much didactic work is required to make the language of these artists accessible to the people. As there is a serious attempt at revolutionary cinema in Latin America (a Brazilian cinematographic vanguard was able to produce works such as "Antonio das Mortes" of Glauber Rocha), so there are also ideological conceptualists in Colombia (Salcedo or Alvaro Barrios) and in Buenos Aires (the Group of the Thirteen). The intentions of the small group of artists who work with (video) (alternative) represent

an action which is not only efficient in the cultural field--even though the public which receives it is still minimal--but also efficient politically, as a consequence of the terrible U.S.-dependent cultural silt presently available as television programming.

Other problems which develop in Latin America (or video) have to do with the absence of a specialized criticism which influences, orients, informs, and develops guide-lines (by which) to understand new languages, of which the ideological vanguard is composed.

We are involved in an ideological struggle related to the meaning of the artistic messages. We want to reproduce here part of a letter which the movie director Julio Garcia Espinosa of Cuba (producer of the film "Third World-Third World War") published in 1972; we think that his position is fully congruent with the actions of those who work in Latin America with alternative video.

"We have (had) 12 years of cinematographic practice and we have dedicated very little time to reflection about this practice. We don't have the guilt of someone who has justified their ineptitudes at our expense....

Latin American companions exist who turn down both the clumsy and elitist alternative, the populist as well as the bourgeois. The important thing is that companions exist capable of finding more cultural importance in a short filmed in the agitated streets of Montevideo than in the quality of the latest European film."

That is, the real common preoccupation is no longer to create a new art, but to contribute towards the development of a new culture. The concept of imperfect cinema is identified with the position of those who want to modify television, which is identified with an involved attitude in art. Its proposition is clear, and openly ideological: its fundamental aspiration is not to carry out an aesthetic revolution, but to contribute to a cultural revolution. Although the people still do not enjoy aesthetic development, they nevertheless have (experienced) an advanced political development and this is sufficient to develop a new culture which, in turn, could serve as a launching pad for a new aesthetic.

Message for the Alone

Pierre Schaeffer

The medium is the message, you know. . . .

So don't be surprised if instead of appearing dubiously, in person, I've chosen to send these pictures as proxy, a grinning semblance of myself, in crude--cruel--testimony of my thought.

Why is it that all the so-called specialists in sound and image, in mass communications, aren't capable of communicating among themselves: no more, in fact, than they are with the masses? They form cliques, an elite whose nostalgia is no more than a consistent scorn, never responding to the expectations of the thousands who are smothered with promises, but hopeless. And why do they keep imitating the gimmick dealers, adding mental trash to industrial trash?

Do you really believe in the Marconi Galaxy, or in Electronic Art?

Having spent my life in electronics, as engineer and researcher, as producer and writer, as administrator, director, puppet and philosopher, secret agent and traveling salesman, let me move to my confession.

I am disappointed, pessimistic. I feel it's my duty to speak out against abuse, lies, and what I call "mental pollution."

Around 1963, I was an engineer, full of respect, and trying to broadcast a message for modern times, in high fidelity, and later in stereo. At that point, while the German genius had given the world Marx, Freud, Einstein, a madman named Hitler was mobilizing the airwaves for the worst regression ever known. Without sound and pictures, without their lightning quick contagion, would Hitler even have been possible or his contamination as indelible?

What everyone hoped was that the diffusion of sound and images would permit man to discover himself at last, to understand his own nature and stop being a primate, terrified by his own power, devouring and blinding his fellow man. Or, more ridiculously, being polite, tottering on his own unawareness. Instead, new monsters have come to haunt the horizon, spewing words instead of ink, muffling the written word instead of freeing it, reorganizing the spectacle with superficial logic. We've become victims of two major delusions: the first is future forecasting, which only serves to reassure decision-making, the other is mass information, universal communication in which even the string pullers get tangled up.

Does it seem possible that artists have escaped all this confusion? How can they be more credible than politicians, how can their intentions be better or their errors less serious? They too believe in progress and machines, in computers and electronics. Or else they use machines backwards, denying intelligible forms, denying respect for objects, which they both make fun of and glorify--in paper tearing, junk gathering, and graffiti.

Audiovisual automation and mass diffusion have only accentuated the vices of consumer society, turning the message into a product, direct speech into diced speech, turning real communication between men into a play of masks with the intervening elements of film and television, not only broadcast, but *under* remote control.

What we expected from the atomic scientists was advice to governments on matters other than the bomb. We didn't expect that those working in media would add to the general chaos. We hoped that they might spare us from utopian vaporizations, badly digested readings, and all sorts of gregarious procedures. But even the counter culture has caught up with the ad-makers.

"The medium is the message" should condemn the manipulation of empty forms, automated by technology: these video loops, for example, which nauseatingly deform the face while pretending to free it. The loop is a sad drug, a prison, a lonely vice.

Propositions

I would like to offer five positive propositions:

The first: progress is not in machines, but in the eye and the ear. Machines can do anything; we, however, need sense, meaning, and not just anything. Machines bring neither security nor philosophy. Artists have always had to struggle with their tools. The more we perfect our tools, the more we'll have to fight with them. Nietzsche said: "Man must be surpassed." Machines even more so.

The second: There are no good or bad systems. One system replaces another without implying a notion of progress. The audio-visual age is neither better nor worse than the age of print, nor that of oral civilizations. McLuhan's analysis is false: there is no global village, only more planetary confusion, more entropy. Marconi is no better than Gutenberg; he has aggravated the concentration of print, industrialized the message, and cut off communication.

At this point we must remember the laws of conservation of energy. Multiplication of a message cannot occur

without degradation in terms of efficiency. And another law: power and communication are linked, and inversely proportional: more power, less communication.

The third: Not only is there no better system, but there are only different or complementary ones. And each system accurately reproduces the social and political structure into which it is integrated. Cables are no better than networks, they are run and controlled by the same power, be it socialist or capitalist, in the same way they would be run by leftist or totalitarian control.

My fourth proposition deals with the artist's role or rather the role of the creator in today's society. I have said that there was no reason for artists to consider themselves better or better intentioned than their peers. They exist as a well-defined social function, guaranteed by singular vices: their voyeuristic curiosities, their cannibalistic appetities, their vocation as middlemen. But also, of late, their will for power has encouraged high political ambitions. Artists, convinced that they are honest revolutionaries, are only obeying reflexes, either capitalist or totalitarian. They expropriate or terrorize. They criticize society as if they weren't part of it, and often become victims of their own childishness. In fact, in picking out society's most horrifying images, inventing the most perverse plots, they are really bidding on collective ignorance and inciting panic. Sometimes they risk being more destructive than useful.

My fifth proposition is the following: A certain Marx spoke of class struggle, and we thought we could leave things off there. But now we know that there is racial struggle, or that the classes in question are those of the rich countries against the poor, or continents: the haves and have-nots. And that's not all. There are classes of intelligence, inspiration, or belief. To counter tired ideologies or rough credos we now have science, rational principles. But to counter science there is only nothingness, philosophy on the run, dead beliefs and an art of lunacy. And, contrary to general belief, nobody is communicating with anybody.

Overinforming has only clouded the viewer's horizon; hyper-communication has muffled person to person communication. We must not let images take us backwards: even early man knew this, and as Jahve warned the Jewish people:

"Ye shall not make graven images, nothing which resembles anything in the heavens above or the earth below. Ye shall not bow before these images nor serve them for I Jahve your god, am a jealous god, who punishes the sins of the fathers on their sons."

Curiously enough this warning didn't carry over into the Christian ethic. Our civilization hasn't stopped recreating god in its own image, thanks to theology with its foreshortened words and ideas. Then having killed god, so it appears, our society has worshipped other images, other schemes, and models, in a word: Science. At last, it has come to adore itself for its own image, the image of its crimes, a spectacle for its children who have come to hate it.

I could say things less theatrically and show the guilt or mere solitude of the individual in today's society, ironically enmeshed in consistent two-way communication. Feeling like the world's navel, shutting himself off and not noticing that he is only an ant like the others, it is easy for him to feel special, or marginal. Or else he starts feeling important. Hesitating between guilt and madness, he has nothing left but a choice between guilt and madness, psychiatry, to believe or forget.

I would like to ask a final question with regard to the future. Don't misunderstand me, I *am not* speaking out against machines, but of their use. I would like to lift the machine onto a symbolic level, and point out its anthropological function.

In the beginning man worked with his hands, then invented the tool. Homo faber, he was called. These tools sufficed for centuries. More recently he has invented tools for thought, tools to explore matter, to see and hear and understand beyond the eyes and ears *and* brain, overridden with figures. But he began to worship his own creations, believing he would find more, but he only found less. The machine he has created gives him information about himself, about how he functions, sending him back his own image. Society as a whole is on show in the communication machine. Repulsed by its own image, it is ready to break the mirror. In this way the most advanced society is like a primate, seeing its face for the very first time. The question is: will *it* evolve or break the mirror?

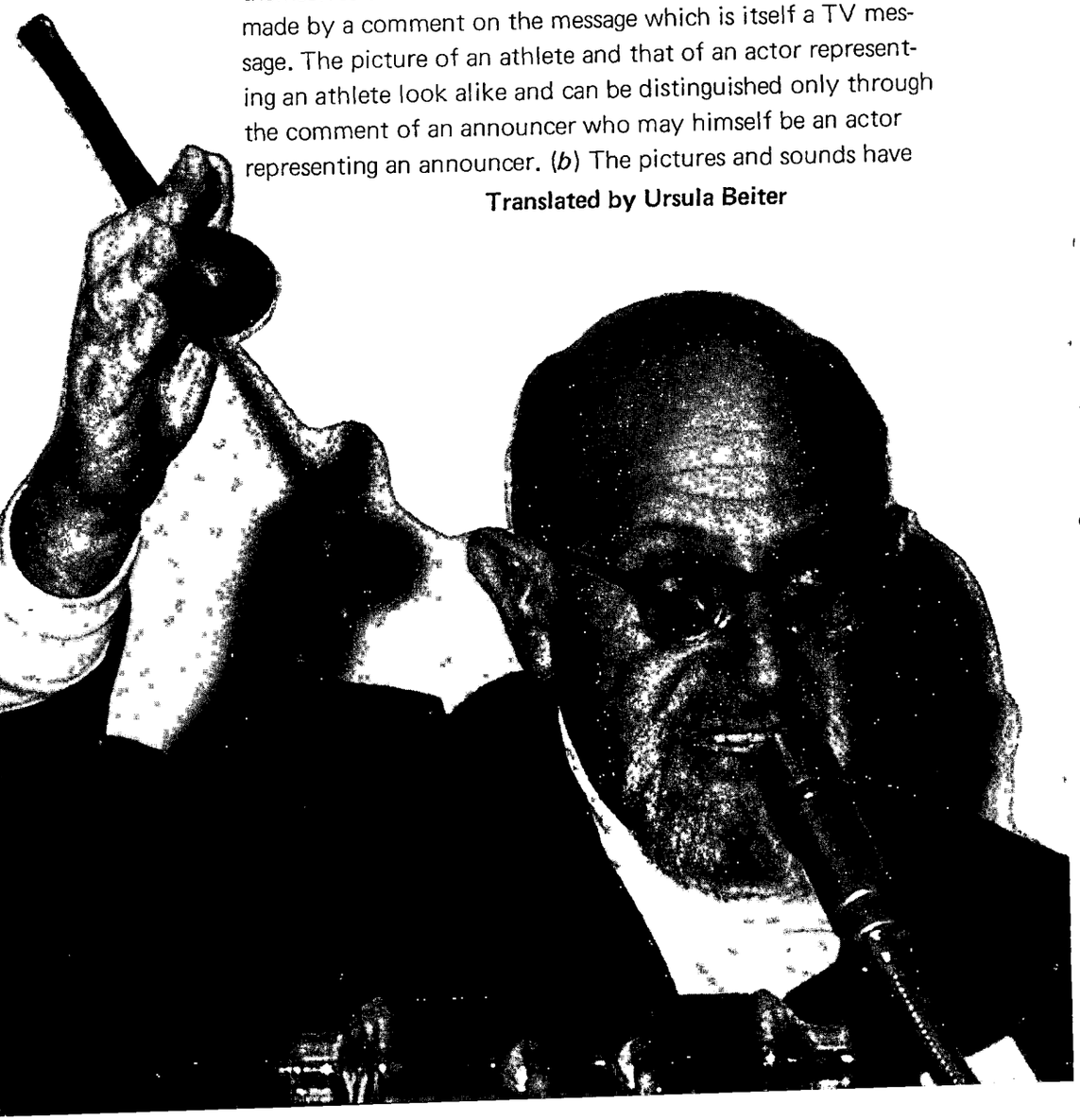
The most common form TV assumes at present is that of a box which stands among the furniture of a private dwelling. This box has a screen on which movie-like pictures appear, and a speaker from which radio-like sounds issue, if it is appropriately manipulated. The manipulation is simple, but the reasons for its effectiveness are complex. The box is, to speak with Moles, a structurally complex but functionally simple system. In order to see the pictures and hear the sounds, the dwellers of the room sit around the box in a semicircle. The pictures and sounds thus received have a meaning for those who receive them, and so has the box itself. The viewers recognize that these messages do not originate in the box, but their true origin is not clearly known. The viewers know vaguely that the box is somehow connected with a place where the messages are being manipulated and broadcast. They know vaguely that this is an expensive process, and that therefore those who finance it must have some sort of interest in it, an interest that must reflect itself in the messages the viewers are receiving. But this vague knowledge is suspended during the reception of the messages, and the viewer adopts the attitude that the pictures and sounds issuing from the box are messages from "his world." This is the meaning of the box for the viewers: it means communication of messages from the world in the direction of private dwellings.

Two Approaches to the Phenomenon, Television

Vilem Flusser

The viewers will distinguish between two kinds of messages: those that present events of the world, and those that represent events of the world. The first type consists of pictures and sounds that issue more or less from the events themselves, and in that sense "mean" those events for the viewers, as with newsreels and political speeches. The second type consists of pictures and sounds that issue from phenomena that represent events of the world, and in this second degree sense "mean" these events for the viewers, as with TV plays and films. The first type of message is taken by the viewers to be "true," the second to be "fictitious." But this distinction between presentation and representation is not very clear, nor is it very important, for the following reasons: (*a*) The pictures and sounds themselves do not allow the distinction to be drawn; it is only made by a comment on the message which is itself a TV message. The picture of an athlete and that of an actor representing an athlete look alike and can be distinguished only through the comment of an announcer who may himself be an actor representing an announcer. (*b*) The pictures and sounds have

Translated by Ursula Beiter



an "artificial" and therefore "fictitious" character, whether they present or represent events of the world. To watch the landing on the moon is like watching science fiction. (*c*) The vague knowledge that all messages have been manipulated confers a fictional character to those pictures and sounds that profess to present events of the world. A newsreel is vaguely felt to be a film that represents the events it is showing. (*d*) The pictures and sounds that obviously represent events are often more perfect than those which present them and therefore look "truer." An actor representing a politician often looks "truer" than the politician himself on television. The result is that for the TV viewer the distinction between reality and fiction becomes both difficult and unimportant. The criteria of distinction between messages tend to become ever less ontological (true or fictitious) and ever more esthetic (sensational or boring).

The pictures and sounds that issue from the box do not betray, either through their quality or their message, that they serve a purpose (with the exception of commercials) which is in the interest of those who finance their reception. The result is that the viewers are led to believe that there are two types of messages: "subjective" ones, which aim at provoking a specific type of behavior (as do commercials), and "objective" ones, which seem to aim at informing the viewers or informing them with esthetic experience (as do plays and newsreels). Although the belief in the "objectivity" of some of the messages is denied by the vague knowledge of the manipulation of all messages, it is still widely held, because it is constantly reinforced by the messages themselves. The fact that *all* messages provide information and esthetic experience only as a means of provoking behavior patterns that are in the interest of those who finance them, and that the difference between commercials and other messages is one of degree, not of kind, tends therefore to be forgotten. One consequence is that the viewers become more or less conscious tools of those who pay the manipulators of the sounds and pictures. Another consequence is that the viewers tend to forget the existence of those who

pay the manipulators, and to some extent even the existence of the manipulators, and tend to accept the box itself as the source of the messages they are receiving. The box thus gains a magic quality, and the messages that issue from it become mythlike.

The box has buttons which offer the viewers the choice of various channels, and can also interrupt the flux of the message. This creates an impression of control over the box and of a sort of mechanical freedom. In fact, the choice is highly illusory, because all channels provoke the same behavior pattern and because interrupting them means interrupting one of the few communications between man and the world. This illusion of control and freedom contributes to the manipulability of the viewers. The box emits messages but does not receive any. Although some of the messages emitted seem to be open to replies by the viewers through other channels (mail, telephone, and so forth), such sporadic feedback does not influence the flux of messages in any decisive way. Therefore the viewers are conditioned to what amounts to passive reception. The result is a passive attitude to the events of the world, accompanied by an illusionary impression of participation, which is due to the constant flow of messages from the box. In fact, this is one of the purposes of the messages: to create an illusion of participation while guaranteeing passive reception.

There are a great number of boxes distributed throughout society, and all of them emit the same information. The result is that private dwellings become linked closely to the public sphere and lose their privacy. On the other hand, the public sphere becomes closely linked to private dwellings through millions of univocal channels and loses its dialogical, "political" character. (The public man is present in millions of private dwellings, talks to them, but cannot be talked to.) The consequence of the invasion of the private realm by the public, and of the elimination of universal dialogue from the public, is the abolition of the distinction between the private and the public. Since this distinction is the basis of politics, it means depoliticization.

Although this description is incomplete and sketchy, it permits the following conclusions: (1) The TV occupies a specific place in private dwellings and provokes a new family structure. (2) It means communication with the world. (3) It makes the distinction between fiction and reality uninteresting, and is thus a powerful instrument for alienation. (4) It provides esthetic criteria of a specific type. (5) It emits models of behavior which are in the interests of those who finance its operation openly and covertly, and the viewers are more or less subject to them. (6) It provides a false sense of freedom. (7) It has a magic character. (8) It does not allow effective feedback and conditions the receivers for passivity, while creating an illusion of participation. (9) It abolishes the border between private and public, thus tends to eliminate politics and establish totalitarianism.

TV shares many of these characteristics with other mass media, while some are specific to it. Almost none of them were intended by those who projected TV as a means of communication, which means that they are not "necessary," and that TV could become a different sort of means of communication in the future.

If we look closely at the box, we can see that its screen is not some kind of wall (as it is in move theatres), but a kind of eye or window. It was not meant to be looked at and to provide a spectacle or show, but to be looked through and to provide a view and a vision. The box "means" communication with the world. This "window essence" of TV, has not, so far, been duly put into practice, because it has been cloaked by the image of the "movie theatre made private."

A window is, of course, a hole in a wall, but so is a door, and it is obvious that the two types of hole do not serve the same purpose. The purpose of the wall is to create a private space separated from open public space, what the ancients called a "templum." Thus the wall (or more exactly, the four walls) provides man with a shelter in which he may become himself again, after having committed himself to the world. The door is a hole in the wall which permits a rhythmic human motion:

a diastolic phase in which man leaves himself to commit himself to the world, and a systolic one in which he comes to himself again without totally losing the world. The window, is however, a hole in the wall which provides man with a vision of the world which may serve as a map when he leaves the door to commit himself to the world. Thus the purpose of the window is linked with the purpose of the door, and that link has a dialectical aspect. Were it not for the window, the door would lead into chaos, and leaving it would be stupid. Were it not for the door, the window would provide a "pure" vision with no practical purpose. The two tools, door and window, must be coordinated. The door is a tool which allows man to transform window visions into practice. The window is a tool which allows man to give his door commitments a meaning. To speak with Kant, the door is a tool of practical reason and the window of theoretical reason, and their coordination is what gives reason its meaning. This is the essence of door and window.

But this is not the whole story. Walls do not only have "door" and "window" holes, but also blank surfaces which may be painted over or covered with pictures. And against which libraries can be put up. The paintings and pictures represent window visions and projects for door commitments. So do the books in the library, only in a different sort of codification. The movie theater is a late development of wall painting. This is its essence. The TV was projected to be a new type of window. It was meant to provide men with maps of the world to be used in subsequent commitments. This is what the word "television" means: a better vision that is provided by conventional windows. To use TV as a kind of wall painting is to abuse it.

Let us ask how TV may become an improvement on conventional windows. The obvious answer is that it allows a wider vision. One can see more of the world through it. Not only things that are too distant from conventional windows, but also things that are too small, or too ephemerous, or whose

motion is too slow for conventional windows. This is an important improvement, and if it were put fully into practice it would profoundly change man's vision of the world, and in consequence, his practice. But this obvious answer does not touch the truly radical aspect of that improvement. TV is a window that may be handled in a way conventional windows cannot. This point demands a somewhat more careful discussion.

The basic techniques of manipulating TV were not developed within TV itself, but taken over from films. In films the same techniques have a different purpose. There they serve, not as categories of perception of events (as they should do in TV), but as categories of representation of events on a wall. In order to understand this difference we must first try to show why films are improvements on wall paintings.

Wall paintings are stabilized representations of one single fleeting view from the conventional window (although that window may open on the transcendent, as in Byzantine paintings, or the unconscious, as in surrealist paintings). This is what is meant by "image": a scene taken out of its temporal context, made timeless. But paintings are also spaceless, in the sense that they translate a three dimensional vision onto a plane surface. An "image" is also a scene taken out of its spatial context. Images are representations of the world that substitute a space-time reality through timeless and spaceless symbols, through fixed two-dimensional symbols.

For thousands of years there existed another method of representing space-time reality through symbols: writing. Images show their meaning instantly, but letters only if one follows their linear sequence, which means that the reading of images involves a compact and circular time, and the reading of letters a diachronical sequence. But there is another important difference between the two methods. Images translate the time-space reality they mean on surfaces of walls; they intend always to represent it. Writing may do the same, and is then called "fictional" writing. Writing may also symbolize time-space reality as a kind of map, and it is then an impoverished transcription of window vision, "scientific" writing. Therefore books can be either pictures or windows.

Films are improvements on paintings in the sense that they organize images in sequences similar to sequences of letters, synthesizing both imagelike and booklike time forms. Films are a synthesis of paintings and books of fiction, and therefore represent events "better" than do either. This image writing is a technique of representation. Thanks to it, fiction has become richer and more effective. The film is essentially a new art form.

The same technique, if applied to TV, should, however, have a different purpose. Here too, books should be absorbed into image, but not the paintinglike books of fiction. The window-like books of conception should be absorbed into the window-like TV images of perception. The same techniques that in films serve to synthesize surface and line for the representation of the world should serve the same function in TV for the presentation of the world. They should not provide men, as they do in films, with new categories of esthetic experience, but with new categories of understanding. TV was projected to be, primarily, not a new art form, but a new form of seeing and understanding the world.

Two things must be stated immediately, to avoid a misunderstanding of this paper. One is that there is no intention to deny the close and obvious link between representation and presentation, between art and knowledge. One cannot exist, obviously, without the other; and every art has obviously an epistemological dimension, and every science an esthetic dimension. The other thing to be said immediately is that there is no intention to deny the close link between film and television. TV owes much to the movies, and there are newsreels shown in movie theaters as there are movies shown on TV. This is as it should be. Also, good films, to be works of art, must increase our knowledge of the world, and good TV vision, if it comes about in the future, must provide esthetic experiences to its viewers. The point this paper tries to drive home is this: TV must try to free itself from film influence, if it is ever to become what it should be. At this stage to stress

the fundamental differences between the two seems to be more to the point than to stress the obvious similarities that unite them. In short: TV must be seen as a window through which one may look, at, among other things, paintings, but not seen as paintings. This is important, because in its present stage TV tends to transform everything it looks at into a painting, and thus becomes a second-hand and bad quality movie theater which provides false esthetic experience and false knowledge.

Let us restate the problem. TV is potentially an improvement on traditional windows, not only because it allows us to see more and different types of things, but also, and chiefly, because it provides us with new categories to see them. These categories should serve a new kind of seeing and understanding the world. Let us now try and see how they may achieve this purpose.

We have, at present, two means (or, as one now says, "media"), to look at the events of the world. Traditional windows and printed letters. The vision through traditional windows is growing ever less important for its narrowness, which is a pity, because windows usually have doors close by, so that window vision is usually followed by door commitment. Not so with printed letters. These window-like media (the press, magazines, and books), which provide a far wider vision than do traditional windows, do not make it easy to find any doors through which readers might commit themselves to the world. Also, they provide a different sort of vision. Traditional window vision is felt to be immediate. The vision provided by printed letters is mediated by these letters. This is obvious; we must learn how to decipher them before we can use them, but need do nothing of that sort when looking through a traditional window. The result of this double vision of the event we have can be stated as follows:

The immediate vision of the events provided by traditional windows can be called "perception." It has the structure of windows, which means the structure of a surface. To perceive events is to be able to imagine them, and what we see thus is an imaginable world. The vision of the events provided through the mediation of letters can be called "conception." It has the structure of writing, lines that follow each other. To conceive events is to be able to order them in sequences, and what we see thus is a logically ordered world. There is a growing abyss between perception and conception. The number of perceived events remains more or less constant (given the narrowness of traditional windows), but the number of conceived events grows constantly (given the linear and "discoursive" character of writing). Therefore the world we live in becomes ever less imaginable. Since imagination is felt to be the form of immediate vision, the world we live in becomes ever more abstract. This is why events as they appear through printed letters do not seem to concern us as much as they do if they can be imaged, and why newspapers, for instance, do not lead easily to doors for commitment. They provide maps of the world that are too abstract.

This is where TV should step in. It has a structure which allows it to present events both to imagination and conceptual thinking because its messages flow like texts on that surface. This not only means that it allows its readers to imagine events and at the same time conceive them, but also that it allows its readers to conceive images and imagine concepts. Written texts also conceive images (this is what they were made for), but no medium so far has been invented for the imagination of concepts. (Sketches of molecule structures are examples of failures in this direction.) In this sense TV may become a tool for a new type of reason, a radical improvement on windows.

TV as a tool to perceive concepts and thus be able to imagine the sounds like a structuralist's dream or a Platonic vision. But there is nothing fantastic about it. The invention of TV is very much like the invention of writing, only on a different level.

Writing is a technique of transcribing image to line, and it therefore permits the conception of imagination. TV is a technique of manipulating images in lines, and it therefore permits the imagination of concepts. Writing was a step back from imagination, on behalf of conceptual thinking. The result was historical civilization, including politics, science, and the arts as we know them. TV is a step back from conceptual thinking, the use of concepts on behalf of imagination. The results cannot yet be imagined, in view of a present lack of a correct use of TV for that purpose.

One thing seems, however, to be clear already: the proper use of TV demands a change in the attitude of viewers. They must come to understand that the box in the living room was not meant to be a traditional window, but one that they could handle. The messages that issue from it are not necessarily ready made products to be consumed, but raw material to be manipulated. This is the fundamental difference between the cinema and TV; similar techniques serve a different purpose. The viewers must learn that they stand outside the program they are receiving, that they can rearrange it, introduce themselves into it, and control the flux of events both in velocity and direction. (Minkoff's experiences in Geneva, for instance, point in this direction.) Viewers must learn that they are in part responsible for their perception of the world, and that TV was made to provide them with a tool to assume this responsibility. Unless this change of attitude comes about, TV will never become as it should be. And, admittedly, it is difficult to imagine how such a change could be brought about in the present situation of passive consumption.

If such a change of attitude should occur, the video tape itself would be different from what it is now. It would have been made with a view to manipulation by the viewer. One of the esthetic functions of future television will be not so much to provide esthetic experience, as to provide the means to criticize it and interfere in its process. Art would be something different from what it is in our present situation. And so of course, would be politics and science. TV, as it is used now,

has a potent influence on progressive massification and passive consumption, but if used as it was intended, it might have an opposite function. To some extent its use in the future depends on us, although our power of decision is very limited. To change this would require much more than just thinking about television. We should therefore try to act within the parameters of decision open to us.

Let us suppose for a moment that the present closed TV broadcast system could be rendered more dialogical than it is now and then opened to include all the participants that make up present open systems like the telephone, thus transforming television from a broadcasting system into a true network. How would TV work in such a situation? Let us go back to the basic idea of this paper that TV was projected to be an improved window. I said, when discussing the window "essence," that it is a means of perceiving the world. But it is, of course, more than this: it is also a means to meet others without touching them. One may talk out of the window, and speak to a crowd (like Mussolini at Piazza Venezia), or one may lean out the window and talk to a neighbor (like village women before cars entered the village). The first example suggests that the radio is a development of a discoursive aspect of the window: public information is imparted to private (passive) individuals. The second example suggests that TV was meant to be a development of both the dialogical and the discoursive aspects of windows: private information is made public through the active contribution of all participants in the process. If I understand McLuhan correctly, he believes that TV will transform society into a cosmic village. It will do so only if present closed circuits are improved on and then opened. (It is important to recall in the present context that "village" means "polis," and "cosmic village" means "universal politicization.")

The important thing to keep in mind, if one considers talking out of the window to others, is the fact that there is no physical contact between the partners. It is a case of "telecommunication." One sees and hears the partner without touching him concretely. What one sees is the "Gestalt" of the partner in its

context, and his gestures, which aim at transmitting some message. What one hears are the words the partner formulates, and the intonation in which they are spoken. It is an "audiovisual telecommunication."

The difference between auditive and audiovisual dialogue is difficult to grasp, because we know how an auditive dialogue works, but not how a visual one would work. We have letters and the telephone, which are advanced means for auditive dialogue, but we have no more advanced methods of visual dialogue than are traditional windows. The TV, if properly used, would jump this stage of development and provide an audiovisual dialogue method. But even if it is difficult to say how such a dialogue would work, we can be sure that it would achieve the same synthesis between line and surface, between imagination and concept, of which I spoke earlier. I discussed this synthesis as a new sort of "understanding the world," but in addition this synthesis must be seen as a new sort of "recognition of the other person."

It is a commonplace to speak of the loneliness of the mass man, of the impossibility of his "communicating" (which means in fact "dialoguing") with others. This lack of dialogue may have a great number of reasons, some of them very profound, but one obvious and not very profound reason is that mass man has no means of dialoguing with others. What he can do, is either shout at them through traditional windows, talk to them over the phone, or write them letters. The first method is archaic, and does not work well in the present situation (full of "noise," in every sense of that term, including the one given it by information theory). The telephone is not a very good method, because it was intended to be a tool of conceptual, not existential dialogue; it does not transmit images ("Gestalten" and gestures of the speaker). But in desperation, the mass man or woman abuses the telephone in trying to force it to become a tool for existential dialogue, which is one reason the telephone network is no longer working efficiently. Writing letters is not a very good method because it is almost as conceptual as the telephone, and because it is a slow process lacking the rhythm of traditional dialogue through windows.

In short: we live lonely in a lonely mass, because our tools tend to separate us from each other, and we have no good tool to unite us.

TV, if used dialogically in open circuits, might become just such a tool. It would allow us to "recognize" the other person, in the sense of perceiving and conceiving his message, and it would allow the other person to recognize us in the same way. A dialogue through such a medium would permit an intersubjective relationship which has both an intellectual and an existential dimension. Which means that the participants, linked to each other both intellectually and existentially, would form a true "polis" and would no longer be lonely. To put it more technically: such a tool would allow all of us to elaborate new epistemological, ethical, and esthetic information. Which means that our society would acquire the structure of a cosmic village. A future use of TV as an audiovisual window for discoursive communication with the world and dialogical communication with the other person would provide us with a new type of reason and a new type of social structure. The problem is not a technical one. The problem lies with the resistance of both the owners and the users of TV to such a use of the medium. It is a political problem. It is not easy to see how this resistance might be broken.

TV was projected as an improved window, a medium for understanding the world and dialoguing with others. It is not used this way at present, because its present structure fosters the myth that TV is "cinema made private." This myth suits well the purposes of those who control the structure, and is accepted without resistance by its users, because it liberates them from responsibilities and allows them to lead a life of consumption—of messages and of the goods those messages propagate. The result of such a use of TV is a tendency toward a totalitarian society, in which man becomes a lonely tool manipulated by those who hold the powers of decision. Let us contribute to a better use of TV in the future.

It is rather futile to embark on a discussion about politics and television without making a few preliminary choices concerning the political position of those who take part in it. This does not by any means imply a sort of ideological striptease. It is rather a question of method which has to be answered if we want to achieve a minimum of clarity. Just as an example, I myself can scarcely be said to belong to the tiny minority which is running capitalist societies on either side of the Atlantic. Nevertheless, I can perfectly well examine the political potential of television from the point of view of that minority. I even think that this would be a useful and perfectly rational exercise, and I would like to indulge in it for a moment.

Television and the Politics of Liberation

At first sight, from the point of view which I have adopted, television does not seem to be an unmixed blessing. It can even be said to be a terrible nuisance. Clearly, in the class perspective chosen, television must be considered as a tool for controlling the behavior of the population. Its deficiencies in this respect are rather serious. In the United States, this can be shown by two obvious examples: the role played by television in the Vietnam War, and the endless troubles which are loosely called by the name of Watergate. In both instances, American television has sharpened the contradictions involved instead of bringing them under control.

Several interpretations of this fact are possible. There are still a few liberals left who regard it as proof of their contention that the United States has never ceased to be a functioning democracy. They still maintain that all this talk of a minority running the country is rubbish. Some of my Marxist friends, on the other hand, offer an equally simple though diametrically opposed explanation. If American television engages in political controversy, if it brings out contradictory positions, they say, this is just a devious device used by a monolithic ruling class in order to deceive and manipulate the population at large.

Neither of these interpretations strikes me as convincing. Of course, I would not deny that any capitalist society is run by a minority group. But I fail to see why this class should be thought of as a solid and homogeneous body with a unified strategy. Like all classes, past or present, it is divided into rival factions and ridden with all sorts of internal contradictions. To the extent that it is overtly political, television reflects these internal divisions and brings them out into the open. The degree to which the power struggles within the ruling class are extroverted by Western television is without precedent in history, and all current theories of manipulation only serve to obscure this fact. An equally important qualification, however, must be made if we want to escape liberal illusions. The way in which television publishes internal power struggles is itself contradictory, since it involves people in political controversy while excluding them effectively from having any real say in it. In this respect, the networks have assumed some of the most important functions of representative democracy. They give us an illusion of political participation. In this they are much more effective than universal suffrage, since the process of election gives us an illusory option every two

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or four years, while TV keeps us plugged in one day after another. Like Congress, only much more so, it can therefore be seen as a sort of homeostatic machine expressing, and at the same time containing, the contradictions which arise within the ruling class. The in-fights, of this minority are acted out symbolically on the screen, as a kind of strategic simulation game which tends to prevent open clashes from occurring in reality. On balance, television thus works as a servo-mechanism increasing the overall stability of a given social system. Obviously, such a setup is much more sophisticated than a simple switch, and far more effective as a means of controlling complex and fluid situations.

For one thing, it is conceived of as an automaton with a fair degree of autonomy. If you look, let us say, at the thermostat controlling the temperature of a room, you will find that it is unattended. No Big Brother is needed to prevent us from either boiling or freezing. You will also find that the controlling impulses issued even by this simple device are contradictory: it will turn the burner on and off at irregular intervals in order to keep our environment stable. While a heating system is concerned with one variable only, mass communications are dealing with an enormous number of interrelated parameters. This is why a single device for governing them would be insufficient, and why a whole battery of interlocking networks is needed. I submit that the rationale of pluralism is to be found in its systematic advantages rather than in its traditional foundations. We have come to realize, after all, that Declarations of Human Rights and Constitutions are generally violated, circumvented, or ignored whenever the ruling minority finds them "inoperative."

The advantages of pluralist television over crude methods of direct control are considerable, as can be seen by even the most perfunctory comparison to media systems as they exist, for example, in Eastern Europe or in Spain, which are controlled by a simple switchboard arrangement. Such systems have at least three important shortcomings from the point of view of the ruling groups. First of all, they have to be continually watched and attended at every step, and deliberate instructions have to be given at each point and for every single operation. For every censor you have to install another one supervising him. Even minor decisions have to be taken at the top of the power structure.

Since the system is incapable of self-adjustment, errors of judgement assume large proportions before they can be corrected. Second, the system does not provide symbolic outlets for internal power struggles. Tensions and contradictions have to be dealt with head on and in secret, which creates an atmosphere of insecurity and over-caution as long as they can be contained, and makes for intrigue and disruption when the breaking point is reached. Finally, the system is unable to win credibility. The audience is led to take an attitude of indifference and cyncism. As a side effect, the system is extremely vulnerable to outside interference. Since the information environment cannot be sealed off hermetically, outside sources gain in credibility and prestige what is lost by the domestic system.

I might add that this short analytical outline does not only concern those parts of the television program which deal directly with politics, like newscasts, reports and commentaries. It applies even more to the much larger mass of the program iceberg which carries latent political messages expressed in a great variety of cultural codes, messages which invade the viewer's mind at every level of consciousness. If we now proceed from the networks to specialized-circuit television systems, we need not bother much about ambiguities and contradictions. Their advantages for purposes of control and indeed of repression are obvious and clear-cut. In the latter stages of the Vietnam War, the U.S. Armed Forces have conclusively demonstrated their military potential. Police and intelligence establishments all over the world have come to realize the enormous possibilities which video offers as a means of identification, surveillance and blackmail. It is only a matter of time until central video pools will be installed by political authorities and private corporations, where visual information can be stored, retrieved and disseminated at will.

We may conclude that from the point of view of the ruling minority, the complaints and insults heaped by Mr. Nixon, amongst others, on Western television seem to be grossly unfair, if not entirely incomprehensible. Granted

that the networks may be a pain in the neck at certain times and for certain individuals; but I still think that the President of the United States ought to show, especially in times of adversity, a stronger sense of his solidarity with the minority of which he is a part. As a President, you have to make allowances for your allies, especially for those who serve you unwittingly, because in the end not just your own but the power of your whole class depends on alliances, since you are a minority. Some of your most vociferous enemies think that the people responsible for American television are merely your mindless lackeys, devoid of a will of their own. This is a misconception which you would do better not to share. Just think of all those faithful friends you have in the Pentagon. Do not even they show signs of having a will of their own? Don't they order a few extra massacres now and then, or start a capricious little war of their own, which might turn out to be embarrassing? Yet it would not occur to you to consider them as your enemies. You know that you must bear with them. The same is true of television. You cannot do without the network boys, even when they start throwing rotten eggs at you.

This, in short, is how I would argue about television if I had a stake in what we may call the Politics of Control. I take it that the majority of us are not in this line of business. Therefore, I shall now turn the tables and try to analyze the political potential of television from an opposite point of view. I think that it will not do to call this perspective a revolutionary one, for this once so forceful name has been used in vain so often that it has become inflated beyond any real meaning. Let us rather speak of the Politics of Liberation and see if we can make sense of this concept. I shall not make an attempt to define it in theoretical terms. It is guite sufficient to point to the very real movements which appeared in Western capitalist societies during the Sixties and culminated in 1968. Five years later it is possible to say that these movements were progressive and traditional at the same time. They were traditional in the sense that they took very old Western ideas to their logical and extreme conclusion. They demanded real instead of

formal democracy; they turned against domination and discrimination not only in terms of class, but also in terms of race and sex; they demanded, in the face of alienation, man's realization of himself on the personal as well as on the social level; and they wanted to do away not just with a given set of authorities, but with institutionalized authority altogether. At the same time, the Politics of Liberation inherently held on to a belief in material progress. In Marxist terms, it seemed to be the development of the productive forces engendered by capitalism which had brought us to a level of affluence allowing us to abandon the old ethics of work and acquisitiveness and promising an end to scarcity. For the first time in history, utopian thinking seemed to meet the material conditions for its own realization. Liberation had ceased to be a mere wishful thought. It appeared to be a real possibility.

I am sure that the general enthusiasm about the possibilities offered by the electronic media, the air of discovery and expectancy which we all felt a few years ago, cannot be understood apart from the political context of what used to be called The Movement. Even the doubtful contributions of an author as unpolitical as Marshall McLuhan took on a radical complexion, as if by mimicry or camouflage. Starting from the political premises which I have briefly tried to sketch, television as a medium came to be seen as a potentially liberating force. It was, after all, easy to show that it is structurally an eminently participatory means of communication. In contrast to older "linear" media it is not, by its very nature, self-limiting and elitist. Everybody can use it, since everybody knows how to speak and to act and to play (while writing a book is a highly specialized activity). If in actual fact the use of TV is limited to a small number of privileged people, if the huge majority of its users are reduced to the state of mere consumers, this is not an unalterable fact of life. On the contrary: it goes against the grain of what TV really is about. As the Marxist jargon would say, it is the relations of production which are fettering the productive forces, and therefore have to be thrown off. Only then can television come into its own.

I know very little about American attempts to put these ideas into practice, but in Western Europe people who thought in terms of "radical software" evolved, in the late Sixties, a kind of double strategy to deal with their immediate problems. Like everyone else, of course they had to confront gigantic institutions. As you know, radio and television in most European countries are organized as monopolies, which are run either by the state, as in France, or as public corporations governed by an assortment of interest groups (political parties, churches, trade unions and so on), as in the case of the BBC or the West German system. One would have to go into the detail of these arrangements in order to show that they are of considerable political importance. Even a small degree of independence from direct commercial or administrative control can make a big difference in program output. The idea of the double strategy was to exploit even the tiniest democratic joints and fissures of the bureaucratic facade, and at the same time to create a maximum pressure from without. The first part of the operation, the inside aspect of media work, corresponds rather closely to the politician's nightmare of subversive "infiltration." In actual fact, however, there is nothing particularly secret or sinister about it. Paranoia apart, it is normal that within any cultural apparatus there is always a certain tension between administrators and productive people; it is also a fact that you cannot make an even tolerable program without recruiting a certain amount of talent. And it just happened that by the mid-Sixties those who favored the Politics of Control were not exactly the brightest or most talented kids. The result was that in many European countries a lot of key positions, especially at the intermediate level of programming, were taken over by radicals of different shades.

The other side of the double strategy was even more ambitious in its aims. In some cases, direct mass confrontations were attempted. We saw people demonstrating in front of television headquarters demanding network time to voice their opinions; there were also instances of militant guerrila radio and even television stations operated by small political groups. Little is known about these ventures, because most of them were closed down very quickly by the police,

but it would be fascinating to examine them more closely. Their technology was primitive, but their projects are interesting because they reveal a keen sense of the possibilities of the medium. If you succeed, for example, in broadcasting an alternative soundtrack to an official TV newscast, the result can be devastatingly effective; all you need is a relatively powerful mobile FM radio transmitter and a speaker capable of improvising a rich and mordant commentary. To take another example with much greater political implications: suppose that in May, 1968, the movement had been able to fall back on an informal network of video groups, however technically simple. The process of political learning engendered by factory occupations all over France would have reached staggering proportions. As it happened, the government retained the monopoly of information, and the workers were isolated in their respective sites, unable to coordinate their actions on a national scale.

Five years afterwards it is perhaps time for a reassessment. It is only too obvious that the enthusiasm and the upsurge in radical media work have receded. However important moods may be in all activities tied to the superstructure, a notoriously volatile social sphere, I propose that we take a sober look at the factual situation first. It may be useful to stick to the idea of a double strategy for awhile and to examine the inside and the outside approach separately. As far as I can see, no progress at all has been made in the more militant forms of guerrilla radio and television. Organized political groups have dropped the idea out of hand, and if in any European country a situation comparable to the French May revolt came about, a video infrastructure would simply not exist. Certain projects aiming at alternative television persist in some places, but they do not pursue specifically political intentions. Video workshops exist in quite a few communities, especially in Holland, in Scandinavia,

and in England, most of them sponsored by local authorities. There is also a tendency to introduce the medium into the school system, and advanced schools and colleges are experimenting with it in an active way. To the extent that this work aims at more than just introducing another instrument for technocratic teaching, it is certainly useful and even promising. But the political implications are modest indeed. No organized activity beyond making video pictures is involved, and most of the teachers consider the new medium just as another means of individual self-expression. Another type of video workshop, generally with looser ties to institutional structures and sometimes quite independent of them, is the artists' cooperative. Here the video tape is first of all seen as a vehicle of formal innovation, replacing the more expensive technology of the underground film. I would not for a moment deny that this kind of work has produced fascinating results. What is more, much of it could never have been done in any other medium; we may take it that these video artists have virtually created a new visual experience. Still, the fact remains that video, within this artistic framework, has reverted to a minority of makers in much the same way other, more traditional modes of expression have done. To a minority of makers, and, at the same time, to a minority of viewers. While it is true that some advanced video art has passed into the public networks, it is usually relegated to late program hours or to channels specializing in elaborate cultural codes.

This brings us to the changes which we can observe inside the official television systems. At least as far as Western European networks are concerned, the political movements of the Sixties have wrought very far-reaching effects. Compared, let us say to the late Fifties, programs have changed dramatically in structure and content. An obvious politicization of the medium has taken place. In West Germany, for example, an enormous number of issues have been raised on the screen which would have been unmentionable fifteen or even ten years ago. Also, the networks have developed a noticeable concern with feedback. There are now regular broadcasts devoted to criticism and self-criticism regarding the station's own programming and production habits, an idea which would simply not

have occurred to the preceding generation of TV managers. While these efforts may be seen as a merely symbolic way of dealing with participatory demands, there is at least one case where political pressure has brought about structural change. I am thinking of the strikingly novel form of TV organization which has been set up in the Netherlands. In this system, a clear-cut division is made, first of all, between the technical infrastructure of television, its production and broadcasting facilities on the one hand, and the planning, making and editing of programs on the other. A service center taking care of the hardware is established by Act of Parliament. Just as the Post Office is not supposed to interfere with whatever people may wish to write to each other (I do not want to go into the quaint business of the U.S. Post Office safeguarding the sexual mores of American citizens), the Television Service Center has no authority whatsoever over, and no responsibility for the programs emitted with the help of its technicians. Access to TV time is regulated by a subscription system. Anybody who wants to start a TV program of his own can canvass for an audience. The subscription rate is fixed by law. You have to pay a monthly contribution if you want to use a TV set at all, but you are free to choose the program you favor. In practice, this is rather like getting every daily newspaper published in the place you live in, but paying only for the one you like best. Network time is alloted to programs according to the number of their subscribers, no matter what their outlook or platform may be like. It is, of course, not an ideal system. Given the social environment it operates in, it is easier for established interest groups to attract subscribers than it would be for newcomers partial to far-out ideas. I understand that the minimum of subscribers required in order to gain access to the network is in the region of 100,000. Still, it is a setup which gives a certain amount of real power to the audience. It offers solid guarantees to minorities, and it is logically consistent with democratic principles. In this respect, it is unique.

On balance, the changes brought about in European television during the past five years may seem to be both far-reaching and positive. Such a conclusion, however, would be rash and superficial. A number of countervailing tendencies have to be considered. The radicals who have found their way into television in the Sixties are now contending with an increasingly hostile political climate within the networks. Their organized bargaining power is practically nil. It has therefore been relatively easy to isolate or co-opt them. Generally speaking, they are on the defensive. And if you look a little closer at political programming, you will find that all those reports, interviews, documentaries and features which are labeled "controversial" by the networks are in fact carefully calibrated to achieve what TV bureaucracy cherishes most: a "balanced view" excluding anything and anybody who might rock the boat. The Politics of Liberation are not banned, but they appear framed, adjusted and diluted beyond recognition. Of their initial impact on the media system very little is left. The truth of the matter is, I think, that the "double strategy" advocated by the radicals of 1968 has never succeeded, at least not in the way they had bargained for. The individual intervention of those who entered television with a political purpose in their minds actually had a very limited direct effect. As in other areas of social conflict, the changes brought about by the political movement of 1968 were largely indirect ones. As in most political movements, the students got something out of their fight, but they did not get what they wanted. The Politics of Liberation achieved a marked and probably irreversible shift in social attitudes, but it would be ludicrous to say that they brought liberation to the media or to anybody else.

Altogether, it is impossible to arrive at sweeping conclusions. The Politics of Liberation havesucceeded: the Politics of Liberation have / failed. Both of these propositions could be defended, and both would ultimately appear meaningless. The alternative is not to hang on to the ideas of 1968 as if

nothing had happened since, or to discard them altogether. If we want to examine the outlook for television as a medium of emancipation, we would do better to question, one by one, the assumptions and beliefs underlying radical thought and radical action in the Sixties.. Such an effort of self-critical appraisal will reveal, I think, that at least three of these basic tenets have not withstood the acid test of reality. The issues involved go, of course, far beyond the specific problems of television, but since they have a very direct bearing on the future of radical media politics, I shall try to discuss them briefly.

In the first place, the rhetoric of the Sixties employed Liberation as a universal concept, very much in the way Reason appeared in eighteenth century thought as an indivisible force in history. At the highest level of abstraction, this notion may make some sense, but in terms of any conceivable political practice it is a delusion. Just as the totality of Reason has long since disintegrated into a multitude of contradictory and even antagonistic partial reasons (for example, scientific, economic, technocratic and bureaucratic rationalities), Liberation does not mean the same thing for the Vietnamese, for the white working class in the United States, for homosexuals in Cuba, for black Americans, for Greek students, for Indian peasants, for Italian middle-class housewives, and for Russian intellectuals. This is not a merely ideological question. There are vital material interests involved, and some of them appear to be incompatible. The conflicts which inevitably result from this state of affairs have to be taken seriously, and cannot be covered up by slogans promising everything to everybody concerned.

Another assumption which emerges from the past five years in a rather battered state is the belief in material progress. It is of course true that the movements of the Sixties have always been of two minds in this respect. It is not by accident that in America especially a widespread feeling of scepticism and disgust made itself felt from the very start. Still, the level of industrialization attained by Western societies was implicitly taken for

granted, and the idea prevailed that it was merely a question of putting this potential to a better and more human use. In Europe, this proposition was generally couched in Marxist terms. The development of productive forces was seen as the prerequisite for liberation and indeed as a social force promoting it; it was all a matter of bringing these forces under the control of the working class. The political potential of television was seen in this context. In the electronic media, capitalist society had unleashed a productive force which it would be unable to contain and which therefore would play an important role in the inevitable crack-up of class society.

A third basis idea widely accepted by the radicals of the Sixties and now fallen into general disrepute was the belief that a life of abundance for everybody is attainable. This is really a corollary of the belief in progress. The level of affluence reached by Western societies was not only overestimated, it was seen as a permanent condition, which could be expanded and generalized once the repressive regimes of capitalism and bureaucracy were overthrown. Automation would then liberate people from the drudgery of labor and from alienation. Our latent capacities would be set free. L'imagination au pouvoir! Again, the electronic media were seen as an instrument which could help to bring about this new stage of history, and at the same time their creative use by everybody was seen as one of its utopian promises.

Nowadays, of course, the barest recapitulation of the ideas and assumptions many of us shared some time ago is bound to sound like a sarcastic joke. It is almost necessary to stress that I do not intend to ridicule a way of thinking with which I myself identified to a large extent. As we all know, scarcity is back on the agenda of history; it has never ceased, and it is probably here to stay. There is no need to dwell on the reality of economic crises, dwindling resources and impending ecological disaster. It would take a rather masochistic bend of mind to rejoice in the prospect. Under conditions of scarcity, class and race antagonisms will sharpen, national and international conflicts are bound to increase. The imaginary unity of the fight for liberation

will disintegrate. As always in times of adversity, people will tend to turn to strong institutions for leadership and a semblance of security; central power will be strengthened and not weakened in the process. The outlook for real democracy is bleak, and even formal democracy is menaced by authoritarian encroachment in most parts of the world.

The implications for radical media politics are evident. Most of our utopian hopes will have to be scrapped for the foreseeable future. The Politics of Liberation have to be reexamined. A strategic retrenchment seems inevitable. The only other options are self-delusion, panic or resignation. Within the networks, political work will become more difficult, and it will take more toughness to get anything doen. For the fool's paradise of radical chic I can see no future. As for alternative television, it will probably suffer from dwindling material support. Video artists may well be able to preserve enclaves of free expression and experimentation for many years, but for immediate political purposes I would guess that militant groups will fall back on cheaper, simpler and older means of communication.

Lest these conclusions appear an exercise in pessimism, let me emphasize that if the Politics of Liberation are in for hard times, there is absolutely no reason to believe that the Politics of Control will be able to solve any of the problems which we shall be facing. In periods of crisis, there are always those who argue that we are all in the same boat and that the captain knows best. The current rhetoric of WASP ecology, for example, reverts to this line of thinking in its favorite metaphor: the "Spaceship Earth." One more step in the same direction, and you end up by saying that political fight is something we cannot afford any more, that it is frivolous to engage in controversy, and that democracy has become a luxury. These are dangerous superstitions. The more critical the situation, the less we can afford to waste our ultimate resources: intelligence, imagination, and defiance. The Politics of Control are unable to mobilize these resources, and unless they are set free, the Politics of Survival are doomed to fail.