

The Television Laboratory at wnet|13 news

May, 1974 Vol. 1 No. 3

Guru Show a Breakthrough



The 16-year-old Guru via the magic of television.

On February 24 at 6 PM, the Public Broadcasting Service broadcast positive proof that 1/2" tape could be the wave of the future and that broadcast journalism as we know it now is due for a face-lift.

The Lord of the Universe documented the Maharaj Ji phenomenon at the Houston Astrodome in November entirely on low-cost portable videotape equipment. The show was the child of a unique marriage between The Television Laboratory at WNET/13 and TVTV, a video group well versed in the potential of 1/2" systems.

In an article written by TVTV for the October issue of *Vision News*, the group stated that "our low-cost portable video equipment has allowed us to explore what television can do uniquely. We have been able to work open-endedly and take risks which have often paid off in spontaneous, unusual television." In the same issue, Lab engineer John Godfrey wrote of Studio 46's new CVS-500 time-base corrector, "...with time-base correction having advanced this far, television as we know it now may be due for some changes."

The Lord of the Universe was the first known program taped entirely on low-cost portable equipment to be broadcast over a national network. John O'Connor, TV critic for The New York Times, stated "TV came away with a terrific documentary...videotape's advantages of portability and flexibility can now promise a thoroughly professional picture quality." Other members of the press also had good things to say: "The WNET/Channel 13 special

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Emshwiller Completes New Work

Pilobolus and Joan, Ed Emshwiller's newest video venture since *Scape-Mates*, unwinds the rather unusual tale of a girl (Joan) and her cockroach (Pilobolus) — hence, the title.

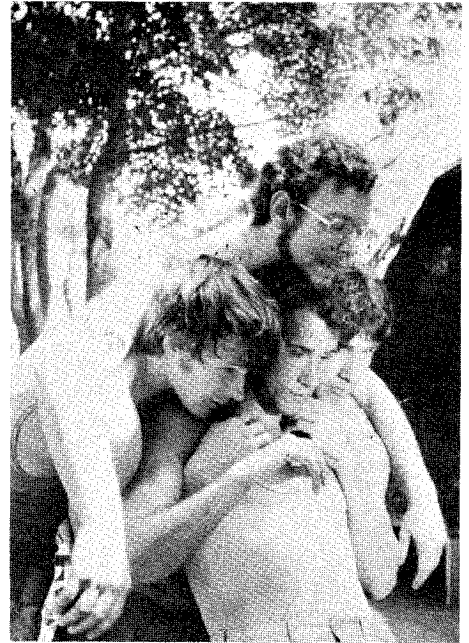
Emshwiller now has three works to his credit as an artist-in-residence at the Television Laboratory. The first, *Thermogenesis* was a short predecessor of *Scape-Mates*, a choreographed free-form journey through electronic environments. However, not liking to repeat himself, Ed tackled the dramatic narrative form and created *Pilobolus and Joan*, a full-length work which refuses to be pigeonholed. The 60 minute program defies almost every convention. Says Lab director David Loxton, "Pilobolus and Joan will probably infuriate as many people as it pleases. Just when you think you've nailed it as a drama...it isn't. And then, when it's so obviously a dance piece...it isn't that either — and so on and so forth, until the end, when it's really a little bit of all those things."

The idea for the piece, actually a reverse of the Kafka classic, came some months ago when Ed and his wife Carol, a writer, were invited to a performance of The Pilobolus Dance Theatre. The dance theatre is composed of four extraordinary young men who combine the grace-

ful movements of dance with the bold precision of acrobatics. Greatly impressed by their skill, Ed asked Carol to write a scenario which would make full use of their talents. Carol turned out "Metamorphosed" a story of a common cockroach which wakes up to find itself transformed into a man — struggling for survival in a man's contemporary world. The man-insect is portrayed by the four members of The Pilobolus Dance Theatre (Robby Barnett, Jonathan Wolken, Moses Pendleton, and Lee Harris) who move in carefully choreographed unison throughout the program, doing everything together from reading the paper, to visiting art galleries, to playing a furious game of frisbee with Joan. Joan is Joan McDermott, a singer-composer-actress whom Ed has worked with before.

"As an underground filmmaker" says Ed, "my experience is to work with friends, as opposed to a traditional producer, say, who screens all available talent."

It is difficult not to draw parallels between *Pilobolus* and *Scape-Mates*. Although both are very Emshwiller-like in approach and style, gone are the electronic landscapes of *Scape-Mates*. Instead, Emshwiller chose to shoot much of the program on location in and

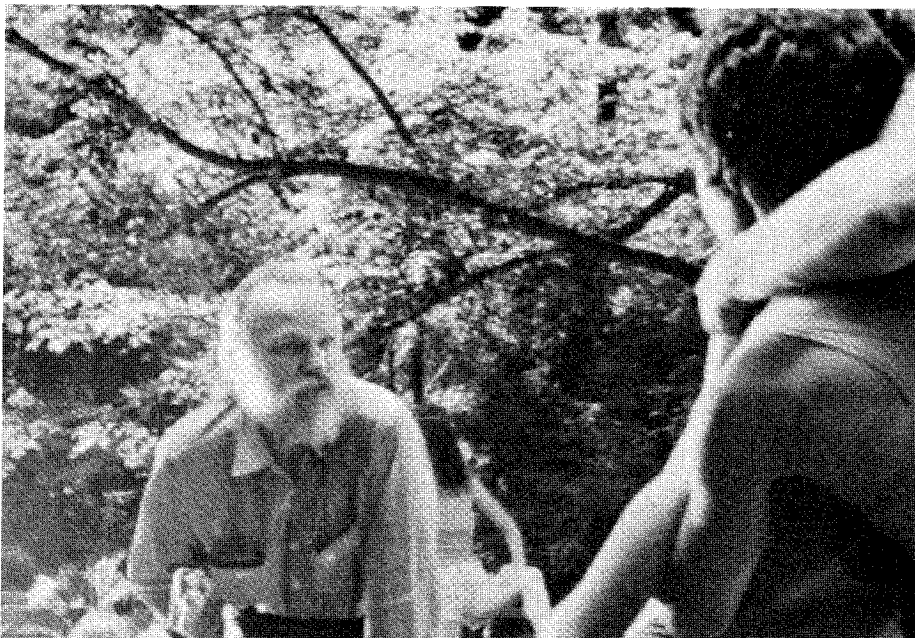


The Pilobolus Dance Theater.

around New York City and parts of New England. He contrasts the reality of the backgrounds with the unusual nature of the narrative line and makes full use of his visual wizardry with the medium. There's an original music score (composed by Joan McDermott) — quite a difference from the pulsating synthetic sounds of his previous video pieces.

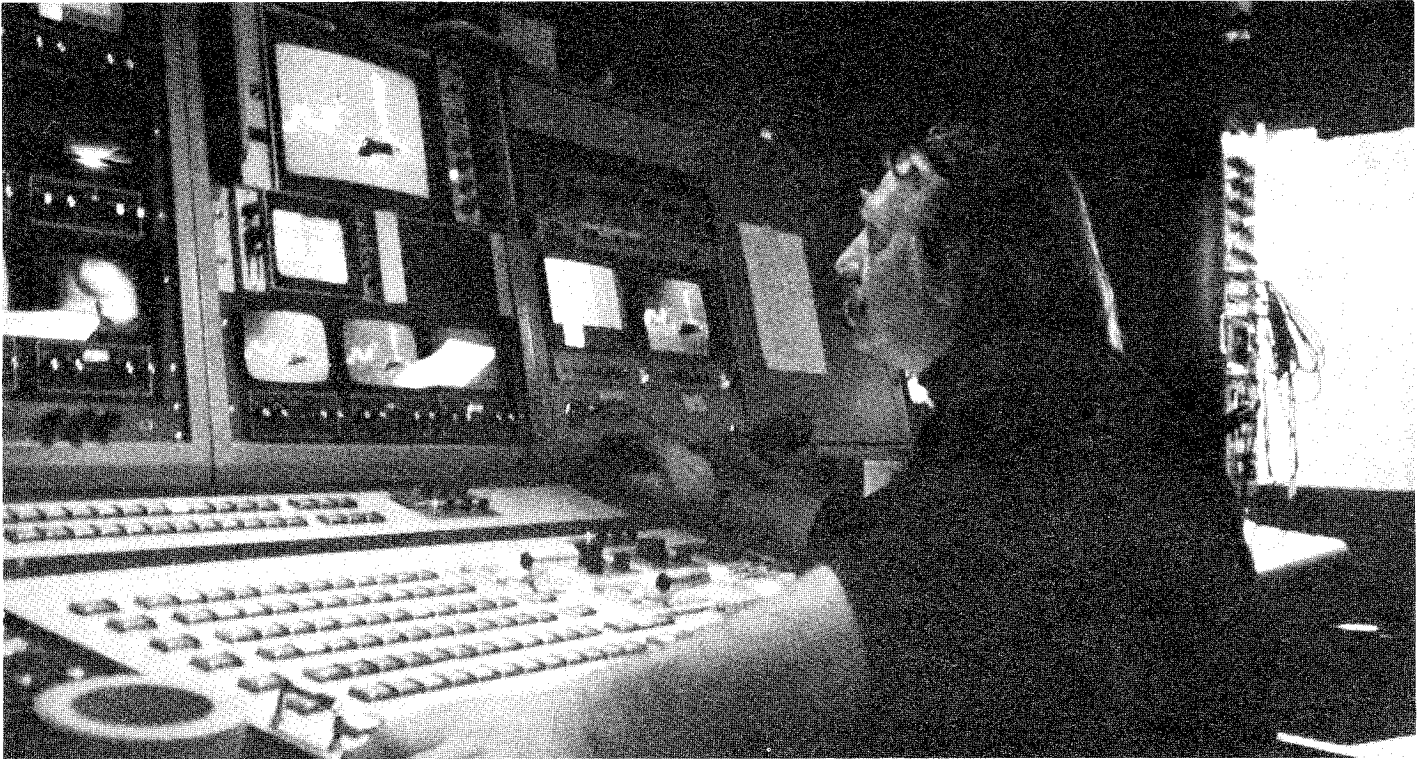
So far, most people who have screened *Pilobolus and Joan* before it airs over WNET/13 in the near future, agree that it ranks highly among the most complex and creative uses of video technology. In some cases, Ed used up to nine layers of chroma-key on a single effect. The Paik-Abe synthesizer, the Rutt/Etra synthesizer, and the Grass Valley switcher were used extensively, plus a PCP-90 mobile 2" camera used for location work.

Although Ed Emshwiller has been a painter, a filmmaker, an illustrator, and now a video artist, he finds video to be both versatile and frustrating. "That's the damndest thing about video"...he said after a recent screening of *Pilobolus and Joan*... "as a painter, you have control over the final product; as a filmmaker you start to lose it, and with video...well, there are so many variables. Every home receiver is different, you know?"



Emshwiller directs a scene from *Pilobolus and Joan*.

PROFILE: Stan Vanderbeek, Creator of Dreams



Stan Vanderbeek at Studio 46.

Stan Vanderbeek puts audiences to sleep. And for good reason. He's interested in their dreams. As a painter, photographer, filmmaker, and video artist of considerable note, Vanderbeek has spent several months of the past year at The Television Laboratory's Studio 46, composing the newest edition to his tape library of surrealistic, dream-like images — *The Newsreel of Dreams*.

Under a grant from the National Endowment for the Arts, Vanderbeek has completed the major portion of his intended two-hour long tape. The tape involves hundreds of suggestive images and sequences which Stan hopes will make an impression on the viewing audience as they drop off to sleep — maybe then to share a common dream experience.

Stan was born in New York City (because of his productive output, friends say he's "3,000 going on 40") and attended Cooper Union Art School. As a filmmaker he's won worldwide recognition and many prizes — The Oberhausen Film Festival, The Mannheim Film Festival, Bergamo Film Festival, Man and His World — and others.

From 1969 to 1970 he was an artist-in-residence at WGBH, Boston, as well as a fellow at the Center for Advanced Visual Studies at M.I.T. It was during this period that Stan's fascination for multi-media projects blossomed fully. "On a single screen" he says, "you can make a fairly complicated story, but it essentially deals with one idea at a time, coming at you from one place. But now things are happening to us in our cultural milieu, in our daily lives, that are not one thing at a time, and we find we are dealing with a multiplicity of events. It's very much more complicated than the simple idea of things happening to you logically, one after another."

Stan experimented with every conceivable bit of technology available to the artist — and some not yet available: movie murals, information concerts, computer graphics, even murals by telephone — and then the Movie-Drome, a domed multi-media projection theatre which he built beside his home in Stony Point, N.Y.

The Movie-Drome gave birth to *Cine-Dreams* perhaps one of Stan's most well-known projects. "*Cine-*

Dreams" first took place at The Strasenburgh Planetarium in Rochester, New York, 1972. Sell-out crowds from all over Western New York, with pillows and blankets in hand, were invited to sleep on the planetarium floor beneath a cascading sky of images and sounds projected from 11 PM to 7 AM. The purpose of the experiment was "to interrelate the dreams of the audience with the images on the screen," says Stan. One reviewer stated, "There were dancers, dream-inducing animations, and live-action works. I remember at one point, nodding awake to a huge ball of white sinking oppressively down upon the audience and thinking calmly that I'd better return to my own images."

Now Stan Vanderbeek is bringing his multiplicity of events to television. However, a small television "window" is a big change from domed projection theatres. "But television" Stan says, "is a new theatre for dreams. It's like the brain itself — a whole network of nervous systems."

As an artist, Stan is interested not only in the content and texture

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WARNING: TELEVISION MAY BI

Recently, the Lab has begun to investigate important perceptual and physiological characteristics of the medium.

About The Perception of Television Displays.



Several years ago, Dr. John Knowles, President of The Rockefeller Foundation watched a man experience an epileptic seizure which appeared to be induced directly from the "roll" of a television set. Subsequently, Dr. Knowles encouraged the Lab to extend its research toward perception and physiology in an effort to shed new light on the medium as a unique mode of visual stimulation.

In 1973, the Lab commissioned Dr. Julian Hochberg, Chairman of the Psychology Department at Columbia University to begin major research in that area. The result, "The Perception of Television Displays" written by Dr. Hochberg and his associate, Virginia Brooks, is the first known attempt to survey the mass of individual related research conducted throughout the years, and to analyze that research.

The paper, as Dr. Hochberg states, is "as a first attempt, undoubtedly incomplete and may contain errors of detail or emphasis; but it should provide a foundation that can be filled in further, expanded, and revised with relative ease."

Without minimizing the importance of all the information included in "The Perception of Television Displays" there are several points covered which seem to be particularly noteworthy:

Video displays (pictures) have particular characteristics which make them different from cinema and other forms of visual displays. Video displays "flicker" 60 times per second with each "frame" composed of 525 scan lines (in the American system). The size of home television receivers and the distance at which we sit from them results in the stimulation of the retina over a smaller area as compared with stimulation from movies, for instance. These characteristics have interesting consequences (both favorable and unfavorable) when also considering the structure and functions of the human visual system from eye to brain.

One of these consequences is the apparent ability of "flicker" (i.e. lightness changes in the display) to

induce, among other physiological responses, seizures in those who are epileptically sensitive. Perhaps even more important than this, Dr. Hochberg and Ms. Brooks also found reports claiming that epileptic sensitivity to flicker-induced seizures *can* be extinguished or greatly reduced by "teaching" those affected to "unlearn" their sensitivity.

The authors also propose that certain measures of brain function such as alpha-rhythms may be employed effectively as indicators of attention to video images.

Of particular interest to video artists may be the information relating to the physiological and psychological effects of different cutting rates (editing rates) and techniques and their relationship to the limited display size and detail of the television receiver; the text also covers points regarding the acuity factors that affect visibility of details in the display, and the effects of moire patterns produced by the interaction of the scan raster with certain other patterns.

The authors have, throughout the work, indicated the great need for more research in specific areas, and have also outlined procedures for research in many instances. For example, little is known about the possible undesirable responses of normal viewers to pictures which induce repetitive eye movements; specific effects on the visuomotor system when viewing the world through such a small "window" as a TV screen normally provides; viewing distances as related to age groups and socioeconomic strata; and, the effects of the synthetic visual surfaces, volumes and edges, that can now be electronically created by computers and other related equipment.

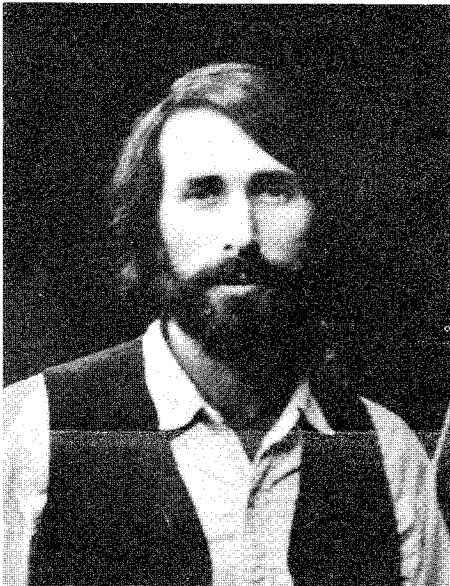
The need for more research is undeniably apparent if more is to be learned about the effects the medium can have on generations of people. Hopefully, "The Perception of Television Displays" will serve as a foundation upon which further investigations can be built. ◀▶

For information on how to obtain a complete copy of "The Perception of Television Displays," write to The Television Laboratory.

HAZARDOUS TO YOUR HEALTH!

By Dr. Peter Crown

Television Watching Behaviors.



Dr. Peter Crown

Susie McMeans is a friend of mine in Santa Fe who watches a lot of TV at night. When her set was in the repair shop last spring she had the same dream two nights in a row until the set was returned. In the dream she is feeling very anxious because there is no TV in the house. Finally she discovers an old set in the back of a closet and suddenly her anxieties disappear as an image comes on to the screen. Another example of a not uncommon attitude toward television comes from a woman I met recently at a party who informed me that while alone at home she must keep the TV set on — “I don’t necessarily watch it, but the voices keep me company while I’m doing the housework. Radio doesn’t seem to work as well, I guess because there are no visual images...”

People have different styles and patterns for watching TV, and the same person watches in different ways at different times. There are people who watch with the specific intent of being entertained or informed, and those who watch only to alleviate boredom or loneliness. Some people appear to be TV Addicts and some don’t watch at all. One area of research which is of interest to myself and the Lab is the study of “TV-watching behaviors” in general.

One premise behind the study of TV-watching is that people *use* TV for a variety of purposes other than for entertainment and information. In a study done by Robinson, published in 1969 in *Public Opinion Quarterly*, it was shown that people in the United States spend one third of their television-watching time while doing something else (like housework or reading). Newton Minnow recently admitted on a local talk show that he keeps his TV on only when *reading*. Under these circumstances one might interpret the function of the TV as a source of background stimulation, in addition to a source of information and entertainment. It appears that people also use TV for relaxation, sleep induction, alleviation of boredom and listless-

ness, as well as a baby-sitting/child-watching device (“I parked the kids in front of the TV and they’re glued to the tube.”)

A great deal of work has been devoted to audience program preferences such as the Neilson Ratings, but there is something innately fascinating about TV images, largely independent of content. In addition to being a form of background stimulation, television is also a unique form of visual stimulation, as cited by Dr. Julian Hochberg in his paper “The Perception of Television Displays.” The unique stimulus quality of TV images may be related to the intriguing concept of the TV Addict mentioned previously.

The term TV Addict is medically incorrect because there is no known physical dependence on TV as there is on heroin, for instance. However, it is tempting to draw parallels between TV addiction and the excessive use of drugs of pleasure (both addictive and non-addictive). One may, for example, consider the TV Addict as a compulsive abuser of the tube as a form of passive stimulation.

In a study entitled *Drug Abuse and Television Viewing Patterns* (Psychology, 1972), Brodlied reported that adolescent *abusers* of hashish and marijuana watched almost twice as much TV during childhood than a non-drug using control group. This does not mean that TV watching leads to drug abuse. It may, however, point to some possible similarities between the passive stimulation of certain forms of drug use, and the general passivity of compulsive TV watching.

Scientific research in these areas is expensive and difficult, but definitely worthwhile. TV is so commonplace to us, we accept it as a commodity like electricity. We spend so many hours watching it (or at least having its flickering presence reflected on the wall) that we should really know a bit more about it. ▲▲

Peter Crown received his Ph.D. in Physiological Psychology. He is presently an artist-in-residence at the Lab studying the relation of human physiology to video.

Lab Notes:

Recent funds from the *New York State Council on the Arts* have been directed toward new equipment, studio systems development, and the interface of a PDP-8 computer with all studio systems. The remaining portion of funds will provide support for the residencies of several New York State artists, among them: *Tom DeWitt, Hermine Freed, Ian Hugo,* and *Peter Campus*.

SCAPE-MATES by *Ed Emswiller* recently received an Emmy nomination from the *New York Chapter of The Academy of Television Arts and Sciences*.

Nam June Paik's Global Groove caused quite a stir after its original WNET airing January 30th. It was reviewed favorably in the television and art sections of *The New York Times*. Subsequently, both Paik and Lab director *David Loxton* were invited to discuss the program on *The Today Show*, February 15th.

Phil Falcone, a graduate of Yale's School of Engineering has joined the Lab staff as assistant engineer at Studio 46. He is also a computer dilettante.

The Lab recently played host to visitors from the *Canadian Broadcasting Corporation*, and *Swedish Television*. Both groups were interested in forming their own similar laboratories.

David Loxton, John Godfrey, Mal Albaum (head of engineering at WNET), and *Michael Shamberg* of TVTV were invited to speak to the engineering department of public television station WGBH in Boston about the making of *THE LORD OF THE UNIVERSE*. The group shared information regarding the unique technical aspects of the program. (See page 8)

Ed Emswiller has returned from a visit to the University of California at San Diego where he met with the *Extended Vocal Techniques Group at the Center for Music Experiment*. Ed hopes to incorporate his work with the group in a future video project.

The Lab is the subject of part of a documentary about experimental television being produced by *Jose Montes-Baquer* for *WDR-German Television*. While on location in the United States, Mr. Montes-Baquer interviewed *Nam June Paik* and *David Loxton* at Studio 46. Excerpts from works by *Ed Emswiller* and *Paik* will be featured.

The Lab has completed successful negotiations with *Howard Wise* of *The Electronic Arts Intermix*, for that group to become distributors of artists' works produced at the Lab. For information, write to: The Electronic Arts Intermix, 2 West 13th Street, New York, New York.

Sweet Verticality, a video art piece by *William Gwin* which illustrates an original poem by *Joe Ribar*, was broadcast over WNET/13 on March 23rd. The forty-minute piece combines and composes film and tape formats to create a unique blend of words and pictures.

The Lab held its annual report and presentation for funders and guests April 18th. *David Loxton*, WNET President *Jay Iselin*, *Howard Klein* of The Rockefeller Foundation, and *Peter Bradley* of the New York State Council on the Arts, spoke briefly before the 150 people invited to Studio 46. A special 30-minute tape highlighting the Lab's activities preceeded a tour of Studio 46. ◀▶

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The Lord of the Universe, which concentrated on the three-day happening staged by the guru in the Houston Astrodome last November, managed to capture the hysteria of the event and to closely examine the effect the guru has on his followers." Kay Gardella, *The Daily News*

"The occasion itself, billed as 'the most significant event in the history of humanity' was recorded in color. The rest — interviews, reactions, stock footage, candid-camera routines — was mostly in black-and-white. The visual results created a devilishly appropriate Wizard-of-Oz context." John O'Connor, *NY Times*

"The production group managed to gather a shockingly accurate account of the 'blissing out' of post flowerchildren. The show overflows with ecstatic, entranced faces." *The Christian Science Monitor*

"*The Lord of the Universe* is impressive because, with the exception of an informative quote from the *New York Review of Books*, there is no narration in the conventional sense. In a few cases the production group questions followers and ex-followers of the Guru, but for the most part, the events speak for themselves." Howard Kissel, *Women's Wear Daily*

"You may have seen TVTV's videotaped reports from the 1972 Republican and Democratic National Conventions in Florida. But its latest effort is its best." Ron Powers, *Chicago Sun-Times*

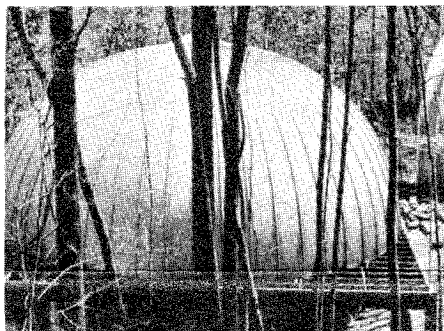
"The group of youthful television journalists are experimenting with and adding to TV's resources in much the same way the young independent filmmakers of the early '60's added to the vocabulary of the movies." Norman Mark, *Chicago Daily News*

"It's a show which proves, among other things, that it doesn't take a million dollars to make a fascinating hour of video documentary. And in the process, it also delivers a potent picture of a mass spiritual awakening gone awry." Dick Adler, *The L.A. Times* ◀▶

(Continued from Page 3)

of dreams, but also in their function. He believes that dreams are perhaps "a rehearsal for the future. Cronkite, instead of reporting the weather, may one day report that 3,000 people dreamed of earthquakes last night."

Nevertheless, dreams do release tension, and most people participating in Stan's dream theatre experiments quickly relax and fall asleep. Those who are able to stay awake throughout *The Newsreel of Dreams* will view some intriguing material. Said one interviewer, "Vanderbeek's problem is not one of finding raw material, but one of selection. Advertising, big business



The Movie-Drome.

and government supply the images: pulp magazines, slogans, gadgets, fashion, television, fast cars, missiles that make it and missiles that fizz out. He is probably *the* collector of anything his restless hands can manipulate, cut out, combine, transform and recombine." He also will combine his own films and photography such as *Snapshots of the City*, a recording of a happening he staged with Claus Oldenburg 14 years ago. Oldenburg appears in one of the several new segments produced at the Lab recently, reading several of his own dreams. John Cage appears also, reading his 66-word dream. But because Stan would eventually like to expose peoples of different societies to *The Newsreel of Dreams* he has made the tape essentially non-verbal.

"I'm interested in feedback. I want to know how people feel, react. I want feedback from millions — can't television be used for us to talk to each other?" And dream with each other? ◀▶

vision news

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Getting Technical: The Lord of the Universe

by John Godfrey,
Supervising Engineer

Rarely are the technical aspects of a documentary as interesting as the content. However, *The Lord of the Universe* is one such show. The hour program, which was recorded on half-inch black-and-white tape and one-inch color tape and then time-base corrected to two-inch tape, was a learning experience for all involved.

On October 25th, TVTV sent its crews to cover *Soul Rush '73* the national caravan of Maharaj Ji's followers travelling from Boston to Houston. While on location, they shot sample reels with the seven porta-paks they carried and sent those reels back to the Lab for time-base correction and quality evaluation. The Lab is equipped with a CVS-500 time-base corrector capable of correcting error up to ± 95 microseconds. Of the seven porta-paks tested, four proved acceptable, two were marginal, and one was removed from the project. Since time-base error is a result of mechanical instabilities within the equipment, we found that the porta-paks with the "most miles" on them, so to speak, were the ones which, due to wear and tear, contained the most instabilities — thus making them less desirable. To insure the best possible time-base correction conditions, all equipment used in *The Lord of the Universe* was pronounced mechanically solid before it was put into use. The color camera in use was an Asaca — a relatively inexpensive simple broadcast camera with Chalnicon tubes. The recorder used was an IVC 870 one-inch deck.

On November 6th, Lab director David Loxton and myself flew to Houston where we met TVTV who had already rented a house which would serve as living quarters and production space. Five black-and-white crews had been assembled to cover the events occurring on the periphery of *Millenium '73* while a color crew was assigned to cover the pagentry inside the Astrodome.

During taping, we encountered several fairly severe problems which were not discovered until we re-



turned to the studio for transferring. One problem was "beam fold-over" which led to a false flag waving which was not correctable by the time-base corrector. This occurs as a white area near the top of the picture. In the circuitry of the porta-pak, there is insufficient vertical blanking to cover this error. By using the Dynascience 6000-2 proc amp for the transfer, we were able to correct most of the errors; however some still showed. Another problem was the auto gain and level circuits, which would cause heavy video bounce when shooting under widely varying light levels such as sunset, or evening with streetlights and signs. The best that could be done with the tape as it stood was to closely ride these levels with the proc amp. It is advised to eliminate this circuitry or at least subdue its effects. All of the transfers were made using a Panasonic NV-3130 deck.

At the end of the shooting, we had accumulated 70-80 hours of half-inch black-and-white tape and 13 hours of one-inch color tape.

The basic process of sorting out this much material was the original responsibility of the shooting crews who logged the tape while they were shooting, then screened the tapes back at the house. All tapes were shipped to New York where they were again screened and thoroughly logged. The tedious

process of rough cut editing from half-inch to one-inch took about 6 weeks. At this point, 5 from the original 80-plus hours of material were selected and transferred to two-inch tape. The color segments were included in this transfer, but they needed the additional process of color correction with a CBS Color Corrector.

Final editing took place at WNET's post production facilities using two AVR-1's, a VR-2000 with editec, an HS-200 video disc, a Grass Valley switcher, a CBS Vidifont, a graphics camera, a videotape editor and 90 hours of machine time.

The program was fully completed by the first week of January and cost roughly \$33,000 from start to finish. *The Lord of the Universe* hopefully illustrated the potential of super lightweight equipment in the use of documentation of events. At the NAB convention in March '74 four to five small portable color cameras in the \$30,000 range were introduced, and at least seven more time-base correctors in the \$10-15,000 area. One company introduced, but has not yet delivered, a package including a modified Akai camera and a Sanyo half-inch cassette deck in a back-pack that weighs about 33 pounds. This trend toward the fuller use and development of portable equipment is encouraging and exciting. ◀▶