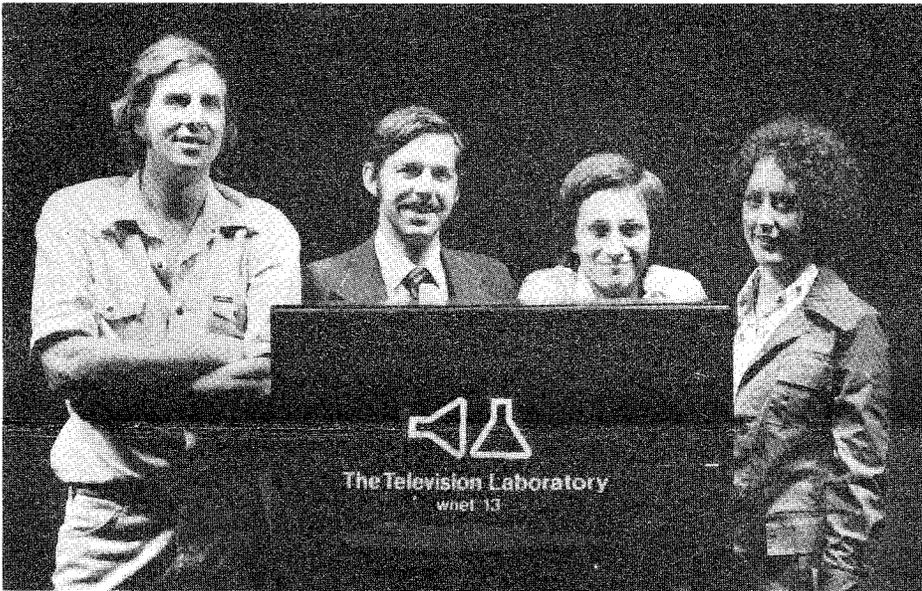


The Television Laboratory at wnet|13 news

August, 1974 Vol. 2 No. 1

Rockefeller Grants Major Funds



Lab Staff: David Loxton, John Godfrey, Phil Falcone and Carol Brandenburg.

The Rockefeller Foundation has continued its support of The Television Laboratory at WNET/13 with a one-year grant of \$340,000. This is the third and largest grant from The Rockefeller Foundation since the Lab's inception in February, 1972. An initial grant of \$150,000 which helped support the Lab's first year efforts was followed by a \$400,000 grant covering the 18 month period from January 1973 to June 1974.

John H. Knowles, M.D., President of the Rockefeller Foundation, said "The Television Laboratory demonstrates that artistic and scientific investigation into television broadcasting is important for all future uses of this omnipresent communications system in which there has been far too little research."

Since its formation, the Lab has

sought to develop the medium as an art form a communicative system, and most recently, a scientific field of study. Artists of many disciplines have worked in the Lab in an effort to expand television's potential. Also, a carefully planned artist-in-residence program has supplied continued long-term support for the work of many such artists. This combination of artistry and technology has resulted in many projects designed to push back the boundaries of the medium.

Under the third grant from The Rockefeller Foundation, the Lab will move into a new phase of activity. Says the Lab's director, David Loxton, "This generous increase in the level of support provided by The Rockefeller Foundation will enable us to consolidate the experience and knowledge we have gained in the past two and a

half years. And we hope to embark on a year of major activity, concentrating our efforts primarily on the production of several innovative experimental broadcast projects." The new grant from The Rockefeller Foundation will provide seed support for such broadcast projects which are intended to include: a full-length co-production with WGBH's Experimental Workshop which will explore the dramatic narrative format; a co-production with Top Value Television which will seek to develop further alternatives to traditional news and documentary formats and styles; a pilot program for an intended major series dealing with the little understood process of human communications; an exploration of dance for television for which the Lab hopes to offer three choreographers an opportunity to investigate the vocabulary and techniques of the medium. Aside from the broadcast activities, the Lab will continue its artist program. It will continue to support the residencies of video artists Nam June Paik and Ed Emshwiller, both of whom have accomplished significant goals in the past. In addition, a number of short-term residencies will be supported during the year in order to maintain a continual flow of creative ideas. The Lab also plans to further expand the work of Dr. Julian Hochberg and Dr. Peter Crown in the area of physiology and perception.

The Television Laboratory is also supported by the New York State Council on the Arts, with special project support from The National Endowment for the Arts. ◀▶

Editorial: The Next Phase

David Loxton
Director of the
Television Laboratory

In the past two and a half years as director of the Television Laboratory, I have participated in many conferences which have opened the television medium to different levels of investigation and criticism. Most recently, I have attended two such conferences which have been indirectly involved in helping me restructure the Lab's position as it moves into a new phase of activity.

The Open Circuits conference, held in late January at the Museum of Modern Art, was subtitled "The Future of Television." It was for many an important event, seeming to signal, by way of its very existence, a coming of age of video art. But does it seem so extraordinary that a major museum would be instrumental in extending this formal recognition to the new electronic art form? Video art is a form of very personal expression by the artist, and museums have been the traditional form of exhibition for artists' works for centuries. What would have been *more* extraordinary about Open Circuits would be to have seen this same formal recognition extended to broadcast television as an art form. I found that despite the event's subtitle, "The Future of Television," the "future" was defined exclusively and consistently by the solitary artist in terms of museum-oriented video. With the exception of the European participants, and Stan Vanderbeek discussing his desire as an artist to express himself in a medium offering simultaneous access via satellites to a potential audience of 600 million people, and there seemed to be no real discussion of broadcast television and its place in the artistic community.

Now maybe this was all a matter of semantics and could have been resolved by subtling the conference "The Future of Video." But I began to think of the Television Laboratory and our responsibility, and realized more forcefully than ever that it lies not with

artists, museums, and curators — they are traditional bedfellows — but rather with artists and a mass medium: strange bedfellows, indeed!

What I realized is that if we are to take full advantage of this mass medium, there must be a redefinition of broadcast television. We tend to think of it as a system of distribution rather than a system of communication. There must be a pivotal place for the personal vision of the artist within its structure. The real revolution will be if the artist and television can work together... if the individual and the institution can get along... if a "personal" medium can also be a "mass" medium.

Looking at the medium from a different angle were those critics, television professionals, humanists and historians who attended the "Television: Art and Information — Values and Practices in Public Broadcasting" conference in Airlie, Virginia this past June. During the conference (the second of its kind), participants spent three solid days screening a great mass of broadcast material, much of which reflected the ways in which the medium deals with history and historical perspectives, and the whole question of the documentary form. The purpose of the conference was to determine how effectively we have dealt with "truth, reality and authenticity in the medium." Although we all came away from the conference somewhat more enlightened, it seemed rather a dichotomy to talk about truth, authenticity and reality as applied to television when television seems primarily imagistic illusionary and symbolic. In our very controlled screening environment (50 people in a darkened conference room) what we were watching was not television per se, but isolated units of television.

For instance, The Autobiography of Miss Jane Pittman fell prey to heavy criticism because it had included a device at the end of the program informing the audience that the subject had died five months after the final event in the

film. This, said its critics, was fraudulent and misleading insofar as Jane Pittman was in fact a fictional character. Equally extraordinary was criticism levelled at "The Bolero" when its producer revealed that the music track had been taken from a recording and that the musicians were in effect, "lip-syncing."

Yet, had we viewed Miss Jane Pittman in a movie theatre or had we read the original novel, I doubt such claims of fraudulence would have been made. There seemed to be a confusion of criteria and critical processes expressed. Many were deeply troubled by fiction and drama on television — as though these were somehow inherently dangerous forms. (It was unfortunate in this context that "straight news reporting" was not discussed during the conference).

Though much of these comments were somewhat absurd, they triggered off in me some related thoughts: namely that you cannot discuss programs on broadcast television without some understanding of the form and context in which these programs are presented. Television watching is not a group activity in a conference room — it is primarily a solitary experience. Secondly, and more importantly, television works must be reviewed within the context of a time continuum. What precedes, follows, and in commercial television interrupts the program, is integrally a part of that experience.

The viewing experience would appear to be primarily one of juxtaposition and relationships and ironies (which for the individual viewer will also include the ambience of the home and whatever activities and interruptions become a part of that experience.)

It is hard to know how to test these premises. If the Lab is to explore the potential of this extraordinary medium, the areas such as those mentioned above, will have to come under great scrutiny and observation and it is intended that several of the projects in preparation for this coming year will directly or indirectly throw light on the subject. ◀▶

Major Video Series Scheduled for Air

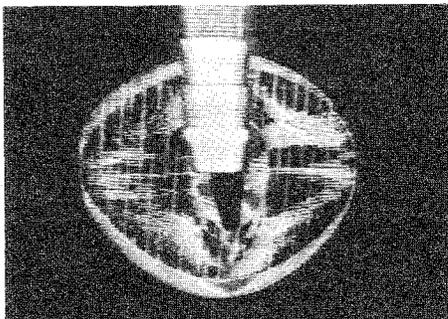
Video Visionaries, a fourteen-part series which will air weekly over the Public Broadcasting Service beginning Wednesday, August 7, at 10:00 PM (check local listings) will introduce viewers to important efforts in this country to develop television as an art form.

The series contains pieces by twenty-two artists, widely divergent in style, but each using electronic image-making equipment for a personal, expressive, and often non-traditional, statement. It is a compilation of work from experimental television projects at The Television Laboratory at WNET/13, New York, WGBH-TV, Boston, and the National Center for Experiments in Television, San Francisco, public television groups which have fostered ongoing experimentation into the nature and expanded uses of the medium.

Here, in running order, are the thirteen programs, (plus one repeat), comprising the series:

Aug. 7: *The Medium is the Medium* is one of the earliest records of artists meeting the television system. A half-hour composite tape of the work of six artists, it was produced in 1968 at WGBH-TV, Boston.

Aug. 14: Nominated for a 1972-73 New York area Emmy award, Ed Emswiller's *Scapemates* is a choreographic work for two dancers in an ever-shifting electronic environment of rooms, monolithic architectural symbols



Scapemates.

and surreal video landscapes. Emswiller, a well-known experimental filmmaker, used computer animation, a Paik-Abe Video Synthesizer, as well as the television cameras and special effects at The



Sweet Verticality.

Television Laboratory at WNET to create a work which, for *New York Times* columnist John J. O'Connor, goes "beyond experiment to solid achievement." The music was also composed by Emswiller using tape recorders and Moog Synthesizer.

Aug. 21: In *Lostime*, Willard Rosenquist, professor of design at the University of California, Berkeley, and a staff artist at San Francisco's National Center for Experiments in Television, uses light as a compositional material. Last fall, *Lostime* won a San Francisco area Emmy award.

Aug. 28: This program is composed of excerpts from two experimental series broadcast by WGBH. From *Timecheck*, a bi-weekly show created by Brooks Jones and broadcast in 1971, come two selections: "The Sitting", and "Anthem". The second part of the half-hour program presents Ros Barron's *Zone: Headgame*.

Sept. 4: *Sweet Verticality* is William Gwin's fluid, lyrical portrait of New York. Working with writer Joe Ribar, Gwin pays a personal tribute to the City in this 30-minute piece from The Television Laboratory at WNET/13. Real images are tempered by the use of image-abstracting and coloring techniques, and further accented by Ribar's poetry, which is presented graphically over vertically moving

cityscapes, or recited, in voice-over style, throughout the tape.

Sept. 11: *Procession*, subtitled "Water, Fire, Earth, Spirit," is an experiment in the development of a visual narrative in which the images of two dancers progress through the four metaphysical elements to a point of pure spirit/energy. Artist David Dowe and composer Jerry Hunt created the 30-minute work with electronic processing equipment of their own design interfaced to the standard broadcast gear at PBS affiliate KERA-TV, Dallas.

Sept. 18: *See Is Never All the Way Up*, by NCET artist William Roarty, is a non-figurative, graphic work composed of several kinds of images gathered on a portable video camera and recorded, then mixed together in layers and altered electronically in the studio. Roarty, who is a painter and a graphic artist, calls his work a "painting-in-time." The electronic score for the half-hour piece was composed on the Buchla synthesizer by Warner Jepson.

Sept. 25: *Music/Image Workshop* is a selection of pieces under the direction of Ron Hays, who established the Music/Image Workshop project at WGBH in 1972 to investigate the nature and possibilities of sound and image synthesis. The half-hour program includes
(Continued on page 7)

Profile: A Video Quartet

Each year, the Lab receives a great number of inquiries from filmmakers and video artists regarding the facilities at Studio 46 and their availability to the general artist community. Although the Lab is not structured as an "access facility" it has often invited artists of many disciplines into the studio for short-term residencies which enable them to complete a work. Funds from the New York State Council on the Arts have supported these residencies which reflect the value of these brief but expansive relationships. Peter Campus, Tom DeWitt, Hermine Freed and Ian Hugo are four of the most recent artists to tap the facilities at Studio 46. They and their work are profiled on these pages.

Hermine Freed

Hermine Freed is one of an increasing number of women who are making their mark on the video community. She's a vibrant woman with wit, style, and a fine sense of visual punning and perceptual playfulness which pervades much of her work. Ms. Freed, who holds an M.A. in Fine Arts has been a teacher, curator, lecturer, art critic with WGBH in Boston, and an instructor of Fine Art at New York University. While teaching a course in contemporary art at NYU she began to use videotapes of artists as a teaching aid. Since then, she has been working behind and in front of the camera producing her own tapes and tapes in collaboration with such artists as Roy Lichtenstein, George Segal, and James Rosenquist.

"I have been overwhelmed by the objectification of the self that takes place with instant play-back", she says. "Several of my tapes related to that phenomenon. 'Two Faces' was made with two cameras, one on the left side of my face, the other on the right. The resulting image was me looking at myself. The activity of the tape is me reacting to myself physically —

turning, shaking my head, rubbing noses with myself and kissing myself."

Her most recent work, created at the Lab, which is as yet untitled, is "a video recapitulation of Art History from the Middle Ages to the present, using paintings of women. Using chroma-keying,



Hermine Freed in pieces.

cameras, video synthesizers and color generators, we are simulating several paintings. All are selected for their content — madonnas, Odaliskes, aristocratic ladies, movie stars, etc. I, as contemporary woman, take the classic roles and poses of women throughout history. In some way, this is to be seen as a statement about the cultural schizophrenia of contemporary woman." The tape, however, does not lack Ms. Freed's characteristic humor. It opens with the image of a medieval manuscript painting with seraphed border. Where an elaborate angelic figure hands down the Holy Spirit to speak into the ear of St. Matthew, Ms. Freed has chroma-keyed herself, cigarette in hand, accepting from the angel a lighter and videotape camera. You've come a long way, baby.

Tom DeWitt

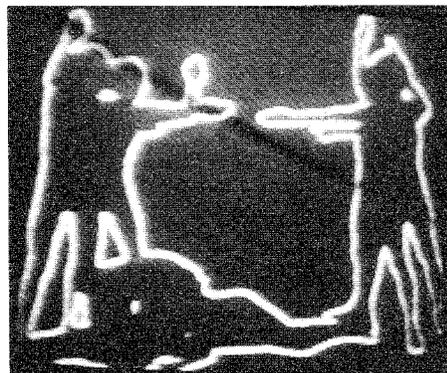
Unlike many filmmakers turned video makers, Tom DeWitt is very much at home with the sometimes overwhelming technology of video. Grasping and using the complexity of the image-making system is very much a part of the process by which he creates his understandably precise and intriguing tapes.

In an excerpted piece shown recently as part of the Lab's "Report '74" aired over WNET/13,

Tom demonstrated the visual possibilities of tape-head delay through the aid of an advanced time-base corrector. Using a simple pantomime of a man with a rifle shooting his victim at close range, the process enabled the sequence to be reprinted and replayed in overlapping rhythm reinforcing the brutality.

His recent work at the Lab moves in a variety of directions, culminating in a series of vignettes — each one exploring new mergers between equipment and concept. Several of these deal specifically with the relationship between image and sound. In sessions of "simultaneous creativity", Tom has worked with composers Randy Cohen, Phil Edelstein, Laurie Spiegel, Virginia Quesada, and Joel Chadabe graphically designing infinitely whirling, dizzying pieces to the sound of audio synthesizers. Often, the audio and video were generated by the same technological process. He calls it all "Technical pyrotechnics designed to combine music and motion graphics — also applied to pantomime."

There are several dramatized pantomimes, something new to Tom who says he is more used to technically manipulating space and time rather than actors. Yet the first efforts expand some concepts of pantomime, particularly when applied to video. "The medium has



Tom DeWitt : Technology and a statement.

taken real things and made them seem magical. The mimist makes imaginary things seem real. When the video synthesizer generates a visible yet imaginary wall, for instance, which the mimist then

reacts to, we are adding a new dimension to the art and augmenting the performance."

In a sequence, entitled *The Cage*, Tom works with the idea of confinement expressed "not by the skill of the mime's motions, but by the synthesized spaces in which the mime moves." From such complicated techniques as z axis controlled deflection modulation, border box wipe and tape-head delay, Tom achieves the feeling of limitation and confinement in a visually intriguing way. Yet, his work remains, for all of the complex processes involved, solid, clear, and uncluttered.

Ian Hugo

On his 75th birthday, The Library of Congress honored Ian Hugo by showing eight of his extraordinary films. At the gathering he said, "I myself have been living on the frontier of my dreams and have tried to liberate them". As an engraver and filmmaker of great reputation, Ian Hugo has, at the Lab, worked with videotape for the first time. His work "Transcending", is a highly collaborative effort, employing the talents of brilliant mimist Yass Hakashima who choreographed the piece, photographer Bob Hanson, and composer David Horowitz all of whom he has worked with before in film.

"Transcending" took its inspiration from a book by Maya Pines entitled "The Brain Changers, Scientists and The New Mind Control", which expounds on the theory that we are either right-brained or left-brained and in each of us there exists two very different persons. "I was reminded of the films (such as *The Student of Prague*) which grew out of the German Expressionist movement around the concept of the Doppelganger (the double) and how even then it began to be realized that the real creator of the film must be the camera and that photographic technique was going to determine the destiny of the cinema. In the twelve short films I made over a period of 25 years, I had already, with the help of my

very knowledgeable collaborators, developed a unique system of superimposition, so that in a sense, I had a long background of motion picture experience with what might be called the theme of the double."

In planning "Transcending", Ian Hugo thought he would be able to accomplish the work on film. Yet, in discussing each sequence with Hakashima and Hanson, it was Hanson who pointed out various technical difficulties and suggested that the work be better realized through the medium of videotape. A partial grant from The American Film Institute plus the funds from the New York State Council on the Arts, enabled the work to be launched at the Lab.

"Transcending" possesses much of the impressionistic and musical qualities which distinguish Ian Hugo's films. Yet, he has been able to further define these qualities through the new medium. In talking about the differences between tape and film, Mr. Hugo points to a "labyrinth" scene taped at Studio 46 in which Hakashima and his "shadow" go in opposite directions



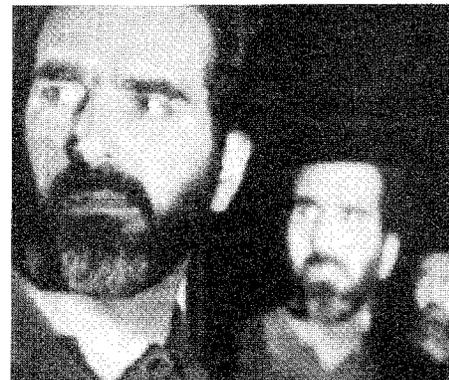
Ian Hugo and Yass Hakashima.

in an attempt to escape. As with his films, he had spent a great deal of time gathering a preparing props for the scene, only to find that each prop could be generated electronically and for better effect. "To me, this first exposure to videotape has been a revelation. Now I see larger artistic horizons opening up."

Peter Campus

As an experimental psychologist, Peter Campus's extensive work in videotape tends toward the use of the medium to illustrate perceptual

experience. An excerpt from "Three Transitions" completed at WGBH and aired recently as part of the PBS special "Video: The New Wave", used the simple process of chroma-key to illustrate several complex perceptual concepts, often



Peter Campus out of phase.

with a great deal of visual irony. He is frequently the subject in his own tapes, which have been featured in exhibits and collections throughout this country and in Europe.

Again, he is the subject in his recent work at the Lab, titled "RGB". The tape takes "color" as its theme and illustrates a progression in four parts.

The first part approaches color directly in placing various colored gels between the camera and the subject — the result being "an exploration of the transparent places there." Part two is a more indirect sequence in which slides of pure color focused on Peter create shadows and color on his face — "color more removed". Part three incorporates feedback and several color monitors placed behind his head which he puts 90 degrees out of phase a total of four times. He is able to make color adjustments by a device in his hand which he manipulates while on camera. And finally, in part four, the progression is completed when Peter generates a silhouette of himself on camera which he alternates in and out of a continuous change of color. This illustrates the most indirect dealing with color of the four segments.

Peter Campus believes "RGB" to be one of his best efforts. "The Lab", he says, "allows you to work out your ideas from beginning to end." ▲▲

Lab Notes:

Ed Emshwiller's latest video effort, "Pilobolus and Joan", broadcast over WNET/13 July 1 drew very positive reactions from The New York Times television critic *John O'Connor*. Said Mr. O'Connor, "Experimental video has found itself a superstar in Ed Emshwiller..He is applying videotape's great flexibility for image-making to the superb telling of a narrative story written by Carol Emshwiller...Joan McDermott is good....The Pilobolus Dance Theatre is sensational...."

Rodney Wilson of the British Arts Council visited the Lab in June. The Council plans to organize Britain's first major video show for next spring and an international section will include some Lab works.

Lab director *David Loxton* participated in the 1974 Television : Art and Information conference held in June in Airlie, Virginia. This was the second such conference sponsored by the National Center for Experiments in Television. Under the chairmanship of NCET head *Paul Kaufman*, the conference focused on psychology of the television experience, truthfulness and authenticity in language, images, and forms. David Loxton spoke primarily about the potential of non-broadcast standard production techniques to a group which ranged from commercial and public television professionals to historians, psychologists and critics.

David Loxton and Lab engineer *John Godfrey* also attended the annual dinner for the Society for Information Display where they were featured speakers. They showed samplings of the Lab's past works.

Studio 46 will be closed to general project production during August in order to complete installation and interface of the PDP-8 computer, installation of a new model Rutt-Etra synthesizer, and a reworking of the video patch system. The time will also be used as a much-needed equipment maintenance period.

Stephanie Wein, a Television Major at Brooklyn College, has joined the Lab staff as secretary. And *Elliot Klein*, student at Ithaca College, is working as a volunteer at Studio 46 during the summer. Elliot won a CINE Golden Eagle award last year for producing his own film which was aired by WNET's *School Television Service*.

The Lab is seeking another grant to enable the continuation of short-term residency projects through the coming year. (See pages 3 and 4). Should sufficient funds be obtained, *Vision News* will publish procedure for submitting project proposals to the Lab for consideration.

The Lab played host to a group of international visitors in June, including *Toma Tomov*, correspondent for the Bulgarian Television Service; *Stanley Amos*, unofficial representative of the Netherlands Cultural Council; and *Paul Frame*, an Australian visiting video centers throughout the U.S.

"The Lord of the Universe", a co-production between the Lab and TVTV has been nominated for a national "Emmy" award. Based on the success of the program, the Lab and TVTV are now planning another project designed to further expand video journalism. Should an impeachment trial take place, the project would focus on Washington and its reaction to the event, providing alternate coverage traditionally left to network news bureaus.

Vision News is inviting essays and opinion pieces from readers. Contributions should be from 300-500 words. Include a self-addressed stamped envelope. \$50 upon publication. Send to Editor, VISION NEWS, 304 W. 58th Street, New York, New York, 10019. ▲▲

(Continued from Page 3)

"Pavane;" "Space for Head and Hands," with music by Michael Tilson Thomas and images by Ron Hays; and "Humanoid", images designed by Hays for Katchitirian's "Gayne Ballet No. 2."

Oct. 2: Nam June Paik, one of the earliest and best known artists to work with electronic images, made his contribution to McLuhan's vision of a "global village" with his *Global Groove*, produced at the WNET Laboratory. The 30-minute program advances Paik's notion of an "Instant Global



Global Groove.

University," from which non-verbal art forms such as music and dance can be dispensed world-wide in an electronic common language. The program segments present an array of the dazzling image manipulations for which the co-inventor of the Paik-Abe Video Synthesizer is known.

Oct. 9: *Synthesis* is a selection of works which demonstrate the virtuosity of the Beck Direct Video Synthesizer and the artistic range of its designer, Stephen Beck of NCET. The half-hour begins with "Conception," a piece about where things come from; "Methods," a display of the compositional elements point, line, plane, color, and texture; includes selected short works, and concludes with the premiere broadcast of "Cycles," a collaborative work by Beck and filmmaker Jordan Belson.

Oct. 16: The thesis of Stan VanDerBeek's *Violence Sonata* is that "violence is the inability of man to communicate." In its original 1970 WGBH broadcast as a multi-media event using videotape, film, slides, live actors performing

for a studio audience, and call-ins from viewers watching two different tapes simultaneously broadcast by Channels 2 and 44, viewers at home joined the audience for lively, often heated discussions of violence, creating a rare opportunity for immediate two-way communications using television. One of the two broadcast tapes was made more complete for those who owned only one television set. It is this one-hour show that will be broadcast in the *Video Visionaries* series.

Oct. 23: Ed Emshwiller's latest work at The Television Laboratory at WNET/13, *Pilobolus and Joan*, is his first experiment as a video artist in the dramatic narrative format. The hour-long tape features the four-man dance company, The Pilobolus Dance Theatre, and singer-actress Joan McDermott in an unusual scenario written by Carol Emshwiller.

Oct. 30: *A Video Sampler* by artists from the National Center for Experiments in Television and The Television Laboratory at WNET/13 includes Don Hallock's *Good Time Charley Mars; Pt. Lobos State Reserve* commissioned by NCET from William Gwin; and, two short works presently being finished at The Television Laboratory at WNET.

Experimental work at WGBH-TV, Boston, has been made possible by grants from The Rockefeller Foundation and The National Endowment for the Arts. The Television Laboratory at WNET/13 is supported by grants from The Rockefeller Foundation and the New York State Council on the Arts, with special project support from The National Endowment for the Arts. Works in this series by the National Center for Experiments in Television, an affiliate of KQED, Inc., are made possible by grants from The Rockefeller Foundation, The Corporation for Public Broadcasting, and The National Endowment for the Arts.

The National Endowment for the Arts made a special grant to the three groups to complete the *Video Visionaries* series for broadcast television. ◀▶

vision news

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Getting Technical: Reducing the Technology

Philip F. Falcone, Jr.
Assistant Engineer at Studio 46

Each Television Laboratory project balances the unique qualities of experimental inputs against the conventions and realities of television production. The experimenter — the video artist — typically brings to the Lab his conceptualization of images and sounds. Balanced against this is the reality that at Studio 46, he can rarely conceive the images and sounds directly. He must devise a means for accomplishing them in terms of subject, light, perspective, video, audio, time, and a workable structure. The artist must successfully direct persons and machines that are intermediary in reaching a completed work.

On the technical side, the main business of the engineer at Studio 46 seems to be in developing and refining the link between artist's conception and finished piece. We try to provide information and guidance for the artist to help him master the maze of complex equipment and to better understand the potential of the devices which are his tools. Further, we are continually recombining and modifying the elements of the studio to adapt to the demanding and inspired schemes sketched by artists seeking to integrate studio equipment into their projects.

Admittedly, we and our fellow technicians play a key part in the television process here at Studio 46. Just as important to this process are the design engineers whose decisions have fixed the capabilities of the various pieces of equipment at Studio 46. However, the strategic role of the technologists can sometimes be a source of frustration to the video artist, director or producer who finds himself uncomfortably distant and insulated from the final result of his efforts. It is with the intention of broadening the base and tightening the grip of an artist's control over his product that the Television Laboratory has committed a portion of its resources to the adaptation of computer technology to the Lab's



Phil Falcone at work.

activities. This is just one more possible way to reduce a technology such as that in the Lab, and make it more workable.

A Digital Computer Corporation PDP 8/L computer is the preliminary instrument in a system that ultimately will exercise precise, finely tuned control over virtually every light, camera movement, colorizer control, synthesizer, parameter, recording and editing function, using a multitude of human engineered manual controls, biophysical sensor signals, position and motion detectors, and whatever other uses the Lab's associated engineers, artists and scientists can devise. The system is versatile and expandable as far as funds, ingenuity and expertise will allow. More specifically, the PDP 8/L is expected to assist in the following ways:

- A custom interface to the Lab's Grass Valley 1400 series video switcher designed by Bob Diamond and built by Rutt Electronics, will enable the computer to monitor, record, and reproduce manual activity at the switcher; the computer will also be able to accomplish video transitions that would otherwise require many hands and superhuman coordination.

- GSR (Galvanic Skin Resistance)

and other physiological phenomena are to be monitored by the computer using standard instrument interfaces as part of a controlled environment for studies in perception. Resident artist/psychologist Peter Crown has already done experimental work in this area at the Lab. Dr. Julian Hochberg, Chairman of Psychology at Columbia University, in a study commissioned by the Lab, documents key findings in research into television and visual perception.

- The generation of visual imagery correlated with electronic music tracks is expected to reach new and higher levels of sophistication with the introduction of computer power to the task.

- Computerized control of videotape machines and the video disc will make available to artists a sophisticated production tool that can be tailored through software to artists' specific needs.

Automation has become a code word for the dehumanizing element in modern technology. Our goal is just the opposite — to make the machines of television production as sensitive and responsive as possible to the creativity of all the human beings who are a part of the video process. ◀▶