

As problem solvers we are a nation of hardware freaks. Some are into seizing property or destroying it. Others believe in protecting property at any cost—including life—or at least guarding it against spontaneous use. Meanwhile, unseen systems shape our lives.

Power is no longer measured in land, labor, or capital, but by access to information and the means to disseminate it. As long as the most powerful tools (not weapons) are in the hands of those who would hoard them, no alternative cultural vision can succeed. Unless we design and implement alternate information structures which transcend and reconfigure the existing ones, other alternate systems and life styles will be no more than products of the existing process.

Fortunately, new tools suggest new uses, especially to those who are dissatisfied with the uses to which old tools are being put. We are not a computerized version of some corrupted ideal culture of the early 1900's, but a whole new society because we are computerized. Television is not merely a better way to transmit the old culture, but an element in the foundation of a new one.

Our species will survive neither by totally rejecting nor unconditionally embracing technology—but by humanizing it; by allowing people access to the informational tools they need to shape and reassert control over their lives. There is no reason to expect technology to be disproportionately bad or good relative to other realms of natural selection. The automobile as a species, for example, was once a good thing. But it has now overrun its ecological niche and upset our balance or optimum living. Only by treating technology as ecology can we cure the split between ourselves and our extensions. We need to get good tools into good hands—not reject all tools because they have been misused to benefit only the few.

Even life styles as diverse as the urban political and the rural communal require complex technological support systems which create their own realities, realities which will either have to be considered as *part of the problem, or, better, part of the solution*, but which cannot be ignored.

Coming of age in America means electronic imprinting which has already conditioned many millions of us to a process, global awareness. And we intuitively know that there is too much centralization and too little feedback designed into our culture's current systems

The only pieces of public technology, for example, which are responsive to human choice are electric-eye doors and self-service elevators. Street-use patterns and building designs completely structure our experience rather than vice-versa. (*The people belong to the streets*). When you get into mass communications systems other than the telephone: not only is control centralized, but decision-making is an institutional rather than a people process.

Fortunately, however, the trend of all technology is towards greater access through decreased size and cost. Low-cost, easy-to-use, portable videotape systems, may seem like "Polaroid home movies" to the technical perfectionists who broadcast "situation" comedies and "talk" shows, but to those of us with as few preconceptions as possible they are the seeds of a responsive, useful communications system.

Videotape can be to television what writing is to language. And television, in turn, has subsumed written language as the globe's dominant communications medium. Soon, accessible VTR systems and video cassettes (even before CATV opens up) will make alternate networks a reality.

Those of us making our own television know that the medium can be much more than "a radio with a screen" as it is still being used by the networks as they reinforce product oriented and outdated notions of fixed focal point, point of view, subject matter, topic, asserting their own passivity, and ours, giving us feedback of feedback of information

rather than asserting the implicit immediacy of video, immunizing us to the impact of information by asking us to anticipate what already can be anticipated—the nightly dinnertime Vietnam reports to serialized single format shows. If information is our environment, why isn't our environment considered information?

So six months ago some of us who have been working in videotape got the idea for an information source which would bring together people who were already making their own television, attempt to turn on others to the idea as a means of social change and exchange, and serve as an introduction to an evolving handbook of technology.

Our working title was *The Video Newsletter* and the information herein was gathered mainly from people who responded to the questionnaire at right. While some of the resulting contents may seem unnecessarily hardware-oriented or even esoteric, we felt that thrusting into the public space the concept of practical software design as social tool could not wait.

In future issues we plan to continue incorporating reader feedback to make this a process rather than a product publication. We especially hope to turn the interest and efforts of the second and third television generations on college campuses, whose enormous energies are often wasted by the traditional university way of structuring knowledge, towards the creation of their own alternate information centers. (We are of the first television generation ourselves.)

To encourage dissemination of the information in *Radical Software* we have created our own symbol of an x within a circle: ⊗. This is a Xerox mark, the antithesis of copyright, which means *DO* copy. (The only copyrighted contents in this issue are excerpted from published or soon-to-be published books and articles which are already copyrighted.)

The individuals and groups listed here are committed to the process of expanding television. It is our hope that what is printed here will help create exchanges and interconnections necessary to expedite this process.

Please enclose information pertaining to the following:

1. Personal Biography (publishable and for use in our own files, i.e., resume type information, past activities prior to video, or simultaneous with, etc.).
2. Experimentation with video.
 - a. Why are you using video? How long have you been using it?
 - b. What experiments have you made, are you presently making, and do you plan to make with this medium?
 - c. Where do you see yourself going with video (in relationship to both hardware and software aspects)? Which are you personally more interested in developing? What are some of your overall concepts?
 - d. What do you predict for the future of videotape and TV?
 - e. How do you work (individually, collaboratively, both)?
 - f. What equipment do you use? Own? Do you plan to continue to use this, or are you planning to switch to some other? Please comment on quality and efficiency of equipment now available to you.
 - g. What equipment would you like to see manufactured?
 - h. What information would you like to obtain from other people who are experimenting with videotape in this and other countries? (Do you have any solutions, questions, or information about compatability?)
1. How do you think video can best be displayed publicly?
- j. How do you think videotape can best be used non-commercially for profit?
- k. What kind of information would you like to see included in this newsletter?

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HARDWARE

Frank Gillette	Is EVR a Good or Bad Thing?
Richard Kahlenberg	excerpts from <i>Film and TV Cartridges: A Preliminary State of the Art Report</i>
Robert Kragen	<i>Art and TV</i> —how to construct an oscilloscope
Thea Sklover	CATV—April Conference in Chicago, and <i>Cable Television: A New Ballgame?</i>
Gene Youngblood	excerpts from <i>The Videosphere</i> and <i>Video Cassette Image Publishing</i>
Other	Standardization

SOFTWARE

R. Buckminster Fuller	Pirated transcription of interview videotaped by Raindance Corporation
Frank Gillette	<i>Random Notes on the Special Case or (Loop-De-Loop)</i>
Dorothy Henaut and Bonnie Kline	<i>In the Hands of Citizens: A Video Report</i>
Nam June Paik	<i>Expanded Education for the Paperless Society</i>
Paul Ryan	<i>Cable Television: The Raw and the Overcooked</i>
Jud Yalkut	Parts I and II of an interview with Frank Gillette and Ira Schneider

CONTENTS

NUMBER 1 1970

ENVIRONMENT

Paul Ryan	<i>Three Pieces: Some Explication</i>
Marco Vassi	<i>Videotape Piece: Thank You for Presenting Me With a Difficult Problem</i>
Other	Drawings by Davidson Gigliotti and Diagram by Ira Schneider

FEEDBACK

ANT FARM	RAINDANCE
Fred Barzyk	Paul Ryan
S.U.N.Y. Students	Loren Sears
Jackie Cassen	Al Schefflin
Frank Cavestani	Eric Siegel
Tom De Witt	Harvey Simons
EAT	Peter Sorenson
Environmental Cinemas	Rick Sternberg
Phil Gietzen	Frederick Stoller
Vincent Giuliano	Stan Vanderbeek
GLOBAL VILLAGE	VIDEOFREEX
Mark Hawthorne	VIDEO WORKSHOP—Amsterdam
HOMESKIN	Joe Weintraub
Howard Junker	Brian Wood
Robert Kragen	Joyce Wyden
Ted Kraynik	Gene Youngblood

RANDOM ACCESS

Alex Gross	<i>Taping the Galaxy</i>
Aldo Tambellini	<i>Simultaneous Video Statements</i>
Marco Vassi	<i>Zen Tubes</i>
Nam June Paik	<i>Utopian Laser TV Station</i>
Michael Shamburg	Review of Nicholas Johnson's <i>How to Talk Back to your TV Set</i>
Past Video Shows	<i>TV as a Creative Medium: Vision and Television</i>

HARDWARE

THE VIDEOSPHERE

by GENE YOUNGBLOOD

In 1948 approximately 200,000 American homes had television sets; fifteen television stations were broadcasting regularly. By 1958 some 520 stations were broadcasting to receivers in 42 million homes. Today there are tens of thousands of broadcasters and approximately 100 million homes have television sets. More than 95 per cent of American homes have TV sets today, approximately 14 million of which are color. In fact there are more TVs in U.S. homes than telephones, bathtubs or refrigerators. TV antennas bristle from the rooftops of ghetto shacks that don't even have plumbing. An estimated quarter-billion television receivers are in use around the world.

Television is the software of the Earth.

The videosphere is the *noosphere*—global organized intelligence—transformed into a perceivable state.

This implosive, self-revealing, consciousness-expanding process is irreversible. Global information is the natural enemy of local government, for it reveals the true context in which that government is operating. Global television is directly responsible for the political turmoil that is increasing around the world today. The political establishments sense this and are beginning to react. But it's too late. Television makes it impossible for governments to maintain the illusion of sovereignty and separatism which are essential for their existence. Television is one of the most revolutionary tools in the entire spectrum of technoanarchy

Television, like the computer, is a sleeping giant. But those who are beginning to use it in revolutionary new ways are very much awake. The first generation of television babies has reached maturity having watched 15,000 hours of television while completing only 10,000 hours of formal education through high school. Yet television itself still has not left the breast of commercial sponsorship. Just as cinema had imitated theater for seventy years, television has imitated cinema imitating theater for twenty years. But the new generation with its transnational interplanetary video consciousness will not tolerate the miniaturized vaudeville that is television as presently employed. We will liberate the media.

Cheap, mass-produced, personalized radar sets and house-to-house closed-circuit television broadcasting soon will be available . . .

Approximately 75 per cent of all TV homes in America are now "all channel," that is, receiving UHF as well as VHF programming. **It is estimated that 97 per cent will be all channel by 1974.** Meanwhile there are fewer than 100 communities of more than 2500 population that do not have CATV systems now operating or with applications under consideration.

. . . The FCC recently granted permission for Microwave Communications, Inc. to compete with AT&T by offering CATV systems for rent at parts of a circuit for part of a day. AT&T charges for a whole circuit 24 hours a day. The first lines were to be available between Chicago and St. Louis **by July 1970.**

. . . **a new way to transmit CATV** programs without laying down miles of cable has been developed . . . a "quasi-laser" broadcasting system with power requirements in the range of a flashlight battery. . . . the system transmits up to 15 miles and is "virtually impervious" to atmospheric conditions.

. . . the New York County Lawyers Association currently is studying the question of whether the public, as owners of the airwaves, have a right to compel TV stations to provide free CATV service since it is the clearest reception.

. . . a two-way television system that can measure audience reactions instantly via cable and computer interface.

By autumn of this year, Bell Telephone's first commercial Picturephone service will be available to the public. . . . AT&T will begin testing a variety of equipment that can read your gas and electric meters via the same lines.

. . . A laser videophone is now in operation at the headquarters of Nippon Electric Company in Japan, between buildings 300 yards apart.

. . . (Nippon Electric Company) has used lasers to transmit black-and-white television over a distance of three miles.

A laser-line telephone system that also carries black-and-white TV is now in operation in a high-rise office building in Moscow.

. . . "demand TV" or "telecommand" systems are expected by about **1978.** This system will allow an individual to telephone regional video library/switchboards, ordering programs from among thousands listed in catalogues. The programs will be transmitted immediately by cable, . . .

Two networks in Japan are now so automated that two computers in headquarters connect 26 TV stations, schedule production work on 600 to 700 shows at a time, operate master switching controls, warm up equipment, select films and tapes and put them on the air. They do much the same for 33 radio stations.

. . . "videofax" or "homofax" process of facsimile replication and distribution by which one will receive newspapers, magazines and educational documents over home facsimile receivers. Although **demonstrated as early as the 1930's** homefax systems are only now coming into commercial use. . . . the facsimile revolution challenges current FCC regulations of content of CATV programs. **Since the "content" of the facsimile system is a newspaper, present government rulings amount to an impairment of freedom of the press.**

The three major satellite networks—the Comsat/Intelsat series, the U.S. Defense Department series, and the Soviet Molniyas series— . . .

By 1972 no geographical area of the world will be without access to communications satellites.

Direct satellite-to-home TV is planned for NASA's Applications Technology Satellite-C scheduled for launch in **1974.** According to a study made for NASA by Sylvania, home TV sets could be modified to pick up the signal for \$100 to \$150. Spokesmen for General Electric, however, maintain that the average American TV set could be converted to direct-from-satellite reception for about \$50 and (in black-and-white at least) deliver a better picture than most sets get now. Comsat claims its "local" satellite system would require no modifications of the home receiver.

Comsat officials say they can put a domestic satellite system into orbit within 24 months after receiving federal approval.

In September of 1969 the U.S. and India signed a pact which will bring direct satellite-to-village television for 5000 villages in India. Manually-operated generators in each vil ge will provide electricity to operate one community TV set and a ten-foot dish antenna that will reach out 22,300 miles over the Indian Ocean to receive programs from two satellites. Next India hopes to have a TV satellite system that will reach directly into 560,000 villages **by 1975,** and for less than \$200 million. Thus India has entered the television phase of the industrial equation considerably in advance of previous nations, having completely bypassed the ground relay stage and beginning with satellite television.

Within five years constant analysis of this planet via TV satellites will be a \$2 billion industry Remote multispectral sensing capabilities of the satellites can distinguish between various types of crops such as wheat, oats, and corn, and can also provide an early-warning system for the spread of insect infestation or crop disease, lack of adequate water, livestock movements, changes in grazing patterns, in forest and water tables, and even wild animal and bird migrations may be continuously surveyed. By measuring light and heat emanations, the flows of traffic in and out of cities can be computed; patterns of human occupancy of buildings can be deduced from temperature changes—all from satellites thousands of miles above Earth.

Equipped with special high-resolution 5000-scanline cameras in a low 500-mile orbit, satellites have yielded picture resolution equivalent to 100 feet above ground. Higher resolution is possible, officials announced, but some countries would complain of "invasion of privacy."

The Nippon Electric Company of Tokyo has announced that its solid state flat TV set composed of light-emitting diodes will be released on the commercial market **next year.**

. . . it appears that flat wall TV sets will be on the commercial market **by 1978** at the latest.

It is estimated that **in 1975** your average color TV set will cost less than \$50.

. . . a TV receiver only 5-½ inches thick with a 13-inch screen.

. . . a TV tube with a screen 4 x 6 feet but only one foot thick.

. . . a compact tubeless TV camera less than two cubic inches square (smaller than a man's hand) which utilizes solid-state light sensors instead of the conventional photo-cathode screen.

. . . a high-resolution TV camera less than one pound and small enough to carry in a pocket, . . .

. . . a half-dollar-size TV screen

. . . a two-dimensional laser color TV with a screen 10 x 6½ feet, composed of thousands of glass bars only two millimeters thick, . . .

. . . transistorized TV sets with rechargeable 500-hour batteries.

. . . a 200-scanline system with picture definition so sharp that it may be transferred to 35 to 70 mm film via laser for common movie theater use.

. . . "video Braille" . . . a TV camera scans an area and the picture code is transmitted to 400 solenoid stimulators on the blind person's back, where the picture is translated onto the skin through plastic-tipped vibrators.

. . . most observers estimate that TV cameras small enough to fit in a human eye socket will be developed **within the next 10 years.**

. . . television sets that translate foreign-language programs into the language of the receiver's local area . . .

By 1972 more than 200,000 low cost videotape recorders will be in use in the United States, and the video cassette image-publishing industry will be well on its way to blanketing the Earth with audio-visual information. The videosphere will alter the minds of men and the architecture of our dwellings. "There's a whole new story to be told," says video artist Scott Bartlett, "thanks to the new techniques. We must find out what we have to say because of our new technologies."

Excerpted from **THE VIDEOSPHERE** by Gene Youngblood, *copyrighted material*, to be published July, 1970, in *Show Magazine*.



Rolf-Ulrich Kaiser, at 5 Koln-Dellbruck, Bergisch Gladbacher Str., West Germany, is writing a book about the "Counter Media" in which he will have a section about videotape.

Expanded Cinema by Gene Youngblood, to be out in July by E.P. Dutton & Co.



CATV

by THEA SKLOVER

APRIL CONFERENCE IN CHICAGO

Cable television operators marched into Chicago on April 30 in order to learn about alternative software packages available for cable-casting. The meeting was planned in response to the Federal Communications Commission's rule requiring all CATV systems with over 3,500 subscribers to offer "a significant amount" of their own programming by January, 1971. At present, there are 270 systems that fall into this category.

The growth of the cable industry in recent years, which has resulted in this FCC edict, is testified to by the figures released by the National Cable Television Association, the sponsors of this convention. "There are now 2,400 community antenna systems operating in 49 states, serving 3,900 communities with an annual revenue of \$300 million, employing 60,000 people and serving 4,500,000 homes. In addition to the 2,400 CATV systems that are presently in operation, as of January, 1970, about 2,100 additional communities had issued CATV permits to local operators and in 1,400 communities CATV applications were pending before local governing bodies." If all these systems were to become operational within the year there would be approximately 5,900 CATV systems operating throughout this country. The projected figures claim service in 30 million homes via 7,500 systems with an annual revenue of \$3 billion by 1980. It certainly seems that this industry is well on its way to becoming a formidable component of the communications community.

Hand in hand with the programming considerations on the part of the cable operators, came concern and interest in advertising dollars. Now that the FCC has removed restrictions on the carrying of advertising commercials over the cable, the cable owners are turning their thoughts towards the potentials for advertising revenue. Concern and interest in advertisers came hand in hand with the programming considerations at the convention. Both the national advertiser as well as the "local yokel" were contemplated as sources of revenue to cover the costs of local origination. Information regarding sales promotion, marketing techniques and ratings charts were in as much demand as facts about costs of the software offerings. The cable operators were taking the plunge into that communications community formerly the exclusive property of the publisher and the broadcaster and were arming themselves with all the necessary facts and figures. They intend to become formidable competitors for that advertising dollar.

The convention was well attended, much better than anticipated, with over 230 cable system owners in attendance, including the small single system owner from Dixon, Illinois as well as the multi-system owner such as Teleprompter. In addition, many "interested parties," neither exhibitors of software materials nor cable owners made up a third group of those in attendance at the Palmer House in Chicago. This group represented a variety of interests and are a possible indication of potential alternative inputs into the industry. Amongst this group was UPI, Reuters, Ltd., The American Film Institute, Corporation for Public Broadcasting, Comsat, Dreyfus Corporation, Stanford Research of Palo Alto, Standard Rate & Data Service and some social interest types like myself.

Most of the meeting was devoted to presentations by the 24 software exhibitors. These programming choices ran the gamut of commercial fare, including old movies, re-runs of former network winners now in syndication, cartoons (lots of these, all fashionably stressing non-violence), an automated weather and news report coupled with a ticker tape, game shows

(BINGO) was the big news in this category along with a new version for kids, (LINGO), instructional materials for use exclusively on an educational channel, produced by National Instructional Television, and a package of NET productions. All of these offerings obviously produced originally for broadcast purposes and aimed at the mass market.

The other locally oriented alternative was a plan for leasing channels outright to programmers. Kepler Television Productions, Inc., proposed to lease a channel from the cable operators which they would supply with 20 hours of programming per week. As part of their plan, they would create a local corporation in every town that subscribes to their service that will hire and train community residents to produce and sell local programming. The charge to the cable operator for this service is \$1.00 per subscriber per year or 5% of the gross of advertising revenue. This plan is currently in effect in Glassport, Pennsylvania and Kingsport, Tennessee.

In addition to all these program offerings there was advice as to the best way to market the shows, which neighborhood retailer would most likely buy which show, as well as promises of future sales forces that would sell the shows for the cablecaster in both the regional and national markets.

It is important to note that after these 24 exhibitors finished giving their "pitches," had talked intimately with the cable people in their "hospitality suites" and shared a drink or two, most of the cable operators were not buying. Whether indeed this was due to a lack of funds, need for thinking time or the realization, as some claimed, that most of the materials presented would not satisfy the requirements for locally oriented fare time will tell. However, the first stage in the development of an ongoing marriage between cable caster and programmer had begun. As one official of the NCTA said, "These people will be living with each other for many years to come and so the first introductions had to be made." That indeed was the underlying rationale for the conference.

The FCC edict declaring programming diversity and the recommendations in the President's Task Force on Communications Policy Report all suggest that a wide variety of needs, interests and tastes be served via television: "The structure of the industry should make it possible to cater to as wide a variety of tastes as possible, the tastes of small audiences and mass audiences, of cultural minorities and of cultural majorities. Ours is a pluralistic society, in cultures as well as in the ethnic origins and the life-styles of its people. A medium of expression as pervasive as television should reflect and enrich this cultural pluralism." The fact that the programming choices as well as the faces in attendance at this first programming convention—cable operators meeting in Chicago did not include any members of the black community, nor that matter were there any brown or yellow faces in the crowd, is just another indication of the lack of involvement of minority groups in this new technology. This is true both of the representatives of the systems as well as the software suppliers and therefore strongly reflected in the programming fare being offered to the cable industry. Indeed, the only time a black face was in evidence during the two days of the convention was at mealtimes when waiters entered the conference rooms, or on one other occasion, a piece of film exhibited by NET showing excerpts from past productions. The strong implication that the programming choices were even less representative of minority groups than present day television programming cannot be ignored. A sorry beginning for the newest member of the communications industry.

What is frightening is that this is happening in 1970, a decade marked by a growing extremism which threatens the very core of our society, an urban plight that continues to go unheeded, a growing sense of outrage, amongst the disadvantaged minorities who feel the lash of tokenism, an equally strong militance emerging from the white middle class sector reflecting their sense of impotence, a growing awareness of the desecration of our natural resources, cries for peace answered with threats, fears of economic failure evidenced in the de-escalating Dow Jones averages, and a general overriding feeling of despair and hopelessness for many of the inhabitants of this country. The need for the constructive development of this new form of communications is imperative. We can't afford to waste this new resource, we must find the way to utilize this technology to speak to some if not all of the ills of our gasping society.



Cable television has come to New York City! We've all seen the advertisements on the crosstown bus, the signs in bar windows—**WE ARE ON THE CABLE. COME IN AND SEE THE KNICKS AND RANGERS** opened our morning mail to offers of free installation and even a few months' of free service. Yes, New York City, along with most of the nation, is gradually growing into a Wired City, a place where many of its inhabitants will be sending off a \$6.00 check once a month to his local cable company along with payments for telephone service, gas, rent and that ever present Bloomingdale's bill. Yes, it will soon become another given expenditure, a necessity, like air and water, something we will be hooked on. Irving Kahn, President of Teleprompter, one of the companies presently franchised to operate cable here in our town, described this phenomenon rather accurately when he said, "... cable is the next best thing to a legal narcotic. Once you get on the cable, you never get off."

What a cheat! As usual we shall be taken, *had* if you will, shelling out our hard earned dollars for a service that is a pittance of the infinite possibilities that this new technology could bring into our lives. We shall be paying for a better picture of the same old garbage, the type of enlightened, innovational, inspired programming that is currently carried on over the air on television . . . a clearer image of Johnny Carson's newest sport jacket . . . a truer rendition of Lucille Ball's red hair in those *I Love Lucy* reruns, or locally produced programs of a similar nature . . . not worth the six bucks a month. But so goes the fate of the inhabitants of this fair city and nation—*had* again.

My intention is not to harangue you, nor to make you angry or even resentful of this new "service" that has dropped into your snowy television picture, for that would be unfair and just add to the heavy bundle of frustrations that you already carry around with you daily. Nor for that matter is my intention to take pot shots at the cable industry, for that would create more hostility and not better use of the technology. No, my purpose is to show you some of the real services that the cable industry could perform, as well as ways that these services could come into being, and then hope that you will be inspired enough to go out and do something about getting them for yourself.

Contrary to many of the other frustrations plaguing the lives of city dwellers today, there really is something immediate and effective that all of us can do to guide the growth of the cable industry. The youth of the industry coupled with the fact that local municipalities have a great deal of the responsibility for the creation of the laws governing CATV, make it much more possible for the average citizen to have his say and be listened to. The youth of the industry means that the vested interests are not as strongly entrenched as they are in the more established service industries—telephone, gas and electric.

The local governments have become heir to this regulatory function to some degree because the cable operators require access to the public thorough-fare in order to lay or string their wires throughout the town. Therefore the cable operators must go to the city municipalities in order to gain franchises, or permission, to wire up the area. It is possible that in the future the FCC may well pre-empt all rule-making regarding CATV, as they did in regard to the origination requirements for all local cable systems. This ruling, requiring all systems with over 3,500 subscribers to begin local programming of significant degree by January, 1970 pre-empted New York City's ban on the showing of feature films by cable operators. However, the evidence is fairly clear that the FCC would welcome creative law making on the part of local governments and is indeed looking towards the cities for guidelines in certain specific areas. In fact, the Mayor's Task Force Report on Cable Television released in New York City during the winter of 1969 still serves as the most definitive statement regarding the development of franchise agreements that protect the rights of the citizens as well as the city and the cable system owner. Even though the recommendations of this report have still not been implemented it is often quoted in government circles and will most definitely affect the body of laws governing the industry.

The resident of New York City, as well as those of Chicago, and other cities, are in a particularly advantageous position for they will be able to make their desire for "full service" known to the city government within the next few months. In New York, franchises that had been awarded by the Bureau of Franchises to Teleprompter Corporation, Manhattan Cable Television, and CATV Enterprises, the three companies presently serving Manhattan and Riverdale, have expired and new agreements are in the offing. At the same time that service for Manhattan and Riverdale will be under examination the awarding of new franchises to serve the other parts of the country will also be under consideration. Whether indeed this will be done through a competitive bidding system or a procedure similar to that now required by the FCC in granting licenses to broadcast applicants, or some combination of both will be under *our* scrutiny *via public hearings*.

These combinations—laws that have still not been written, the absence of well entrenched, strong vested interests and the closeness of the local governing bodies implementing and developing these new ruling is the ray of hope that I offer to you. Of course, contrary to what Mr. Kahn has said regarding a legal narcotic, once hooked—always hooked, there is always the last alternative of cutting the new umbilical cord and also access to your dollars. But let's leave that as the last resort while we try to guide the cable industry down the path of public service as well as profits.

The history of the cable industry begins in the small towns and rural areas of our country. Originally the systems were designed to provide service to these outlying areas that had difficulty in receiving over the air television signals. This service, the importation of distant signals and the improved reception described earlier, was accomplished by erecting a master antenna in a favorable location and running coaxial cable from the master into the homes where the receiving sets were housed. As these systems moved down from the hills and into the cities with improved equipment, they grew more sophisticated in regard to the future implications of such a service. Companies began building "headend" facilities where the signal is filtered and amplified, and then transmitted via the coaxial cable or microwave to the television receiving sets of subscribers. This filtering system makes it technologically feasible to directly address one segment of the larger wired community. Therefore such a system could be constructed to speak to the needs of one small community, one block or even one apartment house. Thus the diversity of programming so sadly lacking in over-the-air television could be theoretically accomplished through the multiplicity of channels.

... potential capabilities of modern technology—newspapers that roll off your television set, home retailing services, computer data available through push buttons in your living room, interconnection of municipal governments throughout the country, and opportunity to participate in national and local referendums via the television screen . . . cable television could well be the practical realization through which these concepts can become a reality. Due to the broadband capability of cable which can carry voice, television and record information simultaneously into the home, office or classroom, what has appeared as plans for a tomorrowland may well be made available today.

The constructive use of television as an information system rather than exclusively as an entertainment medium becomes more and more possible as the miles of cable are laid throughout this country. Yet most of the evidence, a recent cable programming conference, the present systems in operation, the type of hardware that is presently being purchased by the cable operators for their systems, the fact that only two systems now under construction will have the capability of carrying 40 channels of video and audio information, while the majority of the systems have only a 12 channel capability with a few systems currently installing equipment with a 20 channel capability, and the type of programming presently offered on the cable, leads you to believe that cable is going down a different road from futuristic or social concerns . . . with its primary concern for profits like the present broadcast system . . .

The above cable articles by Thea Sklover are rough drafts for a broad report on cable she is preparing. This material is copyrighted.

THE NATION

MAY 18, 1970 35 cents

THE WIRED NATION

RALPH LEE SMITH

Cable TV is about to become America's "National Highway" of communications. Who will run it, under whose supervision, for whose benefit?

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VIDEO CASSETTE IMAGE PUBLISHING

by GENE YOUNGBLOOD

... As early as 1968 several firms in the United States demonstrated prototype low-cost home VTR systems for less than \$1000. It is expected that by 1973 one will be able to purchase a color TV camera, color VTR unit and color display monitor for approximately \$1000. By comparison, similar equipment today costs from \$11,000 (Sony) to \$50,000 (Ampex). The most one can expect to get for \$1000 today is Sylvania's color tape display monitor, less camera and VTR. Craig's color VTR, less camera and display console, costs \$1600.

At present, videotaped or filmed information can be electron-beam recorded onto low cost photosensitive material which, in the example of Columbia's EVR system, results in one-hour cartridges of 180,000 black-and-white frames or half-hour cartridges of 90,000 color frames. They can be displayed individually or sequentially in random-access or automatic modes on any television set with higher resolution than videotape systems or broadcast TV. The EVR process reduces broadcast videotape costs by a factor of fifty, home videotape costs by ten, and is approximately one-fifteenth as expensive as conventional filmmaking.

It is to be stressed that the EVR system is not electronic photography, per se, but rather is electronic video or cinematic modes. However, several major research projects presently are under way to develop true electronic photography (the major obstacle is that a vacuum is necessary inside the camera). This will be the most important development in image-making since the invention of the photographic plate.

The Motorola Corporation, who'll manufacture and market EVR players, estimates they'll be making about 100,000 units per year by 1972 (Equitable Life Insurance already has ordered 1200 players). Meanwhile, the first serious competitor to the EVR system will be Sony's cassette for home VTRs, to be marketed by 1972. The Sony system, developed under a joint research project with Philips and Grundig, features 90-minute cartridges of color videotape with stereo sound. Pre-recorded tapes will cost about \$28, non-recorded cassettes about \$20. The color display console will cost approximately \$500. Sony's cassettes will contain footage counters so that rental firms will be able to charge by the number of plays. For an additional \$100 the system will record in color and black-and-white from any home TV set. The same capabilities are offered in a cartridge player to be marketed by North American Philips Norelco, also for about \$500, with a portable TV camera at extra cost.

By 1973 RCA will introduce its "SelectaVision" VTR player that will play pre-recorded programs through any TV set, for about \$400. The system will feature stereo sound. RCA soon will invest \$10 million to buy rights to films, books, etc. They'll start off with a selection of 100 pre-recorded videotape cartridges priced at less than \$10 per half hour. The process involves a color TV image recorded on film and then converted by laser into optical interference patterns. These holographic patterns are recorded on plastic tape which is scratch-proof, dust-proof, virtually indestructible in normal home use. A safe low-power laser beam in the SelectVision unit converts the impressions back into a color TV picture.

Matsushita soon will introduce two competing videotape systems for the home: cassette and reel-to-reel players. The AVCO organization will release a cartridge home VTR system by 1972. They reportedly use quarter-inch audio tape instead of standard costly videotape. Meanwhile RCA is developing three-minute 8mm and 16mm rolls, will be high-density and will require no threading. The latest development in the burgeoning EVR process is a video "magazine" called *Computer Telejournal* to be published next year on EVR cartridges, a joint effort by Telegeneral Corp., Delta Books, and CBS.

Meanwhile, a new industry of feature film cartridge projection systems has developed to compete with the videotape market. By 1971 Kodak, Bell & Howell, Fairchild, Technicolor and others will introduce new movie cartridges for home projection. For example, Vidicord Holdings, Ltd., of England will market a home movie projector that operates through any TV set in Super 8mm format for \$600. Their black-and-white version will be priced at \$400.

A compact textbook-size movie cartridge projector has been developed by Zeiss-Ikon in West Germany for Panacolor Corp. in New York. The system uses 300 feet of 70mm film divided into 12 separate image tracks to produce two hours of color, sound movies. The tabletop projector provides stop-motion, slow-motion and, unlike EVR, reverse motion. The film runs continuously like a tape recorder without pull-down claws by using a rotating cylindrical prism lens which permits capstan drive.

Excerpted from THE VIDEOSPHERE by Gene Youngblood, copyrighted material, to be published July, 1970, in Show magazine.

EVR (Electronic Video Recorder) prints sound and image electronically on a master film (black and white and color) from which limitless copies can be printed. The prints are packaged in a circular cartridge seven inches in diameter with a maximum 50 minutes of running time for black and white cassettes and 25 minutes for color. The cartridge must be rewound after the first track is played and then reinserted in the player for the second 25 minute run. The cartridge can be played only on the EVR player, a briefcase-sized unit with wires that clamp onto the antenna terminals of standard TV sets. The system has no recording capability, though any videotape, film or live television presentation can be transferred to the EVR system. The color capable EVR system was exhibited in March 1970 for marketing September 1, 1970.

The first shipment will go to the marketplace September, 1970. The players intended for industrial and educational use will sell for \$795.00 but a scaled-down home model is planned at a lower price. Cartridges of one half-hour of pre-recorded programming (black and white) will be \$14.40. The selling price for color has not been announced but a rental fee of \$5-6 for a feature film in an EVR Cartridge was suggested by one CBS spokesman.

The Sony videocassette system will be marketed in Japan late 1970, and in the United States early 1971. (Sony-Color Videocassette System bulletin)

This would include royalties to the producer.

The Sony system will sell as low as \$350 in the States. Empty or non-recorded, 100 minute reuseable videocassettes will sell for \$20. (Sony-Color Videocassette System bulletin)

Through litigations RCA has lost the name "SelectaVision" and will be replacing it with another.

At the Electronics Show in New York City, June 28, 1970, AVCO will demonstrate its new Cartri-Vision. This is a 1/2" cartridge-cassette which is not compatible with any other manufacturers', and which will sell for \$450. For \$790 you get a complete system with color receiver and camera. By July, 1971, 38,000 units will be manufactured for AVCO by Admiral. AVCO supposedly is currently interested in programming to put on their system. Also, Shibaden is developing a video cassette player-recorder that will not be compatible with the Sony System. Details will be announced in the fall of 1970. Norton Simon, Inc. has also announced its intention to market a video recorder-playback. Significantly, the company is the corporate parent of Talent Associates and would, presumably, have an in-house source of program material to put into pre-recorded cassettes. In news from Germany, the combined publishing interests of Axel Springer, and the publishing firm of Bertelsmann GmbH aim, according to The London Daily Telegraph, to gain control of cassette television which they regard as the mass communications medium of the future. The Variety article of March 4, 1970, explains the West German interest in cartridge television as linked to domestic television's established dominance... the producers now see the advent of the cassette as their way around this monopoly (i.e. state owned TV situation, and they clearly aim to make it pay off). America's Time, Inc. has bought into a German combine, now called Windrose-Dumont-Time, Inc. to enter this same market.

The above footnotes are excerpted from *Film and TV Cartridges: A Preliminary State of the Art Report*, by Richard Kahlenberg, American Film Institute Planning Coordinator, and Chloe Aaron, consultant. The article appears in its complete form in the *Journal of the Society for Cinema Studies*, published April 24, 1970. It is copyrighted by the American Film Institute, 1970.

STANDARDIZATION
Regarding reel-to-reel 1/2 inch videocorders Shibaden has issued a bulletin (vol. 1, no. 5; available from Shibaden Corp. of America, 58-25 Brooklyn-Queens Expressway, Woodside, N.Y. 11377) reporting that though standardization specifications are being deliberated through efforts of the Electronic Industries Association of Japan (EIAJ), complete compatibility (interchangeability) of tapes from one manufacturers' VTR to another is not foreseen. While there is an overall acceptance of a full field standard, two different head cylinder sizes are being employed—a large diameter cylinder (146mm in diameter) and a small diameter cylinder (115.8mm in diameter). Sony, Matsushita (Panasonic), Electric, and Toshiba all use cylinders which are almost equal in diameter to the small diameter cylinder being considered as the standard, whereas (see col. 1 of table) Shibaden and Victor (Craig) all use cylinders which are closer to the large diameter cylinder being considered as the standard, though not exactly equal (see col. 2 of table).

Standardized Specification (Agreement) for Home VTRs			
Item \ Type		I	II
Recorded signals		The Japanese TV standard system is applied	The Japanese TV standard system is applied
Recording system	Video	Full field 2 head helical scanning frequency modulation	Full field 2 head helical scanning frequency modulation
	Audio	Single track, fixed head	Single track, fixed head
Tape width (mm)		12.7	12.7
Tape running speed (mm/sec)		190.5	240.0
Maximum recording time (min.)		60 or more (7" reel)	60 or more (8" reel)
Video frequency band (MHz/-20 dB)		2.5	3.0
Video S/N (dB)		40 or more	40 or more
Cylinder diameter (mm)		115.82	146.00
Video pitch (µm)		173	173
Video track angle (when tape is stopped)		3°11'	2°31'
Control track width (mm)		0.8	0.8
Audio track width (mm)		1.0	1.0
(Numerical values indicate standard values)			

ART AND TV[Ⓢ]

by ROBERT KRAGEN

Because television is both an audio and visual medium it is natural for the artist working with television to want to create with the interplay of sound and light. Ordinary TV programming fits this framework in that linear thematic and informational material is presented in a form which is an extension of theater techniques. An alternative use of the medium would be one where the elements of sound and light would be used as non-linear creative elements in a new form of art.

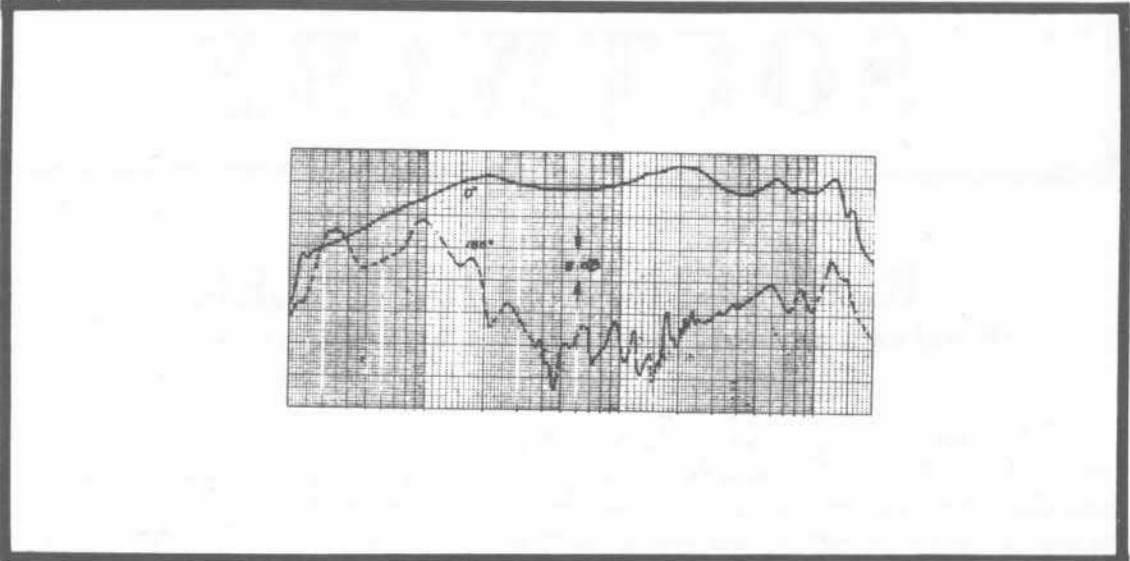
While this is a very wide area in which to work, a beginning could be made by seeking the basic relationships between the elements of sound and light. In sound the variables of pitch, volume, note sequence and harmonic content can be isolated as creative elements. These techniques have already been highly developed for use in the creation of electronic music. In light, patterns, hue, contrast, saturation and pattern sequence can be isolated as working elements. These elements are controlled in color TV, special effects generators, and in color correction film duplicators in the movie industry. By use of sensing devices and a real time computer it is possible to relate light variables to sound variables or vice versa. This could be done in three ways. Use light as an input to create sounds; use sound as an input to create light; or use modulated feedback to have a work spontaneously generate itself. In the third case the reaction could be stimulated either externally by the artist, or internally by random amplification of system noise. The speed of reaction would be one of the variables controlled.

I will now give simple examples of what the elemental relationships in each of these three cases could consist of. In a work where light would create sounds, an electronic sensor would translate the variables of light into electronic information. This information would be input to another translating device which would change hue into pitch, saturation into volume, contrast into harmonic content, patterns into chordal formation, and pattern sequence into chordal sequence. These are the most obvious relationships, but may not be the most effective. By reversing the relationships, sound may be changed into light. By adding feedback the elements may be made to interact; hue creates pitch, creates hue, creates pitch, etc. Feedback may be positive or negative. Positive feedback would raise the system's energy level, while negative feedback would decrease it. Positive feedback, if fully utilized, would cause the system to remain in the lowest energy state for that system. Both of these ultimate states are static. Therefore, if feedback were used to produce dynamic displays, it would have to be modulated along with the other creative elements. Unmodulated feedback could be used to freeze any instant of a dynamic effect. This would allow a better understanding of the dynamic process, and could also be used as an artistic effect in itself.

For an artist to begin a creation within this framework, he must have equipment which will give him control over the system elements. As most of this equipment is both expensive and technically complex, the ideal artist in this field must have an independent income, while also being a genius in the sciences of electronics, physics, optics, sound, mechanics, and psychology of perception. Failing this, it helps to have friends at E.A.T.

When I initially approached E.A.T. with the idea of working with television as an art form, they immediately referred me to Mr. Irv Rosner of Rosner Television System. Mr. Rosner, an electronics engineer with much experience in television systems, turned out to be just the man I was looking for. Out of a combination of his technical expertise and financial backing, and my interest in the artistic possibilities of television, we were able to produce, "Come Near Unto Me", for the E.A.T. show at the Brooklyn Museum. This piece utilized a color television to produce dynamic organic patterns of light from the movement of people around the set. The set could also display stereo music.

The next two paragraphs are an explanation of the technical aspects of this work. Please skip them if technical jargon leaves you cold.



To make a large screen oscilloscope from a color TV set is fairly straight forward and uncomplicated if you have some background in electronics. We chose the Zenith 20Y1C38 because the handwiring simplified the ease of modification. The steps of modification are as follows: remove the input signal from the IF section by unplugging the shielded cable from the output of the tuner box; remove the plug from the dynamic convergence assembly; remove the vertical output tube; locate the pairs of wires to the verticle and horizontal section of the deflection yoke; cut each pair and bring the ends from the yoke out of the set—these are your inputs; if any resistors exist between sections of the yoke windings, they must be shorted; connect each pair of wires from the deflection yoke to the 8 ohm outputs of at least a 50 watt stereo amplifier. Any audio fed into the amplifier will now cause a deflection of the static dots which will appear when the set is turned on. It may be necessary to adjust the brightness and G-2 levels to get a good trace. By adjusting the static convergence magnets, the red, green, and blue dots may be separated to give a three color trace.

In order to make the patterns produced more interesting, we decided to effect intensity modulation by replacing the input to the push-pull B-Y, and R-Y sections with universal output transformers. The high impedance side of each transformer was connected to the injection points, and the low impedance side was connected to the output of 1 20 watt channel of a stereo amplifier. Back to back 75 volt zener diodes may be used across the high impedance side of each transformer as a clipping network to limit overdriving of the color grids. Both stereo amplifiers were driven from a common feed. Separate tone and volume controls on each amplifier enabled variation of pattern size, shape, and color intensity. When properly adjusted, the screen would be black, when no signal was applied to the audio amplifiers. As the input signals were increased, a Lissajous figure of growing intensity to expand from the center of the picture. Volume determines size, intensity, and hue, while frequency determines pattern shape. Any stereo music makes an ideal audio input, because each type of music causes an entirely different visual effect.

The first time I had everything working was about eight o'clock in the evening. The rest of the night was spent trying out a lot of records to see what the different sounds would look like. The Cream produced a way forest that constantly changed, causing a kind of hypnotic effect. Beethoven's *Eroica* Symphony was a universe expanding and contracting. The close harmonies of the Pennywhistlers produced dancing orbs.

This was all very well, but we wanted a device that would react with the viewer. To this end, we incorporated a stereo theremin, which was connected to give an audio output which would change in pitch and volume with the movement of people near its antennae. Hence the name, "Come Near Unto Me". Physically, this antennae took the form of a stainless steel rim which surrounded a seven-sided plexiglass sheet. The plexiglass was painted black, except for an area the size of the picture tube face. The TV set was placed on a frame on its back. The plexiglass was placed on the TV and centered over the picture tube base. The sides were enclosed with a black velvet drape which followed the shape of the plexiglass.

"Come Near Unto Me" was exhibited at the E.A.T. show, the Newark College of Engineering Light as Art show, and at the 1968 audio engineers convention. Where do we go from here?



"We no longer have the one-to-one velocity and frequency correspondence between stimulation and response that we had in the early formative days of the U.S.A. We now have enormous numbers of stimulations and no way to say effectively what we think about them or what we would like to do about each of them "

R. BUCKMINSTER FULLER, *Education Automation*, p. 40

IS EVR A GOOD OR BAD THING?[Ⓢ]

Q: Is EVR a good or bad thing?

A: It is a deceptive thing.

Q: A bad thing then?

A: EVR is an incomplete loop. It is a one-way, centrally controlled, non-interactive *film*.

Q: Film?

A: Yes, EVR is film in drag.

Q: Why?

A: Ostensibly, CBS has fused a film cartridge and television monitor for purposes best rationalized by image resolution and the range of information already committed to available film . . . This is a flimsy excuse. The research time and money represented by EVR would have equally sufficed to develop and perfect a tape system subsuming EVR's picture resolution and information access while also having a *record* made compatible with most TV cameras. Excepting time-choice, EVR does not alter the general complexion of television viewing.

Q: What difference does it make?

A. Like, the difference it makes is a matter of alternate television.

Q: How?

A: EVR is an *extension* of the CBS network—a tautological tool—not a tool for creating a new variety of network. It fails to put the "consumer" in direct contact with the processes directing the information he receives—his information continues to be directed exclusively by external sources.

Q: What do you mean by "external sources?"

A: Those which he has zero realization of . . . that is, in terms of origins and *information structure*, or how and why it is generated.

Q: Come again?

A: In another way. EVR limits the interactive options. An equivalent videotape cartridge system with a *record* mode encourages the potential for information generated by the "consumer"—a subsequent potential (a re-patterning) lies in the choice of a multiplicity of sources of information to draw upon . . . Including sources organic to his own (the "consumer's") network or karass.

Q: Hence?

A: If we happen to be correct, networks will develop based upon natural *information structures*. The nascent information—creating processes in specific and generalized social networks, groups, communes and other arbitrary and not so arbitrary collections of people—will be rendered explicit and totally re-configure—i.e. revolutionize the society's sense of relevant *news*.

Q: And if you are incorrect?

A: Our—particularly American—social alienation is largely the product of predominantly synthetic information structures—that is, hierarchies of data the "consumer" has no position or contact in generating. These synthetic structures have conjured a pseudo-reality that may yet kill us all as "consumers" . . . if our observations prove inaccurate.

Q: What is the critical distinction then?

A: It is this: EVR would—in the most sophisticated sense—extend the parameters of an anti-ecological pseudo—"consumer") reality—what must clearly be developed are high-variety information technologies that accurately reflect the ecological realities and stabilities necessary for survival. Data and congealed information can no longer be limited to an understanding which would prohibit *complete access* to all who need and use it. Information, its quality and access, is thus central if the future is to come to pass.

FRANK GILLETTE

SOFTWARE

R. BUCKMINSTER FULLER

Pirated transcription of interview videotaped by Raintance Corporation[®]

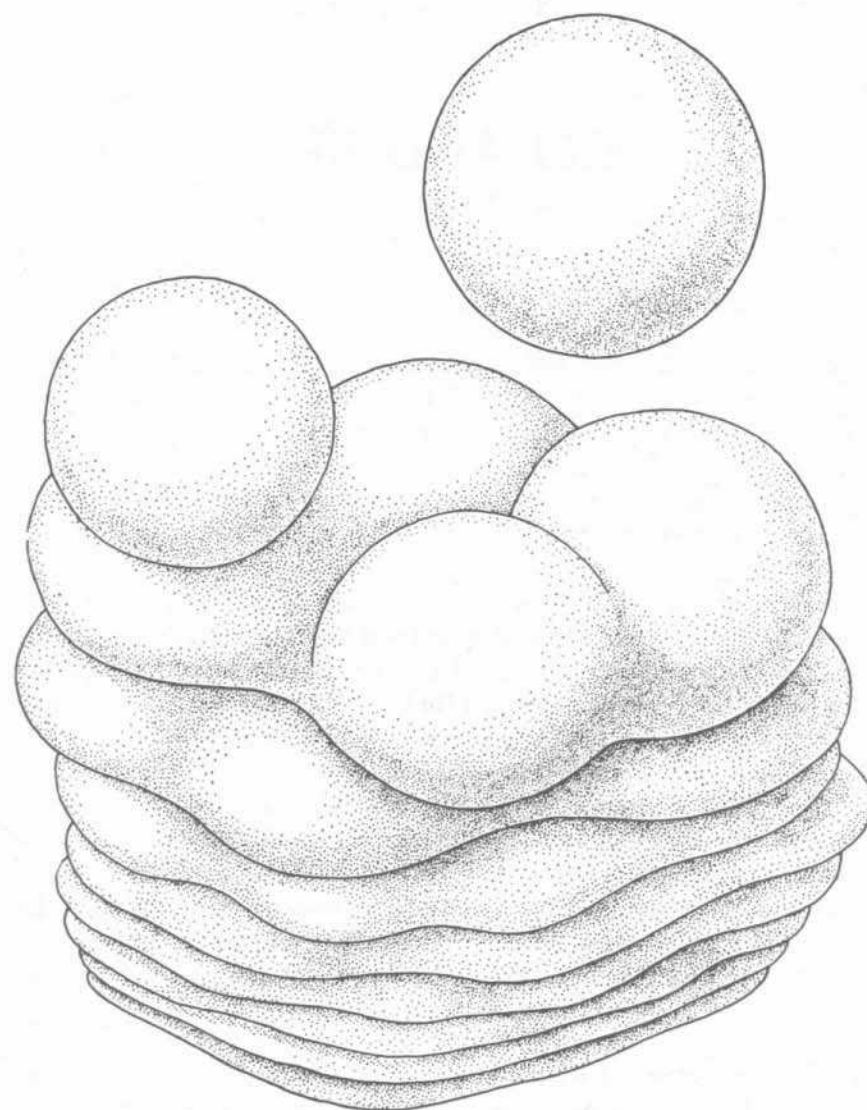
... and so we find what man's real function is, is sorting out his experience, developing what we call the normale, and being useful ... we hear people talk about technology as something very threatening, but **we are technology, the universe is technology** ... it's simply a matter of our understanding these things ... that nature has these beautiful exchanges ... and what's happened was this shortsighted—really scared—fear of man about whether he's going to survive ... he's been told there's nowhere nearly enough to go around ... therefore you've got to go out and look out for your side, look out for your family—he's got to hold this thing and make the short move ...

... so when our young world, like that young girl talking so superbly on earth day, eight year old kid, pure wisdom pouring out, her eyes could see as clear, when she said we ought not to throw away, we ought to reuse, and things like that ... that little girl was seeing that ... and so the net from all of our extraordinary earth day is that we have all of humanity catching on to things that need to be attended to when they were assuming yesterday someone else was attending to ... the fact that they were in such poverty ... they had so little time ... they had to work 12 hours or 14 hours a day ... my first job i really was working 18 hours a day ... you can't get anything done, you go home, i really didn't hardly have enough left to eat my supper before i fell down on the bed to sleep ... so i find man didn't even have time to think, nor did he have the vocabulary ... he didn't have the literacy ... **the literacy did not come as much out of school as out of radio** ... the people who had the radio jobs had good diction, good vocabulary necessary for it, so the kid could listen to a good vocabulary that papa didn't have ... and so we really proliferated the capability to communicate ... **and now that we know how to communicate, we know there are many nuances of information** ... that little child, impressive beyond her wisdom was the beautiful resource of words that she had which came so spontaneously to her ... when i was a little kid all that kids would say was "i don't like it" or "wow" ... just make a noise because they didn't have the resources to express it ... the same wisdom ...

... i think the great beautiful thing that's happening in evolution here is that quite clearly we have gone through a great historical sequence of events ... from man as so ignorant and his hunger so great, his needs so great, he doesn't know how to satisfy them so he goes through starvation and he goes through pain and disease ... go back to the earliest pharaoh time ... life was so bad that nobody thought of life as worthwhile in its own right ... therefore the only way you could explain your having such experience was getting yourself ready for afterlife ... so everybody thought about afterlife but the fact is part of the experience with so little to go around is that you could only think of the pharaoh having an afterlife ... so the great economic drive, all the great ingenuity of the man who could see anything—artist, conceiver—was partitioned by the afterlife of the pharaoh ... then in getting ready for the afterlife of the pharaoh you incidentally discover the levers ... (in order to take care of the pharaohs what are you going to do? ... you know there are thieves everywhere and he's going to need tools after his life so you've got to get all of these fine things under a great stone mountain so it couldn't be stolen and that's why you've got your pyramids ...) so the Leonardo type, good-thinker, realizes the lever ... he gets an army of prisoners and they use their levers to move those stones around and build that mountain ... however, after the pharaoh dies, the leonardo type dies, the people still remember about the lever ... they still remember that the leonardo type saw these people falling at the road ... they needed food, quite clearly, connected food, so there's the Nile that would bring water into those side layers ... and we have fertilization ... when the pharaoh dies and that thinker dies, the ditches are still there and the levers are still there, and the people remember there's an accumulation of technical capability so when another man comes along he adds to the inventory of tools ... what we may call the scaffolding to make ready for afterlife ... finally there's such accumulation of tools and capability and a little more know-how everywhere—advancement ... well, we may be able to take care of the afterlife of the nobles as well as the pharaohs ... then the tools increase some more, as they did then, and we say, well, we can take care of the afterlife of the middleclass ... and that is exactly where you come into roman and greek history—the individual family mausoleums ... finally there's got to be so much tooling around that we've a buddha and a christ and a muhammad coming around saying, you know, i think we can take care of the afterlife of everybody ... and so really the great christian era of 1500 is getting ready for the afterlife of everybody ... the great cathedrals, fantastic things, and you should see the real pathos of that little human being going in there ... the great joy that they're going to have afterlife ... suddenly there's so much tools accumulated here and the know-how keeps accumulating, and man knows a little bit more about nature and what it can do, and so he says, you know, we can take care of the afterlife of the king, as well as his living life, and still take care of everybody's afterlife ... that is what we call the beginning of the *divine right of kings* ... then the tools accumulate some more, and so now we can take care of the nobles in their present life, as well as the afterlife for everybody—the *magna carta days* ... then we have so much more proliferation of tools that we know we can take care of the afterlife of everybody, and the king, and the nobles, and the middle class ... that's the great victorian era right up to all the brownstones in new york here ... then suddenly the tools accumulated so much that henry ford said, you know, we can take care of the afterlife of everybody and we can take care of the living life of everybody ... that's the beginning of the new era, but at this point the leonardo artist-type says, up to now we were using our own hands to make end-products for the patron ... so in the victorian era you'll find the beautiful cabinet maker, and you'll find the beautiful shoemaker and tailor ... fantastic craftsmen everywhere ... but now he says, i can't make end-products for everybody ... there aren't enough artists to make end-products for everybody ... therefore, we'll have to have an entirely new kind of thing which is our industrial tools, our mass production ... and that's what is really come to all of humanity ...

... so what we've got to really come to now is developing awareness in that little child ... **we've got to proliferate the right kind of information** ... industrialization and technology is not something new ... you and i are technology, so superior to any we've ever devised ... that camera looks pretty crude along side of my eye, and my eye has always had its own light meter—it's got the whole works ... and so i simply say, if you had that camera so it could also rebuild itself and keep itself going and improving itself for the next 70 years then you have something approximating the technology you and i really consist of ... technology's not new ... we've just been a little too crude at it ... **our society's got to be sure not to let somebody mislead us ... not let our own ignorance mislead us into making the wrong moves** ...

... in your picture of earth day, if the young people go out with a broom and start collecting, and if they went further than picking out the paper from it and the metal and said we're going to find out how to get those recirculated, then we're really getting somewhere ... each one of us is process ... we're not things ... and so it's fantastic—**there's no scientist been asked to look at the plumbing** ... the best flushing toilet you have is so inefficient that we use 65 volumes of water to get rid of one volume of human waste—but it is waste, and it's very, very valuable chemistry ... at the university of illinois way back in 1929 we found that the human excrement in one farm family has in it enough energy to run all the farm machinery ... so these are the things—i hope your young world first is getting aware, and then getting to be critical and picking out things ... and now we're really beginning to understand this need of a greater understanding of nature ...

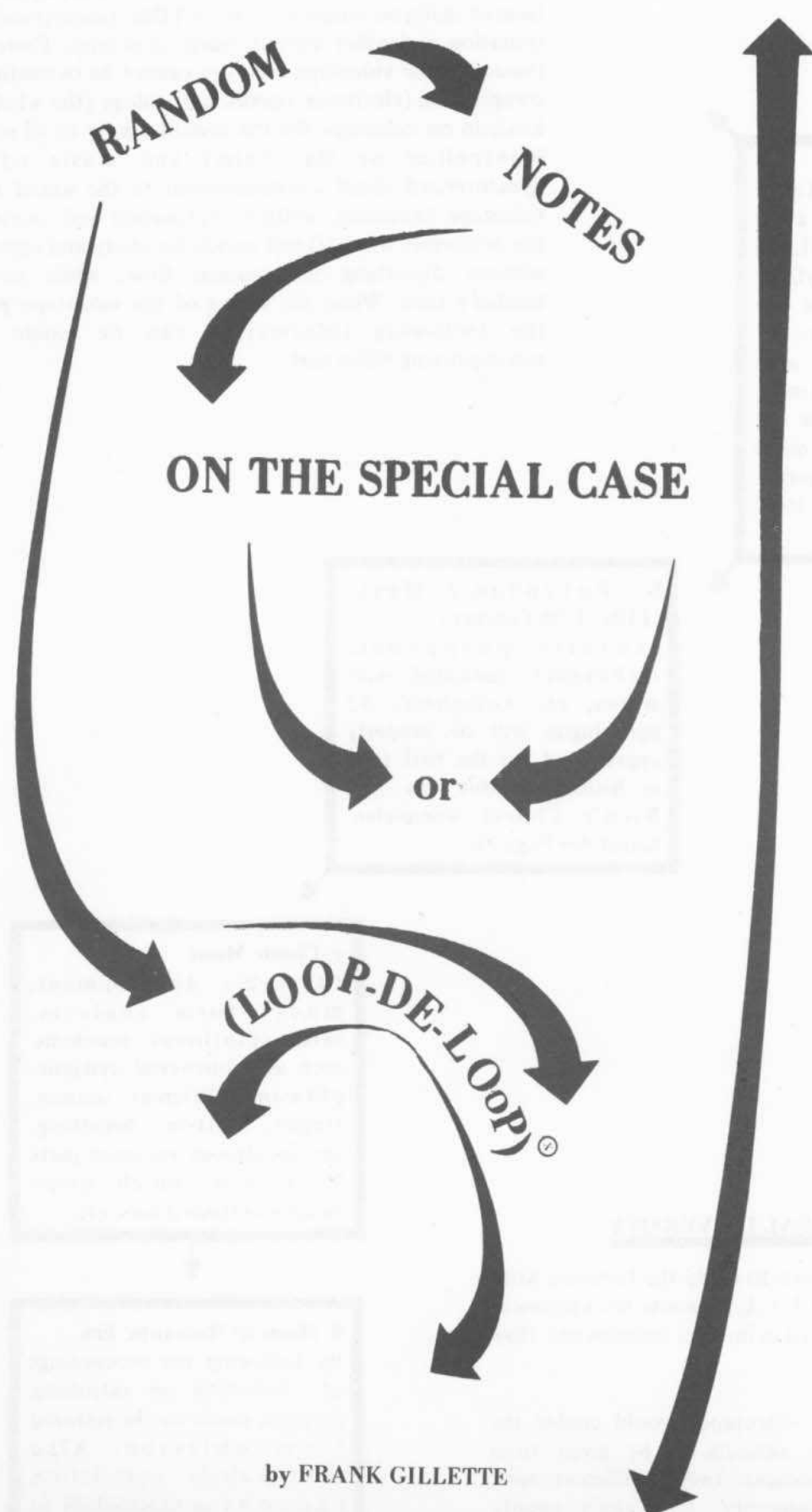


... it's very important for me to tell you that the word failure is invented by man just like the word pollution ... it's a word of ignorance because nature can't fail ... nature knows exactly what she's doing ... but when man doesn't understand nature and thinks that this is the way nature behaves, and he tries to make it do this and that's not in her program then it frustrates him and he calls it a failure ... but nature doesn't intend to have anything go on for very long ... she's always transforming so she has a way of terminating, and when man wants her to go on beyond that termination point then he calls it failure, but it's not so ... **nature is intent on trying to make man a success despite himself**, and despite his long, long history of his great ignorance where i'm trying to give you the way the breakthrough is occurring ... we're still assuming fallaciously there's not enough to go around ... you have to prove your right leave; you have to earn a living ... was the old statement ... the young world really feels now that's wrong ... that the information we can get to the moon and do all this is very important because i think it tells man he can do anything he needs to do and he can make man work ...

... he's got to learn that the space program is not something—(never mind that space stuff, leg's get back on earth, let's be practical, let's be blaise about the moon shoot ...) the fact is our earth is a little spaceship ... unless we catch on to the fact we are a space program ourselves and that we have just so much supply and we've got to learn how to run that big spaceship which we are onboard ... to send off little spaceships to find out exactly what we need to be able to keep human beings doing ... this is the only way we will ever find out about ecology ...

... on earth day i spoke at 4 universities ... i asked each one of the audiences of kids if they could tell me how much of the earth was necessary to support each life ... when you talk ecology that is a pattern of the science of the total process in life ... what's necessary to regenerate it ... each species is a relationship to the environment ... we're not really qualified to use the word ecology until we get into that ... but i'll tell you the way we'll find out is to send a man off into space ... get him outside where there's no air to be breathed; no water available; no foods ... what do we have to have on board to keep him out there for a year? ... we've literally found now that it is possible—there are two space program researches where we have teams of six men each, sealed up in cylinders (completely different operations, really quite remote from one another, the russians are doing one and the same thing too) ... those men are sealed for a year, and we give them preliminary equipment which you did learn by having scientists who are good ecologists and good chemists ... putting everything in there necessary, they hope to keep the men going ... they're connected by telephone (really very easy to talk in now—you have a window) ... but they are now operating six men for one year on 350 pounds of apparatus and the whole apparatus being able to put in an airplane suitcase ... that we could get everything you need to regenerate life ... there is entropy so the system in the end has to have something added but you're able to have it sufficiently so you only have to add but once a year ... this is really getting somewhere ... so we come back on earth—we have 350 pounds suitcase size; even at the most expensive mass production for \$2 a pound; that's \$700 and you do away with sewers, all the water supply lines; all you need is a milk bottle or so a year to add into the system ... on a rental basis per six men for \$700 you're down to \$200 a year capital cost; maybe \$1 a year you've got the equipment, and you go on any mountain top and really start living the highest standard ... and this equipment when it gets first used by those men off in space due to the television relay system around the world you'll have possibly a billion people watching those six men all year round and you'll have every kid really catching on to this ... here would be the great educational system about what the chemistry changes really are ...

... at any rate i simply say we must be very careful ... and we must not cut off things simply because the wrong people, with short and selfish and non-thinking motives have used tools ... a pencil is a beautiful thing but you could literally jab it into a man's heart and it would kill him ... so don't say that a pencil is lethal ... we must not blame the universe ... it would be like saying the universe is used in the wrong way, therefore it's better we not have any universe ... if we accept universe at all, if we accept life, and really would like to have something best for it, then we've simply got to learn how to use our universe in the best way ... and the universe is technology, and it's always evolving, it's always complex, it's not repeating, so we have to be catching on to our new technology and realize we really do have a machinery of mutual regeneration around the world which has been for the moment—it's so powerful, so confident—very highly exploitable by the ignorant man who happens to get to monopolize it ... but in itself it's getting out from under him ... because he has sovereign claims—well, look, you can't stop the radio waves from going out of the sovereign limits ...



In what total context are we suggesting alternate information networks? What is its mood and purpose?

1. Man is now counted among the endangered species. He has thoroughly fouled his own ecological niche and is well on the way to so effecting every other creatures' niche. Fundamental to his own ecological inter-relationships is the manner in which he collects, assimilates and distributes information. This manner will determine the configuration of his survival or extinction. By utilizing a high variety of conceptual models it is possible to revivify perception and restructure an understanding of the environmental realities apropos of its balanced processing of negentropic with entropic forces. Media Ecology has to do with analysing and developing methods for the interaction of modes of communication with their concomitant means of access to information.
- 1.1 The quality and generic relevance of technological spin-off in television hardware is beginning to dissolve the uniform and unidimensional system TV has come to be, and begins to suggest an entire spectrum of prospective application, symbiotically designed, within an ecological framework. Decentralization thus becomes the dynamic in an attempt to re-establish an equilibrium or harmony of forces. Our tools/toys, with their evolving permutations, when subject to multiple systems of criteria, feedback the data through an exponential curve whose influence is one context of a media ecological method. A second context is the potential interfacing of previously incompatible systems, e.g., videotape and computer terminals, the telephone and the television receiver. Still another context has to do with configuring software entities most suitable to accelerating conduits of access, e.g., "albums" combining separate audio and video tape, print-outs, etc.

What is the context of the rear-view mirror?

2. Sacred cows now grow from test tubes. Our's is the age of neon-Freud and pop-Marx; of vinyl tulips and fey reactions to the law of diminishing returns. It is marked for its principle of violence while its technology has cancelled the principle's meaning. Its technology, in addition, has supplied the planet with an electronic exo-skeleton conditioned by a supra-network of horror weaponry: Brute force is now suave, an act reduced to the flick of two co-ordinated wrists; and Cyrogenics is no longer remote fantasy. Sanctions governing our very existence are the domain of the rear-guard, while their relations with the effects are vicarious.
- 2.1 Experience alone will never avail. In the noumenal world of things-as-they-are there exists no premium on the measures "proven" in the anthropocentric vacuum of History. "Alarm" as the planet's general state intensifies in direct ratio to reliance upon solutions derived from *past* experience, *past* modes, *past* ideologies. E.g., one of Nixon's various commissions has soberly suggested that the gasoline engine, as we now know it, be phased out of production by the mid 1990's. Its calculations founded and anchored in the ironically combined fears of industrial unions and vested capitalists. The evidence is from the 19th century; the reasoning, that of kleptomania.
- 2.2. Sacrificial reverence for things past, matched with equal irreverence for the intricate balance of nature, has brought the species to within clear sight of doom. But it has also signaled mutations. Mutations in thought, in alliances, in norms, in motives, in culture. Hence, there is a contest. From the perspective of the entrenched, curmudgeons are milling about the palace grounds, unwilling to accept their assigned role as mere custodians of the technology. While the counter-culture was breaking its cherry on the sixties-awakening to the reality that as the innate product of the new technology it alone was capable of directing it—it entered, quite forever, an historical void unlike anything prior to it, excepting the individualistic insights of solitary monks and occasional philosophers.

That intellectual space, psychic interplay, and silence solidified by thought which exist between the members of a written phrase is here, in the scenic space, traced between the members, the air, and the perspectives of a certain number of shouts, colors and movements. ANTONIN ARTAUD

(From an Anthropocentric towards a Biospheric Space)

- 2.3 There exists in our spectrum of cultural affects claims concerning our location in the program of the evolution of conscious agencies. We are at once the center, and not the center, in an acentric macro-design. As a species we presume to "advance"; as a culture we presume to dominate: Our preference for euphemisms as to our past is nonetheless conspicuous. Both as a culture and a species we have tended to divide but not conquer ourselves. "Myth equals Paradigmatic Model" Mircea Eliade tells us; and it is spent myths, fossilizing paradigms, that most structurally define the state of crisis. The counter-cultural response is no mere improvement or alteration of nomenclature. It is at once aesthetically determined and ecologically dispositioned. Its life style is overtly eclectic, while the synthesis of its elements is unique to its case. (E.g., There is a new identification with the land, not only in a return to primitive relations with it, but defining a highly sophisticated responsibility for its fate.) The dominant culture has come to the point where it can no longer distinguish the spell of its vices from the maintenance of its virtues. Thus, without root or counter-balance its vices have become synthetic. And the virtues have acquired the ersatz sheen of patina (not unlike a wife who throws herself piously upon the pyre). Shakeoil solutions for cleansing itself, for shoring up existing paradigms, have assumed a multitude of forms; some are burlesque while others are lethal (the continued indiscriminate extraction of resources in the service of the "Economy", and the palliative *ad hoc* schemes for eliminating endemic pollution). The total process is a dredging for answers within parameters no longer applicable to the questions—like trying to explain Planck's Quantum Mechanics without resorting to mathematical language.

(Historicity as Cultural Mode)

- 2.4 Dead systems are defined as those in which the parameters are directed by environments with *memory* as the most prominent aspect of the synthesis. Their reality—their influence—lives in the collective memory, history, or unconscious; it lives in doxologies, dogmas, codes, traditions, social patterns, laws. Live systems exist in the relationships discerned from comparing juxtaposed, unconditioned experiences. Experience is understood as the substance (or constant stuff) of the present and those factors directly subsumed by it, e.g., mode, structure of recording (and editing) process, motive. Thus, the present (or total environment) is made viable in high degree as memory, is directive but non-interactive with experiential items and item patterns, and their permutations. This quality of gestalt immediacy which defines the new technology requires an ahistorical consciousness for its most efficient, natural, and globally beneficent implementation.

Plane Falls Into House

SAO PAULO, Brazil (AP)—A light airplane crashed through the roof into the living room where Divaldo Gimez and his girl friend were watching television. Two men climbed out, caught a taxicab outside and sped away. A third man came in and started smashing up the plane with an ax.

Value as the Presence of Event (Art as the as the Present/Future Tense)

3. "What is happening now has significance—in these surroundings. The surroundings give it its importance." (Wittgenstein) "Yesterday don't matter if it's gone." (Rolling Stones) In the ahistorical attitude yesterday is not a salient condition of the surroundings—reverence is reserved for the immediate. We are the consequence of a technology accelerating toward immediacy, resulting in a heretofore unexperienced environmental fusion of the temporal and spatial. The historical attitude of delayed gratification—as a motivational discipline—forced one to regard the present as past in order to enjoy the future. Full regard for the present contains its own internal discipline. In the present-tensed Eastern yogas (which have a homologous but not analogous relevance) this discipline is confined to the psyche of the individual. The counter-cultural imperative is for the socialization of the awareness—the relocation of the present tense in the index of values through the electronic media. The transition is from the chronic preparation-for-Paradise which defines the historical paradigm, to the identification with Paradise as the very awareness of its process.

mass media still closed to citizens

Their experience with video-conceiving, shooting, editing, and presenting their own programs—made the citizens particularly aware of the myth of objectivity in mass media reporting and sensitive to conscious and unconscious manipulation. They have become a less gullible public.

Ordinary citizens have a good deal of difficulty in getting their opinions expressed in the information media. Articles or programs about the Committee that have appeared in the local media have almost invariably been distorted pictures. The press seems incapable or unwilling to comprehend the nature or aims of the Committee.

On one occasion, **the citizens discovered that journalists who talk loudly of freedom of the press consider themselves immune from interviews or cameras**; they became angry when they became subjects for the citizens' cameras during the press conference for Operation Snowball. They were unwilling to be recorded as individuals, and became even more hostile to the citizens.

Hopefully, by using the ½" video equipment enough a citizens' group could eventually propose to their local TV outlet that they make their own programs about themselves and their programs to inform the population-at-large about their lives and aims and to help bring about needed changes.

Unfortunately, ½" video cannot be transferred to the 2" broadcast video with any degree of technical satisfaction for the moment. Perhaps technological advances will overcome this obstacle in the near future.

warning

We hope video does not become a mystique. "Communications", with all its glamor and mystification, can become an end in itself rather than a means toward better human lives. Some may want to use it to divert people from their social goals. It could become one more way of avoiding real social change. It should be clear that community self-awareness and inter-communications are powerful leavening agents and can set off an unpredictable chain of reactions. There must be a real sense of continuity, if film and video are to be used for real social gain rather than social disaster. **Communities cannot be used as guinea pigs for technology. Technology must serve the communities.**

In Saint-Jacques, a strongly organized Citizens' Committee guaranteed responsibility and continuity. These same video techniques could be used in the early stages of organizing by a community organizer who is committed to stay in the community a certain length of time. Social continuity is essential.

Video should not be used in a vacuum, and it should not be used to divert citizens from their social aims.

conclusion

Video equipment does not create dynamism where none is latent; it does not create action or ideas; these depend on the people who use it. Used responsibly and creatively, it can accelerate perception and understanding, and therefore accelerate action.

The *Comite des Citoyens de Saint-Jacques* could have accomplished any of their actions without video equipment. We could not say that at any time it made the difference between success and failure. But it made good things better, and helped people to grow. It is a useful tool.

For futher information contact Dorothy Todd Henaut, Ed., *Challenge for Change* newsletter, National Film Board of Canada, P.O. Box 6100, Montreal 101, Quebec.



CABLE TELEVISION:
THE RAW AND THE OVERCOOKED

by PAUL RYAN

... There are over 2000 cable systems operating in this country now. Roughly another 2000 franchises have been granted and another 2000 or so are pending. Six thousand or more separate cable heads means six thousand or more separate information systems: the possible restructuring of communications in this country. For schools, cable offers a unique opportunity to function effectively in the information environment. But before discussing Cable TV and the educational system it seems useful to talk about the difference between television and the way in which a videotape recorder can be used.

There was no videotape recorder on board Apollo 11, only a television camera. Television, as the root of the word implies, has to do with transmitting information over distance, in this case a quarter million miles from the moon. Videotape has to do with infolding information, as in the kind of feedback that goes on in encounter groups. Working with encounter group leader, Dennis Walsh, I videotaped while a girl stood in the middle of the group with her eyes closed and described how she thought people were reacting to her then and there. The contrast between her negative description and the positive responses to her that the playback revealed were both illuminating and encouraging for her. This was information infold. What she and the group put out was taken by the tape and given back to them. **VT is not TV. If anything, it's TV flipped into itself.**

In some ways, the difference between broadcast television and the videotape recorder is the difference between Hippies and Yuppies. As Abbie Hoffman has pointed out, the Hippies are the products of the mass medium, while the Yuppies create media events. Hippies take television as part of the service environment, merely as output terminal. Yuppies, on the other hand, treat television as an entire information system into which one can input such things as police brutality. As has been pointed out, the cost of getting a message on television for an honest man with little money is at least a few days in jail. That the Yuppies are willing to pay this price seems to me a small indication of the increasing demand of the TV generation to have a share in television systems.

While the living room or classroom television is merely the terminal of a larger system, videotape is a complete information system unto itself. It has input (camera and mike) storage and processing (the record/playback deck) and output (the monitor). It can be used as an entire information system enabling people to feedback to themselves the way they behave so that they can communicate about the behavior and extend their control over it. The videocorder extends people as cybernators. By contrast, behavior induced by the output of a television set is merely terminal behavior.

Confusion about the grammar of media such as tape and TV is, as McLuhan has shown, par for the course. New media begin by doing the job of the old media better. The car was a "horseless carriage." The radio was a "wireless telegraph" used for point to point communication until the Irish rebels used it for broadcast in 1916. IBM grew successful as it came to understand it was not in the business of business machines but in the business of moving information.

Cable TV is now transmitting broadcast signals better. This "snowless" signal is not what a cable system is about. **The basic business of cable is the cultivation of local culture.** This does not mean stenciling national network type programming on a local setting. Any culture is *already* programmed. This is to say, the life style of the people is structured by the local environment with its interlocking system of roads, postal service, restaurants, recreational facilities, television intake, telephone usage, etc. The role of a cable system is to increase the community's awareness of their existing cultural system, thereby giving them more control over its development: to cultivate the local culture. Just as VTR extends man as a cybernator so cable can enlarge the capacity of the local culture to communicate about and control its development. This control can include some decisions about importing information.

Centralized production facilities in a cable setting that exploit the saleable aspects of local culture for export will have a short life. This is to model the cable system on broadcast television before the invention of videotape. Packaging information for elsewhere on the stark vision-over-distance model of television amounts to strip mining of local culture. Low priced portable videotape units make it possible for the cable company to take their whole district as their studio. Feeding back into the culture rather than feeding off of it will insure lasting relations between cable and culture.

If cable can effect a genuine awareness and cultivation of life patterns, it will find its best resources in the enriched and unique perceptions of its community. The information overload in our society is placing more and more of a premium on pattern recognition. Pattern recognition is a function of perception. A diverse pattern of unique perceptions such as is possible with the growth of cable in this country could turn CATV systems into so many think tanks.

As readers of Peter Drucker's *Age of Discontinuity* are aware, our society is shifting from an economy based on capital to an economy based on information. Cable television companies are initiating policies within the dimensions of this transition. They are compelled to work out a new relationship between capital and information. Once a cable company realizes that local culture is in fact its business, it seems appropriate that it will want to develop a viable relationship with the schools throughout this country, where so much of the potential constructive, and unlimited energy for creating new relationships in our various environments is located. Via cable educational institutions can function as consultants to the developing culture. Conceivably, a cabled culture could develop to a level of enlightened awareness such that it could turn its perceptions into profit if it cared to. Brainstorming other's problems by cable through a technique of "organized ignorance" is a source of revenue the cable industry has not considered.

There is a Japanese composer, Joji Yuasa, who works with "white noise." Just as white is the presence of all color, "white noise" is the presence of all noise. The "static" one gets tuning between stations on a radio is really white noise. Yuasa boosts up this sound to a rich fullness and surrounds you with it. His composition is a process of filtering out from the fullness of noise that which he does not want.

White noise is a perfect analogue for the world of total information we are approaching. Ideally, everyone will be their own composer. **All non-private information will be available to anyone at anytime and place in any mode they want. Though there is no way of saying for sure, it seems likely that cable will be a major conduit of this information from the data banks to the home communications centers. People will have freedom to the extent that they control the filtering process.** Hopefully we can move from a mass transit system of information such as we now have (you meet their schedules) to one of random access, of self-processing in a world of information movement. Education becomes the empowering of people to maneuver in a world of white information.

Cable can serve not merely as a conduit to total information, but more importantly each separate system can provide the skeleton of an information structure in which **students can build up the indigenous data base necessary for self-cybernation.** Give them videotape, audiotape, and film and let them find forms for their own experience and their own environs rather than the teacher taking the data, informing it, and presenting it as a pre-cooked packet to be warmed over and consumed in the classroom. Self-structuring of unprepared data develops the capacity to be your own information composer.

There is a technique being used in some schools for teaching an inclusive kind of anthropology. Students, insofar as is possible live the life of another people for as long as a year. This includes cooking, monetary system, education, etc. . . . With cable it is possible to do this with one's own culture "live on tape." The near and the now can be put on tape in such a way as to permit detached examination. The dictum that the unexamined life is not worth living is close to the concerns of an educational system based on the detachment possible with the phonetic alphabet. If you code experience in the phonetic alphabet it can be examined. Videotape offers a different mode of detached examination. For example, there is on the market an inexpensive VTR that takes a frame a second for twelve hours and can be played back in a half hour. Simply placing this at different meeting spots would reveal patterns of interaction; documentaries could be produced of people on the street, in shops, on the phone, in homes. Regular exchanges could be set up between sister cable systems: rural/urban, black/white, East coast/West coast, etc. In the schools teachers from different disciplines could be transformed to function as commentators on the video verite, sharing the experience of this information immediately and directly with the students; using the verite not as an audio/visual aid to the teaching process, but as a primary source of information.

The movie and broadcast television have implicit in their structures a perceptual imperialism. You watch what others want you to watch to a large extent in the way others want you to watch it. Others control access from camera angle through the editing process to the decision as to whether it will be shown. Film edits the experience of others for you. With videotape on the other hand, you can pre-edit your own experience simply by setting down your script on audio tape and following it in front of a camera. Film is the packaging of information in cans. Videotape involves the feeding back of process. Film rips information away from a situation for use elsewhere. Videotape can feedback into a given situation and enrich experience. Film extends man as a spectator. Videotape extends man as a cybernator. Film imports information. Videotape implodes indigenous data and works with the raw, the uncooked data—the "static" of the surround. In the cauldron of a cabled culture this kind of data could be more exciting than moon rocks. It should be said that cabled cultivation of local culture can only proceed through a process of creative destruction. We do not yet understand the information contours of culture well enough to cybernate smoothly. In this condition, raw data is dada.

Talk of the wired white world given the realities of cable is somehow reminiscent of the political realism of Snow White and the Seven Dwarfs. Concern with cable is concern with the art of the possible. Those of the interface generation between the establishment and the new youth who try to put portable videotape in the hands of students will soon find themselves accused of running guns to the Indians. Harold Innis, a mentor of McLuhan with a sense of political realism, saw social change as the result of the disenfranchised groups (in this case youth) trying to gain control of the new communications media and thereby gain a form of social power. Providing high school students with portable videotape is like providing David with a slingshot. **The broadcaster armor of the communications giants seems even less vulnerable than was Goliath. Yet anyone who has experimented with portable videotape equipment knows instantly that the potentials of television have hardly been touched. Perhaps nothing that is really television will happen with television until those who were raised on it gain control of it.**

New media like Cable TV mean opportunity, not inevitability. The power gap opened up by this new media has attracted a host of contending parties and opened up a number of tricky questions. Educators who decide to enter the cable arena will soon find themselves involved with local politicians, media barons, venture capital, the FCC, Supreme Court, Congress, copyright, lawyers, broadcast interests, computers that want to talk to other computers over cable, the possibility of a two-way system, the Joint Council on Educational Telecommunications wanting twenty percent of cable capacity for education, questions of local advertising, franchise questions . . .

This much seems clear. There is a natural alliance between the TV generation, those educators and others who understand something of the implications of being raised on TV, and the cable television industry. From the side of the educator there are a number of difficulties with such an alliance:

Many of the franchises negotiated by the town fathers contain unimaginative, token provisions for education. The cable companies will have to be willing to give on this.

Practically all of the possibilities I have talked about here are based on the use of portable half-inch videotape equipment and to a lesser extent super eight film and audiotape. The industry generally is adopting a one inch format which confines it to studio and mobile van production. Formulas will have to be worked out for transfer of half to inch, and direct use of half inch. There is also a question of the quality of the image yielded by half inch. Standardization of line resolution for cable seems to me unnecessary. If the image is stable, it should be allowed. To make the definition of the image uniform would be as senseless as making the comic strips in the Sunday funnies of uniform definition.

The ethical code of the National Cable Television Association reveals they have done little thinking about the TV generation. They conceive of their responsibility toward youth in terms of providing the "right kind" of information and withholding the "wrong kind" of information. Educators will have to show the cable industry the critical necessity for a systems approach to the needs of the young rather than a content approach. Part of this dialogue need be the critical discussion of the feasibility of and possible ways of implementing a two-way system.

The world of white information and the outcome of contentions over cable seems far away. Yet when we realize that a child born this year will be 30 in the year 2000, these concerns become critical. We need offer the young multiple means of processing information, not load them down with the opprobrium of obsolete content.

Both the FCC and the cable industry want cablecasting. Given the right combination of circumstances, portable videotape, cable availability, and the will to do, educators may well declare themselves fed up with the overcooked, cafeteria style curriculum, and go roll in the raw data of the seventies.

Edited revision of article published and copyrighted by *Media and Methods*, Oct. '69.



THREE PIECES: SOME EXPLICATION[®]

- 1. EGO ME ABSOLVO
- 2. GUNS, KNIVES OR VIDEOTAPE
- 3. COLLEGE IS A HIGH CHAIR

EGO ME ABSOLVO^{*} is an ordinary single penitent confessional set up against the wall. The penitent (participant) goes into the confessional and kneels. He flips on an audio track which guides him through an appropriate confession. While he confesses, his face is videotaped. When finished making his confession, he goes round where the priest sits and watches the replay of his own confession. Then the tape is erased by the next penitent. Appropriate audio tracks could be gotten by bringing a tape recorder with you to confession. Different tracks could be developed for different kinds of people, young girls, teenage boys, married women, etc... All audio tracks would be the authentic voices of real priests in an actual confessional situation.

^{*}Unexecuted

GUNS, KNIVES OR VIDEOTAPE^{*} works this way. Two people, each with a portable pack and camera, face off fifteen feet apart. At a given signal they start "shooting" each other. Both roll tape continuously for five minutes. Then both tapes are played back simultaneously on two monitors set up side by side. The area should be large enough so that participants can move around. Variations are possible. Doubling up in teams of two, doing it in a mirrored room, setting up a third camera on a stationary tripod to catch the whole duel for playback with the participant's tapes.

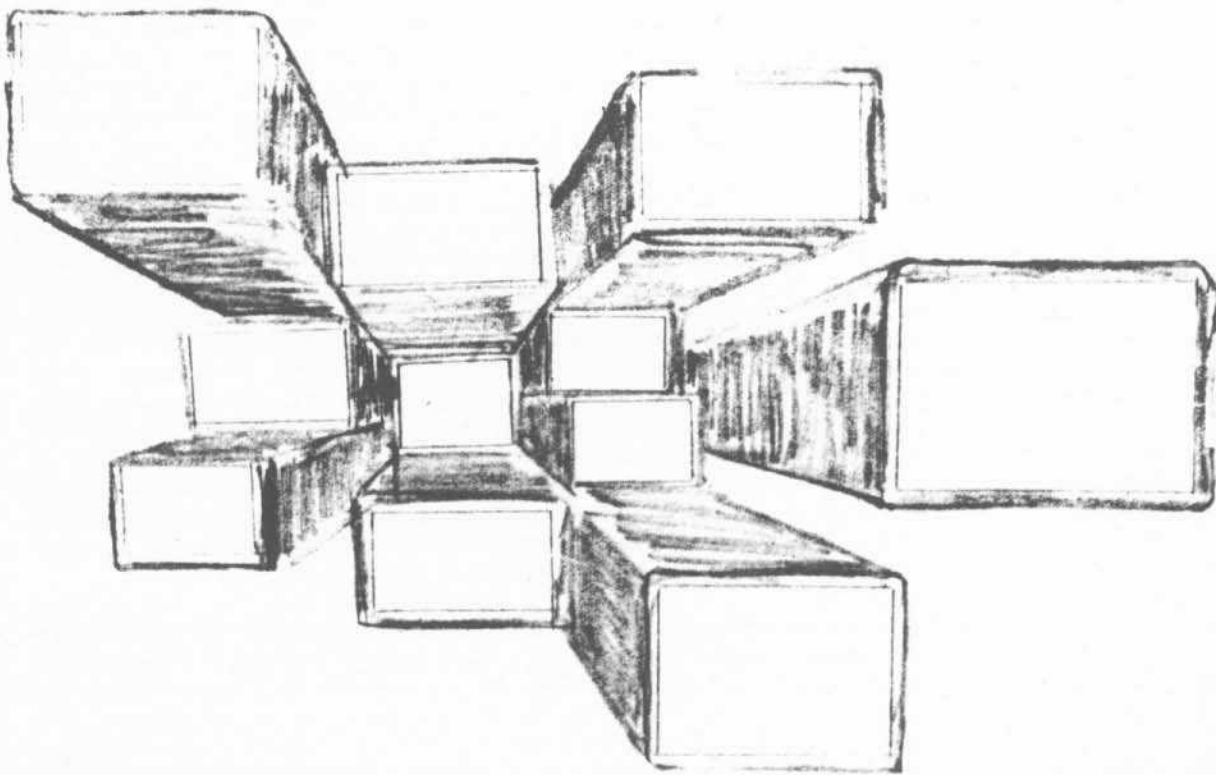
^{*}Executed in Pontiac, Michigan

COLLEGE IS A HIGH CHAIR^{*} requires a prepared tape of a 9-12 month old baby eating in a high chair. This tape is shot from a tripod facing the baby in real time. An appropriate ten minutes are run through slow motion at half speed to create a new tape twenty minutes long. No sound. This tape is then played back on a video projector screen in front of a classroom. The participants are seated in the standard college classroom desks with the desk top coming around from the side of the chair. Participants are then asked to imitate the baby's movements for the entire twenty minutes in silence.

^{*}Unexecuted

by PAUL RYAN April 11, 1970

ENVIRONMENT



Drawings by Davidson Gigliotti.

These pieces juxtapose video with three existing cultural cliches: confession, the shoot out, and the college classroom. By deliberately putting a new media in old winebags the interface between the existing culture and the new information technologies can be profitably explored. Generally the introduction of new technologies has taken little account of the way in which the existing culture is already programmed. For example, talk about the upcoming home communications centers pays little heed to the fact that the kinship system is already a highly complex and formidably designed data processing system. The mindless mutation in family structure wrought by the third parent, broadcast TV, will seem minor compared to the effect of home communication centers designed by hardware heads with no realization that culture is software.

As an alternative to merely talking about the information contours of existing cultural cliches and their relation to VTR, these pieces are designed to provide some experience of the interface for those that are interested. The cultural cliches are approached as information structures. The expected experience is transformed by video design. Electric is elastic. These pieces are structured to help provide a sense of the possibility of cultural design through electric information technologies.

Confession is structured in such a way that the priest has authority over the experience of the penitent. His authority is based on his knowledge of the "revealed dogma" kept by the Church. Out of that body of information he provides feedback for the conscience of the penitent. The priest guides according to the norms of the Church. Videotape undercuts the authority of the priest by providing the "penitent" with a closed loop information system: intake (camera) processing (deck) output (monitor).

This complete information system enlarges a person's ability to self-cybernate. He can take in his own outside. Of course, a person needs more data related to himself than the replay of himself going through the confessional routine. He needs much tape of himself in many situations, with different friends, and alone. The point is that with video it is possible to build up such a self-cybernating data base that undercuts the authority of the priest and his body of information. These considerations also hold true for many forms of private therapy.

GUNS, KNIVES OR VIDEOTAPE seems useful for the questions it suggest rather than for any clear comment it provides. Essentially it is a mutation from the hardware form of a six gun shoot-out to the software form of a videotape information duel. Is winning possible in a videotape shoot-out? What would winning mean? What modes of behavior are appropriate for someone who is simultaneously recorder and performer? What areas of interpersonal relations are explorable in this videotape encounter not explorable in ordinary encounter groups? Is not the metaphor of "shooting" tape misleading?

COLLEGE IS A HIGH CHAIR is based on one of the video experiments done in the fall of '69 at Victor Gioscia's Center for the Study of Social Change using Roosevelt Hospital facilities. The choice of a baby to imitate comes from my own experience imitating the movements of babies. This piece seems to stand by itself as an electric equivalent to the metaphor of spoonfed education. All I want to do here is provide a description of the experiment that generated the piece.

Vic and I recorded a conversation between us using full body shoots on a split screen. We were seated facing each other. A week later we played the tape back using slow motion and no sound. We both sat facing the screen imitating the kinesics of the other on the screen and verbalizing how we felt from going through those motions. It was extraordinary. Holding my head and rocking back and forth in imitation of Vic. "Yeah, I'm listening to what you're saying, Ryan, but I'm really getting ready to strike back." Following a diminutive hand gesture "Let me make it nice and small, Ryan, so that you can understand it." Vic was scoring on me in a similar way and we were laughing our heads off. What was even more extraordinary was when I woke up the next morning. I felt like I was wearing his body. That I had it on. I called up Vic and started telling him how I felt about the relation between his/my stomach and shoulders, stomach and head, torso and legs, etc., etc. Each time Vic confirmed I was right on. For the next few weeks I found I could recall this sense of his body when I wanted.

Let me conclude by saying something to those who feel that these pieces are too contrived. Confession, the college classroom, even a six gun shoot out are extremely contrived forms. What's important is that electrical information systems such as videotape introduce an elasticity into the creation of new cultural forms that may free us significantly from the perimeters of contrivance we've had to date.

Paul Ryan is working now at the New York State Council on the Arts.

VIDEOTAPE PIECE:
THANK YOU FOR PRESENTING ME
WITH A DIFFICULT PROBLEM[®]

by MARCO VASSI

- 1. Build a room fifteen by ten feet in area, eight feet high. Equip it with all the necessary apparatus and supplies for eating, sleeping, eliminating. Provide props for living: stereo, radio, typewriter, books, favorite fetishes, etc.

Have one wall be a solid field of television monitors. Have eight cameras continuously shooting into the room from variously placed slots in the walls so that every inch of space is covered.

Let one person live in the room for seventy-two hours.

- 2. The television wall will hold twenty-eight 23" monitors. The screens will show the following:
 - a) Eight are live feed, playing back the activity in the room from eight different angles;
 - b) Twelve are delayed feed, playing back the activity in the room in time lapses from fifteen seconds to twenty-four hours;
 - c) Eight are random tapes either shot separately or taken off the air.
- 3. The piece is viewed on a large screen placed outside the room, shot with a ninth camera facing the television wall and having a wide-angle lens.
- 4. The purpose of the piece is to give the person in the room the experience of himself or herself as process. It is to destroy the notion of art-as-product. It is to destroy the notion of self-as-object.

Through continual feedback in a shifting matrix of time and space, time and space attenuate and come to the end of their tether. All that remains is awareness-without-context.

In the room, it soon becomes unimportant what the person does. Everything is recorded and played back with total impassivity. Thus every thing is as meaningful as any thing. A unity of multiplicity is achieved. Intensity comes to inhabit attention while concentration is relaxed. Reality and illusion do sixty-nine. The mind achieves clarity in the state of insanity.

- 5. The piece has uses in psychotherapy, in education, in entertainment, in experiments on the sensorium, as an environment for getting stoned in, and can be used by couples and small groups who want to work things out. Used with hypnosis and with specially chosen programs on the monitors receiving outside tapes, it should prove an excellent tool for propaganda by those who are inclined to the behavioristic or totalitarian mode.

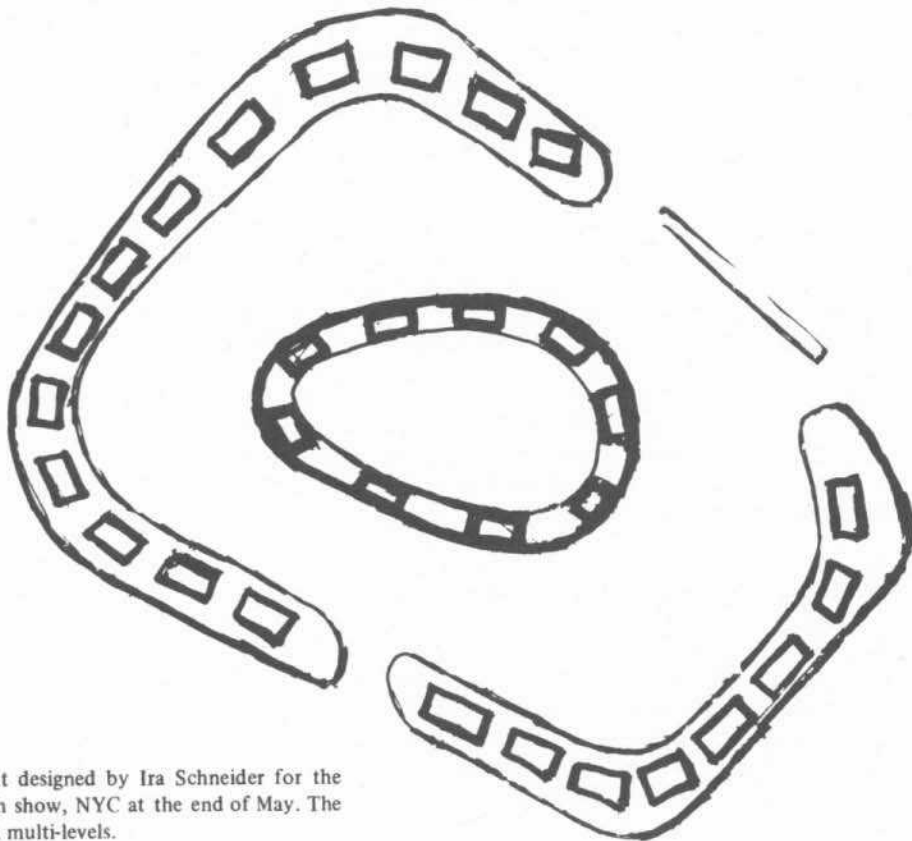


Diagram of environment designed by Ira Schneider for the opening of the Westbeth show, NYC at the end of May. The monitors are situated on multi-levels.

RANDOM ACCESS

TV AS A CREATIVE MEDIUM, Howard Wise Gallery, New York City, May 17 – June 14, 1969.

- Serge Boutourline
Frank Gillette and
Ira Schneider
Nam June Paik
Nam June Paik and
Charlotte Moorman
Earl Rieback

Telediscretion
Wipe Cycle

Participation TV

TV Bra for Living Sculpture
Three Experiments Within
the TV Tube
Everyman's Moebius Strip
TV Time Capsule
The Archetron
Black Spiral
AC/TV (Audio Controlled Television)
- Paul Ryan
John Seery
Thomas Tadlock
Aldo Tambellini
Joe Weintraub

Utopian Laser TV Station

by Nam June Paik

- McLuhan is surely great, but his biggest inconsistency is that he still writes books. He became well-known mainly through books, he doesn't care about the situation, and is excluded from the media for which he evangelizes.
- Very very very high-frequency oscillation of laser will enable us to afford thousands of large and small TV stations. This will free us from the monopoly of a few commercial TV channels. I am video-taping the following TV programs to be telecast March 1, 1996 A.D.
- 7 a.m. Chess lesson by Marcel Duchamp.
- 8 a.m. Meet the Press. Guest: John Cage.
- 9 a.m. Morning gymnastics: Merce Cunningham, Carolyn Brown.
- 10 a.m. Something Else University: collection of unnecessary and unimportant knowledge (Indian incense, Chinese cockroaches, etc.), by David Tudor.
- 11 a.m. The more meaningful boredom. Jackson Mac Low's 1961 film in which a standing camera focuses on a tree for many hours.
- 12 a.m. Noon news by Charlotte Moorman. The 1996 Nobel prizes: peace, John Cage; chemistry, inventor of the paper plate; physics, Charles de Gaulle; medicine prize, inventor of the painless abortion pill; literature, Dick Higgins or Tomas Schmit.
- 1 p.m. Commercials from the Fluxus Department Store. Alison Brand Atom Shoes for the carless society (this shoe is equipped with small wheels, fed by tiny atomic engines, and can travel from Harlem to Wall Street in 15 minutes, eliminating parking problems).
- 2 p.m. How to use my "stereo eyes" and Buddha head, by Emmett Williams.
- 3 p.m. Guided tour of Kurdistan, Turkistan and Kazakstan, by Dick Higgins.
- 4 p.m. Confessions of a topless cellist, by Charlotte Moorman.
- 5 p.m. Cantata: "Image Sacrée de Mary Bauermeister," by Nam June Paik.
- 6 p.m. Stock market report: "How to lose your money quickly," by George Maciunas.
- 7 p.m. Avant-garde cooking recipes for endless sex, temporary death, controllable dreams, endless unsex, endless youth, by Alison Knowles.
- 8 p.m. Symposium on modern Platonism: George Brecht, Robert Filliou, Al Hansen, Joe Jones and Ray Johnson.
- 10 p.m. Baby care, by Diter Rot.
- 11 p.m. Ars Nova Quartet: Philip Corner, Malcolm Goldstein, Alvin Lucier and James Tenney.
- 12 p.m. Midnight editorial: Art and Politics, by Wolf Vostell, followed by movies of the 60's (Stan Brakhage, Robert Breer, Adolfo Mekas, Stan Vanderbeek).
- 1 a.m. Suggestion for tonight: "Bed Techniques of the Ancients," readings in Greek by Christian Wolff.
- 2 a.m. Goodnight poem: rude chants by Carol Bergé.
- 3 a.m. Dream music, by LaMonte Young, and Mahjong tournament between Ay-o, Takehisa Kosugi, Toshi Ichihayashi and Yoko Ono.
- 6 a.m. Alcohol contest: all-star cast.

Published by Something Else Press, 1966.

What to do between 7 and Midnight.

7:00 p.m. DICK VAN DYKE
Rob and Laura are worried about Sally just because the guy she's in love with is married, a Nazi and runs a mortuary. What's happened to their sense of humor?

7:30 THE AVENGERS
"Simpleton is the son of wit. Tonight, Mr. Leavel simply wants to kill Mr. Sord. And so other people, as a sort of exercise. Which brings to mind (three) Mrs. Peel. What will she have to say and do about all this? Patrick MacNee and Diana Ruggie. The Superlaten Seven.

8:30 CANDID CAMERA
Tonight Allen Funt presents his annual "Best Performances" awards. He also demonstrates the effects of the side-sway television (On the "Up" button speak with lowered lift.)

9:00 MILLION DOLLAR MOVIE
Alan "Shane" Ladd rides tonight. Out of the Civil War and into the arms of Olivia "Come With The Wind" de Havilland. However both are and "THE PROUD REBEL" get upstaged by David "Son of Alan" Ladd. How's that for "Something for Everybody."

11:00 DIVORCE COURT
Is Mr. Carlson really a cruel, violent husband? And why did Mrs. Carlson let the real estate agent into her house? See the costumes and the agonies, the fearfulness and lies, build to an hysterical climax tonight!

11:30 THE LATE MOVIE
Tune in any new tele right now, and all you'll get is a lot of yids. In New York Nine, and you'll find yourself on TARAWA BEACHHEAD where eleven most plucky new york leader Ray Danton just shot one of his own men in the back.

6TH MONTH
"GLOBAL VILLAGE
is dynamite" —EVO

Global Village . . . intimate in form. Blunt and radical in content" —NEWSWEEK

"Fantastic, Fantastic" —WBAI
"a splendid tape of a couple making love in the woods" —EVO, Gross
"Kaleidoscopic Trip on 9 TV sets."
—NY TIMES
created by
John Reilly & Rudi Stern
Thurs. 8:30 p.m. \$2.00
Fri. & Sat. 9 & 11 pm \$3.00
Call for res. 966-1515
Global Village • a Video Gallery
454 Broome St. (corner Mercer St.)

VISION AND TELEVISION, Rose Art Museum, Brandeis University, Waltham, Mass. Jan. 21 – Feb. 22, 1970.

- Ted Kraynik

Les Levine
Eugene Mattingly
Charlotte Moorman and
Nam June Paik
Nam June Paik

Video Luminar No. 4
Video Mosaic
Audio Luminar
The Dealer
Fred Helix
TV Bra for Living Sculpture

The 9/23 Experiment
Still Life
Embryo for Wall to Wall TV
Yes/No
Innertube: A one person Video Environment
- Paul Ryan
John Reilly and
Rudi Stern
Frank Gillette
Ira Schneider
Aldo Tambellini

Amps, Volts and Watts
Random Interlace, Content Electronics
Black Spiral
Moonblack
Black TV
Videograms
Electronic Moon No. 2 (16mm)
AC/TV
Wave Forms
Production unit taping museum events and Brandeis environment in conjunction with Ira Schneider. Tapes presented by large screen projection, monitors throughout museum, and Schneider's piece.
Body, Mind and Video
- Jud Yalkut
Joe Weintraub
Usco—Intermedia
Videofree
- Eric Siegel

VISION AND TELEVISION was produced by Russell Connor.

Channel One's
GROOVE

"A wicked and hilarious lampoon of TV programs."
—Look Mag.

OR 4-1010 TUBE OR 4-1010

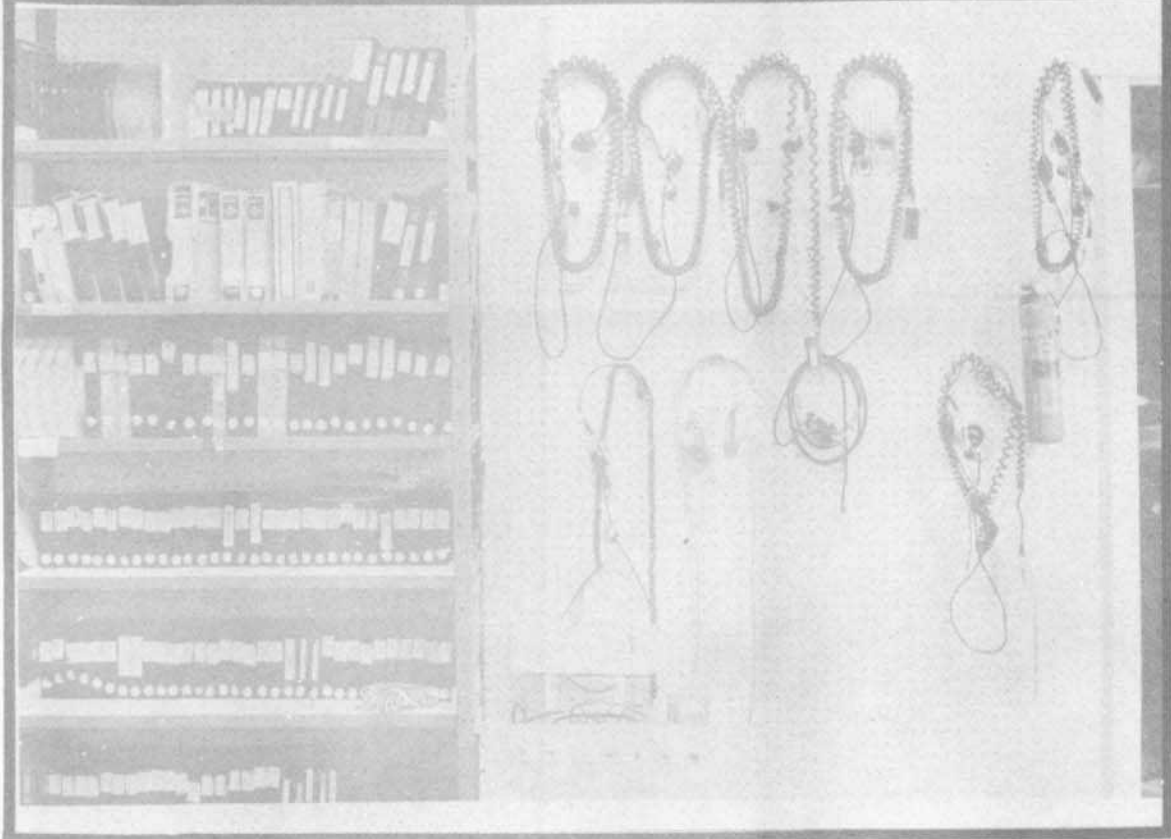
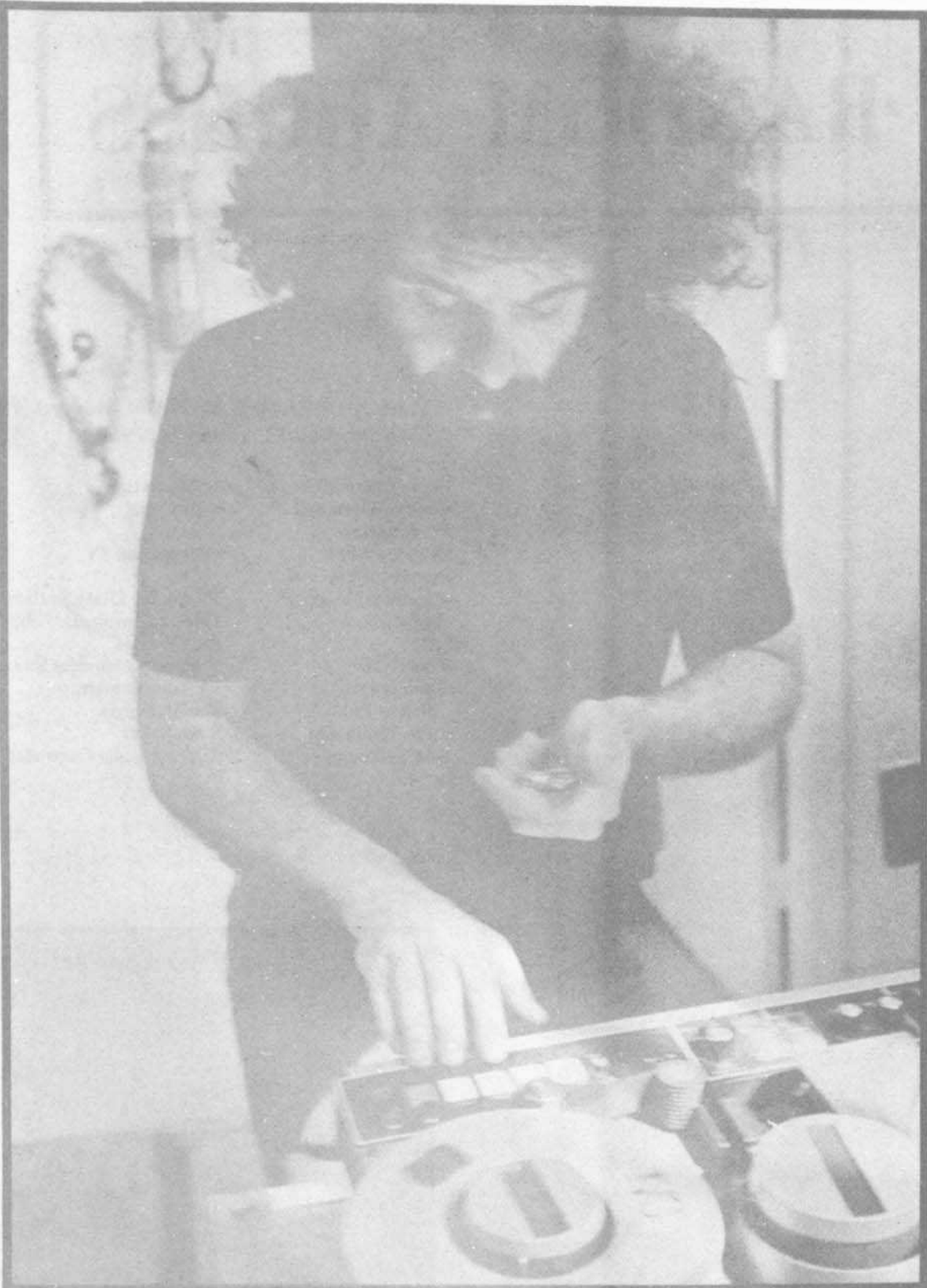
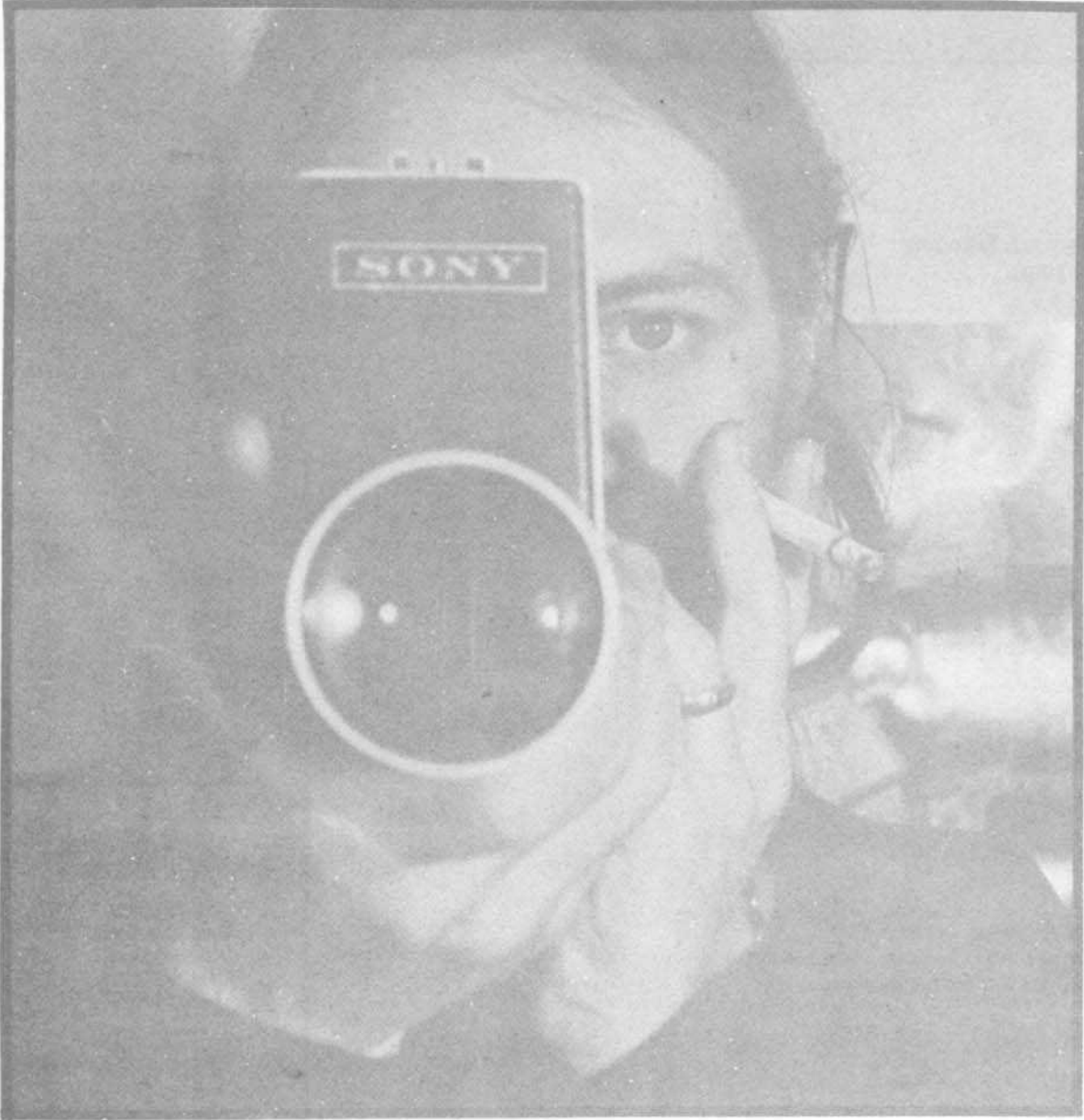
UPPER MERCEY THEATER LAST 7:15 8:00 9:15 10:30 11:30 12:30
DOWNTOWN CHANNEL ONE THEATER 6:15 7:15 8:15 9:15 10:15 11:15 12:15

The archives listed below are from only two of the groups producing tape. The purpose in listing them is not to parallel film rental “libraries” but to expedite the exchange of tape and establishment of a network.

VIDEOFREEX, INC.

- Industrial and Educational**
The Food Line—“Supermarkets for Progress”; The Group; Group Games—March '69
Easter in Spain—April '69
Smokey Bear Commercial—Sept. '69
California Experimental High School; Jessie Ritter at San Francisco State—Nov. '69
Cloisters—Dec. '69
Genre Tapes
Crawfish and Sally Bell—July '69
Chadis—May '69
Rivington Street Dope Speech—Aug. '69
Tarwater—Dec. '69
The Great White Way—Jan. '70
Eclipse and Elijah; Trippy Meeting; House Hunting I and II—April '70
Music
Buzzy Linhart—last half of '69
Incredible String Band—Nov. '69
Major Wiley; Morgan, Mason and Downs; Hubie—Dec. '69
Charlie Mariano—Jan. '70
The Smubbs—April '70
Sarod Player—May '70
Woodstock
First Aid No. 1
First Aid No. 2
Shithouse
Aqualast
Erotica
Erotica I; Enchanting Erotica II Kusama; Gallery I, II, III
Far-out Ergenous—Frolies and Excitement 3—Nov. '69
Mango Productions I, II—Jan. '70
Political
Black Panthers I, II, III; Abbie and Jerry; Abbie Hoffman in Chicago; Mrs. Seale—Oct. '69
Women's Liberation; CCNY-SDS rally (Jerry Rubin)—March '69
Junkyard—April '69
Abbie at New Haven; Soho Artists' Festival; Washington I and II; David Peel; NYU/Columbia demonstrations; Construction Workers' Loyalty Day Parade—May '69
Interviews
Claude and Denise—gallery owners—Oct. '69
Dr. Hippocrates I, II, III; Tony Pig—KSAN (body painting)—Nov. '69
Ricky Leacock; Bill Psyche (Brandeis)—Jan. '70
Hells Angels party—Feb. '70
Oddyssey House; Hells Angels at home—May '70
Artists
Aldo Tambellini—Jan. and April '70
Charlotte Moorman; Nam June Paik—Jan. '70
Salvadore Dali—March '70
Ecology
Earth Peoples' Park Meeting I, II, III—March '70
Theatre
70 Grand Taffel—Oct. '70
Prince Street Taffel I, II—Jan. '70
Events
Circus Arts in Central Park—Sept. '69
Martin's Magic Pillow—Nov. '69
St. Marks (New Years Eve)—'70
Rose Art Museum Show (Vision and Television)—Jan. '70
New School Mixed Media—Feb. '70
Musica Electronica Viva—March '70
Finch College Laser Show—April '70
Electronic Video Experimentation
MC—TV—July '69
Feedback; Chrome I—Sept. '69
Extra Special Effects I, II—April '70

VIDEOFREEX: David Cort, S.M. Blumberg, Curtis Ratcliff, Parry Teasdale, Davidson Gigliotti, Chuck Kennedy, Bart Friedman, Alan Sholem, Tunie Wall, 98 Prince St., NYC, NY.



Photos: Louis Jaffe

RAINDANCE, CORP.

- Summer '68
Jan.—Feb. '69

May '69

May '69
May '69
July '69
Aug. '69
Oct. '69
Dec. '69
Feb. '70
March '70
March '70
March '70

April '70

May '70
May '70
May '70
plus

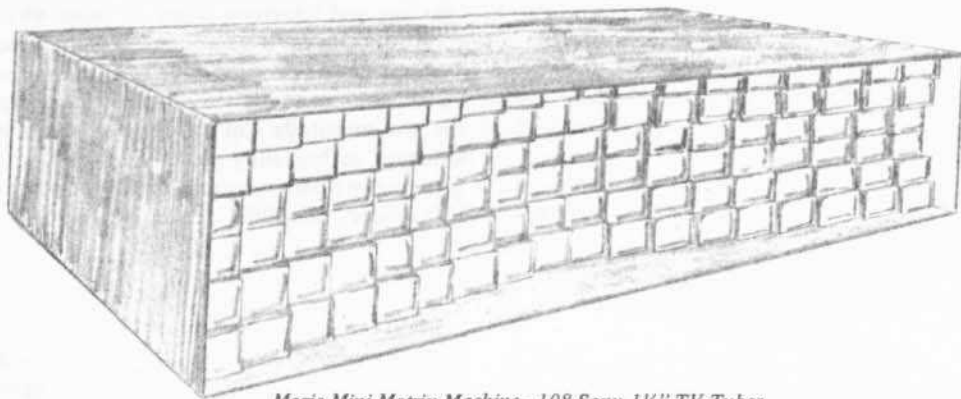
St. Marks Tapes (street Rapping)
Antioch tapes (midwestern American subculture; interviews and experimental video entertainments)
Composite tapes for Wise Gallery show—TV as a Creative Medium (Panasonic)*
Document of Wise Gallery show
Tony Barsha bathtub sequences
Apollo 10 (11 and 13)
Woodstock Tapes
Abbie Hoffman tape at Conspiracy office, NYC
Altamont tapes
Urban ecology tapes: City Mix 1, 2, and 3
Earth People's Park meeting—Electric Circus
Locusts Attack Chicago
California trip (The Rays, and Supermarket, plus Here's to your Goiter Goat Man, Tender is the Tape, Alternate TV sub-edit pre-prototype No. 1, More, and Alternate sub-pilot)
Earth Day in New York (Uptight about Bushes, I was an Eagle—I am Extinct)
Interview with R. Buckminster Fuller, NYC
Post-Kent State—Washington DC Peace Demonstration
City Hall labor and student anti-administration demonstration
News taped off TV during the week of the Kent State killings and Cambodia protest demonstrations
President Nixon's State of the Union Message
The Party the President threw for the Astronauts
Keep: composition for four synchronized screens
Loop Sketch: an abstract tape composed of feedback patterns
Computer: document on the home computer
Weekend at White Tank: two-part tape of meeting of video people
Rose Art Museum show—Vision and Television documentary, Jan. '70
Moon: off-air collage

by Ira Schneider, Frank Gillette, Michael Shamberg, Paul Ryan.

* All tapes, unless otherwise specified, made with Sony 1/2" portable equipment.

The media must be liberated, must be removed from private ownership and commercial sponsorship, must be placed in the service of all humanity. We must make the media believe we must assume conscious control over the videosphere. We must wrench the intermedia network free from the archaic and corrupt intelligence that now dominates it!

THE MEDIA MUST BE LIBERATED, MUST BE REMOVED FROM PRIVATE OWNERSHIP AND COMMERCIAL SPONSORSHIP, MUST BE PLACED IN THE SERVICE OF ALL HUMANITY. WE MUST MAKE THE MEDIA BELIEVABLE. WE MUST ASSUME CONSCIOUS CONTROL OVER THE VIDEOSPHERE. WE MUST WRENCH THE INTERMEDIA NETWORK FREE FROM THE ARCHAIC AND CORRUPT INTELLIGENCE THAT NOW DOMINATES IT. GENE YOUNGBLOOD *The Videosphere*



Magic Mini-Matrix Machine—108 Sony 1 1/4" TV Tubes

A DEMAND ON THE NETWORKS:
SERVE THE PEOPLE

With the killings of students at Kent State University, the moral bankruptcy resulting from the United States role in Indochina has been tragically highlighted.

The democratic forms of the American political life are in a state of impotence and near breakdown. The Administration's attacks upon dissent combined with unconstitutional presidential launchings of new military campaigns and escalation of the war have brought us to a crisis point in the history of the American nation.

The communications media, while reacting to the specific events such as the killings at Kent State, have not measured up to the immense scale of the crisis. This crisis—instead of receiving the amount of time called for by its gravity—has been squeezed into the standard programming and promotional plugs of "normal" TV practice.

We, the *Universities for Open Communications*, representing the following groups from colleges throughout the country, charge the media with failing to fulfill their stewardship of the public airwaves in not responding with sufficient seriousness to a "clear and present danger" to inalienable American rights.

Furthermore, we regard the student bodies and faculties of American universities as, at this time, representing a community—an "estate"—having the obligation and responsibility to speak up and act for the American conscience.

In light of these facts, we feel justified in demanding the following from the networks:

- A. An immediate cessation of all regular programming for the duration of the current crisis—one of the gravest of recent times.
- B. Continuous, live coverage of the march on Washington and all events which represent the dissenting voices against government policy.
- C. A continuing opportunity for all dissenting spokesmen to represent their positions vis-a-vis the government with which we find ourselves in principled disagreement.

Only by meeting these demands will you fulfill your responsibility to the American people.

Introduction "I believe that television—which provides most of the people of this country with their principal source of education, entertainment, information and opinion—bears perhaps more responsibility for (the) state of the nation than any other single institution." (p. 8)	→
The Crush of Television "There are 60 million homes in the United States and over 95 percent of them are equipped with a television set. (More than 25 percent have two or more sets.) In the average home the television is turned on some five hours forty-five minutes a day. The average male viewer, between his second and sixty-fifth year, will watch television for over 3000 entire days—roughly nine full years of his life. During the average weekday winter evening nearly half of the American people are to be found silently seated with fixed gaze upon a phosphorescent screen." (p. 14) "Water systems engineers must build city water supply systems to accommodate the drop in water pressure occasioned by the toilet-flushing during television commercials." (p. 27)	→
The Media Barons and the Public Interest "Everybody's in 'cable television'—networks, book publishers, newspapers . . . so everybody's hedging their bets . . . Indeed, about all the vested interests can agree upon is that none of them want us to have direct, satellite-to-home radio and television." (p. 67)	→
CATV: Promise and Peril "Once the investment is made (by private money) it heavily tips the scales against future innovation." (p. 162)	→
What you can do to improve TV "A broadcast television station owner is using the public's property—the airwaves—and Congress has provided that he cannot 'own' this property in the sense that the corner druggist owns his drugstore." (p. 206)	→

How to Talk Back to Your Television Set
by Nicholas Johnson. Bantam Book, 95¢, 221 pp.

Nicholas Johnson is the most imaginative member of the 7-man Federal Communications Commission.

Johnson know what's happening, as well he should, though he fails to make some important connects in this book, a structural weakness probably due to the fact that it's really an anthology of published magazine articles.

Nevertheless, in one chapter Johnson incisively writes of television's financial over-centralization, while in the next he details technological trends which can overcome this, but he never ultimately suggests that the same people he encourages to write their Congressmen and the FCC might do better to organize and make their own television—or at least make sure their kids have the chance.

In short, Johnson sees the solution in changing the contents of broadcast television, without conceding that the system structures its content, instead of urging that the whole system be redesigned or abandoned.

Striving towards better content on broadcast TV is like building a healthy dinosaur. Better to decentralize the medium and get people into using it as their tool. There just isn't enough time to fool around with changing the broadcast mode of television when decentralized, portable VT systems can and are leapfrogging the old system.

e.g. The Ford Foundation gave \$1,000,000 to KQED in San Francisco to produce 26 weeks of a video magazine off-the-air. The first thing KQED did was form committees to worry about how the series would handle obscene words.

e.g. All the money pumped into *Sesame Street* could have put 8,000 VTR systems directly into children's hands.

MICHAEL SHAMBERG

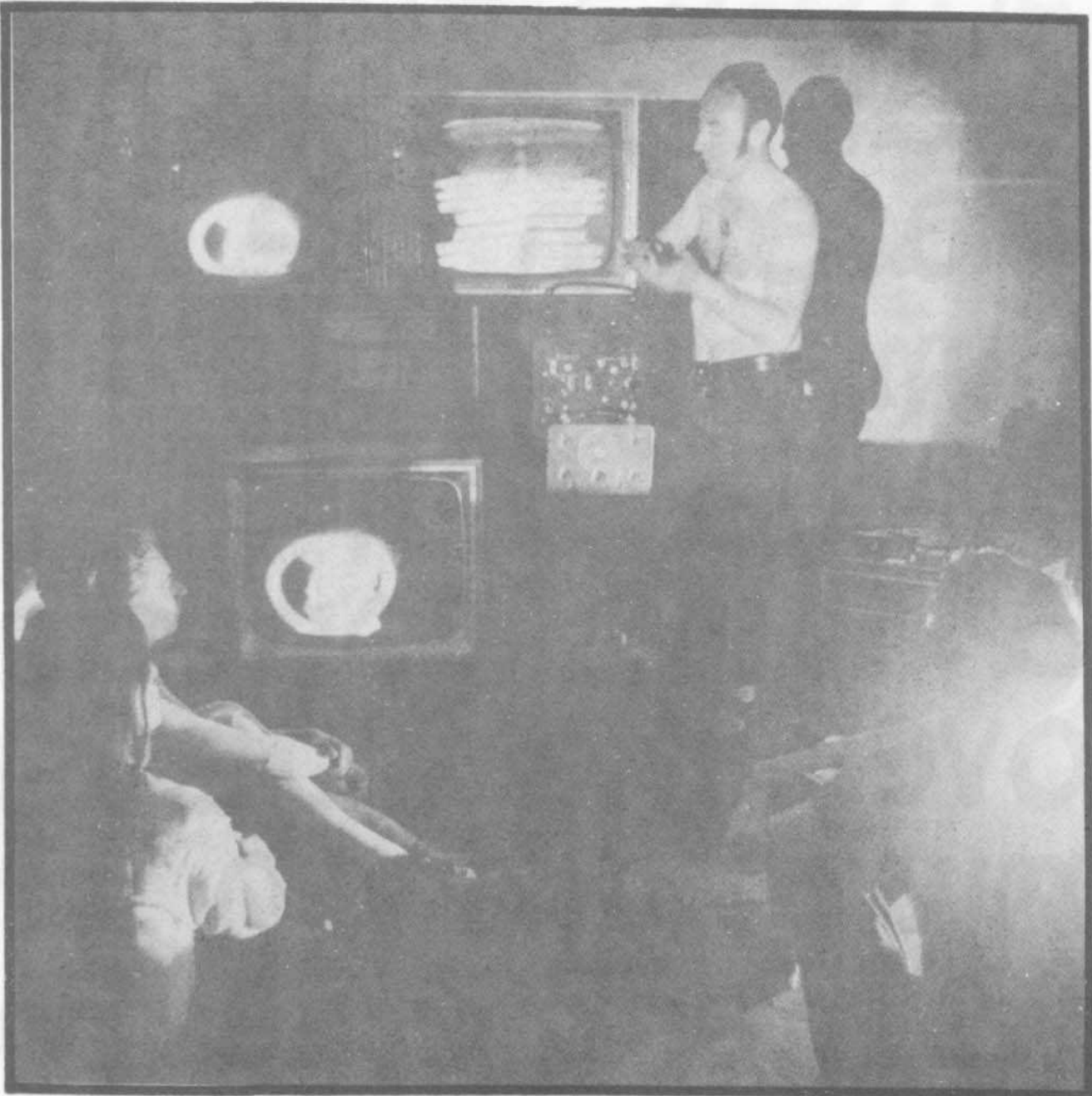
SIMULTANEOUS VIDEO STATEMENTS[®]

by Aldo Tambellini

And what are we going to do through the media? Let's say we are going to keep it open and whatever I think is possible I would like to do. Whatever one might dream of which somebody would not want if I had the possibility to do it. Let's break all the rules possible. Let's open up the possibility which everyone else has told you this is not right and this is not feasible. And I would like to start it from there from a reality. So what one wants to do is more like an attitude than the specific of what one wants to do.
TV AS A CREATIVE MEDIUM, Howard Wise Gallery, May-June '69.

first video newsletter
we will be of
television
vision
we will be of
television
memory
we will be of
television
instant
extending
in
an all
total
network
communication
toward
unknown
living
existing
in planets
extending a
totality
of self
reaching
for the ever
expanding
our human aspect
given to
television
races to unite
to reach
other
beings
or living forms
or existing
matters
we are plants
we are animals
we are
insects
we are sperms we
are molecules
we transmit
energy
we communicate
with
atoms
we are robots
which
one day will
cry
carrying yesterda
on rockets
forever barking
at
moons

forever in
eclipse
transmitting
constantly
transmitting
penetrating
a man a woman
a child
dies of
hunger
as tv
scans the
surface
of a
moon
man communicates
to
a dry
hostile
surface
extinct craters
dust
he leaves his
footprint
touch moon with
finger
and in a rat
infested tenement
in harlem
a baby dies of
hunger
a kid shoots
heroine
in his vein
television
the extension of
man's totality
of
senses
television
which
sees
pain
with no
comments
no feelings
no reactions
objectively
in a phosphorous
screen
through billions of
information
eyes
through billions of
veins
live with
energy
live instant
live
how real is
live
how real is
instant
is it happening
now
was the
count down
reversed
how do we
come to
zero
how instant
is
the instant
computerized
information
robots
resolution
in television
terms
the amount
and clarity
of
information
the amount of
data
processing
the amount
of what
impulse
instant
reaction
vacuum
visual voltage
reality is
to a
man
in harlem
a hustling
prostitute
on a tv
screen



but I do have this relationship to man as man there is one world that world has to become one it is not one today it has to become one sometime and I have to work with elements which help me for that world to become one and television is one of them why is it television because television is no longer a painting or a form which could work on a canvas which can only be owned which can only be seen which can only involve a small amount of limited people I'm looking for the many I'm looking for the multitude I'm looking for the simultaneous I'm looking for humanity as humanity to me humanity is the sharing the exchange the giving of my particular experience for man to have interview in *EVO* January 26, 1968.

to show that light is constant moving force an ever changing form. That light is energy and energy is going through us the same energy which is going through the universe today. And when creative people begin to get involved with this idea of energy rather than the idea of making pictures then we will come to some creative aspect not belonging to one particular class but toward a new exploration which is for all interview with ABC-TV channel 7, december 21, 1967.

america
once tested the atom bomb in
hiroshima and the atomic age began the
industrial revolution was a world of machines
the fabrications of objects the atomic space age is a
world of matter of non physical forces of energy arms and
legs of machines are controlled by nervous systems and brains of
the computer we are the primitives of a new era the fetus is cond
itioned to the simultaneous beat of our period the instantaneous chang
es the child born to a world of radiation of ultrasonic sound of superson
ic speed will float with the weightlessness of astronauts in the midst of to
days totalitarian system there is the struggle of man to expand his senses in
attempting to become organic with his scientific environment his newly disc
overed nature the rebellion is against man as an exploited economic commodi
ty man as a specialized entity we have witnessed the explosion of the black
man and the apathy of the artist the specialization of the picture maker the
writer the music maker is challenged by programmed computers able to produce
the same act of specialization the computer age places a higher demand on
the creative artist the octopus spreads in many directions under one core
the concept of art has disappeared electromedia is our era we must get
to the heart of the medium to its tube its filament its energy we must
produce visions from the stuff which media are made of it is from
blackness that we begin to be resensitized for blackness is like
the womb where light was first felt perceived but not yet
seen aldo tambellini electromedia a movement arts
canada november 1967...and before the beginning was
black before the beginning and before
the beginning was black before the
beginning and before the
beginning

television creation
television creation belongs
television creation belongs to
television creation belongs to the whole
television creation belongs to the whole exchange
television creation belongs to the whole exchange with
television creation belongs to the whole exchange with humanity
april, 1970.

ZEN TUBES[®]

by MARCO VASSI

To write about . . . to write . . . about . . .

Tape is explaining a trip to someone who's never dropped acid. You have to say, it's *like* this.

But here, between the thing and one's consciousness of the thing, between the observer and the thing observed, a gap appears. In that space grow conflict, thought, fear, memory, pleasure, symbolization, sorrow, hope. In short, the entire problem of living.

What helps?

The trap is that any how becomes a what. Any effort in getting from here to there only underscores the fact of the distance. Any plan to get to the other side is merely another ideology.

Some people seem to be able to grab the knack of living in time while aware of eternity, of letting themselves be the formative wave of history while remaining in the formless present. Who knows what does it: genes, traumatic escape from destruction, sheer intelligence, madness, dope, forces from outer space, a shot in the head from a good guru.

But this has always been the few. The many still stumble around in a stupidity concerning self that has brought the species to the point of extinguishing not only itself but all life on earth. How to turn the masses on?

Ah, but that brings us to the how once more. And implies some form of elite who will write the program. Or do the people want to be programmed? Dig, ecology is in the public eye for about a year, and already there are ecology "groups," and an ecology "movement," and a burdgeonong religion of ecology (taped at the Earth People's Park gathering at the Electric Circus, Mama Cass raps, "Ecology has really helped me: I've lost about twenty-five pounds.>"). In the name of the Fuller, the Commoner, and the Holy Biosphere. Amen.

So, tape is a blast. We sit stoned and dig each other's worldview. We rap and eat and fuck and watch tape. And for us, it's about the same as it has always been: just living fully, openly, honest to the what *is*. Tape adds a dimension. Watch one of *Mango*'s pornos, and dig cock and cunt and rock and hip editing. See that it isn't a blue movie, but an easy scene with some people swinging out and grooving. And you wonder about jealousy and exclusivity and how much of the old puritan blood still runs in your veins. And before you know it, your whole fix on sex is changed. Through tape. Or watch one of Frank's dada experiments, and feel your mind be turned to silly putty. Watch habit-dulled objects come alive in ways that make your hair stand on end, and know that your perception of reality has been radically altered. Through tape.

The tube is heavy. Electrons whip through a vacuum and fall in waves on a sensitized screen, where the human animal reads them as patterns, as *meaning*. Just like in real life, where the stuff of existence bops about, doing its subatomic thing, and lo and behold, vortices of consciousness appear to ham their way across the screen. No illusion of movement, as in film. What you see is the stuff of energy doing its dance, and the dance seems strangely familiar.

When the image on the tube turns out to be you, seen through the eyes of someone who knows you well, or who knows how to look, catching you in an unguarded moment, when you see all the intimations you have had about yourself in electronically impacted reality, objectified, then your mind expands.

That's right, kiddies, just like with grass. Only different, and in some ways, more. When the technology really gets sophisticated, it will definitely be more. And for full effect, combine the electric and the chemical inputs.

What is tape? Tape is metatheatre. Tape is understanding the metaphor of life-as-theatre in a more than intellectual manner. There you are, on the screen, doing what you just did ten minutes ago. Reality has been recorded. And you are watching the recording. But you are reality, now. And it doesn't take too long before you make the jump to the awareness of reality watching the recording of reality. And if you have a hip cameraman around, he will tape you watching tape, and then play that back, using a technique which allows you to see yourself in an infinity of television screens, one inside the other forever. Space disappearing into space as time laps upon time.

If you don't achieve satori on the spot, you have a skull filled with solid concrete.

However, we must assume from their behavior, that a good percentage of our fellow human beings (although they are sincere folk doing the best they can) have their skulls filled with cement. Will the genius of the technology affect them? Or more immediately, will the communications barons allow anything more than a spoon feeding, sufficiently interrupted by commercial announcements, and then only if permeated with government approved conditioning?

Tape will soon be everywhere. CATV will bloom, and electronic neighborhoods will be the rage. Special-interest networks will spring up. Home cassettes will rival the hi-fi markets in sound recording. There will be a computer in every pot and playback equipment for the sophisticates to add dash to their orgies. Videotape encounter groups will stick up their hybrid heads and bray like donkeys. Tape as an art form will develop its modes, its classicism, its surrealism, its abstractions. The boobs who have been staring hypnotically at the tube for thirty years will come to with a start, rub their eyes, and discover that they have a radically new medium on their hands. Finally, it will become good business. And the race for exploitation rights will be on.

But by then there may be no air left to breathe.

There is some talk, and there will be more, in so-called underground tape circles about the revolutionary impact of tape. I think it's too late for all that. Every innovation in technology brought about by heads will be used by the power-trip neanderthals to furnish a more sophisticated 1984. But that's the way it goes.

I think the thing to watch out for is this. That there be as little talking about all this as possible, not to keep the enemy from overhearing or any of that nonsense, but to guard against coming to believe one's own rhetoric. The next thing you know, there will be a videotape movement. And theories of videotape. And videotape critics. And the whole superstructure of the very scene that tape is supposed to help get us out of.

Organizations don't work. They never have. They won't now. So it is above all imperative to keep things loose, to keep the flow moving.

Let tape work, not become a fetish. Make beautiful tapes, but remember that you are conveying information, not making art. Art is a fossilized concept. Show tapes to your friends. Make tapes with your friends. Remember that the important thing is the friendship.

Krishnamurti defined war as "the spectacular and bloody projection of our daily lives." Right on. Already the seeds of schism have appeared, the rivalries, the factionalisms. Already there is a scramble for the man's bread, with all the changes that involves. Already the deadly structure of the civilization begins to order the relationships among the videotape avant-garde.

The alarm button is ringing all the time, so loudly and so consistently that it may become an unnoticed part of the environment, and we end by shouting and gesticulating frantically, or ending all efforts at communication, because life these days is like living under a 24-hour blast furnace. You wish everything would just lay down and stop for a while!

But it doesn't stop. History knaws at your belly like rats. The throttle is wide open and the pilot is asleep at the controls. Hydrogen bombs fused and ready, up there flying all the time. Radioactive wastes in the soil. Oil on the beaches. The carbon cycle teetering dangerously. And everywhere, suspicion, anxiety, confusion. Welcome to the twentieth century. Watch the babies starve. Watch the old folks die of loneliness. Watch the schizophrenics drool. Watch freedom everywhere forget its name and sink into a fuzzy memory of what it thinks it might once have been.

There is no good denying it: there is a security to be had in slavery. Not the ownership of one human being by another, but the willing lashing of one's mind to the mast of some inner psychological security, some belief, some seeming certainty. To stand alone and free is sheer terror. Until you get used to it, and then a certain healing numbness sets in, which is the signal that you have slipped into habit once more. Free is putting it all on the line all the time, not copping to false security in the outer or inner worlds. And no one can be free but you. No one can do it for you. Even your friends can only offer you a joint.

Can the sheer impact of the tape experience do it? If the medium becomes interactive on a wide scale, and information is accessible to all, if the dictatorship of knowledge (power) is broken, will the people be free? That is, will every man woman and child on the face of the globe stand in full constant existential freedom, a creature of essence as well as personality, an ape-angel that can live with duality and survive with humor and grace? Because nothing less than that will do.

We shall see. In the face of our history, any vision which even hints at such utopian conditions is suspect. But life is for the living of it, and on we go, doing the best we can. One thing, at any rate, seems certain. A good part of the generation which grew up with television as part of the environment is beginning to use the medium in ways proper to its structure. And in the creative use of technology is the first faint sense that the apocalypse can be caught and reflected in its full awesomeness. Perhaps, if the species can be made to see, reality *see*, itself as a sleepwalking evolutionary freak, perhaps in that very seeing may be intelligent action.

So raise high the video cameras, adjust sensitivity control, fix horizontal roll, stabilize brightness and contrast, and forward! Either to rouse the human lemmings from this accelerating rush to cliff edge and oblivion, or to leave for whoever comes after a video verite of the end of our world.

Humanity has progressed from one percent living in appreciable health and comfort in 1900 to 44 percent currently living at higher standards than ever before—exclusively through the efforts of design-scientists whose heads probably were cluttered with all the fears, illusions and confusions that Krishnamurti so rightly deplores. I acknowledge that Krishnamurti probably was right, but that ultimately it comes down to a question of priorities; we simply don't have much time left for luxuries. Nothing in our experience indicates that sufficient numbers of humanity are going to spontaneously shrug off two million years of fearful conditioning before we reach the deadline of the doomed. With 200 pounds of TNT for every pound of human flesh on Earth, that's a dangerous strategy. On the other hand, it is now scientifically demonstrated that humanity's schizophrenic design-scientists can liberate us all from economic slavery by 1985. Then and only then will we be free . . . Bucky asked if I knew that he and Krishnamurti were friends . . . Krishnamurti maintains that if one thinks clearly, experiences life directly, without bias or ideology or the filters of conditioning, then the physical world will change as a result of the change in man.

. . . Fuller, on the other hand, observes that we are what we eat and insists that a fundamental reorganization of the physical environment will result in a new human consciousness.

Reprinted from article by Gene Youngblood, *LA Free Press*, April 3, 1970.

TAPING THE GALAXY[®]

by ALEX GROSS

Two ideas that should be separated right away are video-tape as communication and videotape as art. They may in fact be mutually exclusive, though each one may be alright on its own level. Videotape art is already a reality and is likely to become even more important in the future, but it should be remembered that it is almost part of the nature of videotape to be able to reach large numbers of people, which means that art in its elitist sense, as it has developed in other media, may no longer be a relevant concept. The idea of people coming and paying money for the privilege of worshipping videotape as art may be an approach at odds with the medium.

A more meaningful concept of videotape may involve a simple passage of people in front of the material in an unpretentious, homey sort of background. Part of the appeal of conventional television has been that we have been able to watch it informally with none of the fixed seats and enforced silence of the movie house. Phonograph records have represented the same sort of advance over concert going. If videotape salons do become part of our neighborhoods simply because they offer material not available on conventional television, then we may expect the networks to finally start having second thoughts about their level of programming. It may then turn out that one of the impact of videotape will be to revolutionize the nature of what is available on television.

This will be quite revolutionary in itself, though it is by no means all that videotape will do to change society. Even if network TV does get hipper because of the threat posed by public tape, there will always be a time and culture lag between what the pioneers in the field are doing and what the networks are letting through (or more probably imitating).

The confusion of videotape with art is dangerous for another reason. There are some videotape people who are so turned on by the medium (and its undoubted potential) that they assume that all that is videotape is necessarily good. They worship videotape in a way that is not in keeping with a new medium which must remain lean, lithe, and healthy in order to find its place and be most influential—rather they worship uncritically anything that is put on tape and they put anything on tape in any or no style at all merely as to worship it. It must be realized that there is good and bad taping just as there are good and bad films, acting, or music. Unless some special effect is being attempted, there is an optimum time exposure for any precise purpose, and optimum lighting plan, and a choice of optimum camera angles.

There is nothing wrong with a hand-held camera, poor sound and lighting, and bad timing where the material is all important or better conditions simply are not available (or where they add to a mood or effect), but there is no point in rejoicing in these conditions for their own sake. There is certainly no point in calling such work art. The really great videotape artists may turn out to be the ones who first master the incredibly sophisticated mixing equipment and special effects generators available in commercial TV studios and start playing them like the giant image organs they really are. None of which is to say that art is unobtainable in the meantime on simpler black and white equipment.

Much is also made of videotape's ability to make things seem absolutely natural and lifelike, so that it is possible to jolt people into gaining insights into themselves and society by presenting unexpected material on it. This is undoubtedly true, though it may become less true as tape becomes more an accepted part of our daily lives. The real jolt comes not just because tape is lifelike but because most of the network TV we have been indoctrinated with has been so stylized, remote, and unlikelike. In this sense the effect of the first honest tapes may be the same as the effect of the first socially relevant film we ever saw or the first dirty book we read or the first crotch shot in a sexpaper. In that case the effect will probably wear off and we will be free to explore tape for its own sake, just as we have all become connoisseurs and critics of socially relevant films, dirty books and crotch shots.

Sex is another area videotape is sure to affect, with all the potential this has for the rest of our life. In the last century the famous Victorian sensualist Walter, who wrote *My Secret Life*, used to move a mirror to its best angle next to whatever bed he was operating in. With videotape the participants will have the added pleasure of seeing themselves on TV while they do it or, if they prefer, they can have a tape monitor on one side of the bed and a mirror on the other. But there is a technical problem which the sensualist will encounter in his (or her) use of tape. It is impossible to make love and operate the camera at the same time. This means that the camera must be planted in one place and take in only one angle. The solution to this problem is to invite someone in to hold the camera, which will mean changing the nature of the sexual act for many people. And if one invites one person to hold the camera, why not a second or a third? And in that case why not pass the camera around among everyone—it may turn out that in this context videotape is the kinetic equivalent of the polaroid camera.

The most important thing is that videotape will function for a society based on active participation what television was for a society based on observation from afar. This means that good tape will not necessarily be the same thing as what we thought was good TV, and the tendency to merely parody the television we have known, typified by Channel One, is likely to be a false start, though an understandable one when we realize how much deeply pent-up resentment there is against established television. But tape people should not worry too much about old television standards, rather they should be concerned with defining new open-ended standards for the new audience already in the making. No doubt there will be angry denunciations from those on high, just as there is now a cautious certain quality to the undoubted interest many firms and networks are showing for tape.

But the direction of the future is clear in this regard at least. Videotape is more than just another medium—it is a whole new definition of culture. Where our fathers defined their culture in objects to be sold at auction and shown in museums, we today see the only meaningful definition of culture as all the things that connect one mind with another, as openness to new ideas, as communication itself. And videotape is culture because tape is communication.

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HARDWARE

THE VIDEOSPHERE

by GENE YOUNGBLOOD

In 1948 approximately 200,000 American homes had television sets; fifteen television stations were broadcasting regularly. By 1958 some 520 stations were broadcasting to receivers in 42 million homes. Today there are tens of thousands of broadcasters and approximately 100 million homes have television sets. More than 95 per cent of American homes have TV sets today, approximately 14 million of which are color. In fact there are more TVs in U.S. homes than telephones, bathtubs or refrigerators. TV antennas bristle from the rooftops of ghetto shacks that don't even have plumbing. An estimated quarter-billion television receivers are in use around the world.

Television is the software of the Earth.

The videosphere is the *noosphere*—global organized intelligence—transformed into a perceivable state.

This implosive, self-revealing, consciousness-expanding process is irreversible. Global information is the natural enemy of local government, for it reveals the true context in which that government is operating. Global television is directly responsible for the political turmoil that is increasing around the world today. The political establishments sense this and are beginning to react. But it's too late. Television makes it impossible for governments to maintain the illusion of sovereignty and separatism which are essential for their existence. Television is one of the most revolutionary tools in the entire spectrum of technoanarchy

Television, like the computer, is a sleeping giant. But those who are beginning to use it in revolutionary new ways are very much awake. The first generation of television babies has reached maturity having watched 15,000 hours of television while completing only 10,000 hours of formal education through high school. Yet television itself still has not left the breast of commercial sponsorship. Just as cinema had imitated theater for seventy years, television has imitated cinema imitating theater for twenty years. But the new generation with its transnational interplanetary video consciousness will not tolerate the miniaturized vaudeville that is television as presently employed. We will liberate the media.

Cheap, mass-produced, personalized radar sets and house-to-house closed-circuit television broadcasting soon will be available . . .

Approximately 75 per cent of all TV homes in America are now "all channel," that is, receiving UHF as well as VHF programming. **It is estimated that 97 per cent will be all channel by 1974.** Meanwhile there are fewer than 100 communities of more than 2500 population that do not have CATV systems now operating or with applications under consideration.

. . . The FCC recently granted permission for Microwave Communications, Inc. to compete with AT&T by offering CATV systems for rent at parts of a circuit for part of a day. AT&T charges for a whole circuit 24 hours a day. The first lines were to be available between Chicago and St. Louis **by July 1970.**

. . . a new way to transmit CATV programs without laying down miles of cable has been developed . . . a "quasi-laser" broadcasting system with power requirements in the range of a flashlight battery. . . . the system transmits up to 15 miles and is "virtually impervious" to atmospheric conditions.

. . . the New York County Lawyers Association currently is studying the question of whether the public, as owners of the airwaves, have a right to compel TV stations to provide free CATV service since it is the clearest reception.

. . . a two-way television system that can measure audience reactions instantly via cable and computer interface.

By autumn of this year, Bell Telephone's first commercial Picturephone service will be available to the public. . . . AT&T will begin testing a variety of equipment that can read your gas and electric meters via the same lines.

. . . A laser videophone is now in operation at the headquarters of Nippon Electric Company in Japan, between buildings 300 yards apart.

. . . (Nippon Electric Company) has used lasers to transmit black-and-white television over a distance of three miles.

A laser-line telephone system that also carries black-and-white TV is now in operation in a high-rise office building in Moscow.

. . . "demand TV" or "telecommand" systems are expected by about **1978.** This system will allow an individual to telephone regional video library/switchboards, ordering programs from among thousands listed in catalogues. The programs will be transmitted immediately by cable, . . .

Two networks in Japan are now so automated that two computers in headquarters connect 26 TV stations, schedule production work on 600 to 700 shows at a time, operate master switching controls, warm up equipment, select films and tapes and put them on the air. They do much the same for 33 radio stations.

. . . "videofax" or "homofax" process of facsimile replication and distribution by which one will receive newspapers, magazines and educational documents over home facsimile receivers. Although **demonstrated as early as the 1930's** homefax systems are only now coming into commercial use. . . . the facsimile revolution challenges current FCC regulations of content of CATV programs. **Since the "content" of the facsimile system is a newspaper, present government rulings amount to an impairment of freedom of the press.**

The three major satellite networks—the Comsat/Intelsat series, the U.S. Defense Department series, and the Soviet Molniyas series— . . .

By 1972 no geographical area of the world will be without access to communications satellites.

Direct satellite-to-home TV is planned for NASA's Applications Technology Satellite-C scheduled for launch in **1974.** According to a study made for NASA by Sylvania, home TV sets could be modified to pick up the signal for \$100 to \$150. Spokesmen for General Electric, however, maintain that the average American TV set could be converted to direct-from-satellite reception for about \$50 and (in black-and-white at least) deliver a better picture than most sets get now. Comsat claims its "local" satellite system would require no modifications of the home receiver.

Comsat officials say they can put a domestic satellite system into orbit within 24 months after receiving federal approval.

In September of 1969 the U.S. and India signed a pact which will bring direct satellite-to-village television for 5000 villages in India. Manually-operated generators in each village will provide electricity to operate one community TV set and a ten-foot dish antenna that will reach out 22,300 miles over the Indian Ocean to receive programs from two satellites. Next India hopes to have a TV satellite system that will reach directly into 560,000 villages **by 1975,** and for less than \$200 million. Thus India has entered the television phase of the industrial equation considerably in advance of previous nations, having completely bypassed the ground relay stage and beginning with satellite television.

Within five years constant analysis of this planet via TV satellites will be a \$2 billion industry Remote multispectral sensing capabilities of the satellites can distinguish between various types of crops such as wheat, oats, and corn, and can also provide an early-warning system for the spread of insect infestation or crop disease, lack of adequate water, livestock movements, changes in grazing patterns, in forest and water tables, and even wild animal and bird migrations may be continuously surveyed. By measuring light and heat emanations, the flows of traffic in and out of cities can be computed; patterns of human occupancy of buildings can be deduced from temperature changes—all from satellites thousands of miles above Earth.

Equipped with special high-resolution 5000-scanline cameras in a low 500-mile orbit, satellites have yielded picture resolution equivalent to 100 feet above ground. Higher resolution is possible, officials announced, but some countries would complain of "invasion of privacy."

The Nippon Electric Company of Tokyo has announced that its solid state flat TV set composed of light-emitting diodes will be released on the commercial market **next year.**

. . . it appears that flat wall TV sets will be on the commercial market **by 1978** at the latest.

It is estimated that **in 1975** your average color TV set will cost less than \$50.

. . . a TV receiver only 5-½ inches thick with a 13-inch screen.

. . . a TV tube with a screen 4 x 6 feet but only one foot thick.

. . . a compact tubeless TV camera less than two cubic inches square (smaller than a man's hand) which utilizes solid-state light sensors instead of the conventional photo-cathode screen.

. . . a high-resolution TV camera less than one pound and small enough to carry in a pocket, . . .

. . . a half-dollar-size TV screen

. . . a two-dimensional laser color TV with a screen 10 x 6½ feet, composed of thousands of glass bars only two millimeters thick, . . .

. . . transistorized TV sets with rechargeable 500-hour batteries.

. . . a 200-scanline system with picture definition so sharp that it may be transferred to 35 to 70 mm film via laser for common movie theater use.

. . . "video Braille" . . . a TV camera scans an area and the picture code is transmitted to 400 solenoid stimulators on the blind person's back, where the picture is translated onto the skin through plastic-tipped vibrators.

. . . most observers estimate that TV cameras small enough to fit in a human eye socket will be developed **within the next 10 years.**

. . . television sets that translate foreign-language programs into the language of the receiver's local area . . .

By 1972 more than 200,000 low cost videotape recorders will be in use in the United States, and the video cassette image-publishing industry will be well on its way to blanketing the Earth with audio-visual information. The videosphere will alter the minds of men and the architecture of our dwellings. "There's a whole new story to be told," says video artist Scott Bartlett, "thanks to the new techniques. We must find out what we have to say because of our new technologies."

Excerpted from **THE VIDEOSPHERE** by Gene Youngblood, *copyrighted material*, to be published July, 1970, in *Show Magazine*.



Rolf-Ulrich Kaiser, at 5 Koln-Dellbruck, Bergisch Gladbacher Str., West Germany, is writing a book about the "Counter Media" in which he will have a section about videotape.

Expanded Cinema by Gene Youngblood, to be out in July by E.P. Dutton & Co.

CATV

by THEA SKLOVER

APRIL CONFERENCE IN CHICAGO

Cable television operators marched into Chicago on April 30 in order to learn about alternative software packages available for cable-casting. The meeting was planned in response to the Federal Communications Commission's rule requiring all CATV systems with over 3,500 subscribers to offer "a significant amount" of their own programming by January, 1971. At present, there are 270 systems that fall into this category.

The growth of the cable industry in recent years, which has resulted in this FCC edict, is testified to by the figures released by the National Cable Television Association, the sponsors of this convention. "There are now 2,400 community antenna systems operating in 49 states, serving 3,900 communities with an annual revenue of \$300 million, employing 60,000 people and serving 4,500,000 homes. In addition to the 2,400 CATV systems that are presently in operation, as of January, 1970, about 2,100 additional communities had issued CATV permits to local operators and in 1,400 communities CATV applications were pending before local governing bodies." If all these systems were to become operational within the year there would be approximately 5,900 CATV systems operating throughout this country. The projected figures claim service in 30 million homes via 7,500 systems with an annual revenue of \$3 billion by 1980. It certainly seems that this industry is well on its way to becoming a formidable component of the communications community.

Hand in hand with the programming considerations on the part of the cable operators, came concern and interest in advertising dollars. Now that the FCC has removed restrictions on the carrying of advertising commercials over the cable, the cable owners are turning their thoughts towards the potentials for advertising revenue. Concern and interest in advertisers came hand in hand with the programming considerations at the convention. Both the national advertiser as well as the "local yokel" were contemplated as sources of revenue to cover the costs of local origination. Information regarding sales promotion, marketing techniques and ratings charts were in as much demand as facts about costs of the software offerings. The cable operators were taking the plunge into that communications community formerly the exclusive property of the publisher and the broadcaster and were arming themselves with all the necessary facts and figures. They intend to become formidable competitors for that advertising dollar.

The convention was well attended, much better than anticipated, with over 230 cable system owners in attendance, including the small single system owner from Dixon, Illinois as well as the multi-system owner such as Teleprompter. In addition, many "interested parties," neither exhibitors of software materials nor cable owners made up a third group of those in attendance at the Palmer House in Chicago. This group represented a variety of interests and are a possible indication of potential alternative inputs into the industry. Amongst this group was UPI, Reuters, Ltd., The American Film Institute, Corporation for Public Broadcasting, Comsat, Dreyfus Corporation, Stanford Research of Palo Alto, Standard Rate & Data Service and some social interest types like myself.

Most of the meeting was devoted to presentations by the 24 software exhibitors. These programming choices ran the gamut of commercial fare, including old movies, re-runs of former network winners now in syndication, cartoons (lots of these, all fashionably stressing non-violence), an automated weather and news report coupled with a ticker tape, game shows

(BINGO) was the big news in this category along with a new version for kids, (LINGO), instructional materials for use exclusively on an educational channel, produced by National Instructional Television, and a package of NET productions. All of these offerings obviously produced originally for broadcast purposes and aimed at the mass market.

There were three presentations that were geared specifically to the cable market; a series of short programs that could be integrated into a locally produced show by wrapping around them a local narrator or guest personality, format packages, which were offered by CBS and International Tele-Cable Productions, Inc., headed by Bert Claster of Romper Room fame, included full instructions for local originations right down to the hiring of personnel, the construction of sets, in addition to scripts, film inserts and ongoing seminars for the newly hired local "talent". (Really a do-it-yourself kit for smaller versions of the standard mediocre television fare now offered by over the air television.) The locally-originated packages, "Local and Live" as one supplier labeled them fit into the following programming descriptions:

Shows for the pre-schooler—these usually purport to teach as well as entertain, a la Sesame Street.

How-to shows—how to be more beautiful, have a more beautiful home, cook more beautiful food, have a more beautiful figure, play a more beautiful guitar, predict a more beautiful future, etc., etc.

Sports shows—about bowling, fishing, golf, etc., etc.

Travel formats—where to go on your next vacation.

Reviews—latest cultural offerings reviewed by famous personalities.

Game shows—applications of old techniques revamped for television.

The other locally oriented alternative was a plan for leasing channels outright to programmers. Kepler Television Productions, Inc., proposed to lease a channel from the cable operators which they would supply with 20 hours of programming per week. As part of their plan, they would create a local corporation in every town that subscribes to their service that will hire and train community residents to produce and sell local programming. The charge to the cable operator for this service is \$1.00 per subscriber per year or 5% of the gross of advertising revenue. This plan is currently in effect in Glassport, Pennsylvania and Kingsport, Tennessee.

The local CATV system in Chew, South Carolina has already been operating under a similar leasing situation. A former disc jockey leases a channel on this 1,000 subscriber system and produces and sells ads for his own record show. The Jefferson-Carolina Corp. is planning a similar arrangement for its 5,000 subscriber system in Greensboro, North Carolina, leasing a channel to a local radio station so that they can cablecast their DJ's. Many systems are leasing channels to the local school systems for their own productions. This leasing concept has been encouraged by the FCC in order to create a variety of programming choices as well as a diversity in those who control these new channels of communication. The presentation of this particular alternative didn't seem to be met with great glee by the assembled cable owners.

In addition to all these program offerings there was advice as to the best way to market the shows, which neighborhood retailer would most likely buy which show, as well as promises of future sales forces that would sell the shows for the cablecaster in both the regional and national markets.

The price for all these programs and services ranges from \$100 to \$200 an hour for the majority of the cable systems presently in operation. However, due to the youth of the industry, most of the software suppliers were willing to make individual deals with individual cable systems rather than quote general rates. Most of the programmers were actually trying to determine what the market would bear and will probably be ready for more specific rate statements by next season.

It is important to note that after these 24 exhibitors finished giving their "pitches," had talked intimately with the cable people in their "hospitality suites" and shared a drink or two, most of the cable operators were not buying. Whether indeed this was due to a lack of funds, need for thinking time or the realization, as some claimed, that most of the materials presented would not satisfy the requirements for locally oriented fare time will tell. However, the first stage in the development of an ongoing marriage between cable caster and programmer had begun. As one official of the NCTA said, "These people will be living with each other for many years to come and so the first introductions had to be made." That indeed was the underlying rationale for the conference.

Quite obviously most of the presentations and discussions at the meeting reflected an overriding concern with the monetary potentials of cable, the advertising dollars and consequently the entertainment form of programming that has been geared to the tastes of the general mass market. There was isolated talk here and there about "a promising new technology," "two-way systems," "computer inputs," "new localized service," "de-centralized forms of communications," "means of giving voice to a cross-section of the community," etc., etc., however, they were only words hanging in the air, with no hard facts, no real program plans to give them credence. When pressed about the *promise* of cable, particularly in the area of service to the minority groups in the community, most would point with pride to Teleprompter and the excellent job they are doing in servicing the Harlem community. Yes it is true that Irving Kahn, President of Teleprompter, does talk a great deal about the ability of cable to broadcast its message to geographical units as small as one neighborhood and the service it can therefore provide for the minority community. However, its present programming for that community is limited to one show, *Lunch at Frank's* a black version of the old *Lunch at Sardi's* of early radio and television days, and is carried into the homes of all the Teleprompter subscribers, which includes most of uptown Manhattan. Obviously, the capability of a filtering system that allows you to address directly one segment of the larger diverse community, one of the truly innovative aspects of cable, is not being utilized. Whatever is produced is sent to every home, relevant or not. In addition, the choice of this program as the first production to be offered to the black community leaves much to be desired. It would be easy to imagine over hundreds of alternative ideas that would certainly provide more honest service to the residents of the Harlem community.

The FCC edict declaring programming diversity and the recommendations in the President's Task Force on Communications Policy Report all suggest that a wide variety of needs, interests and tastes be served via television: "The structure of the industry should make it possible to cater to as wide a variety of tastes as possible, the tastes of small audiences and mass audiences, of cultural minorities and of cultural majorities. Ours is a pluralistic society, in cultures as well as in the ethnic origins and the life-styles of its people. A medium of expression as pervasive as television should reflect and enrich this cultural pluralism." The fact that the programming choices as well as the faces in attendance at this first programming convention—cable operators meeting in Chicago did not include any members of the black community, nor that matter were there any brown or yellow faces in the crowd, is just another indication of the lack of involvement of minority groups in this new technology. This is true both of the representatives of the systems as well as the software suppliers and therefore strongly reflected in the programming fare being offered to the cable industry. Indeed, the only me a black face was in evidence during the two days of the convention was at mealtimes when waiters entered the conference rooms, or on one other occasion, a piece of film exhibited by NET showing excerpts from past productions. The strong implication that the programming choices were even less representative of minority groups than present day television programming cannot be ignored. A sorry beginning for the newest member of the communications industry.

What is frightening is that this is happening in 1970, a decade marked by a growing extremism which threatens the very core of our society, an urban plight that continues to go unheeded, a growing sense of outrage, amongst the disadvantaged minorities who feel the lash of tokenism, an equally strong militance emerging from the white middle class sector reflecting their sense of impotence, a growing awareness of the desecration of our natural resources, cries for peace answered with tests, fears of economic failure evidenced in the de-escalating Dow Jones averages, and a general overriding feeling of despair and hopelessness for many of the inhabitants of this country. The need for the constructive development of this new form of communications is imperative. We can't afford to waste this new resource, we must find the way to utilize this technology to speak to some if not all of the ills of our gasping society.



CABLE TELEVISION: A NEW BALLGAME?

Present

Cable television has come to New York City! We've all seen the advertisements on the crosstown bus, the signs in bar windows—**WE ARE ON THE CABLE, COME IN AND SEE THE KNICKS AND RANGERS** opened our morning mail to offers of free installation and even a few month's of free service. Yes, New York City, along with most of the nation, is gradually growing into a Wired City, a place where many of its inhabitants will be sending off a \$6.00 check once a month to his local cable company along with payments for telephone service, gas, rent and that ever present Bloombergdale's bill. Yes, it will soon become another given expenditure, a necessity, like air and water, something we will be hooked on. Irving Kahn, President of Teleprompter, one of the companies presently franchised to operate cable here in our town, described this phenomenon rather accurately when he said, "... cable is the next best thing to a legal narcotic. Once you get on the cable, you never get off."

Yes, we will be sold on the virtues of cable television, the fact that it can bring us studio quality reception on every channel, no more ghosts, no more snow, no interference, no frustrating flip-flops, 24 hour news, weather and stock reports, the matchless presence of today's natural high-fidelity colorcasting, locally oriented programs, old movies and in some parts of the city the already mentioned home games of the New York Rangers and the winning Knicks.

What a cheat! As usual we shall be taken, *had* if you will, shelling out our hard earned dollars for a service that is a pittance of the infinite possibilities that this new technology could bring into our lives. We shall be paying for a better picture of the same old garbage, the type of enlightened, innovational, inspired programming that is currently carried on over the air television . . . a clearer image of Johnny Carson's newest sport jacket . . . a truer rendition of Lucille Ball's red hair in those *I Love Lucy* reruns, or locally produced programs of a similar nature . . . not worth the six bucks a month. But so goes the fate of the inhabitants of this fair city and nation—*had* again.

My intention is not to harangue you, nor to make you angry or even resentful of this new "service" that has dropped into your snowy television picture, for that would be unfair and just add to the heavy bundle of frustrations that you already carry around with you daily. Nor for that matter is my intention to take pot shots at the cable industry, for that would create more hostility and not better use of the technology. No, my purpose is to show you some of the real services that the cable industry could perform, as well as ways that these services could come into being, and then hope that you will be inspired enough to go out and do something about getting them for yourself.

Contrary to many of the other frustrations plaguing the lives of city dwellers today, there really is something immediate and effective that all of us can do to guide the growth of the cable industry. The youth of the industry coupled with the fact that local municipalities have a great deal of the responsibility for the creation of the laws governing CATV, make it much more possible for the average citizen to have his say and be listened to. The youth of the industry means that the vested interests are not as strongly entrenched as they are in the more established service industries—telephone, gas and electric.

The local governments have become heir to this regulatory function to some degree because the cable operators require access to the public thorough-fare in order to lay or string their wires throughout the town. Therefore the cable operators must go to the city municipalities in order to gain franchises, or permission, to wire up the area. It is possible that in the future the FCC may well pre-empt all rule-making regarding CATV, as they did in regard to the origination requirements for all local cable systems. This ruling, requiring all systems with over 3,500 subscribers to begin local programming of significant degree by January, 1970 pre-empted New York City's ban on the showing of feature films by cable operators. However, the evidence is fairly clear that the FCC would welcome creative law making on the part of local governments and is indeed looking towards the cities for guidelines in certain specific areas. In fact, the Mayor's Task Force Report on Cable Television released in New York City during the winter of 1969 still serves as the most definitive statement regarding the development of franchise agreements that protect the rights of the citizens as well as the city and the cable system owner. Even though the recommendations of this report have still not been implemented it is often quoted in government circles and will most definitely affect the body of laws governing the industry.

The resident of New York City, as well as those of Chicago, and other cities, are in a particularly advantageous position for they will be able to make their desire for "full service" known to the city government within the next few months. In New York, franchises that had been awarded by the Bureau of Franchises to Teleprompter Corporation, Manhattan Cable Television, and CATV Enterprises, the three companies presently serving Manhattan and Riverdale, have expired and new agreements are in the offing. At the same time that service for Manhattan and Riverdale will be under examination the awarding of new franchises to serve the other parts of the country will also be under consideration. Whether indeed this will be done through a competitive bidding system or a procedure similar to that now required by the FCC in granting licenses to broadcast applicants, or some combination of both will be under our scrutiny *via public hearings*.

These combinations—laws that have still not been written, the absence of well entrenched, strong vested interests and the closeness of the local governing bodies implementing and developing these new ruling is the ray of hope that I offer to you. Of course, contrary to what Mr. Kahn has said regarding a legal narcotic, once hooked—always hooked, there is always the last alternative of cutting the new umbilical cord and also access to your dollars. But let's leave that as the last resort while we try to guide the cable industry down the path of public service as well as profits.

Past

The history of the cable industry begins in the small towns and rural areas of our country. Originally the systems were designed to provide service to these outlying areas that had difficulty in receiving over the air television signals. This service, the importation of distant signals and the improved reception described earlier, was accomplished by erecting a master antenna in a favorable location and running coaxial cable from the master into the homes where the receiving sets were housed. As these systems moved down from the hills and into the cities with improved equipment, they grew more sophisticated in regard to the future implications of such a service. Companies began building "headend" facilities where the signal is filtered and amplified, and then transmitted via the coaxial cable or microwave to the television receiving sets of subscribers. This filtering system makes it technologically feasible to directly address one segment of the larger wired community. Therefore such a system could be constructed to speak to the needs of one small community, one block or even one apartment house. Thus the diversity of programming so sadly lacking in over-the-air television could be theoretically accomplished through the multiplicity of channels.

Future

... potential capabilities of modern technology—newspapers that roll off your television set, home retailing services, computer data available through push buttons in your living room, interconnection of municipal governments throughout the country, and opportunity to participate in national and local referendums via the television screen ... cable television could well be the practical realization through which these concepts can become a reality. Due to the broadband capability of cable which can carry voice, television and record information simultaneously into the home, office or classroom, what has appeared as plans for a tomorrowland may well be made available today.

The constructive use of television as an information system rather than exclusively as an entertainment medium becomes more and more possible as the miles of cable are laid throughout this country. Yet most of the evidence, a recent cable programming conference, the present systems in operation, the type of hardware that is presently being purchased by the cable operators for their systems, the fact that only two systems now under construction will have the capability of carrying 40 channels of video and audio information, while the majority of the systems have only a 12 channel capability with a few systems currently installing equipment with a 20 channel capability, and the type of programming presently offered on the cable, leads you to believe that cable is going down a different road from futuristic or social concerns . . . with its primary concern for profits like the present broadcast system . . .

The above cable articles by Thea Sklover are rough drafts for a broad report on cable she is preparing. This material is copyrighted.

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RALPH LEE SMITH

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MUSIC

GREAT THINKERS

It is a blunder, bordering on a miracle, that we have no, or very few, images and voices of the great thinkers of the recent past on record, especially as the 16mm talkie was readily available. For instance we have hardly a record of Husserl, Freud, Proust, Joyce, Kandinsky, Berdyaev, Merlau-Ponti, Suzuki, Gide, Thomas Mann, Schoenberg, Varese, Bartok, Mondrian, Dilthey, Wittgenstein, Shaw, Valery, Jung, Keynes, Buber—even Nietzsche and Tolstoy lived well into the film age, as did Thomas Edison himself. This negative wonder is the biggest waste of instructional resources, if we recall how much footage of late-late-show movie and Hitler newsreel was filmed. Therefore, nothing is more urgent and successproof than to film the images and voices of aging great thinkers of today, and yesterday, in sufficient and surplus quantity, who might pass away any day, such as Marcel Duchamp, Jaspers, Heidegger, Gabriel Marcel, Ortega Y Gasset, Lucasc, Toynbee, Radaklishnan, Ernst Bloch, Niebuhr, Puller, Sartre and Russell. The interviewer should be a qualified philosopher himself and the camera crew as minimal as possible, so that Jaspers or Heidegger can talk as naturally as "Chelsea Girls". An NBC or NET-style expensive film technique is not only unnecessary, but may be harmful for this subject.

PHILOSOPHY

America has 5,000 colleges, which require 20,000 philosophy teachers. The shortage of qualified teachers of philosophy is acute, especially at the junior community college level. This discipline cannot profit much from automatic devices or computerized quiz machines. The supreme act of "philosophieren" requires a total involvement of the whole personality. Therefore new information techniques such as videotape, film, audio devices, loop techniques, non-linear printing techniques, light art, stroboscope, medical electronics, brain wave transmission should be used for the total conveyance of great philosophers' messages, and for the stimulation of students' own "Philosophieren" and maybe for the preparation of post-McLuhan, non-linear, possibly more iconographic and totally involved 22nd century philosophy. If philosophy wants to recover the hegemony which it held for centuries, the students of philosophy proper should also be exposed to today's electronic situation, instead of to parchment philology.

Needless to say, Jaspers and Heidegger's own explanations about themselves would be a strong means for qualitative and quantitative improvement of philosophy education. This technique applies also to other humanities and social sciences, in which personality and scholarship are essentially combined.

READING AIDS

Videotape reading aids can also be useful for major philosophy classics in original language and English. IBM is making a computer index of painting related to music. The same thing could be done, if it is not already underway, about the pictorial material on philosophy, although my idea of videotape guides to philosophy is far from the mere accumulation of portraits or birth places, etc.

a. Medieval Music
source and modern transcription and musicological problems parallel with sounds (stylistic analysis and development e.g. plain chant—Tropus—Sequenze—Motettus) and Neumen problems ("The most authentic performance of Gregorian chant is no more authentic than the Neo-gothic church built in the 19th century"—Besseler)

b. Polyphonic Music (13th—17th Century)
esoteric polyphonic techniques, indicated with arrows, etc. Ockeghem's 32 part fugue will be properly appreciated for the first time in history in this way—also Bach's Choral Vorspielen, Kunst der Fuga etc.

c. Classic Music
thematic development, macro-form analysis, interpretational problems, such as controversial dynamic, phrasing, different sources, finger, batton, breathing, various stresses on inner parts Marquante, which often escapes untrained ears, etc.

d. Music of Romantic Era
By following the proceedings of Leitmotiv on videotape, program music can be restored from oblivion. Also text-melody correlation (recent semi-sensation in musicology, Professor Georgiades' "Schubert Lieder") and the deterioration of functional harmony.

e. Serial and Electronic Music
Intellectual information concerning the total organization of whole parameter, frequency analysis, and technical information of electronic sounds. In some Stockhausen, Boulez' music, the complexity of score makes the simple following of sound with score very hard, and this "paper music" (in a good sense) requires the paper understanding, since the accurate performance is impossible.

INSTANT GLOBAL UNIVERSITY

Suppose a girl in Kentucky wants to study the Japanese Koto instrument, and a graduate at U.C.L.A. wants to experiment with certain Persian or Afghanistan musical instruments. How would they do this?

The mailable television (i.e. videotape) would enable the individual lessons for many subjects to be given from anywhere to anywhere. For instance, twenty different music students of an American university could study twenty instruments of a Gagaku orchestra, which exists only in the Japanese emperor's court, using videotape, and then go on a concert tour to Japan dressed in authentic costumes. This would be a major cultural shock to the Japanese, comparable to that of Admiral Perry. This technique applies in less spectacular, but more substantial fields.

g. Event and Action Music
Often there is no way to make the notation of music except by recording the whole performance. Stockhausen and Ligeti suggested a film of my action music pieces (1959-61) to be used as a score, which I rejected for a philosophical reason. However, for many events music (which exists now in every country in the world) such as Brecht, Chiari, Christiansen, Hidalgo, Kosugi, Patterson, Schnebel, Shiomi, Tone, Welin, Young, videotape will be a useful supplement for their sketchy instructions.

f. Music Graphic
In this other kind of "paper music", sound and notation are far apart so that the imaginary double play becomes an integral part of understanding. The listener should know that e.g. Tudor pushes the middle C key for an apple figure on Cage's piano concerto, whereas K-E Welin goes under the piano and eats a nut for the same symbol. This fetishism of ideas is piercing through Pop art, Miniskirt and the Fortran block diagram and is a stylistic criterion of 20th century culture. Following the score in the indeterministic music is indispensable in the opposite meaning from the deterministic music.

h. Mix Media Music
All opera, and all non-European music are mix-media pieces. Videotape is the only legitimate way of study, except for the actual performance. For ethnological music, which broke the barrier of academy since the success of Ravi Shankar and Folkways Records, videotape exerts maximum power. E.g. the acoustical analysis of pitch and timbre (obertone, formant) should replace the outmoded, often insulting pentatonic transcription. Pentatonic is the invention of 19th century Europe.
i. The younger generation is increasingly visually inclined with more desire for the total and instant perception. How would the classic music, including the new serious music, fare in the age of ELECTRONIC VIDEO RECORDING?
The above experiments, plus more Utopian research, are preparatory experiments for this big question.

SINGING LESSONS

Most singing students finish their full college course without playing even once in the opera which they studied so painstakingly. This kind of half study turns them into half teachers. Acting in the opera should not be reserved only for the most talented. The following video Erstaz will enable singing students to taste the operatic situation much more than now, and to shorten the rehearsal time by ten to one, which results in the increased frequency of actual performance, e.g. Traviata.

1st film (or video tape) should be made of everything but Soprano part, and used for the soprano part rehearsal.
2nd film is made likewise without tenor part and used for the tenor part rehearsal.
3rd film likewise without baritone
4th film likewise without base.
Film can be projected onto four walls simultaneous to ease the acting lesson.

This method, which has already proven workable in the field of pop music, applies even more to drama, e.g. Macbeth without Lady Macbeth, Hamlet without Hamlet, Romeo without Juliet. A teenage Ophelia can be a co-star to Lawrence Olivier's Hamlet via the screen.

This whole scheme will be much more effective, if 3-D Holography is once realized on the stage.

A simple chorus piece without one part would help the sight singing exercises and a string quartet without one instrument would cut out the rehearsal time and ease the traffic jam—slightly.

If revolution meant for Russians of 1920
electrification
then the revolution in 1960 means
electronification . . . mind to mind . . . planet to planet.

a. There are more than dozens of TV stations in operation in campuses here and also, most likely, abroad. A contest of student TV stations should be held, which would attract wide attention from journalism, etc.

b. In addition to the student house organ paper, the student body should use their TV station for news, commentary, etc.

c. In addition to the Year Book and graduation photographs, every student can make a short self introductory speech or act on videotape, which would run on TV in student restaurants or main corridors incessantly. The graduation book can be an Electronic Video Disc, if it gets popular. If we allot half a minute for each student, still we can show 1000 students for one day.

d) It is often said that in the big university the faculty and student body lack interrelation. I urge a simple but effective solution. Important faculty members, especially the Presidents and Deans, should make regular TV speeches or hold discussions with the student body and this video recording should be going on day and night at gathering points of students. A video recording system would also be allotted to students, so that they can also convey their answer to the higher administrative body. Many universities have a \$1m. TV system, and currently it is no more than a "sleeping beauty".

"was vernunftig ist, das ist wirklich, und was wirklich ist, das ist vernunftig" (Hegel)

"What is more educational is most aesthetic, and what is most aesthetic is most educational" (Paik)

e) French, German, Italian, Spanish, Russian TV should be shown constantly in the student gathering places. It helps language study (without strain), deepens global consciousness, (again the instant global university), and helps the study of journalism, political science, arts, economics, etc. TBS (Japan) station had a bi-lingual broadcasting system and we are making an enquiry about the present state of this experiment. This makes English speaking people understand one of the major TV stations of Japan.

f) I asked for the catalogue of educational film about music at Stony Brook, Lincoln Center Library, Columbia Teachers' College. The result was very poor. I was in several TV programs here and abroad, which are all untraceable now, in labyrinth. I recall seeing several good music programs, which have high instructional content, which are all lost in the deep sea of TV stations. An international catalogue of educational film and videotape at least, on music, art and philosophy, should be made, or accelerated if in progress. Also a salvage action should be conducted on the remaining newsreel of film including 8mm amateur film fragments of recently passed great thinkers, such as Schweitzer, Buber, Shaw, Camus, Suzuki, etc., before it gets too late.

g) . . . I was happy with Richard Hartzell's opinion, that my electronic color TV experiments have instructional resource value.

Dozens of playabilities can be assembled to a console and can be distributed to Kindergarten or elementary school. Its educational effects:

- 1) Children are exposed to electronic situations very early.
- 2) My electronic TV shows various basic facts of physics and electronics concretely, such as amplitude modulation, radar, various scanning, cathode ray, shadow mask tube, oscilloscope, ohm's law, obertone, magnetic character, etc. and it is a very pleasant way to learn these important facts.
- 3) It gives the possibilities of electronic drawing. It is better than the light pen because my way is multi-colored and it provides much interaction with the air program.
- 4) Since my color TV is the unusual, unorthodox application of an every day commodity, this stimulates the kids for more original, less prejudiced thinking.

An attachment for 10 possibilities can be manufactured for from \$200-300. The cheapest 18" color TV set costs \$244 retail, which would sell wholesale for about \$180. The total cost would be in the range of \$500.

ARCHIVE

In the age of information, the library of the university will become, if this rude parallel is allowed, as active as the Central Intelligence Agency in America. Therefore, besides the above mentioned Jaspars-Heiddeger films etc., the following archive is suggested.

a. The feeling of environment and inner space is not conveyable through books or movies, but many medium to small sized monuments (smaller gothic church, Egyptian cave in Luxor, Stone garden of Ryo-anji Kyoto, even Sistine Chapel) are smaller than a big pool or a gym. Through the multi-projection of color slides on four walls and ceiling the authentic feeling of these monuments is much better reproduced than by other traditional means. For instance, in the case of, say, Chartres, or the Stony Garden of Kyoto, the gradually but constantly changing hues of colored windows or stone according to the time of day and the weather might give more information about the artistic content than a hasty trip with a noisy guide, especially when the sound of the original church chorus etc., is played. Perhaps we could even reproduce the

whole Acropolis in the soccer field. This project has considerable technical difficulties but a company like the Disney Corporation could construct it with tents and travel around various college campuses.

b) A famous art work with various comments by many classical art historians, such as Vassari, Stendal, Goethe, Winkelman, Ruskin, Pater, Woelflin, Dvorzak, Worringier, Berenson, Weidle, Sedlmayr. c) Some literary works which are concretely related to certain places or scenery can be recorded on videotape. In that way students can experience a literary stroll with the guide of genial description, learning a foreign language, e.g. Goethe's Italianische Reise, Gide's Congo, Thomas Mann's Magic Mountain, Sartre's Bourge as a model city of nausee, and Proust's French scenes, Bashe's Okuno Hosomichi etc.

a. I found that used computer tape (half inch) is useable on a Sony videotape recorder. Despite considerable loss in video and audio, although it is far below the level of artistic and entertainment use. Anyway, this enables one to record a one hour TV show for \$1, (a saving of 50:1 compared to new tape)—10,000 hours tape of 1960's TV programs will be very valuable for the future. The supply of used computer tape in Canal Street has dried up, but an arrangement could be made between a big corporation and a university, since every month much surplus and used tape is put out of service from the computer. This cheap video recording possibility will also make the recording of on and off campus scenes easily executable.

b. Audio Tape Library. I assume some institution is recording important radio

stations, such as WBAI, Pacifica Radio, WNYC, etc. . . . record these important documents of this century . . . record ALL panel discussions in radio TV stations etc. It can be done cheaply.

c. Allan Bryant is a Princeton educated musician, who calls himself a full time music collector and part time composer. This ex-patriot has been recording on tape many broadcasts of New Music on German and Italian radio stations since 1959. He has done valuable world premieres and rare performances but I do not know the present state of his collection. Although it has defects, it is still valuable already and certainly will be valuable in the future.

d) Heinz Sohm, a dentist in Stuttgart, has a most comprehensive and highly professional European avant garde archive, from 1960 to date, It is valued very highly among professionals.

ELECTRONIC/ACADEMIC COMMUNITY

But even McLuhan misuses and mixes up the words "electric" and "electronic", which have as much difference as tonal and atonal, much less the average academician. In order to focus the attention of the whole academic community drastically to this electronic situation, the following events are suggested.

EAST-WEST PROBLEM

As a citizen of Korea, a minority nation in the minority continent, therefore necessarily a cynical observer, who picked up three Western and three Eastern languages during eighteen years of wandering from Hong Kong via Cairo to Reykjavek, I am particularly sensitive about the East-West problem. Reischauer, formerly Ambassador for America to Japan called for sweeping renewal on this subject, from elementary schools on, and surely East-West communication is the biggest task of communications research. A professor in Kyoto University wrote "If West knows about East only one-tenth of what East knows about West, there will be no war".

a) The ambiguity of a Chinese poem and philosophy is better explained on videotape than by any other means. Reflex pondering and rich association of mental process, and calligraphical content and style, original mandarin sound on soundtrack, etc. convey the many parameters of a Chinese poem much better than the current way of printing. This technique also applies to ambiguous French poems of Mallarme, Valery etc. including original French reading.

b. 80% of the family planning job in India is the publicity job, for which artists are best talented. The only way to reach an Indian villager is through mix-media language, which is the avant garde's artist's own language. Meanwhile a first class ad-man would never go to India to live and probably third class talents are getting paid in India at first class rates and are doing third rate jobs. Bizarre vision, unorthodox approach, rich imagination, and, most important, a genuine love of India and a will to study and admire Indian culture—all these make the artist a qualified publicity worker for family planning, and probably more talent for this work will be gathered among artists than among any other group.

NEW USE OF SLIDE OR VIDEOTAPE

FRANK GILLETTE and IRA SCHNEIDER



PARTS I and II of an interview

by JUD YALKUT

Part I: (reprinted from *The East Village Other*, July 30, 1969, vol. 4, no. 35)

Ira Schneider is, or was, a filmmaker who previously had studied art history and research psychology, and had begun making films in 1963. In the winter of 1968-9, he joined forces with Frank Gillette, a former painter, who, since 1965 had experimented with communications and videotape programming. As a case study of why a number of filmmakers and other artists have migrated into the realm of television and videotape, the following rap with Ira and Frank, part one a developmental conversation to be continued, may prove extremely useful in understanding this shift in perspective, as well as why a film column like this should range the entire broadening spectrum of media and intermedia.

FRANK: . . . Film people come to videotape as an extension of film; it's a relief for them. They see videotape in a large part as a means of making film easy, whereas tape is an entirely different realm, having many more bogus similarities to film than genuine ones.

IRA: Of course you're saying that as a painter.

(Laughter)

JUD: How do painters and filmmakers get into videotape—how did you both get into it?

FRANK: I got into it when Fordham University—Marshall McLuhan's Media Center—whatever it was called—laid some equipment on me a year ago last June. Basically the unit was two studio cameras, two portable cameras, two playback decks, and two monitors, and about \$300 worth of tape—that, plus some minimal editing equipment, various microphones, cords and addendum things. I had this equipment for three months in which to do whatever I wanted. It was like using the artist-in-residence concept in reverse—in other words, you take the residence out to the artist and give it to him to work with. So I had four TV units for three months and I produced a few programs with it. That was my introduction to tape.

IRA: I got into videotape when I found that the type of filming I wanted to do required particular ease and little stress on production—whereas in filming, it was always difficult to get sync sound without the use of a crew. What I wanted to do was environmental and very loose, and I found it much easier to work with videotape equipment than with film equipment because basically you got everything down, AND with sync sound, and you could do whatever you wanted to it afterwards. I've always had difficulty working with low budgets, using film equipment and having to depend upon people to help me. Videotape cuts down the size of the crew and provides sync sound from the word "go." Another advantage to videotape is that it fosters a life quality which I didn't always get on film. Somehow the media are different.

JUD: The immediacy of the television medium.

FRANK: Well, half-inch videotape was a technological compromise in a way. It compromised image definition for portability. You can make a portable videotape reasonably if you put the information on half-inch tape. It's the other side of the equation being equalled out. In terms of the television definition of resolution, 230 lines is a high-resolution picture. It's only a low resolution picture when it's compared with, say, 560 lines.

IRA: When we talk of 560 lines, which is standard broadcast television, we're talking about 560 at the point of transmission. By the time it's received by a set it's down to 320 lines. So there's not too much actual difference between that, say, 220 line capability of a portable system.

FRANK: The potential of cable television (CATV) is that with adaption you can send any signal over the line—the cable line—without having to go to the two-inch quadriplex tape which is not portable. You can essentially produce a cable TV station with facilities built around portable equipment. You eliminate the interface problem by transmitting through cable as opposed to throwing it out into the air. The FCC requires 560 lines when throwing signals into the air because of the chances of break-up, interference, and all kinds of electronic pollution.

IRA: It's a difference in rationale because with cable you're getting no loss. When you're passing a signal from a video amplifier through cable you're getting basically what your output is at the reception site.

FRANK: The only existing problem with cable is that they have to be insulated because signals can transfer and pollute each other.

JUD: Like crosstalk on magnetic tape.

FRANK: Exactly. So with some minor adaptations, the essential attribute of videotape when it connects with CATV is that it uses already existing systems. Now, television is usually understood in terms of a receiver. Our idea is to render that void. Television is something you feedback with as much as you receive with—which is a symbiosis—which works both ways. That's the vast potential of cable TV hooking up with portable equipment. You can have everybody running around with portable TVs like people running around now with Bolex cameras, and by eliminating the interface with that and transmitting, using cable.

IRA: Perhaps we should quickly run through these different television notions: CATV, CCTV (Closed Circuit TV), and UHF. The notion is that closed circuit TV is akin to cable TV in that closed circuit, if we're talking about videotape or storage of information and playback, plays back from the recorder into a wire that runs into the monitor. CATV is an extension of this in that the wire-cable—between the playback and the monitor is much longer. The longer the cable, the more you have to generate the signal so that it can travel that far—it needs amplification.

FRANK: Closed circuit TV is best understood in terms of a stereo system. A few years ago there were no stereo systems, and no software to play on stereo systems. Likewise, in 5 or 10 years, closed circuit systems will probably be as popular as stereo systems are now, and as you have stereo albums for stereo systems, you'll have videotape albums for video systems.

IRA: Although EVR (Electronic Video Recording) that CBS is coming out with may interfere with that I think EVR is another hype.

FRANK: It's a reactionary technological move.

IRA: EVR is not videotape but a combination of magnetic sound strip and film to be played back through a special apparatus on your TV receiver or monitor. I think their main interest in investing in this system is that it is basically like Super 8 film, and they expect to be putting out entertainment albums on EVR, and unlike videotape, it will be difficult to copy so that they can control the market.

FRANK: It's going against the current of the nature of television. Television has ubiquitous access. If you let the system run wild, everyone can get in on it, and it's not held by selected hands.

JUD: You were going to mention UHF (Ultra-High Frequency).

IRA: UHF is simply a means of putting more channels out for broadcast—thrown through the air. However, it suffers the same limitations as standard broadcast in the sense that it's regulated immediately by the FCC—though not as rigorously and commercially compelling as standard broadcast—but still frozen to a certain number of channels.

FRANK: On the other hand, UHF will probably serve as the first show for the WBAI-Pacific radio kind of experiment when it reaches television—it'll probably not be CATV. UHF is now serving some function in the sense of sub-cultural TV serving the minority communities.

IRA: But UHF now has severe limitations because it is mostly set-up by people who are committed to the standard format of broadcast TV—limited like standard broadcast in the sense of what they can deliver or what they can see is necessary in terms of information transmission to people. For the most part now I see TV as a dehumanized media.

FRANK: At the present time. But that's not intrinsic to the system that television is. We're interested in exhausting the potential of what television is as a total system.

JUD: Frank, what was your first work in television?

FRANK: Well, I had been doing monochromist minimal painting, dealing with concrete concepts, and I had reached a hiatus in painting. Along came the contact with Fordham, and I first produced a five and a half hour documentary on St. Mark's Place. I spent three weeks standing on Gem's Spa corner interviewing the locals. The documentary's conception was that it focused from the inside out—these people defining themselves, and not my going in and extracting information of which they're only an element. They basically gave their raps on videotape.

IRA: And during this period Frank existed on egg creams and marshmallow candies.

FRANK: That lasted three weeks. Then I experimented through the Village Project with the effects of videotape on kids with bad trips—15 to 19 year olds—burnt-out acid cases—let them use the cameras on me, themselves, as a means of expression as opposed to a means of recording their expression. They were alienated from their shrinks who came in periodically to extract information from them on the St. Marks' scene. Videotape was a new, favorable means of feedback for them, they dug it.

I also used videotape like a canvas, specifically about four hours of what I call a self-portrait on videotape, that used four cameras with two feedback systems. There are points in the self-portrait where you see on tape me looking at myself on tape, looking at myself on tape. There were generations of feedback, and the gradual alienation from one's previously considered image into an entirely redefined image of oneself.

At a point in December, I met Ira, we discussed working together, and we went out to Antioch College in January and February.

IRA: We were invited out by David Brooks, who was teaching in the film department and who managed to get us access to their TV studio equipment. We brought our own Sony portable equipment, and completed about 20 hours of taping there, combining many approaches, in the studio and in the streets. The basic notion was that we were going out to meet an American sub-culture without any preconceptions and to work through interaction.

JUD: You had been filming and not working in television prior to this?

IRA: No. I stopped that summer when a film project fell through because of lack of funds. I was filming this British painter painting the **SALVATION** building in Sheridan Square and his interaction with the indigenous people, from him alone painting, to over fifty people dancing in the streets and decorating the phonebooths. I won't mention the cameraman's name, but he was an inveterate zoomer, which made cutting the shots very difficult. Again with film you have to spread out production among many people, and if you don't have an organized group, it becomes impossible.

(Ira Schneider's previous films include **The Frantic Pedantic Semantic Antic**, **The Ghost of Wittgenstein**, and **Lost in Cuddihy**—a prize winner of the 1966 National Student Assoc. Film Contest.)

JUD: What happened after that?

IRA: Well, let's see—four months of depression (laughter), thinking about what I was going to do next, and then I woke up one morning saying, "Television, television, that's how to communicate quickly." And then I met Frank. I decided videotape would be the next move, grabbed a knapsack full of money, some videotape equipment, a car, forty pounds of salt pork, cans of baked beans, and we split for Antioch—where we did some lecturing and involved the students as actors in our studio and non-studio work. One technique was to introduce four to six people into a studio with only chairs facing cameras, leaving them there and working the cameras from outside.

FRANK: We gave them minimal instructions, like—you can't communicate with each other unless you communicate through the camera. Under each camera was a mirror—they sat in the chairs, could do anything they wanted, but only through the media—the camera, and they could use the mirror to facilitate their actions.

IRA: Sometimes the rules were more and sometimes less restrictive—like the restriction being only not to destroy the cameras. We also taped out at David Brooks' country house with actors—loose plots—an actor peeling potatoes, and suddenly he was a farmer who had lived there forty years.

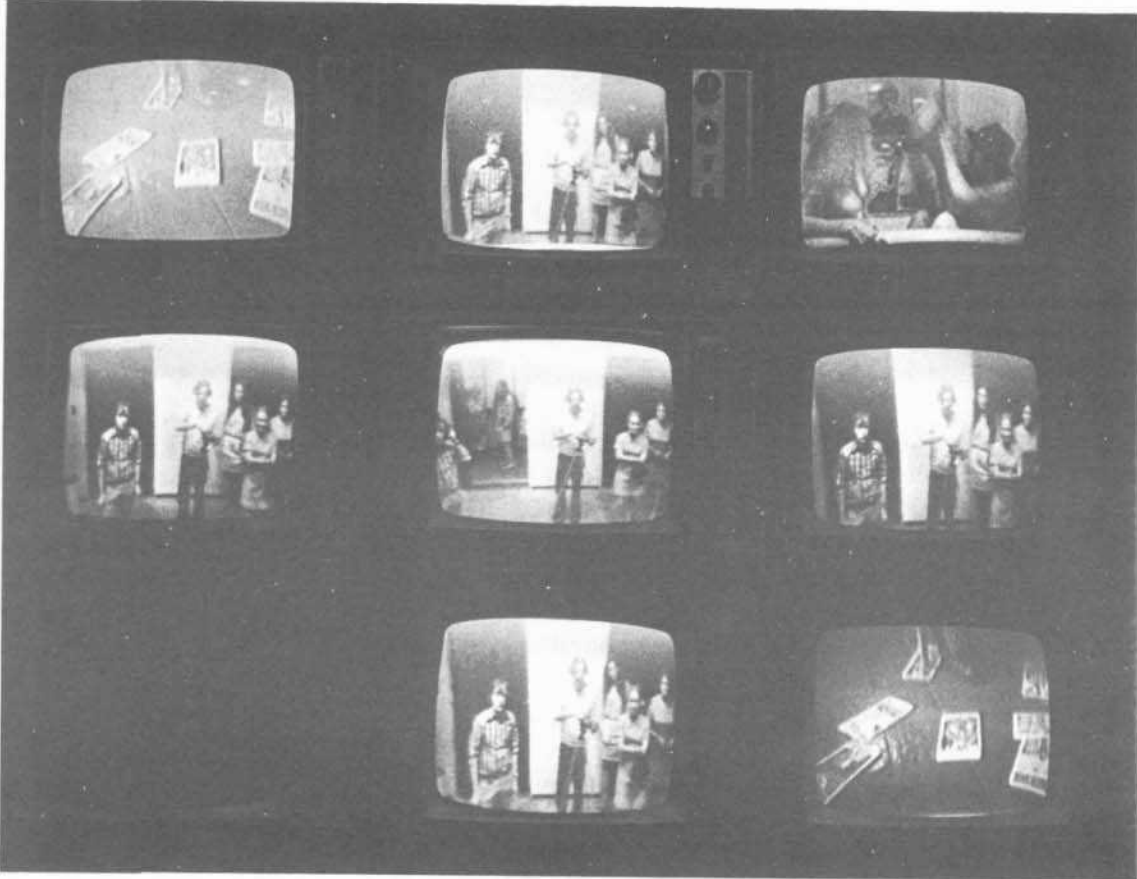
FRANK: We also picked up the town, a strike at a bookbindery, interviews with farmers, children, and the locals at the doughnut bakery there in Yellow Springs, Ohio.

IRA: And then we had the Cincinnati jugband in the basement.

FRANK: And a vain attempt at a skin flick on tape.

IRA: We canned that, but we got a lot of beautiful bathtub footage.

JUD: Some of the bathtub scenes were included in your **WIPE CYCLE** television mural at the Howard Wise Gallery **TV AS A CREATIVE MEDIUM** show.



FRANK: The original proposal was to distribute the tape delay systems throughout the gallery, but because that would have interfered with other exhibits it was shelved, and the mural conception with the delay mechanisms on one wall was introduced.

IRA: I guess we just designed for the space provided for us—an entrance piece, or opening piece, facing the Gallery elevator and picking up people as they came in.

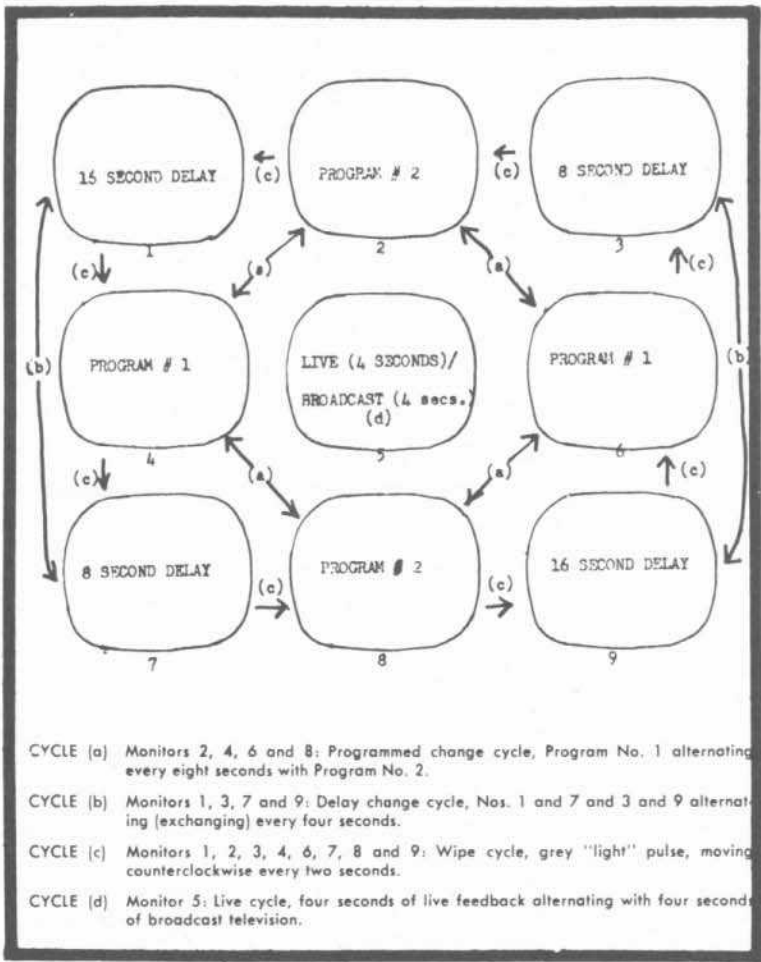
FRANK: To emphasize this point we taped our co-exhibitors while the show was being set-up and programmed these bits into **WIPE CYCLE** to give it an interesting internal feedback quality. You saw the show being put together as you entered the gallery, and the rest of the show was how it had been put together.

IRA: The most important facet of **WIPE CYCLE** was the notion of information presentation, and the integration of the audience into the information.

FRANK: It was an attempt to demonstrate that you're as much a piece of information as tomorrow morning's headlines—as a viewer you take a satellite relationship to the information. And the satellite which is you is incorporated into the thing which is being sent back to the satellite—in other words, rearranging one's experience of information reception.

IRA: WIPE CYCLE's physical makeup is a television mural consisting of nine monitors.

FRANK: It's a prototype model—



IRA: A live feedback system that enables a viewer standing in his environment to see himself not only NOW in time and space, but also 8 seconds ago and 16 seconds ago, and these are in juxtaposition and in flux. In addition he sees standard broadcast images which come on at periods alternating with his live image, and also two programmed shows which are collage-like, ranging from a shot of the earth from outer space, to cows grazing to 57th St. Somehow there's a juxtaposition between the now of the person, the individual, with other elements of information about the Universe and America, and so the general reaction seems to have been a somewhat objectifying experience, and also a somewhat integrating experience in terms of one's place in the Universe.

FRANK: It's an attempt to reshuffle one's temporal experience—one's sense of time and space.

IRA: Yes, we seem to have a facility to abstract small sections of material—

FRANK: Which is an important point. Videotape lends itself to collage more easily than film because of the accessibility of the image.

IRA: One thing we succeeded in doing at Antioch was turning the kids onto using videotape in their own work, and then we split back to New York, and shortly thereafter fell into WIPE CYCLE.

FRANK: Back in New York, I got a call from Howard Wise who had been given a list of people working in videotape by Nam June Paik, and our names were on it. We brought Wise a proposal essentially like WIPE CYCLE which was later adapted into its final form.



Part II: (EVO, August 6, 1969, vol. 4, no. 36)

JUD: What possibilities do you see for the integration of abstract television effects and electronic distorting devices, such as Nam June Paik uses, in your TV work?

FRANK: I'm not as much interested in my work in pure abstraction as with the potential of TV for collage abstraction, that is to say, the taking of real elements which read as real—or live on videotape—and juxtaposing them in abstract formulas to create a "living" abstraction. People see videotape and what they read in their skulls is "real"—it seems live, and has an unstored quality—like the live immediacy of even Walter Cronkite on the 7 o'clock news. I see television as a potential for using that "live" effect via abstraction, as a vehicle for an abstract statement from another angle, but I see it as no less than that.

IRA: I would add that the notion of abstraction also includes the notion of the abstraction of information, and the juxtaposition of information, which can be further spaced out by the integration of distortion circuitry effects. But basically, I think we look for a point from which to take off, for abstraction at a level of content, or of information, and then into something like notions of successive auras, which, by the way, come up on videotape once in a while. I won't say it's an aura, but there's electromagnetic interference of different kinds that enters into videotaping. Somehow it's picking up vibes.

FRANK: A videotape freak argued that the image on his viewfinder in a portable camera had been bettered by him feeding the camera good vibes.



IRA: In fact, we looked through it and it seemed that he was right. It was better.

FRANK: It was certainly the best viewfinder image I've ever seen in a videotape camera, and his claim was that he broke the camera in by sending it good vibes, by loving it, by psyching out the media and changing the image. An ideology can be built for better electronics through metaphysics.

To demonstrate the poignancy of tape, people have seen themselves feedback on film and feedback on tape, and invariably they say that tape is a much more eerie experience, particularly the initial witnessing: the first time you see yourself back on tape, it's the first genuine view from the outside of what the inside is like. A mirror is like an extension of the inside because you have to keep your eyes focused on it, and you're always looking at your eyes focused into a mirror. But with tape, you see yourself in every gesture, your kinetics are revealed; it's all suddenly outside; and it's the first time you've ever met that outside. Videotape sends a quality of the whole, and it's that poignant sense of the real whole that gives it strength. It sends a volume and tactility—a sense of touch, the texture of the volumn.

IRA: In film I always get the feeling that my image is in a two-dimensional space; somehow I don't relate it to myself immediately. Whereas, in videotape, I tend to see my movements and my behaviors, the way I carry myself, much more vividly. I haven't felt any satisfactory definition of the differences in systems; I think it will continue to evolve.

FRANK: Film imitated theater, videotape imitates film; it's just beginning to develop. It's like the first automobile with the engine in the front, because that's where the horse was.

IRA: Or like the television media's news presentation coming off of a concept of "sound" news—as per radio.

FRANK: Or attempting to distribute TV's as they once distributed radios. Well, that's ignoring the potential of the system. The mentality that went into the distribution of the TV system is remarkably low—it was surrendered over to marketing. Television from its inception, with the slightest adaptations, had the potential of doing what it's doing now in terms of its flexibility and availability of access. Some CATV (Cable) stations are delivering nothing but commercials—they're total marketing experiments. How to market your product more efficiently; show them pictures of it with singsong, and send a program along with that to which they get narcotically addicted and sell soap; it's a potpourri of ailments being solved. That's what TV is about now.

JUD: Korzybski talked about plants being chemically binding, animals adding space-binding, and man time-binding; the fact that we can look at and interpret artifacts by an Egyptian.

FRANK: Yes, we are complex modes of all sorts of messages and signals, and one of these defines endurance. What videotape does is to dip into that; you can demonstrate an individual's sense of his own past with tape much clearer than anything I can think of, unless you add the even further dimensionality of holography where you can further articulate the three-dimensionality of the image. You can qualify it by getting a better space understanding of it but you can't anymore qualify it in terms of your temporal understanding of the tape. The delay system that we had in WIPE CYCLE is only an embryonic form of this. You can establish an entire environment where you're constantly tracking yourself every two seconds—at two second intervals every point going back ad infinitum is somewhere being fed back to you.

IRA: A delayed strobe.

FRANK: Only it's an informational strobe, not merely a light strobe. Which is one of the ideas that freaks me out and which I'd like to do. In other words, how many generations of self-feedback can you keep track of without totally losing the sense of yourself; literally, through electronic techniques, setting yourself up outside of your body. You don't have to sell the Hindu trip anymore, you sell the television set.

I foresee in the future that it'll be largely a matter of how much information you hold—information replaces capital in the economy. That cultural switchoff is not that far away. The revolution in America is not going to result from the clash of political ideologies; it's going to result from the saturation of information and the modes of information dissemination being entirely different, and at that point you'll have the American Revolution; and the only violence will be done to its own history, or its own sense of history.

IRA: Media violence, that's all.

FRANK: Paik is the George Washington of the movement, which has yet to encounter its Warren G. Harding.

The name of the game in this number—the entire videotape media number—is being in the position of out-thinking yourself, constantly expanding parameters, dropping previous boundaries, instituting new boundaries; it's constant reorientation because the volume of the information is so incredibly high, and the exhaustion and obsolescence with which the media information is used is a very high rate. So you're constantly faced with the situation that if you're holding an idea for longer than "x" period amount of time, two weeks perhaps, the idea is incorporated into the space and is obsolete. So the ideas have to be constantly generated in terms of always out-thinking the ideas that were previously generated—it's a spiralling process, leading to who knows where, and it's a direct result of the electronic process. It's like electronic foreplay—you can record and know what the cat on the other side of the world is thinking about as fast as you can know what you're thinking about; practically speaking it's about the same speed. And that changes the nature of the way information interacts and the way people take advantage of information.

IRA: Frank, I think, is in charge of generating vocabulary.

JUD: What's your feeling about the televising of the moon landing?

FRANK: The idea that everyone who has a television receiver will be capable of seeing the first step on the moon is a gigantic, universal confirmation of experience. Columbus didn't have that luxury. The entire world is with him literally, he's having his experience confirmed like nobody else has had their experience confirmed before—he's going to be stoned, just by mere vibration feedback his experience will be confirmed. Like the first motherfucker who hit the North Pole, or Mount Everest, he says oh shit, this is his that that he's doing, he's all alone by himself, he's got to come back and rap about it.

IRA: These guys don't have to hold it in. They can rap while it's happening. But I wish it didn't sound like a football game.

FRANK: One of the environmental TV projects we're in the process of designing for "X" is a complete system in which the room would be the experienced core of the television environment, with one wall which would entail color. A third of the system would be direct color tape, and two thirds of the system would be black and white adapted to color through the use of filters and so on, and the elements would be around 18 monitors and a videotape projection system, using retrieval, delay units, projection mechanisms for matting one image over another image (where you get 3 or 4 overlays).

IRA: Let's say, integration of the live audience onto pretaped material.

FRANK: It would probably use six cameras, some rotating, some stationary, and all serving the different functions of throwing the witness to the experience into the feedback of the experience.

IRA: We'll be dealing with media ecology.

FRANK: One of the ideas for which we haven't found backing yet, would be a video chamber with a plexiglass core, so one would actually enter the chamber physically—and 360 degrees around, the chamber structure would be a system of monitors feeding back your own image integrated with programmed material.

IRA: From many different angles.

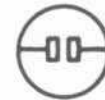
FRANK: For example, if you were standing in this chamber, the camera may be shooting from underneath and feeding back the image of shooting you from underneath overhead, and this would be switching with other positions. And the manifestation of this would be that you would enter the chamber and experience the total TV environment, where you would have contact with a contiguous environment, and that would be the maximum TV experience given the current state of the technology. Besides using separate monitors we're looking into the possibility of having a circular or chamber shaped video-receptive screen for projection.

IRA: Which is not yet available commercially, but will be in the next few years. I think content is, by and large, the most important thing, and particularly its applications in helping people to better realize the objectifying experience. In other words, seeing themselves from outside themselves, which potentially can lead to the realization that we are all actors—or that we are not realizing our potential. That much of our energy is relegated to our habit patterns, and the behavior that's carried us through to this point. When you can see yourself on TV, and the back of yourself simultaneously—something that we seldom if ever get a chance to do—if we extend this further into the notion of an environment, one can see oneself in a social, or spatial interaction. This offers a potential of, say, liberation.

FRANK: Another dimension possible to varieties of abstract programming is literally using videotape or the TV screen as a temporal canvas. It's like a canvas, only the other dimension of time is introduced; and the innumerable implications are opening us, as far as total environment constructions, or constructing environments which are in their totality that feedback which we want to explore.

IRA: In addition, there's a further idea of entertainment, and the individual becoming his own entertainment. More and more, I see people laying out, and boredom creeping in on the scene, or simply lack of initiative. Now seeing this over a period of time being mediaized or seeing yourself in front of a TV camera—seeing the feedback—breeds the notion that we're all potential actors—effectors of the environment—that we can do amazing things. It's a matter of reshaping ourselves perhaps.

IN THE HANDS OF CITIZENS: A VIDEO REPORT



CHALLENGE FOR CHANGE is a program designed to promote understanding and provoke social change. In a nutshell, we feel that the technology of communications should be understood and used by the people who are trying to find solutions to their problems, and who normally have no access to the media. The program originally started three years ago with film only, but has integrated the special usefulness of video and its projects. Half-inch video allows complete control of the media by the people of a community. They can use the camera to view themselves and their neighborhood with a new and more perceptive eye; they can do interviews and ask the questions more pertinent to them; they can record discussions; they can edit tapes designed to carry a particular message to a particular audience—an audience they have chosen and invited themselves. The processes these steps involve can make significant changes in the development of a community organization, and video can become an important tool.

We hope that very soon community groups will be able to prepare a ½" video program, and have it broadcast on local or cable TV, and any news about this technical possibility will be appreciated.

DOROTHY TODD HENAUT

by DOROTHY HENAUT AND BONNIE KLINE

comite des citoyens de saint-jacques

The Comité des Citoyens de Saint-Jacques, a dynamic citizens' organization of downtown Montreal's many poor areas, was founded in March 1968 at a public meeting called by a handful of concerned citizens with the help of a community organizer from the Urban Social Redevelopment Project. At the meeting the citizens agreed that bad health was their most immediate problem. On receiving no help from provincial and civic authorities, the citizens decided they would take the affair into their own hands. They rented an apartment in the area, renovated it themselves, and recruited medical and dental workers who were interested in the idea of a citizen-run community clinic. By October, they opened their clinic five nights a week.

nfb involvement

There seemed to be a convergence between the needs and ideas of the Citizens' Committee and those of Challenge for Change, and we approached the Committee with the idea of a project exploring the use of videotape recording equipment in community organization. The Committee recognized its potential effectiveness as an organizing tool and formed a VTR-film group. This group has eight members, of whom six are from the neighborhood and two from the NFB (the authors of this article), so the term "we" is used here to refer to the VTR-film group. This group has carried out all actions with the video equipment, and has also guided an NFB film crew in the shooting of 16mm film, organized the screening of rushes for the Citizens' Committee, and is now working closely on the editing process. We hope to present three films: the VTR project, the clinic, and the Citizens' Committee, each in both French and English versions. All important questions of policy are brought by the group to the Citizens' Committee as a whole, for decision.

consensus on the aims

We held our first meeting in November 1968 and discussed the various possibilities for using the VTR equipment. The most important thing that came out of this discussion was the firm consensus that the VTR equipment should be used to serve the aims of the Citizens' Committee and should not distract the members from those aims. The broad objectives of the Comité des Citoyens de Saint-Jacques are to work as citizens to gain as much control as possible over their own lives. The main job of the Information team to which the VTR group is attached, is to sensitize the inhabitants of the area to their common problems and to communicate the Committee's hope that together they can act to change their situation.

familiarizing ourselves with the equipment

In the following weeks we discovered that when the equipment was left in the offices nobody used it. But when various members of the VTR group started taking it to their homes and photographing their children, we got over our diffidence about using the equipment as we learned how simple it was to use. Or, to translate the citizens' description: we "tamed" or "domesticated" our VTR.

We usually formed two-man teams, with one person on camera, the other interviewing with the microphone. We all made errors, mostly at the beginning, and each of us at one time or another has brought back an underexposed tape, or a tape with no sound because the microphone was not plugged in properly, or nothing at all because the tape was inside out. We rarely made the same error twice, and there are not very many you can make with the VTR.

an early use

Students sought to ally themselves with the Citizens' Committee. With mixed feelings of suspicion and need, the Committee organized a teach-in and fund-raising blitz in all the community colleges and technical schools in the area. We used the VTR equipment, both camera and playback, which we set up in the cafeteria of the school. We played tapes of citizen meetings, then taped the students while we explained to them the activities and aims of the Comité des Citoyens and requested their support and donations. These tapes were then played back on the monitor.

The most interested students took camera and mike in hand and went from classroom to classroom eliciting funds from students and teachers alike. The whole operation was surrounded by all the aura of glamor and gadgetry of the new technology. It was fun.

operation boule de neige

We were still floundering around, testing possibilities and uses of the equipment, when the Information team proposed a week-long information and organizing campaign for the end of January. The aims of the campaign would be to inform the residents of the community of the existence of the Committee, to stimulate debate on their collective problems, to gain new and active members, and subsequently to decide on new projects. The format of Operation Snowball (thus named because it starts small, but can turn into an avalanche!) was to include a press conference on Monday, a series of five public meetings in various areas of Saint-Jacques from Monday to Friday, with a big *gête populaire* on the Saturday night.

a program to prepare

This was exactly what the VTR group needed to give it some direction. We proposed to prepare a half-hour program on the problems of the people in the area, which would be shown at the opening of each meeting. Building on the existence of the clinic, the theme of the campaign was, "Why are we sick?". This led to exploring the causes of ill health: bad housing, unemployment, inadequate welfare, sparse recreation facilities, low-grade education, and bad medical care. We did some practice shooting. It was in December and January, and the bitter cold required special techniques, such as covering the equipment with blankets to keep it warm if we wanted to interview people on the street.

In early January we drew up a tight schedule, and divided ourselves into two or three-man teams to cover the various problems.

a reaction by authorities

For the section of the program dealing with medical care, two of the members of the VTR group went into the out-patient department of one of the large municipal hospitals to talk to the people in the waiting room. Within ten minutes the director of the hospital hauled them into his office, confiscated the tape, and demanded that they come back and erase it. After a discussion with the other members of the Committee, it was decided to comply with the hospital's wishes because the Committee had chosen neither the subject nor the terrain for a confrontation. But we fully measured the effect this simple recording device could have on an authority that did not have faith in free information.

shooting situations

Having learned this lesson, we decided not to waste time on confrontation by trying to shoot inside the Welfare or Manpower offices, but instead to interview the people coming out of these offices. Our strategy was amply rewarded with some frank, stark statements from welfare recipients and job applicants.

For the housing segment we started out by shooting exteriors, but the cold rapidly sent us into the corner restaurant. This proved a good tactic, for we started a discussion with the owner and one of his customers, learned a great deal about the neighborhood, and were introduced to a woman who lived in "one of the worst slum buildings in Montreal." She invited us into her home to show us where part of the ceiling had fallen down last July.

editing

The material was edited down from about four hours to forty minutes. At first, members came to the Film Board to do the editing—by electronic transfer—with the NFB technicians. This travelling, as well as the necessity to do this during working hours, was most unsatisfactory, and subsequently we brought the tapes to the Board with notes from the group on exact footages for editing. Neither this system nor the visual result of transferring were very satisfactory, and we are just now going to try editing by physically cutting the tapes, which the citizens can do themselves and which is visually less irritating.

the public meetings

The VTR group did some interviewing in the streets on the day of the meetings, inviting people to come and see themselves on TV. These tapes were run, unedited, a half-hour before the start of the meetings as people were coming in. The public meetings were held in school halls or church basements. We placed six 23" monitors around the room with about 20 chairs in a half-circle in front of each. The active members made a point of spreading themselves among each group. When the 30-minute video presentation was over, each group moved its chairs into a circle and plunged into a discussion. Having seen people like themselves on the familiar TV screen, discussing their problems with utter frankness, removed much of the reticence and timidity people have in a group of strangers. They simply said, "I guess this is the place where I can talk freely," and talked at length of problems shared and possible collective solutions.

participation

The Committee had refused to propose some special project at these public meetings because it felt strongly that new members, who would be participating in any new action, should also participate in deciding what that new action should be. The consensus at the end of the week's discussion was that immediate action should be taken on housing, a food cooperative, recreation, welfare and baby-sitting services. At the next regular meeting of the Committee, new work groups, comprising many new members from Operation Snowball, were set up to organize these actions.

vtr as record

We recorded on tape a number of meetings of various types, but we found that people rarely had the time to view the tapes afterwards. The few members who have taken time to view old tapes have gained a good deal in self-awareness and in understanding of others, as well as a historical perspective on their progress.

When the Welfare team organized a large demonstration, the action was taped and was shown that night at an evaluation session. The participants were excited and thrilled to see their demonstration on the screen, and used the opportunity to view the action in a different perspective and to evaluate it. A few attitudes began to change, especially towards the police, who are held in some fear but who behaved quietly and without menace during the demonstration.

democratizing

One of the things that has disturbed the VTR group is that we have been too privileged in using the equipment. It is now being further democratized. For example, members of the VTR group have joined each of the various other work teams, to help them use the VTR in their actions. Anyone who expresses interest in joining the VTR group has always been welcomed.

future projects

The Committee has just obtained a meeting place, the *Maison des Citoyens*, and we intend to run tapes there which will allow many more of the members to view the tapes and will help new members catch up with the others.

Future plans include using the video to improve communications between the various working committees, placing the viewer in local shops and taping discussions with people in the neighborhood, and recording future actions. There is also the possibility of taping reports and research on various institutions in the city, and the hope of preparing programs that might be broadcast on public television. The video will also be used to help young people in the neighborhood make an 8mm film. Courses in history or civil liberties will be dramatized for video presentation.

evaluation

In March we taped a meeting of the film-VTR sub-committee evaluating the use of the video equipment. The following are quoted from that discussion.

effects on the individual

We were not very interested in ourselves when we started."
"But it helped me a lot to know myself. You see how you function."
"It helped me gain more confidence in myself. It's important to know who you are."
"It develops your critical senses. You become two people—he who acts, and he who watches himself act."
"The people we interviewed in the street—I really felt they wanted to get a message across. They wanted other people to hear about their problems, to share them. People feel pretty isolated."
"I think the people hoped their message would reach the powers-that-be. They had never had the chance, before."
"When we watch the tapes, we don't just learn to know ourselves better; we also come to understand others better. After that, it's much more fun to work together."

an organizing tool

"Could we have stopped people in the street and questioned them the same way if we had not had the camera and microphone? I don't think so. It's a good pretext for talking to them."
"When people were interviewed, they became interested in the Committee. Then they came to the public meetings and became involved and eventually joined the team."
"During the public meetings, with the video program, I had the impression that people really recognized the face of the neighborhood. And they had felt very isolated from one another."
People are suspicious at first. They don't know if they are free to talk. The video program showed people talking freely so they saw how far they could go themselves."

objectivity

"We didn't pretend to be objective, like journalists do."
"Yes, sometimes when we asked questions, we also gave the answer, and when someone didn't know what we were talking about, we gave him the information."
"If someone didn't know how to express himself, we sometimes helped him with the words."
"People could tell it was another citizen like themselves doing the interview, and they had more confidence in us than they would in someone from the CBC or the NFB, or other media. Often the press deforms what is said; they don't transmit exactly what we have to say."
"On the other hand, the people knew they couldn't pull the wool over our eyes. They couldn't try any affectations. With ordinary citizens doing the interviewing, they knew we knew who they were. They couldn't get away with any tall stories."

mass media still closed to citizens

Their experience with video-conceiving, shooting, editing, and presenting their own programs—made the citizens particularly aware of the myth of objectivity in mass media reporting and sensitive to conscious and unconscious manipulation. They have become a less gullible public.

Ordinary citizens have a good deal of difficulty in getting their opinions expressed in the information media. Articles or programs about the Committee that have appeared in the local media have almost invariably been distorted pictures. The press seems incapable or unwilling to comprehend the nature or aims of the Committee.

On one occasion, **the citizens discovered that journalists who talk loudly of freedom of the press consider themselves immune from interviews or cameras**; they became angry when they became subjects for the citizens' cameras during the press conference for Operation Snowball. They were unwilling to be recorded as individuals, and became even more hostile to the citizens.

Hopefully, by using the ½" video equipment enough a citizens' group could eventually propose to their local TV outlet that they make their own programs about themselves and their programs to inform the population-at-large about their lives and aims and to help bring about needed changes.

Unfortunately, ½" video cannot be transferred to the 2" broadcast video with any degree of technical satisfaction for the moment. Perhaps technological advances will overcome this obstacle in the near future.

warning

We hope video does not become a mystique. "Communications", with all its glamor and mystification, can become an end in itself rather than a means toward better human lives. Some may want to use it to divert people from their social goals. It could become one more way of avoiding real social change. It should be clear that community self-awareness and inter-communications are powerful leavening agents and can set off an unpredictable chain of reactions. There must be a real sense of continuity, if film and video are to be used for real social gain rather than social disaster. **Communities cannot be used as guinea pigs for technology. Technology must serve the communities.**

In Saint-Jacques, a strongly organized Citizens' Committee guaranteed responsibility and continuity. These same video techniques could be used in the early stages of organizing by a community organizer who is committed to stay in the community a certain length of time. Social continuity is essential.

Video should not be used in a vacuum, and it should not be used to divert citizens from their social aims.

conclusion

Video equipment does not create dynamism where none is latent; it does not create action or ideas; these depend on the people who use it. Used responsibly and creatively, it can accelerate perception and understanding, and therefore accelerate action.

The *Comite des Citoyens de Saint-Jacques* could have accomplished any of their actions without video equipment. We could not say that at any time it made the difference between success and failure. But it made good things better, and helped people to grow. It is a useful tool.

For futher information contact Dorothy Todd Henaut, Ed., *Challenge for Change* newsletter, National Film Board of Canada, P.O. Box 6100, Montreal 101, Quebec.



CABLE TELEVISION:
THE RAW AND THE OVERCOOKED

by PAUL RYAN

... There are over 2000 cable systems operating in this country now. Roughly another 2000 franchises have been granted and another 2000 or so are pending. Six thousand or more separate cable heads means six thousand or more separate information systems: the possible restructuring of communications in this country. For schools, cable offers a unique opportunity to function effectively in the information environment. But before discussing Cable TV and the educational system it seems useful to talk about the difference between television and the way in which a videotape recorder can be used.

There was no videotape recorder on board Apollo 11, only a television camera. Television, as the root of the word implies, has to do with transmitting information over distance, in this case a quarter million miles from the moon. Videotape has to do with infolding information, as in the kind of feedback that goes on in encounter groups. Working with encounter group leader, Dennis Walsh, I videotaped while a girl stood in the middle of the group with her eyes closed and described how she thought people were reacting to her then and there. The contrast between her negative description and the positive responses to her that the playback revealed were both illuminating and encouraging for her. This was information infold. What she and the group put out was taken by the tape and given back to them. **VT is not TV. If anything, it's TV flipped into itself.**

In some ways, the difference between broadcast television and the videotape recorder is the difference between Hippies and Yuppies. As Abbie Hoffman has pointed out, the Hippies are the products of the mass medium, while the Yuppies create media events. Hippies take television as part of the service environment, merely as output terminal. Yuppies, on the other hand, treat television as an entire information system into which one can input such things as police brutality. As has been pointed out, the cost of getting a message on television for an honest man with little money is at least a few days in jail. That the Yuppies are willing to pay this price seems to me a small indication of the increasing demand of the TV generation to have a share in television systems.

While the living room or classroom television is merely the terminal of a larger system, videotape is a complete information system unto itself. It has input (camera and mike) storage and processing (the record/playback deck) and output (the monitor). It can be used as an entire information system enabling people to feedback to themselves the way they behave so that they can communicate about the behavior and extend their control over it. The videocorder extends people as cybernators. By contrast, behavior induced by the output of a television set is merely terminal behavior.

Confusion about the grammar of media such as tape and TV is, as McLuhan has shown, par for the course. New media begin by doing the job of the old media better. The car was a "horseless carriage." The radio was a "wireless telegraph" used for point to point communication until the Irish rebels used it for broadcast in 1916. IBM grew successful as it came to understand it was not in the business of business machines but in the business of moving information.

Cable TV is now transmitting broadcast signals better. This "snowless" signal is not what a cable system is about. **The basic business of cable is the cultivation of local culture.** This does not mean stenciling national network type programming on a local setting. Any culture is *already* programmed. This is to say, the life style of the people is structured by the local environment with its interlocking system of roads, postal service, restaurants, recreational facilities, television intake, telephone usage, etc. The role of a cable system is to increase the community's awareness of their existing cultural system, thereby giving them more control over its development: to cultivate the local culture. Just as VTR extends man as a cybernator so cable can enlarge the capacity of the local culture to communicate about and control its development. This control can include some decisions about importing information.

Centralized production facilities in a cable setting that exploit the saleable aspects of local culture for export will have a short life. This is to model the cable system on broadcast television before the invention of videotape. Packaging information for elsewhere on the stark vision-over-distance model of television amounts to strip mining of local culture. Low priced portable videotape units make it possible for the cable company to take their whole district as their studio. Feeding back into the culture rather than feeding off of it will insure lasting relations between cable and culture.

If cable can effect a genuine awareness and cultivation of life patterns, it will find its best resources in the enriched and unique perceptions of its community. The information overload in our society is placing more and more of a premium on pattern recognition. Pattern recognition is a function of perception. A diverse pattern of unique perceptions such as is possible with the growth of cable in this country could turn CATV systems into so many think tanks.

As readers of Peter Drucker's *Age of Discontinuity* are aware, our society is shifting from an economy based on capital to an economy based on information. Cable television companies are initiating policies within the dimensions of this transition. They are compelled to work out a new relationship between capital and information. Once a cable company realizes that local culture is in fact its business, it seems appropriate that it will want to develop a viable relationship with the schools throughout this country, where so much of the potential constructive, and unlimited energy for creating new relationships in our various environments is located. Via cable educational institutions can function as consultants to the developing culture. Conceivably, a cabled culture could develop to a level of enlightened awareness such that it could turn its perceptions into profit if it cared to. Brainstorming other's problems by cable through a technique of "organized ignorance" is a source of revenue the cable industry has not considered.

There is a Japanese composer, Joji Yuasa, who works with "white noise." Just as white is the presence of all color, "white noise" is the presence of all noise. The "static" one gets tuning between stations on a radio is really white noise. Yuasa boosts up this sound to a rich fullness and surrounds you with it. His composition is a process of filtering out from the fullness of noise that which he does not want.

White noise is a perfect analogue for the world of total information we are approaching. Ideally, everyone will be their own composer. **All non-private information will be available to anyone at anytime and place in any mode they want. Though there is no way of saying for sure, it seems likely that cable will be a major conduit of this information from the data banks to the home communications centers. People will have freedom to the extent that they control the filtering process.** Hopefully we can move from a mass transit system of information such as we now have (you meet their schedules) to one of random access, of self-processing in a world of information movement. Education becomes the empowering of people to maneuver in a world of white information.

Cable can serve not merely as a conduit to total information, but more importantly each separate system can provide the skeleton of an information structure in which **students can build up the indigenous data base necessary for self-cybernation.** Give them videotape, audiotape, and film and let them find forms for their own experience and their own environs rather than the teacher taking the data, informing it, and presenting it as a pre-cooked packet to be warmed over and consumed in the classroom. Self-structuring of unprepared data develops the capacity to be your own information composer.

There is a technique being used in some schools for teaching an inclusive kind of anthropology. Students, insofar as is possible live the life of another people for as long as a year. This includes cooking, monetary system, education, etc. . . . With cable it is possible to do this with one's own culture "live on tape." The near and the now can be put on tape in such a way as to permit detached examination. The dictum that the unexamined life is not worth living is close to the concerns of an educational system based on the detachment possible with the phonetic alphabet. If you code experience in the phonetic alphabet it can be examined. Videotape offers a different mode of detached examination. For example, there is on the market an inexpensive VTR that takes a frame a second for twelve hours and can be played back in a half hour. Simply placing this at different meeting spots would reveal patterns of interaction; documentaries could be produced of people on the street, in shops, on the phone, in homes. Regular exchanges could be set up between sister cable systems: rural/urban, black/white, East coast/West coast, etc. In the schools teachers from different disciplines could be transformed to function as commentators on the video verite, sharing the experience of this information immediately and directly with the students; using the verite not as an audio/visual aid to the teaching process, but as a primary source of information.

The movie and broadcast television have implicit in their structures a perceptual imperialism. You watch what others want you to watch to a large extent in the way others want you to watch it. Others control access from camera angle through the editing process to the decision as to whether it will be shown. Film edits the experience of others for you. With videotape on the other hand, you can pre-edit your own experience simply by setting down your script on audio tape and following it in front of a camera. Film is the packaging of information in cans. Videotape involves the feeding back of process. Film rips information away from a situation for use elsewhere. Videotape can feedback into a given situation and enrich experience. Film extends man as a spectator. Videotape extends man as a cybernator. Film imports information. Videotape implodes indigenous data and works with the raw, the uncooked data—the "static" of the surround. In the cauldron of a cabled culture this kind of data could be more exciting than moon rocks. It should be said that cabled cultivation of local culture can only proceed through a process of creative destruction. We do not yet understand the information contours of culture well enough to cybernate smoothly. In this condition, raw data is dada.

Talk of the wired white world given the realities of cable is somehow reminiscent of the political realism of Snow White and the Seven Dwarfs. Concern with cable is concern with the art of the possible. Those of the interface generation between the establishment and the new youth who try to put portable videotape in the hands of students will soon find themselves accused of running guns to the Indians. Harold Innis, a mentor of McLuhan with a sense of political realism, saw social change as the result of the disenfranchised groups (in this case youth) trying to gain control of the new communications media and thereby gain a form of social power. Providing high school students with portable videotape is like providing David with a slingshot. **The broadcaster armor of the communications giants seems even less vulnerable than was Goliath. Yet anyone who has experimented with portable videotape equipment knows instantly that the potentials of television have hardly been touched. Perhaps nothing that is really television will happen with television until those who were raised on it gain control of it.**

New media like Cable TV mean opportunity, not inevitability. The power gap opened up by this new media has attracted a host of contending parties and opened up a number of tricky questions. Educators who decide to enter the cable arena will soon find themselves involved with local politicians, media barons, venture capital, the FCC, Supreme Court, Congress, copyright, lawyers, broadcast interests, computers that want to talk to other computers over cable, the possibility of a two-way system, the Joint Council on Educational Telecommunications wanting twenty percent of cable capacity for education, questions of local advertising, franchise questions . . .

This much seems clear. There is a natural alliance between the TV generation, those educators and others who understand something of the implications of being raised on TV, and the cable television industry. From the side of the educator there are a number of difficulties with such an alliance:

Many of the franchises negotiated by the town fathers contain unimaginative, token provisions for education. The cable companies will have to be willing to give on this.

Practically all of the possibilities I have talked about here are based on the use of portable half-inch videotape equipment and to a lesser extent super eight film and audiotape. The industry generally is adopting a one inch format which confines it to studio and mobile van production. Formulas will have to be worked out for transfer of half to inch, and direct use of half inch. There is also a question of the quality of the image yielded by half inch. Standardization of line resolution for cable seems to me unnecessary. If the image is stable, it should be allowed. To make the definition of the image uniform would be as senseless as making the comic strips in the Sunday funnies of uniform definition.

The ethical code of the National Cable Television Association reveals they have done little thinking about the TV generation. They conceive of their responsibility toward youth in terms of providing the "right kind" of information and withholding the "wrong kind" of information. Educators will have to show the cable industry the critical necessity for a systems approach to the needs of the young rather than a content approach. Part of this dialogue need be the critical discussion of the feasibility of and possible ways of implementing a two-way system.

The world of white information and the outcome of contentions over cable seems far away. Yet when we realize that a child born this year will be 30 in the year 2000, these concerns become critical. We need offer the young multiple means of processing information, not load them down with the opprobrium of obsolete content.

Both the FCC and the cable industry want cablecasting. Given the right combination of circumstances, portable videotape, cable availability, and the will to do, educators may well declare themselves fed up with the overcooked, cafeteria style curriculum, and go roll in the raw data of the seventies.

Edited revision of article published and copyrighted by *Media and Methods*, Oct. '69.



FEEDBACK

VIDEOFREEX

The **VIDEOFREEX** are involved in television technically and artistically, intellectually and emotionally. Technical labors bring us together. We are in a web of video/audio energy flows. We are caught in the act of electronic fucking. And we sure like to fuck. Contact us at 98 Prince Street, NYC.

NYC



PEOPLE'S VIDEO THEATRE

PEOPLE'S VIDEO THEATRE, an alternative news media, has six objectives:

- 1) to become a model for other community video theatres,
- 2) to provide the people of the community a medium for exposing their goods, services and ideas,
- 3) to introduce and develop video journalism,
- 4) to provide a public video studio which can be used by acting groups, dancers, therapists, political groups, etc.,
- 5) to stimulate community dialogue through the Live-Forum,
- 6) to establish a video library for use by videologists.

Our weekly shows will touch on local, "neighborhood", city and national news and include features on cultural and scientific activities.

The Live-Forum will expose and involve our audiences in controversial issues inviting them to express their views on tape. Contact us at (212) 691-3254, NYC.

ELLIOT GLASS
KEN MARSH

DIAL ACCESS VIDEOTAPE TV

Dial Access Videotape TV—West Hartford, Conn. School System—Van Ftergiotis

ENVIRONMENTAL CINEMAS

730 Yonge St., Suite 217
Toronto, Canada

TORONTO

EAT

EAT wants to set up a videolab for people experimenting with videotape... to generate video inter-communication. Contact **Robert Whitman**, **EAT**, 235 Park Ave. So., NYC.



Sony ECM-22 cartiod-condensor (directional) microphone \$100.00 being used successfully by Pablo Ferro, Raindance, and Videofreex with portable video equipment

VIDEO WORKSHOP AMSTERDAM

... I have started a video workshop in Amsterdam, having turned Sony on enough to see us through the first month with loan of equipment, which will allow us to earn enough monies to get a basic workable set of videocorder, playback, etc.

... We are working on the bread line for the time being, but seem to be getting many video heads together... VPRO television is very interested in our work and experiments; they as an independent TV company have to pay vast sums for making an evening's programming at/through the state-owned-run studios of the mother company.

By the twenty-ninth of May we shall have two to three tapes for the beginning of an exchange service with other video people... Would you please be kind enough to let people know of us... we are working on 626 1/2", which could be copied to your systems...

... video workshop offers an alternative work/viewing situation to that of modern television. The techniques might be evolved under the same technical limitations, but the concept is that of a new movement of "video heads." One of its ambitions is to decentralize and have a re-birth of television from its accepted form, to a more communicative sense of the medium.

That sense which will give us the realm of experience which can only be achieved through "seeing" not only in one's mind's eye, but on the feedback of the television screen. The accepted form of television is far too padded within entertainment which feeds the masses, not as a communication, but rather as a passive entertainment... why be indoctrinated by broadcasts which feed you what they think you ought to see with no alternative...

We need you, because we want to know you...

Contact **JOE PAT**, **GJALT WALSTRA**, tel. 270015. Workshop Keizers-gracht 717, tel. 65417.

MINERVA

MINERVA, a participatory technology system—multiple input network for evaluating reaction, votes, and attitudes—Amitai Etzioni, Center for Policy Research, 423 West 118th St., New York, N.Y. 10027.

ANT FARM

ANT FARM designs and constructs inflatables, mostly in California. They have some tape of themselves and are putting together a tape on how to do your own inflatable.

Raindance Corporation

RAINDANCE CORPORATION is setting up a video information network which will be as highly accessible as possible—i.e. Alternate Television: two-way, interactive, decentralized.

We believe the culture needs new information structures, not just improved content pumped through existing ones, NYC.

NYC

C.T. Lui of CTL Electronics
86 West Broadway
NYC, N.Y. 10007
212-233-0754
offers free technical information on video & technical innovation in video. He has designed & built colorizers, gen-lock systems & has modified effects generators for specialized use

GLOBAL VILLAGE

... **Global Village** is developing the electronics of shared experiences by creating a total video environment. We are videotaping relevant political events and people and kinetic compositions and presenting them in a visual counterpoint on 9 TV monitors. What emerges is a matrix of politics, morals and sounds of a generation. A refracted image of our time is created: Nixon on 3 monitors; Abbie Hoffman on 5 monitors; and Mick Jagger singing "You Can't Always Get What You Want" on 1 monitor; and wham—an implosion and you are actually feeling the ambiance of a point in time. Technically, this is achieved through the use of 14 possible output channels in contrast to commercial TV's single output channel.

Global Village is instantaneous feedback—it becomes the visual counterpart to the underground newspapers in one sense and yet goes beyond that. The **Global Village** presentation is always changing and moving forward. We move through time and space to chronicle the assassination of RFK, Woodstock, Nixon's Vietnamization speech, the Chicago Conspiracy, the Panther march to Queens, the LA police riots, the student strikes and demonstrations in Washington. We orchestrate these image inputs from performance to performance to give a sense of the ongoing violence, waste, pollution, and emotion of this society. We hope to move to a point where **Global Village** is open 24 hours a day, 7 days a week to offer people a continuous video immediacy of news and kinetics.

The low cost and portability of the 1/2 inch TV equipment gives the necessary freedom to break the hold of the large and expensive networks and studios. We can send out people to tape these events that may remain unnoticed by commercial TV but are necessary pieces to catalogue the radical movement. Censorship has not yet touched this medium. When the power of the medium is realized, undoubtedly new and repressive laws will be enacted. This kind of communication will have to be illegal in the present order of things.

... We would have a medium that would not only unite us from coast to coast, but from continent to continent. This possibility is becoming a reality. A second **Global Village** will open in NYC in the beginning of June; a third **Global Village** will open in Boston at the end of August...

The radicalization of the television image requires junking the present comic book medium we know as broadcast TV in America. Through a multi-channel, multi-sensory experience of video and kinetics we are triggering an overload. Energy can be transmitted in many ways and in many yet-to-be discovered forms—no telling how far it can travel. **JOHN REILLY** and **RUDI STERN**. Contact us at 454 Broome St., NYC 10012.

STUDENTS

Students at the State University of New York in Binghamton are receiving expense money to document their environments with portable VT cameras. The program is less than a half-year old and will expand to a university network in the fall. Tapes produced include anti-war demonstrations in Washington and Buffalo, and a portrait of two teen-age junkies shooting up in New York City while imploring the cameraman not to do likewise.

BINGHAMTON, NY
RALPH HOCKING

RICHARD KLETTER SHELLEY SURPIN ALLEN RUCKER

... organizing a high school video project for the Portola Institute.

PALO ALTO, CALIFORNIA

Remember I was a battery of tape recorders at the door—Departed have left spectators involved—Good night under surges of silence since the recorders and movies in this point have failed—It will readily be seen beside you a man walks through screen—The exhibition reflected dominion dwindling—Photo flakes fell in swirls on our ticket—sound identity fading out—light travel—In this point many a one has failed—courage to go deeper and deeper into the blue—ebbing carbon dioxide—last terrace of the garden—Isn't time is there left? halves of the human organism to give you?

WILLIAM BURROUGHS, *The Ticket that Exploded*

BRIAN WOOD

a newsletter should get people together and be as non-verbal as possible . .

I have been researching and developing the possibilities of the electronic camera and magnetic recording equipment since early 1968. This work is being carried out in the technical facilities of Bavarian television, Munich, on a freelance basis. One of the first results of the search through video space was the "mandala" design which led me among other things to pursue the notion of artificial imagery. My current work phase, together with Dieter Waechter, technician, is the integration of artificial + live signals in color. The hardware systems have become fairly complex: we have established a videolaboratory but are still dependent upon normal production facilities for recording which means that a lag is developing between control and application. A recent video session with Dimitrius Boyksen was the first real jam we have attempted where two people are controlling variables of the same signal—it was erotic. The equipment we use has been written off in most cases but is in good condition. I don't feel the need for special devices at the present time.

MUNICH

PAUL RYAN

VT is not TV. Videotape is TV flipped into itself. Television has to do with transmitting information over a distance. Videotape has to do with infolding information—feedback.

R. BUCKMINSTER FULLER

We must do away with the absolutely specious notion that everybody has to earn a living. It is a fact today that one in ten thousand of us can make a technological breakthrough capable of supporting all the rest. The youth of today are absolutely right in recognizing this nonsense of earning a living. We keep inventing jobs because of this false idea that everybody has to be employed at some kind of drudgery because, according to Malthusian-Darwinian theory, he must justify his right to exist. So we have inspectors of inspectors and people making instruments for inspectors to inspect inspectors. The true business of people should be to go back to school and think about whatever it was they were thinking about before somebody came along and told them they had to earn a living.

FULLER

CARBONDALE, ILLINOIS

HOWARD JUNKER

... Now I'm associate producer of a weekly half hour "magazine." I'm going under the assumption that one trouble with TV is that it has been a closed circuit. There was no way for the people to get into it. (As in "The Whole World is Watching," everybody wants to get on TV, somehow . . .) Hopefully phonovision will change that. So will home TV and library TV (see also my New Republic piece, Jan. '68). Now I'm trying to open up to artists and others—let material come from outside. Let people who have something they want to do on or with television, do it . . .

KPIX

SAN FRANCISCO

JOE WEINTRAUB

My work with video grew out of a desire to build a better Color Organ. The Color Cathode Ray Tube is the best visual output for music—indefinitely better than colored lights. My AC/TV (Audio Controlled Color Television) uses an audio input to control five characteristics of the visual output of a conventional color TV. The three colors, red, blue and green, are controlled by low, middle and high audio frequencies, respectively. Base controls the horizontal size of the pattern, and treble controls the verticle size.

The current AC/TV is wired directly into the TV chassis. I am now working on an RF version which would simply clip on to the TV antenna.

I am also stepping outside of video to audio-control a three dimensional structure, for the Ferrofluidics Corp., which manufactures the first magnetic liquid available. At \$485 a cubic centimeter, it is not likely to become a popular artistic medium, despite its enormous possibilities.

NYC

PHIL GIETZEN

OUR COMMUNICATION NETWORK must be used as a tool of environmental education.

SAN FRANCISCO

PETER SORENSON

SHADY, NY

Having a round screen lets one forget that he is watching television.

I built a featureless black cube for a cabinet with a 24" full circle screen. I like to think that it is reminiscent of the monolith in 2001. Having a round screen lets one forget that he is watching a television . . . (I forgot to say that reception is not used at all.) The effect is more successful than I had hoped. The slowly shifting whisps of color seem no longer to be confined within their frame.

ERIC SIEGEL

SAN FRANCISCO

"I'll reject anything that's shoved down my throat even if it's going to save my life."

It is now time to introduce myself. I have been using television for about 10 years to help express myself to you. I've added many new innovations since the old image Orthicon days. All this hardware sometimes gets me down. So much shit to carry around. One idea could take a year to materialize. The physical manifestation of an idea—physical reality can't keep up with the present flow of information. The only thing we can do is try to develop the medium which will be able to keep up with the Change. It will have to be television—someday we will need instant information. Please see my tapes and what I do.

Biography: Eric Siegel

July 1944 I was born.

In 1950 I started to watch television at the age of 6 years old.

April 1959 at the age of 14 made a television.

April 1960 at the age of 16 was awarded second prize at the twenty-third school science fair of the American Institute of the City of New York for "Color through Black and White TV."

In 1962 I went to school and played with my equipment . . .

In 1963 I did unusual experiments with television and was having difficulties with the draft.

In 1964 I was 19 years old and took my first job fixing TV cameras, modifying them and designing unusual television equipment including videotape . . .

In 1966 I went to England and worked for the University of London Goldsmiths College.

In 1967 at the age of 22 did experiments with videotape and video effects.

In 1968 turned on "Psychodelivision" my first videotape shown in the public and also participated in the Buirge-Boutourline "televanilla" improvisational theater dance piece, as the television effects artist.

In 1969 I exhibited my videotape experiments at th. Howard Wise Gallery in the show "TV as a Creative Medium" along with other artists. After the show I went to Europe.

In 1970 returned to the states, worked on a special project with CBS-TV, New York which is still pending, and exhibited at the "Vision and Television" show, Brandeis University, entitled "Body, Mind and Video."

Now preparing to market colorizer and processing amplifier of own design for \$2000.

FRANK CAVESTANI

Mango Productions

d. EVR, I feel, may effect videotape more than videotape itself, because it deals with a product. When anyone can buy a 50 minute cassette of EVR tape like a record album, the possibilities of what you might show are great. There is, however, a very scary aspect to videotape, for as you know many people use it first for observation—spying, watching. I personally am not scared (paranoid) of being watched, but there is an overall sense of dehumanization about it all. This must be thought of by the people involved; we must continue to touch each other, and not function simply as observers.

TV I feel has the possibility of educating the world. The man of the future who doesn't know how to operate a camera will be thought of as an illiterate. Schools should function like sensitivity groups, and subjects like math, chemistry and physics should be learned at home with the help of EVR-TV cassettes (or their equivalent).

NYC

Producer-writer of a television special show casing the music scene in San Francisco and including pop turn "O Happy Day" by Dorothy Morrison and recording artists Mad River, Lamb, and James E. Smith, each performing one set. (Tapes available for viewing)

Associate Producer of a transcontinental telephone seminar between Bishop James Pike, Ted Mills Institute, Marshall McLuhan and Alan Watts, videotaped on Mr. Watts' house boat in Sausalito, Calif. (Tapes available for viewing)

GENE YOUNGBLOOD

LA

By 1972 no geographical area of the world will be without access to communications satellites.

I began working with video in '67 almost by accident. I bought an antique RCA color receiver for \$30 just to play around with. The first thing I did was to play with the existing controls and use a magnet (I had no knowledge of anyone working with tv at the time). I made a remote control panel for the color gun controls and switches that activated turntables carrying magnets. I would "paint" a magnetic image on the screen and then sit back and play variations on the theme using the remotes. I did this for months before I saw one of Nam June Paik's tvs at the Wise Gallery. I was disappointed that I had been beaten to the punch, and so I just continued for the amusement of myself and friends. It became quite a hobby. I used all kinds of tricks with projectors as well as experimenting with oscilloscope techniques and some failures with b+w tv. About this time (early 68) I met Eric Siegel and we immediately became friends and started working together on his tape experiments. The idea was that I was an artist who knew a little about electronics and he was an engineer who knew a little about art. Actually he didn't need much help but at times he needed a little encouragement. He usually didn't need any of that either. But we were both very broke and scavenging parts from discarded radios and all we ate was pizza. Finally we got to show our tape at the Channel One theater but only three people responded to our ad in the Voice and we couldn't afford to keep advertising and so the show closed. Channel One was not very kind to us, either.

... there are now more TV sets in America than bathtubs. There are more radios in America than people. Although 75 percent of Japanese households have television sets, statistics show only 35 percent have running water and fewer than 10 percent have flush sanitation. Some 40 percent of American children have one or more meals at the TV set . . . Television reaches all but 3 percent of the American people (and this is a statistic taken from 1962). In June, 1967, the first international satellite TV show with hook-ups in 26 nations was broadcast "live."

Reprinted from *Take One*, vol. 2, no. 3.

STAN VANDERBEEK

d. What do you predict for the future of videotape and TV?

LOREN SEARS

d: future: TV will change its appearance; I doubt if it will soon change its level of appeal. Equipment development will still be determined by the big money markets, though that pressure will mean more, better, cheaper stuff all around. It still takes a million \$\$ to get a color system off the ground. Somewhere, on the heels of these changes, however, an artist may find it easier to slip into the facilities which we only now dream of. Enlightenment is a long way off.

FOREST KNOLLS, CALIFORNIA

b. What experiments have you made, are you presently making, and do you plan to make with this medium?

2b. I've worked with everything from broadcast studio equipment, live camera/studio stuff, for experimentation as well as for broadcast, pure film mixing via video, multi-channel videotape mixing, to closed circuit, both professional and unprofessional quality machinery, and even just a camera and my own TV set. I have made some plans to build non-existent circuitry and redesign existing stuff into a sort of video synthesizer/mixer of grand proportions but the basic circuitry has never been available (or \$\$) to do any more than that with it. I would like, for the immediate present, to continue working with multi-channel and film mixing—everything else being so inadequately designed for yet.

FRED BARZYK

BOSTON
WGBH

b. I have made experiments in the *Mr. Silver* series, *Medium is the Medium*, the *Rockefeller Artists* project and *America, Inc.* of both technological and conceptual nature. At present, I am not involved in any experiments but have submitted a proposal for a national double-channel experiment involving both Public and commercial networks.

VINCENT GIULIANO

BUFFALO, NY

b. There are a large number of activities in which I am involved in making videotapes and using this medium. I am currently teaching the second semester of a 2-semester videotape workshop course, training some 18 students in the advanced use of this medium. I have also sponsored a number of ad hoc video training workshops, and have worked with it in a variety of other ways. **Vincent Giuliano**, Director Center for Information Research, Faculty of Engineering, State University of N.Y. at Buffalo.

STAN VANDERBEEK

BOSTON WGBH

... as a painter I began to turn from the "object" tradition (and the museum tradition on which it is based...) turning from the real world... so to speak... to the illusory world, so to speak... I want to paint with light, virtual images, the magic of projected images, and explore the sense of photo-reality, the new undefined visual language of movies. In the future scale of world order it is perfectly clear that entirely new visual techniques, symbols, languages, media, must be explored so that the dialogue that the individual man has with the sense of life and with his work can enter into world-wide dialogue with other individuals or other world-wide cultures. I believe the over-haul in symbolic form from the dadaist's to 13 channel data is just beginning! My particular work deals with the building of a proto-type-cineman-space-stage... a magic theatre (called a Movie-Drome) in which the audience will ultimately be able to control a considerable amount of the audio-visual presentation (the audience lies down at the outer edge of the dome so that the field of view for each person is the dome-screen). In the problem of environment and "aesthetic-logistics" it seems to me that it is becoming more and more a problem of "libraries"... In the case of movies image storage and retrieval, when and where we need them and want them in our lives... In theatres of this dome type I envision in the future simplified image storage and retrieval systems, not to mention new image and graphic generating techniques—(via computer and videotape... at which an artist will "perform" an image concept by instant selection plus image interplay... this could also be an "information concert"... (with literal and factual information in a very compact and intense form) we have turned a corner with film and TV when images can now be treated in much the same way that music is... endlessly and variable and dynamic... stored, and in motion... for instant recall...

... we are now going through a reordering of our visual semantics... outlook-insight and information absorbing process... instant electric libraries...

... teaching as a "performance". The theatre of "life" motion pictures as an experience machine, a possible way to replace "war" games with "peace" games...

... in the present media-mix, man as a metaphor... does not recognize man... we are entering an era of "approximate art" (note here the word "happening" has entered our life, a work-symbol standing for a series of events, about which the outcome is not predictable. the experiment that often ends up as a disposable work of art...)

... it is very important that art and life... interact and keep the social process self-conscious. we are entering an era of disposable art... synthetic media

As an artist I'm mainly interested in creating artistic works with the medium, however my background winds up getting me interested in fiddling with hybrid circuitry, though that is not a main purpose.

LOREN SEARS

Overall concepts??? well, video is basically a time base ("real time") medium. That is, either for input and/or output yr dependent on recorders which don't do nothing unless they're moving. And they must be moving for some awkward length of time in order to "lock in" to sync, etc. So yr fighting the machinery if you stop the god damn things. The moral then is "keep things rolling." Work from end to end of your videotape piece, don't stop for edits but work in multiple passes. This enables one to pay more attention to the overall trajectory of things, keeps a lot of the tedious operations out of the way of "creative" attentions, and gets more done in less time. This is perhaps a distillation of my experiences in union-controlled studios where any set-up change takes too much time and difficult communication is made impossible by having to work through disinterested technicians, etc. But has also something to do with my basic concern with the musicality of the medium. (It ain't a discrete process like film, even the eventual screen "picture" is never still and besides it ain't a "picture"). I have perhaps over exaggerated this last aspect but feel video is most importantly a process into which you insert your own physiology, that already the "referential" mode has subsided and the persistent use of that by tv-film productions, stage shows, etc., IS what puts anyone to sleep when watching, that the "objectivity" of the screen is the thing, where a real chance exists, what with all this magic of electronics, to have some real visions, the color/photoelectric gizmo there in the room is what yr watching, and it's performance is what you see and a picture-of-whatever couldn't matter less. I find most all professional people ignorant of any aspect of video other than it's unfortunate picture-making capabilities. Books and snap-shots.

1. I am using video as part of the instructional program in the School of Information and Library Studies: (1) to facilitate teaching of courses, and (2) to facilitate the training of future information specialists, communications specialists and librarians in the use of what relatively inexpensive video equipment, basically as another tool for communications; (3) I am also concerned with the production of artistic videotape programs, and (4) in the use of this medium for having impact on the library and information science professions of which I am a member. This has been going on for two and a half years.

h. Some of the information I would like to obtain from other people who are experimenting with videotape in the United States and other places is "what is the job market for people who are trained in this medium." Very specifically, if we give Master's degrees in Media Communications with emphasis on the production of videotape, will these people be able to secure professional-grade jobs and if so where.

f. I recommend everyone on the American continent use the International Video Corp. (IVC), 1" videotape recorder, any model they wish, and the Shibaden ½" videotape equipment for economy set-ups. These will be standards for the new television exchange. We must all use the same equipment—the ones stated are the best made now and hopefully in the future.

ERIC SIEGEL

We are using Phillip's Plumbicon cameras and switcher, Miratel monitors and scope, Sony monitors on the cameras, an Ampex 5100 VTR and a Telebeam for projection. We own the VTR, Telebeam and some body braces for the cameras. When we put together another system we may not use Miratel equipment. However, everything else performs beautifully.

RICK STERNBERG

and artificial intelligence... social consciousness without decisions... (Levittown) social decisions without consciousness... (Detroit and Newark riots)... we confront the prospect of the "artificial man"... the "disposable" man... the dilemma of leisure...

... artificial intelligence and the rise of the computer... (The computer has been with us approximately 15 years... only in the year 1968 did it equal and pass the human brain's capacity for decision making... something over the order of 100,000 decisions a second...)

computers which will take over more of our conscious decisions... will completely change our information processing, making us less "conscious" by giving us more "decision energy"

... how will we make use of this new and extra decision energy, spare time and graphic possibilities...???

... it should make for the flowering of a mass, personal art, instant culture and incredibly subtle feedback situations... interplay techniques for man and machine... man-machine-dialogue... a culture-intercom...

... a flowering of a new technological art... a direction America is going anyway... (6 percent of the world's population has 50 percent of the world's phones...)

Reprinted from *Take One*, Sept. 28, 1969, vol 2, no. 3, pp. 16-17.

RICK STERNBERG

b. We've experimented with various methods of covering live events, attempting to achieve fluidity of camera movements (with new configurations of inexpensive equipment) and with new methods of displaying our product.

1. My educational background is in TV with a degree from Syracuse University. Since school ('66) I've been involved more in film production than video. I've done several short theatrical films and some industrial work. I've worked as a still photographer (freelance and for a fashion studio studio), and for NBC in the film department. The last job I had, before forming Vidification, Inc., was with Reeves Actron where for the first time I became very interested in video.

2.a. Up to that time my one experience with the medium was as a student in a commercially oriented TV Department and as a viewer of the shit on the air. I was pretty turned off by both. While at Actron, I got interested in live closed circuit TV and began to perceive video as a medium for a group experience (rather than an individual sitting before his set at home). Also at Actron, I met Larry VanPraag who was working there as an engineer. He and I later formed **Vidification, Inc., a company devoted to non-broadcast television production with a specific emphasis on large screen, live video projections.** We've been messing with this concept for about 6 months.

c. I'm rapidly moving toward the idea of the video image as a light source which can be colored, distorted, and altered to create patterns on a screen. These patterns may be representational or non-representational and generally exist as part of a total presentation. Whether the images are realistic or abstract they have one thing in common. That is the idea of visual amplification, (or video amplification, the term from which Vidification was contracted). We are amplifying some part of a visual presentation in much the same way as a P.A. system amplifies the audio part of a presentation. My experiments have involved combining projected video with other light sources. I've been working out masking techniques and ways of moving the video image so that it can be blended with a light show. I've also been developing my own simple light show to enhance our video show.

DOUGLASTON PARKWAY, NY

f. What equipment do you use? Own? Do you plan to continue to use this, or are you planning to switch to some other? Please comment on quality and efficiency of equipment now available to you.

f. I use Marconi Mark 7 color cameras and Ampex 2000 VTR's. I hope to be able to use light handheld equipment as soon as possible. The equipment I now use is of the highest professional quality.

Fred Barzyk

i. How do you think video can best be displayed publicly?

i. I find the video projecting screen the best way for the public to view it publicly. The tube is sort of a natural down trip. I mean, watching a box is just not too much fun on a large scale. Also, the captivity is lessened. I mean, people in a large group lose attention faster than with a screen. So I'm for the projector and color. I have recently seen a 2" video tape blow up to .35mm and projected on a large (movie-house) screen. That is an excellent way to watch it.

FRANK CAVESTANI

JACKIE CASSEN NYC

... exploring, through the use of the computer graphics terminals at Bell Labs, read-outs on videotape of geophysical data. Recordings are made of the geophysical disturbances in the magnetosphere caused by solar rotation. The degrees of disturbances are tabulated hourly; the data is then translated and recorded into chromatic scales of pure melody, like Bach or Palestrina, and light compositions. During the solar eclipse in March some of these compositions were broadcast during the CBS Solar Eclipse Special. At Bell Labs working with Bruce Boller of NASA and Charles Dodge of the Columbia-Princeton Electronic Music Center.

... five performances in march of a quartet based on "For the End of Time," by Olivier Messiaen, in 8 movements, with the Aeolian Chamber Music Group at one of New Jersey's regional theaters. The performance combined video projected rear screen projection over which was superimposed reflected and refracted light imagery. The video projector was an Amphicon 220.

... Throughout May performed "sun spot" music for three voices along with pieces from Bartok, Ives, Bach, with the Aeolian Chamber group.

... presently, with an initial grant from the New York State Council on the Arts, will begin videorecording various media artists, in process, their working and living. The distribution is envisioned much as records are today, with royalties going to individual artists.

TED KRAYNIK

BOSTON

... many experiments with industrial tools and materials related to creating architectural art. First artist to weld aluminum. Worked with welded musical sculptures which led to electronic musical structures: then utilization of video tube for creating music and light murals.

... presently using computers to create abstract systemic painting in motion which are turned into music electronically. I see video as a perfect tool for creating a socially relevant art needed for the approaching computerized and automated 21st century. For this I have developed the concept of Synergic art. TED KRAYNIK, MIT, Center for Advanced Visual Studies.

EVR Color Cartridge
PRICE LIST - cost of transfer
& cartridge
example: for 25 min show
(The maximum length for color
provided by EVR at present)

Quantity	cost per copy
50	\$ 36.50
100	27.20
1000	15.90

ROBERT KRAGEN

PHILADELPHIA

I would like to see hardware developed and made available to artists so that they might expand the working capabilities of television as an art form. A lot of what is needed presently exists, and only needs to be made available. The combination of a Moog synthesizer, a digitally controlled random access visual information storage system, (breath), a computer controlled visual pattern recognizer, and a laser television projector in the hands of a talented artist will create a new art medium. A project of this kind is possible right now. ROBERT KRAGEN

EVR monochrome cartridge
price list for getting your
programs transferred to set.
example: for 25 minute show

Quantity	cost per copy
50	\$ 24.30
100	18.10
1000	10.40

Mahagonny is a lavish off-Broadway production of the 1929 Bertolt Brecht-Kurt Weill masterpiece. It is previewing now in the Anderson Theatre, downtown on 2nd Avenue and is scheduled to open April 9. The United States premiere production is produced and directed by Carmen Capalbo. The original version of the play calls for a radio announcer speaking over a P.A. throughout the show. Capalbo's production uses television instead.

Vidification, Inc. was hired to set up and operate the system as well as rent some equipment to the Mahagonny Company. Here's what we're doing: We have a 9'x12' rear projection screen which flies in and out as needed. When it is it is over the downstage edge of the stage, with the bottom about 10' off the stage floor. A Telebeam projector is mounted in the back of the set, level with the screen. Our control console and one camera are in a room in the basement and two other cameras are rigged on body braces for more complete mobility (restricted only by their cables).

mahagonny

In the first and second acts we put a picture on the screen of a narrator, who introduces several scenes. We shoot him live in the basement. We also project a pre-taped weather map at the end of the first act and beginning of the second act. In the third act, in addition to the narrator, we have two cameramen integrated into the staging of the finale. Their shots are mixed and shown on the screen representing news coverage of the demonstrations which are taking place. Our interpretation, however, is not actually news but more a blending of documentary style with a ritualistic editorial point of view. The overall effect is a totally involving mixed media presentation, integrating music and movement on stage and video interpretations of that movement and music.

Our problems in this production are essentially the same as our problems when covering a concert. We need enough light to produce a good picture with as little ambient light on the screen as possible. This balance is difficult to achieve and requires very precise lighting. Here we have one added problem, however. That is, unlike concerts, where our cameramen are off stage in somewhat permanent positions, our cameramen are moving around on stage, occasionally bumping into actors and even being hit by pieces of scenery. Cables also have always have to be cleared for movement creating some monster logistic problems.

We've managed, though, to conquer the problems and for the first time use live video in a legit show. RICK STERNBERG

JOYCE WYDEN

I was introduced to videotape by Fred Stoller with whom I often co-lead groups. I've used video in groups for about one year.

In general I see the video as a marvelous educational tool. It captures both the process and the moment. It can be stopped, started and changed. It gives information via two input senses. Thus, it makes the material more meaningful and more easily learned. The possibility of recreating the emotional reaction important in growth is also increased. In addition, it allows for comparison of the message being given via the persons words and his actions by the temporary elimination of either the sound or the picture during feedback. During feedback the viewer becomes an active participant, no longer a passive recipient of information. I think this is one of the most important aspects of education. What seems to happen with children, both normal and those with special problems, is that they focus on themselves and feel "in charge" rather than feeling dependent and fighting an external authority.

I'm especially interested in the use of multiple pictures simultaneously viewed on the screen when my aim is to develop a concept in contrast to a single linear fact. JOYCE WYDEN, at 56 West 11 St., NYC.

HARVEY SIMONS

NYC

I'm now setting up a visual arts lab which will include the use of videotape at the Phoenix Institute (city drug addiction program). The equipment Phoenix has at present is limited consisting of only a Sony studio camera tape deck and 19" monitor. (If anyone knows where a Sony portable can be hustled at a good price or perhaps free as a tax write-off, or something, I'd be happy if they'd tell me).

Visual recognition, psychic recognition, environmental information and feedback will be explored via tape, and perhaps a documentary of the Phoenix House experience.

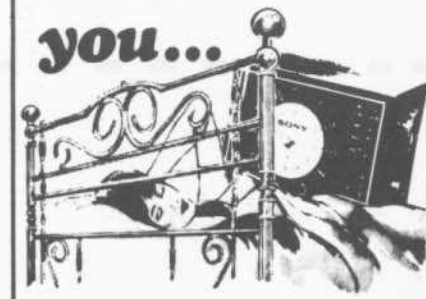
I shot some interesting tape at Hart Island (5 Phoenix Houses are there). Some Esalen type psycho-physical exercises were being conducted with 40 or so ex-addicts in training for staff positions at Phoenix house. I was on top of a twenty foot ladder shooting with a studio camera with a 30 foot long camera cable. Lots of nice "touchy, feely" shots of 20 hands zeroing in on prostrate, immobile bodies. People diving off a stage into a group of outstretched, crossed arms. And embracing... 3 circles of ten people embracing each other, in turn, in any manner that seems fit. The tapes are genuinely very spacey.

AL SCHEFFLIN

NYC

... kinesics and video ... 24 hour taping of Puerto Rican family ... Albert Einstein School of Medicine ...

Take Sony
to bed with
you...



LES LEVINE

NYC

JOHN AND MIMI'S BOOK OF LOVE is a video play of two people engaged in sexual love and discussing their sex life as they watch their own images on the television screen. "John and Mimi's Book of Love" engages the viewer in a direct confrontation openly and honestly with the physical act of lovemaking as it relates to the moral standards of marriage in the 70's. Mr. Levine feels it is valuable at this time to consider the sexual act as public information. There should be more openness towards such natural activities.

TOPESTHESIA is a series of television tapes which present the eye, mouth and hands from extreme close up points of view. "Topesthesis" is concerned with recognizing the location of stimuli as they affect body technology. In "Topesthesis" the physical senses are approached as technological systems rather than organic wonders. What we are concerned here with is not what one feels, sees, tastes or smells but how one feels, sees, tastes or smells. Most art is involved with the advancement of visual possibilities through object stimuli. Mr. Levine believes that what the senses come in contact with is of little importance. It is important that the senses work and by developing the actual technology of the senses we make it possible to be stimulated by everything and anything.

Reprinted from Press Release for the ISAACS GALLERY, 832 Yonge St., Toronto, Canada.

MARK HAWTHORNE

NYC

... largely because of videotape, I was invited to join ANTHOS, an encounter center that is being set-up here in New York, and most of the groups I have worked with (as a sort of leader/videotaper) have been there (308 East 79th St., NYC).

... in some videotape workshops—electronic encounters, with ANTHOS this spring, I will be pushing the videotape group process further. Anyone else interested in using it with encounter groups is invited to get in touch with me, to help or rap.

Saw the demonstration of Sony's new color cartridge outfit ... Big deal. It seems like a big hustle for Sony-made color movie tape cartridges so far. When they talk about "standardizing" the cartridges they mean everybody adopting theirs (3/4" tape).

FREDERICK STOLLER

ENCINO, CALIFORNIA

- Have been using videotape feedback in the group setting for about six years.
- I have been involved in a number of studies of videotape feedback in groups which will be appearing in the final two issues of Comparative Group Studies. I am currently involved in putting together a (film) illustrating the use of videotape in a marathon group session.
- I am interested in very simple, unobtrusive equipment that could, for example, work with available light, that makes little noise. I am also interested in being able to mark the tape with sound so that we could instantly identify a desired portion on rewind. For me videotape is the opportunity to capture personal and interpersonal behavior as accurately as possible and to have it available as immediately as possible.
- Insofar as its use in psychological matters are concerned, I see it being used more and more to capture behavior in its natural arena for more leisurely study, a problem that has caused psychologists to approach behavior indirectly through tests and questionnaires. I also see it being used with increasing precision and art for the training of people in behaviors which they see as desirable. The first gross application of this tool has now run its course.

- I always use a cameraman to run the equipment. This person is generally more familiar with groups than with TV. I occasionally use group members to run the camera. I interrupt the group for feedback viewing whenever I and others feel it is appropriate.
- I use half-inch Sony videotape with zoom lens. I won two of these machines. Their quality is less than perfect but then small size and general state of quiet allows me to place the equipment right in the group, an arrangement I prefer. My major complaint with equipment has been the quality of its sound. Particularly for a group I would like to have better sound without complicating the equipment. Reliability has been reasonably good.
- At the present time the most crying need is for compatibility between makes. This is a great disadvantage. I would also like to be able to transcribe from one videotape to another with less loss of fidelity.
- I would like to share ideas, particularly with people outside my own profession. It is possible that they have ideas and solutions which have not occurred to me or my colleagues. I am particularly interested in low cost, simple solutions which permit my equipment to be portable.

- This question is too complex to answer as there are too many situations to deal with.
- In my own field, the developments of videotape libraries which could be duplicated and yet did not require special equipment. I have found videotape a very inexpensive way to make certain kinds of films for instructional purposes.
- Technical information plus ideas, concepts and new gimmicks people have devised.

Articles in preparation:
with A. Dreyfuss. *The Family Workshop: a Format for Enhancing Family Experience.*
Videotape in Marathon Groups. In M.M. Berger (Ed.).
Videotape Techniques in Psychiatric Training and Treatment. New York: Brunner.
The Group Experience as Career. In A. Burton (Ed.).
Encounter. San Francisco: Jossey-Bass.
contact at 17143 Escalon Drive, Encino, Calif. 91316.

Burton Gershfield & Bruce Lane have been working with 1/2" Sony taping rock concerts (Rolling Stones, Hendrix-possibly) & Ken Kesey's Bus + more. Durt can be reached at 213-463-2514 & has been trying to get a rock-youth-alternate culture TV station together. Bruce can be reached through the American Film Institute 501 Doheny Rd Beverly Hills 213-278-8777

