Open Circuits: Art at the Beginning of the Electronic Age will bring together and exhibit for the first time the international TV/Art movement, including experimental work created by artists working both by themselves (with portable videotape equipment) and in concert with innovative TV producers and stations. Open Circuits will also be the first thoroughly electronic exhibition ever hosted by a major museum. The contents of the exhibition—including sections devoted to the history of television and to its future potential—will be recorded and edited on videotape at WGHH-TV in Boston. It will then be projected beyond the walls of the museum into the community, over the "public access" channels currently provided in Manhattan by the Teleprompter and Sterling Manhattan systems.

The exhibition itself will be six hours in length and cycle continuously, both on the cable system and at the miseum.* The installation at the miseum will be a bank of 100 color and black-white monitors, carrying the same content as the cable stations carry outside. The viewer will be able to select what he wishes to view (and when he wants to visit the miseum) by a program schedule. In addition, there will be a large eidophore screen set up in an adjacent room, 9x12' in size, which will cycle continuously a 30-minute anthology of the six-hour exhibition. Needless to say, the miseum will be able to circulate this exhibition to other miseums around the world.

In addition, Open Circuits will bring together in conference, during the exhibition, also for the first time, participants in the video renaissance from all points in the spectrum—artists, critics, philosophers, educators, politicians, and broadcasters. The object of the conference will be to present papers and discuss the esthetic potential of a medium that is currently undergoing major structural changes. The participants could include people like James Day, Dr. Frank Stanton, Lewis Mumford, Nicholas Johnson, Brice Howard, and many of the artists represented in the exhibition.

Issued with the exhibition and with the conference will be a 300page catalogue documenting and illustrating the works shown in the exhibition and prefaced by essays (some of them to be read at the conference) on the growth of television as an art form independent of theater, film, and allied areas.

The organizers of Open Circuits are Fred Barzyk, Gerald O'Grady, and Douglas Davis.

*An exhaustive list of the contents of the exhibition is available in the pages of our original proposal to the Museum.

OPEN CIRCUITS

A Note of Explanation

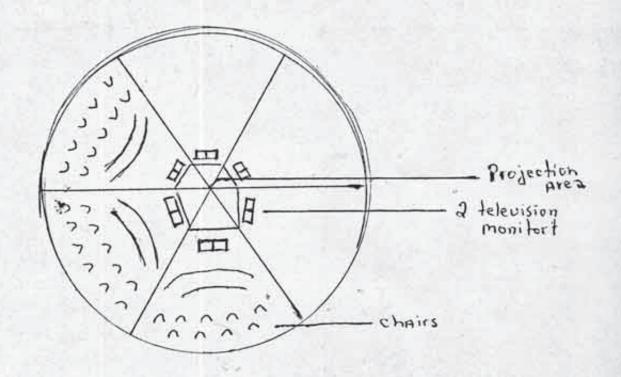
All technologies are in the process of dynamic changes, most dramatically in the medium of television. There is new equipment on the market daily, and the market itself is constantly changing. Because of these facts, it is possible only to make sophisticated guesses at this point about the OPEN CIRCUITS exhibition, projected for 1973-74. What follows in these few pages is an attempt to list all the elements to be included, to affix a budget, and to indicate, briefly, the style of the presentation.

We have received real and substantial encouragement with respect to this project from a number of interested people and organizations: Chloe Aaron of the National Endowment on the Humanities, WGBH-Boston, WNET-New York, KQED-San Francisco, the Ford Foundation, the Rockefeller Foundation and Videotape Productions, Inc.

OPEN CIRCUITS

The Exhibition

Taking advantage of the space available, we hope to construct simple, intimate, comfortable "viewing areas". In a superstructure of a dome, pie shaped rooms would radiate from a central projection control area.

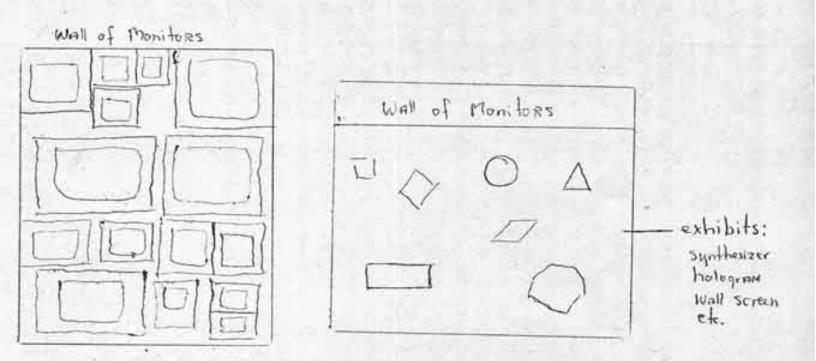


In each of these rooms, there will be two high quality color monitors and several small speakers distributed among the chairs on the rug-covered floors. This intimate design will allow for casual seating for as many as 25 people per room. The speaker arrangement will permit maximum audibility with minimum interference between the cubictes. Each "viewing area" will be programmed differently in cycles that will allow a viewer selective viewing within a limited amount of time. Outside each cubicle a black and white monitor will display the upcoming programmed schedule.

The controls for the display monitors and the playback area

for all the monitors would be in the center area. Here a single technician could run the various tapes for all "viewing areas". Using the most sophisticated equipment available (monitors and cassette playback units) the operation should be simple enough to be operated by one person, similar to the economics of the multicinema complexes in operation across the country. There should be two monitors per room to allow for "double channel" experiments.

In another area we would set up a "video gallery" and "future room".



One wall would be completely covered with monitors of all sizes and shapes, black and white and color. These monitors would be connected to telephone lines from a cable television system. Displayed would be a never-ending collection of video programming, ranging from helical to broadcast experiments. Surrounding this "video gallery" would be the environmental art-information television room - a collection of the tools of the future: synthesizers, holograms, wall screens and so forth. Some of this equipment would be actual, some would be implied. This is a room to move in, view and study. The wall will take on its own design and act as an electronic background

for the tools of the future.

The Acquisition and Editing of Tapes

In the near future, through posters, flyers, mail and word of mouth a world-wide request for material would be initiated. As the tapes are received for the OPEN CIRCUITS exhibition they will be catalogues and the proper releases obtained (N.B. WGBH in Boston has offered this service including an IBM inventory, storage area, insurance, etc. at cost). The process of viewing and selection would take place resulting in decisions upon editing and program order. Three separate tapes would then be made:

- 8 hours of selected programming on l-inch tapes for broadcast by cable television. This would be run during the entire exhibition and would be avaliable for a travelling exhibit as well. At the museum it would be fed to the "video gallery".
- 2. A half hour of selected "highlights" taken from the eight hours referred to above. This tape, edited on two-inch videotape, would be available for broadcast and theatrical release. It would be the showcase for the exhibition.
- 3. A group of color cassette tapes containing the full 8 hours of selected material and all other material which seems appropriate. These would be played in the "viewing areas".

At the close of the exhibition, all tapes would be returned to the paritcipating members, and the edited tapes would become the possessions of the Musuem. Premises: Television is the most powerful instrument of communication ever devised. It reaches into the living room, watches the Earth, and extends into space. Linked with the computer, it provides instant information. Linked with the telephone, it provides instant visual contact. Television no longer depicts nature: Television is nature. It is the most important medium yet to challenge the artist, the writer, the journalist, the educator; the thinker. As a tool, it will surpass the book and the film.

At first this tool was so costly to manufacture and maintain that access to it was available only for those willing to pay in kind-- by creating mass audience programming. With a few hybrid exceptions, access was denied those whose vision was private, difficult to understand, or based in specialized, alternative knowledge/information.

Technological change has revised the economics of Television; the old inpasse is yielding to new facts. Access to the tool
is far less expensive than before. The onset of Cable and Cartridge
TV multiplies the number of creative outlets immeasurably. The cartridge in particular personalizes Television, enabling each man to
make his own choice as to what he will "play" on his set. Specialized
TV audiences, like the audiences for specialized books and esoteric
art, are now possible. There is no necessity now to program only for
the mass audience.

At the very moment that these technological changes were beginning to manifest themselves, esthetic change paralleled them—in fine, a determination on the part of visual and plastic artists to use methods, materials, and knowledge drawn from contemporary technology. Aided by the new availability of videotape cameras and recorders, together with the sympathetic collaboration of a few isolated TV stations, financed in part by grants from the Ford and Rockefeller Foundations, these artists have already created a body of work in the past few years that thoroughly revolutionizes the old concept of TV programming. TV is no longer a simulated film or play; TV is finding its own unique form: TV is now electronic art.

To date these experiments, though carried out on an international level, and accompanied by an equally important surge of interest (among writers, "underground" news journalists, and ethnic minorities) in Television as a means of recording, documenting, and passing on "alternative" news and information to specialized audiences, have never been brought together. There has been no opportunity to see their work as part of any coherent whole. There has been no chance for creative minds, working in physical isolation, to meet with and stimulate each other.

* The title is borrowed from Nam June Paik, the artist who pioneered the use of Television hardware as an artistic medium. In a 1966 manifesto, he declared, with regard to the potential of electronics as a means of personalizing and humanizing communication: "We are in open circuits."

Developments are too rapid to permit delay. Cassettes and cartridges are upon us. Flat, wall-sized screens are a year away. Liquid crystal picture tubes, perhaps two years. A laser broadcast system is a definite possibility (it has been predicted by Bell Laboratories within the month), affording many times the TV channels we already have for both "live" programming and person-to-person communication. Three-dimentional TV is ahead. Odors. Touch. This exhibition is more than an exhibition: it is a necessity: it is a way of opening and modulating the TV structure at its most fluid and impressionable moment....

From the standpoint of the medium involved—and the artist's opportunity to reach society through it—<u>Open Circuits</u> could affect the direction of art as profoundly as either the 1913 Armory show or <u>Nine Evenings</u>. This exhibition will call to the attention of a wide audience, many of them artists, the potential implicit in the new Television structure. It will promote new beginnings. It will instill new standards of excellence and imagination. It may very well affect technology, too. Most of all, the exhibition will accelerate a development that even now is humanizing Television, rendering it more flexible, more responsive to our needs, and, finally, more receptive to divergent visions and ideas....

The museum, now, has an obligation to concern itself with the future as well as the past and the present because all these tenses are increasingly one....

CONTENTS OF THE EXHIBITION:

1. Broadcast Television: The Personal Vision in Collaboration.

Here we mean to deal basically with the present tense, with programming that has been created by artists and gifted producers at established TV stations, most of it unseen by the national and New York audience. But we plan to provide a taste of the past, too-specifically, those isolated moments in the early years of TV when the medium was recognized and dealt with as a genre in its own right, not as an imitation of the theater or film. The two best examples are the old Dave Garroway Open House shows, originating in Chicago, and the Ernie Hovacs shows, based in Philadelphia and in New York. Both men used the TV set itself, equipment included, as content, and both experimented with the camera, too, blurring, moving, and splitting the screen. These may be the first hints of "abstraction" on commercial TV.

Among the new programming will be the following:

Jazz Images, by Fred Barzyk, WGHH-TV, Boston, 1962 (possibly the first instance of sustained electronic mixing in a program format: Barzyk altered the representational TV picture in a jazz concert by means of control room switches and modulators).

Sarah Caldwell, Intoleranza, WGBH, 1966 (full-scale electronic

mixing for telecast of ballet).

Otto Piene and Aldo Tambellini, Black Gate Cologne, WDR-TV,

Cologne, West Germany (perhaps the first network TV program completely controlled and produced by artists for a large audience.)

The What's Happening, Mr. Silver? series, produced by Fred Barzyk, written by David Silver, WGBH, 1968-69 (two programs here of particular importance: Madness and Intuition, 1968, in which selection of the picture fed to the home audience was ceded in the control room to random gestures by a small studio audience, and The Double-Channel Experiment, 1968, in which for the first time the audience was requested to play two TV sets side by side, creating a live TV environment from two different videotapes created to interact with each other).

Alwin Nikolais, Limbo, WCBS-TV, 1968 (an electronic ballet created by the choreographer in the control room, mixing together pre-taped sequences of his dancers in performance with overlays of abstract

form and color) .

The Medium is The Medium, WGHH, 1968 (a major effort to demonstrate the unique esthetic properties of TV, funded by the Corporation for Public Broadcasting and produced by Fred Barzyk; six artists were allowed five minutes of time to create whatever they wished; they included Piene, Tambellini, Paik, Thomas Tadlock, Allan Kaprow, and James Seawright—the latter using the indigenous properties of the color TV camera to create a multi-image, multi-color dance piece).

Gus Solomons, Jr., City Motion Space Game, WGHH, 1968 (produced by Rick Hauser, this hour-long telecast extends the double-channel experiment by adding a stereo sound track, to be turned on and mixed

with the two TV sets).

Brice Howard, Heinskringla!, KQED-TV, San Francisco, 1969 (the first full-network drama telecast utilizing electronic mixing; a product of The Center for Experiments in Television; Howard, the producer, is the inventor of the conceptual terms "Electronic Mixing" and "Videospace").

The Dilexi Foundation Series, produced in collaboration with KQED, 1969 (thirteen artists are given complete freedom to produce a 30-minute presentation as part of a series of 13 programs, among them Walter De Maria, Andy Warhol, Ken Dewey, Ann Halprin, Julian Beck, Yvonne Rainer, Robert Nelson, and Terry Riley, with Arlo Acton).

Celebration, KQED, 1970 (a multi-channel experiment, using one UHF

and one VHF channel).

Nam June Paik, with David Atwood, producer, The 9/23 Experiment, 1969-1970 (an attempt to "synthesize" a complete program—build it, that is, on visual material created within the control room itself).

Nam June Paik, with David Atwood, producer, The Video Commune, WGBH, 1970 (an extension of 9/23, this three-hour telecast was created entirely by the Video Synthesizer, built by Paik in Japan with engineer Shuya Abe on a grant from the Rockefeller Foundation; it permits simple and spontaneous mixing of TV pictures by one man, thus completing the cycle begun by Farzyk in 1962).

Rick Hauser, Heroes, WEHH, 1970 (a unique TV documentary, mixing past and present tenses with sound track and visual overlays, in

color) .

Stan Vanderbeek, Violence Sonata, WGEH, 1970 (an hour-long live plus taped participative TV program devoted to the theme of violence).

The Boston Symphony Orchestra Experiment, WGBH, 1971 (similar to The Hedium is The Medium, this one hour show permits seven artists total control of the "videospace" while the Orchestra is playing in concert; funded in part by the National Endowment for the Arts; produced by Fred Barzyk; the artists include Jackie Cassen, Russell Connor, Douglas Davis, Paik, Seawright, and Wen Yeng Tsai).

In addition to the above, there have been a number of short, totally experimental tapes made both at WGBH and The Center for Experiments in Television at San Francisco that ought to be seen, perhaps collaged together in one thirty-minute segment. We plan to create a similar segment for TV experimentation abroad, most notably by Ingmar Bergman, working with BBC-TV; Lutz Becker, working also with the BBC; Arne Wiser at Sveriges Radio in Sweden; and a variety of programs produced at WDR-TV in Cologne, West Germany.

- 2. Personal Television: The Vision Cutside the Structure. It was impossible to create TV programming beyond the confines of the station or the network until 1965, when the first Sony videocorderscombining camera, deck, and playback monitor-appeared on the commercial market. In the United States the first "personal" tapes were made by Paik and Warhol, in that same year. Since then an imposing quantity of work has been done, mostly by individual artists working alone with the equipment, aided only by friends and amateurs, non-TV professionals, in the main. Most of these tapes are deliberately crude, made in a video verite style, and focus upon simple, intimate subjects, like facial expressions or one-to-one conversations. Artists like Les Levine, Bruce Nauman, and Keith Sonnier have used videotape in the context of gallery exhibitions to provide a visual feedback environment; their cameras record the spectator, then playback his image immediately. Other artists, like Tambellini, Tadlock, and Eric Siegel, have created videotapes of surprising visual complexity -- in the case of Tadlock and Siegel, through the use of home-made "synthesizers" that lay formal color compositions directly upon tape. Though crude, these personal tapes are of great historical importance, and we mean to select from among them basically to cover the variety of approaches to personal TV suggested by them. In addition to the artists already mentioned, our catalogue of possibilities includes Vanderbeek, Wolf Vostell, Marta Mimujin, Richard Schechner, Paul Ryan, Serge Boutouline, Boyd Mefferd, Robert Eragen, Peter Sorenson, Joe Weintraub, and Tod Kraynik.
- 3. Personal Television: TV as Message/Documentation. This is an enormously complex and important area. Those working within it are interested in TV not so much as an esthetic medium, but as a network along which—in the future—personal communication will flourish, as opposed to the mass brand presently in residence there. The causes of this change are many, from the onset of cartridges/cassettes to the proliferation of TV channels, and we do not mean

to cover them here. The potential is amply suggested by the early beginnings -- by the advent of the first videotape magazine, Boston Broadsides, Vol. 1, No. 1, 1970; by the VTR research being conducted by Jackie Cassen, via a grant from the New York State Council on the Arts (she is compiling a videotape library documenting the process involved in the early use of TV by artists); by Ken Marsh's People's Video Theater, in lower New York, where tapes of the day's neighborhood events are played back during the evening; by the complex video facilities employed at the Fort Hill Commune, in Roxbury, Massachusetts, used to tape daily life for later distribution across the country, presenting, in effect, an "alternative" life style; by the early video/news environments constructed by groups like The Global Village, The Video Freex, and the Raindance Corporation; by the Video Workshop in Amsterdam; by the documentary videotapes (of Earth Art projects) shown by Gerry Shum at the Television Gallery in Düsseldorf, West Germany; by the extensive tapes being made by Twyla Tharp and her dancers of their rehearsals, conferences, and interaction; by the "Life Systems" course currently being conducted by Allan Kaprow at the California Instutute of the Arts, during which students and outside artists will be invited to tape raw slices of their daily life for later study and comparison.

Selected tapes of the above will be shown in programmed sequence. In addition, one 30-minute segment will be held open each day for documentary/news/life systems submitted either by artists not pre-viously included or concerning the exhibition itself.

- 4. The Tool Itself: Future. The center of the exhibition. Unless we can graphically illustrate the environmental totality implicit in current TV technology and esthetics, the exhibition will be no more than a presentation of present achievements in programming. What we want to do is construct an environmental art-information TV room, not to forecast in any precise, scientific way, but to suggest possibilities through the use of the imagination. The net impact of the room will be to expand the present notion of TV as a receptacle of pre-digested images. Among the possibilities we mean to suggest are these: Videofax publication of newspapers and magazines; wrap-around wall screens; live satellite TV viewer's space; odors; TV touch systems (Video Braille); telecommand systems, linking viewer and computer and complete videotape libraries; 2-way TV system, or "open circuit," allowing viewer to interact with broadcaster. Needless to say, er expect the support and cooperation of industry in creating this room, though we intend to make all the decisions as to its contents decisions based, to repeat, in the requirements of imagination, not accurate hardware forecasting.
- 5. Installation. First, the "video gallery." Along each wall 20 to 30 different video and film cassette machines, each attached to a color monitor. The "viewing cubicles" will be separated one from another by sound proofed walls and contain their own individual headsets. All cartridges are held at a central desk with display catalogue.

Viewers request tapes/films and sign up for cubicles. Each monitor is connected to color bars (electronic quality control devices); a team of two assistants constantly adjusts machines and repairs broken video systems. At the end of the viewing gallery there are two large wall-sized screens showing pre-selected programming especially suited to scale and vibrant color, for anyone passing through the museum to see. These tapes will be played back on a Hi-band 2" videotape machine, requiring a licensed engineer.

Second, the "future room." Most of the equipment will be brand new; the manufacturers must install it with our help. The "twoway TV open circuit" requires a telephone line between the museum and Boston/San Francisco. The equipment needed on both ends is easily available through rental or loan.

- 6. Electronic TV Special Events, Happenings, Gestures, Concerts.
 We intend to invite proposals from the following and commission three: Allan Haprow, Stan Vanderbeek, Fred Barzyk (an evening of participative electronic TV mixing), Ham June Paik, Bruce Hauman, USCO, Wolf Vostell, John Cage, Heith Sonnier, Douglas Davis/Fred Pitts (TV into space-timo-the universo), Otto Piene/Aldo Tambellini, Jean Tinguely.
- 7. Electronic Conference: Ideas on the Open Circuit. Another major aspect of the exhibition, mainly because the theoreticians and the active pioneers in the development of the new TV structure have never been brought together before. We believe that the Conference should be convened world-wide; that the items for discussion should be carefully and sequentially structured; but that the "live" conference should be based on the concept of "infolding": a certain number of the discussants will be pathered together prior to the event and videotaped; these same discussants—plus new ones—will then react to what they see and hear later. In addition, there will be lived and taped imputs on the spot from abroad. It is obviously impossible to structure the participants now, for their place in this complicated Conference will be determined later, by their whereabouts and our budget. Their identies, however, are inevitable, as follows:

USA:

Barzyk-Connor-Davis (moderators)
Henry Geldzahler
David Sarnoff
William Paley or
Frank Stanton
Marshall McLuhan
Brice Howard
Micholas Johnson
Herbert Marcuse
Lewis Mumford
R. Buckminster Fuller
Stan Vanderbeek

Abroad:

Lutz Becker (UK)
John Hopkins (UK)
Ingmar Bergman (Sweden)
Arne Wiser (Sweden)
Wolf Vostell (Germany)
Karlheinz Stockhausen (Germany)
Max Croce (France)
Jacques Ellul (France)
Jacques Servan-Schreiber (France)
Rolf Ulrich-Taiser (Germany)

USA: (cont.)
Nam June Paik
Paul Ryan
Gene Youngblood
Michael Rice
David Silver
Paul McCarthy
Otto Piene
John Cage
Rick Hauser
James Day

8. Catalogues. Two media will be employed. The print version will contain essays by Fred Barzyk and Brice Howard (on the concept and practice of electronic mixing), by Russell Connor (on the historical development of the new TV structure, beginning with its use in art by Wesselmann, Richard Hamilton, Paik, Robert Rauchenberg, and others), by Douglas Davis (on the esthetics of TV, past and future, what makes it different from other art media), by Gene Youngblood (on the social/political implications of TV in the future), by Paul McCarthy (on the psychological implications of the TV mix), by Rolf Ulrich-Kaiser (on the growth of "alternative TV" in Europe). Statements by all artists/writers/producers included in the exhibition. Bibliography.

The cartridge/cassette version of the catalogue will "record," in effect, the exhibition, particularly its Special Events and the Electronic Conference. This cartridge/catalogue should become a document of great historical importance and could be sold/distributed after the exhibition ends—for replay along the very personal nevwork to which we are calling attention.

ADDENDUM: To some extent, this proposal slights the past. When we first discussed the exhibition, we included sections documenting the beginnings of TV as a tool (the early NBC experiments in Television, dating back to the late 1930's and the related demonstration at the 1939 World's Fair, via photographs, film, and equipment display; early cameras and kinescope machines; the first Ampex VTR; the first Sony VTR sold to a consumer-Paik, interestingly enough). We also considered a section devoted to the appearance of TV as both subject and material in the fine arts, in the paintings of Wesselmann and Hamilton, the constructions of Kienholz, the 1963 TV Decolages of Wolf Vostell, Christo's "wrapped" TV, and more, plus a subtler thingthe influence of the moving, low-definition TV image on the eye of the painter (to some extent the complex collages of Rauchenberg reflect this). The decision to leave these ingredients out is not irrevocable, but the reason behind it is purely conceptual, having nothing to do with any mania for the present/future. Our feeling simply is that the heart of the exhibition is in the work being done and planned now: all elements extraneous to that must thus take second place.