This issue was done in three locations by three separate groups of people. Twenty-four camera-ready pages were sent to us from Canada, sixteen from California, we did the other thirty-two ourselves and the cover was designed by Ant Farm. (Each group received a subsidy from us. See *costs* breakdown on this page).

The process worked very well. The precedent of compiling a publication from different geographic locations is one we plan to continue. However, as we've said, we don't plan to go on with *Radical Software* as a high production quarterly.

Instead, we are thinking of a more frequent, less formal print service which would exploit offset technology to the fullest by allowing us to reproduce what is sent us with a minimum of typesetting, veloxing, and so on. In addition, we would give it over to other groups and individuals allowing them to do an issue using the distribution and support system we have set up.

While *Radical Software* began as a service to alternate television people, we've always felt that high access video was just the beginning of a whole trend towards alternate uses of technology and media. Thus, just as this issue deals with other designs and technologies, so will our print service continue access to funky and high-tech tools. In fact, we think the combination of hardware and software trends (e.g., in addition to high access television, the availability of mini-computers will accelerate rapidly over the next few years) will see a whole generation of Americans coming to terms with its technology as a better tool for social change than worn-out, non-Cybernetic political models.

The question then becomes: what scale? We do not believe in mass movements, that we should expend our energies convincing millions of people to think and move like ourselves. In place of a mass culture, we want an optional one; one which can support many different cultural options.

Towards that end we think we can function best as an accessible model, economically self-sustaining, doing what we think we have to do, but not trying to force it down anyone's throat.

The first option we chose was television. A communications technology is a natural resource. On the one hand you can't ask people to ignore it, while on the other it's dangerous to surrender control to just one cultural option (i.e. the "networks"). There have to be programs to allow people to become video literate, instead of using video to teach print literacy. All a show like *Sesame Street* does is teach television, but because it doesn't acknowledge that, millions of kids end up assimilating a communications style against which they have no defense. Why aren't schools serving as an anti-environment to broadcast television by using videotape and Porta-Paks to get kids to see the low survival value of the culture's dominant media environment? Why haven't the foundations funded video literacy projects?

Similarly, people have got to become familiar with all the technologies which control our lives. In that direction then, we are heading.

Radical Software number five will attempt to reflect that through images more than words. We now ask you to send us any and all *images* which you think reflects where things are going, and not just video, but biology, computers and so on.

Radical Software number six, the last before we change our format, will actually be a book we have done called *Guerrilla Television*, a Holt, Rinehart and Winston paperback. (See page 27 for details). As that is mostly done (but not yet published), we'll be freed up sooner to redesign our format.

The new *Radical Software* will also be completely integrated with videotape, and towards that end we will be accelerating the videotape network detailed in the PROCESS PRINT-OUT and described in the tape offering on the inside back cover of this issue.

We have chosen to help set-up videotape distribution rather than surrender it to culture commodifying conglomerates because this allows us to develop it slowly, without hype, and reach people who are making their own videotapes instead of tooling up commercial production companies.

Moreover, recent developments in access to cable TV (both systems in Manhattan now have open channels) look as if alternate distribution systems can be a reality.

Finally, we are moving. Our current loft costs $500 a month and the rent is going up to $550. We have found a place nearby (8 East 12th Street, New York, N.Y. 10003) of the same size (about 2200 square feet) and convenience for only $350 a month. That frees up $2,400 a year for projects .

TOP SECRET

NEW PRICES!!!

Issue One	Out of Print
Issue Two	$1.25
Issue Three	$1.50
Issue Four	$3.00
Issue Five	$3.00

Issue Six *Guerrilla Television* $3.95
by Michael Shamberg and
Raindance Corporation.
Design by Ant Farm.
A Holt, Rinehart, & Winston
paperback. (see editorial and pg. 27)

Our prices keep fluctuating upwards because we're unable to make any money without raising them. This, of course, creates havoc with new subscribers who respond to old subscription offers (printed in *Radical Softwares* 1, 2 & 3).

Our policy is this:

As of June 23, 1971, we stopped accepting subscriptions at the old rates. All money coming in after then is being applied towards our new prices. Where people have sent in not enough money for a full subscription, but too much for the reduced number of copies they can receive, we are refunding the difference.

However, all subscriptions received before June 23, 1971 are being honored at the old rates. This means, for example, that if you sent in $1.50 for issue number 6, you will receive a $3.95 book for that price. We have 182 subscribers who will benefit from that. We are willing to take a loss of approximately 65¢ per copy on those books because: 1. it frees us to develop our new format more quickly; and 2. that loss may be offset by book sales generated by our subscribers showing them to friends, etc. Moreover, we get a standard publishers' discount of 50% on each copy, so books we sell for $3.95 (including mailing) only cost us half that. In other cases, of course, the bookstores will get that margin.

All new rate subscribers to *Radical Software* will get issue number 5, the last before we mutuate our format and information process, and *Guerrilla Television,* before it is available in bookstores.

Sorry for the inconvenience to some of you, but we are neither a public service nor a hard commercial venture (which is why we carry no advertising) and hope our readership is thus willing to experiment along with us in making this thing work.

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SUMMER 1971 NUMBER FOUR

SPECIAL: CANADA AND CALIFORNIA SECTIONS ! ! !

Publication of this issue was made possible in part by money granted by the New York State Council on the Arts.

Editors; Beryl Korot and Megan Williams
Publishers; Ira Schneider and Michael Shamberg
Technical Editor; Dean Evenson
Production: Megan, Beryl, Jody, Ira, Michael, Dean and Dudley
Circulation; Louis Jaffe and Jody Sibert

Cover designed by Ant Farm.

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$$$

Once again we've raised our price (from $1.50 to $3.00). And once again we're honoring all subscriptions received when the old rates were in effect. For the rest of you here's why *Radical Software* has gotten more expensive.

First of all, our format change from a newspaper to a book layout puts us in the same class as other less disposable, more savable publications. We've increased our contents and are simply offering more and unique information. Finally, we just couldn't make money the way we were going, and we think our readers are willing to go along with us in making this thing work.

Here is a cost breakdown for this issue:

Typesetting.....$1,400.00	(this breaks down to $700 for Raindance in New York, $700 for Canada. California used *Big Rock Candy Mountain's* composer)
Veloxes and Photostats.....$900.00	(this breaks down to $200 for New York, $200 for Canada, and $500 for California, and includes' all of California's art and composing expenses)
Art Supplies.....$495.00	(here it's $120 New York, $300 Canada, $75 California for negatives they sent to us instead of lay-out boards)
TOTAL CAMERA READY EXPENSES ISSUE 4.....$2,795.00	
PRINTING AND BINDING ISSUE 4.....$2,830.00	
TOTAL PRODUCTION COSTS ISSUE 4 (10,000 copies).....$5,625.00	

It should be mentioned that 8,000 copies (upon which these figures are based) in sales would be the best we've done and that it could take up to a year to sell them.

Next, salaries and overhead breakdown into two people three months fulltime at $100 a week, and four people half time, or a total of $3,600. Add to that $350 a month for *Radical Software's* share of the total Raindance overhead (half), or $1,050. Thus, total approximate salaries and overhead for *Radical Software* come to $4,650.

This means that, if everything goes very very well, we can net $11,920 minus $4,650 equals) $7,270 on this issue over a year's time.

This means each issue of *Radical Software* costs 56¢ apiece for materials, without considering salaries or plant overhead. Assuming we sell 80% of our run, or 8,000 copies, our income breaks down this way:

Subscription sales (approximately 1,000 mail subscriptions already accepted at $1.50 a copy minus the 56¢ unit cost and approximately 15¢ for mailing)...$790.00

Mail order sales (approximately 2,000 projected mail order copies at $3.00 minus 71¢).....$4,580.00

Book store sales (approximately 5,000 copies at $1.50 net to us minus 5¢ apiece shipping).....$7,250.00

TOTAL PROJECTED INCOME before salaries and overhead.....$11,920.00

However, to do that we have to front end the $5,625 production costs, of which $2,000 is covered by a grant from New York State Council on the Arts. Then we have an ongoing deficit from the last three issues which we do not have precise figures on because we have not kept *Radical Software*'s books separate from Raindance's. But some things to consider are: we've only sold 60% of the last issue so far, and about 60% of the issue before that (number one, however, is almost gone). And we got ripped off by our last printer (Balan Printing in Brooklyn) who shortchanged us by 1,500 copies on a pressrun of 10,000 thus driving our costs on number three up by 15%. And finally, we have a deficit for back salaries for issues one and two when virtually none were received.

The last thing is California and Canada. Media Access Center received $575 from us to cover all material expenses, but no salaries. Canada was sent $500 and received an additional $130 from Free Video in Montreal. When the Canadians began production they were expecting a grant to cover their expenses. Therefore it was agreed that we would not reimburse them.

However, their grant is still pending. If it does not come through they'll have a deficit of $570. Both Canada and California will receive 300 copies of issue number 4 to do with what they wish.

We made no formal agreement on further reimbursement because any income projections we make are contingent upon things we can't control, and don't know about. If it looks like this issue is going to do well, quickly, money will go back to California and Canada. However, they agreed to work at a deficit and without salaries because they're getting the use of the *Radical Software* network. We like the idea of a publication being produced in many different geographical locations and hope we can develop the economics to sustain similar projects in the future. (See editorial for more details).

NOTES FROM STEPHEN WATERMEN

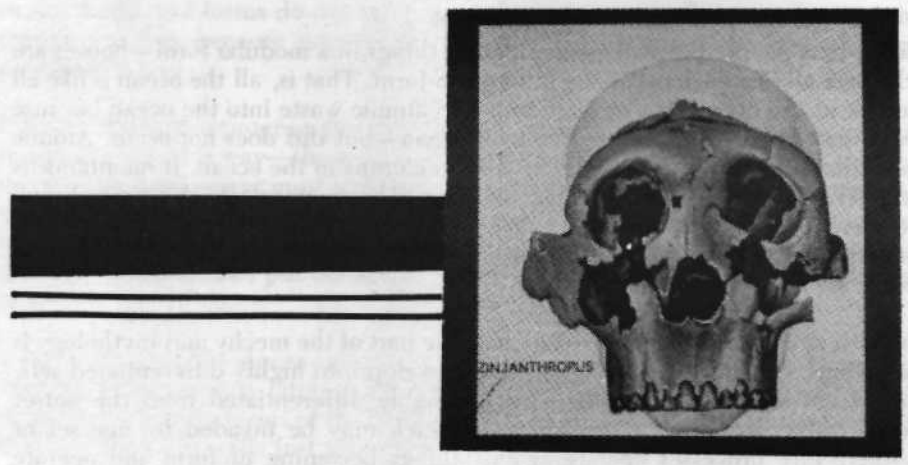
A living body is not a fixed *thing* but a flowing *event*, like a flame or a whirlpool: the shape alone is stable, for the substance is a stream of energy going in at one end and out at the other. We are particular and temporarily identifiable ripples in a stream that enters us in the form of light, heat, air, water, milk, bread, fruit, beer, beef Stroganoff, caviar and pate de foie gras. It goes out as gas and screment—and also as semen, babies, talk, politics, commerce, war, poetry and music. And philosophy. :: Alan Watts/Does It Matter?

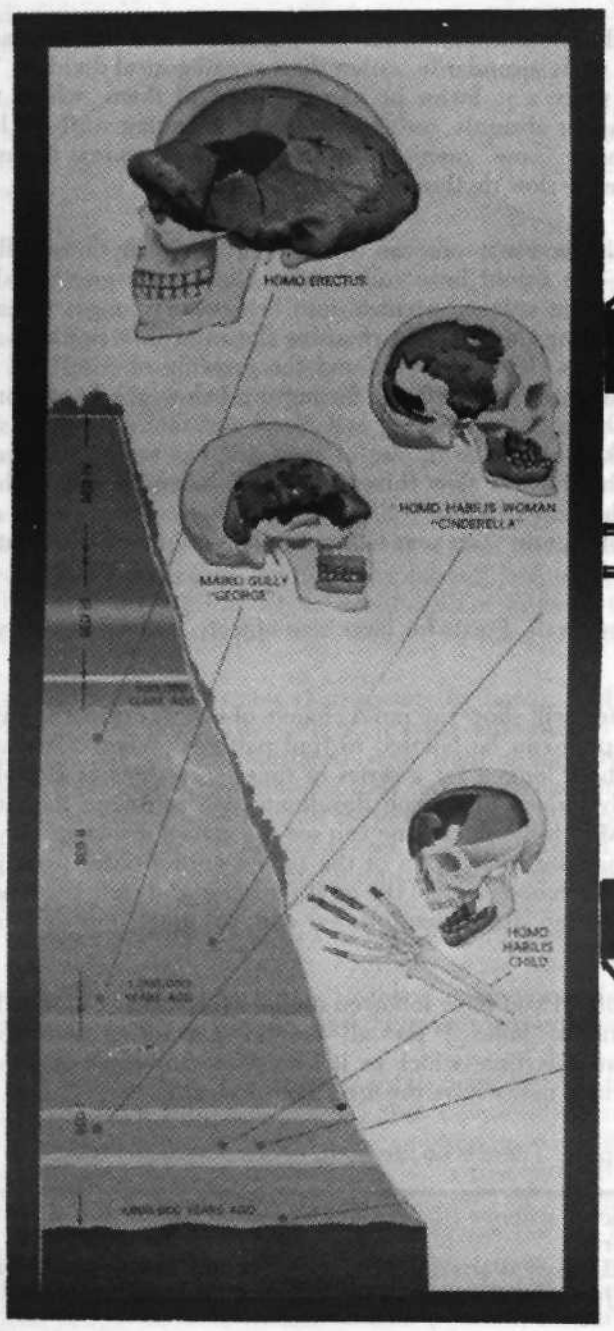
Attempting to preserve in two dimensional archive what is not only happening in time (process) but is happening in many different forms/heads/places simultaneously (multi-process). Because Synergy is a coming together of individuals and groups with a group-ego/consensus changing according to what is happening and who is involved to what extent, we can only point to some more or less general operating principles, supplement those with actual history and suggestions for further reading, and provide a situation allowing an individual to see as they want/need to see. Hence, we are to each person involved whatever that person makes it (which is the way we've always perceived anyway, but have tried to convince ourselves that events/energy transactions/things existed without us).

My view of what we're doing, then, is conjured from my perception of activity as energy conversion, events in time. The manifestation most immediately brought to mind would be physical (associative) energy exchange environment, the ones we usually associate with the pre-industrial era, quantified and abstracted by the Smiths, Keynes, and Marxes of our civilization. The industrial era brought us to pure metaphysical (energy exchange): hydroelectric dam. e+Mc2. Each new environment bringing with it new discovery, vocabulary, perception and perceptibility. The borning electronics era adds another metaphysical manifestation, the informational energy exchange environment. Both Ralph Nader and our Vice President have recognized the omniscience of the information environment; the synergy network is attempting to learn the principles of its new economy.

When we get down to learning how to harmonize with environment, and remember that that can include psychological and other metaphysical spheres, we make ourselves eligible for what Robert Theobald has called the Invisible University *(Teg's 1994*, manuscript), a metaphysical institution of people linked by communication and transportation exchange facilitators, each individual assuming roles of student and teacher interchangeably. Hence, I speak of the synergy network more easily than I can of Synergy; herein lies the changeable, process relationship of groups relating to groups, facilitated by the various tools applicable to informational catalysis.

Various elements function independently, as well as synergistically. Peggy still photographs on assignments and plays with her own work; I still produce films and radio, disc, film or multimedia sound tracks. Marketing these various talents is not too difficult, and our professions can be found in the yellow pages. But event of synergy is that unpredictable reaction of the interaction of potentially high energy elements. I am what I think and have only a suggestion of what that might be next year. What we have done and are doing in manifestation beyond our individual capacities have been varied.





Last fall we were an element in "happening" the South Street Week celebration. Putting city land to good use, we built a children's park at 3rd and South streets; brought together a ten thousand person parade; released free cameras to friends and children and children's friends, instituting a photography class; opened and maintained for two months a neighborhood free (barter) store, transforming in time to a school kids didn't have to go to; blew up a bubble, called it the First Building of the Hicentennial, and watched how several hundred neighbors, gang members, hippies, Jewish merchants, Society Hill Matrons, and a rock band could get it on:
-Other past tense celebrations include parties, such as at Everything for Everybody, and the Beaux Arts Ball, with the Department of Urban Outreach, Graduate Department of Fine Arts at Penn., and the American Institute of Architects. That black tie formal involved manipulation of time and definition of space (industrial age environment of the International House juxtaposing the . . videotape-delay-and-projection,-film,-slide,-light,-four-channel-sound-and-tape-delayed-live-mic,live-electronic-music,-two-bands,-inflatable-bubbles,-and-life-theatre-via-the-tools/toys -environment)
Most synergy network activities are continuous:
-Polis '76 will be conferencing with radio and television station managers in June at the Corcoran Art Gallery in Washington, D.C.
-Ira Einhorn, the mayorality candidate-as-information-channel, climaxes without him at a celebration of the community of people building a park at 6th and South streets. A main myth of his campaign has been awareness of our myths and the methods of proliferating/maintaining them via various channels, including information's, media:
-Parties continue, the next being a Children's day at Rittenhouse Square June 19th.
-Video-as-professional myth proliferates, with a present project involving video in conjunction with music therapy at the Greentree School, Germantown, with children:
-Festival of Life, itself a community process, will take its next action to the Auditor General's office in Harrisburg to discuss proper use of and negotiation for the Evansburg dam site; the Festival, a cooperative effort in community planning, continues to seek a site:
-Everything for Everybody engages full time in catalyzing, by referring, communicating, and providing institutional frameworks for cooperative efforts in the South Street area, such as Peggy's and friends' community day care center, now forming, and the South Street Cooperatve Food Store:
-A community energy center is continuously being developed given by a long time tavern owner now containing two apartments, meeting, work, and office space
-An electronics lab open to qualified use by the community is operating (and Making Money) out of the Pemberton Street Group's architectural offices:
--Steersmen continue to meet with various community, industrial, political, or professional people; I am experimenting with a parallel attempt in bridge-building by communicating via mimeo-letter (soon to become cassette) to a network of friends and associates:
-Mediamobiles are being designed and will be operated in conjunction with the Department of Urban Outreach of the Philadelphia Art Museum. Parallel to this, proposals have been submitted toward development of a community communications awareness to New Hampshire Center for Creative Cinematography and Corporation for Public Broadcasting (film project in super 8mm, 16mm, ½" video tape, stills, cassette and studio sound, involving numerous non-professional communicator/playmates), Philadelphia College of Art and American Institute of Architects (community video center), and various public figures/institutions (use of people-media on the various public life-theatre stages). An article on the specific video activities will appear in the Sunday Inquirer "Today" magazine shortly.

People and their external nervous system: how to use it, like any other technology, as a tool for more clearly and usefully manifesting this common information space. The acknowledgment/incorporation of the tools in all of our activities is not so much for archive/documentation (though that is useful and being grown) as it is for the catalysis of activity, only one of the many tools capable of raising and sustaining energy levels.

The nature of our present means of communication is such that I am not telling you much more than I am. Each person fills in the gaps as he experiences/learns/sees fit. Consequently, I can never expect or ask for response; I can only provide opportunities for play. Bridge-building becomes a high priority. As separations/classifications/generalizations dissolve, so does the alienation and degenerative evolution of specialization, being made less necessary by the computer. There must be ways of bridging these systems so that the transformations may take place without destroying the energy/informational stores we call culture or the linkages of their processes. If you see some way your interests/talents/experience could be brought to Us in either an individual or common way, and if you see adequate return/engagement, and mostly, if you'd like to, I could regard you as another valuable teacher.

Stephen Watermen/Mobile Global Family can be reached at 229 Monroe St., Philadelphia, Pa. 19147.

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THE NUTRITIVE CONTEXT

Frank Gillette

(1)

Teliology is the logic of manifest intention, and *ecology* the logic of manifest survival. The extent to which environment is intentional, is the extent to which survival is enhanced. Moreover, the extent to which man's energies are spent adapting to problems of his own creation (reacting to the effects of his non-intended influences) is the extent to which ecological equilibrium continues disturbed. The conceptual retooling of models required to link intention interactively with environmental enhancement, thus establishing a nutritive context, is analogous to intergrating a great diversity of method (or technic) for purposes no one of the methods was designed to expect.

(2)

(THE PAST AS PROTECTED REWARD)

Man becomes the prime victim of his talent for retrospect upon investing his identity, his sense of self, in the simulations of past experience. By substituting prior patterns of identity for the elusive swarm of unfixed data accounting for the bulk of experience in the present, man imposes on the present those qualities selected from his simulations of the past best suiting his need for continuity. The transitory is thereby regarded as transcendental and the past is transformed into the only resource of *protected reward*. The past is read as unmistaken, fixed, sanctified, and the reality of the present is read as a bluff.

(3)

(THE CORRUPTION OF REPLICAS)

Originals are, by definition, initially disorienting. The duration and effect of the initial disorientation is relative to the specific adaptative requirements introduced by an individual original form or set of original circumstances. *Originals*—like the *Special Theory of Relativity*—create theretofor unrealizable structural contexts and, in their own terms, re-frame and displace the preceeding accumulation of replicas.

(4)

(THE TRANSCENDENTAL MORPHOLOGY OF THE SACRED COW)

Evolving from cuniform markings on bark and hyrogliphic slabs to the most protean of optimum-computer-access networks, information processing systems (information structures) trace a gradual, then a sudden amplification of planetary awareness. Away from the localized, the strictly continuous, towards the integral focus. As this alteration of his thresholds accelerates, Man will sustain his facility for seeing beyond former circumstance, and, if successful, develop new models of foresight; or, he will attach himself to each exclusionary, specialized history as they scramble to dominate an environment which refuses to support their contest. Environment will die first.

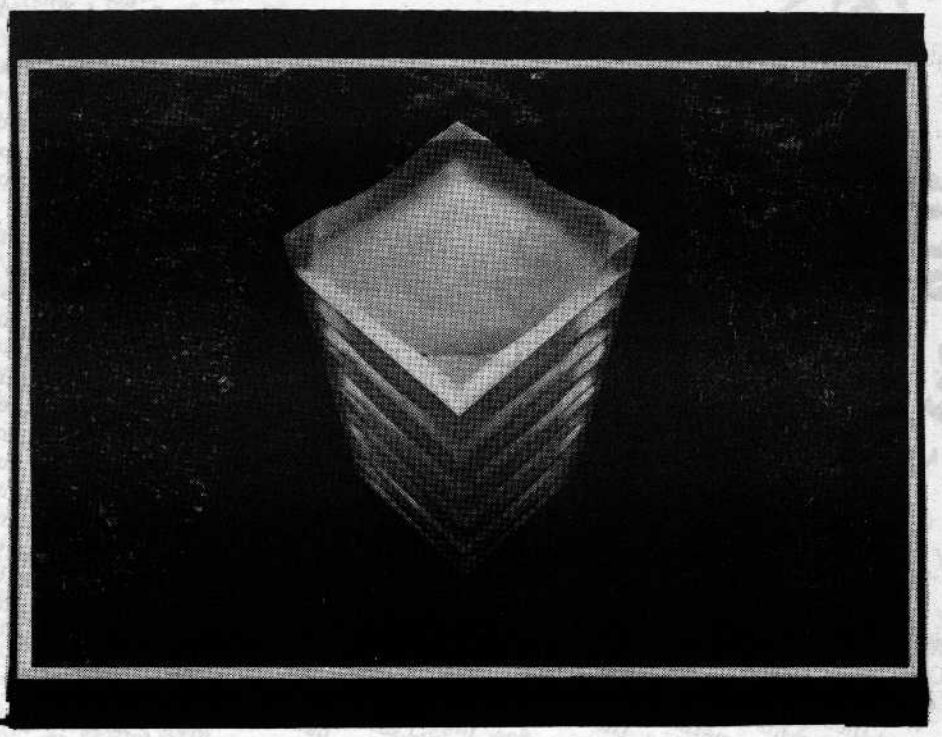


photo: Joan Hennessey

(5)

(THE IDIOM SYNCHRONIC)

As the cybernetic paradigm characterizes reality with *process*, the medieval paradigm characterized it with *essence*. Essence *is* process.

(6)

(AN ATAVISM:
THE RE-EMERGENCE OF REVERENCE)

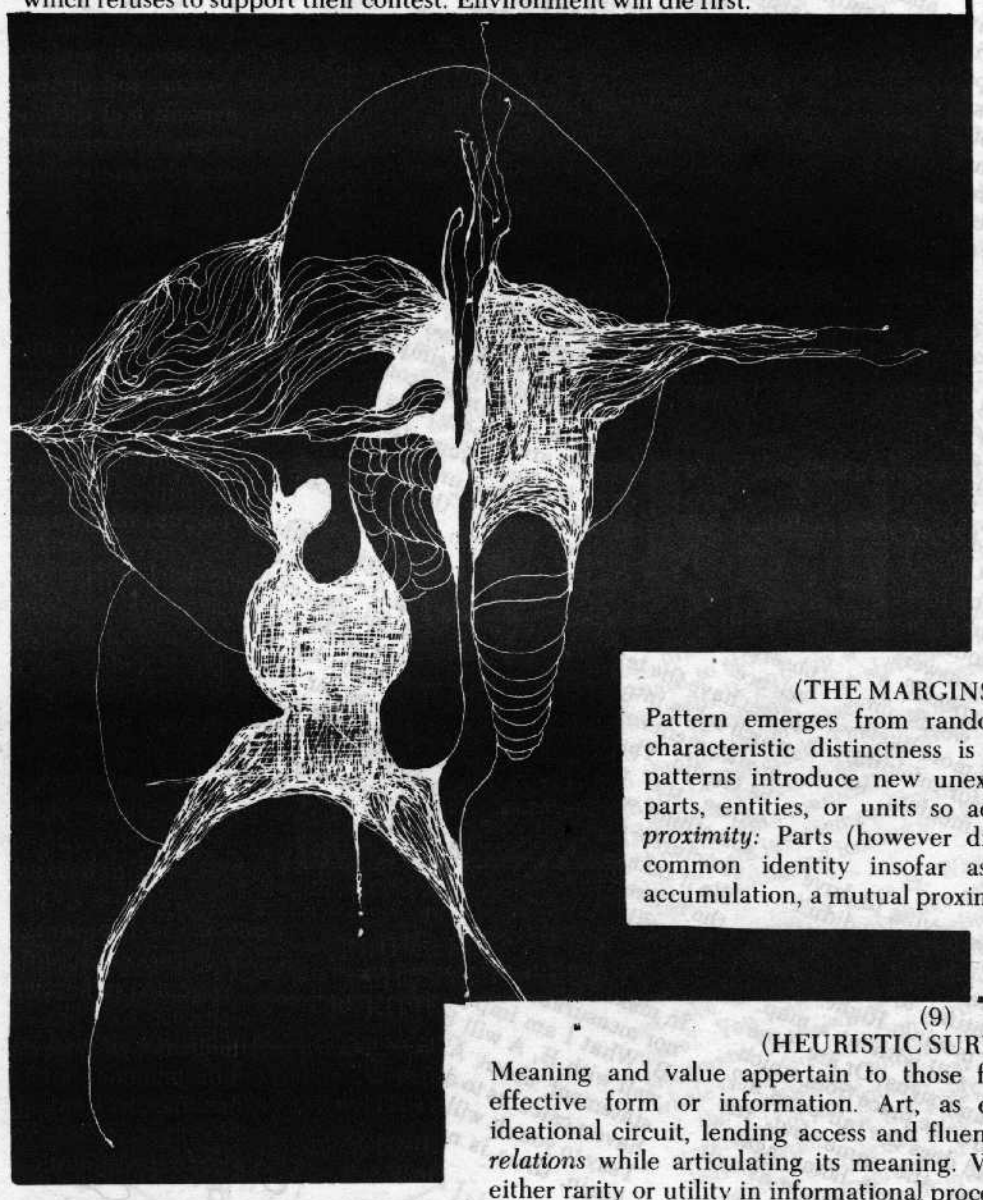
Man's sense of the *whole* is conditionally relative. Persistently, throughout the degrees of his experience, there is a constant, *subsuming whole* of which man's most inclusive and sophisticated paradigm is but a variable part. It is this constant, perceived by man as a permanent condition, that procures and develops the forms of his reverence. As these forms are increasingly reduced to convention, expressions of reverence devolve into obsolete ritual and, over varying cycles of time, a resulting accumulation of atavistic energy develops. Reverence re-emerges.

(7)

(OBSOLESENCE IS A MENACE)

Vestigal modeling attitudes Fuller's scenario concerning the illusion that the sun is coming up and going down for the planet's turning on its axis, inhibits, re-routes, or otherwise limits experimentially gained evidence (feedback) which tends to deny their methodological validity. They handicap direct experience of the phenomena modeled to the degree they are believed to be real, that is, believed to be *one* with the phenomena. Models are rendered obsolete as they exhaust their "budget of flexibility"; losing, incrementally or instantaneously, the capacity to adjust to new relational patterns and the subsequent rupture of continuity.

(Models of access-to-process displacing models of static relation.)



(8)

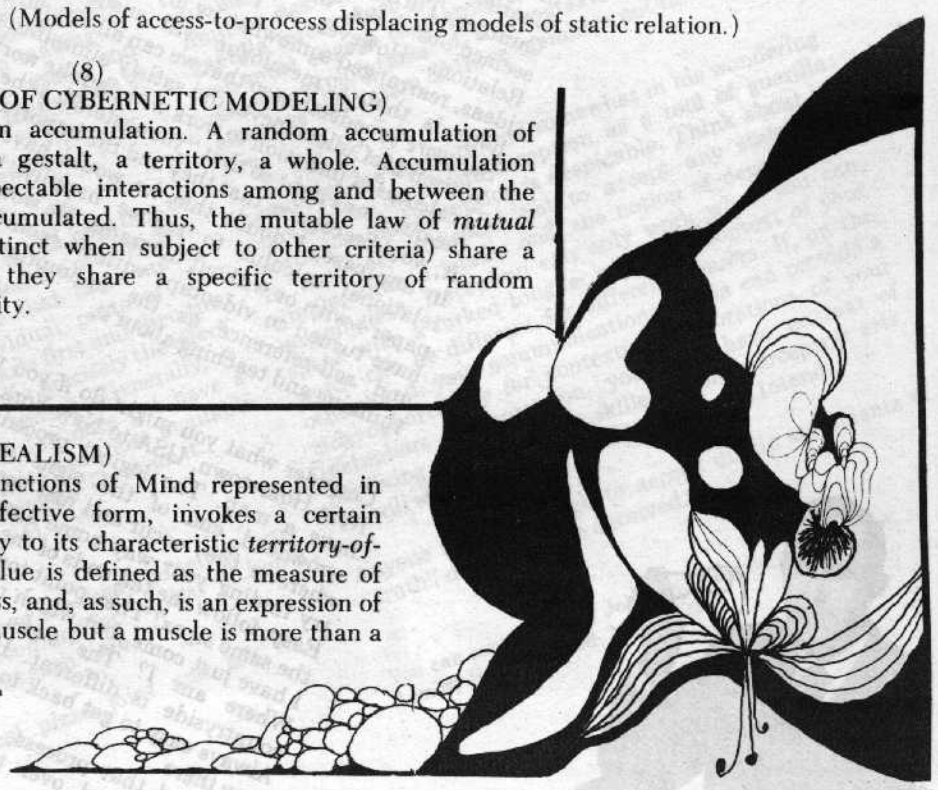
(THE MARGINS OF CYBERNETIC MODELING)

Pattern emerges from random accumulation. A random accumulation of characteristic distinctness is a gestalt, a territory, a whole. Accumulation patterns introduce new unexpectable interactions among and between the parts, entities, or units so accumulated. Thus, the mutable law of *mutual proximity:* Parts (however distinct when subject to other criteria) share a common identity insofar as they share a specific territory of random accumulation, a mutual proximity.

(9)

(HEURISTIC SURREALISM)

Meaning and value appertain to those functions of Mind represented in effective form or information. Art, as effective form, invokes a certain ideational circuit, lending access and fluency to its characteristic *territory-of-relations* while articulating its meaning. Value is defined as the measure of either rarity or utility in informational process, and, as such, is an expression of negentropy. Likewise, the Mind may be a muscle but a muscle is more than a tool.



(Note: The following nine excerpts were pulled from *The Mood and Its Purpose*, copyright Gordon and Breach, N.Y. Forthcoming.)

PAMEN

productions

NOTES ON NEW POLE IN TIME . . . REF: N.J. PAIK ARTICLE . . . RADICAL SOFTWARE #3 TIME: AS EXTERNAL MANIFESTATION OF THOUGHT (INTERNAL) IN SPACE IS THAT ONE WAY FLOW (FUTURENOWPAST)
EVERYTHING THE MIND THINKS . . . IS ILLUSION
ALSO EVERYTHING IS ROUND . . . THERE IS NO SQUARE . . . THE MIND IS ROUND SO TIME IS ALSO ROUND. CORRECT TIME IS KEPT BY THE BIOLOGICAL CLOCK . . . TICKS ARE TOCKS AND TOCKS TICKS!
MIND (FORM) AND THOUGHT (VOID) . . . ANGLE (FORM) FREQUENCY (FORMLESS) THE TIME IN THE HOURGLASS DOESNT REALLY MOVE BECAUSE: IT IS A COEXISTENCE OF TWO UNIVERSES: SAND (FORM) VACUUM (FORMLESS) INSIDE THAT CLEAR GLASS! THIS IS SIMILAR IF NOT IDENTICAL TO THE MIND (BRAIN FORM) AND THOUGHT (FORMLESS) INSIDE THE HUMAN UNIVERSE! (BODY) SO THERE IS NO CONCEPTION AS MOVING TIME . . . THOUGHT IS TIME! NOW THOUGHT CAN BE SLOWED DOWN TO REST AND ALSO SPEEDED UP. THE BASIC PRINCIPLE OF YOGA IS IN SLOWING DOWN THE MIND/THOUGHT TO A BLISSFUL REST! . . . WHEN MIND AND THOUGHT IS ONE THE CONCEPTION OF MATERIAL UNIVERSE IS DESTROYED! . . . THIS IS FOURFOLDFORMLESS: THE LAST STATE OF MIND MANIFESTATION. THREEFOLD IS YING/YANG: YAO (I) FOURFOLD INVERTS THIS STATE: A DUCKPLOP. WHERE THE INSIDES IF DUCK IS TURNED OUTSIDE: HEAD THROUGH RECTUM. WITHOUT KILLING IT! TIME REVERSAL IN SAME SPACE/SPACE REVERSAL IN SAME TIME! AND BOTH ARE SIMULTANEOUSLY TRUE!!
AT THIS STATE THERE IS SHUTOFF OF GRAVITY, ELECTRICITY, LIGHT, AND SOUND! ACTUALLY ITS VERY SIMPLE TO SEE!
EVERYTHING IS LIGHT
THOUGHT IS LIGHT (DARKNESS IS LOW INTENSITY LIGHT)
LIGHT IS ROOT OF ALL ENERGY.
YOU HAVE TO GO BACK TO THE VERY ROOT OF THE LOTUS . . . THE IMAGE IS MERE ILLUSION ON THE WATERS SURFACE!
TURN TIME BACK TO THE ROOT . . . TO COMPLETE THE CIRCUIT NOT JUST AN ELECTRONIC GLOBAL CIRCUIT . . . BUT
BUT A COSMIC CIRCUIT OF ELECTRIC, ATOMIC AND PSYCHEDELIC TRACE BACK THE SPECTRUM . . . BACK THROUGH THE PRISM . . . BEYOND GATE . . . GATE PARAGATE!
ALPHA AND OMEGA IS SAME PARTICLE IN DIFFERENT WAVES! THE PHYSICAL WORLD (TUBE, SCREEN) IS ILLUSION . . . IS THE PRISM . . . LIGHT IS THE ONLY REAL MESSAGE! LIGHT IS THE MEDIUM AND MESSAGE! BUT WHO CARES REALITY! WHEN ILLUSION IS MAGIC!
I HEAR ITS POSSIBLE FOR MAN (BODY) TO FUNCTION BY LIVING ON LIGHT ALONE! ELIMINATING FORM?
ANYWAY . . . I THINK WE ARE AT STAGE EITHER WE ALL GET HOOKED UP RIGHT AND SHINE VERY BRIGHTLY! OR ELSE BLOW THE FUSE!
IF POSSIBLE PLEASE PRINT THIS IN PAPER!

REVOLUTIONARY ENGINEERING:
Towards a 'Counter-Technology'

We are interested in the (still embryonic) 'Counter-Technology' branch of the "Counter-Culture" movement, as reflected recently, for example, in the appearance of publications such as *Radical Software, Mother Earth News, Whole Earth Catalogue, New Alchemy, Domebook, Dome Cook Book,* Ant-Fram, & ct. Specifically, we are interested in the possibilities of the formation of *automated* rural (and urban) communes, possibilities opened by the co-existence of (1) enormous accumulations of "waste-capital" (government-military surplus in particular and commodity surplus and glut in general) with (2) the skills of the growing number of drop-outs, refugees, and renegades from the engineering colleges and the scientific and technical professions in general (among which we number ourselves)—not to mention those expelled involuntarily in the recent surge of unemployment in the technical professions who form the human side, the "software" portion, of this "waste-capital" (what we would call "waste-labour"), and who are just as much "military surplus" and "obsolescence" as the more familiar "hardware", and refer to themselves as such.

We feel that the present movement needs people from scientific, mathematical and technical backgrounds just as badly as scientists, engineers, and technicians need the social consciousness which this movement reflects and which it so often (rightfully) accuses them of lacking, if it is to be able at all to deal with and ultimately transform the present social reality. The ideology of the "abstract negation" and rejection of "Technology" (with a capital "T") which is so popular and prevalent among large segments of the movement reflects this weakness. It is an utterly self-defeating and self-castrating ideology, and one which plays perfectly into the hands of our deadliest enemies. Behind the present "Technology" lie capitalist social relations. One need only break out of the fetishism and mystification of the use of this term for a moment to see that "Technology" does nothing, creates no problems, has no "imperatives", etc. Only people do; people moving within certain definite social relations, out of which arise certain imperatives, etc. The form that technology assumes in any society is at least in part a reflection, an "objectification", of its basic social relations. Our problem is not "Technology" in the abstract but specifically capitalist technology (and, in the case of the USSR, etc., state-capitalist technology). A new, revolutionary society emerging out of this one would express itself, its new social relations, in a new, critical appropriation of present technology and science; in a transformation of its deployment and physical plant, etc. Communes which have begun with naive illusions about this question, and have attempted a return to the "idyllic" Neolithic or Paleolithic modes of life, have either quickly disintegrated or compromised their initial ideals, lapsing into pre-capitalist forms of alienation (guru-theocracy, etc.) It is necessary merely to think concretely enough to imagine what a hardship life can be, without the facilitations and "arts of life" which men have developed, to see the error in this approach. [One might also reflect that the development of Paleolithic and Neolithic societies lead precisely to where we are now, and a return to those conditions, even if it were possible, could only reproduce the original course of development and lead us back here again.] On the other hand, communes which are unafraid to adapt the whole range of modern technology to their needs might serve as an advance scouting and experimental groping process, exploring the possibilities of the re-formation and re-deployment of the physical plant of society, of decentralization and de-urbanization, resulting in knowledge which will be crucial to a society undergoing a radical social revolution, such as the U.S. may be within the next decade or so. It is our belief in addition that communes, from the point of view of their own survival, must *begin* with the most advanced technologies (such as automation) evolved by the present capitalist society (though of course not in their most expensive and large-scale forms), and begin to remold them to congruence with a different totality of social relations. We believe it is both possible and necessary for an intentional community movement, despite its inevitable poverty and financially and economically marginal status, to begin to build an independent economic base for the support and facilitation of the new social and interpersonal formations and relations which are now straining to emerge in this society.

We are presently working with several groups planning to form communities and we are actively exploring possible ecologically compatible, etc. technologies which could be utilized by such communities. Most of our work so far has been done in the area of what we call "the automation of agriculture" (controlled environment agriculture and hydroponics). We have developed several schemes and strategies for the (economic) evolution of such communities. The results of our work to date will soon be published by us as a pamphlet entitled: "POST-SCARCITY COMMUNES". We are also interested in the category of 'counter-technology' which might be called Technological Guerilla Warfare .

contact: AQUARIUS PROJECT, P.O. Box 4013, Berkeley, California, 94704.

VIDEOTAPE DANCE THERAPY

by Louis Jaffe

In the past two years I have videotaped seven of Luly Goldin's dance therapy sessions at the Turtle Bay School of Music in New York City. Luly ostensibly teaches people how to become dance therapists, but her sessions usually turn out to be therapy for those involved. Her method does not consist in playing records and getting people to dance. All of the sessions I taped or participated in (I was a member of the group two semesters, then I returned as a guest to tape) took place without musical accompaniment.

The sessions begin with Luly's instruction to the ten participants to "start working" which means that people stop talking and smoking cigarettes and try to express their feelings by movement. This is difficult at first, and the group usually fans out across the room (which has been anything from a small auditorium to a twelve by twenty foot practice room at the school) to go through a personal process of getting into their movements or non-movements.

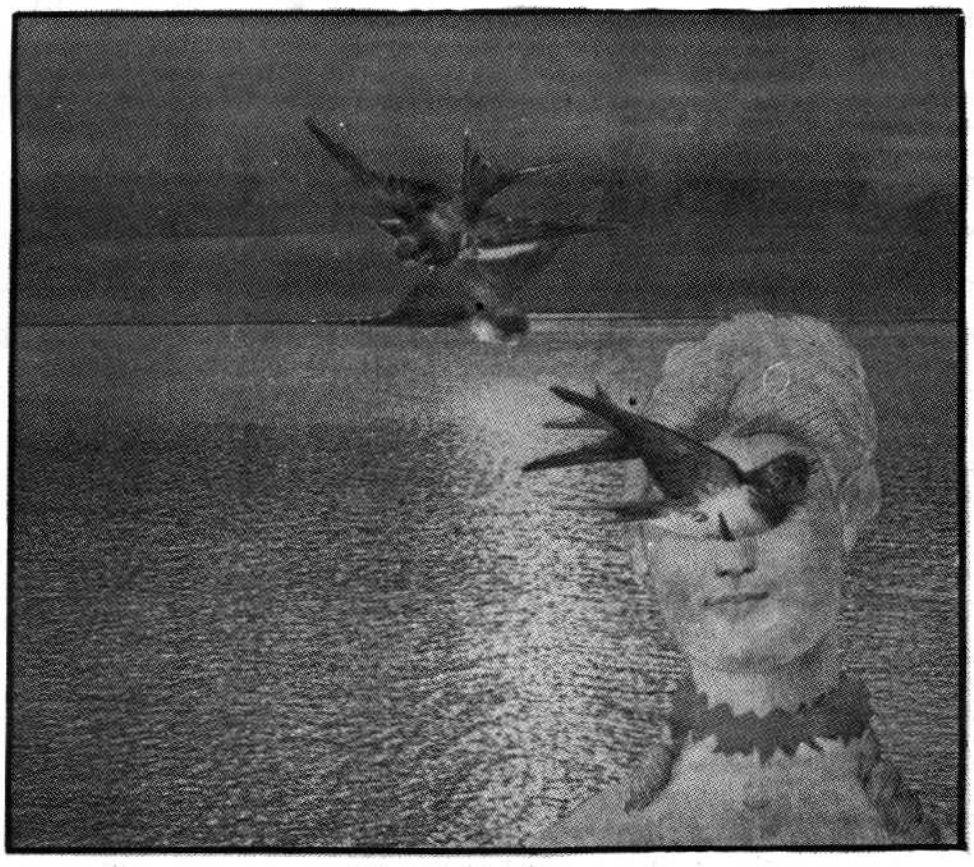
In a few minutes people may begin to dance with each other, fight, mirror each other's movements. Couples or threesomes begin dramatic interchanges while others remain detached, into themselves. Luly sits at the edge of the room, always watching. Her therapist's role consists in watching the movement for some key development, like the sudden shift in two people from lovers' gestures to hostile ones, or a barely perceptible change in their body attitudes.

As soon as she sees this (and her wisdom as a therapist is in being able to see it and make people aware of it) she stops the session. From this point on, most of the group become spectators while the people Luly has singled out continue to develop the feeling they are working on. The intensification that results from taking people and setting them out in front of the rest of the group almost always develops into an emotional outburst. Most often it is tears, sometimes rage, sometimes affection.

Usually, an outburst like this ends the session. After a review of what happened, during which everyone gratefully shrugs off the all-too-heavy expression through movement and reverts back to smoking and talking, the group breaks up. The session usually lasts two and a half hours.

I began taping as soon as Luly asked the people to start working, and kept the tape rolling continuously until she called a stop. Then instead of discussing the events of the last few minutes we immediately played back the tape. After watching the tape sometimes people talked about it, and sometimes we went right into the second phase of the session where most of the group along with the camera became spectators while one or two or four of the people went further with what they were doing. This stage too I taped entirely. As I said, it often ended in tears or violence although sometimes with great tenderness. Even those who became hysterical watched the playback immediately and were calmed by their interest in seeing themselves go through such a thing.

We taped seven sessions out of forty, two each semester. Luly didn't want more taping than that, which I think is another credit to her therapist's judgment. If watching yourself in videotape replay becomes the main reason for doing things, then the quality of the experience is debased. Videotape had to be a special event in the routine of the sessions. This gave the insights from video feedback shock value which was not dulled by repetition of the experience in later sessions.



collage: J. Sibert

Within each session there was also the danger of overloading the participants with video feedback experience. We found that shorter periods of taping were better than longer. Sometimes I had twenty minute reels of tape and sometimes thirty minute. The temptation was always to record the whole length of the tape and then to watch the whole tape. But half an hour of the group watching itself proved to be just too long. Somewhere after the twentieth minute of watching the just-finished session on TV, boredom set in, which mixed in a peculularly irritating way with the continued fascination of the feedback. Twenty minutes proved to be an easier length, and many times we stopped after five or ten.

We usually did only two cycles of recording and feedback; sometimes three. After watching the last playback, there usually wasn't much to add in words. The sometimes prolonged post-session discussions of non-videotaped groups didn't happen after people saw themselves. As Luly said: "I can tell somebody, 'You really hated that person, and he can deny it. But on the videotape he sees something concrete, something that he cannot deny".

I used a half inch portable for all the sessions, and every time but one I kept it plugged into a wall outlet, not moving the recording deck at all. In the limited environment of the room I relied on the zoom lens to get me in close to details of the activity. Rather than use a tripod and limit flexibility of camera movement I chose to hand-hold the camera, and because hand-holding for an hour of continuous taping can generate an extraordinary case of muscle tension, I chose to sit in a chair most of the time, steadying the camera by resting my elbow on my knee.

Once I left my post on the edge of the room and waded into the middle of the action wearing the portapak over my shoulder. The camera was fitted with a ten millimeter wide angle lens which has enough depth of focus so that I didn't have to adjust it, leaving me free to move with the people, trucking in, out, and through. This added a much larger component of camera-oriented performance on the part of the group (as opposed to un-camera-conscious interrelating).

Luly and I differed over whether the camera should be a detached observer or a participant in the action. She asked me a couple of times during taping to join in the activities with the camera, but after the first experiment I didn't feel like doing it again. Luly herself always stayed on the edge in order to oversee the action, and I felt that this was the camera's place too. Just once or twice during forty sessions Luly felt impelled to leave her place and join the movement, and this option should be open to the cameraman.

A few times people were asked to specifically address themselves to the camera in their actions; this produced some extreme selfconsciousness and some spirited performances. Taping group movement from the edge of the room did not produce too much selfconsciousness. Luly thought that the taping seemed to inhibit some people, but that it intensified the experience for many. I'd say that the richest feedback was people seeing themselves as taped when they weren't aware of the camera. Awareness of the camera seemed to short-circuit the feedback qualities of playback.

Technically, I always tried to make my camerawork as inobtrusive as possible. Trying to keep an overview of all that was happening in the room while also following closely the more dramatic developments, I found myself alternately zooming out to wide angle and panning across the whole group, and zooming back into telephoto to catch the intensity of faces pressed together or hands reaching out. Always I panned and zoomed with measured slowness—I wanted to stay below the threshold where camera movements and zooms are so slow that they become invisible. In these unedited, real-time recordings I wanted to make the changes that were happening in the group clear and visually interesting through a tape without technical distractions. The life of the recordings was short; none was watched more than once, and all were soon recorded over.

Once Luly operated the camera herself for the session (with the fixed focal length ten millimeter lens to eliminate the complication of focusing and zooming) and her therapist's vision showed through even though she had never held a camera before. In the future I hope she chooses to get into the equipment. The therapist and the cameraman should be one person.

EDUCATION—ALTERNATE PROGRAMMING

* VIDEOTEK * VIDEOTHEQUE * VIDEOTECH * VIDEOTHEQUE * VIDEOTEK * VIDEOTEC * VIDEOTHEQUE * VIDEOTEK * VIDE

Loeb Student Center
Room 622
Telephone: (212) 598-3229

EXPERIMENTAL VIDEO PLAYPEN

In our original proposal, we talked about exploring the potential uses of videotape in higher education. This exploration was intended to go beyond the simple operation of making an audio-visual record of an event. Yet, we have found that, while three hours of instruction is sufficient to gain mechanical proficiency, it is not enough time for most people to gain the confidence which underlies creative exploration. The necessity to produce a tape of acceptable technical quality apparently was stifling the imaginative qualities that drew people into the Video-tec in the first place.

The Experimental Video Playpen is held every Monday night. It is open to everyone who has completed two instruction periods. It provides an opportunity to explore the various configurations of feedback, playback time sequence (loops), etc. At the same time, participants are extending their familiarity with the equipment and with the group nature of the whole activity.

Several people who, prior to this experience seem to have been intimidated by the equipment, have now come up with proposals, leading us to believe that the Playpen has indeed generated confidence, originality and enthusiasm as expected.

We have in very many respects found ourselves walking a tight rope. On one hand we are conscious of our responsibility to instill in those who come to join us our own sense of responsibility for the care of the equipment and towards others who are working with it; on the other hand, we want to encourage those who come around to take creative risks. The Video Playpen is the encouragement of creative risk. The Tuesday night viewing sessions are meant to encourage a feeling of accountability on the part of people who are shooting tape.

TUESDAY NIGHT SESSIONS

Each Tuesday night, the tapes shot during the previous week are viewed by those who have shot them along with others who have expressed an interest in video-tape. It is a critique session but it is also a chance for people to explain to each other in detail their experiences in shooting and to learn from each other solutions to the kinds of problems that come up.

WRITTEN PROPOSALS

A third procedure which has evolved is the request that people who want to shoot a project put their proposals in writing. A representative sampling of these proposals is included as an appendix to this report.

Financed by the administration and supported by certain student councils, VIDEOTEC is open to every member of the NYU community.

SIX MOST COMMON QUESTIONS ASKED OF VIDEOTEC PERSONNEL

Why can't I take the equipment out this afternoon?

Because you have not signed up for the instruction course or attended the lessons. (Instruction is given in two 1-hour sessions, Tues-Thurs. or Wed-Fri at 2:30 P.M. PLUS an experimental video playpen on Monday evenings.)

Why can't I take the equipment out this afternoon?

Because you are not a member of the NYU community. If you are, fill in an information card with your student I.D.# and your telephone #. Someone will call you.

Why can't I take out the equipment this afternoon?

Because the last time you took out equipment, you left the microphone behind and you haven't brought it back, making you a non-videotec-person.

Why can't I take out the equipment this afternoon?

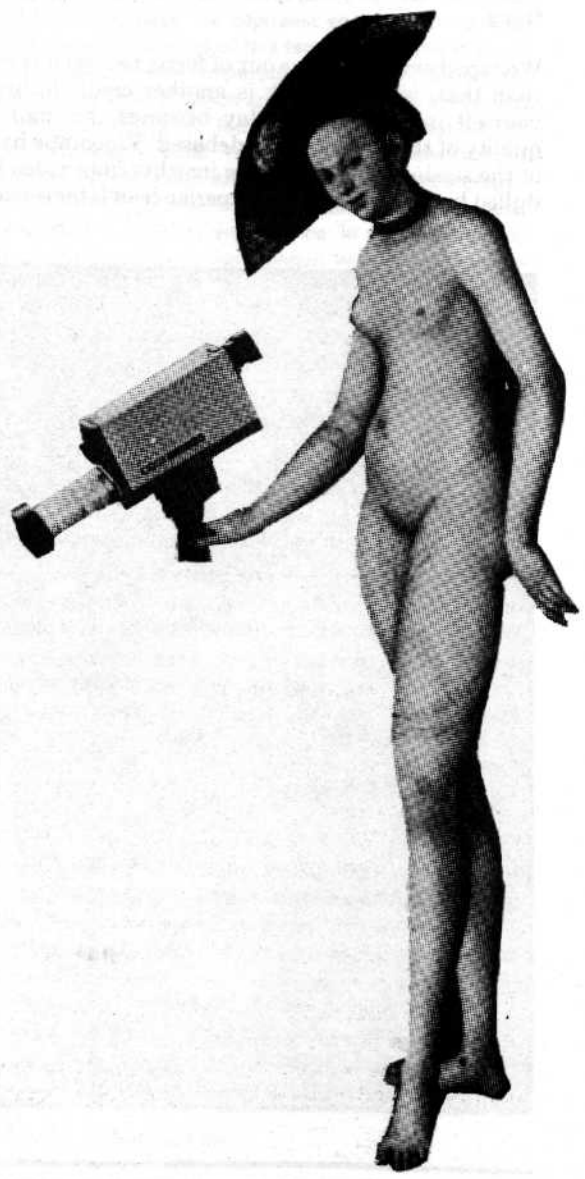
Because the last time you shot a tape, you did not come to see your tape and discuss it at our regular Tuesday night viewing session. Feedback, FEEEEEDBACK, is a unique aspect of videotape technology.

Why can't I take the equipment out this afternoon?

Because you didn't book the equipment in advance.

Why can't I take the equipment out this afternoon?

Because you have not presented a coherent, written plan for your project.



ANTIOCH COLLEGE THE MEDIA PROGRAM

WASHINGTON-BALTIMORE CAMPUS

THE CENTER FOR SOCIAL RESEARCH AND ACTION

The Media Program is not a thing in itself. It is the communications support arm of Social Research and Action. Projects will be created out of and feed back into the curriculum. Projects are designed and priorities structured to maximize the impact of media (especially half inch video tape).

Some aspects of the present Media Program which will continue in 71-72

ALTERNATIVE MEDIA:

Exploration of production, presentation and distribution alternatives to the monolithic media structure. The Urban Media Co-op brings together other Baltimore groups in a production context. (With television and radio studio facilities.)—People's video Theater; Mayday Video Collective; etc. Photo journalism and print also emphasized.

COMMUNITY VIDEO THEORY:

Response to feedback—creative critical evaluation in support of working projects. Design and development of new proposals. Experimentation with different media designs (Challenge-For-Change, documentary-drama; newsreel, etc) in an Urban action context. Emphasis on media as a community problem-solving tool.

COMMUNITY (AND INSTITUTIONAL) VIDEO PRACTICE:

Individual and group projects combine production experience in VTR with first-hand involvement in social animation. Work study opportunities arise in training and technical assistance projects with community groups. Emphasis is on process not product; accurate information gathering, responsive information processing, and effective and creative information presentation. (Model cities, Dept of Juvenile services, South East Baltimore Corp, Antioch Self-Study.)

POINT-OF-VIEW MEDIA(TION)

Development of critical and advocacy skills. Watchdog project—working to make existing media more responsive to community needs. Studies in propaganda and attitude change. Baltimore Community Cable Television (CATV)—research and development project. "Grass Roots" journalism—techniques of inquiry.

OTHER COURSES AND CONCERNS:

—Introduction to the hardware and software—*VTR is not TV*
—Technical video workshop
—Film and tape screening with emphasis on the documentary and political statement about social change and for use in social change.
—Advanced 16mm production workshop

For further information on the Center's programs, write to: Alan Kaplan/Tom Johnson, Media program, Center for Social Research and Action, 805 North Charles Street, Baltimore, Maryland 21201. Phone: Area Code 301, 752-3656.

JR. HIGH SCHOOL VIDEO-TAPE WORKSHOP, SPRING '71

AT RAINDANCE CORPORATION

through Metropolitan Museum of Art

Day 1: Brief technical demonstration of equipment (the zoom, focus, how to record, play back, check batteries, etc.). This should be appearing live on several monitors.

Students taping themselves and each other and play back.

Presentation of various things done by or through Raindance with videotape. Group discussion of presentation and our objectives in the workshop. This discussion should be taped by someone at Raindance.

Perhaps some free time for students to make a tape in a small group.

Day 2: Brief technical demonstration of the mixer (audio and video).

Playback of tape made by Raindance of discussion on Monday. Four students could be shooting and mixing this discussion.

Then playback of this mixed tape and discussion, while 4 other students are operating cameras and mixer, etc.

Day 3: Brief technical demonstration of editing.

One group could proceed to edit discussion tapes of Tuesday while others go out on a treasure hunt (looking for certain specified things in their surroundings, for instance, "Look for someone who looks like you").

Playback and discussion of tapes.

Day 4: One group could edit the various tapes recorded on the treasure hunt while others go out on a specified route with a specified duration of tape.

Simultaneous viewing of the various tapes and discussion.

Day 5: One group edits the tapes made on Thursday. Others begin a project of their own choosing.

★★★

ELECTRONIC KINDER GARDEN

A Proposal for Exploration of the Implications and Possibilities of Electronic Experience for Mini-Kids

TOM BENDER

Application of electronic media to our learning processes has begun, however feebly, but its primary focus has been on learning situations which are implicit in our formal educational structure. A structure formed long before the development of these new media . . . The experiencing and learning of children before the age of six, when they enter our present educational system, is perhaps the most critical in their lives, and stands to benefit from the potentials of electronic experience. This has also been the most ignored potential of the new media.

Research in many areas indicates that the first four years of a person's life are most important in determining his nature and capacities. R. Buckminster Fuller states that "98% of brain function is progressively and automatically 'tuned-on', 'tuned-in', 'tuned-out', or shut off in direct response to the positives or negatives of the individual's environmental experiences and potentials in the first 13 years of life." Over half of this development takes place in the first four years, most of it irreversably.

Our present philosophies of learning have come from observation of the growth and development of people experiencing our universe solely through their individual innate biological senses. Those philosophies are a meaningful response to that situation, but in view of the immense expansion of our experiential possibilities in the last century, they are probably no longer appropriate and can only act to perpetuate a pattern of growth which fails to meaningfully reflect our potentials . . . A person at one year of age is usually limited to the stimulus and role patterns existant in his home environment because of the limitations of physical dexterity, size, wealth, access to transportation, knowledge of desirable alternatives, and imposed social roles. But he is entirely capable of pushing a button to activate and select inputs from a television set, with its potential of cosmos-wide experiencing, conceptualizing, and role formation.

Exploration of the potentials of electronic experience for young children holds the possibility of permitting the growth and development of a person to take place simultaneously and interactively on a multitude of levels, from a very early age.

We know the unintended powerful gloval consciousness commercial TV generates in the relatively young person . . . The promise exists of taking a quantum leap in our learning experiences through making powerful electronic experience available at an early age . . . integrative rather than analytical experience, involving all senses and processes of meaning-making . . . experiencing through art forms rather than compartmentalization . . . bypassing the prerequisites of reading, writing, and physical skills necessary for many physical experiences. In addition, giving us primary and immediate access to the powerful translation tools we have developed to give us access to the invisible universes in which we live. Much can exist today, without social changes, through the home TV.

STIMULUS TO EXPANDED AND ENRICHED DIRECT EXPERIENCE. . . . Several dimensions exist by which to approach direct experience. Example and mimicry used in a dance event, where videotape of dancers is overlaid with live projection of the person dancing in the videospace. Although the primary experience is visual, the participation in dancing along with the tape generates internal sensory experience which can open interest in similarly exciting things without the video world. Much of the less-wrong information, access to difficult-to-reach places, and exposure to micro- and macro-worlds can generate much curiousity about the natural world which can lead to much direct exploration. Events which require participation of more than one person to operate, such as color synthesizers where different people control different variables of the images, can generate experience, interest and abilities in terms of social roles. Access to difficult-to-reach places generates desire for direct experience of them, and self-knowledge events can generate interest in expanding and enriching oneself.

Two-way cross-cultural access is another situation where experience of various culture-roles can be juxtaposed . . . teacher, learner, child, peers, etc. A large number of situations could be developed which could give a person much earlier access to social, spiritual, and physical dexterity situations which stimulate the development of self-concepts, intellectualization, etc.

AWARENESS OF GENERAL PRINCIPLES AND EXPERIENCE USUALLY NOT AVAILABLE UNTIL OLDER. . . . Vic Gioscia's report *(Radical Software . .)* on immersion in complex time pools is an example. As opposed to the above thoughts on less-wrong information in response to intellectual questioning, this is dealing with direct experiences which permit a person to explore and develop his own awareness consciously, pre-consciously, non-verbally, etc.

photo: Ann Douglass

ABILITY TO AFFECT ONE'S OWN ENVIRONMENT. . . . one of the more important parameters that influence the nature of a person's future interaction with his world. Video-tape, color and sound synthesizers, wall-sized projection, two-way telecommunication, self-controlled access to information offer a person a fundamental ability to shape and develop his own physical, intellectual, emotional and psychic environment as a form of art as well as just experience. And because of ease of operation and limited skills necessary to use, they can permit this to happen from a very early age.

EXPOSURE TO MICRO, MACRO, ULTRA-FAST AND SLOW WORLDS. . . . film and simulation of galactic rotation, stellar life-cycles, yearly cycles of cloud patterns (already available), biological growth, geological cycles, sub-atomic energy pattern changes, infra-red and UV radiation events, etc. Locally infrequent events such as northern lights, volcanic explosions, earthquakes, tidal waves, hurricanes, solar flares, etc.

SELF-KNOWLEDGE. . . . The time-pool experiment above, video-tape loop experience of self, and other possible situations can stimulate continual growth of self-awareness and understanding throughout a person's life. Seeing facial expressions and body movements as expressions of inner states and feelings, being able to see oneself from the outside, seeing oneself reacting to situations as you see others do can open up a kind of self-exploration and learning entirely untouched by our existing educational system. (that can also be an example of experiencing general principles . . . becoming aware through selfexample of the visible world being a reflection of meaningful events and states which are not directly visible.)

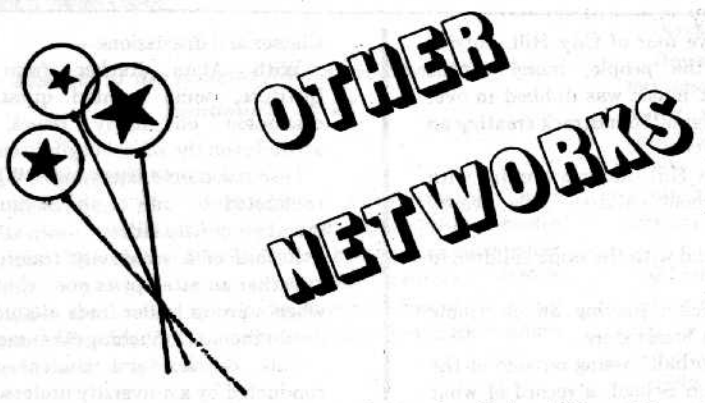
ACCESS TO LESS-WRONG INFORMATION. . . . expansion of present attempts to develop information-access mechanisms for older people . . . but with stress on non-verbal, visual, multi-sensory, wholistic presentation minimizing need for skills of reading, writing, etc. To what age this could be meaningfully extended I am uncertain, but it is apparent from experiments that consistant and easy access to less-wrong information produces powerful changes in the conceptualizing and understanding ability of the mind, and this need certainly extends at least part way down into this age group.

ACCESS TO PLACES PHYSICALLY DIFFICULT TO REACH AT A YOUNG AGE. . . . underwater worlds, life patterns of insects, wild animals, birds, etc.; exposure to different cultures, climates, landscapes, experiences geographically isolated, cultural role differences within a culture, a country, or cross-culturally; flying, motorcycling, skiing, surfing, swimming, etc. (the above mostly through film, photo, tape and other resources)

With two-way access, and at upper range of time-span being considered, access directly to talking with kids and older people of other places and cultures, going out video-taping his own world to show to them, etc.

The New Schools Exchange Newsletter has created a network among teachers, schools, kids, people— all and everyone into alternate education. In addition to the twice monthly published Newsletter, the exchange publishes a *Directory of Innovative Schools* and periodic "position papers" and provides advisors and contacts in local areas to help new schools happen. $5 entitles you to five months of Newsletter; $10 to an annual subscription of twelve months of Newsletter, the Directory of Schools and a free ad in the Newsletter. 301 East Canon Perdido, Santa Barbara, California 93101.

A new education magazine we've received is *Outside the Net,* a quarterly which analyzes schools and media, explores alternate educational life styles and reviews education-related media. It's an interesting movement resource for those of you searching for ways to restructure the educational process. $4 for a 2year subscription; $2 for a 1-year subscription; 50¢ will bring you a sample issue. Post Office Box 184, Lansing, Michigan 48901.



Vocations For Social Change is a collective in California which publishes a bi-monthly journal of the same name. The journal contains current information on new social change projects; staff openings in existing organizations; how and why people have created specific social change projects, and extensive sources of information on particular areas of change. Each issue reviews in depth changes within a particular movement. $5 for a regular subscription for six months. Box 13, Canyon, California 94516.

Pacific High School Apprenticeship Service Program is an alternate education model whereby the school puts a teacher and student in touch with each other and then the two work out a mutual learning relationship. There is a $5 charge *if* the program is instrumental in providing a teaching or learning source; for those enrolled in the program for high school credit there is a $200 charge for a nine month period. (It can start any time of the year) They have received lots of feedback from interested kids and are looking for teachers who have a skill or talent in traditional crafts and trades. Contact Apprenticeship Service Program, Box 908, Montara, Calif. 94037

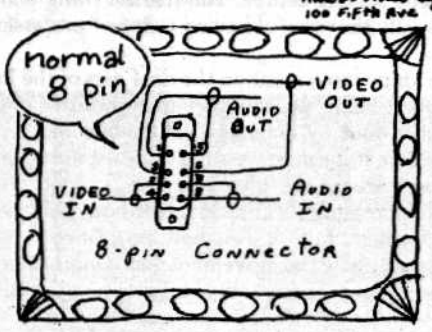
KOA (Kommunications on Alternatives) has begun a newsletter which is primarily about the KOA (Konference On Alternatives) held at Fordham University this April. Future issues are to serve as an open forum for individuals interested or active in alternate education and to serve as a regional resource clearinghouse center in the East. KOA c/o Arrakis, R.F.D. #1, Jeffersonville, N.Y. 12748.

Tape that has been physically damaged by creasing, crumpling, or scratching is the prime cause of video head wear. Any sharp deformation or scratching of the oxide coating interrupts its continuity and uniformity, resulting in a cutting action somewhat akin to that of a file.

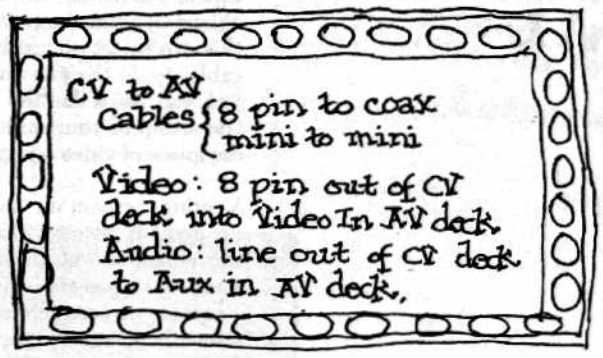
DAMAGED TAPE
by SAM ADWAR

Before each day of use, closely inspect all metal surfaces (including tape guides, idlers, head tips, and drum) that touch the oxide-coated surface of the tape for any accumulation of oxide. If any is present, remove it immediately using a cotton swab moistened with head cleaner.

Adwar Video Systems
100 Fifth Ave NYC.

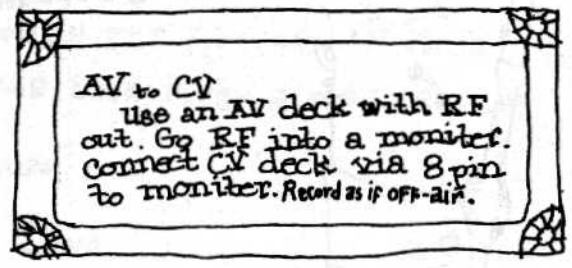


Graham Magnetics **announced development of cobaloy tape which records almost four times as much information as the best chromium dioxide tape. This means slower speed and smaller videotape recorders. Whoopie! Press appropriate button and wait about three years.**



Microphones = directional

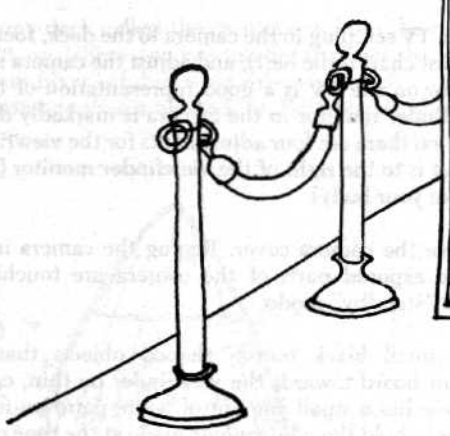
Electovoice **puts out some sturdy good quality mikes which you can get a good discount on. RE 10 is comparable to the Sony ECM 22 but is sturdier and doesn't need a battery. (RE 11 has a wind screen) Very directional.**

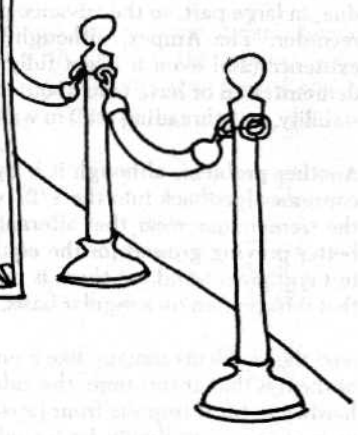


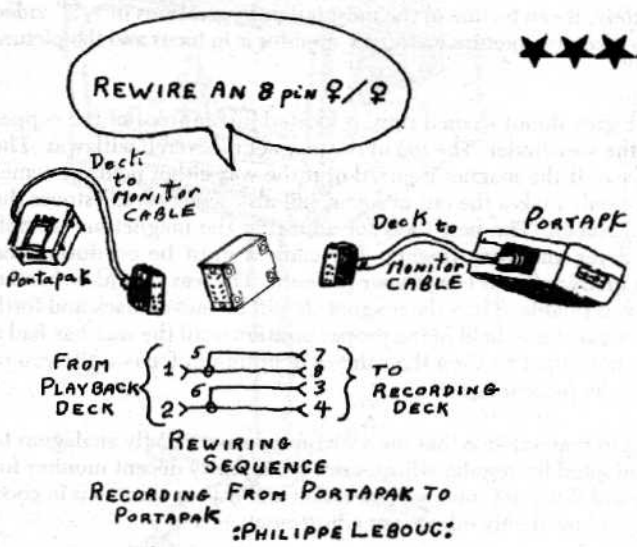
If you have 2 decks of any kind, you can edit and/or duplicate tapes. The trick, of course, is in the cabling.

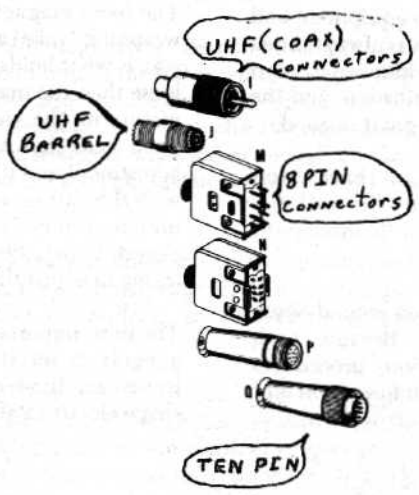
FREE NUTS AND BOLTS SHOW

As of this writing, there are no technically good 1/2" editing systems in general use. If you are using 1/2" equipment exclusively, the best you can hope for, on a technical level, is to improve your techniques. That's not to say that the editing horizon looks hopeless, for it certainly doesn't. There are a number of editing decks coming out now, each one better than the last. The problem with 1/2" editing is the problem with 1/2" video in general—its lack of electronic stability. No system, no matter how sophisticated, can improve an unstabily recorded picture. Yet instabilities in a tape might pass by an untrained eye causing editing to become a bummer and the editing hardware to get blamed. Editing ends up giving technicians headaches, tape makers heartaches, and is generally agreed to be responsible for many of the budding ulcers in the video movement. It wouldn't have to be that way however, if a few things were gotten together. For instance: any instability in an original tape will almost always be magnified in transferring it electronically; a camera click on a tape is basically an unstable moment in the tape and ideally no edits should be made for at least 3 seconds after a camera click, and if a tracking problem persists even after 3 seconds beyond the click any editing should be avoided since the tape is still unstable; a tape that is continually mistracking is a highly unstable tape and isn't really such a great thing to edit electronically though if it looks all right on a monitor, a camera can be pointed at a monitor and the tape can be edited by shooting it off the screen (a dark room is best for this kind of "line" transfer); of all the 1/2" decks, the Portable Sony 3400 is the least stable in playback (though it is a very good recorder) and editing systems should avoid 3400s in playback capacity, if possible; the editing deck should always edit from "standby," "pause," or "still" mode since from a dead stop, it takes the heads longer to build up speed and stability. By PARRY









PRINT REFERENCE

There are no books or manuals directly related to half inch video as of yet, but there is some reference literature.

Introduction to Solid State Television Systems **Gerald Hansom, 1969, Prentice-Hall, Inc. N.J. A good general high level text complete with schematics, also high priced at $15.**

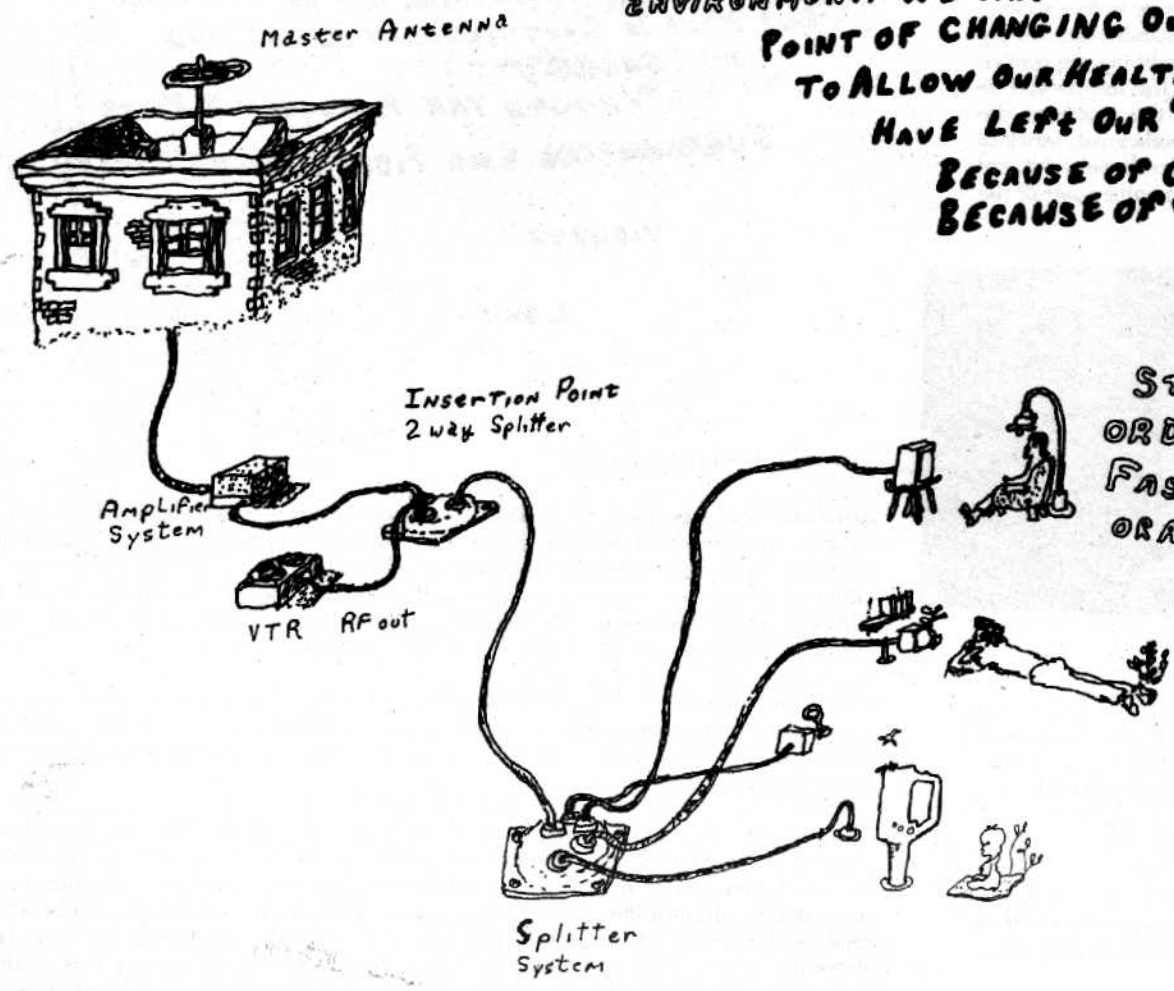
Basic Television **Bernard Grob, Principles & Servicing, 1964, MacGraw Hill, N.Y. Another more general book on a lower easier to read level, includes servicing hints. It's drawback is its age, but most of the information still applies. $11.50.**

Introducing the Single Camera VTR System **Grayson Mattingly & Welby Smith. S & M Productions, Box 31095, Washington, D.C. An expensive manual half of which has general info useful to half inch freaks. The other half is into studio production with a capital STIFF. However it is still better than nothing if you haven't gotten enough out of R.S. and can afford the bread. $8.00.**

Sony puts out a series of service bulletins called the PETI Series which you can get from a large Sony distributor.

IN OUR EVOLUTIONARY QUEST WE ARE RETARDED BY THE EXISTANCE OF WHAT WAS PREVIOUSLY CONSIDERED A NATURAL ENVIRONMENT. WE HAVE EVOLVED TO THE POINT OF CHANGING OUR ENVIRONMENT TO ALLOW OUR HEALTHY EVOLUTION. WE HAVE LEFT OUR "NATURAL STATE" BECAUSE OF OUR DENSITY NOT NECESSARILY BECAUSE OF WILL.

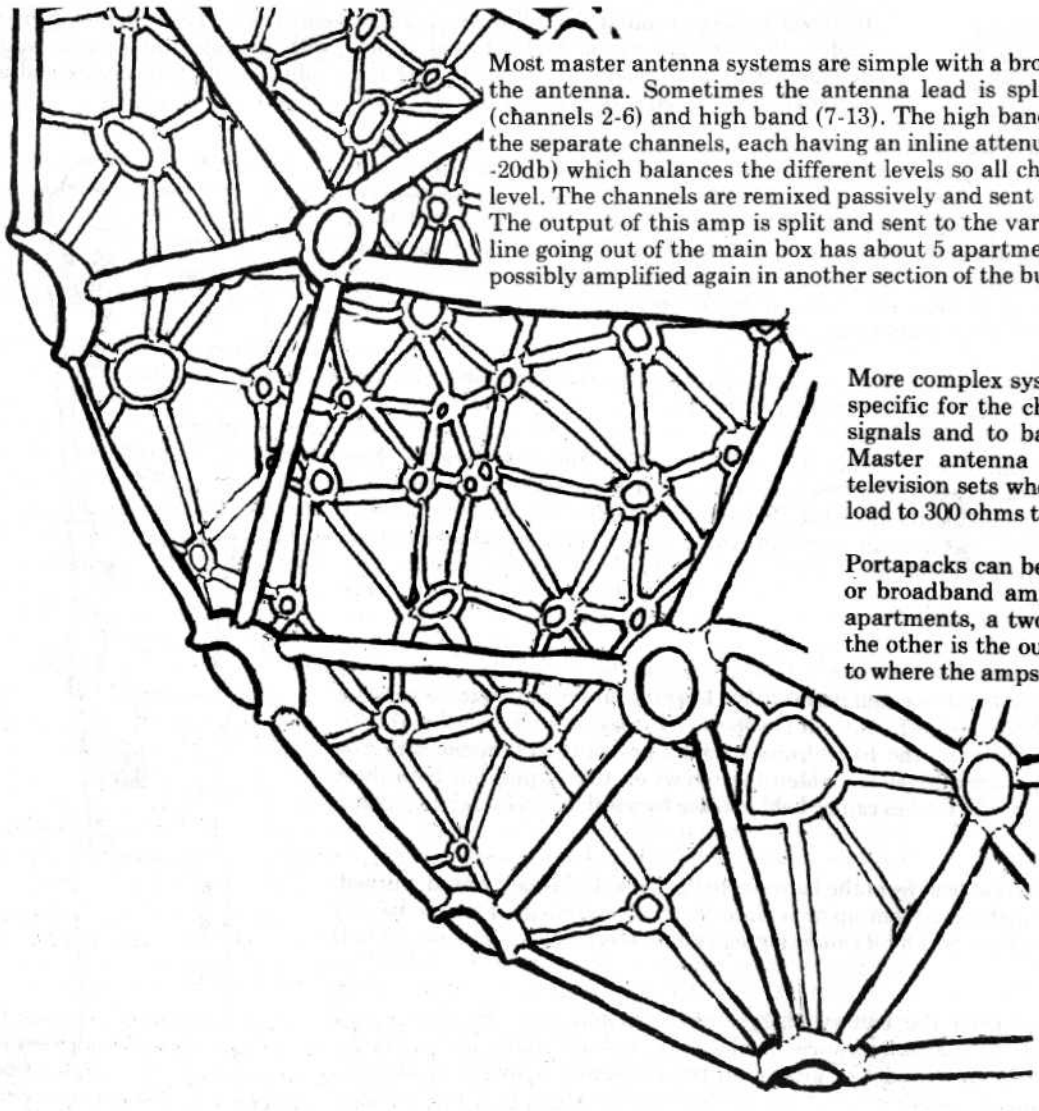
BUT DENSITY IS A STIMULUS AND AN EXISTANT NATURAL ORDER. THE PAIN OF A DELIVERY too FAST IS FORCING EITHER OUR DEMISE OR AN EXHILARATION INTO A SPIRAL OF ENERGY.



HOOKING INTO MASTER ANTENNA SYSTEMS

DEAN EVENSON

Most buildings (those square ones they drop people into) built recently in large cities, have a built in viable circulatory system which can be tapped for the community benefit. An antenna is placed on top of a building and connected to all apartments via cables in the walls in hopes that better reception will soon appear. It also provides the people with the potential for their own television channel. All that is needed is a portapack with an RF unit, coax cable, F connectors, possibly a filter, and time. Our own experience comes from working with the Westbeth system which is a huge building of 368 apartments located on the Hudson River in Manhattan. (See other article on Westbeth for info on funding and programing.)



Most master antenna systems are simple with a broadband amplifier after the antenna. Sometimes the antenna lead is split into low bandwidth (channels 2-6) and high band (7-13). The high band is passively split into the separate channels, each having an inline attenuator or resistor (-10db, -20db) which balances the different levels so all channels are at the same level. The channels are remixed passively and sent to the broadband amp. The output of this amp is split and sent to the various apartments. Each line going out of the main box has about 5 apartments on it or is split and possibly amplified again in another section of the building.

More complex systems add strip amps to the system. These are RF amps specific for the channels in the area. They are used to both amplify the signals and to balance (each amp has a gain control) all the signals. Master antenna systems are kept at 75 ohms until they reach the television sets where a matching transformer (called a balin) changes the load to 300 ohms to match the tv's antenna taps.

Portapacks can be plugged into the antenna systems after the strip amps or broadband amp.. At the place where these amps are split up for the apartments, a two way splitter is used, one input is the Sony RF signal, the other is the output of the amp system. The output of the splitter goes to where the amps were previously connected.

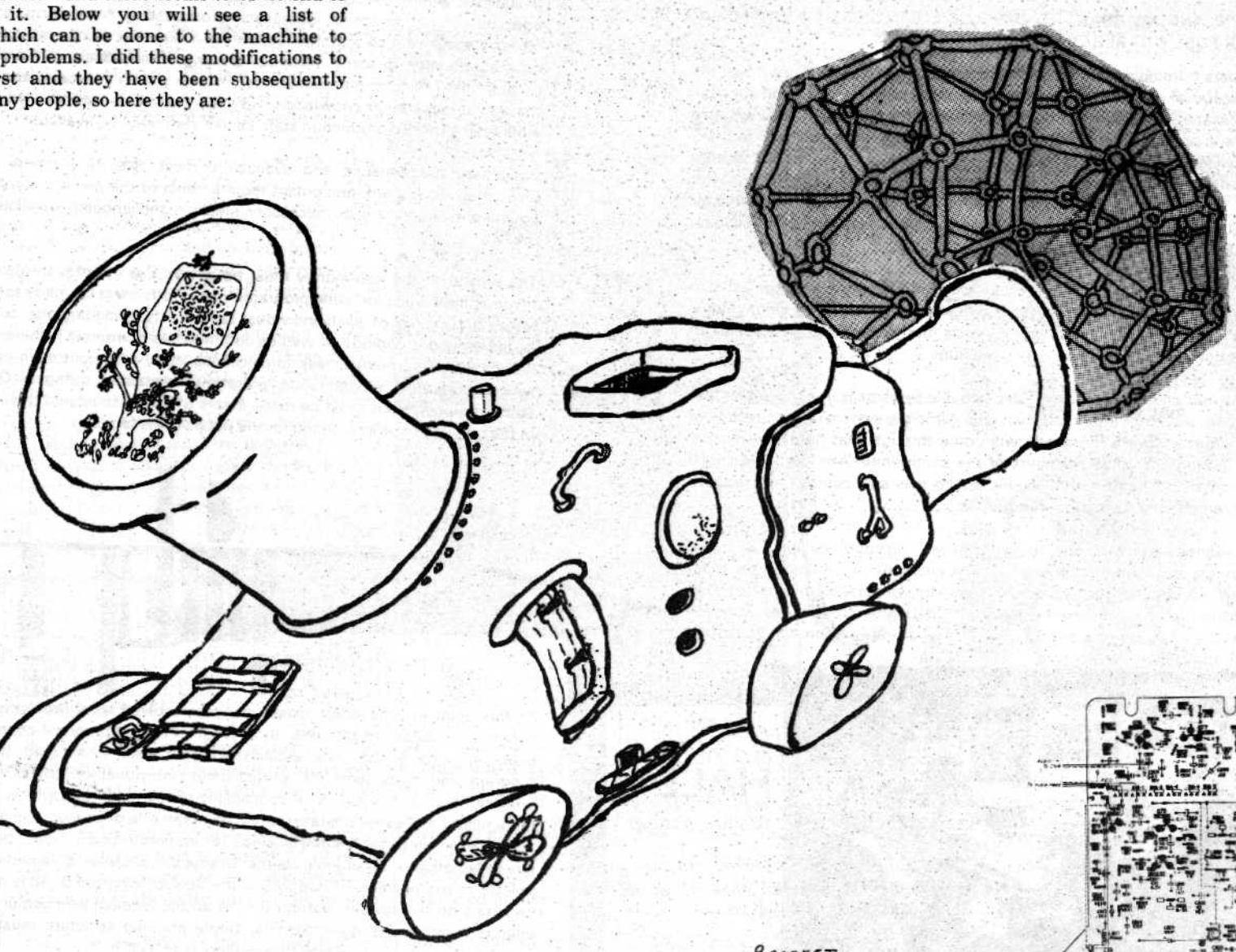
Sony RF units are messy for they spill over into a multitude of other channels when transmitting. We solved the problem by using a Hamlin bandpass filter for channel 3 ($19.95, made in Japan).
HAMLIN INT. CORP., 126 SW 153St., (almost) Seattle, Wash., 98166
We found that the portapack RF unit had enough power to drive 368 apartments, however if a strip amp is added, you get a stronger more controlled signal.

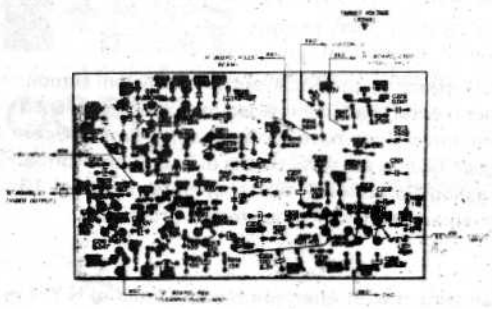
Strip amps are about $89.00 from Jerrold Corp. in Philadelphia, but why can't techno-folks come up with a tunable RF amp based on the one in Motorola's "Radio Amateur's IC Projects" (HMA36)?

CUSTOM MODIFICATIONS TO THE SONY PORTA-PAK

By Eric Siegel

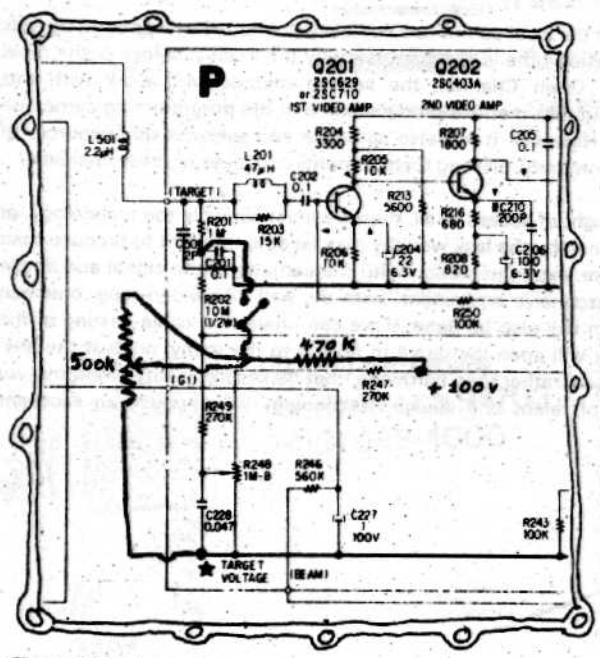
As we all know by now, the Sony back pack is a very troublesome machine—and there seems to be no end to problems with it. Below you will see a list of modifications which can be done to the machine to eliminate these problems. I did these modifications to my machine first and they have been subsequently requested by many people, so here they are:



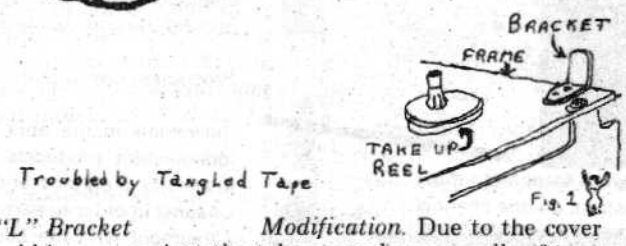


P PRINTED CIRCUIT BOARD

Target level control. The importance of this modification cannot be overemphasized. When you have done this, you will have DC restoration in your camera, your tv screen will stop fluctuating every time the light level on the camera changes, and your tapes will begin to look like they were made with an expensive monocrhome camera.



TARGET LEVEL CONTROL
Refer to Camera Schematic

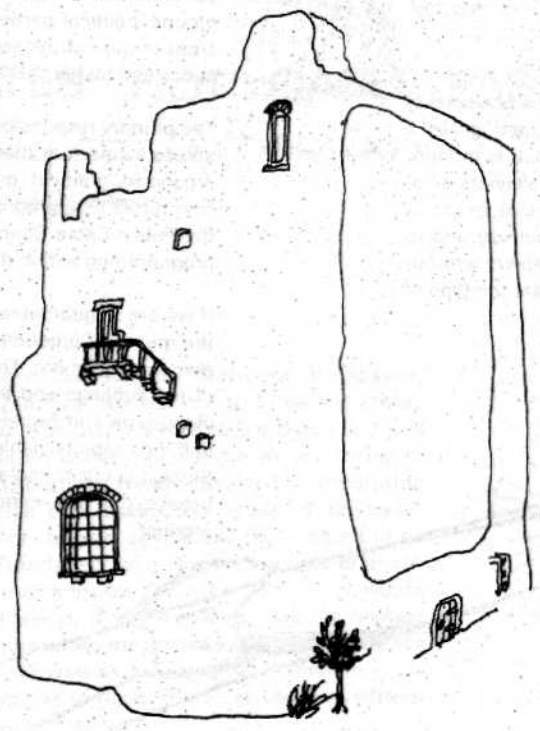


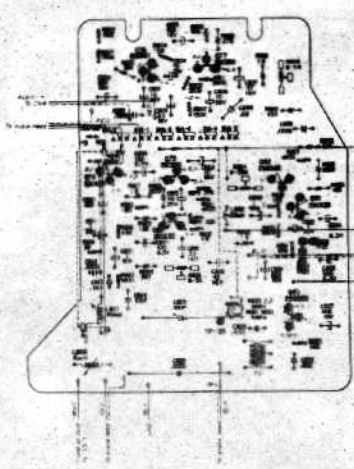
Troubled by Tangled Tape

Fig. 1

"L" Bracket Modification. Due to the cover rubbing up against the take up reel, many rolls of tape have been ruined by being wrapped around the capstan, sometimes our best action shots. Some people bend out their cases at the top so the reels don't rub; however, a more sophisticated solution is to place an "L" bracket as shown in figure 1 and epoxy it to the solid aluminum chassis underneath the thin top plate.

More Modifications will be in the Manual

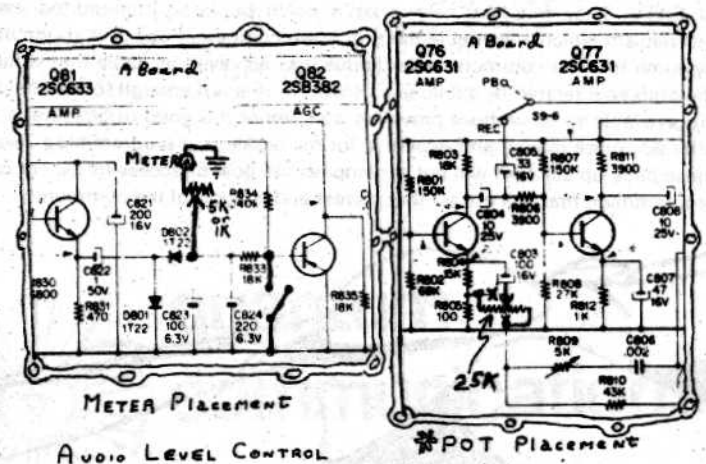




AD AUDIO PRINTED CIRCUIT BOARD

Audio level control. If you make tapes with live music, you know how shitty is sounds on the playback. This is because the first amplifier is overloaded causing severe distortion and to complicate matters further, the automatic level control is busy compressing the entire dynamic range. Many people blame the mike built into the camera, but this is not the culpret. Correction of these faults consists of placing a 25k pot in the audio circuit which varies the amount of negative feedback in the audio preamplifier and at the same time, shorts out the automatic gain control circuit.

Audio Meter Attachment. An audio meter (any transistor meter) is attached just before the shorting point for the AGC.



METER PLACEMENT

AUDIO LEVEL CONTROL
Refer to Full Schematic of A Board

POT PLACEMENT

This concludes the Sony back pack modifications for now. *It must be stated that if you do not have technical experience, don't try these yourself.* One mistake can put your whole machine out of order. There is great risk in doing these modifications so leave them to someone who is competent.

HAVE YOU PLACED YOUR BID?

MANHATTAN CABLE'S

THEA SKLOVER—OPEN CHANNEL

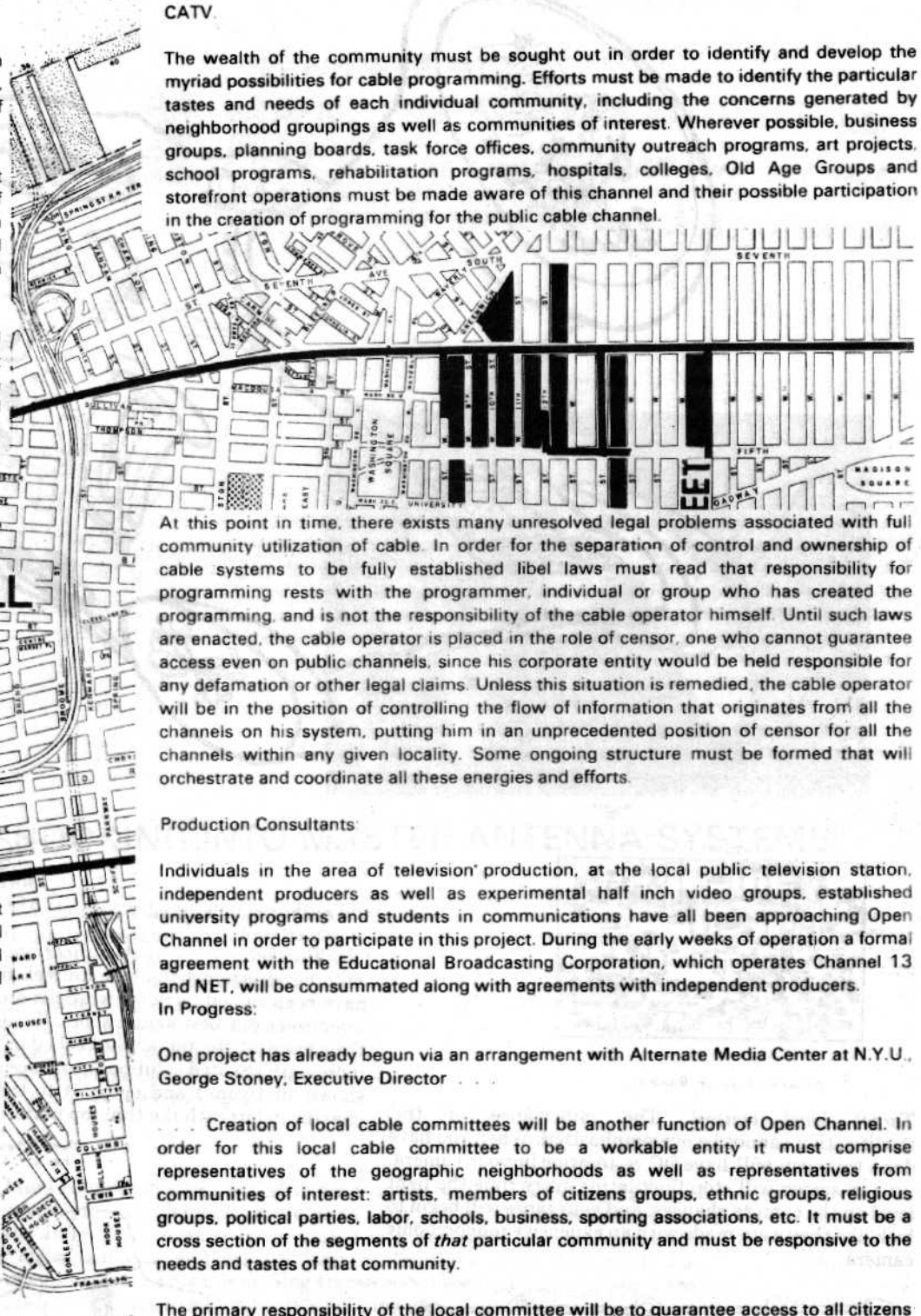
PROPOSAL FOR A PLANNING GRANT TO DEVELOP COMMUNITY PROGRAMMING AND CONTROL FOR PUBLIC CABLE CHANNELS

. . . Two or three years from now when the smoke clears and we stand and look over the growing wired landscape of our nation, there is little doubt that we shall find that the majority of the cable systems throughout this country will be owned by the large systems operator. Why? Current ownership patterns show that local municipalities tend to grant franchises to known entities. Generally that is true because it takes a tremendous amount of capital outlay to wire this nation properly for broad band communications. No matter what ruling the FCC may promulgate regarding preferential treatment for local public or non-commercial entities at franchise time, it is doubtful that there will be sufficient capital available for many non-profit cable ventures.

Consequently, it will be large corporate entities that will tend to own most of the cable in America—OWN but not control. Historically, these two words have become synonymous, ownership meaning control, but what is proposed is the concept of separation of ownership and control of this new communication medium.

What this suggests is that a diversity of ownership of cable systems is important and that it should be encouraged, but more important than who owns the system is the question of what programming, what software ultimately will come through that hardware system and what access is guaranteed to all members of the community. And that the crucial issue is the allocation of adequate channels for public use and control with built-in mechanisms for programming and production expertise.

New Yorkers who presently receive 10 channels of television reception by July 1971, will be receiving 17 channels and by the following year, 24 channels. According to the most recent state of the art, 42 channel systems are presently being installed in other cities in this country. The potential for increased capacity is dependent upon demand and legislation. However, the question of gravest concern is what information will be carried over those channels and who will control this.



Also in July, 1971, the two franchised cable operations in the borough of Manhattan must make available two public channels. This plan would seek to demonstrate on one channel what true neighborhood participation in the planning, programming and running of a local television outlet. By so doing, it would set a precedent for separation of control of local CATV channels and ownership of systems.

The fact that there are presently 80,000 homes wired for cable in the borough testifies to the rapidly growing acceptance of this form of television reception in New York City; therefore, it seems an excellent location for a demonstration of this nature. Additionally, it is imperative that some demonstration of positive use of this system be made at this point in time before we find that the fate of the radio industry is replicated in the development of this new phenomenon.

PROBLEMS CONCERNING PUBLIC UTILIZATION OF CATV:

Information:

One of the principle problems is informing the public of the availability and the potentiality of CATV. They must be told what it could be, how it might be used and given a mechanism which will enable them to make competent use of that potential. It is thought by some that if a common carrier status was achieved by cable that would alleviate all of the problems related to public use. However, it is not enough to merely say that channels are available to all without providing a structure designed to encourage their use and to offer adequate money and expertise for the creation of programming. Availability without these back-up services will not accomplish the goal of access for all nor create the type of programming that will attract the interest and support of the community.

Resources within the community must be identified and their participation invited. Specialists in the fields of journalism, broadcasting, filmmaking, and video production must be sought out so that their support and expertise can be utilized to the fullest by the local community. In some instances training of individuals within the community as to programming skills, and production techniques will be necessary and should be offered to those who seek such knowledge. However, in those instances where groups prefer to work with a trained production staff, such a staff must be available.

Equipment maintenance and availability must also be planned. Decisions regarding location of equipment, equipment requirements of the community, funding for additional equipment needs, are all necessary steps in the ongoing development of community CATV.

The wealth of the community must be sought out in order to identify and develop the myriad possibilities for cable programming. Efforts must be made to identify the particular tastes and needs of each individual community, including the concerns generated by neighborhood groupings as well as communities of interest. Wherever possible, business groups, planning boards, task force offices, community outreach programs, art projects, school programs, rehabilitation programs, hospitals, colleges, Old Age Groups and storefront operations must be made aware of this channel and their possible participation in the creation of programming for the public cable channel.

At this point in time, there exists many unresolved legal problems associated with full community utilization of cable. In order for the separation of control and ownership of cable systems to be fully established libel laws must read that responsibility for programming rests with the programmer, individual or group who has created the programming, and is not the responsibility of the cable operator himself. Until such laws are enacted, the cable operator is placed in the role of censor, one who cannot guarantee access even on public channels, since his corporate entity would be held responsible for any defamation or other legal claims. Unless this situation is remedied, the cable operator will be in the position of controlling the flow of information that originates from all the channels on his system, putting him in an unprecedented position of censor for all the channels within any given locality. Some ongoing structure must be formed that will orchestrate and coordinate all these energies and efforts.

Production Consultants:

Individuals in the area of television production, at the local public television station, independent producers as well as experimental half inch video groups, established university programs and students in communications have all been approaching Open Channel in order to participate in this project. During the early weeks of operation a formal agreement with the Educational Broadcasting Corporation, which operates Channel 13 and NET, will be consummated along with agreements with independent producers.

In Progress:

One project has already begun via an arrangement with Alternate Media Center at N.Y.U., George Stoney, Executive Director . . .

. . . Creation of local cable committees will be another function of Open Channel. In order for this local cable committee to be a workable entity it must comprise representatives of the geographic neighborhoods as well as representatives from communities of interest: artists, members of citizens groups, ethnic groups, religious groups, political parties, labor, schools, business, sporting associations, etc. It must be a cross section of the segments of *that* particular community and must be responsive to the needs and tastes of that community.

The primary responsibility of the local committee will be to guarantee access to all citizens and to insure that the television time is not dominated by the loudest voices or the most organized political groups. Open Channel, the service module, will work with this committee as a programming arm that will produce some of the programming carried on the Public Cable Channels. However, it will also stimulate and seek out other sources of programming within the community, alerting them to rights of access to these channels.

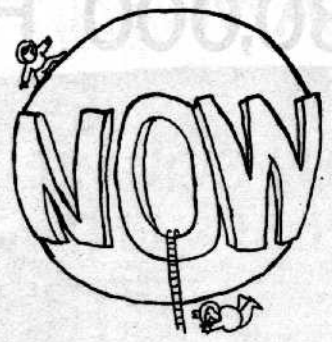
If we are to guarantee the right of access to all, then we must consider the technology, or the means of production, whereby the less wealthy may be able to afford to produce their own programming. Therefore, experimentation with the carriage of the signal and image of the simplest and least expensive equipment, both the half inch video-tape, one inch video-tape and Super 8 film will also be done. If we can prove that cable-casting of the half inch tape is viable, that will open the doors to access to the many, not just the few. Since it is talent and approach, rather than hardware, that makes for quality programs, we believe that the marriage of talent and cheaper technology will produce an excellent product.

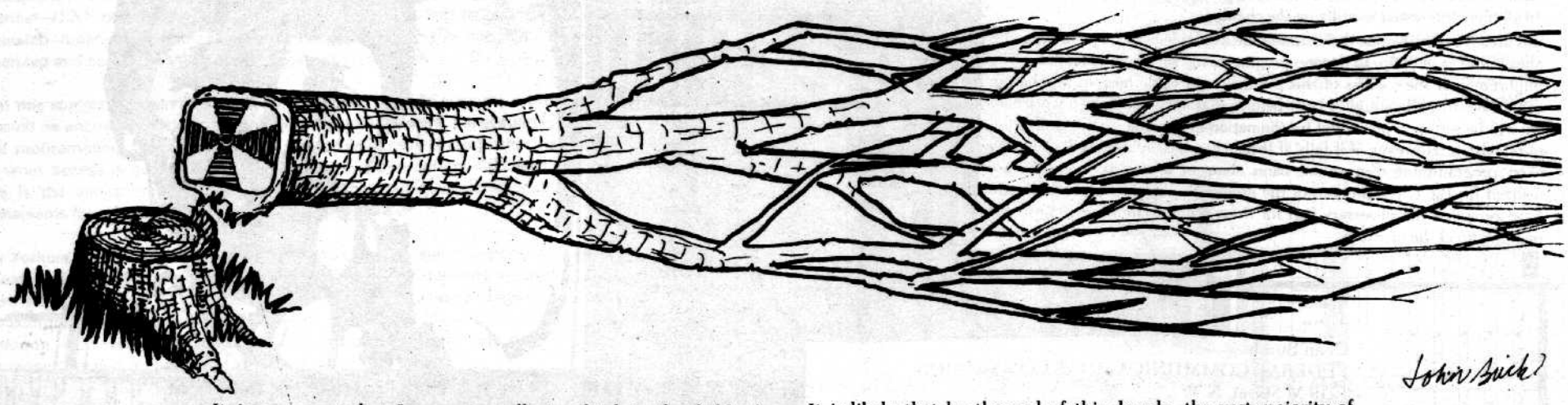
COMMUNITY CONTROL OF TELEVISION

Address by Manhattan Borough President Percy E. Sutton
WNEW Luncheon, March 26, 1971, noon, 205 East 67th Street

When Dave Hepburn and Gwen Barrett invited me to address a luncheon of community affairs people from our local TV and radio stations, I immediately canceled another engagement of long standing and began thinking about what I would say to you today.

I wanted very much to speak to you because you are part of the new power elite in America today and you are uniquely in a position to influence what America will be like in the future. I can honestly say that it will be those people in the communications media, even more than public officials, such as myself, the Mayor, your congressmen and senators or the President himself who will point the way toward new directions for American society.





It is no secret that I am personally involved in the field of communications. Together with a group of other individuals both Black and white I have been engaged in various negotiations with the hope of bringing into existence a network of Black controlled communications media . . .

The first step in bridging the gap between Black and White, rich and poor in America is to give those groups which have been largely excluded from access to the media—that access which they demand.

I speak now of all groups which have been excluded—*Blacks, Puerto Ricans, Mexican Americans, Indians, poor whites,* and those with *political, social and economic viewpoints* which are radically different from those held by the majority.

Such groups *must be* given the opportunity to originate their own programming, their own reporting, and their own editorializing about their own affairs and the affairs of the nation and the world.

We have in this respect a long, long way to go. In New York, Blacks account for more than 17% of the population but are 17% of the white collar jobs offered by local radio and television stations held by Blacks?

It is true that an increasing number of large cities have one or more radio stations devoted to programming for minority audiences. But of the approximately 7,500 radio and television stations in the United States, and the 350 Black-oriented radio stations, all but about a dozen are owned by Whites. Less than two tenths of one percent of this nation's stations are owned by Blacks.

That should raise a lot of questions. How well are these White owners telling the Black man's story? How much are they allowing the Black man to tell his own story? How much of their advertising exploits the community they are supposed to serve?

All of these concerns point out the need for Black ownership and control of Black oriented mass media.

It is not enough to have occasional Black oriented programming on White television, on Saturday, Sunday or very late at night.

There is a definite need in New York City and other cities across America for a full time television station oriented to the needs of Black people—and such a station should be owned and controlled by the community it serves . . .

Because of the competition for use of the electromagnetic spectrum, there are limits on the number of radio and television stations that can exist in a given city before their signals start interfering with each other and with the signals of taxicabs, ham radios, military communications, and out of town stations.

But the coming of cable television promises to end that monopoly. The present cable technology permits a virtually limitless number of television and radio signals to be carried into every household.

It is likely that by the end of this decade, the vast majority of homes in America will be hooked onto the cable. Not only to receive television programming, but because the same wire that today carries television signals can also carry the signals necessary to print a newspaper in a home, connect a home information center with a distant computer or teaching machines, or provide window shopping at home.

The cable franchise agreements developed by the City of New York are models for many being developed around the country. They provide for public channels on which anyone may produce programming on a first come, first served basis and they provide for additional commercial channels.

The result of this is likely to be increased specialization in television. Just as today there are radio stations that are all news, all rock music, all foreign languages, all classical music, all Black. It is likely that similar specialization will develop in television as well as more and more channels becoming available for programming.

While I have painted an optimistic picture of the opportunities for future diversity in the mass media, I would like to raise one warning.

Right at this very time the future pattern of ownership and control of the communications revolution are being established and fought out in Congress, before the FCC, before municipal bodies and in the courts.

We may end up with a system of mass communications in which racial and other minorities have the opportunity to tell their own story, their own way, in media that they control. Or, it is not inconceivable, that the pattern of near monopoly control which presently exists in the media will be extended to prevent diversity in the media of the future.

The decisions are being made now. And your input is needed to assure that the right decisions are made.

May 12, 1971

Dear People;

We felt your presence in the Last Supplement, and think that mutual contact would definitely be a good idea. We are young strangers in the corporate miasma whose letterhead you see inscribed above; however, the corporation, Coaxial Communications (or Cablenet, or Micanopy, depending on which lawyer you talk with) is still young and relatively unformed. There is a chance here for the cable system to open minds and eyes to different thoughts and ideas that have yet to be exposed through conventional mass media. Why here?

1) We have plenty of portable video tape equipment (Sony Port-A-Pack & color cameras)

2) The cable system will open with 19 video and 60 audio channels, which means the management here will accept almost any material

3) The management has seen fit to hire a few college, ex-college, and free spirit dropout mindless acid freaks in their ever continuing lust for cheap, minimum wage labor

a) We therefore have nothing to lose by trying to foist upon these greedy capitalists a few games for the revolution

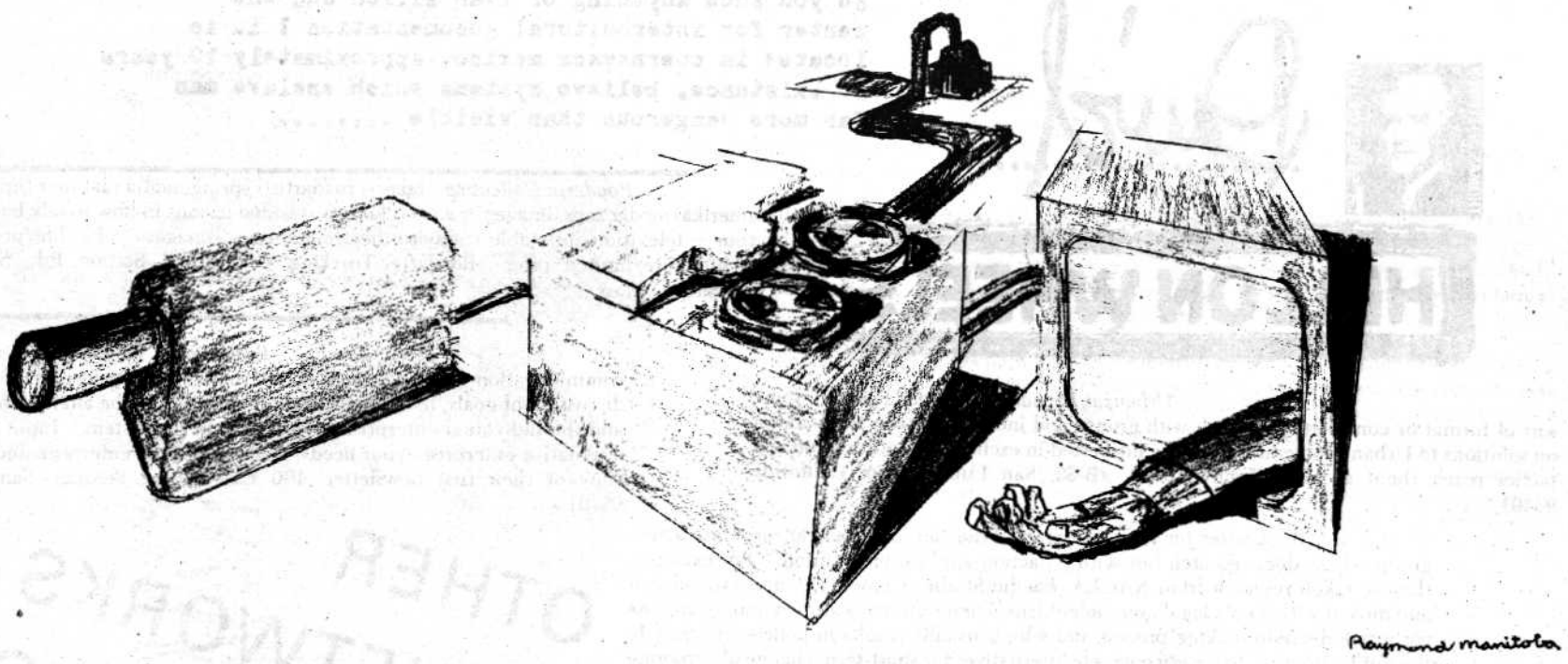
b) The power is not really centralized here; so much as that we are able to slip in our own ideas

We're still pretty much mind-boggled by the bureaucracy and unsure of where our power lies, but the search is on and any help would be a major contribution in defining which way this medium will go. We are hoping that there can be established some sort of exchange of ideas and materials for the benefit of all parties (even those who don't know it's happening).

Most anxiously,

Barry Chern **Lloyd Sheep Lackeys**

Coaxial Communications
3770 E. Livingston Ave.
Columbus, Ohio 43227
(Phone #-1-614-236-1149)



ORAL PRESENTATION ON PROPOSED CATV RULES PRESENTED
BEFORE THE FEDERAL COMMUNICATIONS COMMISSION, MARCH 26, 1971

BY DR. BILLY KLUVER, EXPERIMENTS IN ART AND TECHNOLOGY

Mr. Chairman and Members of the Commission:

I am President of Experiments in Art and Technology which is a non-profit, tax-exempt operating foundation with offices in New York City and Los Angeles. We initiate and carry out collaborative projects involving artists, engineers and scientists. Several of our current projects are concerned with procedures and methods for better utilizing the physical and human resources in television programming. My comments will deal with issues related to the artist's participation in the development of cable television. My argument assumes that the optimum goal for cable television is a multi-channel, multi-purpose, open-access system which will satisfy both mass and individual needs. Cable television will have to rely on a variety of inputs to accomplish this.

I propose that a planned involvement of contemporary artists working in cable television is necessary for the system to develop in the desired direction. In particular, when standards and regulations are established they must accommodate the artist so that he is not arbitrarily shut out of the system. I am using the term artist to mean painters, sculptors, poets, dancers, composers, musicians, etc. This is to say, the developing cable television system must be able to respond to the inputs of artists such as John Cage, Yvonne Rainer, Alexander Calder, Andrew Wyeth and their younger colleagues. I would like to argue that an important problem in the development of cable television is the adoption of the arbitrary esthetic standards of broadcast television which have been consciously or unconsciously determined by commercial interests and engineering practices. A result of this institutionalized esthetic thinking is given by the feeling among those who are faced with the prospect of providing programming for 12 to 20 channels that "there isn't enough stuff around for 20 channels." It is true that based on the existing notion of what is acceptable as quality for programming, there is a lack of programming material, and will be.

. . . I am suggesting that the Commission develop a continuing direct contact with as many operating artists as possible. The commission should not rely on intermediaries like myself to speak for the artist. At this point no one knows what cable television will look like ten years from now, or what its programming content will be. In breaking through into these new areas we are all amateurs; and in this situation the artist may be the best amateur.

MEMO TO: Dean David J. Oppenheim
School of the Arts

A PROPOSAL TO ESTABLISH A

COMMUNICATIONS CENTER

AT THE

SCHOOL OF THE ARTS

Prepared for the Kresge Foundation

New York University School of the Arts
February, 1971

Red Burns
Community Media Coordinator

3733 R St. N.W.
Washington, D.C. 20007

April 2, 1971

Thought you might be interested in this.

On March 25, 1971 the first attempt was made to consolidate, coordinate and enlarge the community video movement in the Washington area. About twenty people attended the first meeting. During this meeting, information was exchanged, introductions made and priorities established. The groups and individuals represented included Federal City College, Catholic University, the Federal Communications Commission, Antioch-Columbia, Source Coalition, the newly formed Philadelphia Media Group, the Capital Area Media Educators Organization, the Smith-Mattingly Corporation, a number of independent film-makers and others.

The aims of this group are to insure the availability to the community of a number of "channels" on any CATV system, to guarantee that ½" videotape is not excluded from playback on the cable system and to promote the community use of ½" videotape through a travelling video theater, mobile video production and monitor units, a media center and a video tape library.

FROM: Red Burns
Community Media Coordinator

I have had initial conversations with various cable operators (those with interests in outside Metropolitan New York) and there is definite indication that they will cooperate with us.

They have a vague sense of "community participation" but cannot put forth resources for experimentation because of their initial capital investment in hardware. On the other hand they need programming.

The question is what kind of material will they deliver when the economics of their current situation prohibits them in dollars and cents to do anything other than inexpensively financed programming—e.g. the revolving weather and time clock.

Their response to us was "when can we meet?"

They need us as much as we need them and if we don't move *NOW* to fill the void we will have abrogated our responsibility as an educational institution to train our people to develop and create programming. The kind of experimentation and training we should develop at NYU can spearhead a concept that will have national implications. I cannot urge too strongly that the time is NOW.

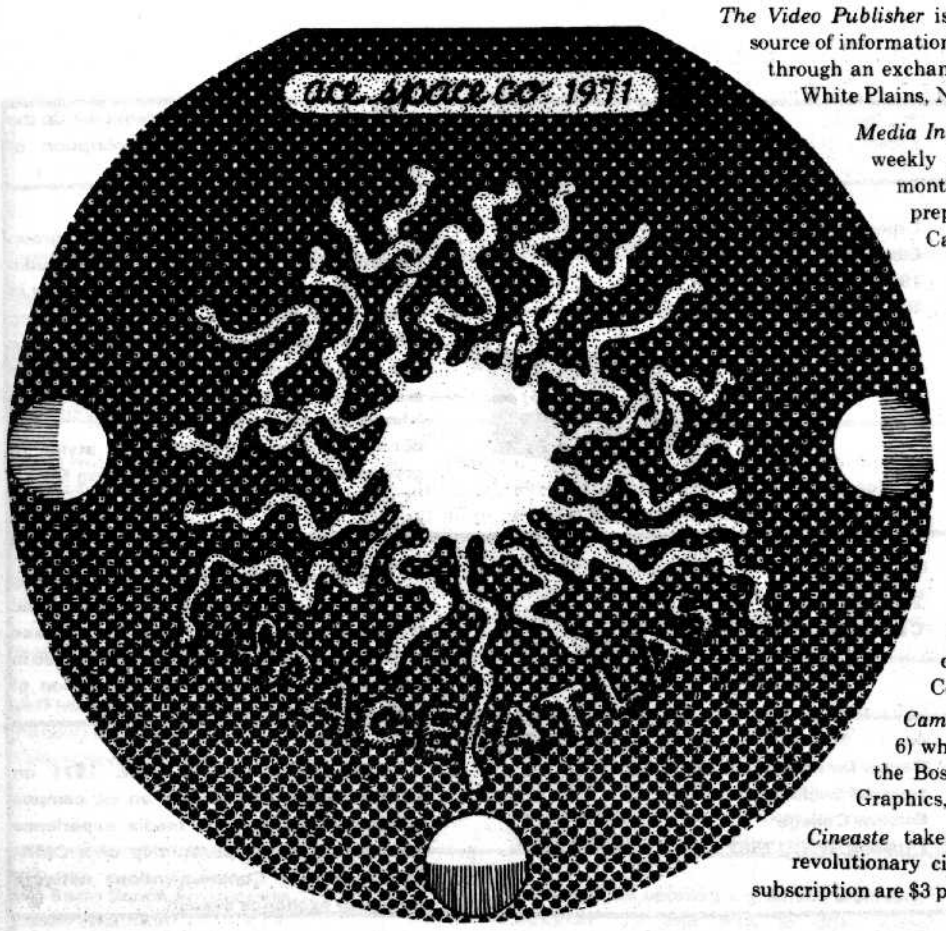
Immediate actions of the group is the organization of several VTR screenings and the setting up of "workshops" for training members of the community in the use of ½" videotape recording equipment.

For further information contact:

Paul Schatzkin (Baltimore-Columbia, MD Area) 301-730-5469
Bill Pratt (Washington, D.C. Area) 202-333-7926
Eddy Becker (Washington, D.C. Area) 202-387-5100 (during the day)

We are in the process of getting it together and discovering what we are. Hopefully, we will start having screenings in the very near future. We are trying to locate VTR units and investigating possible sources of income.

W.B. Pratt



The Video Publisher is a specialized off-shoot of Knowledge Industry Publications. A good source of information which will let you know what video management is plugging into. We get it through an exchange since the $75/year subscription rate is a bit prohibitive. Tiffany Towers, White Plains, N.Y. 10602.

Media Inter-great is published by the Resource Center of Dawson College, Montreal and is a weekly bulletin which covers most media events in the Montreal area. During the summer months the publication is transferred to *Community Media News Supplement* which is prepared and distributed by the Community Media Office of Dawson College, Montreal. (see Canadian section of this issue)

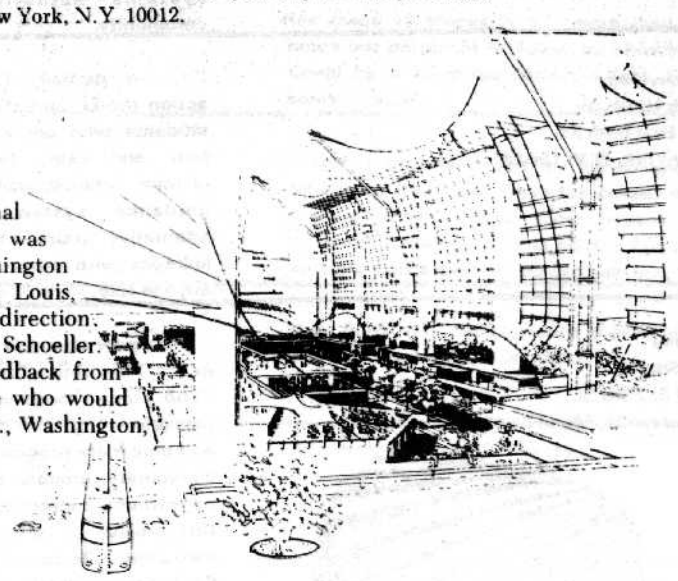
Micrographics News and Views is a well researched newsletter that's trying to do its bit for the user of micrographic products (defined to include video). Somewhat inaccessible at $75/year for 24 issues, you might want to dip into special issues. They've a good issue on the cassette turmoil (Vol. 1, No. 13) which is available for $5. P.O. Box 2642, Palos Verdes Peninsula, California 90274.

Source is a catalog which grew out of Source's experience of the Education Liberation Front, a traveling, gathering and distributing information bus. The catalog will be divided into 13 major liberations areas, beginning with Communications. For more information on catalog headings and contents write to Source. 2115 "S" Street N.W., Washington, D.C.

Citizens, a Washington D.C. based resource center is attempting to enforce the broadcast industry to meet the needs and diverse interest of the public. They have published a Progress Report outlining their services to citizens and community groups. Also in the works is a handbook on citizens' access to the F.C.C. There's lots of good information on what the public can do through the courts to guarantee their rights to the media. Citizens Communications Center, 1816 Jefferson Place, Washington, D.C. 20036.

Camera People is into film, video and still photography and has just sent us an issue (Vol. 1, No. 6) which covers the granting of a cable franchise and most of the current media happenings in the Boston area (including TV listings). Subscriptions are $5/year or 75¢ per copy. Ourgang Graphics, Inc., Camera People, 372 Main St., Watertown, Mass. 02172.

Cineaste takes a radical political approach to control of the media. Actually it covers revolutionary cinema, filmmakers and books on film. Published quarterly at 75¢ per copy; subscription are $3 per year. 144 Bleecker St., New York, N.Y. 10012.



Spacenet-a system consisting of a prestressed three-dimensional cablenet superstructure and a plugged in enclosure system. The project was sponsored by a grant from the American Iron and Steel Institute to the Washington University, School of Architecture, Lightweight Construction Center, St. Louis, Missouri. Designed and developed by John Fotsch and Ed Hord under the direction and design consultation of Assistant Professor Larry Medlin and Joachim Schoeller. Ed Hord is currently evolving the study of Spacenets to obtain feedback from manufacturers, lawyers, government agencies, engineers, and people who would potentially utilize this type of structure. Ed Hord, 2635 41st. St. N.W., Washington, D.C. 20007.

Guerrilla Television

Guerrilla Television is a journal/notebook of our experiences, and a manual of practical information to save others the trouble of repeating our mistakes. It serves as a debriefing so we can go on to other things.

We did not have the money to publish and distribute it ourselves so we chose a straight publisher (Holt, Rinehart and Winston). Of six publishers who saw the book, one thought it was not very good (Harper & Row); another liked it initially but then refused (Simon & Schuster); and a third said they needed more time which we didn't feel we had (Random House).

The three publishers who made offers were: Doubleday, Outerbridge & Dientsfry, and Holt, Rinehart and Winston.

As we were fairly confident we could get it published, we negotiated contracts with specific demands on our part: I. that the book sell for as little as possible; 2. that it be out as quickly as possible; and 3. that it contain graphics throughout.

We received comparable offers from the three, but the one we accepted was made first (e.g. Doubleday initially said they couldn't have it out until February 1971). the $3.95 selling price was arrived at first, and we then worked backwards to see how many pages (160, 8½ by 11) and illustrations (120) could be budgeted for.

Ant Farm is getting a $1375 fee for doing design and mechanicals. This is not part of the advance and they won't share in the royalties. They were selected (at our insistence) as designers after the book had been written and edited, and illustrations had been selected and gathered. Raindance received $4,200 advance, of which $2,000 went immediately to pay off past debts, and the rest went into new equipment. We will receive royalties of 7½% on the first run of 10,000, and 10% on the first 1,000 hardcover (selling price $6.95). A hardcover printing is necessary, according to the publisher, because reviewers will not look at paperback books.

Thus, if the initial run of 11,000 sells out we would realize about $3,700 and the publisher is therefore giving us $500 that he can not make back if the book does not go into another printing.

If the book does go into more printings, our royalty on paperback sales increases to 12½% (of the selling price) or approximately 50¢ a book. That money would be used to finance an information service project we are developing.

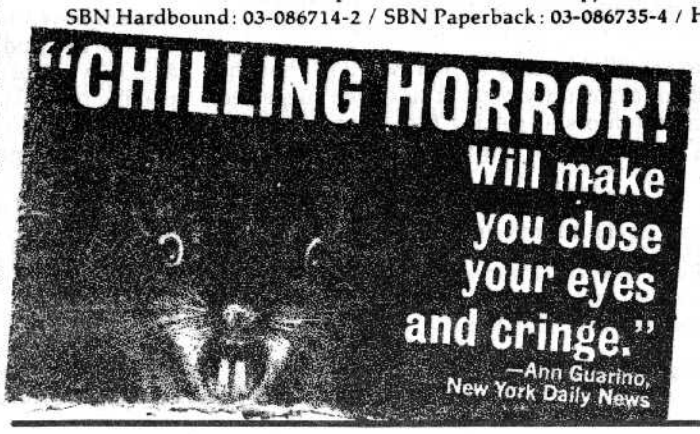
"A work of genius!" —Judith Crist, New York

"EXTRAORDINARILY BEAUTIFUL!" —Rex Reed

This book is the first of a kind. It tells us how we can break the stranglehold of broadcast TV on the American mind. In *Guerrilla Television* Michael Shamberg prints-out from his own experience how low-cost portable videotape cameras, video cassettes, and cable television can be used to design alternate television networks that favor portability and decentralization. Shamberg's contention is that politics are obsolete, and that information tools and tactics are a more powerful means of social change. To achieve true democracy the author suggests that we develop a sense of media ecology in what he calls "media America," or the information environment. *Guerrilla Television* is the first manual for new media tools and as such is sure to find a large, sympathetic audience.

Michael Shamberg, who is too young to remember when he didn't have television, has worked for *Time* and *Life* magazines, which he left to cofound a video-collective, The Raindance Corporation. They make video tapes and publish the magazine *Radical Software*.

$6.95 Hardbound / $3.95 Paperback / 8½ x 11 / 160 pp. / 80 half-tones and 40 illustrations / LC: 75-160464
SBN Hardbound: 03-086714-2 / SBN Paperback: 03-086735-4 / HRW21 / November



THRILLER!" —WNEW-TV

BLACK PANTHER PARTY

Ira Schneider, Michael Shamburg,
Paul Ryan, Editors of *Radical Software*

The International Section of the Black Panther Party has begun a video tape program to be directed to the United States and Europe on a regular basis to cover the spectrum of the international anti-imperialist revolutionary movement. We need much more equipment and material than we have accumulated so far, in order to make the best use of this revolutionary communications medium. Now we are in the process of building up a tape library for information, research, and distribution purposes. We would sincerely appreciate having some of the tapes you have announced in the RADICAL SOFTWARE paper.

Specifically, these are the tapes that we need:
Apollo 10 (11 and 13)
Post Kent State—Washington D.C. Peace 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
Computer: document on the home computer
Rose Art Museum Show: Vision and Television documentary, Jan. '70
New York State CATV operators convention
Glen Falls, N.Y. profile of a town about to install CATV

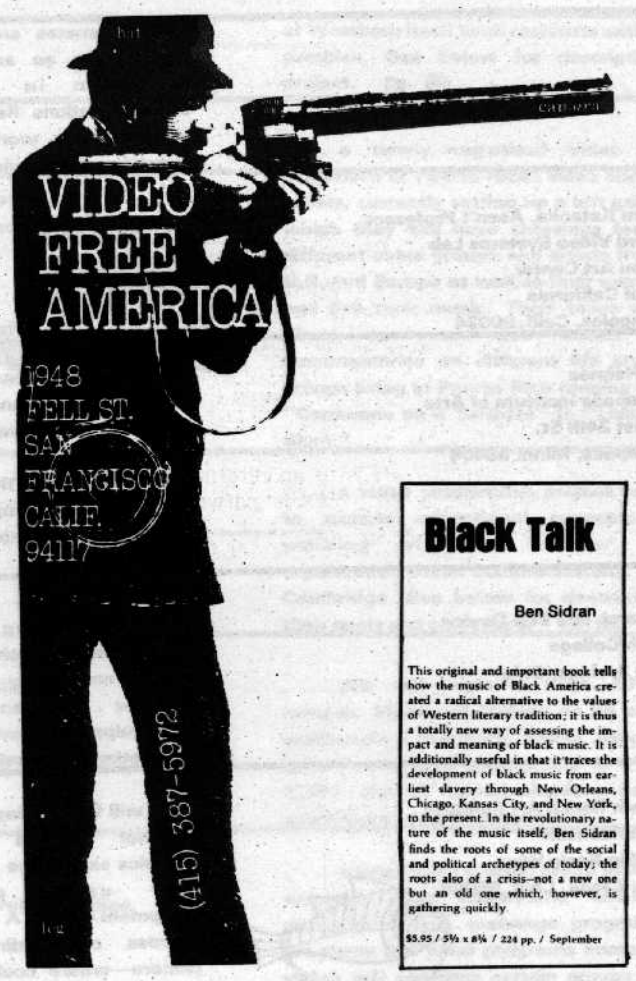
We don't know what kind of arrangements have to be made in order for us to receive these tapes, but we really need them and you can be certain that they will be put to fantastic use once we receive them. The best thing would be for you to send them to us immediately, and we can then send you copies of our tapes in exchange. So far, we have produced all of six tapes here and we are already getting political repercussions. Time is of the essence, the faster we get them the faster we can make more powerful propaganda for the people's revolution around the world.

ALL POWER TO THE PEOPLE

Eldridge Cleaver

16 March 1971

Eldridge Cleaver
Minister of Information



Black Talk

Ben Sidran

This original and important book tells how the music of Black America created a radical alternative to the values of Western literary tradition; it is thus a totally new way of assessing the impact and meaning of black music. It is additionally useful in that it traces the development of black music from earliest slavery through New Orleans, Chicago, Kansas City, and New York, to the present. In the revolutionary nature of the music itself, Ben Sidran finds the roots of some of the social and political archetypes of today; the roots also of a crisis—not a new one but an old one which, however, is gathering quickly.

$5.95 / 5½ x 8¼ / 224 pp. / September

VIDEO COMMUNITY AT WESTBETH

Submitted by Ann Douglass to New York State Council on the Arts

To expand our just-started project we wish to develop a program of education conceived of by artists and their families. We will use video-recorders to make instructional video tapes, to be first viewed by residents and then copied and distributed to N.Y. State video-educational centers; and throughout the country and the world. We are co-ordinating distribution with *Raindance.*

An Educational Environment must have self-discipline with the time-freedom to explore at one's own pace: have friends and resources available for feedback, growth, reference, relaxation; have the well-made, servicable tools that are understood by their users—respected but not worshipped.

On May 27th, Westbeth began broadcasting live and showing pre-recorded ½" video tapes through its master antenna. There is an antenna outlet in each of the 383 living/studio apartments. Those residents who have connected their TV sets to this cable outlet are able to receive our broadcasts on Channel 3. There are over 150 TV sets now connected and receiving Channel 3. The number is growing each day and week.

Broadcasts originate from Studio H-354, where the video signal from the recorder is transfored to a radio signal (because of a RF Modulator inside the deck) that travels over a co-ax cable into the master antenna system, where it is directed to Channel 3. There, the signal is amplified—along with all the other broadcast signals—and carried via cable into every apartment. The master antenna system was built into the renovation. Our video equipment is 1 porta-pack deck, 1 monitor; both owned but not paid for by Ann Douglass. The video camera, RF modulator, and amplifier are borrowed.

We have already made 15 tapes. We have opened our studio and channel weekly to the video community. (Thursday nights at 8 p.m.) Informally, they talk with residents, exchange information, educate us about video tape, educate each other and show what tapes they please.

Recorders are available in studio/living privacy, where residents can record conversations, fun; experiment.

Equipment available to children to work independent of adult direction.

Inter-building exchange; international cooking; plant-growing; repair; clever ideas for improving living space, etc.

Recorders available to residents to take with them:
to visits to other artists
to important conferences
to music events, or just for the fun of it.

Porta-pack for use in community immediately around Westbeth (See Summer Program).

Training Program

We want to give 3 people instruction on repair of video equipment, to be followed by their making an instructional tape in cooperation with the video community.

Program

Broadcasting: to develop a model for community broadcasting.

We are the first building to offer free, unsponsored video broadcasting, with complete access to the studio. We are training all interested in using the equipment. There are already 10 people here who know how to operate a porta-pak and run tapes. The studio is open to all residents, management, and staff. Our channel is open to video community.

(We have already shown work from Videofreex, Raindance, Space, Global Village, Peoples Video Theater, Alternative Media Project, Vega (Ithaca, Cornell) Jackie Cassen, Video House (Washington, D.C.).

Video making at Westbeth to include the following:

live broadcast of tenant/management meetings (now limited to 20 people). We need cable and boosters to be able to broadcast live from the public spaces in the building. (The monthly meeting is held in the cabaret) 500 feet from present cable;

to have recorders available to performers at development and rehearsal stages, so they can judge the effectiveness of their work:

recorders to tape our public performances: festivals, dance concerts, etc.

To train 2 residents in TV repair; followed by instructional how-to tape for national distribution to libraries, video centers, etc.

SUMMER PROGRAM

Because our feedback has been instructional, supportive, and imaginative, we want to continue this program without pause.

Summer projects wanted:

Community-neighborhood is 14th St. to 7th Ave: 7th Ave. to Canal and to River. Some residents are in panic over personal security (muggings and robberies). We want to educate our neighbors about artists and how we live; and to educate ourelves toward better understanding of our neighbors. (They include street gangs, gay cruisers, straight people, meat packers: a very poor neighborhood to the south, truck drivers and warehouse attendants). We want to work with them and the established community associations; such as, churches, block associations, small businessmen, neighboring artists; Bella Abzug; the 6th precinct; other local theaters and concert halls; and hospitals: all directed toward a more informative, yet informal, understanding with our neighbors.

Rent is needed for present studio. We have been offered free studio space from Westbeth on the top floor of *A* building overlooking the river. To make this space workable, we will need money for locks, minimal building supplies, lighting. In either case, we will need reimbursement for material presently loaned (about 500 dollars worth on loaned equipment); about $200 for building material.

Also for:
—continuing live broadcasting.
—continuing playing tapes as they come in from around the world.
—beginning to tape graphics arts collective: instructional tapes; how-to set up a collective tape.
—beginning to make other education/information tapes, i.e., to develop our program along its natural lines; to be free to have equipment and tape to go where we want to; to develop the media experimentally and continually.
—extending cable beyond Westbeth into neighborhood. We are in process of investigating technical feasibility. (FCC regulations do not apply to area within 15 block radius.) Community demand and awareness are accelerating. Receiving Manhattan Cable and Teleprompter service at great discount. Supplying these Cable Franchise companies with Community broadcasting from Westbeth.
—Cable to work with Citizen's Committee.

Request money for feasibility study and negotiation time.

MAY DAY COLLECTIVE

The Mayday Video Collective was formed by eight video groups who came to Washington, D.C. to provide video services to the people participating in the spring offensive. After two weeks of living/working together a position toward network television evolved. Hopefully this statement will be helpful to other alternate television groups in their dealings with the commercial networks.

During our coverage/participation of the May Week events the establishment media approached us on many different occasions. At its inception, the Mayday Video Collective naively accepted $500 from NBC in return for giving "First Tuesday" first viewing rights of the footage we selected as most politically beneficial to the movement. If any of these tapes were broadcast, we were to receive $400/minute. "First Tuesday" usually runs 10 to 15-minute segments. In addition, we were approached by CBS who wanted to air a long news piece using tape we shot inside the prisons.

However, we want to develop an alternate information system that will work toward fundamental change. If the networks wish to relate to us let it be to broadcast the existence of this alternate video system to the people. To encourage the networks to do this is our sole motive in dealing with them.

The Mayday Video Collective's tapes will be viewed at local video theaters around the country and neither NBC, CBS, nor any other establishment network will ever receive one half inch of our work. Video belongs to the people—not to the networks.

The Mayday Video Collective:
Antioch—Washington/Baltimore Campus
Clearing House (Amherst)
Earthlight (Boston)
Source Coalition (Washington)
Videofreex (NYC)
Roadarte
Federal City College
Goddard

Watching TV Can Make Your Hair Fall Out, Specialist Warns

MAY DAY VIDEO

A few short weeks before May Day, the idea of coordinated video involvement in the actions in Washington emerged from the video group at Antioch College. An announcement appeared in Radical Software urging people from other places to come here and work together. Many came and eventually recorded some 40 hours on the events during the two week sustained struggle to end the genocide in Indo-China and to raise consciousness of racism and sexim at home.

This collection of people hastily adopted the misnomer "May Day Video Collective". I say this because the group did not function as a collective as much as it pursued the aims and interests of its constitutent parts. Except on the level of equipment repair and exhange where there was much sharing, very little resembling collective process occurred before it came time to discuss how the forty hours of tapes should be edited and distributed. And during this discussion the group revealed only a superficial understanding of collectivity as the term was bandied about in a power struggle in which men repeatedly shouted down women they disagreed with. In this context, the word Collective became jargon and in a strange way, a verbal talisman dangled about our meeting to prove the purity and correctness of both sides of the conflict. In retrospect, the word served only to disguise a fundamental divergence within the group, namely, political commitment as opposed to media commitment, or in plainer words, the difference between video workers at the service of the people and video workers at the service of the people and video artists working for themselves.

The fact that various people have ½ inch video equipment doesn't mean they are together. What brings people and keeps people together is the use of the machine, not the machine itself. An M-16 in the hands American forces is an imperialist weapon, but the M-16 in the hands of the Viet-Cong is a revolutionary weapon.

At the beginning of the May Day events most of us hoped to apply our expertise and equipment to meeting the information needs of the people. We understood that to serve the people means to be tied to them, to participate in their actions, and to follow their political direction. Our first goal was to set up a live feedback system in the encampment at West Potomac Park, better known as the LAND. Through this system we would attempt to focus attention on the political objectives of the People's Coalition for Peace and Justice and the May Day Tribe. We understood our major task was to connect people to the strategies of these two organizations and thus to help bring form and unity to an essentially amorphous gathering of people. The theme of Non-Violent Civil Disobedience was confusing to many people, does it mean sitting down and passively absorbing punishment from the police, does it allow for self-defense or offensive non-violent actions, such as barricading streets, trashing, or violence against property??? We hoped to be able to claify such questions and help people to work together rather than against each other as a result of conflicting strategies.

Because of technical problems, but principally because of a lack of discipline and experience, we were forced to abandon this plan and to function as video reporters collecting impressions of the life on the "Land" and the actions in the streets. Except for two days when we had a functioning field playback system, we served as reporters resigned to using our tapes in edited forms after May Day ended.

Because this shift to the role of reporters occurred very early there was never any discussion of politics among the video people until after May Day. The "Collective" continued in name alone as the group broke down into individuals doing their own things whose only dependence on the group stemmed from technical and logistical problems, such as fixing or replacing broken equipment in the first instance and getting bailed out of jail in the second.

After May Day when it was time to discuss the editing of our tapes and to make plans for distributing them, serious divisions emerged, which surely would have been apparent if we had discussed politics at the beginning. One group decided to give their tapes only for an edit to be distributed within the as yet unborn "alternative network", which if it does exist in fact, as some insist, does so on the level of $2.00/ticket elitist Video Theatres, catering to the urban cogniscienti. Another group within the collective agreed to give their tapes to the people who needed to use them, whether for legal defense, or for informational purposes in any context they could be used; in a video theatre, in the network monster, or in a toilet (free) if it is useful.

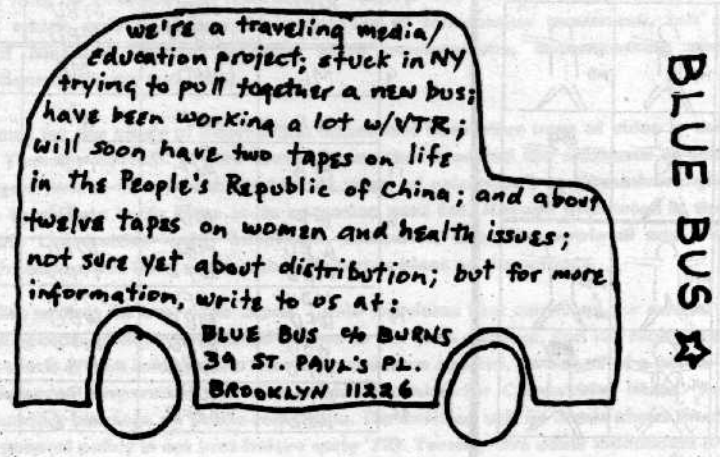
This group accepted the principle that the final decision about the use of the tapes doesn't only belong to those who made the tape, but also to those who produced the idea or initiated the events. The idea of a sustained two weeks of non-violent civil disobedience in the nation's capitol to bring the People's Peace Treaty before government officials and the American public to get it ratified, was not originated by Video people. Therefore, video people should not consider themselves the sole owners of the tapes with privilege of restricting there usage. If we are allowed to work in a situation created by the May Day people, they have a right to use our tapes and to decide how they are distributed. If they feel that it is relevant to use them in the Network Monster to correct wrong information disseminated by the press and network news, we have to accept and serve their decision.

Have we chosen to work in video because Sony, et al, are so far out to have provided us with a highly practical ½" system or because most oppressed people in this country have a TV set and that we want to be connected to them thru these sets?

Such a connection will not occur in video theatres, but it can sometimes happen through the antenna of the Monster. What is important is to force "sometimes" to become "always", to obtain control of our programs.

The split in the May Day Video Collective can be seen in a positive light if we start to realize that as we work and decide how our tapes should be distributed, we must respond to political priorities, if we want to represent and serve the people. We have to fight the idea that video people have the sole right to decide how to edit and distribute tapes simply because they know the medium. Knowing the medium means nothing if we cannot help people to use it to serve their needs. Or are we to become like Egyptian scribes, who became an oppressing class because they knew how to write and the people didn't?

Regardless of the particular outlet our vision and purpose will not be compromised.



(Editor's Note: This part of the "collective", which submitted the above letter to us anonymously was paid $1000 by NBC for preview of their tapes and for production of an edited tape on NBC equipment to boost the tape from ½" to 1". If the tape was then thought acceptable to NBC's "First Tuesday" for airing the group would receive an additional $9000. However, after much time spent by the group preparing the tape it was never used.

Recently a group calling itself the "New York May Day Collective" showed its May Day tapes at a benefit at Global Village, NYC, and charged a $2.00 admission fee.)

EARTH LIGHT

PURPOSE: To provide free access of electronic communications tools to the people of Boston.

OPERATING GOALS AND OBJECTIVES

To operate entirely as a co-operative collective.

For all decisions as to the operation of the video-exchange to be decided at a weekly meeting of all collective members.

For the co-operative to be open to all people and will grow and expand as the individual members collectively decide.

That all members share equal responsibility for all projects and that there be no titles or officers.

That no one be paid directly from monies directly contributed to the co-operative, but that the facilities and resources be made available in order for members of the co-operative to individually and collectively earn a living.

To strive toward becoming a self-sufficient community of people through the operation of the video-tape theater, the production for distribution of video-tape productions, the creation of a co-op buying center for video, art and photo supplies, equipment and tapes, and to work as closely as possible with all other co-operative and movement projects.

A SPACE

A *SPACE* IS A NON-PROFIT CORPORATION. WE ARE CONCERNED WITH THE FLOW OF PEOPLE AND INFORMATION RELEVANT TO VISUAL ART. THE DIRECTORS OF THE CORPORATION ARE ALSO THOSE WHO CARE FOR ITS FUNCTIONS AND BASIC OPERATION ON A DAY-TO-DAY BASIS. OUR SUPPORT IS DERIVED PRIMARILY FROM OUR CAFE AND GOVERNMENT GRANTS, AS WELL AS PRIVATE DONATIONS. *A SPACE* BEGAN TO TAKE FORM IN SEPTEMBER OF 1970 AND WAS FORMALLY INCORPORATED JANUARY 6, 1971. OUR EARLY DEVELOPMENT WAS CONSIDERABLY AIDED BY AN INTERIM GRANT FROM *THE PROVINCE OF ONTARIO COUNCIL FOR THE ARTS*. OUR CAFE, VIDEO STUDIO, DARKROOM FACILITY AND A 2,200 SQUARE FOOT GALLERY WERE COMPLETELY OPERATIONAL AT 17 ST. JOSEPH ST., TORONTO, UNTIL MARCH 3, 1971, WHEN A FIRE RENDERED THE PREMISES UNUSEABLE. THE GALLERY IN OUR NEW LOCATION WAS PREPARED BY THE DIRECTORS AND FRIENDS IN LESS THAN THREE WEEKS (*THE NOVA SCOTIA COLLEGE OF ART* EXHIBITION OPENED HERE APRIL 5TH). WE ARE NOW IN THE PROCESS OF PREPARING THE REMAINDER OF THE PREMISES FOR HOUSING OUR OTHER FUNCTIONS WHICH WILL INCLUDE THE ABOVE MENTIONED AS WELL AS A NEW INFORMATION/RESEARCH ROOM CONTINUOUS WITH THE CAFE. WE ARE LOOKING FORWARD TO HEARING FROM INDIVIDUALS AND GROUPS ABOUT POSSIBLE USES OF THE GALLERY SPACE DURING JUNE, JULY, AND AUGUST.

MITSURU KATAOKA

1. We have over $30,000.00 worth of equipment on loan from Concord Electronics to carry out video experiments based on the idea that multiple disciplines be invited to participate in exploration. Commercial companies including Concord Vitronics, Concord and Berkey Color-Tran have and are contributing to the laboratory through engineering and electronics expertise.

2. Projects including sociological studies, anthropology, audio-graphics, electronic feed-in and design education are a few of the experiments beginning to germinate in this laboratory. At this time there are project teams working on ten different concepts with 4 to 10 persons per project.

3. Type of Equipment—All Concord ½" and 1" equipment including portable cameras, mobile consoles, studio cameras and special effects console, EIAJ Standard VTR's, Berkey Color-Tran lighting equipment, Reflectasol Lighting equipment. The laboratory has access to University-wide equipment on request.

4. The student committee is planning a video section to the annual student exhibition to be held in early June, 1971.

Some of us intend to attend the ICOGRADA Conference in Vienna this summer. The entire premise of this laboratory has been to work with persons who have no vested interest in video systems as known today commercially.

The Vasulkas have opened "The Kitchen" an electronic image workshop and theatre. They want to share it with other media oriented people. During the summer and fall it will operate Thursday, Friday and Saturday nights at 240 Mercer Street, NYC, 475-9865.

CINEMABILIA

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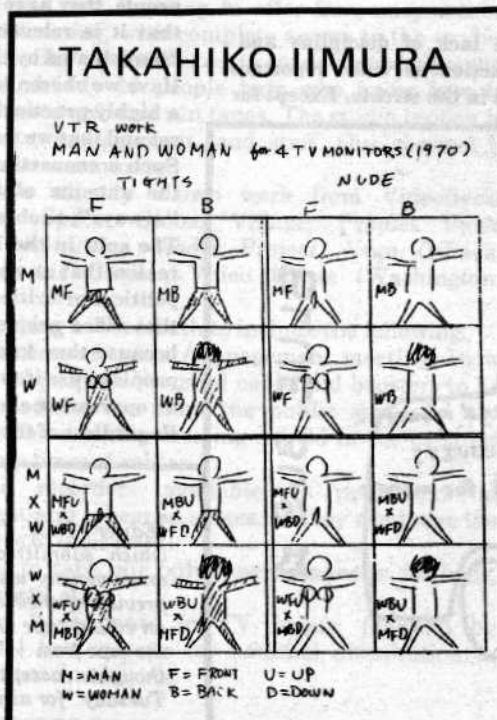
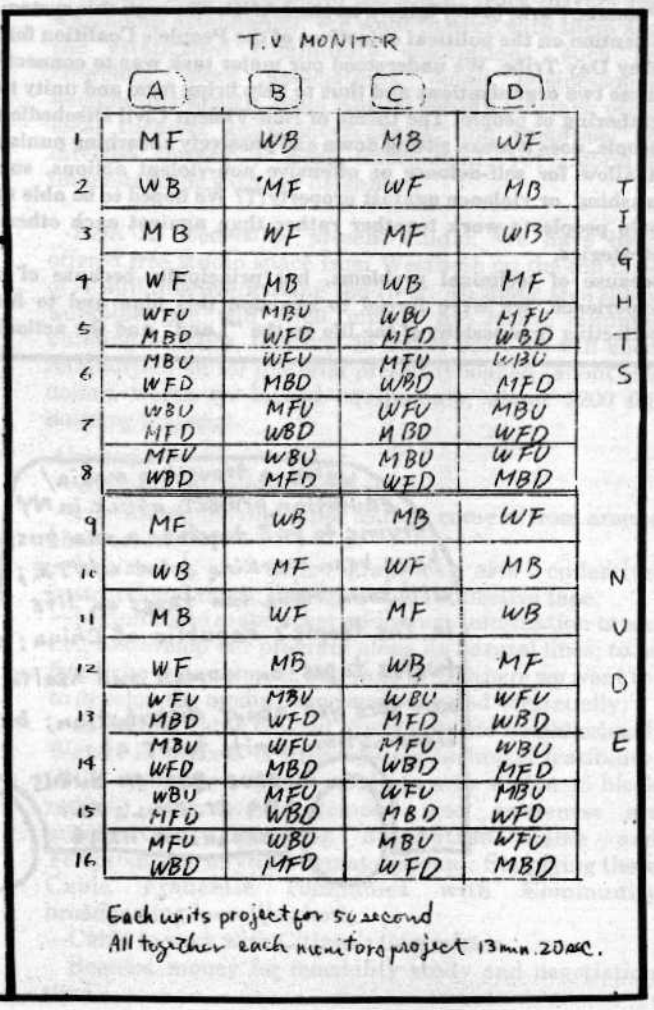
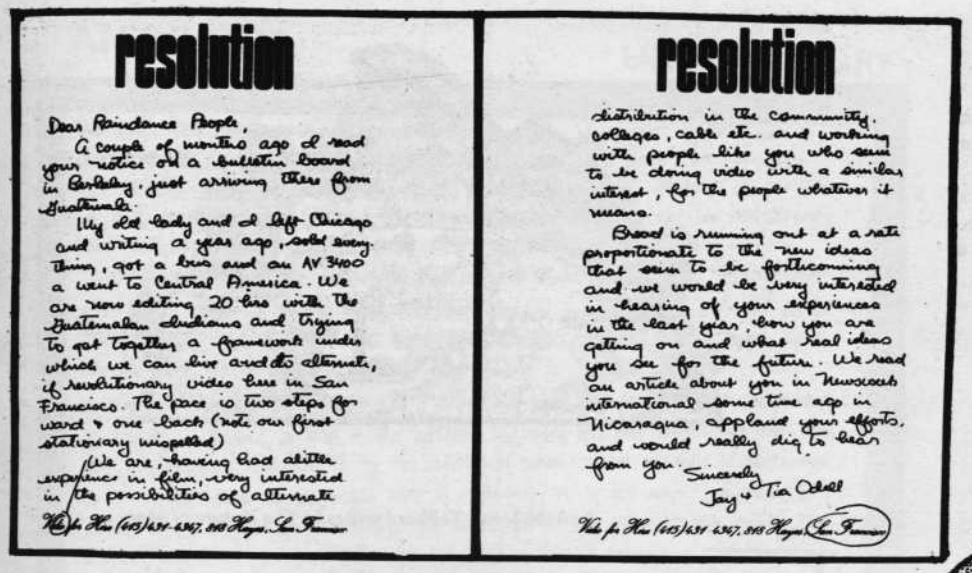
TAKAHIKO IIMURA







resolution

Dear Raindance People,

A couple of months ago I read your notice on a bulletin board in Berkeley, just arriving there from Guatemala.

My old lady and I left Chicago and writing a year ago, sold everything, got a bus and an AV 3400 & went to Central America. We are now editing 20 hrs with the Guatemalan Indians and trying to get together a framework under which we can live and do alternate, if revolutionary video here in San Francisco. The pace is two steps forward & one back (note our first stationary misspelled)

We are having had a little experience in film, very interested in the possibilities of alternate

Vide fo Hse (415)431-4347, 518 Hayes, San Francisco

resolution

distribution in the community, colleges, cable etc. and working with people like you who seem to be doing video with a similar interest, for the people whatever it means.

Bread is running out at a rate proportionate to the new ideas that seem to be forthcoming and we would be very interested in hearing of your experiences in the last year, how you are getting on and what real ideas you see for the future. We read an article about you in Newsweek international some time ago in Nicaragua, applaud your efforts, and would really dig to hear from you. Sincerely

Jay & Tia Odell

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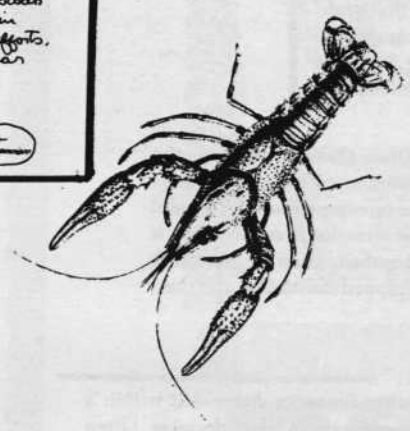


GHOST DANCE

ON THE PLAINS OF INFORMATION

It is the Moon of Making Fat, a time for consolidating gains. The season of vision-quests beckons. I will speak of the lessons learned in our first winter and spring of hunting.

Ghost Dance was incorporated in January, but began videotaping last October. Using Sony AV equipment, we recorded a concert by the Byrds, a video collage of Harvard, a series of musical and liberated-culture manifestations at the Stowe Playhouse and a thing called *The Electric Bible*, in our first weeks of taping. It quickly became clear that portable v.t. was beautiful for transporting environments or for short-term experiential transcriptions, but did not engage the full potential of the medium.

The work of Ghost Dance Inc. was defined as attempting to discover the indigenous (i.e., natural and appropriate) content of television. Videotape as packager of event and sculptor of reality, as well as invitation for feedback, was a grand step toward the Revelation—but surely only the first. We wanted to transcend the incubus of electric film.

T.V. has something to do with instantaneous ("live") presence. Its further meaning has to be read from the parameters of the machinery. Software is the laughing child of hardware. But to see/feel that isn't enough. Video experimenters to date have been satisfied with demonstrating the rich possibilities of t.v. yet none has made the dance of the electron meaningful.

15,750 horizontal oscillations per second . . . 3-4,000,000 dots per second . . . Solve the above simultaneous equations and plot the result on every t.v. screen on the planet . . .

Ghost Dance Inc. is engaged in producing videotapes of high information density and impact. Our work is an effort to order the static of television—to design evocative configurations of light and sound that transfigure the Word and the literal image as vehicles of meaning. Our ultimate aim is to generate an "alphabet" of patterns—electronic iconograms—that will vastly speed communication, as well as improve both its subtlety and its precision.

Television is an extension of the brain, nothing less. In its stimulation of the many senses, t.v. is so much more than antecedent media. Yet we have little understanding of how it really works. To grok that we would have to understand more than we do of the functioning of eye and brain. A later article will deal with our researches on that subject. For now it is enough to say that we are striving for a more profound understanding of both t.v. and receptor consciousnesses.

Much of our work may be described as Information Theory.-Not the information theory of classical cybernetics which only describes the processes of information movement, but a prescriptive study of Meaning (defined as ever more parsimonious, encompassing and memorable configurations of energy and data).

A potential laboratory for the study of information fluxes and innovative uses of video is the Harvard Information Transfer System. It was Ghost Dance that revealed the existence of this telecommunications grid (which was never used in six years of existence!) to the university's population. We hope to pioneer in its large-scale operation next fall. Anyone interested in the possibilities of Electric Universities—with telephone, computer, microfilm retrieval and t.v. interconnected—might call us. We have some rather elaborate ideas on the subject.

We have been hunting outlets for our video-tapes. Cable television first attracted our notice. Of course, it would be optimal to have unfettered access to our own channel, and we recognize the incalculable importance of free information flows. So we have applied, on behalf of a yet-to-be-chartered public interest corporation, for the cable franchise for Cambridge, Mass. At present, the state is holding hearings on public regulation. No decision will be made about local franchises until more general policy is set (not before early '72). Twenty-five other individuals or firms have put in their bids, but none other on behalf of a non-profit community-based company. We shall report further developments in this domain.

Ghost Dance has prepared both 1-inch and half-inch pilot tapes that give some notion of our direction. We are happy to arrange information trades.

VIDEO EXCHANGE

As a mobile unit and with independent financing Video Exchange has recorded the entire Alvin Ailey repertory, and choreographic works by Pearl Lang, Twyla Tharp, as well as the third part of Meredith Monk's Theatre/ Cantata *Juice*, to name a few.

Recently, under a six month grant from the New York State Council on the Arts, Video Exchange was able to set up a permanent facility at the Merce Cunningham Studio at Westbeth, New York City's federally subsidized artists' colony. Video Exchange provides one of the very few remunerative performance situations for small dance companies and individual artists, as each performing group can expect to receive up to fifty per cent of the nightly individual contributions, plus a second fifty per cent of all income which may be derived from video tapes of the live concerts when they are distributed to colleges and universities by Video Exchange.

Our overall objective is to attempt to make Dance self-supporting through the rental of videotaped performances to high schools, colleges and universities and other community outlets, as well as eventually marketing videotapes to broadcast and cable television stations and video cassette developers. We intend to distribute the income from these tapes to working artists, so that their time can be spent creating new works rather than in holding a job outside their art as the means of earning a living. If our expectations are correct, we will develop a market from which 50% of all income will be returned to the creative artists themselves, rather than to various middlemen. It is our intention eventually to provide a steady income for performers in all the various performing arts fields.

COPIES OF VIDEO EXCHANGE VIDEO TAPES WILL BE AVAILABLE FOR RENTAL IN SEPTEMBER, 1971, IN ALL COMMON FORMATS (½", 1", and helical scan 2")

Video Exchange, Inc., is a non-profit corporation and contributions are tax deductible.

This summer they will be sponsoring a video festival at the Westbeth complex on West Street, NYC.

At present, our operations center in Cambridge, Mass., with distribution plugs in New York, a studio (the teleportant Stowe Playhouse) in Vermont, and a patents division in Philadelphia. We are thinking about opening a video environment/theatre in Cambridge sometime next year, while maintaining and deepening our connection with the Playhouse in Stowe. We'd like to get together a catalogue of information sources—a directory on how to wire the galaxy and a compendium of plugs for access to software. If you can dig any of these things, get in touch. 617-661-1012. We have you in mind.

I close by offering for your consideration or use a typology of information categories that Ghost Dance has incorporated into its vocabulary.

We call *Delta* information that deals with simple changes, with realities (scarcities) of time and space. A linear videotape (i.e., one without mixing or special effects) of any random thing is termed Delta order information.

***Gamma* order data is secondary processing of primary information (Delta). Gamma is concerned with energy distributions. A videotape of someone watching themselves on tape is Gamma. This is the domain of feedback.**

***Beta* information would be the random juxtaposition of distinct realities. Live two-way t.v. is a continuous source of Beta order data. (Within a wired university, for example, live monitors linking faculty and student lounges . . .**

***Alpha* order information is conscious juxtaposition of supposedly discrete reality continua. To be Alpha implies striving toward new orders of information, new dimensions of vision. This is the domain of synergy. Two or more meaning grids suddenly marry; form and content fuse, and become meaningless. 2 plus 2 suddenly equals 7, and new energy is made possible.**

"We know the meaning of 1," Godard said.

"We think we know the meaning of 2, since 1 plus 1 equals 2; but we have forgotten to understand the meaning of plus."

Synergy is the "plus."

Ghost Dance passionately explores the realm of plus.

parkingmeter
(marty perlmutter),
the shirt-wearer of ghost dance

CYBERNETIC GUERILLA EVOLUTION

By Hal Aigner

A case could be made that the evolution of media and man are coextensive. At this place on the continuum, one is not found without the other. Access to information and the means of exchanging information have attained importance only second (and a close second) to food and shelter.

Evolution is a process of becoming. Existence is process. Being is becoming. Right? "I seem to be a verb," says design-scientist Buckminster Fuller. In *The Teachings of Don Juan*, a journal of apprenticeship to a Yaui shaman, Carlos Castaneda writes

> Being a man of knowledge was not a condition entailing permanency. There was never the certainty that, by carrying out the predetermined steps of knowledge being taught, one would become a man of knowledge. Thus, becoming a man of knowledge was a task that could not be fully achieved; rather, it was an unceasing process comprising (1) the idea that one had to renew the quest of becoming a man of knowledge; (2) the idea of one's impermanency; and (3) the idea that one had to follow the path with heart.

Unceasing process. Process entails the displacement of energy either through entropy, the tendency of systems to lose energy and move towards disorder and chaos, or exchange. Exchange implies a minimum of two systems working either in cooperation or in competition. Successful competition means the eventual death of both systems because as one wins out over the other, it destroys its means of exchange and leaves itself subject to entropy. In baseball, when the New York Yankees became so good that they could beat all comers, attendance dropped drastically, and thus, so did gate receipts.

In the March 1970 issue of *Ekistics* magazine, Nathan Katzman writes

> Simply out, the second law of thermodynamics states that within a closed system entropy tends to increase and can never decrease. Often the non-scientist forgets that the law of entropy applies only within a closed system; and this can confuse attempts to apply an analogous law to non-thermodynamic paradigms. . . Thus the following formulation: The entropy of a social system increases as that system becomes closed to communication with the outside. Conversely, the negentropy of a social system increases as that system becomes more open to communication with the outside.

Systems thrive on energy exchange. If instead of yielding process energies to entropy, a system—say, a culture— transforms energy into something suitable for exchange, it extends its capacity for life, health and growth. And for a culture, regardless of whether it is local or global, to be healthy it must encompass both differentiation and synthesis.

The need for both differentiation and synthesis is expounded by the late Jesuit philosopher Pierre Teilard de Chardin, the high priest of evolutionary change. In *The Future of Man* he writes

> In every practical sphere *true union* (that is to say, synthesis) does not confound; *it differentiates*. . . . Operating in such a field, the tendency of union to bring about differentiation, far from giving birth to mere mechanism, must have the effect of increasing the variety of choice and the wealth of spontaneity. Anarchic autonomy tends to disappear, but it does so in order to achieve its consummation in the harmonised flowering of individual values.

Differentiation is the means of molding energy into a myriad of forms, and synthesis allows for the exchange of energy and the use of it in common cause.

But heretofore, mankind, in its efforts to resist entropy, has opted for competition and its archaic logical extreme: war. And the mechanism used by leaders to get the masses to march to battle has been MISINFORMATION.

Bucky Fuller is quick to point out that 20th century world leaders are generally working from 19th century assumptions. And earth 19th century at that. The specific assumptions are Thomas Malthus' 1810 dictum that birth-rate was out-pacing resources development and there was not enough material to go around. This meant that men were basically in competition for the available food, water and raw materials.

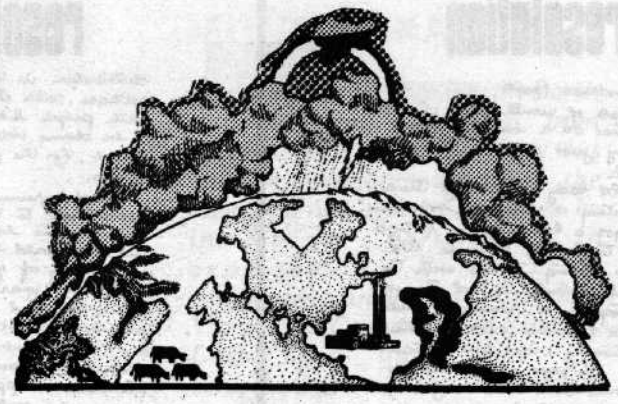
This fit hand-in-glove with Darwin's survival of the fittest theory. Man was seen to be fundamentally in competition from which only the strongest would succeed.

The Malthus-Darwin dicta underlie current game theory, which was developed by the late Princeton professor Jon Von Neuman. This theory, which is used by almost all war departments, assumes that what goes into one person's pocket must come out of another's. My gain is your loss. I win, you lose.

But since the mid-50s, numerous people have discovered that there is enough extant technology to sufficiently process natural resources to amply provide for everyone. All of a sudden it is a different game. Everyone can win. Everyone.

But if the technology and resources are available, what's stopping humanity from being successful???: the lack of adequate information exchange. Information exchange and education appear to me to be the same thing. Media freaks are expanding educational options. In *The Human Use of Human Beings* founder of Cybernetics, Norbert Weiner writes

> Information is a name for the content of what is exchanged with the outer world as we adjust to it, and make our adjustment felt upon it. The process of receiving and of using information is the process of adjusting to the contingencies of the outer environment, and of living effectively within that environment. The needs and complexity of modern life make greater demands on this process of information than ever before, and our press, our museums, our scientific laboratories, our universities, our libraries and textbooks are obliged to meet the needs of this process or fail in their purpose. To live effectively is to live with adequate information. Thus, communication and control belong to the essence of man's inner life, even as they belong to his life in society.



And the Jesuit Teilhard writes in *The Future of Man*

> To the eye of physical science, one of the most remarkable characteristics of Life is its 'additive' quality. Life propogates itself by ceaselessly adding to itself what it successively acquires—like a memory, as has often been said.
>
> . . . Far from being an artificial, accidental or accessory phenomenon in its relation to living creatures, education is nothing less than an essential and natural form of biological additivity.
>
> . . . It is through education, by the progressive spread of common viewpoints and attitudes, that the slow convergence of minds and hearts is proceeding, without which there seems to be no outlet ahead of us for the impulse of Life.

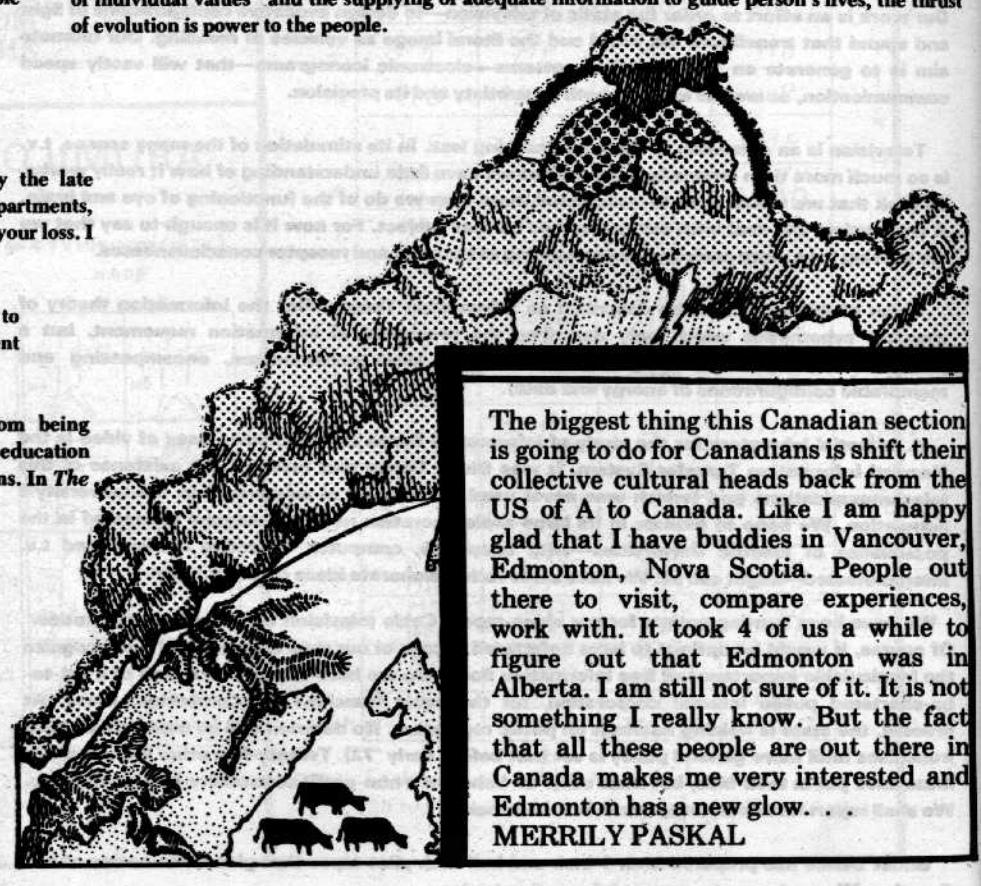
And once more from Teilhard, this time from *The Vision of the Past*

> In fact, it must be repeated, our view of life is obscured and inhibited by the absolute division that we continually place between the natural and the artificial. It is, as we stated, because we have assumed in principle that the artificial has nothing natural about it (that is to say because we have not seen that artifice is *nature humanized)*, that we fail to recognize vital analogies as clear as that of the bird and the aeroplane, the fish and the submarine.

It is owing to this same fatal assumption that we have for years watched the astonishing system of earth, sea and air routes, postal channels, wires, cables, pulsations in the ether, covering the face of the earth more closely everyday without understanding.

> 'Merely communications for business or pleasure,' they repeat, 'the setting up of useful commercial channels.' 'Not at all,' we say; 'something much more profound than that: the creation of a true nervous system for humanity; the elaboration of a common consciousness, on a mass scale clearly in the psychological domain and without the suppression of individuals, for the whole of humanity.
>
> . . . In reality, as anyone can see who tries to put together the general design of the movements of all physical organisms, we are quite simply continuing on a higher plane and by other means, the uninterrupted work of biological evolution. . .

And it further seems to me that through the expanded use of media for the "harmonised flowering of individual values" and the supplying of adequate information to guide person's lives, the thrust of evolution is power to the people.



The biggest thing this Canadian section is going to do for Canadians is shift their collective cultural heads back from the US of A to Canada. Like I am happy glad that I have buddies in Vancouver, Edmonton, Nova Scotia. People out there to visit, compare experiences, work with. It took 4 of us a while to figure out that Edmonton was in Alberta. I am still not sure of it. It is not something I really know. But the fact that all these people are out there in Canada makes me very interested and Edmonton has a new glow. . .
MERRILY PASKAL

ANT FARM

LINEAL MEMORY

We spent three months building the media van and the life support system, now we have been on the road for two months. We are on the road back. We have only one portapak but [on Porta-Pak support systems] it has been adequate. At first we developed a style as of editing in process - that is making judgements on tape we had already shot and rerecording, over slow parts. In the south and midwest there were no support systems, indeed the technology was alien to almost everyone. In Syracuse and new York we found editing equipment and changed our style, now we keep all original tapes in a data bank and make edited composites from this. We never have enough tape, so as much as we could we scamed it along the way

Economic Support Systems We got a grant to build the truck, then we printed a drawing of it and a map of the network and used this and contacts we had from the Infratocookbook and from doing the architectural school circuit a couple of years ago to set up gigs along the way. They were all at colleges, one or two days, lectures or as part of spring arts and politics festivals the lowest fee we got was 100$ plus meals, the highest was 250$ for one day Now we are cruising through Canada on tightly budgeted bread (gas is 48.1 – 51.9 cents a gallon here) We had no police trouble, attributable we think to the stylish high technology appearance of our media van – it has more stuff on the roof than they do. We get the same basic question everywhere – it helps to have a prepakaged explanation on a video tape dog in. THERE IS SO MUCH GOOD SHIT ON THE ROAD, YOU CAN'T GO WRONG – it makes good tape. we shot everyday and played back every night, to anyone who would watch it - be careful about attention spans – people weened before television came into the home won't be able to watch as much as Children of Media America, but there are a lot of media freaks who will watch all you've got. Our tapes are a mix of our own bus trip, wierd shit along the side of the road, survival made stuff such as building YURTS, unknown talent and rural American commercial television. We were looking for people who had taken control of their immediate environment, especially older enviro-wierdos. A list of our unedited tapes follows, Raindance is distributing a 30 minute edit entitled WILD SEED.

TAPES: ☆TOLLWAY - TOWAWAY ☆HOGWILD ☆THE ADVANCE OF SPRING ☆MOON PRAIRIE MUSEUM AND DICKEYVILLE GROTTO ☆DOGFIGHT OVER VERMONT ☆BEN SLEEPING ☆THE WORLDS LONGEST BRIDGE ☆AC-DC

GROTTO · DICKEYVILLE, WIS.

June 6th 71

TAJIRI

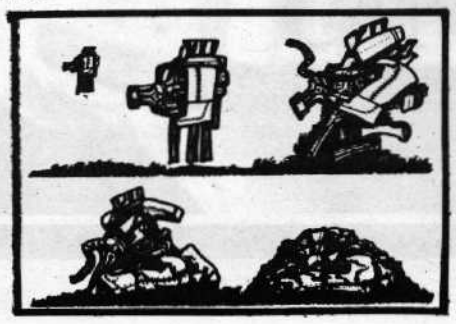
Dear Beryl,

Thanks for the letter. Mallander sent the tape and I will have to connect with some European equipment before I can make a copy for him.

You might state in the next issue of the paper that I have 1/2" American Sony standard 525 and would be willing to help translate tapes into European 625 without charge. Also if there are any video freaks wandering around the southeast part of Holland (we're located right on the Dutch-German border about 35 miles west of Dusseldorf and about 100 miles southeast of Amsterdam). We can always put up a couple of people over night in our castle.

I'll hang on to the tape and show it whenever possible and will forward another tape when I get some material together. Jack Moore sent you, under "video-heads", some of my best stuff, excerpts from a ¼ hour documentary on the Danish chick who makes it with animals, a photographic porno session I shot in Copenhagen and a "happening" of Austrian artist Otto Muehl in Liege, Belgium. The thought just occurred to me that you might like to see the Berlin Wall, I mean all 27 kilometers of it. Half my time I'm in Berlin teaching at the academy and since last year have been photographing the entire wall (750 photos) which I will use for a book I'm printing myself this summer. I could probably get it together by the end of July.

Best Wishes.



Community Information and Communications Dome

For the full-time maintainance of operation of the Videosphere, presuming that it is being run on a year-round, 6 or 7 day-a-week basis, a staff of not more than four or five full-time and two or three part-time should be necessary. The director would oversee the operations and initiate new projects. He would be host to visiting artists who are preparing works for the Videosphere, and would be responsible for contacting others working in the field and arranging hook-ups and securing material for the library. Two or three programmers would work with him, would initiate new projects and would deal with those who come to the Videosphere with projects. They will maintain the library and offer instruction in the field of creative and experimental television both in the Videosphere and as guest lecturers in other institutions. There should be as well two or three student assistants who would assist in the running of performances and in the maintainance of the equipment.

Preparation of programming
It is difficult to make any accurate description of production procedures and costs as the nature of each individual production will vary greatly. The Videosphere is fully equipped for both production and presentation of programming of great diversity. There are cameras and microphones for all purposes and modest editing and mixing facilities. Tapes may, if desired, be erased for new programming or kept for the library and further showings. Programming may be taken off the air from broadcasts, live from remote points, or played from videotapes and/or film. It is anticipated that tapes and films will be sent to the Videosphere from all parts of the world where people are working in an experimental way with television. Most of the programming, however, will be produced in the videosphere or will be live material, generated on the spot using the audience and the environment as visual materials. Needless to say, the Videosphere may also function as a normal film theatre or as a live theatre especially well suited for multi-media productions.

Library
As the weeks pass and more and more productions have been mounted, a library of tapes will grow which will, over a period of time, become the most valuable asset of the Videosphere. In addition to archiving our own productions, a library of many people's work from all over the globe can be made available for showings either in the Videosphere or anywhere where playback equipment is available. Tapes could also be made available for Broadcast or videocassette. Ultimately, sale and hire of programme material from the library to television or for videocassettes could subsidise most or all of the Videosphere production activities.

Maintainance of Equipment
Video and film equipment requires little but regular maintainance to be reliable and give many years service. Video heads in the recorders and picture tubes in the cameras are the only significant items that are normally required. Projection lamps and film repair/cleaning are the major film upkeep items. The video projection devises are laser light activated and require only an annual check-up. Cleaning, small repairs, and regular check-ups will all be done by the resident staff while major repairs will be sent to the manufacturers.

Maintainance of building
The building itself requires little maintainance beyond normal cleaning requirements. The cover is generally self-cleaning with normal rainfall, the metal structure is noncorrosive and unpainted. It is anticipated that the cover should be replaced after three or four years.

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Youth Media Project
Loyola
23. Free Video
"TV 2" University of Quebec
In-Media
Nova Scotia College of Art and Design
A Space
24. Training Programme for Social Animators
Parallel Institute
Challenge for Change

Editor: Merrily Paskal
Design: David Sutherland
Contributing Editors: Tom Paskal, Norman Bethune Levine

Photo: Tom Paskal

what's happening
COMMUNITY ACCESS

London, Ontario

NFB in collaboration with the University, youth groups, citizens committees and local Indians has participated in a large amount of local and community programming with the Cable Company, the president of which is Mr. Jarmain who has been inviting citizen participation for some time.

Thunder Bay, Ontario

A Thunder Bay citizens production unit is providing one evening's programming a week. The programmes are made at the request of local groups. In addition, the Lakehead Board of Education now has its own cable channel and its own studio connected to the Cable Company's head end and will shortly be originating live and taped programming of both an educational and community type.

Fergus, Ontario

Local talent has been given an outlet here five nights a week over the past two years.

North Bay, Ontario

The NFB distribution representative is now meeting with leading citizens to discuss ways in which citizen access to cable can be achieved. In North Bay, Hannover, Midland, Penetanguishene, and Owen Sound "Communications Councils" are being set up to determine uses for community channels.

Vancouver, B.C.

The B.C. consumers association has been putting its own programming on cable and is now starting a new series with NFB support.

Hamilton, Ontario

NFB has helped to prepare programmes on local pollution and these were designed for use on the cable system.

Boucherville, Quebec

Students from the Informations Culturelles department of Université du Québec à Montréal are providing all original programming and production for the cable station owner, at his request.

Edmonton, Alberta

The Metropolitan Edmonton Educational Authority (M.E.E.T.A.) is a form of Charter Board producing mainly educational but some community programming and sharing a *transmitter* with the CBC French service (broadcast TV).

Normandin, Quebec

Citizens of Normandin run their channel—they make programmes for agricultural and industrial workers and the schools, and have stimulated considerable community spirit.

Yellowknife, N.W.T.

Only in talking stage but a similar situation to Edmonton is being planned. Equipment and trained people exist in Yellowknife and programmes have been produced that are compatible with CBC transmission facilities.

Fredericton, N.B.

City-Cable Vision Ltd. has had six hours of community programming per day for the past year. It has now bought Edmunston Cable (French language). It has portable units for coverage of sports and university discussions. A volunteer "Advisory Board" of eight people exists. A series on New Brunswick Indians attracted 40% of the available audience. Programmes contain phone-in audience reaction. Discussions concerning expanded community *service* are now taking place, and ½" equipment has been acquired for use by community groups.

Calgary, Alberta

C.R.T.C. acceded to the request of cable owner P. Davis to increase his subscription rate by 50c on condition that that money go to community programming.

Ontario Federation of Labour

O.F.L. is now organizing VTR workshops and by the end of 1971 expects to have over 1,000 persons trained in television techniques.

Toronto, Ontario

Citizens in Ward 7 (Cabbagetown) have started to programme on the community channel at the request of Rogers Cable. Rogers Cable is asking community groups to come forward to participate in cable casting.

Halifax/Dartmouth

During "Encounter Week" CJCH (CTV) and CBHT (CBC) gave extensive prime time coverage to this conference which received the highest audience rating for any programme seen in the Maritimes. Halifax and Dartmouth are to be wired by Spring 1971. NFB (Maritimes) will be organizing a seminar for the cable owners in the Halifax/Dartmouth area and a full representation of all citizens groups in the area has just been formed and will shortly be approaching Challenge for Change with a specific proposal to help them gain access to the community channels.

Pembroke, Ontario

The on-air station has successfully tried out direct transmission of ½" VTR and is willing to make time available to community groups.

Beloeil, Quebec

Live cablecasting of City Council meetings (first in Canada).

Winnipeg, Manitoba

The Institute of Urban Studies at the University of Winnipeg now has the funds to set up a communication project to explore a community TV system for "information and the betterment of urban democracy". Another project in Winnipeg involves the use of a closed-circuit system within a housing project of 1400 people.

Abitibi, Quebec

The local unions do community broadcasting over four counties, with the citizens making their own programmes.

what's not happening
COMMUNITY ACCESS

QUEBEC

The CRTC last year asked the cable companies to reserve one channel for community use. The response to this from cable companies has been virtually nil.

State of Quebec Cable

Quebec has a great number of small cable systems which are ill-equipped, function archaically and do not bring in very much money. 79 of the 162 cable enterprises were established between 1953-1960 before the advent of such major improvements as aluminum shielded cable. Also, many of the existing cable systems can hold a maximum of 6 channels—usually 4 Canadian, 1 American and in some cases FM radio. The costs of equipping a TV studio for even minor productions (about $20,000) is a sum only the major cable companies can consider.

Many of the cable enterprises merely rechannel the accessible CBC and American stations. In five years 50% of the existing cable studios will be reequipped and begin to handle part of their own production. However, 80% of the cable companies are affiliated with or owned by telephone companies and their policies will be largely dependent on the politics/policies adopted by the telephone companies.

In Quebec, the confrontation between Ottawa and Quebec (see Bills 33,36, 37) over cable control within the province has further encouraged the cable companies to lay low.

The four main Quebec centres, Quebec City, Montreal, Sherbrooke and Trois-Rivières are doing very little community programming

e.g. **Montreal**

1) National Cablevision has 41 closed-circuit hours a week. 300-500 people weekly pass in front of their cameras. They tend toward "intimate" (from our living room to your living room) presentation. When National Cablevision talks about expansion it is thinking of hard talent, guest speakers, slicker production.

2) Cable TV says it is trying to schedule more community-oriented groups. One typical Saturday includes:

Montreal Media
Good Grooming
Nature Foods
Youth Theatre

Beside the main Quebec cable centers, only several other companies have made *any* attempt to produce some type of community programming. Most of these centers had the community programming they have now before the CRTC ruling.

The majority of Quebec cable enterprises are small, offering 2-3 channels to several hundred subscribers. Even if they could afford to produce programmes, which they cannot, these stations do not have an open channel. They could not even pay to maintain the upkeep on the equipment if they got it free. Neither would commercials raise enough money for community programming.

VANCOUVER

There is no obvious solution to the problem of how a central community group acting as a charter board or programming depot for a community can prevent itself from becoming a programming elite like any other. But right now it seems that a temporary blanket organization can make an impact in the direction of change that the existing programming entity and facility at cable Channel 10 cannot do alone.

Specifically on channel 10 there is:

—a surfeit use of "off-the-shelf" film material produced by the public relations arms of large corporations and government institutions and the like, all of whom can underwrite the costs of their own material.

—far too much reliance on studio production. Many of the critical or incredible aspects of human experience can't be transported to the studio.

—a reluctance to use ½ inch equipment because of the relative instability of the image. Portable ½ inch VTRs, however, are in large part responsible for the growing interest in community programming. Obviously ½ inch will improve to the point where it at least approaches broadcast standards. There is no justification for cable operators to be responsible to the Department of Communications TV signal requirements before it is formally established whether or not a cable-originated signal is broadcast or closed-circuit.

—routine formats (i.e. talkshows, announcer-type intros, etc.) and patronizing language are used to convince the community that the channel is really their own. The idea still persists that a benevolent corporation is extending a privilege to the people in the community who have something traditionally referred to as "a point of view", when for many people an idea or an intention develops out of some degree of exploration of complex parameters of reality.

Many very unique and exploratory interests and talents must be developed now on the existing free channel.

Among other things, "program packages" must be redistributed in such a way that TV can be an experience in itself rather than an experience of an introduction to an experience. The intention is to dissolve the boundaries around pro-gram "types" in order to enter into the community in its constellated rather than layered form.

Dallas Selman

INTRODUCING THE 20TH CENTURY COMMUNITY CENTRE.

Your community.

What do you know about it?

That is, how can you really find out about what's going on in the community you live in. Well, if you're fortunate you may have a local newspaper but unfortunately many people don't. And those that do only get it every so often. You see, up until now nobody's really paid much attention to communications within the community. In fact, it's been sadly neglected.

But now your community has an exciting and dynamic new voice. A voice that will create far greater awareness of everything that's happening in your community. Anything from a town council meeting to a little league baseball tournament. It's called cable television.

And that's the purpose of this little booklet. To explain to you how very simple and essential it is for you and your community to participate in community programming on cable television, the Twentieth Century Community Centre.

How to start

Let's start by assuming that your group has something to say to the community. In fact, you may have already tried some of the conventional means — press releases, letters to the editor, perhaps even meetings or demonstrations. If you have then you realize how very difficult it is to get enough coverage. Because unfortunately the amount you get always seems to depend upon how dramatically or sensationally you can express yourself. And when finally your message does get through, it's usually been filtered or modified by sources that you have no control over.

But not with cable. You see, cable offers the possibility of a regular ongoing programme. Already groups similar to yours are taking advantage of the many benefits that cable can offer. And in order for your group to get involved all you have to do is indicate your interest. Just contact the programmer for the cable company in your area and tell him about your group and what you have in mind. And in a very short time, you'll be on the cable.

It's that simple.

Of course, there are a few things you must realize first. One is that you can't go on the air whenever you like. Your program has to be worked in to the existing timetable that the cable company already has. In fact, you'll find that the cable company would prefer you to set up a series of shows rather than just a "one-shot" effort. Then too, you and your group should have a fairly well-established plan for how you'd like to approach your programme. You'll find that it helps if your group is formally structured when it comes to assigning responsibilities. Also, you should realize that, although you will be instructed in how to use the equipment, you can't expect to operate it without professional supervision. And so, the cable company staff, will be glad to help you in any way they can.

Finally, regarding the content of your program. The cable company will naturally, want to ensure that it doesn't in any way violate the slander and libel regulations established by the Broadcast Act.

The technical aspects

Now you're ready to come into the studio. It's quite different from a standard broadcast studio. There will likely be curtains at one end, lights at the side, two cameras that are about half the size of broadcast television cameras at the other end, a switcher console that allows the director to see both camera shots and pick one and some video tape machines (VTR's).

Now because most cable companies are always understaffed your group should realize that they may be expected to operate some of the equipment themselves.

But that really isn't a problem. In fact, it only takes about an hour to learn how to operate a camera. And with experience your shots will get better and better. The microphones are even easier to operate. You'll be using either stand-up mikes or boom mikes. Lighting gets a bit complicated, but usually it's just a matter of aiming properly. The switcher-console is a very complicated piece of equipment and it's here that the cable company can help you by giving you a professional operator. Yet usually you're more than welcome to have one of your group working with the director so that you'll have a full participation in your programme. If your programme is going to be edited then two VTR's are required. One feeds the other, but only on signal from the editor. As you can imagine, it's a very time-consuming operation, but again, a member of your group can often sit in on the editing to see that your show comes out the way you want it to. However, many cable companies prefer to do most of their work in the studio in order to avoid spending too much time editing.

As far as mobile coverage goes, you'll probably find that most cables companies are, at this stage anyway, mostly studio oriented. However this will change as equipment gets better and the programming departments get more manpower.

The Hardware

As far as your cameras go, there's no problem about what kind you use. They're all compatible. But unfortunately, that's not the case with VTR's. In general, you'll find that most cable operators use one of three brands: IVC, Sony or Ampex. Now the problem arises when you want to playback from one system to another. It simply can't be done.

However, you can "dub" from one type of VTR to another but there will be a loss of quality. So whenever possible you should use the master (first copy) for playback in order to get the best results. But up until now we've discussed only 1" machines where the video tape is one inch in width. The most exciting recent development, however, has been the ½" machine and in time it's going to revolutionize cable programming. You see, the ½" machine is portable enough that it will allow programme producers to get out of the studios and into the community. The only real drawback is that the picture quality is not as good as it would be on a 1" machine although it is expected that this will change shortly. And once again you have the same problem that you have on the 1" machine — no two brands are compatible.

In fact, even old ½" machines are not compatible to newer ones made by the same manufacturer. Yet when you consider the great mobility and increased effectiveness that the ½" machine can give you, its limitations are really not serious.

But where do you get the programming equipment for mobile purposes? Well, certainly there's always the cable company. However, a great deal of their equipment will either be in use making studio productions with groups such as yours or being serviced. So, you may have to find other ways of locating equipment. The first place to look is the educational institutions. In fact, you'll find that most Community Colleges have very elaborate audio visual departments, and after all, you're paying for it. You might try local high schools. If they do have equipment, it's only being used between 9 and 4. Usually though, Boards of Education are reluctant to let "outsiders" use their equipment, but a persuasive group can usually get results working through a trustee. Libraries and private companies are other areas you might also try.

Putting it all together

It's true you don't need a script, but you do need a plan. A plan that will make your show easy to shoot and easy to watch. Many cable programmes are of the "talk show" variety. It's probably not the most stimulating format in the world, but it certainly is the simplest, so that might be one consideration. You can use your imagination to come up with a more provocative format. You might try using more people and having them well prepared to say something. Or perhaps you might try using two or even three sets (locations within the studio). And whether you shoot your programme "live" or tape it, shoot to your plan. There's nothing wrong with spontaneous television, in fact, it's to be encouraged. But even the most spontaneous programmes have evolved from a well-thought out plan.

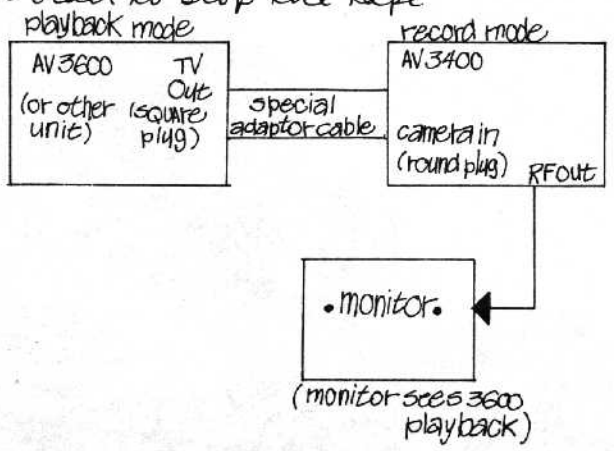
There are aids that you can use too. Like graphics. They're drawings or still photos or words or sentences that you can use to stress what you're trying to say. Or you might try using a Telecine unit if your cable company has one. It converts motion pictures or slides to television. In fact, many good programmes are built around 35mm slides or 16mm movies. And you should always try to think of a stimulating introduction and a strong ending. Throughout the show it's always a good idea to explain who you are, what you are doing and how viewers can contact you.

It's people like yourself who can help make community programming the Twentieth Century Community Centre.

ROGERS CABLE

GOOD NEWS

Ideally ½" tapes should be edited on 1" equipment. The problem with editing on other equipment is that you tend to have a stability problem around the cut – the picture rolls or breaks up during and after the cut. With a 3650 you have a sound problem but good video. Recently workers at the National Film Board have found a way of minimizing these problems while using inexpensive equipment. The trick is to use the 3400 as the recorder and the 3600 (or other unit) as the playback while editing instead of the other way around as most people do. Use the still picture button on the 3400 and leave it in record mode all the time. Play the original tape on the 3600 until you come to the point you wish to cut in on and then, with the 3600 still running, start the 3400 using the stile button. Stop the 3400 exactly at the point you wish to cut to the next shot and do not disturb the tape. That's the thing that avoids the roll – if the tape is left at the exact tension and place where it was stopped then 4 times out of 5 you do not get instability at the cut point. Since the 3400 uses the smaller reels there is less mass to get going when you release the still button. Naturally, in order to stop the tape exactly at the point you wish to cut, you will have to be very familiar with the material. If you make a mistake and have to rewind on the 3400 a bit you will get a bad cut. We are not quite sure why this method works so well or whether it should work theoretically – the point is that it does work and although it is not very convenient it is a way of saving thousands of dollars on editing machines.



TRANSFER OF ½" TAPE TO MOVIES

Some of the large problems involved in the production of finished programs originally shot on half inch can be solved by adding a large smattering of money in transferring it to 16 mm movie film. Upon transfer, the resultant product can be handled like a movie film in terms of editing and exhibition. The film can be edited like movie film and if a "double system" transfer is made (that is that the sound is independent of the picture) sophisticated sound, picture editing is possible with a precision difficult to obtain with present video tape editing techniques. Tapes recorded on old system equipment often don't have the stability to be edited properly and transfer to 16 mm film is sometimes the only way of salvaging a valuable sequence.

The method generally used to transfer video to movie film is extremely simple, the tape is played onto a high quality monitor and filmed with a camera. Careful control must be made of the exposure and somehow the scanning rate of the monitor and the filming rate of the camera must be interlocked to prevent flicker or that familiar black bar that appears in the middle of a TV screen when a movie camera is pointed at it. One of the best places to make such a transfer is a company called Rombex Productions Corporation, 255 West 55th St., New York City 10019. Their rates are high—$11.00 per minute for a double system transfer with a minimum of ten minute segments but it is a tricky business to do well and the results which I have seen of their work are nothing short of spectacular.

The quality of the transfer depends of course on the original tape. If the original has good contrast and low noise (i.e. it was recorded under reasonably high light levels) then the transfer will be good. If the original tape is bad, the transfer will not help things. Even the best of transfers from video is not anywhere near film quality, but it is not unpleasing. You don't get any of the crispness that you take for granted in film. It is soft, low contrast and seems slightly out of focus. Any defects on the tape are naturally enormously magnified. The results, are better, however, than most video projection I have seen, if only because the contrast and overall picture brightness is carefully regulated during the transfer process.

Obviously film transfer should be considered only in rare special cases. It is costly and the picture quality is not up to the standards which people have come to expect from the screen. On the other hand, if your tape is extremely interesting and you intend to show it to large audiences it's good to be aware of it as a possibility.

Ron Blumer

TRANSFER OF ½" TO 2"

AV-3400 (Porta Pak) to 2" quadrature VTR or standard TV system is not possible due to several factors:

a) Speed instability on a short term basis due to lack of precision mechanically, which is normal for a machine in this price range.

b) Due to the Servo action of this machine, the basic reference speed is always being corrected slightly. By nature of the Helical scan format the only good reference for externally connected equipment is a 30 hz frame rate, which syncs equipment very nicely at a Vertical or Frame rate, the required line rate or Horizontal freq. has no such reference or at best a very poor reference.

Since both these frequencies or rates are required in a very accurate relationship by professional equipment it can be seen why this type of operation is not possible.

Possible alternatives.

Because the AV-3400 is completely portable it is ideal for on-the-spot coverage etc., but the problem arises how to recover the video at the studio. This can be done quite simply, by playing back the AV-3400 on a monitor and then picking up the picture with a studio camera off the face of the monitor and the disadvantage of this procedure is a considerable loss of quality but for important material the poor quality is acceptable.

Video Transferring with AV-3600

Transferring to 2" VTR or playing back into a TV system can sometimes be accomplished under certain conditions. One condition is that the machine be reasonably stable and running on speed. Two is that the video recorded on half inch tape must be recorded with EIA sync information, as opposed to industrial sync, which is what we have when a recording is made using standard Sony cameras.

In summing up the above information, it would appear that not only the specific equipment, but any equipment of this nature (i.e. Helical scan) the same difficulties will always be experienced when attempting to transfer to most Professional systems. This would also include 1" equipment using the Helican Scan format.

There has recently appeared on the market a device called a Processing Amplifier originating from several different manufacturers which was supposed to be the "cure all" for most of the troubles mentioned previously. On the contrary however, the Proc. Amp. served to point out the weak points of Helical Scan even more.

When originally the recorder was played back into a standard monitor and a good pix was available, then the Proc. Amp is placed in between the Rec. and monitors the Picture becomes unstable at the top and gray shading bars are noticeable, hence there appears to be no "c bars are noticeable, hence there appears to be no "cure all" or easy way of overcoming this basic weakness in Helical Scan equipment.

GORDON MATSELL

NFB TELECINE CHAIN

Our Telecine chain consists of the following equipment:

1) The Sony AVC-3400 camera with a wide angle lens 15 mm to 25 mm, plugged into a CMA-2 adapter to allow camera to be used directly from the mains and then feed video to any system.

2) Bell & Howell Jan Projector modified as follows:

a) Special Shutter blade to eliminate flicker due to the difference in frame frequencies 24-30.

b) The motor is a special Turner sync-interlock motor model 1510 to allow us to run a sound track for film that may have not reached the release point stage, on a sound Dubber which is also equipped with the same type motor.

These mods in Para 2 are absolutely necessary for less critical applications.

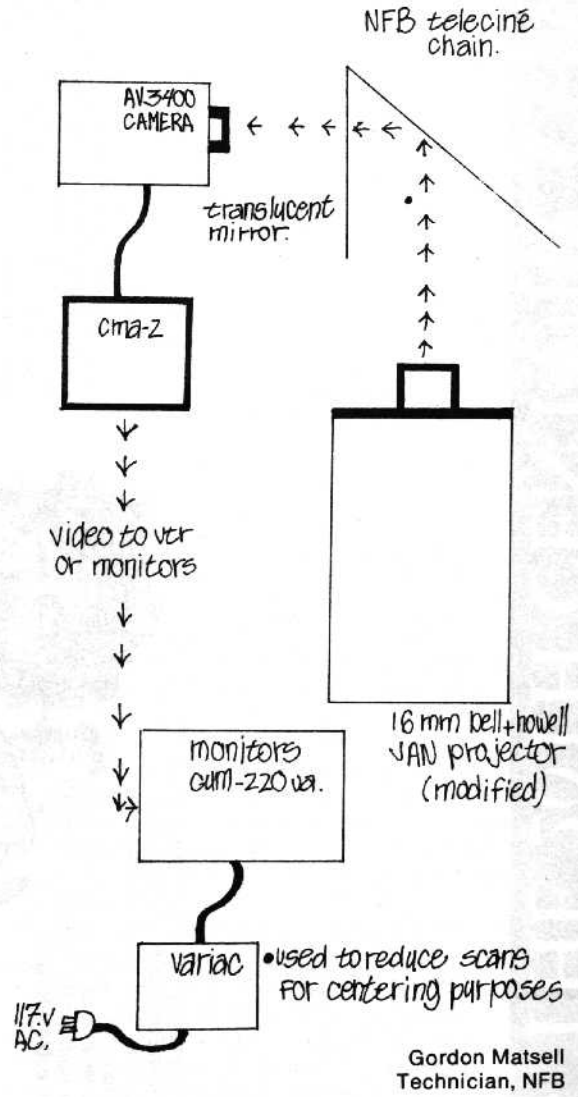
c) Lens. 2" focal length.

d) Light source 1000 watt lamp.

3) CVM-220VA or similar type monitor with some provision for reducing scans to determine reasonably exact centerway of Picture with the camera etc.

One of the simplest methods we have found is to simply insert a Variac in the A.C. line to lower the voltage to the monitor, which in turn reduces both scans as well as the brightness to some extent.

4) Mirror assembly consists of a 2" by 3" mirror hinged with a translucent screen placed in such a way to direct the picture from the Projector to the camera for best results.



Gordon Matsell
Technician, NFB

CABLE & ½"

Half-inch tape is easily transmitted on standard cable equipment. It is simply a matter of patching coaxial cable directly from the 3600 into the transmission set-up. In a series of tests conducted by the government in Winnipeg, half-inch was sometimes found to be superior in technical quality to one inch.

The major drawback to ½ inch productions is that edits are not good enough to be transmitted. The technique of editing onto a 3400 (described elsewhere on this page) will still mean that 20% of edits show some instability, and any breakdown gets exaggerated when it is transmitted. The only solution at present is to edit on 1 inch equipment, although it is possible that a modified 3650, or Panasonic, might get around the editing problem.

In other words, straight ½" footage can be easily transmitted by cable, but ½ inch edits are generally unacceptable.

québec

Lemieux

Chartrand

Excerpts from Québec Libre

FREE VIDEO TAPE

1. **Jean Roy**: 33-year-old master printer, candidate for FRAP, municipal political party developed from citizen's committees.
2. **Robert Lemieux**: 29-year-old FLQ defense lawyer.
3. **Gerald Godin**: 35-year-old editor, Québec's only weekly socialist newspaper.
4. **Michel Chartrand**: 57-year-old labor union leader.

I think that in '63-64, it was a constitutional matter, something from the gut, from a colonized people wanting to be free, but since '66, the revolutionary groups in Québec have added a social, economic content that means that they want not only to resolve the constitutional problem, to have an independent Québec with all the legislative powers, but they also want a free Québec in terms of having the instruments of production and in terms of having life in Québec organized by Québecois for Québecois.

I think that in Québec revolutionaries we are fortunate not to have *old* communist parties; doctrinairism is not very prevalent. The line is right to a free Québec with justice for everybody, and developing the human and natural resources for the benefit of everybody, but it doesn't stick to any given doctrinaire line.

It's an original marxisme, a "socialisme québecois"; perhaps they have read a contemporary history of socialist countries and how the changes came about, but they don't refer to any single model. It's a socialism that will be adapted to the Québec people, history, geography and level of industrialization.

Illustration: Pierre Gaboriau

Some of the young people used to say to me "You are an old fool if you think that you can have democratic changes—social, economic, political or constitutional changes in a democratic way. They won't stand for it, they'll send the army or the marines—they won't stand for an independent socialist Québec." And I'd say, "We'll see . . ." That was before the 16th of October. Then we had the army, and the 497 people arrested. During the first days, those arrested were all people who were working openly for change. Roy, for example, was a candidate for municipal election. Others were people involved in anti-Vietnam, or disarmament demonstrations, or people involved in picket lines with strikers, or those demonstrating for French language rights in Québec. All on political lists of the police.

But we still have to work to convince the people that they want a real, rapid, radical change which is a real revolution, that they want to get rid of capitalism and go for socialism. Then if the army of Elizabeth II comes back, sent by the Anglo-Saxons in Ottawa against the French Canadians—these are the facts: they sent the army against the White Niggers of Québec. They wanted to blame them and make as if they were all guilty by association with the kidnapping of two people. If the army comes back, once the people is convinced they want to get rid of capitalism, and that they want socialism, because it's the only way to have a decent life . . .then the Québecois will have to do like any other people that want their freedom, like the Vietnamese, the Algerians, the Cubans . . .

The only hope is in the Youth of this province. The youth has lost all their complex of inferiority. They are going to school. They are not afraid of poverty because they did not suffer like all the former generations from poverty. And,most of all, they are not hypnotized by the gadget civilization of the United States. They can go without toilet paper with flowers and perfume and they'll use the daily paper—the English one preferably. They want to run their own show. They want an independent, socialist government which will make them master of their own destiny, their own country. Then we will be able to deal with everyone in the world. We will have Communist fruits from Cuba, rather than having Capitalist fruits that United Fruits stole in Latin America.

Québec is almost the only place in the world where all the youth from the working class and the farming districts went to school suddenly. Even in the socialist countries, it did not happen as fast as it did here. Ten years ago here, the majority did not go above the seventh grade. Now the majority in the universities are from the working class. Now 85% of the working class have access to the university. It's not the same in France, in England, not even in the U.S. It was so sudden. Here it's a new class, a new generation, a new humanity . . .

The youth of Québec—they say to the adults: your realism and efficiency are just bullshit extensions of the IBM machine, and they throw away all these values and start from a tabula rasa.

It's a new humanity.

video interaction

Dear Mom,

Video in groups is a powerful tool; the trick is to keep it out of reach of the psychiatrists, social workers, and manipulators, and put it into the hands of human beings. I have found that the act of showing a group to itself is almost always a very tense, potentially explosive situation but one which is invariably valuable both for myself and the group involved. Over the past two years I have had to learn the hard way some of the do's and don'ts that should be followed when bringing the innocent little portapak into a group situation.

The first hurdle that must be overcome is the well founded fear of TV and media in general. From the beginning, I tell people that the images are being recorded exclusively for use by the group and are not meant for exhibition elsewhere; they will not be "used" as they may have been with other media.

The second thing to be aware of on entering a group situation with your Sony under your arm is that one's first video view of oneself can be a shattering experience. The split between what we are and what we think we are becomes amplified to the size of a gaping wound on the TV tube.

We are a society of face savers, and to have all our little twitches zoomed in on and put in focus for all present to giggle at is more than many of us can take. I having been using this equipment for over two years now and I still can't bear to see my snivelling pompous self displayed on the TV tube despite this fact.

When I first started working with TV, I naively could not understand the immediate hostility evoked by me and my camera as I innocently proceeded to destroy everyone in the room. I now behave much more gently with this potential weapon. I do not use it myself initially, I set the camera and recorder up in the middle of the room and let other people play with it. I set up direct feedback so that the image being photographed is immediately displayed on the TV monitor, and when I do begin recording, I explain that the tapes being made in this situation are going to be seen only here and now and will, unless they wish to save them, be erased immediately after viewing.

If properly directed, video can be a tool which has the property of reinforcing what is happening as well as one which allows for continual and continuous self examination. My most difficult job was to suppress my own ego. We all have our particular bags and video can be used as a weapon to further any particular ends that flesh is heir to. In order to achieve maximum effectiveness video must genuinely be used by the group and not on it They themselves must discover how it is useful to them. The person with video experience (who will probably end up being behind the controls most of the time) must suppress the very real temptation to take charge.

The only rule I found it necessary to lay down was that the video not become an escape. Frequently people will wish to take the Portapaks out and tape in the street. This is OK with me, but I insist that they first be prepared to deal with the experience of being taped themselves before they subject others to the same discomfort.

Even though communal use of the camera should be encouraged as much as possible, in actual practice you will end up using the camera most of the time. You must naturally be extremely alert to what is going on. If you come into a situation as an observer, you and your camera will be treated like one. Participate in what is going on even while holding the camera.

One of the most difficult decisions to make, especially at the beginning, is when to play back the tapes. I have found it best to wait until something happens no matter how subtle. I tend to play it back and comment on it stressing all the time that I am no expert; this is just my reaction to the situation and other people, particularly the participants, are welcome to comment. After several such playbacks further infolding should only be presented upon request. What you think is happening is seen through your own particular filter and others are going to surprise you in interpreting the same event in different ways.

It is also the case that the presence of the video is almost forgotten or ignored . . . which is perfectly OK. The over-eager video man can destroy that which he should be trying to reinforce. You must be prepared for the possibility that video is not particularly wanted or needed in that specific situation.

What Video Does to Groups

1) It solidifies the group. The very act of taping the group puts its members under a common stress and makes for an immediate communal experience. People are surprised to learn that they are not alone in having squeamish reactions to their image on the screen.

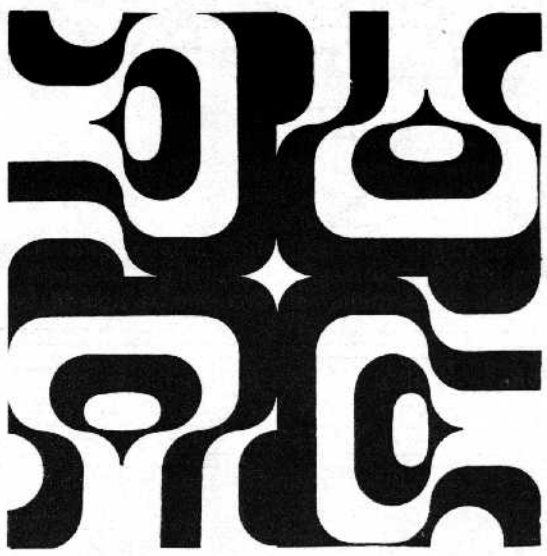
2) It makes people in the group more aware of each other. We all exist to some extent in self-image bubbles. These are dented when you see other people reacting to what you are saying and doing. (Someone yawning for example, just when you had thought you were saying something vital). In people's reactions to themselves on the screen, you become aware of their own self-image and to what extent it corresponds to the reality of the situation.

3) Video tends to emphasize the emotional as opposed to the semantic aspects of inter-personal relations. Through the lens of a camera you can stare at each other, pick up on cues that are normally (for convenience in social functioning) ignored. Face and body language are isolated on the TV screen and become more readily visible. During the actual situation they are equally important but may not be consciously recognized. Thus the video distortion takes place in the direction of what people are feeling rather than what they are saying, or, it may be argued, what they are really saying as opposed to the words they are mouthing.

4) Thus video acts as a probe below the surface of a situation. There is a tremendous pressure to be sincere sometimes beyond the bounds of social niceties. Because you are forced to deal with your own behaviour on the screen, it is more difficult to put on an act. There is the desire, especially during the playback, to explain what you "really" meant by this or that remark or what you are really feeling.

5) Situations almost always become very tense very quickly. The positive feedback which video offers seems to have the same effect on a group as that which you get pointing a microphone at a loudspeaker. The video consultant must (to mix metaphors) be prepared to insert control rods into an overheating reactor, because any potential sources of conflict can become amplified to the point of distortion during the video process. This happens particularly quickly when people get behind the camera and feel detached from the group and free to express their personal feelings. Armed with a camera people will feel much freer to say "Why do you have long hair?" or "Why do you behave in a certain way?". . . questions they wouldn't dream of asking during normal, polite interaction. On the other hand, it is precisely these things which people are going to have to get off their chests if the group is going to have any success in the future.

Ron Blumer



Computer Graphic

Who is Miss J?

Despite itself, psychoanalytically-oriented psychotherapy is being profoundly affected by video. Before the advent of video, this is the kind of non-information upon which decisions were made:

> *"Miss J., a 29 year old white Jewish female, presented to the emergency department of our hospital complaining that her 'world was falling apart.' She was last perfectly well three years ago, when her boy friend, F., left her. At that time she took an overdose of Seconol, and was treated overnight in the emergency department . . ."*

The History of Present Illness goes on, followed by the Family History, Past History, Sexual History, etc.

Who is Miss J? Regardless how complex and detailed her history is, regardless how much we know of her childhood and family, on the basis of this information no one can identify her in a room full of patients or even of "normal" people. Where is her *presence* (essence? soul? vibes?), that vital aspect of human nature that existential psychotherapy has rediscovered.

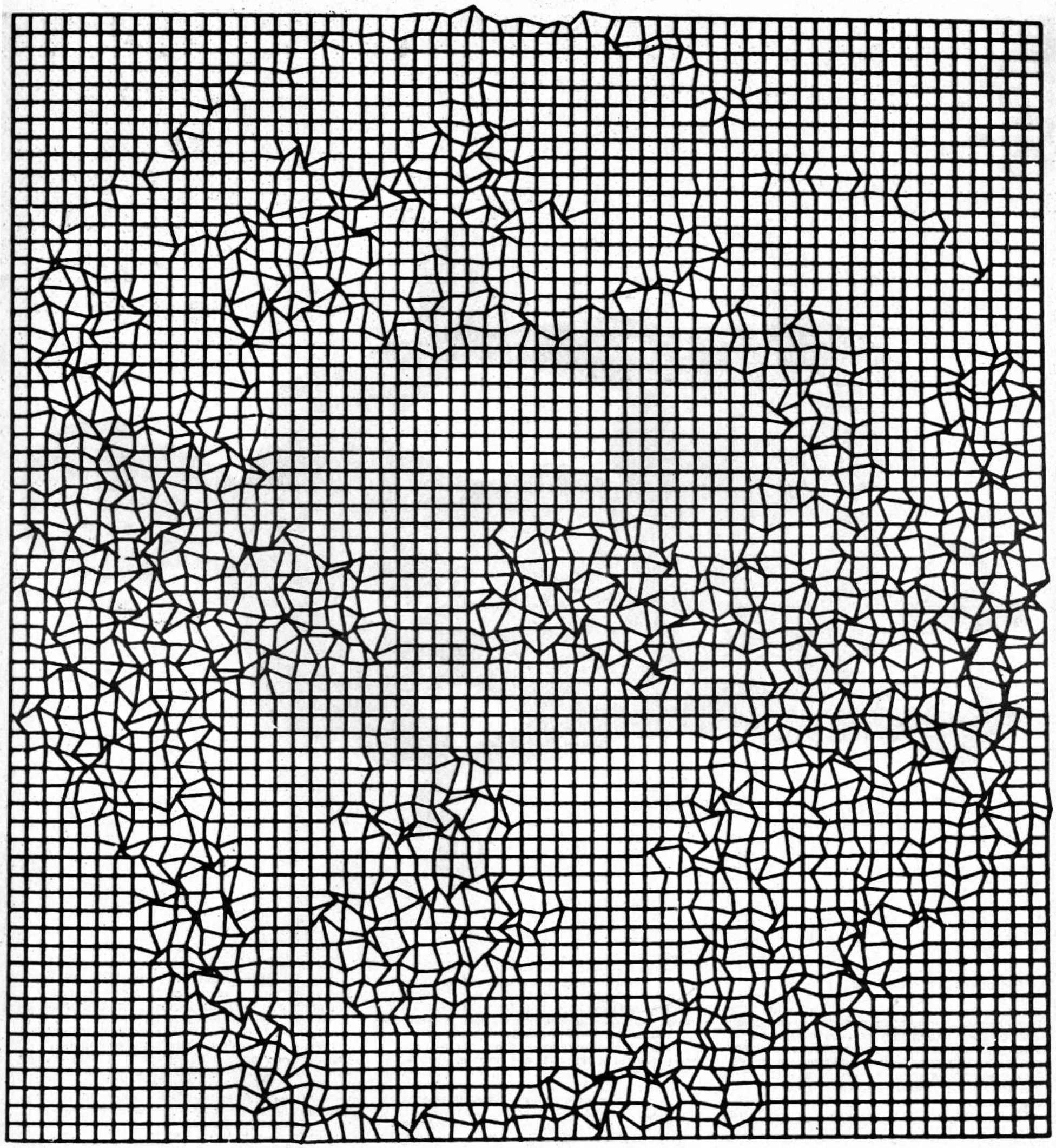
Although this was not intended, video delivers the *person* of the patient to those who play semantic games with his life story and his destiny. Video also delivers the person of the therapist who is often revealed on the TV monitor as considerably more fucked-up than the patient.

In the past, the only way a patient had to reveal himself as a living, breathing presence was by being "presented" to a room full of bearded, pipe-smoking geeks in turtle-neck sweaters—a humiliation that no one should have to endure, least of all someone with problems.

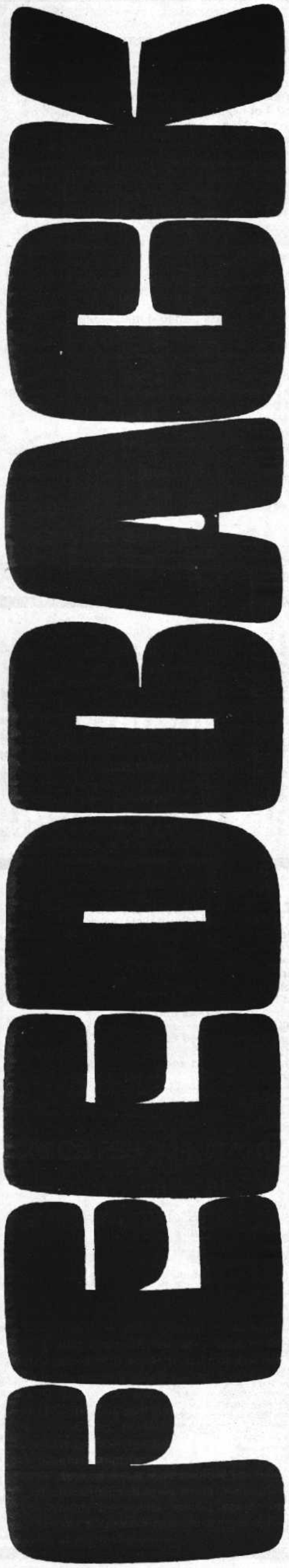
Here is how video has changed rounds in the psychiatric department of one hospital in Montreal. The session begins with staff psychiatrists, residents, social workers, etc., watching a tape of one resident interviewing his patient. The interview is then discussed; observations are made (the usual psychiatric clichés.) Only then does the resident read aloud his 12 page case history. Then there is more discussion, and treatment is decided. In the case of Miss J., a patient whom I presented, the Chief Shrink asked the question that everyone was thinking while watching the tape: "So what's she doing in hospital?" The video presentation made everyone realize that in spite of the jargon used to describe her hysterical personality and "conversion reaction", the living creature on the screen was not sick. She was immediately discharged after being told she was all better. Video achieved a miracle cure! Without video she might have developed an easy dependency on the ward, and might have become one of its many addicts.

Video has been adopted by psychiatrists mainly for convenience. Although it has in rare cases been used for therapy, its interactive potential has not been understood by the psychiatric establishment. It has, however, injected an existential component into the otherwise lifeless buttocks of institutional psychiatry. The video camera in the hands of the traditional therapist is a gun held by the wrong end.

Norman Bethune Levine



Marilyn in the net
idea and programming
by Haruki Tsuchiya
(Computer Technique
Group of Japan)



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Toronto 1, Ontario,
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(613) 232-7894

a space
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In-Media
461 rue Saint-Sulpice,
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James Bay Project
Gilbert Herodier,
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Canadian Feedback
Canadian feedback to be channelled through
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Box 151
Shawbridge, Quebec

General Idea

THE GENERAL'S TAPES TO DATE INCLUDE:
1. *What Happened:* Gertrude Stein's first play transformed. ½" Shibaden, 1 hour documentation, erased fro the:
2. *1970 Miss General Idea Beauty Pageant*: Miss Honey competes successfully against six lovely bears in last year's fabulous pageant. ½" Shibaden, ½ hour documentation, since erased for the
3. *Fire/Mirror Tape*: Mr. Peanuts of Image Bank collaborates with General Idea to produce this 20 minute spectacular. A flaming seascape shatters to reveal the Spanish Banks. ½" Sony. Thanx to Marcel Dot, Art Rat, Intermedia.

THE GENERAL'S TAPES IN PLANNING IN* CLUDE:
1. *Light On*: Sunlight reflections are bounced across Ontario. The landscape illuminated. ½" Sony, 4 hours documentation.
2. *God is my Gigolo*: A half-hour soap-opera, starring all three Miss General Ideas—Miss Paige flees to the palms of the South Pacific, only to find tru happiness lies at home. ½" Sony.
3. *Exposé*: an empty chair reveals itself. Continuous. ½" Sony
4. *Miss General Idea Pageant 1971*: 16 flagrant beauties compete for this year's crown. Miss Honey's farewell. Miss Gum provides inimitable entertainment at the grand piano. 1 hour, ½" Sony.
5. *Self-manipulation, stage one*: the hand is morror for the mind; the mind-body dichotomy solved. ½" Sony.

Simon Fraser Video Workshop

We have about 12 active people using video to spread experiences and information to a potential audience of 160,000 via Vancouver Cablevision.

I started the Workshop about two years ago when I first came to Simon Fraser University as "Resident in Film" at the Arts Centre. I got some equipment from the administration and formed a workshop open to all interested students. It was non-credit so I was able to add a few non-students as well. We had a small group at first because of the snobbery that used to prevail about "TV". Most students wanted to work in film —"a real art form". Things changed slowly after we made a deal with the local Cablevision company to be a part of their new original programming. (Vancouver has the largest single cablevision operation in North America and has gone fairly far into original cablecasting). We have made about 35 programs so far, mostly in the last year. They covered a great variety of subjects of local interest. Mostly, the programs are "coverage", information. We have done a few "fictional" tapes, visual abstractions, feedback, but its mostly documentary type stuff.

SFU has a tri-semester system and this enables us to have three new workshops a year. We get an average of twenty people at first. This dwindles to about 10 by the end of the term. Most of these carry over so there is a growing core group of experienced people who tend to form groups of their own.

The greatest thing about video in my experience is the way it can initiate contact between community groups. We have real openness among our subjects and among ourselves than anything else I am currently aware of. I think you could say we are hung up on the VideoRover as a social catalyst.

Which brings me to hardware. Two Rovers, Two Sony DXC 2000 Studio Cameras, Sony 210, Sony 320, Sync. Gen. Switcher, Fader, AV 5000 ½" VTR, Trinitron Monitor, Monitor Rack, Audio stuff.

I am leaving Simon Fraser in August to go to York University in Toronto where I shall be teaching Film. and starting a similar kind of video workshop there. you correspond with my Assistant Diane Edmondson, who is also the Secretary of the SFU Student Media Society which is the collective name for the senior students who are producing the programs for Cablevision.

All my best regards.

Stanley Fox

james bay project

A frend of mine from the NFB called Willie Dunn asked me if I wanted to do a VTR project on Indian boarding students in Hull, Quebec and their parents living in James Bay. The project was sponsored by the Department of Education of Ottawa. He wanted an Indian to do it because he didn't want Indians to be misrepresented by a white man and also because I know the area. I accepted the offer because I know my people and I did not want some white man screwing my people up.

I was assigned to tape Indian students in class talking about their teachers and their boarding houses but I included their feeling of going away to school at the age they did (usually as young as 9-13) and what problems they had. I spent 5 days altogether with the students but I felt the contact was too short.

The first day was the hardest because the students were shy and didn't want to say anything. But, as soon as I told them they could speak in Cree, their mother tongue, and let them handle the equipment, we had a ball.

We talked about everything in Cree. We joked about their teachers and everything was wide open. The reason they were afraid at first was because they thought the teachers would hear but then they realized the teachers couldn't speak Cree and neither could the rest of the school board. So they expressed themselves freely in Cree without the English language barrier. They realized the situation they were in as soon as they started speaking Cree and fooling around with the equipment. One girl said to me "I just realized from the moment i got on the plane leaving for school that this whole place is like living in dream. The school system and the boarding houses are all unreal."

Most of the students said it was like going away to a boarding home. The boarding home parents make up different rules for their own kids than for the Indian boarding students. The rules are made up by both the boarding home parents and the Indian Affairs so the students are very restricted with the two sets of rules. The boarding students also said that if they had any say they would not want their brothers or sisters to come to these schools.

Many of the students have no idea why they are there. They leave home before they have grown up and feel bad to leave their culture. The students thought that if they could get the chief and parents aware of the present situation a new High School could be built in James Bay. If this was done then the Indians could have a choice of continuing to college. At this point it is very difficult for them in English boarding school because they speak and read very little English. The students told me that 99.9% of their teachers have no idea about the Indian people, their environment, language, etc.; the only thing the teachers think they know about Indians is what they have read in history books which is pure crap. When the Indian students read about Indians they feel they are the losers because they are always made to appear as the bad guy.

After I spoke with the students, we went to Amos, Quebec and from there we chartered two small planes, one for equipment and one for people. The first stop was Rupert's House, Quebec. We arrived about 6 pm and the temperature was minus 45 degrees. It took one hour for the equipment to warm up. Then we showed the parents the videotapes of their children and talked with them. It was the first time the parents really got involved with their children's education.

The parents' reaction at first was, "Are they really our children?" I had to show the tapes over and over again because they didn't believe it was really their children. It was like seeing a film. It was the first time they felt close to their children's education. Right away they felt involved in it. The children were missing their home, their parents. Most of the time they had to take care of themselves. The first question the parents asked was "How can we get them back right away?"

It was the first time the kids really expressed themselves and they talked about it as a group. I guess they don't usually express themselves because they think their parents won't understand. The parents themselves were all together as a group too, seeing the tapes. An old man said, "Listen, this is the first time we have been together for our children's education. Let them finish this year and then we'll get the chiefs to talk with them." Then the parents talked to their children and encouraged them to stay at school. They said they could come home at Easter and wouldn't have to go back.

They wanted to see the films over and over again and see themselves over and over. One woman said she didn't say enough and I taped her again. From 7 until 3 in the morning I showed them themselves over and over again. It was the first time they had seen TV. When I turned it on they figured it was a light. People were sitting all around the TV., on the sides, in back; they thought the picture would come on the wall. They called it some sort of a box that you could expect anything from.

People operated the equipment. They said to the education department that they needed a high school and the chief Willie Diamond spoke ½ hour—first in Cree to the students and then to the government.

The councillors had a meeting the same night and agreed that Fort George was the central place to have a high school so at least the students would be boarding in Indian homes. All the members of the band agreed and they said that the Eskimo children could come down from Hudson Bay because there are some Eskimo families at Fort George so the children wouldn't have to leave their culture too early.

The next day it wasn't so cold—minus 20 degrees —we landed in Eastmain and we stopped for one day. Only one kid from this settlement was at school so I showed tapes of kids from other settlements so the parents of the kids about to leave would know what was happening. The chief there doesn't speak English so he spoke Cree for the next chief on the next stop. He wanted to know how to get his people involved.

The next stop was Paint Hills. I only had 4 hours there because Indian Affairs said there was hardly anything there. I had to rush and rush. About 500 people live here. I showed the tapes about their children and they wanted me to stay so they could see the films over again, but Indian Affairs wanted me to go.

It was the first time they had seen real Indian people instead of other people playing Indian people. There was only one small room and there were about 50 people in it. The chief called all the parents and picked them up in Ski-doos. People dropped by and wanted to see the tapes so I was showing tapes and interviewing parents at the same time. People were laughing and excited and people were crying. The sound is very mixed up. There was one lady there who had adopted one of the children. She called and called to him and she was waiting for an answer and other people behind her were waiting for an answer but one said "you don't get an answer you just talk" so she was very disappointed at first and then happy and she said all kinds of jokes.

It was time to leave and the plane was leaving and people said don't leave yet show it again, we will help you pack and carry the equipment. Then it was time and ten people were carrying little pieces of equipment one by one.

That evening we arrived at Fort George. I managed to stay there two days because the weather was very bad. I showed tapes all the time and saw my family. They had meetings and I showed the films from around the coast to all the chiefs. The representative from the Indian and Eskimo Association lives at Fort George and he had a chance to speak to the students. He told them that he would do his best to get a high school up there. When I got back to Ottawa he told me next year we will have a grade 7 then the next year grade 8, and the next year grade 9.

After that I went to Ottawa. I was supposed to edit the tapes right away but it took Indian Affairs 3 weeks to see the tapes. I was supposed to show the tapes to the children right away but they said "no". After 3 weeks I went back to Ottawa but there were some tapes missing. Then I showed them to the children.

The main thing was I was very happy that they will start grade 7 next year.

The tapes are at Indian Affairs.

Gilbert Herodier

photo by Gilbert Herodier

Institute of Urban Studies

The Institute of Urban Studies was established in 1969 at the University of Winnipeg—a centrally located, small, Arts and Science University in the heart of Winnipeg. The Institute was created as a university-based centre for research, community action and education in the area of urban issues.

For the past two years the Institute has been working with citizens groups in an effort to develop more effective and democratic methods of reviving communication. Two surveys were done in the central city area —surveys which showed that less than 10% of the population knew what was going on in their area, plans that would effectively change the physical shape and social character of the area.

The Institute initiated the following research projects to explore the possibilities of community-communication:

a) In the summer of 1970 VTR and 16mm film were used to produce films on youth, the aged and the Main Street transient population. These tapes and films became the tools with which to involve a greater number of people in the discussion and elucidation of their respective needs.

b) In the Roosevelt Park area, an urban renewal area, the Institute was instrumental in helping the people set up the People's Committee for a Better Neighbourhood Inc., a neighbourhood development corporation attempting to engage in renewal and rehabilitation in its area. VTR was used by the people to document an analysis of conditions in the area and a record of their meetings amongst themselves and with members of local and provincial governments.

c) TR was also used extensively in the Windsor Park area, a middle-class suburban community. Attempts were made by the residents to identify the unique needs of this type of community. This community was even more interesting because of its bilingual issue in the education system had been creating conflict due to an inadequate understanding of Provincial Bill 113 on French language instruction. The people arranged to tape a series of School Board Seminars on the question using both French and English film crews and ending up with one French and one English tape. Requests to view these tapes have been overwhelming and the availability of a cable channel on which to show these tapes would certainly increase the awareness of a greater number of people.

d) In January 1971 a grant of $10,000 was given to the Institute by the Winnipeg Foundation to support a pilot program designed to explore the feasibility of a system of television broadcasting or cablecasting to expand the flow of information to and participation of Winnipeg citizens. A large part of the Institute's time at present is taken up in investigating the legal and financial implications of community television. In this work, the National Film Board is associated with the IUS supplying both equipment and technical advice.

e) During the past few weeks the Institute in co-operation with Red River Community College carried out tests with various ½" and 1" VTR equipment-tests which were in essence, plugging tapes into the CATV system in Winnipeg. From these tests it was indicated that ½" VTR could be successfully used as a program vehicle for cablecasting.

f) The Institute is operating with its own equipment, equipment on a loan from MFB, equipment and technical help provided by Red River Community College and equipment from various private sources. The Institute, through the Federal Opportunities for Youth Program is providing 12 summer jobs in our community, television project, and six of our full-time staff members are also involved at this time.

At the present, we are in a very exciting stage in the development of our community television program. In the weekend of May 14-16 we held the first of a series of communications workshops attended by some 150 interested Winnipeg people. This workshop resulted in the setting up of a 27 member Ad-hoc committee which will look into ways of setting up a community television system for Greater Winnipeg and to examine questions aired at the weekend workshop.

Jim Cassidy

Dalhousie

I am a graduate student in sociology at Dalhousie University studying communication and systems theory mainly.
Also an amateur film-maker and video freak.
Our facilities here are growing and we hope to get our own type 1 video set next year.

Regards,
Barry de Ville

Le Videographe

Le Videgraphe is a $100,000 half-inch video project financed by the Federal Government. The money came through Mike Mc Cabe Planning Department, Department of Citizenship, Secretary of State, 130 Slater Street, Ottawa, Ontario and there is probably money for similar projects in other parts of Canada.

The proposal specifies a paid staff of five and a voluntary committee of five (3 to come from youth groups interested in programming). The committee will decide on productions.

Le Videographe plans to:
1. make available equipment and *expense* money for production
2. catalogue, copy and distribute tapes
3. run a mobile production unit
4. conduct and disseminate up-to-date technical research
5. have a 150 seat video theatre and several small playback areas

Equipment includes:
6 AV 3400
6 AV 3650
2 AVC 3200
1 SEG-J
1 EV 320 1"
1 sound synthesizer

Le Videographe's initial location will be the National Film Board Building. The project was conceived by people from Société Nouvelle and got the big grant because of its connection to the Film Board (the audio-visual arm of the Federal Government). The latter propose to move near the Carré St. Louis. Let's hope they make it out of those security-manned corridors.

There will be about 50 productions with a possible budget of $700 each. If you are interested in working in this context, now is the time to contact

Robert Forget
NFB
Box 6100
Montreal 101, Quebec

Videotech

Videotech is a summer project operating on a grant from the Opportunities for Youth program. (For our American friends, Opportunities for Youth is a Federal government scheme to provide funds for students during the summer to carry out projects of their own design).

We plan to survey the extent of community involvement in cable television on a Canada-wide basis. The first step, we believe, in getting things together, is to find out the who's and the where's of the action. The result will be a Canadian Cable User's Directory to be available free at the end of the project.

We also will be conducting specific research in the areas of legislation and financing with end in mind of producing "How to" kits for groups wishing to use community channels on cable. We are going to pay particular attention to the field of co-operative ownership in the hopes that people may, in the near future, be able to co-operatively own their own cable system.

During the course of the summer we will be travelling across Canada for our field research to meet with people and groups involved in cable. We are presently compiling lists of such groups, but you could help by getting in touch with us first so that we could arrange to talk to you during the summer. That goes for any and all Videofolk who might read this.

Craig Layng, Simon Riley

Mosaic

We made tapes:
1) a Hum Dept meeting discussing, "What is Humanities?", juxtaposed with a tv show on pygmies.
2) in New York City we taped a Washington Square Sunday jam.
3) taped the Dawson "Save the Park" rally.
4) "Gunslinger" taped at Dawson and McGill.
5) taped the Education Symposium at Mosaic, held in March, with Gertrude MacFarlane, Squee Gordon, Sister MacDonald, Terry Tagney, Harry Wagschal, and John Slattery.
6) we did assorted, odd improvisations.

Ken Cameron went to the C.R.T.C. (Canadian Radio Television Commission) hearings in Ottawa, also went to the public hearings on April 30th to help present Montréal's case for peoplized TV.

Mosaic went en masse to McGill's FREEVIDEO. Also met the videoers on our New York trip—Global Village, Raindance, Videofreex.

Wrote the VIDEO ENSEMBLE proposal for Bill Conrod's package to the Secretary of State's summer project deal.

Submitted briefs to Paul Gallagher on the importance on Video in Dawson.
because

No educational institute in Canada as yet has large-scale, open access to video facilities. Dawson College, as an innovative, community (sometimes) college, might prove an excellent testing ground for an experiment in communications. The school could be put into the 1980's by providing two-way video experience as a regular, natural event. By "two-way," I mean that decentralization and dialogue occur in this televistic age when you can talk back to your television sets.

Further, the converging of equipment, motion, talented individuals, a population of 4500, and an idea that challenges reality even as it presents it before your eyes—this implosion—would act like a lens, concentrating all energy available onto the smallest point possible in order to burst through the thin skin of a "James Last: Non-Stop Dancing" world.

This implosion of Dawson would explode onto the Montréal and Québec community. Video becomes a catalystic instrument of growth forcing all factors to a critical mass. Technology declares its innocence and washes its tubes clean of the crimes commited by a world without consciousness.

Fred Rosenzveig

Video Ensemble

VIDEO ENSEMBLE is the coming together of an idea centering on coming together, of the technology we are developing with what needs developing—us; community groups, blocks, parks, peace.

The Secretary of State of Canada has accepted the Ensemble as an "Opportunity for Youth" program, and is now paying fifty french and english Montreal students of communication to do it, for the summer.

The idea is to give as many people as possible enough of a choice of information, so that an island consciousness can be built upon what the island people see. So, instead of looking *at* them (us)

"Good afternoon, madam. What's your name, please. And who did *you* vote for?" we offer the resources for them (people in communities) to do the looking—through the television eyepiece (eyepeace?).

Build on a positive reality, focusing much attention on what good is being achieved. This, essentially, is the healthy television reflection—rather than deflection into a commercial market.

Video Ensemble as bilingual reality is an information correlator, a production commune, a Videotheatre and a Videotheque.

A body of workers gathers information on community events about Montreal, and maps activities. The production commune does audio and video tapings. The Videotheatre is the feedback room on production as it's happening. The Videotheque keeps a library of tapes and operates a tape exchange.

Workshops serve as communication links between production teams and the community-at-large. Interested citizens are shown the various media tools. Project workers teach technically, and learn through interaction the needs and feelings of the community students.

Quoting the original brief to the government, "the working field groups do not draw from the community. Rather, every group—reflecting the spirit of this project—remains offered to the community as a means of higher achievement; perhaps the true role of the student in any society . . ."

Howie Arfin, project worker

INTERMEDIA 2023 EAST 1ST VANCOUVER 12 BC CANADA 255 7358

DEAR MERRILY -

ALTHOUGH I DON'T MENTION IT IN MY BLURB, I'VE PRODUCED QUITE A FEW ½" TAPES. BESIDE THE-16 TAPES IN FRENCH FOR THE WINNIPEG PROJECT, I'VE DONE TAPES OF -

ALL ON SONY AV SERIES

- "SPECTRUM" - 23 MIN. 1ST CHOREOGRAPHY OF "BALLET HORIZONS", A NEW GROUP IN VANCOUVER, BY MORLEY WISEMAN
- "LIFE-RHYTHM WORKSHOP" WITH CHRISTA PREUS. AN ANTHROPOMORPHIC EXPERIENCE. ½ HR
- "DON DRUICK AND FRIENDS". MINI-MOOG, ELECTRIC ORGAN, ELECTRIC PIANO, SAXOPHONE, FLUTE AND ELECTRIC BASE GUITAR. DEBEAMING. 20 MIN.
- ~~"ROVER II INSTRUCTION MANUAL" - I GOT TIRED OF REPEATING IT AT WORKSHOPS~~
- "THE WIRED-CITY" - GILLES BERGERON, DEPUTY MINISTER OF COMMUNICATIONS, QUÉBEC ~10 MIN
- "VIDEOTHEATRE" - WORKSHOP TAPES, T.V. COMMERCIALS. SOON - PRODUCTION TAPE.

GETTING A THEATRE PIECE TOGETHER WITH SOME FRIENDS, USING T.V. + VIDEO PROJECTION.

YAWN - SO TIRED. THE ONLY TIME I'VE BEEN ABLE TO WORK ON MY ARTICLE AND BLURB HAS BEEN FROM MIDNITE TO 2 A.M. LAST NIGHT AND TONIGHT.

THE ANSWERS FOR THE DIRECTORY ARE TRICKLING IN RATHER SLOWLY. I'VE SENT OUT OVER 800 CARDS, BUT IT IS HARD TO PREDICT THE RETURN. NEXT ISSUE MAYBE.

SEE YOU IN LATE JUNE.

À BIENTÔT,
Mike

P.S. - YOU MIGHT MENTION IN R.S. THAT I AM ESPECIALLY INTERESTED IN SPECIALTY USES OF VTR.

With the advent of cable television, cassettes and home computer terminals we will be faced with an onslaught of useless information. The disparity between available information (disseminated from sources controlled by the politico-economic structure) and what we know to be more true has already lead to mass rejection of that system.

Communication involves more than dissemination or exchange of information. Emission of information treats the receiver as a machine; communication implies human participation.

Small format VTR offers us the possibility of slowly displacing the information power trippers; not by our plugging into the consumer distribution matrix, but by destroying it. A new level of awareness is growing with increased human interaction through new telecommunication grids. Each time someone new holds a portable video camera, it spreads. A vital change occurs, from consumer to producer, from inhibition to creative self-expression, from observer to participant. We are all artists.

All the world's a stage, a dream, a movie, a game, a book—and now it's on T.V. When the initial surprise at seeing oneself on the time-mirror is over, T.V. dies, and we are reborn. Into what? It has already been labelled "second generation television". Like "pop art", it sounds like a new ephemeral trip for the consumer, a new kind of programming, that expands the limits of television as we now know it.

In that light, we become the avant-garde of TEEVEE, opening new doors, building a new language, with little concern to where that door leads, or what is being said with our vocabulary.

The artist is not ahead of his time, he is in it. The consumer is living in the past. Video breaks down that gap.

Mike Goldberg

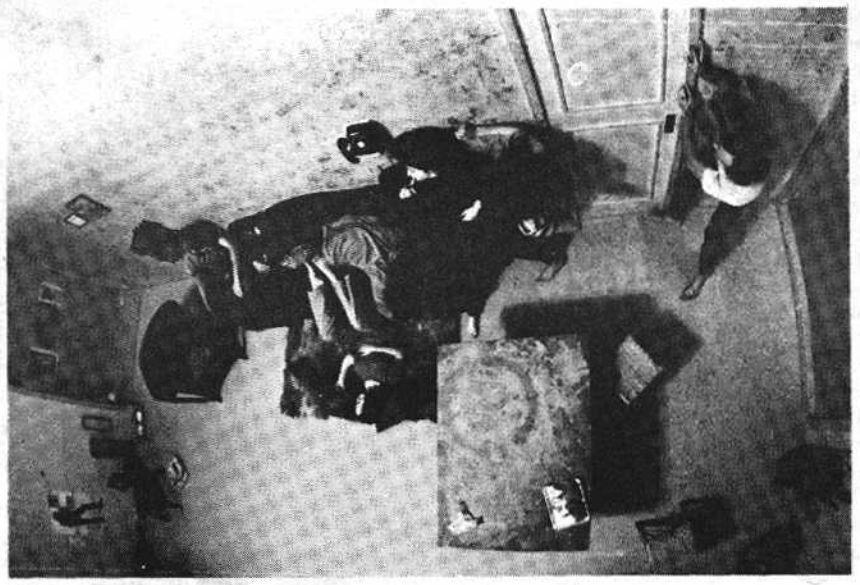
No space to print Communications Experiment: An Environment, Mike's clear, non-hype report on the realities of setting up an electric environment. The project was financed by the Secr. of State and the Dept. of Communications. Mike or the gov. people should have copies of the report.

In progress—
preparing a tape exchange between ballet companies. grant to go to Japan and research video trips.

Some trips: Montreal, December 1969—Pyramid of T.V.'s with hidden CCTV camera behind and between the sets. Although you could see your face from different angles, you could not look yourself in the eye.

Winnipeg, November 1970—Conference on "The Franco-Manitoban Family"—Environment with Eidophor video projector, light show (by Luci, from Montreal), sensory "decompression chamber"; and demand-television system (manually operated) in workshop rooms. Rather than invite a guest speaker, 14 specialists were asked to prepare talks to the delegates, and I videotaped them on a cross-country flight. On opening night the local French Radio station broadcast live from the conference and delegates' radios served as sound-system.

Vancouver, January 1971—"Room on its Side", with colour T.V. and cablevision, working telephone, chesterfield, table and chairs, etc. A monitor at the exit showed the room right-side up (the camera was on its side), and a 30 second video loop delay allowed visitors to see themselves back in the room, walking sideways on the wall.



INTERMEDIA MIME WORKSHOP IN "ROOM ON ITS SIDE"

THIS PHOTO IS UPSIDE-DOWN

VIDEO EXCHANGE DIRECTORY

STAMP
TIMBRE

c/o
IMAGE BANK
4454 west 2nd
Vancouver 8, B.C
Canada

PLEASE PRINT - EN LETTRES MOULÉES, SVP

Name
Nom

Address
Adresse

Tél. (AREA CODE)

Equipment at your disposal Equipement à votre disposition	VTR use/interest Usage/intérêt vidéo
½"	
1"	

VIDEO EXCHANGE DIRECTORY—I do not wish to become a distributor, merely to facilitate communication and collaboration between people into small-format VTR. Everyone who sends in the feedback form will receive a compiled list. If you have not yet received a postcard, please help by filling in this form and sending it to:

VIDEO EXCHANGE DIRECTORY c/o IMAGE BANK
4454 West 2nd, Vancouver 8, B.C. CANADA

Cygra 4

Cybernetic Graphics and Animation Group
Groupe de Graphisme Cybernetique et d'Animation
Gilles Gheerbrant, Serge Poulard
Maxime Renard, Claude Schneegans

CYGRA 4 was not born out of a decree of the University of Montreal but rather by the will of a group of individuals who shared dreams and synergized them into reality and videotapes at the occasion of the Free Video Festival at McGill in March 1971.

Later on the group received official recognition from the University as a service, the mission of which is to develop educational videos and filmloops for the academic community. The video and cinema facilities are provided by the Audio-Visual Department of the U. de M., the computer facilities by the Centre de Calcul.

CYGRA 4 is currently designing new graphic softwares and working in close collaboration with a technology-oriented artist. This latter experience is quite stimulating and rewarding for both parts. Moreover, we believe that, as Marshall McLuhan writss in his forthcoming book "The executive as drop-out", "every artist makes breakthroughs as soon as he meets a difficulty."

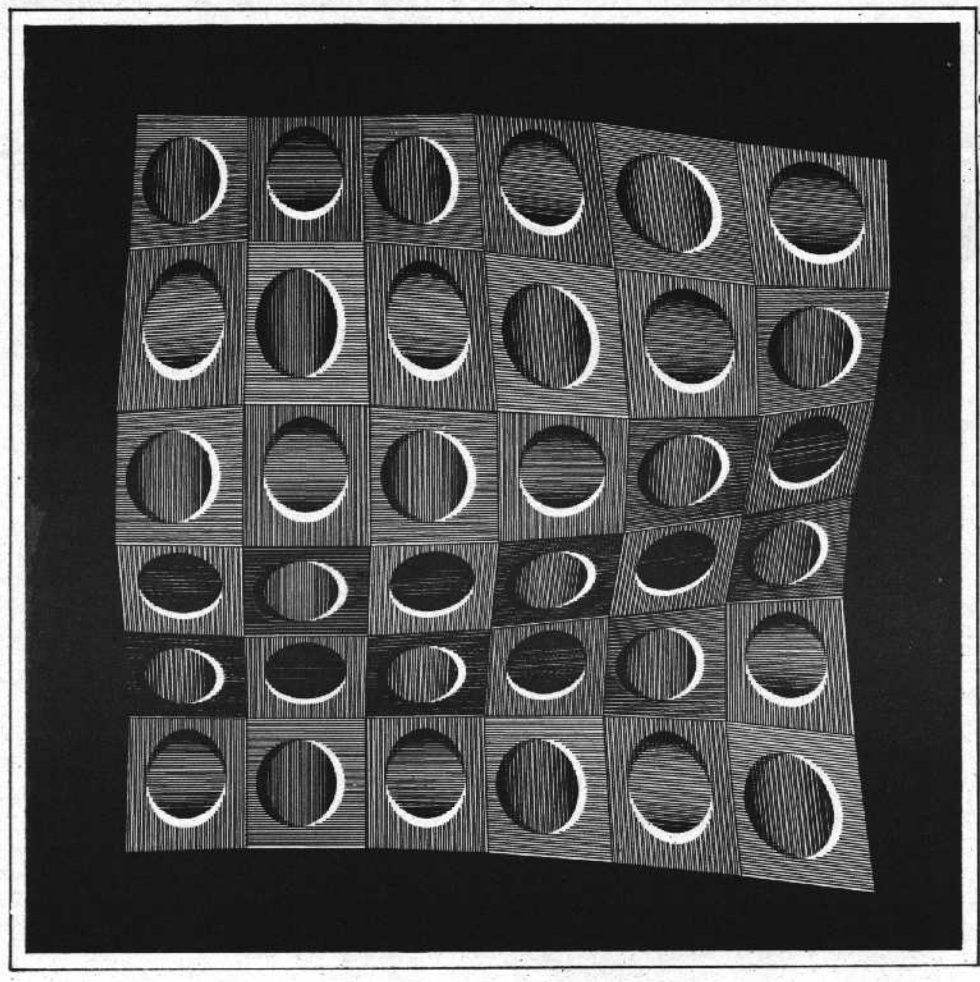
The tape we produced for the Free Video Festival was a 7 minutes one with two sequences "Ove" and "Stars" which consist in computer animation of intricate and always changing geometric patterns. At one moment a star that seems to be two-dimensional begins to turn in space and reveals itself to be a three-dimensional volume with ever evolving curves. It is just possible to describe in words but it's really a trip . . .

It took approximately 20 hours of work (starting from the brain cells and ending in the videorecorder) to prepare the computer animated tape shown at McGill. As for video-animation (opposed to film) we cannot work frame by frame, what we do is prepare the various basic pictures of the program on the screen of the computer and determine their order of appearance. Then the computer is programmed to bridge the gaps and calculate the intermediary pictures according to the number of steps that we assign for each basic picture to evolve into the next one. The cards are punched and as soon as everything is debugged, a computer tape is prepared by the machine. Now, if we would feed directly the bits from this tape to the digigraphic screen of the CDC 1700, the lapse between two consecutive frames would be far too important to give an animation effect in video. Therefore we have to firstly transfer the information into a disc memory which in turn will feed it in real time to the computer screen in front of which stands an ordinary Sony camera and a VTR. We have to use a one-inch tape as a montage will have to be made because the memory of our disc does not allow us to shoot more than two minutes in a go.

On our "free" (artistic oriented) videos, we have music which is also made by computer through our friend Denis Lorrain of the Informatique-Musique Group. For the future we seek a cybernetic means of translating the computer tape that generates our images into another digital tape that could be decoded into analogical music that would exactly fit the movement of the images.

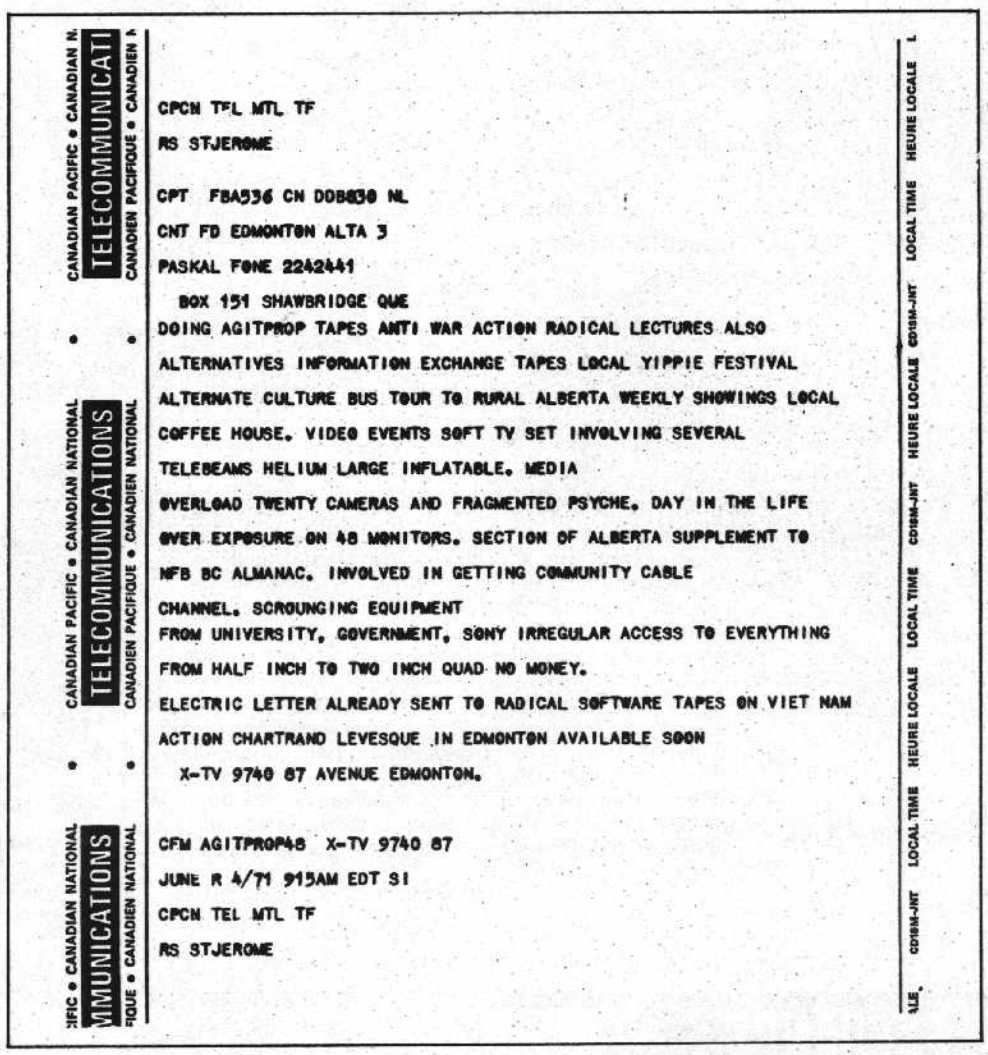
We plan to use video both for itself and as a means of having a first draft in case of a projected computer film. After seeing the video, we can correct movement in an animation sequence and decide for instance that we need some more intermediary rame in a certain part of the program.

Just one more thing: we have a lot of fun with the computer (la babasse) and plan to have more in the future.



Computer Graphic: Cygra 4

X-TV



Youth Media Project

9 people in Vancouver with a grant from the Federal Government's Opportunity for Youth Programme. 1 Portapak, use of editing facilities and 1" step up equipment on loan from the Metro Media Council of Vancouver.

Dave Johnson

Loyola

We are video-oriented teachers at Loyola's psychology department who are mainly screwing around with recently acquired video equipment.

We have a Sony AV 3600 with camera and monitors and that's it. We are right now working on a technical tool—the macro lens. If you take telephoto lenses for 35mm cameras and adapt them to C-mount video cameras, you get a doubling of focal length (roughly) in effect, due to the tiny vidicon surface. Add extension tubes and you have true macro capability which is even more enhanced when you playback tapes on large monitors or projection systems.

Using this one tool we are now producing a tape of ½ hour length with, say, five minute segments of six things to do with the macro idea. We would love to swap tapes with other people, but we have to first make contact with somebody who has another deck for dubbing.

Jim Katz & Michael Climan

Free Video

Tapes we put together

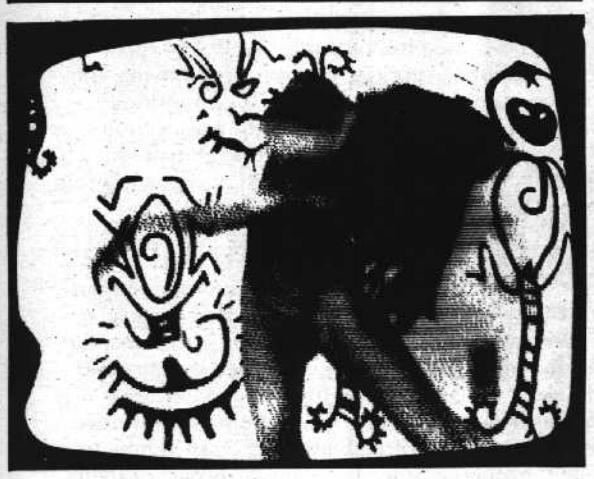
Jesse Winchester
Free Video Festival. March 4, 1971
Québec Libre. Four Quebec radicals discuss the dynamics of creating an independent and socialist Quebec.
Rural Quebec. Subsistance living. A Question of dignity.
New Morning. Home videotape.
Aldo Tambellini and CT Lui in Montreal. Alternate video, technology, change.
Excremental Tales. By the master storyteller, Ted Allan.

Tapes given us

Music With Balls. Terry Riley at KQED
Portapack feedback. Gilles Chartier in his living-room.
Les Bouches. "TV 2" University of Quebec
Le Petit Quebec Libre avec Le Jazz Libre du Quebec. "TV 2" University of Quebec
The Medium is the Medium. W.G.B.H. Public Broadcast Labs
Ballad of AJ Weberman. John Reilly of Global Village
Alternate Media Conference. Dean and Dudley, Raindance
Global Village Sampler
Videofreex Collection
Sketches—Bohuslav Vasulka

If you want to see any of the tapes (all new generation) contact
Adam Symansky
1460 McGregor Apt. 106
Montreal, Quebec
Tel. No.: (514) 844-9448

These are the tapes we have now but none is inviolate in respect to recycling.



In-Media

The use of VTR in the Maisonneuve district of Montreal:

Goals:

1. *Demystification* of the existing TV networks and of the clique of artists who profit from them.

2. *Allowing a greater number* of people to become producers rather than consumers, to use the VTR as a mirror and an instrument of expression and communication.

3. *Production of documents* produced entirely by groups of citizens, usually about three to twelve persons per group.

4. *Organization of a network* of families and friends, residing on different streets, within the whole district. This network makes permanent work in the neighborhood possible.

It makes it easier to "broadcast" the documents produced, to exchange information, both of a cultural and political nature. It also facilitates the formation of new groups—all of which we consider to be an important element of community living within a given residential district.

Benoit

A Space

A Space (hard "A") is two floors of a converted (minimally) stable in midtown Toronto: a 30x90 gallery-workshop-studio, a video studio, darkroom, printed material and video tape library, and a cafe (proposed video "theatre" when we get the bucks): we are still doing construction and shouL BE FINISHED BY July 1st.

We are a non-profit corporation operated by the directors. (Since we have no "president" we prefer to remain personally anonymous in correspondence).

We are primarily concerned with ½ inch video as it is used by artists.

Our present equipment is the CV series. We have a complete basic system. We should have AV by midsummer.

Our equipment is presently used mostly by artists who are having "shows" here and by area artists. (We have no formal arrangements with artists: no "stable;;.

A Space offers video workshops on a regular basis: these are open to anyone: response has been excellent!

Our first two shows in our new location (our original location was lost to fire March 3rd of this year) were primarily video (*The Nova Scotia College of Art* and Dennis Oppenheim, N.Y.) since our cafe is separate from the "gallery" the context is sufficiently changed to allow for a broad range of video tapes: we are very much interested in tape exchange!!!!

We are seeking concrete and specific proposals and offers for exchange. Presently we can offer four tapes for exchange but this number will be much larger in the future.

We are trying to keep our activities concrete, although we are looking for suggestions and actions which would expand our definition. An experimental theatre group will be using our facilities this summer and some possibilities for community T.V. have been proposed (since our present system is CV we are limited in this regard).

Our information package is published once a month. Insertions of material is open to outside parties. Printing cost per page is $6.90 (including photos) and is paid by the author. Pages must be related to visual art and be non-commercial in nature. Submit by the 25th of each month. We cover mailing. Audience is world wide and selected for efficiency of information dispersal. We do not edit in any way! Suggestions of names which should be added to our mailing list will be appreciated.

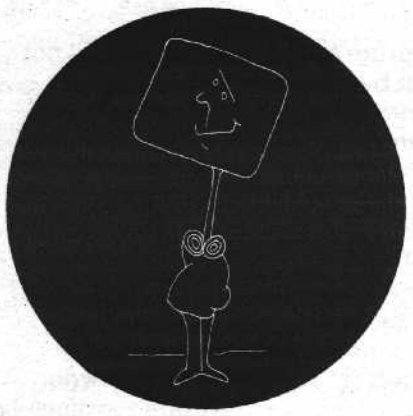
We are interested in exchange of tapes. Contacts make for a good start!! The exchange of a single tape is worth all the plans and systems on recojd. Do it!

Sincerely . . . *A Space*

A Space Policy

Consideration as to exhibiting artists is dependent upon concept of exhibition and approach to the space. The possibilities of joint exploration are encouraged. Outlined proposals for the use of *A Space* are sought. No exhibition fees or print fees are charged. No minimum period of exhibition—three weeks maximum. Resources of *A Space* are available for use by participating artists (half-inch video unit and a fully equipped darkroom. *A Space* is primarily concerned with works or projects inappropriate to commercial galleries. *A Space* provides a situation for experimentation to artists who are affiliated with existing galleries.

A Space gratefully acknowledges the assistance of the *Province of Ontario Council for the Arts* and *The Canada Council* for providing the funds necessary for the continuation of our activities!



Nova Scotia College of Art and Design

THE APRIL 5TH EXHIBITION AT *A SPACE* WAS BY A GROUP FROM THE NOVA SCOTIA COLLEGE OF ART AND DESIGN: ASKEVOLD, DUBE, JARDEN, KELLY, MCNAMARA, MURRAY, ROBERTSON, WATERMAN, YOUNG AND ZUCK.
ON THE EVENING OF TUESDAY APRIL THE 6TH, A COLLECTION OF VIDEO TAPES, FILMS, AND LIVE PERFORMANCES WERE PRESENTED TO AN AUDIENCE OF ABOUT ONE HUNDRED PEOPLE. THE TAPES AND FILMS HAVE LARGELY REMAINED AT *A SPACE* AND CAN BE VIEWED HERE UPON REQUEST.

LIVE PERFORMANCES, BRIEFLY OUTLINED HERE, WERE GIVEN BY KELLY, WATERMAN AND ZUCK.
"LRTLV" 3 MINUTES OF DOUBLE INFORMATION . . . KELLY MARCHING WITH FILM OF KELLY MARCHING PROJECTED LIFE SIZE . . . WHITE KELLY ON BLACK KELLY . . . IN SINC . . . OUT OF SYNC.
WATERMAN: "COUNTING" ALOUD ALL BRICKS ON THE END WALL OF THE GALLERY. "CALCULATIONS"-2-4-8-16—ALOUD . . . TO HIS LIMIT.
ZUCK "12 TO 9 PM." LYING PRONE, ENCLOSED IN A BLACK OBLONG BOX FROM 12 to 9 PM . . . PRIVATE EXPERIENCE . . . PUBLIC EXPERIENCE.

SOME OF THE VIDEO TAPES AND FILMS PRESENTED WERE: ASKEVOLDS' "FILL", A 6 MINUTE VIDEO TAPE WHICH TIGHTLY WRAPPED SOUND TO IMAGE . . . THE VIDEO MICROPHONE WRAPPED WITH SHEETS OF METALLIC FOIL TILL THE ENCRUSTED MIKE FILLED THE T.V./MONITOR SCREEN . . . THEN UNWRAPPED. ALSO PRESENTED BY ASKEVOLD WAS A 5 MINUTE FILM OF THE ARTIST RUNNING, JUMPING TO HIT WITH BOTH FEET A ROUGHLY MADE LEVER EFFECTIVELY CATAPULTING BURNING DISCS TOWARDS COMBUSTIBLE YARD LINES. TORSO HELD TO BARELY PERCEPTIBLE BODY MOVEMENTS.
ZUCK PRESENTED A 5 MINUTE 16MM BLACK AND WHITE FILM TITLED "A WALK ON A FROZEN LAKE" IN WHICH HIS WALK DESCRIBED A SOMEWHAT PARABOLIC TRIANGLE ON THE WHITE SCREEN . . . ZUCK BLOCKING CAMERA MOVES OFF IN THE DISTANCE TO THE TOP RIGHT HAND CORNER OF THE SCREEN . . . AS A BARELY PERCEPTIBLE SPECK CROSS TOP OF SCREEN TO THE LEFT HAND CORNER . . . FROM THERE MOVING BACK TO AGAIN BLOCK CAMERA.
OTHER TAPES PRESENTED WERE FERGUSON's "LENGTH 4", KELLYS' "WEIGHT DISTRIBUTION" AND UNTITLED TAPES BY DUBE AND MCNAMARA.

"TV 2" University of Quebec

The University of Quebec has instituted an experimental program in one of its faculties in Montreal. La Faculté des Lettres is roughly equivalent to the traditional Arts faculty without social science or fine arts courses. Instead of being divided into departments according to subject matter, the faculty is subdivided according to 4 orientations: education, research, social animation, and information-communications. The student is free to take any courses given by the university, but is obliged to attend two seminars per session. The first seminar, called "seminar critique" includes group discussions of theories pertaining to their particular professional orientation, and critical reflection on how these fields are functioning in society. Further research, compilation, and experimentation may also be carried out in the form of a particular project organized by the students.

The second seminar involves production: all students are required to produce, through the media offerred, group projects bearing more or less (a great deal of latitude is given) on what they have studied or experimented with. The students form their own groups, and prepare projects. These projects, with an estimated budget attached, are submitted to the decisional body of each "module". This decisional body is composed of eight elected students and eight professors. After the project has been approved, modified, rethought, etc., production begins in the following: theater, writing, cinema (8, super 8, 16 mm), radio, sound with images, photography, studio TV (1 inch and 2 inch studios), and portapak (12 portapaks were available last year).

The groups in cinema and TV were the largest. Two of the television groups worked in the Radio-Quebec studios. Those using the black and white studio were experimenting with ½ inch inserts into regular studio shows, mainly documentaries with political and sociological overtones. The other group, using the colour studio, was into reinventing a new non-linear, more symbolic television language, experimenting with mages, colour matting, feedback, etc.

Three groups were working on the cable, two of 'hese using the Boucherville studios and diffusing their programs on the cable, and one group working on the Val d'Or cable and also showing people how to use video for "le bloc". Le bloc, an organization with a high percentage of "labor" people and support, produces a weekly cable TV broadcast with the people of the region. It deals with the problems the people wish to expose and discuss. Each major Abitibi city in turn has the responsibility of producing its own program.

Nicole Leduc

Challenge for Change

There is no doubt about it. It's here. Half-inch video is everywhere, and so are cable companies, and the number of people behind cameras and in front of cameras is multiplying unbelievably. Television will no longer be the medium of a small elite programming for the masses. It will be the forum through which the many segments of the community will be able to talk to each other, a medium for everybody.

Or will it?

I must say, I'm worried. The powerful attraction of imitating or improving on the slickness and sensationalism of broadcast television, and the feeling of power you get with a camera in your hands are terrible traps. It's so easy to be "clever" with those cameras, to cut in a cute little shot of your interviewee blowing his nose in an off moment when he didn't know the camera was running, or couldn't stop it if he did (because after all, he'd feel silly and unsophisticated, wouldn't he?) What I mean is, it's so easy *not to respect* the people you're putting on the screen, when you feel so strong behind your camera and microphone, and after all, you're expressing *yourself*, aren't you?

Maybe that is the crux of the question. VTR does indeed permit a sort of democratisation of self-expression. But who is it that is expressing himself: the guy behind the camera or the guy in front of it?

We're kind of pedantic in Challenge for Change. When we train people in the use of VTR, we insist from the very beinning that the people behind the camera assure the people in front of the camera that they will see the tape immediately, and that if there is anything they don't like, or are ashamed of, it will be immediately erased. We also assure them that they will see the edited tape, so they can approve or disapprove the way they have been used in editorial context. They may well be asked to participate in the editorial process, as well.

This has a number of immediate results. First, they are much more relaxed on camera, because they are less afraid of making some irrevocable mistake. In fact, they usually come out very well, because of that relaxation, and rarely, if ever, want any parts erased. But they have expressed themselves well, and when the tape is played back to them, they usually see that, and when they have finished complaining about the scar on their forehead or their double chin, they suddenly realize that they are more articulate, more *presentable*, than they ever realized, and their self-confidence takes a permanent turn for the better.

And that is a power in the hands of the guy behind the camera that is really worth having:helping people like themselves better!

The second result of this approach is that when they see the edited tape, or participate in the editing process, they learn a great deal about the so-called objectivity of the media. The process of demystifying the media is begun: they will never again be the gullible public they once were. And that, too, is a power worth having.

Let's face it. No matter how many VTR's end up running around, the people behind the cameras are still going to be a minority. It is not only legitimate but necessary that they use the cameras for their own self-expression, and I hope that distribution through cable TV, theatres and tape exchanges will allow a lot of people to share in the works of art that will come out of it.

But beside that self-expression, there is the tremendous opportunity to help other people, who will probably never get behind cameras themselves, to express themselves. This means that the film maker puts himself at the service of the people in front of the camera, becomes a teacher and a tool to help them channel their ideas to the people they are trying to reach. This is a powerful role in the social process, and I hope many of you will get involved that way.

I have this utopian dream, whereby as the pollution and smog slowly lift, and the fires in the ghettos die down, fish jump in the streams once more, greenery is renewed, people sing in the streets, one catches glimpses everywhere of a cable-VTR crew, composed of three people: Johnny Appleseed, Caesar Chavez and a little old lady in running shoes.

Cheers!

Dorothy Todd Hénaut

Parallel Institute

Since the summer of 1970, video has been used in Pointe St. Charles as an instrument for the use of the poor people's movement to effect social and political change.

An action to obtain rights or to effect change has three basic stages: the planning, the action itself, and the post-action analysis.

During the planning, VTR encourages involvement in the articulation of problems and the offering of solutions. The camera acts as a catalyst by seeking out and uniquely storing people's ideas and opinions, for present and future reflection. People's participation ultimately commits them to action centered around shared, understood grievances based in a common organization.

During the action, VTR becomes an important tool in equalizing the bargaining power of those officials in positions of control and the poeople demanding application of their rights. The presence of the camera during confrontation helps create this equality by preventing officials from running roughshod over the poor, as their performance becomes a record for public scrutiny. It is for this reason that officials will often attempt to prevent filming. The potential loss of means of control and manipulation has often resulted in officials directing their attention to the elimination of the VTR as a participant. The non-negotiability of this issue can either facilitate the acceptance of demands or create an outright refusal to negotiate. Of course, the latter result only serves to increase both the size and solidarity of the movement in a long term process of people acting for themselves to secure legitimate aspirations.

The benefits of VTR in post-action activity are self-evident. The tapes are a history of events which, subject to analysis, reveal the success and failure of organization, demands and tactics, the degree of individual participation and growth of consciousness and the diffusion of same to forther the base of people, issues and experiences in the on-going struggle for self-destiny.

Kathy Tweedy

We have about 20 edited tapes available on planning and organizing actions carried out by the Greater Montreal Anti-Poverty Coordinating Committee, a federation of citizen's groups. These tapes can be lent to interested groups for viewing.

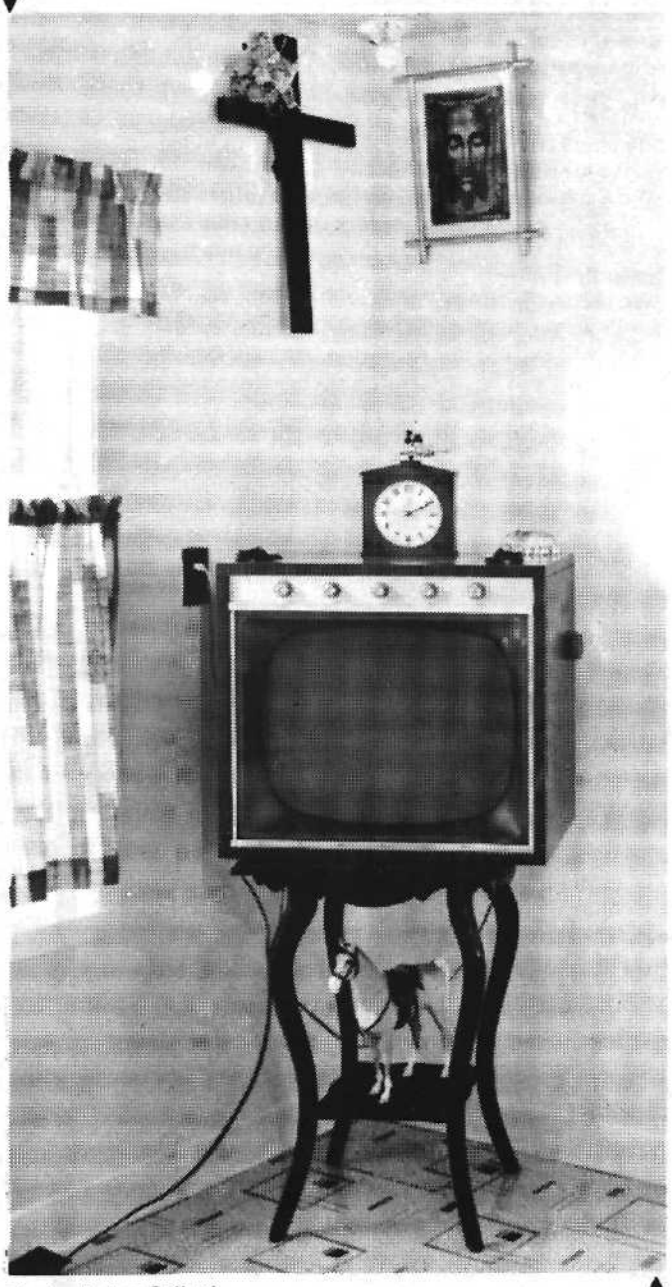


Photo: Gabor Szilasi

A community programme can be defined not by its content, but by how it is made. A community programme must be made *by* the community rather than merely *for* it, and it must be made under the full control of a community group. Programmes made by community groups for the use, deployment and scheduling of a commercial organization such as a cable company, would not qualify as community programmes, since they would be made in exactly the same way as existing commercial programmes are made, with final control resting with the owner of the equipment.

Bruce Lawson

Training Programme

We are a group of nine participants being trained in an Experimental Training Program for Social Animators. Most of us are high school dropouts. We don't know of any similar project in Canada below the junior college level. The idea originated with a youth group here in Park Extension, (a multi-ethnic district in the heart of Montreal), who, finding themselves in deadend jobs, had asked the Community Corporation for training in community work. One of the most effective ways we have found to use VTR within the Program is for evaluation—individual participants were asked to look at themselves on tape and to evaluate their own role in a group discussion. A variation was to have one participant watch another participant on tape and then give his impressions of the other's ability to listen and participate within the group. Still another exercise was to have the entire group follow one person on tape and then each express his understanding of what that person had actually said. We found this helped us become aware of how we each functioned within the group and also to see the changes and progress taking place both individually and as a group. I will also use this technique with CUSO volunteers before they leave Canada. We also used VTR to film resource people. These tapes became part of our library and have been used by the participants who missed the original sessions. Another reason for our having video is to produce a complete record of the Training Program (practical work in the field, study, reflection, evaluation) so that others interested in starting such a program could see what problems we faced, and profit from our experience.

When video was introduced at the beginning of the Program, most of the participants were eager to get a crack at the equipment. At first it was used a lot, but much of the original material was wasted because no one had learned how to use it properly—this in spite of the manufacturer's (Sony) claim that even a child could use it successfully the first time. After the initial enthusiasm wore off, only one participant continued to use the equipment frequently and learned how to handle it properly. Since the trainees as part of their work have become involved in various projects throughout the city, interest in, and use of, the VTR has again become high. So far, we have taped protest rallies for welfare rights, action in the metro for lower transportation fares for senior citizens, and a citizens gathering on tenant rights. The project with which I am involved now is thinking of using VTR to encourage citizens to form tenant associations in various districts of Montreal, with the hope of forming a central coordinating body from the various groups. The plan is to interview individually as many tenants as possible and have them express their views on the condition of housing, urban renewal, rental fees and tenants' rights as they now exist in this Province. These citizens will then be invited, along with their friends and relatives, to a general meeting where they will get the chance to talk with other tenants, see and hear others' views on these problems, and discuss possible solutions.

We found that a drawback in using video for organizing citizens is the reluctance of many people to being taped, because they are scared the tapes may be altered or used for "subversive" purposes.

The Program's production of finished tapes has been limited because of lack of adequate editing equipment—a situation we hope to remedy soon.

Costanzo Passarelli

Metro Media Council of Vancouver

A community umbrella group made up of individual and group representative members in a media access and production collective.

In this section, you won't find much about alternate television, per se, but the attitudes central to Radical Software emerge from other contexts. Our own excitement with video has always been backdropped against the need to deal humanly with an insistent and prolific technology (which having made us comfortable, wouldn't leave us so). We see a commonality in experiments with radio, computers, bio-feedback, and other technologies. Draw the links as you will.

To be sure, links already forged among video people by Radical Software I, II, and III need to be extended and strengthened. We need to reiterate basic information, tap our technical ingenuity, and collect experiences to match our theorizing.

You'll find some of that here, almost entirely from the West Coast, showing perhaps the extent to which the network has already taken shape. At the same time we're scratching at new surfaces and we'd like to hear how you feel about it.

Media Access/Portola Institute
1115 Merrill Street
Menlo Park, California 94025

THE WESTERN MOVIES

My Father always watches the westerns
on TV.
He opens his eyes wide,
with a cigarette in his mouth.
He watches TV,
dropping the cigarette ashes
in the fireplace.
The cigarette becomes very short.
He holds it with his fingers
until it burns his fingers.

Ito Hirohiko, Age 8

From There Are Two Lives, *edited by Richard Lewis, Simon and Schuster.*

We raised the question and hope to keep the question raised that people think about what to do with power, whether it is in terms of large sums of money, or large quantities of talent, or exquisite access to juice of any kind. We've gotten into a kind of cottage industry way of thinking – if it isn't something that can go on around the hearth, we are not going to have anything to do with it. And it may be an important form of copping out that we've gotten into, so that we can cheaply chide all the evil that we see around us that is coming at us in big chunks. And we aren't coming back at it with big hunks of our own creativity or juice or any of it. We are being small in a very big game. And if we are serious about the game, planetary survival, then we are going to need to be serious about the big tools that are used in the big game. And we have a long way to go to learn how to use them right.

Stewart Brand
Demise Party, June '71

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This section of **Radical Software** was edited and laid out in nine days at the lavish facilities of **Big Rock Candy Mountain.** Copy prepared on an IBM Selectric Composer. Photos processed by Western Litho, Palo Alto, CA.

PRODUCTION: MEDIA ACCESS
Shelley Surpin Richard Kletter
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INVALUABLE ASSISTANCE, AND WE THANK YOU: Sam Yanes, Mark Horowitz, and the rest of Big Rock; Hal and Ellen Hershey; Curtis and Edsel Ant Farm; all you contributors.

GETTING WIRED

The EEG alpha rhythm is a regular wave pattern with a frequency of 8–13 Hz, deriving from the back of the head. With electrodes pasted gently to your scalp, they hook you up to a machine which monitors and amplifies your alpha, and sends it back to you in the form of a tone. And people have shown remarkably rapid progress in controlling that tone, i.e. in producing more or less alpha at will.

The implications of this voluntary control of brainwaves are great, and a number of psychologists more knowledgeable than myself have contributed a paper on that subject to this issue. I want to stick more closely to the actual experience of the alpha state which has gained much attention as an altered state of consciousness.

Hugh Macdonald, alpha experimenter in the Department of Psychology, Stanford University: If you're always very much in the world, and somewhat paranoid, always using your eyes to kind of check things out, then you close your eyes, relax, and alpha blossoms. If you can learn to get into that state with your eyes open, it seems very weird to most people.

A person sits there and gets alpha and is in a very relaxed state, but he can't fall asleep. Fall asleep and alpha disappears. So in alpha feedback training, we give you a tone which keeps you awake and tuned into your alpha for an hour or so.

People who know nothing about it learn very quickly how to get into this state. They say it's like ballet or football or skating or playing billiards, something that's flowing and enjoyable. If they know it has to do with meditation, they say it's very meditative. But the longer they train, the more they say it's not that. It's essentially doing nothing, being awake but doing nothing. You let your mind go off and do what it wants.

Most of the effect, I think, is that for once people are sitting alone quiet with themselves. How many people just sit alone for an hour or so a day and just do nothing, unless they're meditating?

S. S.: Do they say they like it?

Hugh: Yes, but for how long? We did seven sessions in one study, and by the sixth and seventh session at least 50% of the people were starting to fall asleep. They weren't very interested any more. It had lost its appeal. Like meditation. At the beginning you get this high and then after a while, "Oh, so what?" Like eating butterscotch pudding every day.

S. S.: Why do they fall asleep?

Hugh: Wouldn't you? You feel nice and warm and cosy in front of a heater, and then you fall asleep.

Normal alpha isn't actively turning it on. It's just closing your eyes, really turning your eyes off. With eyes open in a feedback situation, people go from producing a little bit of alpha to a lot. But to actively get it above that lots of alpha stage to your normal eyes-closed alpha, from 70% to 90%, is very hard for people to learn. You have to really try. The medium highs, they have lots of alpha, it's all over the place and plenty enough for us, but pretty soon they're just doing nothing. And it gets boring. They want excitement, stimulation, more contact with the world. Conversely, if you give people alpha-off training, they want to relax and let go. Huge bursts of alpha follow alpha-off training.

Once again, it's like meditation, like everything, like all skills, and it is definitely a skill. We had only one guy who did alpha work with enough regularity to really get good at it, and he found that once you passed the boredom stage, things got extremely good. Meanwhile, it's tedious, painful, and takes a lot of effort.

So the alpha state is a kind of high which takes a lot of work to get you very high. Some experimenters are trying to link alpha level with hypnotizability, or with psychic powers, but with no significant correlations yet. My friend Hugh measured 3 or 4 persons with naturally occurring psychic phenomena and they had no alpha rhythm at all. Blind people don't either, and neither do a small number of other people for reasons no one understands. Maybe they have a wholly different way of seeing. In any case, no one has found a way to increase alpha where there is none to begin with.

A relatively new field for research is lateral alpha activity. Generally, there is more alpha from the right side of the brain, long considered the center for processing music, imagery, spatial information, and gestalt tasks, than from the analytical, mathematical left side. Recent experiments (Ornstein & Galin, 1971, and Morgan, McDonald, & MacDonald, 1971) show that during analytical or logical problem solving alpha goes down on the left side, while during imaginative tasks it decreases on the right. These experiments add to the growing body of evidence for independent functioning of the two cranial hemispheres, as well as supporting the notion of alpha as a relaxed cortical state.

-S.S.

Implications of Physiological Feedback Training

by Ralph Ezios

With the invaluable assistance of Barbara B. Brown, Eleanor Criswell, Lester Fehmi, Elmer Green, Joseph Hart, Joe Kamiya, Hugh Macdonald, David Nowlis, and Robert Ornstein.

from *The Proper Study of Man* by James Fadiman (New York: The MacMillan Company, 1971.) Copyright 1971, James Fadiman.

In a much-cited passage, Weston LaBarre explicates his idea of *evolution-by-prostheses* in the following way:

> With human hands, the old-style evolution by body adaptation is obsolete. All previous animals had been subject to the *autoplastic* evolution of their self-substance, committing their bodies to experimental adaptations in a blind genetic gamble for survival. The stakes in this game were high: life or death. Man's evolution, on the other hand, is through *alloplastic* experiments with objects outside his own body and is concerned only with the products of his hands, brains, and eyes — and not with his body itself. (1954, p. 90.)

As LaBarre implies, man's technological evolution so far has allowed him to gain better and better discrimination of, control over, and ability to communicate about all manner of events and processes in his environment.

Included in the ever increasing comprehension of the environment, with concomitant ability to manipulate it, through science man has come to learn more about all organisms' internal events and processes. However, man's ability to discriminate, control and communicate about his own personal internal events and processes has never been markedly aided by technological development, and thus the prosthetic evolution has primarily had its effect on man's external environment and only indirectly has it effected him internally.

Physiological feedback training is exciting in this context because it is a small beginning in expanding and changing the direction of *evolution-by-prosthesis* and for the first time making it possible for an individ-

ual man to use technology to come to know himself better. The basic mechanism employed in feedback training is an electronic system which amplifies and informs the person as to the on-going activity of a selected physiological process, thereby aiding the person in discriminating the presence of events or stages in the process, thereby enabling him to gain some degree of voluntary control over this process, and also allowing him to develop a degree of sophistication in communicating about the process previously out of his scope. Although it could be argued that the mirror and the bathroom scale are considerably earlier instruments designed to give personal feedback on intrapersonal processes, the type of feedback is useful primarily in monitoring internal processes only indirectly as they effect externally apparent aspects of a person using them.

Therapeutic Applications: Biomedical and Psychological

Hart (in press) points out that feedback training tends to obscure somewhat the normal expert-patient relationship in therapy. Feedback devices allow a patient to know himself better, while allowing him to develop his own attitudes about what he finds out.

The development of inexpensive and portable devices to give feedback opens up a number of therapeutic possibilities. One may begin by considering some applications in the field of psychosomatic medicine. For example, Shapiro, *et. al.* (1969) have shown that people can learn to lower their blood pressure. Thus patients with high blood pressure could be given small portable devices for checking themselves regularly against high blood pressure. If the blood pressure were unusually high, they could then employ techniques that they had previously learned to lower it, and could make sure that they had succeeded by checking themselves against the portable device. This procedure either could be used at bedside in the hospital, or the device could be rented or purchased to be used in the patients' regular daily life. Thus the physiological consequences of states of mind engendered by environments or actions which the patient would be likely to encounter could be better comprehended, thereby allowing the patient to get insight into the psychological component of his particular illness, and even providing an opportunity to learn to control the symptomotology after developing this insight. While the patient should not be led to overly high expectations about curing his illness, the ability to use such devices could well be morale boosting to the patient who otherwise feels he has no hand in combatting his own illness, and that his fate is in the hands of the experts alone.

Many variations on the theme exist. A portable device for monitoring psychogalvanic skin response is already in production. Similarly a device that has been built by Hugh Macdonald with integrated circuitry capable of giving feedback on EEG, EMG, heart rate, skin temperature, vasoconstriction, and GSR exists and could be mass produced for sale at very

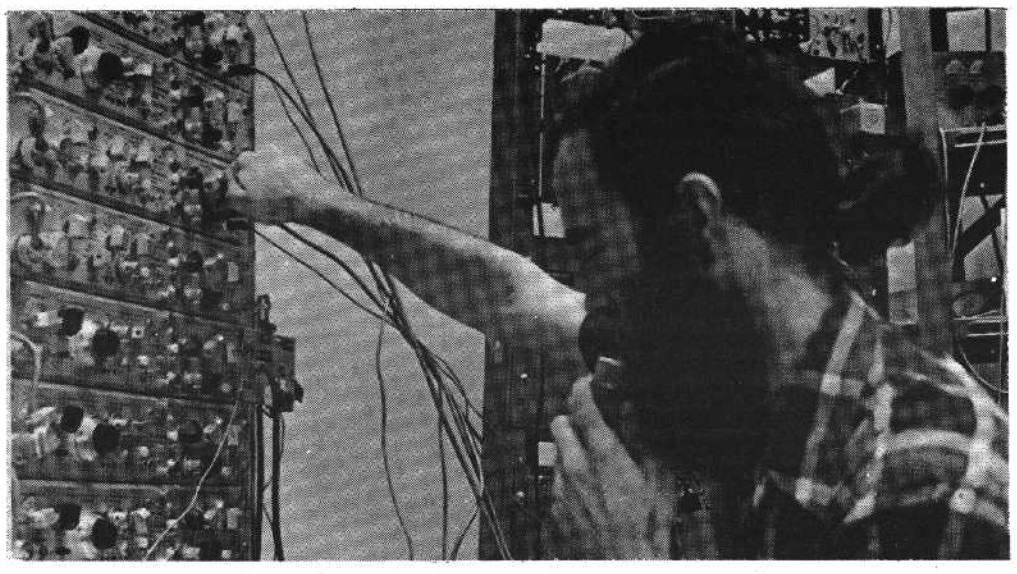
low prices. Patients with irregular EEGs predisposing to epilepsy, who get headaches or backaches from tense muscles, who have irregular heart beats at times, or who have any relevant physiological irregularities which vary with their psychological state might find these devices helpful. It would even seem in the realm of possibility to build small, inexpensive devices for feedback concerning stomach acidity, of potential use to patients with ulcers. Or feedback devices could be developed to allow a patient to listen to his intestinal functioning, to aid in proper digestive actions. Miller (1969) has shown that control over intestinal and digestive functioning can be developed very rapidly in animals.

A number of alternatives exist as to the type of feedback that would be given in these portable devices. In one potential type, most useful as a portable constant monitor, a physiological process would be monitored and the patient would receive a signal only if the process should cross a criterion indicating it was moving in an unfavorable direction (blood pressure too high, stomach acidity too high, heart becoming irregular, etc.). In another approach, most useful as a portable means for learning or regaining control, the feedback would be more analogous to the full process. Tiny variations in the physiological parameter would be brought to the attention of the patient and the patient could then engage in mental activities which would help to bring out desirable functioning.

In the area of psychiatry and clinical psychology such devices could also possibly be used with patients who had no specific somatic complaints. Because it is now possible to simultaneously monitor overt behavior, covert moods, and physiological processes in the natural setting (Nowlis & Cohen, 1968) procedures could be developed whereby both patient and therapist could develop more understanding of the covert moods and physiological patterns of behavior accompanying exposure to various aspects of the patients' environment. Then the patient could choose internal events which he would like to have occur more regularly, or more voluntarily, in his daily life and could begin a program of training, first at some training facility, then attempting to produce the pattern in the desired situation in his natural setting. Such procedures could increase the number of petients that a therapist could see, decrease the cost of psychotherapy, and decrease the problems associated with therapists' perceiving and dealing with patients from a single value system. In this type of therapy program, patients would have an unusual degree of freedom to choose their own goals, experiment with implementing and modifying the goals as they progressed in therapy, and test the results of the therapy in a very direct way against their actual life situation.

Another psychotherapeutic use of feedback technology could be in sensitivity training. Two people could use the feedback devices mutually in a number of meaningful ways. For example, one person could learn to help a naive person to reach certain physiological states. The naive person would receive no feedback, but the other person would behave in various ways to attempt to deliberately bring about various states in the first person. Or two people could observe the effect of various kinds of behavior on each other. Or, again, two people could together attempt to control a feedback loop designed to cue them only when both were in the same desired physiological state.

Furthermore, whole groups can learn to control certain feedback devices together. For example, the portable device previously mentioned designed by Buryl Payne, now available commercially to be used in giving visual and auditory feedback as to GSR, can easily be used by a large group holding hands, with two people in the group each holding one electrode instead of each other's hand. Groups could then attempt to together learn to increase and decrease their GSR, either alone or while being exposed to various stimuli. This kind of learning situation might be quite useful to certain groups. For example, any group of people who have to work together under conditions of high stress might want to learn to keep their GSR low, first alone, and then while exposed to stress provoking messages. Presumably, each individual would be learning not only to keep his own responses low, but would also be learning ways to help his fellow team members stay relaxed.



More basic research needs to be done on understanding physiological relaxation. Most of the physiological processes which have been successfully conditioned in our various laboratories are apparently influenceable by relaxation; that is, subjects learning to generate more alpha rhythm in their electroencephalogram, or lower muscle tension in their electromyogram, or lower heart rate, or warmer skin temperature, or larger vasodilation, or lower galvanic skin responsivity all tend to say that there is an element of relaxation involved in moving the process in that direction. Interestingly, our early findings also tend to agree that a subject who, through relaxation, has learned to influence one of these processes is not necessarily making any change in the other processes apparently influenceable by relaxation — for which the subject has not been given feedback. In fact, the processes appear to be remarkably independent in spite of the similar reports of relaxation. However, because relaxation is clearly involved in some way in the learning of each, one wonders if feedback training could in any way be used as a substitute for relaxant and tranquilizing drugs with patients suffering from anxiety symptoms, especially if the patients were trained to relax by multiple physiological criteria.

Entertainment and Aesthetics

There are at least two, rather different, applications of feedback technique to entertainment, one of the Kahn procedure, the other of the Kamiya-Brown procedure. Both applications however are based on the same general strategy, namely that the feedback signal itself need not be just a tone or a light, but can be slides of paintings of fine art, a motion picture, recorded music, or any of a large number of aesthetically pleasing stimulations *(e.g. a video synthesizer — ed.)*.

It has been called to our attention that there are now multi-media environment systems available, where as many as 12 film or slide projectors are controlled simultaneously and as many as 5 tracks of sounds. It could be both entertaining and instructive to have such a presentation controlled by a number of on-going physiological processes in a single individual, entertaining because of the person's sense of being intimately linked with the presentation, and instructive because in the past one of the most difficult aspects of psychophysiology to grasp has been the simultaneous intervariability of many physiological parameters.

Another potentially entertaining and instructive situation would be to have two or three people control with their physiological processes various aspects of the multi-media presentation. The people at first would just enjoy watching and hearing the patterns they were producing, and then could begin to test the effects of various kinds of interaction with each other on the blendings and discordances of the displays.

Not surprisingly, you can now own your own brain wave feedback device for just a fraction of the cost of a portapak. Phenomenological Systems, Incorporated, 72 Otis Street, San Francisco, California 94103, *will sell you a 4" x 2" x 1" unit for $190.00, including one free computer analysis of a cassette tape made by plugging into the output jack of your unit. PSI has sold 1000 units this year and are well into their third generation of equipment design, fortunately with no compatibility problem. From 4 or 5 information requests per day a year ago, they get thirty to forty today. In a few years, the devices will be produced like transistor radios, for $5 to $10 each.*

Like every technology, biofeedback devices have their Big Brother potential, which make surveillance cameras on the streets look benign. As physiological processes become increasingly linked to computers, someone may decide to make the communication two-way. Remember that the government has always been one of the foremost experimenters in the field of responsive environments, with propaganda, censorship, and surveillance the basic modes applied to each new technology, from time-honored newspaper censorship to modern day wiretapping. Imagine a few giant transmitters sending out patriotic vibes at the appropriate frequency, and before you can salute, the dimestores run out of flags.

But it's really nothing new. In the same way that so many of us have pushed aside the bullshit of broadcast television, we'll deal with what comes. Free universities will offer courses on cortical jamming techniques and Radical Software *will be a hologram of How to Build an Alternate Brain Wave Network.*

-S.S.

Education

One of us, like his subjects, has learned to control to at least some extent his EEG, EMG, vasodilation, GSR, heart rate, and skin temperature. The most fascinating and pleasurable experience for this experimenter was in the brief time he spent working on the skin temperature of his hands. Within ten minutes the person could warm or cool his hands, deliberately altering the direction on command when another of us signalled with a click from a nearby instrument room, the click signaling "go in the opposite direction". The experimenter could alternately cool and warm his hands even when the clicks came as rapidly as one a second. The process involved was one the experimenter had lived with all his life but had never had any insight into or voluntary control over until the ten minute feedback practice period. It was almost like discovering a new frontier, still needing to be charted and explored although close to us for millennia.

Some feel that oriental meditators are among the very few people who have developed sophisticated perceptual skills for internal processes. Such considerations might be useful in explaining why one aspect of the feedback training technique has been of particular fascination to many lay people (e.g. Luce and Segal, 1966) and professionals alike. This aspect is the potential application of feedback training to the western practice of eastern meditation. A number of independent studies done in India and Japan (e.g. Anand, 1961; Kasamatsu and Hirai, 1962) agree that there are physiological patterns which are strongly related to deep meditation, particularly in the EEG and EMG. The alpha rhythm is markedly increased in both yogic and zen meditation and is generated over areas of the cortex normally not involved in alpha production. Meanwhile, the EMG tends to fall to very low levels.

continued ⟶

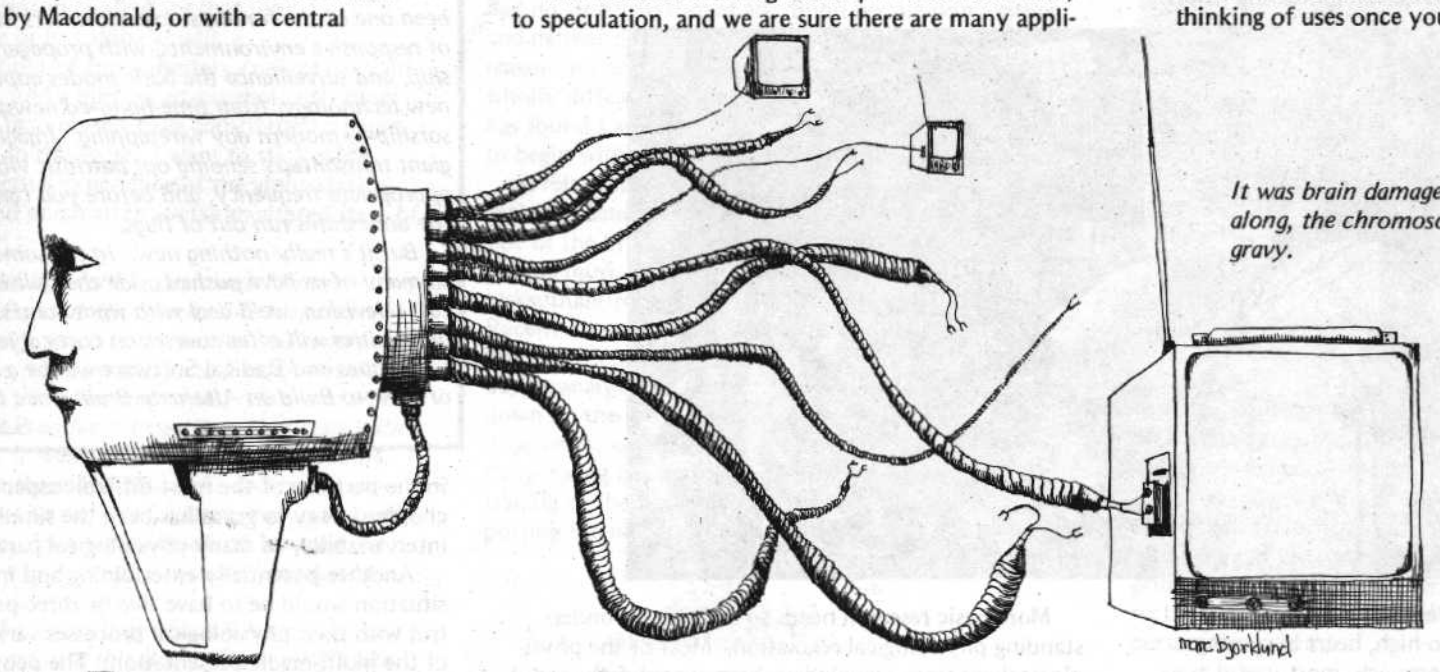
BIO-FEEDBACK (cont.)

By this time some yogis and zen monks have actually had the opportunity to try feedback training, and to listen to themselves as they meditate. They have tended to agree with westerners' speculations that such devices might be useful in teaching people the elementaries of meditation. In other words, westerners could overcome handicaps of cross-cultural translations and busy schedules in imitating the physiological patterns of expert meditators, thereby perhaps learning the basic state of mind for at least the beginning stages of meditation. Subjects can learn to control their EEG to a measurable extent after only a brief period of practice (Nowlis & Kamiya, 1969; Nowlis & Macdonald, 1969). EMG control, depending on the muscle used, is also not difficult to achieve. Thus a student with either a portable feedback device similar to that designed by Macdonald, or with a central training facility available, for example at his college health service, could learn to meditate in a state of mind similar to that of a zen monk or a yogi.

Thus feedback devices and feedback training may be helpful in providing people with a chance to explore the internal, and in a socially constructive way. Perhaps because western society and western education are so oriented to discrimination and control of external events, the opposite abilities, perhaps providing some relief from practice of the others, are highly prized among the younger generation. Certainly feedback training is less dangerous and more constructive than drug use, or "dropping out", alternatives which attract large numbers of bright and potentially highly valuable young members of our society (H. H. Nowlis, 1968)

Concluding Remarks

The feedback training technique lends itself easily to speculation, and we are sure there are many applications beyond what we have mentioned here. When inexpensive portable feedback devices are commercially available, for example, we are sure people will think of many more creative uses. We have only mentioned our more straight forward and practical ideas. Much more speculative thinking has gone along the lines of (1) could a feedback device be built to cue a woman as to her time of ovulation, (2) could feedback devices be used to get two or more people into very similar states, thus allowing demonstration of mental telepathy and other phenomena of parapsychology, (3) could feedback devices be helpful in the training of creative artists, training the artists to bring out internal states appropriate to various types of aesthetic productions, (4) could such devices be used in controlling artificial limbs, so that voluntary physiological changes would change the position of the limb, (5) could awareness of various muscle activities through EMG feedback be useful to athletes, etc. It is hard to stop thinking of uses once you begin trying it.



It was brain damage that we had in mind all along, the chromosome damage was just gravy.

—SB

ACID PROGRAMMING

Programming and Metaprogramming in the Human Biocomputer — Theory and Experiments
John C. Lilly, M.D.
1967, 1970 (reprinted by Portola Institute); 112 pp.
$1.50 postpaid
from:
Whole Earth Catalog
558 Santa Cruz Avenue
Menlo Park, California 94025

John Lilly charts a self-exploration with a mixture of acid and sensory deprivation, in the language of a model of the human brain as a gigantic biocomputer, thousands of times larger than today's machines, with unknown boundaries in the body. The software of the human computer, all the programs and metaprograms, is the mind. Consciousness is itself a particular program. Self-programming can be achieved through the metaprogramming of the higher level systems of the brain and self-metaprogramming is done consciously in metacommand language, with the resulting programming continuing below the threshold of awareness. The levels expressed in metacommand language cover large segments of the computer's operation, rather than local detail.

LSD is a reprogramming substance which introduces white noise (randomly varying energy) into the computer's systems. The noise adds enough uncertainty to the meanings of the usual signals in the circuits to make new interpretations easy. *"In such noise one can project almost anything at almost any cognitive level in almost any allowable mode."* For example, hallucination is simply a visual display projected onto white noise. LSD grants the powers of display of data patterns, programs, or storage contents, replay of past experiences, and variation of the motivational charge attached to stored material.

Attenuation of external stimulation frees circuitry for inner cognition. *"In the maximally attenuated environment (92 to 95 degrees F. isothermal skin, saltwater suspension, zero light levels, near-zero sound levels, without clothes, without wall or floor contacts, in solitude, in remote isolation, for several hours), the addition of LSD-25 allows one to see that all the previous experiences with 'outside screens' (for projection) are evasions of deeper penetration of self."* Once various anxieties and fears have been overcome, thought and feeling expands into the circuitry usually preoccupied with external reality. *"The self is still centered at one place but its boundaries have disappeared and it moves out in all directions and extends to fill the limits of the universe as far as one knows them."*

Lilly is interested in using these powers for self-analysis with the goal — *"make the computer general purpose."* That means *"there can be no display, no acting, nor an ideal which is forbidden to a consciously willed metaprogram. Nor is any (of these) made without being consciously metaprogrammed."* Lilly ducks laying out a methodology for this self-analysis but describes personal experiments he conducted *after* having overcome the fears which made inner exploration difficult. The experiments involved attempts during LSD-physical isolation sessions to self-metaprogram such unusual basic beliefs as : *"the existence of beings in whom humans exist and who directly control humans."* Although the trips were full of experiences consonant with the beliefs, straight analysis of the material, coupled with further sessions, convinced him of the inner origin of the apparently external contacts.

Let me underscore that the book is replete with warnings of danger in these methods, with prescriptions for what steps *must* preceed each stage, and with details of tight precautions absolutely necessary. Please, please, if you're tempted to try this stuff, read the book first, and, at the very least, do what he says.

The problems usually considered to be the concern of the therapy needed by us neurotics are, to Lilly, just those fears and anxieties which must be overcome before his methods can be fully utilized. Unrealizable programs, while tripping, are symptoms of taboo areas and repressed material. Sessions are full of such evasive defensive maneuvers as unprojectable images, flickering or distorted projections, intrusion of the external reality program, and inability to project on "blank screens". Evasions avoid programs too threatening for the subject. The repressions, their defenses, and the resulting program restrictions encountered with acid are clearly magnifications of the same effects while straight.

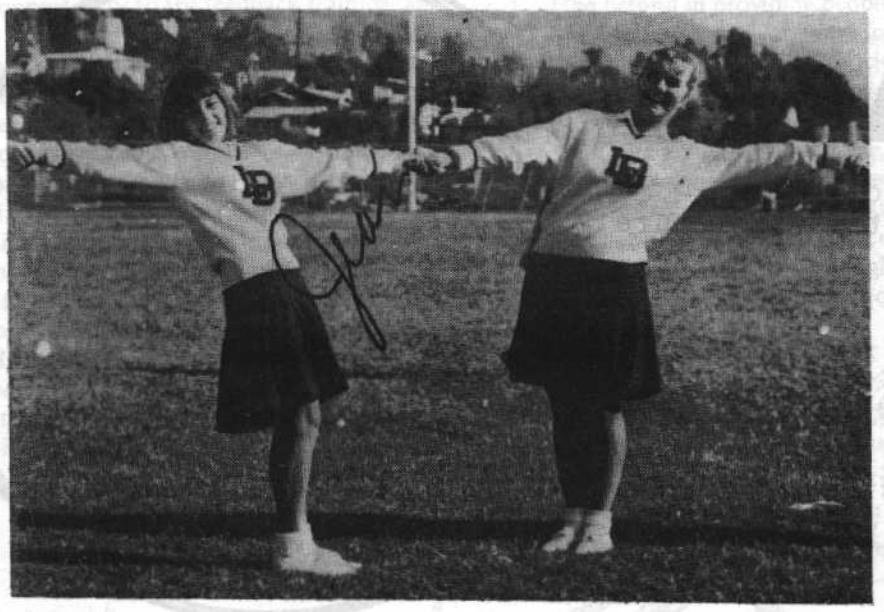
All that Lilly offers on this subject is: *"After a thorough exploration of the various evasive metaprograms, it can be shown that the only thing to fear in this area is fear itself, in overwhelming amounts. With sufficient training it can be shown that one can convert the motivational sign of the experienced emotion from negative to positive. As to whether or not one must go through some of the negative emoting in order to experience enough of the punishing aspects to avoid them is a moot point. A great deal of self-discipline is required in this instance to pursue the negatively tinged programs and metaprograms stored in memory."* Yeah, yeah, John, but this fearful stage is where *we're* at. What's this sufficient training like, man. Your moot point is our burning issue. You've been through it all, friend, why not lend some help where it's needed.

Although the book sidesteps this important topic of acid therapy (and I just got to recomment *LSD Psychotherapy* by W. V. Caldwell and the incredible forthcoming book by Stanislav Grof on that subject) it does have much to offer. The ease I experienced in writing this review alone convinced me of the use-value of the computer-model language; don't be too quick to belittle it as old hat. The mind-brain distinction is a fruitful one, and the notion of general purpose biocomputer becomes a neat simile for that hard to define phrase — self-actualized personality.

Most exciting to me are the prospects which Lilly maps out for self-experimentation once I can regularly (in my language) experience ego-death. Playing with basic belief hypotheses appeals greatly, and I look forward to discovering the details of my metacommand language. I am reluctant to give up my religious interpretation of disappearing boundaries of self, but I think I'm willing to submit it to experiment. Sensory deprivation is an intriguing notion and, while I may forego the 95° saltwater flotation tank, a dark · quiet bathtub trip is on my mind.

(Reviewed by Robert Willig)

high school



Danne Borgogno, Hillsdale High School television student graduated into teaching assistantship: *Don't stick that mike at me.*

Sukey Ginsberg, TV production teacher and Video Free American: *Well, was it the TV class that turned you on at first?*

Danne: *No, it was the equipment. I wanted to get into film. When I was a junior I talked to a guy who said I might like the TV class because I could play with cameras and maybe get some techniques down. My counselor said that I shouldn't take it because only one girl had taken it and she'd dropped out because she couldn't handle all the males in the class. He told me to take typing instead.*

But I got into the class anyway, and then found out that almost everyone else was taking it just to get credits. But I didn't care. We split up into crews and worked on assignments. We worked on a VW commercial, hauling all that Ampex 1" equipment outside, and we did a kiddies' show and a junior CBS newscast. We made up our own stories and did semi-scripted shows; it was like a drama class almost. None of the tapes we made were shown anywhere.

We were given mimeoed sheets at the beginning of each assignment and we had a deadline to make or we'd flunk the class and lose our credits; but it was fun being in that class. I used to cut school and come back for that class. It was mostly the equipment I liked. I guess it was an ego trip as much as anything else. You know, "I'm in charge of this. I'm running this piece of equipment." More of an ego trip than a fantasy trip.

Sukey: *Is it still?*

Danne: *Partly, but the Ampex equipment was more complicated to run than the Sony stuff, so it's easier to feel big while you're doing it. Also after a year and a half of working with the equipment, the novelty has worn off. I'm having fun; it's still an ego trip, but now there's a lot of thinking to be done about what I'm going to do with it.*

If you hadn't come I'd still be back there with dreams of CBS floating around in my head. I was going to be the only girl CBS cameraman. The TV teacher even got me the NABET code book. I was going to have a really fine job on one of the crews for a weekly serial or maybe the news so I could travel around and be rich. I thought of working for a TV station as a 9 to 5 job with my other trips on the side; I never thought of incorporating them. It's different now, a lot different, because I think I can integrate my life with video, by living with it and exploring myself and the people and things around me.

When I took a portapak home overnight once, I taped my room, panning all the objects in it about six times to get into each thing and see how I related to it. I'd like to do that with people instead of just objects.

If I can save enough money from being a T.A. at Hillsdale next year, three of us want to put in about $1500 apiece and buy first a portapak and then whatever good equipment is on the market at the time.

You and your attitudes changed me a lot.

High school students, as a group, have perhaps the greatest access to video equipment of anyone today.

TAPES TO EXCHANGE FROM THE SCRIPPS HIGH SCHOOL VIDEO-WORKSHOP

"Juvenile Justice" – a probe into the relationship between juveniles and the law: juvenile hall, the police, parents, the high school, 30 min.

"Ilios" – View of a school-within-a-school program, 15 minutes

"Pacific" – "the most radical high school in America", a personal view, 15 min.

"The San Francisco Peace March" – April 24, 1971, 30 minutes

CONTACT: Media Access, 1115 Merrill Street, Menlo Park, Ca. 94025.

CORPS TV

Twelve months ago we began a "Training Program" for poor teenagers (mostly high school dropouts) in a rural part of New Jersey under the sponsorship of the local Community Action Program (O.E.O. funded anti-poverty organization).

We started out with what seemed to be all the right ingredients – Department of Labor approved the purchase of $3,000 worth of video hardware, a local church donated space, local CATV system seemed cooperative and we could pay Neighborhood Youth Corps enrollees $1.60 per hour to work in the project. We stated some lofty objectives: developing marketable skills for poor kids in the growing field of CATV and video cassettes, giving the poor access to the information system in their community, using VTR for community organization, public relations and individual feedback.

Since starting, we have made some changes and many mistakes.

Hardware – One Sony portapak, one AV 5000 and one monitor was not enough equipment for six to ten kids at any one time. There was too much dead time. After four months of much use and abuse, the equipment was non-functioning about 25% of the time. To get the equipment repaired we had to travel 50 miles, wait about five days and usually had to bring the equipment back a second time to have it working correctly. Total cost for repairs – $500.

Software – We began "producing" tapes on organizations and social services for CATV origination. Since the homes of the kids did not have cable, the wider community reacted well, but not the kids. As we became less protective with the equipment and allowed the kids more freedom, many of the kids reacted well. They would take the portapak and RF unit for the weekend and involve family and neighbors in shooting and playback.

CATV – We originated fifteen hours of tape during the first six months. This included a debate between mayoral candidates, a public hearing of main issues of the campaign, inventory of social services and some sports events. Then some media barons bought out and merged the local CATV systems and are now cablecasting. The new owners are concerned with professionalism – clean edits, title boards, lighting, etc.

Methods – Our main mistake was "overkill". We tried to train production crews of 6–8 kids to work 30 hours a week. We had kids specializing in graphics, sound, camera and editing. It became too much like work and the kids became sick of role playing.

We are now in the process of buying more equipment and revising the program. We are going to expose all the Youth Corps kids, not just those in the video project, to the equipment. The VTR will be available to anyone individually and in groups to shoot, erase and edit if and when they want.

Most of the success of the project has involved the community at large. Town fathers, industry and local organizations have been investing in information by purchasing tape and cataloguing it. People are becoming aware of the possibilities of portable video and cable access.

Ken Ryan

The Scripps High School Video Workshop

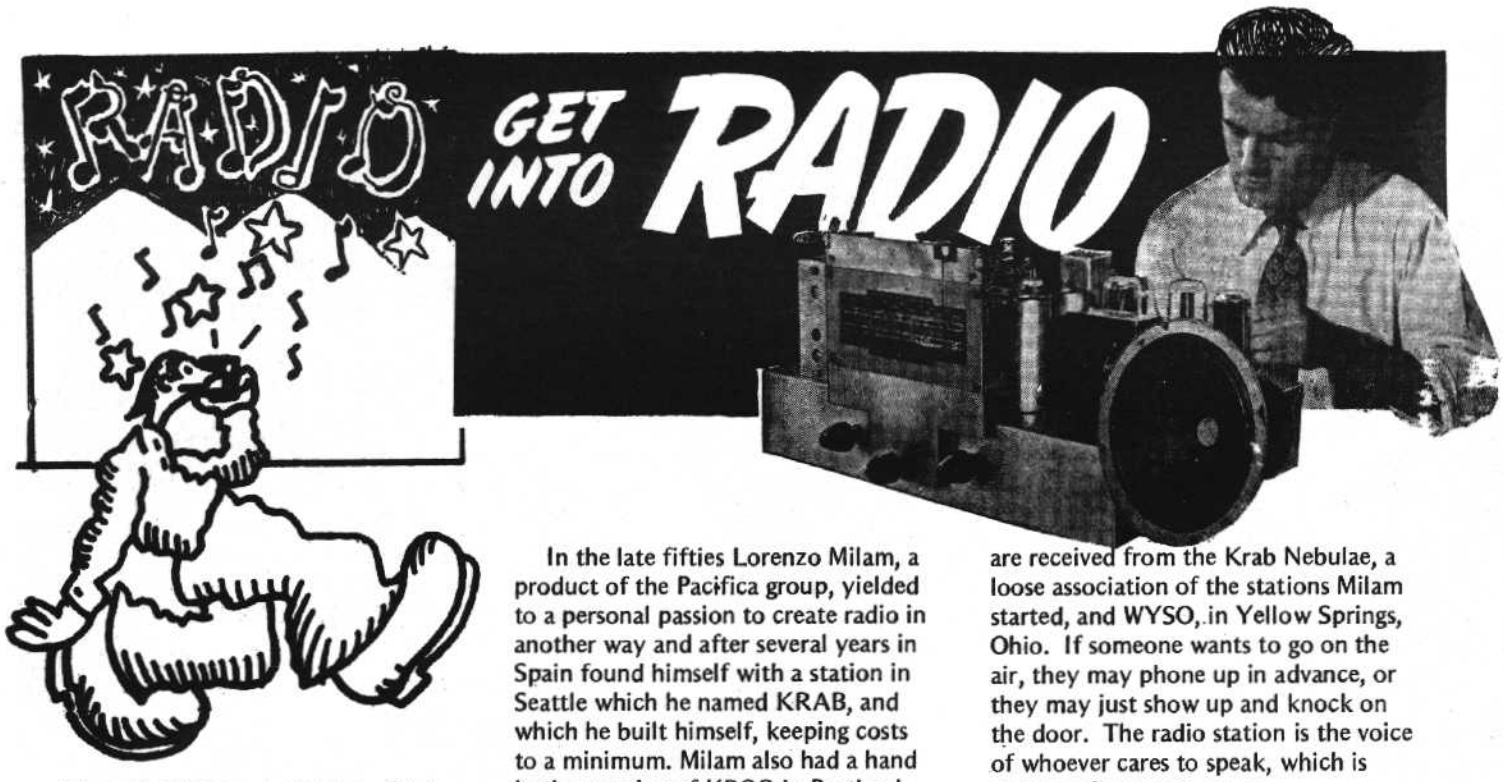
At 7 a.m. we rise to phone calls from kids – they want a portapak, or the one they have doesn't work, or the police department won't let them tape the juvenile holding cells. After school, kids shuffle into the workshop because their teacher heard about the possibility of their using our equipment. We spend about twenty minutes showing them how to use the camera and recorder – and send them off to the Safeway or McDonald's around the corner. They come back excited and chattering. After all, they just made a twenty-minute film of some old codger at the Salvation Army who didn't like the length of their hair. They rewind the tape, turn on the monitor and watch their creation play back over the TV screen from which Walter Cronkite, Laugh-In and Bronson usually vibrate. Some of the kids get so excited they show up the next week with five friends and a six-page script; some of them never come back again; some of them work for six months putting together a powerful document on juvenile justice.

This tape opens with an outside shot of juvenile hall and follows a fifteen-year-old, busted for the third time, as he goes through the booking process, gets weighed, receives hall clothes and bedding, and is locked into a bare cell for twenty-four hours. Episodes are interspersed with police officers talking about their manner of dealing with juvenile offenders. A public school dean describes how he busts kids in the classroom and a thirteen-year-old, arrested twelve times, encounters her psychiatrist father on their front lawn.

Most of the shooting was done in the last three weeks and editing took a day and a half, round the clock. It was produced, directed, shot and edited by eight high school students from the S.F. Mid-Peninsula. They are now beginning to take the tape around to high schools, showing it to kids in classes or after school, and talking about how they made it.

Energy levels shifted up and down and sometimes they went a month without shooting any tape. During the editing period, they hassled over their personal definitions of content, audience expectations, and editing bias. And they ended up producing a tape which suffers in spots from video rollover, poor lighting, and the audio idiosyncracies of the Sony 3650, but which is of extremely high value in terms of content and credibility. About half of the kids in the project are going further with tape: one girl is working with her Women's group; another is going to play a major role in producing a tape on high school kids and drugs.

Shelley Surpin and Pat Crowley

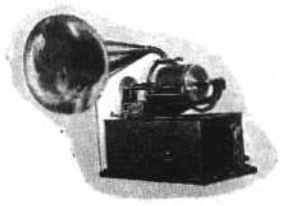


Up until 1949 most of the available radio frequencies in the United States were used only for commercial gain. Sure, in the process we got some fine programs of comedy, drama, melodrama, science fiction, mystery, and all of the rest; but for the most part a few people made a lot of money from the entertainment pleasures of the masses; and what was more destructive, the concept of entertainment was limited by those commercial interests who were lining their pockets as a result of their understanding of this great potential tool. Then in 1949 the Pacifica Foundation got the brilliant idea that those who listen to a given station might actually become part of the radio phenomenon by expressing their support in terms of a contribution to the operating costs of the station. The station, KPFA in Berkeley, began to speak intelligently rather than in a broadcast school blathering, useless drool. They went into the community at large which they served (reached) with their signal and used the community as a programming source. The community "saw" itself on radio. The Pacifica Stations grew after some struggle and they are currently four (KPFA, Berkeley; KPFT , Houston; KPFK, Los Angeles; and WBAI, New York) with a fifth in the birthing in Washington D.C. Everyone knows about them, but they aren't the only thing going; and some might feel they have become staid in their relatively old age.

In the late fifties Lorenzo Milam, a product of the Pacifica group, yielded to a personal passion to create radio in another way and after several years in Spain found himself with a station in Seattle which he named KRAB, and which he built himself, keeping costs to a minimum. Milam also had a hand in the creating of KBOO in Portland, KDNA in St. Louis, and KTAO in Los Gatos. KDNA in St. Louis is notable for my purposes in that it is currently the only station in the country which has taken the idea of community to its logical conclusion. KDNA started out as a commercial station, but after several months of struggle gained enough listener support so that it was possible to eliminate all commercial contracts. The station staff operates as a community, all living in a house in the ghetto in St. Louis. The community living aspect of the station inflicts some conflicts on the people who are involved in it, but it does build an interaction between living and communications. For the staff the radio is not a special thing, an idol. Instead, it is a responsibility, at times a chore, and a time obligation. Listeners provide the $4,000 a month it takes to operate the station and support the staff. Perhaps the most important aspect of the station is its open mike. A drunk who hangs out around the station came in and introduced a few of his favorite records in a slurred voice that was barely understandable, and two young black girls who were walking along in front of the station were invited to speak on the air when they asked if they really could. They spoke about Angela Davis and left. The element of ego involvement is reduced to a minimum in that spoken programs are scheduled randomly throughout the day as are any of the programs which are received from the Krab Nebulae, a loose association of the stations Milam started, and WYSO, in Yellow Springs, Ohio. If someone wants to go on the air, they may phone up in advance, or they may just show up and knock on the door. The radio station is the voice of whoever cares to speak, which is about as far as you can go.

KTAO in Los Gatos is a commercial station which is supplemented by listener support to a program guide. The station is operated primarily by volunteers which keeps operating costs down to about $3500 per month for 24 hour operation. KTAO is unique in that the management has sold 25% ownership for $2500 to an association of volunteers who operate the station. In addition, Milam, who formerly managed the station 24 hours a day, has turned over the responsibility for programming from 6pm to 6am to the Volunteer Association. This sets up a schizophrenic situation similar to the early days of a Philadelphia station, WDAS, which programmed classical music during the day and rock at night. An interview program on the station which dealt with educational experiments has attempted to receive funds from the Los Gatos city government for the establishment of a community resource network which would make available the volunteer talents of anyone in the community who cared to share his talents with another individual. This is significant in that city tax funds would be supporting an independent educational resource, and for the first time a commercial station would be in the position of serving the community with a resource exchange beyond lost-dog announcements and ride-requests.

Jeff Smith



For those of us who grew up before the great grey eye of television came to watch over us all — AM radio was the be-all and end-all of our lives. Late at night, with the tiny speaker under the pillow, listening to the music of Chicago, or the jazz of New Orleans, or the naked brothel sex voices out of Miami. Two or three in the morning — and there, transformed into a wandering wave into our ear — the sounds of a dozen cities; floating to us through cows and trees and bushes, distorted (slightly) by the Sporadic-E Layer, which did nothing to harm (by its distortion) the power of distance. Radio was an early (and faithful) lover to those of us in the pimple period of our lives.

L. Milam

TRUE to YOU

RADIO GIRL
Perfume

TEG'S 1994

This is an intriguing head-level future-history framed by the author's plea that you take what you like and spin off. In serial print-out form, Teg (a girl) maps out the 'idea-development' of thirty years past (communications era, early phases), in reference to her own post-1994 future designs. The strategy is to place your attention beyond the high visibility of new hardware and the current myth of decentralization, to free you to look backwards forwardly.

Teg's language is unrelenting communication jargon — facilitator, synergist, ecofacts, entropic this and that. I tend to think if you're sucked into mimicking this Theobald's on to you. There's not much here about non-print media forms, especially in a self-referencing context. Consider this one of the many white spaces to fill in your own projections.

—A.R.

TEG's 1994: An Anticipation of the Near Future
Robert Theobald and J.M. Scott
Mimeo form:
Personalized Secretarial Services
5045 North 12th Street
Phoenix, Arizona 85014
1-4 copies, **$5.00** postpaid
5+ copies, **$3.00** postpaid
Published form (Sept. 71):
Swallow Press
1139 S. Wabash
Chicago, Illinois
cloth: **$6.00**, paper: **$2.50**

We did successfully create an ecofact production system based on cybernation, an inter- and intra-communications system largely based on new information techniques, and a terran community system based on decentralization. It is now clear, however, that far too little thought was given during the eighties to the concomitant reinforcing of the human personality and human behavior patterns. At the present time, ecofact abundance is becoming insecure because people are too "lazy" to communicate their needs, residents of communities are beginning to re-experience anomie, sociofact-production is diminishing because community myths are no longer completely supportive, and ethnocentricism is reappearing because the divergence between community myths is accompanied by a breakdown in inter-community interaction as SITUATIONALs grow further and further apart.

AUTHOR'S COMMENTS ON READERS' RESPONSES

Others felt that we had underestimated the power of science and technology to change man:

. . . The image of MAN as opposed to the image of men both psychologically and physically (color) is certainly bound to undergo greater changes due to genetic interference, much before 1994, yet this does not seem to enter in as a consideration in the discussions of 'cultural divergence.' (Response 4)

HARDWARE

CONVERTING A TV TO A MONITOR

A professional studio monitor (e.g. Conrac or Tektronix) is an instrument of far greater precision, quality and cost than the average home TV receiver. Yet most receivers can easily be converted for use as an acceptable monitor when big studio standards are not demanded or within the budget.

With a bit of looking and asking, workable old black and white TVs can be scavenged for free or maybe $10.00 from individuals or repair shops. If you have the money and don't want the hassle of old equipment, decent quality new receivers can be found at discount houses for at least $100 less than an equivalent monitor. For example, Sony model 110 receiver sells for about $125 while the same TV factory equipped as a monitor (model CVM-11OU) lists for $230.

Because of lower market demand, monitor prices are inflated well beyond their technical advantages. The only difference between these two Sony models is the input and output jacks and a buffer circuit card. The buffer circuit card provides several features not really essential for monitor operation, such as input and output buffer amplifiers and an automatic mode switching feature. A good 11 inch monitor can be made from the model 110 receiver by the simple addition of input jacks plus a TV-external switch and output jacks (if you also want the machine as a receiver or to record from broadcasts).

To convert the model 110 receiver to monitor use, open the case and locate the video and signal circuit board. This board is on the same side of the set as the channel selector switch. It is about two inches by three inches in area, has a large area covered by a metal box which serves as an RF shield and is not loaded with components in one section. Also locate the deflection circuit board. This board is larger than the video board and has several power transistors with small heat sinks and some small iron core transformers. Between the video board and the deflection board are several shielded cables. One of these cables carries the composite video signal. Another cable from the video board to the volume control carries the audio signal.

Attach output jacks to the points on the video board from which the audio and video signals originate. Attach input jacks to the lines which had been going from these points to the deflection circuit and audio circuit boards. Attach a double pole single throw switch between these sets of connectors so that the unit may be used either as a monitor or a receiver.

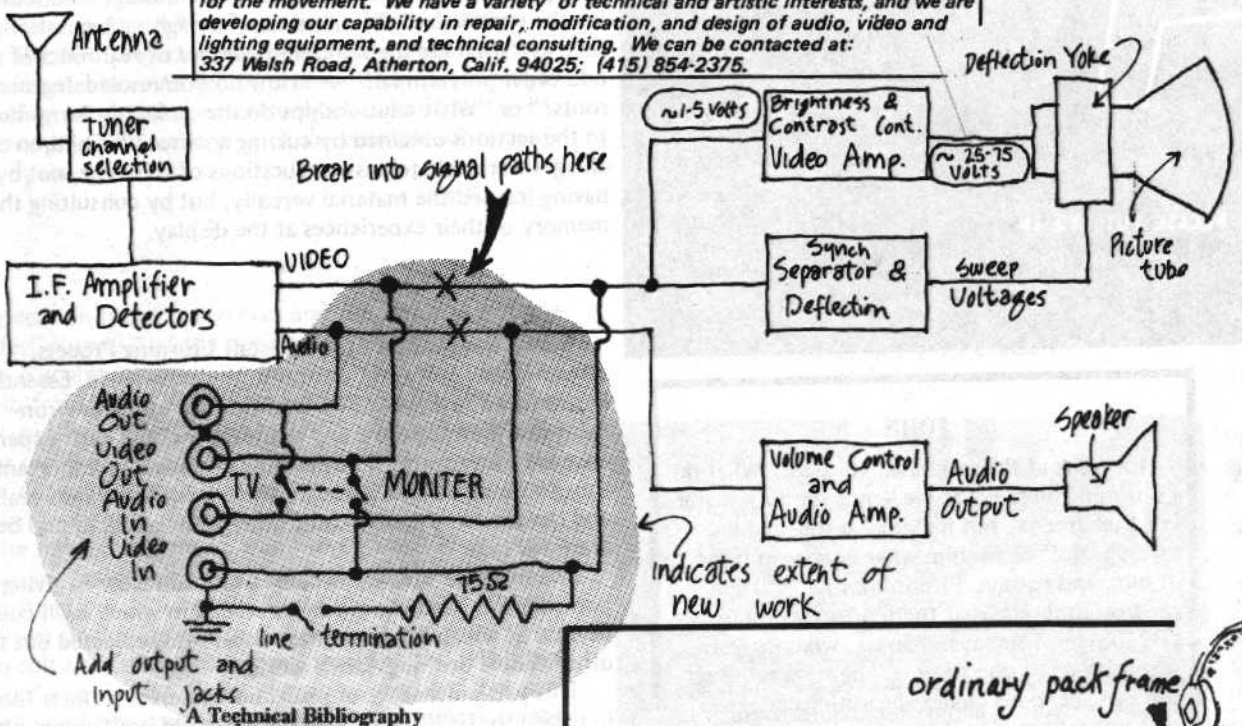
To verify that the cable which you are about to disconnect from the video board is the correct line, observe the input to this line from the video board. If you have an oscilloscope, it should show a composite video signal of amplitude 1 volt p-p when attached to this point. If you have another monitor, use it for this test by attaching its input to this point and verify that a decent signal results when the model 110 is tuned to a good station. A similar test can be done on the audio line with an oscilloscope or an external amplifier and speaker.

To convert other receivers, the following should be kept in mind:

1. Type and quality of synch circuit.
2. Gain of Video amplifier after the detector circuit.
3. Power line isolation transformer.
4. Type of connector to use for input and output.
5. Video signal voltage level, polarity and impedance available in existing circuit.

Dick Van Brunt

Apple Further Systems (including Dick Van Brunt) is a group providing technical support for alternative media, and working on communications/information tools for the movement. We have a variety of technical and artistic interests, and we are developing our capability in repair, modification, and design of audio, video and lighting equipment, and technical consulting. We can be contacted at: 337 Welsh Road, Atherton, Calif. 94025; (415) 854-2375.



A Technical Bibliography

The following list contains several books which may be useful in gaining and expanding knowledge of television equipment, applications and theory. It is by no means complete, especially in the area of video recording equipment. We would appreciate hearing other opinions on any of these books and learning of any other useful books, especially about half-inch recorders.

1. **Introduction to Solid-State Television Systems. Color and Black & White.** by Gerald L. Hansen. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1969. $15.00.

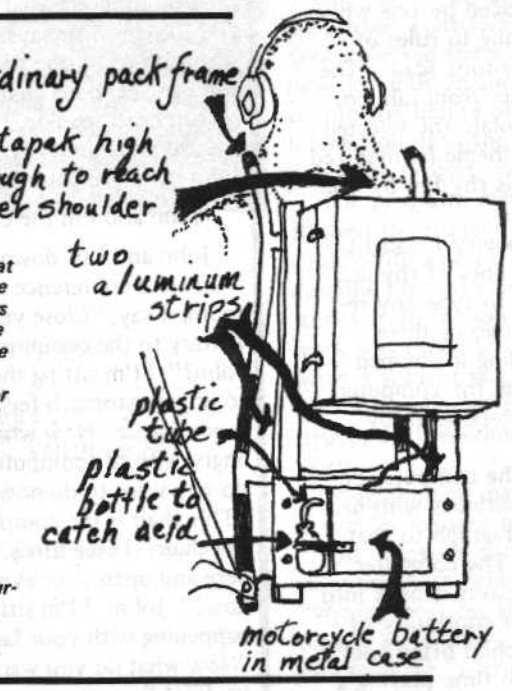
2. **Closed Circuit TV for Engineers and Technicians.** by Leonard C. Showalter, Howard W. Sams and Co., Inc. The Bobbs-Merrill Co., Inc. 1969. $8.95.

   Understandable and comprehensive like #1 above, but oriented more towards industrial than entertainment TV.

3. **Servicing Closed Circuit Television.** by Melvin Whitmer, Howard Sams & Co., Inc., The Bobbs-Merrill Co., Inc. 1967.

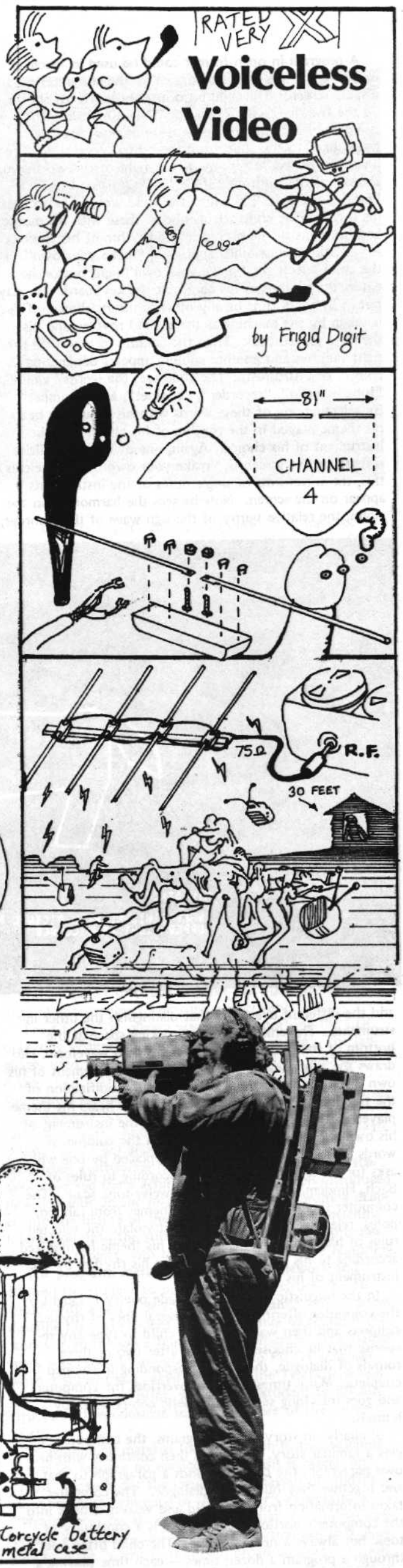
   Mainly a troubleshooting guide for repairing cameras, amplifiers, synch generators, etc. Many schematics. No treatment of recording equipment.

4. **Television Systems Maintenance.** by Harold E. Ennes. Howard Sams & Co., Inc., 1964. $5.95.



We have used this rig at Media Access fairly successfully but not that often, so we don't have the definitive answer on motorcycle batteries. Ours is a 12 volt Yuasa and plugs in where the batteries plug in through the hole for the RF unit. It seems to run about 4 hours and takes a half-day or overnight to recharge. Water should be added only when the battery has at least a partial charge and you shouldn't smoke around a charging battery as hydrogen is being given off.

When your portapak fuses blow out (and they will) change them yourself. Just remove the top grey plate and the fuse will be in plain sight.



FEEDBACK:
TV Monologue PsychoTherapy

Television helps mixed-up kids get in focus – on and off camera.

BY HARRY A. WILMER, M.D., Ph.D.

I was afraid of it at first. I didn't like the camera when I first sat here. I really had this thing about being really ugly, you know, and I didn't want the camera on me at all. Like in the meetings I'd hide my face or something because, you know, I really thought I was horrible looking and I didn't want it on tape or anything. The monologue was like my mon always said, "Someday you're going to wake up and see yourself like you really are, and then all these little things you are doing." Wow. Everything I did was wrong to mom. It drove me out of my mind.

I wanted to make another monologue later to see if I had improved. I had. I can't explain it, but I didn't feel like I was ugly any more.

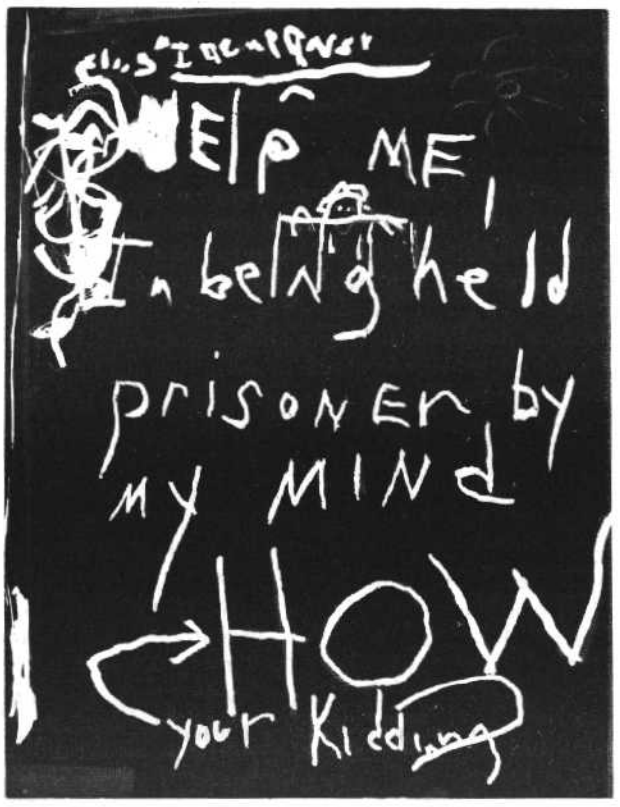
The patient was a 16-year-old girl in the youth drug ward located only nine blocks from the Haight-Ashbury district of San Francisco.

Because television is an instrument for social learning, television videotape with instant replay can be used in transactions of all types (including ward community meetings, psychodrama sessions, individual interviews, monologues, and random activities) as part of the feedback process for adolescent patients with problems related to the use of dangerous drugs. The philosophy of the television treatment program is to give a patient self-awareness, yet leave him free – to become involved, silently or actively, or to remain apart from the group. The evils of drugs should not be preached, and adjustment to the world should not be forced. The object is to let the patient see himself through his own eyes, his psychoanalyst's eyes, and the eyes of television.

Confronting one's own image on the television screen, an actor-audience experience, produces what I call "self-awakedness" – sudden turning-on of the self. Self-awaked-ness differs from ordinary social awareness in which the individual may turn to others for verification. Through self-awakedness, these young people who have withdrawn completely from society (often bent on oblivion, seeking rebirth and mystical existence – even death or madness) may find internal strengthening to help them endure the suffering in their lives and to renounce escape through self-destructive behavior and drugs.

As a condition for admission to the youth drug ward, the patients were required to sign a form giving legal consent to be videotaped, and minors needed written consent from their parents or guardians. (No applicant refused to give his consent.)

In this multimedia community that relied heavily on television, film, and audiotape, the monologue (an electronic all-at-once experience) became a symbolic ritual of initiation into the new electronic information environment. Many adolescent patients were withdrawn when they were first observed, and they had difficulty in relating verbally to others. They were overwhelmingly preoccupied with themselves and their own head hassles. Perhaps, they welcomed this TV experience because momentarily they became the center of the ward "universe". The monologue was used as a method of self-confrontation or as a way for the patient to present himself to his psychiatrist.



After several television group sessions, each patient admitted to the youth drug study unit was asked (on the second or third day) to make his videotape monologue. Instructions from a television technician were minimal; and the patient, alone in a room, faced the camera to do or say whatever he wished for approximately 15 minutes. After he "opened-up on camera", the tape was replayed for him immediately. He could choose to have it erased or to review it with his therapist. (Few refused to let others see the tapes.)

Monologues present the patient in ways that may be classified as: (1) predictive, diagnostic; (2) informational, historical; (3) behavioral representation of self; (4) psychotherapeutic effect; and (5) record of the patient at a given time and place. Dimensions of intimacy may be revealed by body movement, eye contact with the camera, movement toward and away from the camera, or total removal from the camera's view. Social skills, such as humor, imagination, and creativity, are revealed in the tapes. Time of eye contact with camera, speech nonfluencies, repetitive gestures or metaphors, specific references to time, persons, places, events, speed and volume of speech, silences, opening phrases and body touching can be tallied and measured objectively.

Some patients used the monologue as a pantomime experience; for others it was a psychodrama that incorporated whatever props they chose to bring. One patient used the monologue as a means of loosening her "uptight-straight" psychiatrist. She took off her clothes and did a topless dance! Needless to say, her doctor sat popeyed and dumbfounded when he pushed the button to discuss her monologue with her. This spectacular videotape revealed a great deal about the girl!

A few patients said nothing; their physical behavior was the domain of a highly revealing monologue. Sometimes, their mannerisms exemplified an overwhelming sense of inhibition and phobic reaction. More often, their soliloquy was a defiant and rejecting act toward the doctor and the community. In one such patient, this was clearly a re-enactment of his dominant childhood behavior, when he dared reveal nothing intimate for fear of being hurt, rejected, or given the silent treatment by his parents. Others, in their silence, acted like little children reverting to a kind of sign language, using playful self-distortion as they once did before mirrors.

Some patients talked excessively to avoid self-revelation. Others relied on objects to establish relationships (i.e., books and musical instruments.) Some read prepared autobiographies, and some read from books. One withdrawn schizophrenic patient read poetic essays from a book. When he saw that his time was running out, he proceeded to finish the book by turning page after page, reading only one line from each page. The total effect was Joyce-like, almost an epic poem.

One patient talked about his homosexuality; another about her love for her therapist. A young woman knitted throughout her monologue as she expressed (inner speech) her feelings about a friend's pregnancy and her own feelings about wanting a baby. Another girl sang a song she had written. One patient who was high on acid showed us what a trip was like.

Man's ego identity (his inner speech and inner dialogue) and his social identity are continually preparing him to present himself to others. In social discourse, instantaneous transformations are constantly taking place in response to the feedback from social perception to self. How is it possible to give man a tool to externalizs his inner speech and make it available to himself and others, to experience this exposition free from the contamination of human interaction? The television monologue seems to be this sort of tool, offering new vistas for self observation, individual counsel, and therapy. The technique can be used in groups. The playback of a group member's monologue can be used as a means for stimulating encounter groups.

A patient may tell a camera personal, intimate, or historical information that he will not tell his therapist. The monologue facilitates expression within the limits of the patient's internal censorship, and there is a kind of immunity in the monologue procedure. The patient has all of the stage to himself without a human parental surrogate facing him. After the television monologue gives the patient an opportunity to "open-up on camera", playback becomes FEEDBACK. The patient begins to see himself as he really is. Perhaps, replay means recovery.

EVERYMAN'S MOEBIUS STRIP

by Paul Ryan

A Moebius strip is a one-sided surface made by taking a long rectangle of paper, giving it a half-twist, and joining its ends. Any two points on the strip can be connected by starting at one point and tracing a line to the other without crossing over a boundary or lifting the pencil. The outside is the inside. The inside is the outside. Here the power of video is used to take in your own outside. When you see yourself on tape, you see the image you are presenting to the world. When you see yourself watching yourself on tape, you are seeing your real self, your "inside."

Harry Wilmer is a well-practiced master video therapist. Formerly with Langley-Porter in San Francisco, he is now at the Scott and White Clinic in Temple, Texas.

Other papers from Dr. Wilmer include:

1. Wilmer, H.A.: **Use of the Television Monologue with Adolescent Psychiatric Patients**, Amer. J. Psychiat. 126:1760–1766, 1970.

2. Wilmer, H.A.: **Television: Technical and Artistic Aspects of Videotape in Psychiatric Teaching**, J. Nerv. Ment. Dis. 144:204–233, 1967.

3. Wilmer, H.A.: **Innovative Uses of Videotape on a Psychiatric Ward**, Hosp. Community Psychiat. 19: 129–133, 1968.

4. Wilmer, H.A.: **The Undisguised Camera in Psychiatry**, Visual/Sonic Medicine 3:5–11, 1968.

5. Wilmer, H.A.: **Television as Participant Recorder**, Amer. J. Psychiat. 124:1157–1163, 1968.

6. Wilmer, H.A.: **The Vibes Are Good Doc**, Mayo Alumnus 5:1–8, 1969.

COMMUNITY ACCESS SCHEME

Early in 1970 we began experimenting with a borrowed two camera video unit. Our premises were a completely open definition of community video and a desire to provide video access to as large a number of people as possible. Working with these two concepts of community application and open access, the unit was out every three or four days for some seven months. Almost all of this work was done with free equipment and surplus computer-type tape on homemade reels. This cut our expenses to 80¢ per recording hour, or 2% (one fiftieth) of the normal cost, virtually free access to a sophisticated technology. The economy resulted in poorer image quality, but most of the projects could not have been undertaken otherwise.

The project which took on the greatest significance was the film "Soledad Brothers." Produced for the Soledad defense committee, it is being used extensively by them in organizing support for the Soledad Brothers and for prison reform. The film is a highly informational document which is generally shown in conjunction with speakers from the defense. This film was edited from some twelve hours of video taped interviews with ex-prisoners of Soledad, lawyers, and members of the Brothers' families. The production expense prior to making the transfer to film was $60. The transfer and first print cost $864. The cost of doing the original recording on film (over $5000) would have been well beyond the defense committee's resources. This project brought into focus for us the critical need at all levels in the community for meaningful access to communication tools. We were confronted with the enormous potential of video tape as a solution to the problems which have always frustrated the development of liberated media as a functioning community resource.

BASIC PROBLEMS FOR ANYONE COMMITTED TO ALTERNATIVE MEDIA:

Economics – How do we obtain maximum suitable production for the least money?

Distribution – How can we reach people in new ways – where they are? How can we increase the potential for reaching people with the information they need when they need it – quickly and cheaply? How can forms of distribution match most closely community needs on higher levels than simply showing films for fundraising and entertainment? This is really the question of developing decentralized information systems as opposed to trying to beat mass media at their own game of packaged information, predigested news, and insinuated messages.

Production – How can we supplement the role of the professional communications worker, whether the sympathetic documentarist or the network bureaucrat, with real participation by people involved in the focus of a given situation, the possibility of their finding roles in the actual production and developing their own forms of communication?

For example, a sympathetic portrayal of ghetto residents could be done by CBS News or the Maysles and it will basically feed back to the kind of liberal sentiment that produced that portrait. But a group of people creating their own documents, their own expression of themselves and their lives, their own skills in communication, is a challenge that demands our attention and respect, and only secondarily our possible sympathy.

THE POTENTIAL OF VIDEO TAPE

Portable video recording is revolutionizing communications. It is a much more accessible visual medium than film. Economically, film is beyond the reach of masses of people. Technically, film is a craft before it's a means of expression, requiring an enormous investment of energy separate from the communicating impulse. The initial outlay for video equipment is less than for equivalent motion picture equipment and video production expenses are a small fraction of film expenditure.

VIDEO TAPE RECORDING IS A SITUATIONAL PROCESS

Video tape recording is an instantaneous process, offering participants complete, immediate, and simple control over the entire recording circuit. The subject can become aware of himself as he appears in the medium and develop his expression in direct relation to the medium. The video camera can be as private an object as the movie camera, but can also be subject to collective access and instant criticism

EXTENDING VIDEO RECORDING AS A SOCIETAL PROCESS

Video tape recording is the tool with the greatest potential for developing communications as a means for a community to realize its own identity and needs. A community oriented video project could define a community, rather than simply defining an audience. The project will become most meaningful as the community defines itself.

A Video Project should function on three levels:

– As an independent, self-expressive unit.
– Working as a unit with the participation of those engaged in a specific project.
– Assisting groups in developing their own independent expression.

In practice the unit will not function categorically, but will develop as an experiment with the dynamics inherent in the video medium in relation to immediate social priorities and a vision of decentralized, liberated communications.

To return briefly to the problem of distribution within a decentralized information system, video cassettes and cable television both hold much promise but are in an early stage of development. Sixteen millimeter film is still the primary "alternative" medium. A temporary requirement of a video project would be, in effect, to produce films (via kinescope) to achieve maximum immediate distribution.

VIDEO/FILM

A one hour edited film (transferred from video tape via the kinescope process) to the internegative stage will cost $800 to $1000. The reproduction of a film from internegative is the least expensive method of obtaining multiple prints. A print of an hour long film then costs $110.

A one-copy transfer of an edited video tape to film costs $300 for an hour. Three groups can have twenty minute films done for $100 each if they are transferred at the same time and the basic lab fee for the kinescope set-up is shared. This would make it possible to produce monthly newsreels, for instance, which could be circulated for free by defense committees, ecology groups, tenant unions, free clinics, welfare rights organizations, and so on. The cost of simply producing and distributing video tapes is less than a dollar per minute.

These production costs will be borne, where possible, by the participants in a given project. If no such funds exist, the project can be completed through the taping and editing stages and funds can be sought on the basis of a funished tape. We should not overemphasize the film aspect – much work can be done purely as video tape, especially as video facilities and distribution increase. Within the next several years home video cassette units will become common. Video facilities are already a reality in the schools. In fact, tapes can now be played back on the tape deck of a portable unit wherever there is a TV set.

MODULAR STUDIO

The basic unit of the community video studio is the porta-pak, a compact, battery operated, one man sound and video recording and playback system. The porta-pak is relatively inexpensive ($1500) and can be easily operated by anyone, including the very young or those with no previous experience in the visual media. Expanding from this unit, our vision is a full scale studio and continuing video workshop. First we need six or more porta-paks to maximize availability. It will be necessary to provide some basic instruction in the use and care of the equipment, so we will institute regular workshops which will be an important feature of the overall project. For editing and playback we will add several video tape decks and monitors. This will enable us to set up video playback theaters anywhere and will also allow simultaneous and diverse use of the facility by several groups. In order to convert all this into a standard video studio, using multiple cameras and instant editing and special effects, we will add an electronic switching panel. This studio can produce video cassettes, films, and tapes for cable broadcast, and can involve the participation of a fairly large number of people. The complete facility costs $15,000.

Groups or collectives who have become involved to the extent of wanting to initiate their own production can obtain the porta-pak as their basic module and synch into the studio for editing and expanded production. The complete studio is inexpensive enough that similar studios could be established as local centers in a growing network. This decentralized system of community studios should eventually be complemented by a technical center for mass producing cassettes, for upgrading half inch tapes to two inch broadcast standard, for developing new designs and modifications for equipment systems, etcetera.

The time has come to make electronic communications as available as the leaflet, the poster, and the community newspaper.

Anyone interested in supporting this community video project please contact us at 16 Ashbury, San Francisco, Ca. 94117, 415-752-2604. We are Andy Fahrenwald, Jean Fahrenwald, and Bruce Schmiechen, sometimes called Alternetworks.

Sony Corporation of America/VTR Division
47-47 Van Dam Street
Long Island City, New York 11101

Gentlemen:

I own _____ portable unit(s) #AV3400 and/or have worked extensively with them in a variety of situations. I feel it my duty as a consumer to inform you of your product's performance in the field. One characteristic in particular has repeatedly come to my attention:

☐ **Machine rips, wrinkles, and generally mutilates videotapes**

- ☐ **Regularly**
- ☐ **Often**
- ☐ **Sometimes**
- ☐ **Every once in a while**
- ☐ **Only during important segments**

Sincerely,

Name_____

Address_____

_____

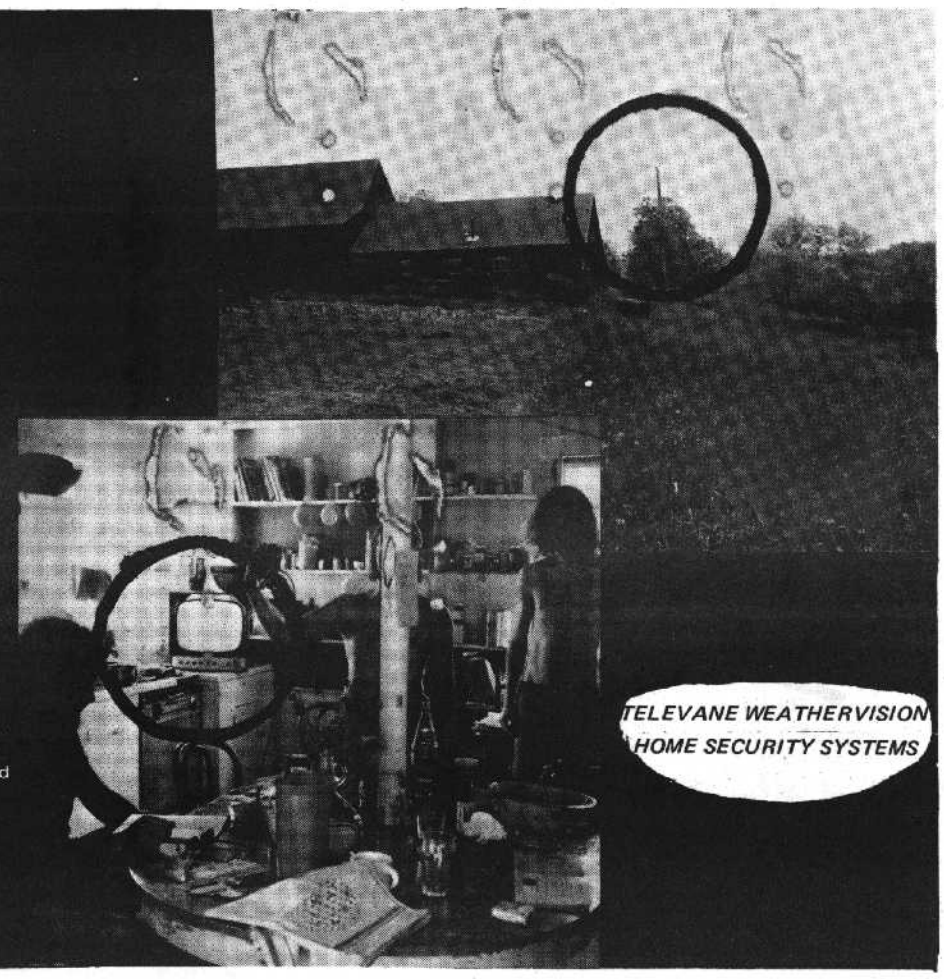
PROPOSAL TO NEW YORK STATE COUNCIL ON THE ARTS

FOR JULY AND AUGUST 1971

TV environmental communication between Central Park, Manhattan, and Prospect Park, Brooklyn, by microwave link relayed at the PanAm Building.

Inside a tentsorium at each location will be three 20' x 30' television projections. Audio and video communication and feedback --in real and delayed time-- will be presented at both locations.

PULSA



POPULAR MECHANICS JANUARY 1947

BY CLIFFORD B. HICKS

TOSSING a moving image into the atmosphere and snaring it on a receiving screen 50 miles away is a magic trick that was oversold to the public a decade ago. Yet not one person in 100,000 knows just how a program is televised or how good postwar television is. Getting your feet wet in television is a novel experience confirming optimistic reports that have circulated for years that video is ready to meet the public.

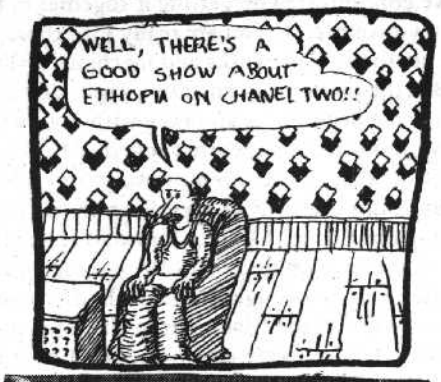
To a public sold on television a decade ago it's a distinct disappointment that telecasting, despite technical improvements, is still in the barnstorming phase. There are a few good programs today but much of the time the air is filled with second-rate entertainment. Some authorities estimate that five years will pass before high-class visual entertainment will flood the airwaves.

Why will there be a lag in good programs, now that good pictures can be broadcast? Video is chasing its own tail in a vicious circle. Sponsors won't invest big money in first-rate entertainment until there are several million receivers in the hands of the public. And a penny-wise public won't buy many sets until entertainment is first-rate.

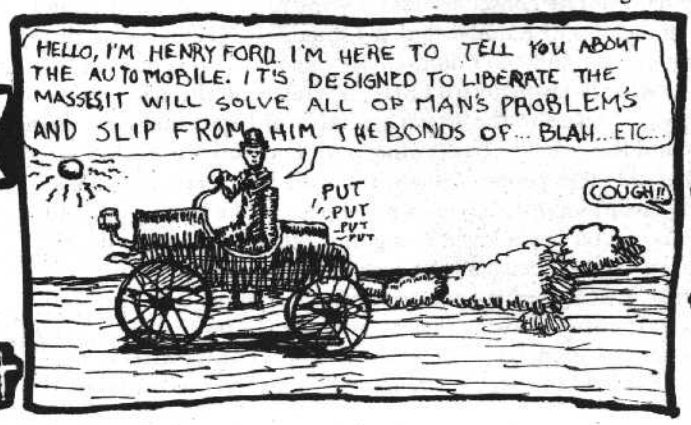
From the sponsor's standpoint it's just poor advertising to spend as much as $14,000 on a lavish show that will reach only 1400 people. Several large companies have spent thousands of dollars on telecasts to discover video's possibilities. One spokesman says "as far as we can tell in our company, our hours and dollars in television have not yet made a ripple in our total sales."

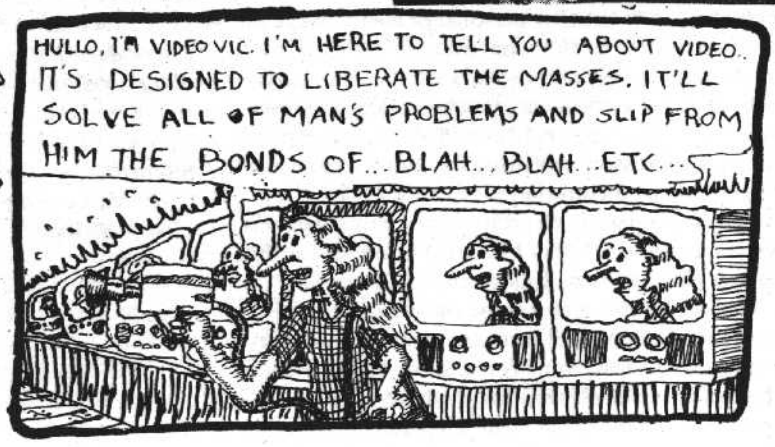
Old-timers say there's only one way that television can emerge from its vicious circle and climb into an upward spiral. Broadcasting stations themselves must lift the industry out by its bootstraps. They must provide the finest possible entertainment despite penny-pinching budgets. When programs are a little better a few more people will want receivers. When a few more receivers have been sold, advertisers will invest a few more dollars in better programs.

Will television ever replace radio and moving pictures? Experts doubt that any present form of entertainment will be outmoded. The housewife can listen to the radio while she works, but she can't watch a telecast. Television programs will be extremely popular in the evening and open broad opportunities for mass education. But most "television families" still will seek entertainment elsewhere. Half the fun of attending a movie or a stage show is "going out" for the evening. Television is a spanking new and different medium cutting across every field of entertainment but traveling its own road.



COMIX BY Peter Bartlett





In the last issue of *RADICAL SOFTWARE* (number 3), we detailed a plan for the distribution and exchange of videotapes. Our concept was that people themselves know best what information is useful to their lives so rather than producers who anticipate "markets" for video information, there has to be a system which reinforces indigenous information processes.

Our distribution plan had two modes. One was the outright sale of video software for money, or (less) money and blank videotape to do the copying on. The other was an information marketplace where one videotape maker could exchange software with another.

Then, out of the videotapes we received in exchange for our own (Raindance) software, we proposed to assemble a *Video Access Catalog*, which would be a program tape offering excerpts from the best tape coming in. That composite tape was then to have been available for outright sale by itself.

The final component of the distribution plan was the outright sale of videotapes made by individual producers to video centers like universities (and later homes via cassettes) which have playback equipment, an audience and money, but which have not yet begun to make their own tapes for distribution.

The availability of these tapes would be known through the *Video Access Catalog*, announcments in *RADICAL SOFTWARE*, and promotional mailings.

To avoid an overly centralized role on our part, we designed the system so that master tapes would stay with the producers and we would pass on sales orders to them so that they could do their own distribution. Or, they could agree to let us hold their masters and do their distribution for them.

In either case, we hoped that others would set up their own distribution system. To aid that process we pledged ourselves to *Process Print-Out* which would be a periodic debriefing of how the plan was going. Here is our first report:

In the past 3 months we have exchanged videotapes with 15 groups or individuals. We have sold tapes to 8 other people. (A complete listing of those transactions is in the box below.)

These sales were made at our original price structure of $55 an hour for outright purchase, $28 a half hour. That price includes blank tape, handling and mailing.

In addition to those sales and exchanges, we received some finished tapes whose producers want us to do distribution. Along with a sales form, they are listed on the inside back cover of this issue of *RADICAL SOFTWARE*.

Aside from the original publicity about the plan in *RADICAL SOFTWARE* number 3, the only sales attempt we made was a special mailing to our own list of people we know have playback equipment. We did this as part of an agreement to help distribute a composite videotape made by people at the Mayday demonstrations in Washington who called themselves the Mayday Video Coalition. Along with the Mayday tape we offered those listed in this issue.

These are our temporary conclusions:

The exchange part of the network has been more successful than the sales attempt. This is because most people actively involved in alternate television know each other while straight cash customers are just now learning of our work.

While we are buying blank videotape at below our original estimate, the rise in postal rates and low volume have led us to keep our sales prices the same.

PROCESS PRINT-OUT

VIDEOTAPE SALES: April thru June 1971

Purchaser	$ (raw tape) paid	Software sent (minutes)	Postage
1. JIM LANDIS	$65.00	Isle of Wight, Altamont, Woodstock (60)	picked-up
2. ANTIOCH COLLEGE Columbia, Maryland	$60 plus 2(60)	Tender is the Tape II (60) Clinton Project (60)	$1.42
3. CENTRAL MICHIGAN U. Mount Pleasant, Mich.	4(30 min. tapes)	Clinton Project (30) College Life, Buffalo (30)	$1.80
4. UNIVERSITY OF ALBERTA Alberta, Edmonton, Can.	$178.70 plus 6(60)	Best of the Raindance datta bank 6(60)	$24.76
5. H. KLEINFELTER	$55.00	Mayday (60)	no record
6. VIDEO THEATER PRODUCTIONS 24 Brighton Avenue Allston, Massachusetts	$90.00	Frost, Cleaver-Leary, Media Primer, Cuko (80)	$6.09
IN →		OUT →	

VIDEOTAPE EXCHANGES: April thru June 1971

Producer	Software (minutes)	Software (minutes)	Postage
1. COMMUNIVERSITY 211 Bay State Rd. Boston, Mass.	we initiated++	Tender is the Tape II (60)	picked-up
2. HARVEY KORNSPAN American Film Instit. Beverly Hills, Calif.	Los Angeles county art museum (20)	we dubbed his software on our tape and returned his tape	$2.20
3. CALIFORNIA INSTITUTE/ARTS Los Angeles, California	we initiated	Clinton Project (60)	$1.68
4. J.O. MALLENDER Villagatan I2 Helsinki 15, Finland	we initiated	Bucky Fuller, Wise Gallery show, New York scenes, St. Patrick's Day parade (60)	$6.00
5. Eric Siegel 110 W. 13th Street New York, N.Y.	Eric Siegel's N.Y: Central Park Environment April 1971	$20 royalty*	delivered
6. THE ULTIMATE MIRROR 308 West 82d Street New York, N.Y.	Ibiza	$20 royalty*	delivered
IN →		OUT →	

++no return software received for tapes we initiated as of July 8, 1971
*royalties paid by Raindance for tapes used at college gigs

Sales of videotape is not a self-supporting enterprise and definitely cannot yet support a straight exchange. (Our losses, however, are minimal, as we are using our existing hardware and administrative structure to handle requests. It receives support from *RADICAL SOFTWARE* sales, New York State Council on the Arts grant money, and consultancies.)

We are hesitant to push the plan and have it appear as something it is not intended to be (i.e. a super-slick "underground" videotape network mail order service.) However, we feel there is a difference between traditional marketing, where people are forced to buy; and access, where critical information is available to allow users to make their own decisions. Thus, we want to accelerate the availability of videotapes in as intelligent a manner as possible.

At this point our own affairs enter in. We have decided to relax business activities over the summer and concentrate on creative ones. This means our administrative structure will function solely on existing projects: *RADICAL SOFTWARE* distribution, preparation of a New York State index of video activity, and response to current (including this one) tape offers.

During the summer period (July and August) we are going to do a variety of things. Beryl and Ira will spend part of their time traveling and videotaping through the Mid- and Far West. They plan to attend a convention of the National Student Association in August (in Colorado) and see what interest heads of college governments have in a university tape exchange network.

Louis, Megan, and Jodie plan to remain in or near New York to administer distribution of tapes and circulation of *RADICAL SOFTWARE*, and help ease the transition to our new loft (see inside front cover).

Michael will be traveling and videotaping through Japan and the far East.

And Dean and Dudley will be working out of a country home in upstate New York on a local CATV project along with tape editing and duplication. They will also run student videotape workshops in conjunction with the Metropolitan Museum of Art.

In the fall, our current grant (which pays salaries) from the New York State Council on the Arts expires. While we have applied for renewal and expansion (to include computers in symbiosis with video), we are not planning on it. This is not out of pessimism, but because we want to maintain flexibility so that if we do receive more money it will aid an ongoing structure, not resuscitate a dying one.

Thus, the role of a distribution network becomes very important to our own future. If we are to do it, it has to be self-sustaining. And we need it to distribute our own videotapes.

Our distribution strategy will be a synergy of the intelligence we accumulate from visiting people and seeing their tape, and what they say their needs are.

We will implement it through personal contacts and our own mail order network which includes *RADICAL SOFTWARE* subscribers (more than 1,000 past and present), returns from questionnaires we have distributed asking people if they have hardware, and other mailing lists we have access to (e.g. Sony dealers, schools).

While we have only committed ourselves to six issues of *RADICAL SOFTWARE*, we now plan to maintain some print presence (with a less expensive and time-consuming format) and that will help maintain access to the network.

So, in short, we commit ourselves to making the network self-sustaining. (We may offer it as a service to groups with enough money to support an ongoing subscription.)

If you have tapes you think we can help with, if you want to exchange tape, or if you have general feedback, please let us know.

END

VIDEOTAPE EXCHANGES: April thru June 1971

Producer	Software (minutes)	Software (minutes)	Postage
7. HOMESKIN P.O. Box 3125 San Francisco	Doukhobors community in Skaskatchewan 2(30)	San Francisco Oil Spill (30); Ezekiel Family commune (30)	no record
8. MEDIA ACCESS CENTER 1115 Merrill Street Menlo Park, Calif.	Video Potatoes: California living composite (60)	Jack Moore European underground tapes 2(20) plus $30 royalty*	nr
9. ANTIOCH COLLEGE AV DEPT. Yellow Springs, Ohio	Ohio farm environment (20)	Clinton Project kids make own TV (30)	$1.07
10. JOHNNY VIDEOTAPE 465 9th Avenue Santa Cruz, Calif.	Economics of video (40)	Tender is the Tape II: Raindance composite (60)	
11. CHALLENGE FOR CHANGE Montreal, Canada	we initiated	Tender is the Tape II (60)	nr
12. STATE UNIV. OF NEW YORK Buffalo, New York	Composite: University life (60) & raw (60)	Yippies invade Frost, Cleaver (60); Altamont (60)	nr
13. BOB WITHERS 275 Dwight Street New Haven, Conn.	Abstractions (30)	Knowledge & Industry III: Raindance Media primer (30)	$.98
14. BLACK PANTHER PARTY BP 118 Grande Poste Algiers, Algeria	we initiated	D.C. demonstrations 1970, Nixon peace speech, moonwalk, astros party (80)	$6.09
15. BRIAN SMITH 2417 Dupont Ave. S. Minneapolis, Minn.	borrowed tape, software promised later	Clinton Project (30)	$2.40
16. ANT FARM 247 Gate 5 Road Sausalito, Calif.	Wild Seed: media nomad composite (30)	Raindance composite: double feedback, Altamont, rap on junkies 2(30)	picked-up
17. X-TV 9945 86 Avenue Edmonton, Canada	Electric Letter: sights of Edmonton, rock music, FLQ raps (20)	Clinton Project (20)	nr
18. FREE VIDEO P.O. Box 11 Station N Montreal, Canada	Free Video Festival, March 1971 (30) on (60) tape	Ecology edit, motorcycles, farming (60)	picked-up
19. SOURCE COALITION 2115 S Street NW Washington, D.C.	we initiated	Bucky Fuller, Nixon off-air (80)	picked-up
20. VIDIOTS c/o Fred Endsley UCLA Dickson Art Center Los Angeles, Calif.	Information Sampler: organic farming, jamming, studio work (20)	Bucky Fuller (30)	nr
IN →		OUT →	

*Royalties paid by Raindance for tapes used at college gigs

Biotopology 1972

by Warren Brodey

The following are excerpts from 1) a manuscript/letter recently received from Warren Brodey on the topology of klein form systems and 2) a transcription of the audio portion of a two hour video tape made by Andy Mann and Darcy Umstedter in which Warren relates klein form systems to bioptemes (biological optimizing systems) and contrasts these with mechy max (mechanical maximizing systems) which he thinks predominates in the mismanagement of the earth's ecology in ignorance or disregard of context [the extent to which all things (systems) are related].

TOPOLOGY is a non-metric elastic geometry. It is concerned with transformation of shapes and properties such as nearness, inside and outside. (Paul Ryan, *Radical Software* 3).

Compare the kind of space people are in who ask "Do you follow my line of reasoning?" and the space of those who ask, "Can you get into the space I am in?"

"Can you get into the space I am in" means asking the other people to loop through your style, your information arrangements, your habits, your epistemology, your language, and how you deal with the unanticipated.

Infolding: Imagine working through into depths with the help of a media that provides instantaneous feedback and thereby allows infolding with time, memory, energy, relation, no longer in the image of print. "Do you follow my line of reasoning?"

I am not a TV freak. I am a person engaged with a group in synthesizing actual plastic materials that use the *ecothink* in their working. The going is slow but the space is now clear in my head. We taped a discussion—each of us trying to catch what we thought had meaning. I might catch your face when you registered surprise at what your hands had just built. On the next infolding we would discuss what you expected and your surprise. We would use the TV to penetrate in depth the experience even as it happened and to penetrate the experience of the experience—the meta experience.

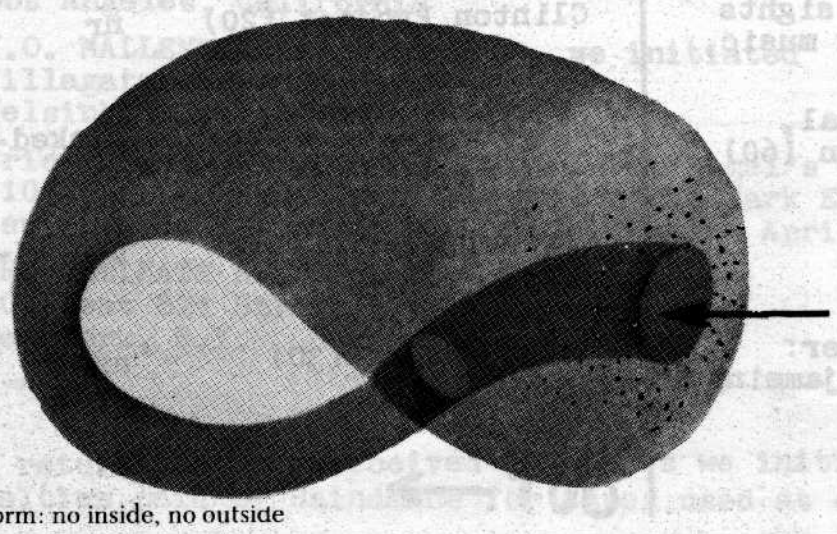
Paul talked about this in the last issue of *Radical Software:*

> Taping something new with yourself is a part uncontained
> To replay the tape for yourself is to contain it in your perceptual system
> Taping yourself playing with the replay is to contain both on a new tape
> To replay for oneself tape of self with tape of self is to contain that process in a new dimension
> Parts left out of that process are parts uncontained
> All of this is mapable on computer graphic terminals!

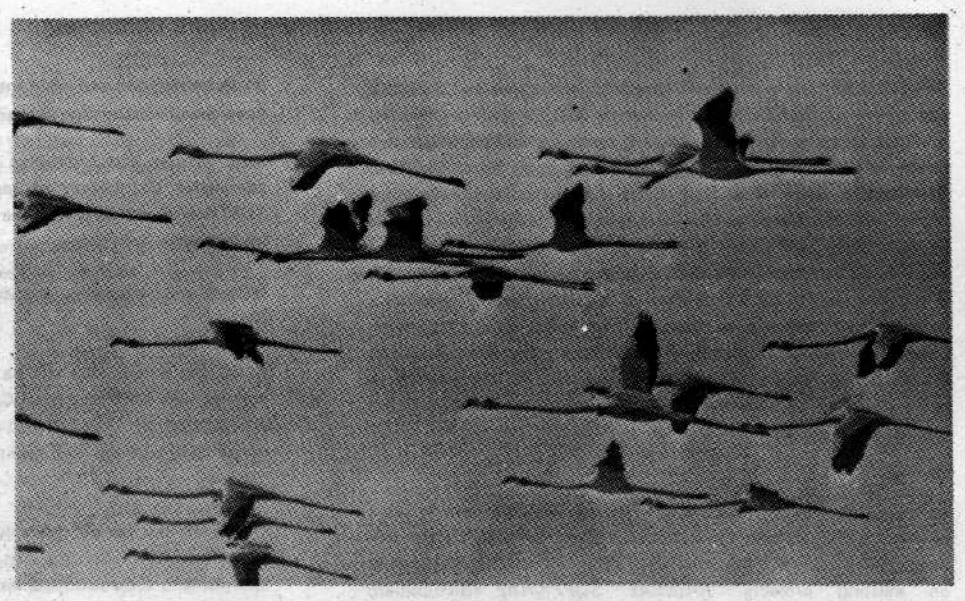
Infolding as it is described by many creators of *Radical Software* is really a radical, a powerful, a timely, and a materially significant happening. It takes us into a new space. Some of the readers, particularly Paul, would look at the tape we were making if this were an infolding session and show me my stubbornness in not seeing what they were telling me a year ago or more. But our group has been working in the same space with different media in hand—a responsive touch media instead of a visual one. Our child has asked for its launching. It is a frail being, almost unborn . . .

Now I would like you to take the trip into our space . . .
Do you anticipate enough value in this trip to sacrifice a sock of a stocking . . . for the sake of finding a way to stream through our new space? Do you? If you do peel off a stocking and move with me.

We can make a simple, soft klein bottle or klein form, and it will provide us with a simplex with which to synthesize complex structures which are "lively"—like living structures.



Klein form: no inside, no outside



First, cut the toe out of a stocking, stretch hose is better. Cut a slit near the knee; make it about the diameter of the toe. Fold the stocking over back on itself; put the toe in through the slit. Pull the toe free edge through (but not all the way through) til the free edge at the toe and thigh are adjacent. Now get a needle and thread. Sew the slit to the stocking coming through it. Sew the toe free edge to the thigh free edge. (See diagram of klein form)

Reach down the double tube. Your hand will go down the contained tube (what was the toe) through the slit to where it is uncontained and then around into the containing space between the toe and the thigh of the garment.

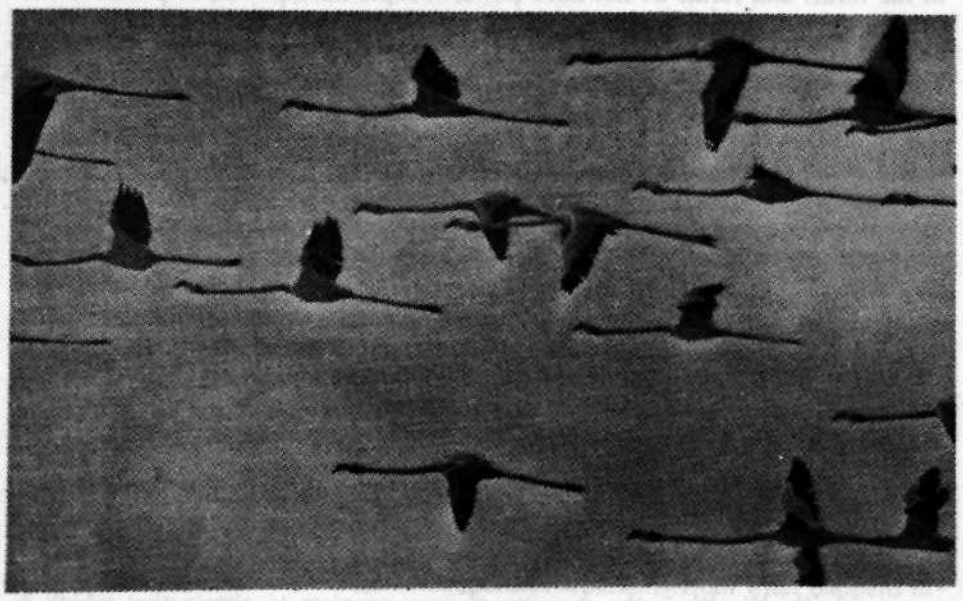
We are in very different territory.

In the past you started out with points; points went to lines; lines swept a surface in two dimensional forms. When you went to three dimensional forms the first form was a sphere, because that's the simplest; then from a sphere [you can make a hole in a sphere and stretch the sphere out (as far as topology is concerned, you're allowed to stretch everything)] you went to a donut; a donut to be a donut had to have a hole in the middle, and you could stretch it as much as you wanted but it still had a hole in it.

The klein form is different. There's no inside; there's no outside. Instead you have a contained tube and an uncontained tube, a contained hole and an uncontained hole from which you can make interlocking klein forms in a chain . . . Any part of the form can touch, contact, communicate with, flow with any other part, and the parts, the whole, in time flow through each other in a way the donut and sphere cannot. We have a quality of continuousness in the form and at the same time intracontainment or infolding; we have intrinsic to the form identifiable relationships that are not diadic (inside, outside) but are always at least triadic (context). There is no central governance or cooperative communication. There is enormous variation—the basic structure is so informationally rich that no two systems are sufficiently similar to value a same "thing" at the same time—indeed there are no "things" except as special cases.

The beauty about the klein form is that for the first time you are not captured by spheres or donuts. You can talk about a jet of air that goes up through the part of the klein form that is in contact with the external environment (where it is uncontained) and then becomes contained within itself and continues. For the first time you have a form which allows you to talk about something contained within itself . . . if I put my hand on my knee it forms a kind of hole where the "outside" is in complete contact with the arm and where the energy from my hand goes back through my body and *alters* what happens "outside" again as it passes from within my body down through my shoulder . . . I start to have a loop which is partly uncontained that is, really senses that which is outside itself, and partly contained, that is, it senses itself within itself. It is a form that begins to have the capacity to know about its own behavior as it behaves "outside," that is, in simple connection with the environment, and as it behaves "inside," as informational representation to the environment within itself.

Paul spoke of how the kleinworm has a capacity for anticipation and we find that anticipation has meaning only if we are considering a time-form geometry, a geometry of relations rather than things (no longer Newtonian geometry but an Einsteinian time-space form, a form that does not define time but is time that is by definition) . . . ("Taping something new with yourself is a part uncontained. To replay the tape for yourself is to contain it in your perceptual system . . .") When you model with a klein form you have to change your head around, because for the first time you can talk about time as influencing behavior. Consider the klein forms as being able to breathe. Let us say it is made of material with local energy that allows it to expand and contract. Image waves of contraction flowing in this material. The part that loops out into the environment—the unanticipated context—recurs through itself comparing the return with the rhythmic response on adjacent recursions. It changes its waveform to better maintain its intentional behavior. It is permeated by context. It has no walls. Yet it uses its structural infolding for maintaining itself changing in a sufficiently regular way to find new relations.



In biological systems rhythms pass through themselves interfering, augmenting, amplifying by setting resonant rhythms going which soak up energy which would otherwise be lost to relevant work. Rhythms that are more intracontained will tend to null out rhythms that are not convergent or that cannot find energies at the time they are needed . . .

To put it another way: Let's say you have a colony of birds and this colony of birds is in a mountain valley almost filling up the mountain valley, and the birds behave in the colony in a particular way that allows them to propagate so there are many more birds. The colony then becomes crowded, and individual birds start to behave in a crowded way; the colony is then changed. The way the colony changes influences the way the birds change. The way the birds change influences the way the colony changes, but the birds change and the colony's change are not simple additions; the colony is not made up of a million birds, nor is a bird made up of a colony, because there now starts to be *in time* an interaction, an active dynamic interaction between the single unit and the mass unit. The dynamic is not simply dividing the mass into the units. All of our theory and governmentology has been that the individual is simply a member of the class called mass. Now, however, we start to move to what the interaction is between the individual and the mass in a way that takes in the context which is beyond either the individual or the mass, that is, that which is contained around that totality; so we have always a system of three at least. You always have a context.

In the past all of our logic in all of our theory, in all of our ways of thinking, has been bound up with systems of two, systems basically true and false. But we know now that there's no such thing as high holy eternal noon, the time when all things are pure, because *things are always changing, because time always exists*. The klein form helps you get your head into a space where time starts to exist and where things are constantly in dynamic motion with a different kind of dynamic relationship than you get if you're talking about spheres. The concern used to be: how do you get the mass contained in the single member; how do you get the class contained in a member of the class. You could talk about how members made up the class but you could never talk about how the class made up the members; you were never able to talk about it with any geometric representation. But now people can talk about this in terms of triadic logic (the man who taught me what I know is Warren McCulloch, and Warren was searching for triadic logic in asking questions about things); that is, how do you set up a contexual logic so that your experiments aren't for the purpose of destroying context. Usually experiments are done so as to eliminate context . . . Now, if you eliminate context you're then into what I call *mechy max* systems. Mechy max systems are mechanical maximizing systems which operate by Newtonian physics, which operate like a clock with its clockworks. This is what Buckminster Fuller was talking about. There is for the clock a winder which is the energy source and there is the energy sync which is the fact that the hands of the clock go around; between the source and the sync are a number of levers of various sorts: wheels, ratchets, the great clumpers and the like, but *the output never effects the input;* there is always infinite source and infinite sync, infinite beginning and infinite end, and we find now that this is no longer a reasonable way to think. Now Bucky talks about spaceship earth and how man has to take it over, and I say bullshit, because man doesn't want to take anything over, because man is a part of the universe but he is not controller of the universe. Once you start to think that you must take it over it becomes like a Japanese garden. A Japanese garden is a garden that is arranged for man's purposes and basically has none of the mystery, none of the uncertainty . . . (literally I have talked with people from NASA, people who are high up in government who think of our taking over the whole earth, artificial climate, artificial creation of environments . . . of mechy max coming in, destroying the environment, and then recreating it . . .

The thing that you learn when you start to play the game of building biological systems (what I call *biological optimizing systems or bioptemes)* is that there is a context which man has nothing to do with and is not in any way in control of. There's no way to recreate biological systems, because in the recreation you do what you did with hybrid corn; you make a better corn except that all the corn is exactly the same as the next; if any disease comes along it wipes out everything. There's no flexibility; *man-made ecology is of necessity a low variety system because it only contains that variety which man can conceive of. An ecological system is a high variety system* . . . We're making "toys" which help us to think about ecology. In these biological systems that we're trying to create, however, we don't have control of the total system—we don't have control of the tools that we've built. "They" have a life of their own which is insensitive to the life that forms around them; each one is different from the next and if some part doesn't work it doesn't stop operating.

However, in a mechy max system, which is a clockwork, if one wheel stops turning the whole thing, because it's like a simple chain, and there's a weakest link, stops. If you have a densely interconnected system within itself where all the parts are connected with all the other parts, then all these parts are less densely connected with that which is outside which is the context; no two systems, then, are alike, and if any part dies, which it will, inevitably (because in some ways you try to make them as improperly, as inaccurately, as sloppily as you're able) . . . if any part dies then the thing just has a different way of going about its behaviors—it may not have the same behaviors, it may not have the same purposes, it may not achieve the same purposes, it may have different purposes . . . but death has occured naturally and in one clump which leaves a hole, and that hole is taken up by the regeneration and evolution of other species which fill the hole.

In mechy max systems there are no holes because everything is as uniform as possible.

I started out as a physician and with mechy max biology, the biology of low information systems, the biology of vision: you see something, but you're not aware of the *effect* of your seeing; you smell something and you're not aware of the *effect* of your smelling; you hear something and you're not aware of the *effect* of your hearing—your hearing is not active (you're not aware of its activity though actually it is active), but with touch and the sensuous world you start to get into if you touch something, then you touch it, it touches you; you move it, it moves you; you change it, it changes you, and it's happening simultaneously. You are no longer in the world of weak interconnection—when you're into densely connected systems you're into everything that happens effecting everything else that happens; when you're talking about densely interconnected systems you're talking always about *effect*. . . . In eastern philosophy you talk about breathing out as well as breathing in; in western philosophy you talk about breathing in—everything is in; everything is need, everything is desire. And *effect*, breathing out and the sense of breathing, the whole sense of rhythming is something that eastern philosophy brings us close to. Western philosophy is the world of things . . .

In mechy max systems, low variety systems, you have as I said toys which operate like clockwork. There are carnivore mechy max's that eat people and eat animals—military machines of all sorts; and there are herbivore mechy max's—the tractors and the cranes and the giant earth movers which eat up all the greenery and spit out lines of sugar cane, of corn, fields of cultivated plants that are domesticated plants. You have a whole field of one kind like a whole group of people of one kind. The herbivores also stack up mud into houses and into new apartment buildings and they proliferate more mechy max within this: washing machines, heaters; the mechy max have gradually been taking over the people and we have what we call plastic people, mechy max people. Biological systems become like Newtonian machines. People become like Newtonian machines. Their logic is like that.

photo: J. Sibert

Now the way this happened mostly is by the omnivores: the omnivores eat the herbivores, eat the carnivores. The omnivores are mostly made out of paper, out of form: they are called Internal Revenue Service, Social Security, health insurance, health center, mental health center. They are places where people are conditioned to act in mechy max ways; they are places where plants are conditioned so they will all be exactly the same as each other. Simplification in the mechy max style occurs by reducing the information to as low a level as possible by reducing the consequences of the environment as much as possible. The clock is so set up that the metals all counterbalance each other so that the heat changes *will not effect* the movement of the wheels and is not context or environment sensitive in any respect, that is, to reduce context sensitive. Biological systems operate quite to the contrary. Whatever happens, they have within them the capacity to cope so the animal is not taught, or he is not genetically made up to deal with a particular streaming of water; he's brought up to cope in such a way as to loop again the behavior of that which is outside himself, and go back and reconsider what was outside himself *in terms* of his behavior, and *recycle* his own behavior through himself *altering* it in such a way so as to maintain survival, or to evolve survival so as to relate to the external world.

Biological systems are not all made the same. People may seem in many ways more like each other than they are like monkeys or rabbits, but every person has entirely different characteristics from the next, except that these differences coalesce or converge each in its own recipe to mate people who are somewhat similar. Inherently though there are enormous differences between people. Some of that difference is not obvious. Some of the flexibility in any natural system is not apparent because it's not being used. It's stored, like with wild wheat. Wild wheat looks like wheat but all the different kinds of wild wheat have a different genetic structure, more different than wheat that's been carefully selected like the wheat we see in mechy max books—*quality controlled*. Everyone knows exactly what kind of wheat they're going to get. In real wild systems there is enormous flexibility because many different kinds of components mix in such a way that the mixture is convergent towards a product or towards a creature which is sort of naturally similar—the manifest behavior and rhythms and identity is similar, but what makes it up is different. The wildness is not used and is non-apparent, but if something happens to the environment the wild potential still allows changes to occur because the flexibility is there available. A kind of wild system has a capacity for maintaining itself that a domesticated system does not.

In the mechy max system you try to maximize particular behavior, simplistic behavior so as to accomplish the one simple purpose which may be for instance to scrape up earth; scraping up earth in such a way so as to destroy all of the green things; all of the worms and ants; the earth boring mechy max truck or scraping thing doesn't pay any attention to what it picks up. It tries to plant but it always replants in such a way as to destroy the variety: a meadow is not like a grassy lawn. There were meadows, meadows had bushes, the bushes lived by trees, and all of these, each part, was related to all other parts, and if anything came along, a big wind came along, it might destroy some of the trees but the bushes and the small trees would grow up again and if some grass eating thing came along, well, there are other forms of grass, but now you build lawns . . .

One cannot talk about genetics, Gregory Bateson's point, in terms of classes of animals and creatures. You can't talk about the genetics of deer or the evolution of deer. You have to talk about the evolution or genetics of deer in *relation* to grass and the evolution of plants. You can't separate the evolution of one particular aspect of life from another because when you think biologically then the whole world becomes interconnected and everything effects everything else, and everything contains everything else, and even beyond the world if you want to be spiritual about it, so that all things are in contact with everything else.

We are trying to develop a language of becoming; not a language of explaining which is what science has done, but a language of describing becoming which is what ecology's about, and not even explaining becoming, since everyone has within them the sense of the whole world in all of its parts. Our intuitive sense of becoming can be very rich provided we give up the mythology of the mechy max.

We're developing systems now that operate by touch, so if you touch them you intervene in their loops. They are not paying attention to you. They're paying attention to that you've interfered with their usual mode of operation. To reestablish their mode of operations they have to behave in particular ways that allow them to continue to exist in their style which is very different from their sensing you. They don't sense you as you, as a plant doesn't sense a tree as a tree. It senses that it has more shade and it must grow in a different way to find its sun. The other plant, the tree, in a way presses upon it; it becomes environment to it just as we are environment to each other and for the first time we can now talk about humans as environments to the rest of the world, or humans as environments to animals—we don't think of ourselves as the center of the world anymore; we're just environment, and there are many environments.

Mechy max organizations are doomed at this point because they're not capable of managing the high information level that people want and need in order to survive. We have to accept that we are continuous with biological systems and have never been otherwise. In biological systems control is explicit. The mechy max myth is government control of the people and the government is a set of forms (I'm not talking about human people—they lost control of the government); the government is a mechy max system like a great earth moving device that now moves people about like a big clock that has all sorts of ratchets and all the people have to fit into ratchet position; literally in government the positions you have are not related to the people—they're related to the positions in the forms and forms do not have power. People have power, so power to the people is a joke because the people already have the power, but they haven't exercised it . . .

Fuller is trying to reprogram the mechy max system to make it work better and my statement goes this way—the system is self-destructing now and the myth that the mechy max have power must now be destructed rather quickly among people. It's this attitude, that the mechy max have ultimate power, that the big machines have ultimate power, that has put us where we have been eating up all sorts of garbage, the machines put out in order to keep the system going . . . so we eat chicklets . . .

I went through the stores and through the city recently (I've been living and working in the country lately and getting along on very little money) and looked at the whole city in terms of the destruct that's going on because all the products that are made are really just a bi-product of tally—the mechy max omnivores is a paper system and its single purpose is tally; tally is money; money is just keeping tally; mechy max operates by keeping tally; the game has been how you maintain the tally as gross national product for example, population rate for example, interest rates for example—these are all tally forms, banking, insurance . . . all parasitic operations are tally systems of the mechy max—the money system. This is not wealth. Wealth is the capacity of any organism to obtain that which is necessary for its own survival, and more than that to obtain that which is necessary to optimize its evolution and to maintain a kind of evolutionary stability that allows everything the whole world over to continue to prosper in a way that's healthy . . .

I'm not talking about getting rid of all mechy max, however; (man's controlling nature was perfectly fine as long as he didn't have too much influence; it is just that the proliferation of the mechy max has become so enormous that the destruct not only of the mechy max but of the total earth is now possible); we are talking about biological optimizing systems. A maximum is where you try and get more and more and more; it grows and grows and grows; the bigger it is the better it is. If you don't think of optimal size, schooling is to pour more and more into your head and you no longer think of optimal pouring into your head in relationship to experience. There *are* optimal positions where you would have some mechy max but they wouldn't have grown like a cancer. Cancers kill their host and after a while the cancer dies because the person who has the cancer dies. Well the mechy max at this point, the industrial system, the tally system, is like cancer. It is now proceeding to kill its host which is the earth . . .

Up until now we haven't had anything to take the place of the mechy max mythology. We haven't had a sense of living systems, biological systems, being a totality; that the earth is a biological system; that the rocks are biological systems; that they're alive; that everything is alive but there are some things that seem much less alive: those are the rocks, the air. We must talk about these as special cases of living things which man basically has very little connection with because they're so different from man and he hardly comprehends their aliveness just as we don't comprehend really the aliveness of crickets. We comprehend better the aliveness of mice because mice are more like us—they're mammals; we don't comprehend reptiles; we don't comprehend birds as well as we do monkeys, because the metaphor of any biological system is itself, because it is *self-referent* and *self-organizing* . . . We were talking about the klein form; about effects at a distance returning to be infolded. That is, any biological system makes noise—it does things which are sort of trial and error and which don't get anywhere; that are fairly random. Those things which are random by definition don't persist; those things which converge into a behavior help to maintain the particular "thing" that has been going through trial and error behavior. If these converge, then the resultant behavior persists and we don't call it random anymore. Randomness or noise is the trial and error of biological systems.

Mechy max people proceed by considering things in a modular form—houses are ticky tack all like each other—or in uniform form. That is, all the ocean is like all the rest of the ocean. It's possible to dump atomic waste into the ocean because you know it will be diluted by the total ocean—but this does not occur. Atomic waste that's been dumped moves around in *clumps* in the ocean. It maintains its integrity; it stays together. The fish are alive. They concentrate the mercury and the mercury goes up the food chain and gets concentrated. Atomic waste gets concentrated. The world is of clumps and all the clumps are different—clumps of people are just different kinds of people.

The idea of clumps is very important because part of the mechy max mythology is that things start off as uniform and then develop into highly differentiated sets. This is not so. Everything starts out as highly differentiated from the outset though there are holes, discontinuities, which may be invaded by one set or another. Life processes operate against things becoming uniform and operate towards things becoming more highly differentiated.

One of the most fascinating problems is what happens when there is no leadership. In our cells there is no leader, but mechy max thinks of genetics as a great leadership system (as if genetics operates separately from what happens in the womb—what the mother ate, what kind of life she was leading).

You must start out with the fact that there are clumps. (Only God could organize from zero with everything uniform—that was in the mind of the religious people who organized from zero . . . it's interesting he organized in seven days, in rhythms.) . . .

Let's say you have a group of people together who are not together because there is a leader, but *are* a leaderless group. After a while they'll organize so that they get jobs done and sometimes they'll organize without a leader; sometimes they'll have a leader for a particular function—sometimes for a day or a month; all of this is different depending on the different kinds of people who happen to be in that group, so there's a natural type of organization that happens among a group of people, but it's not uniform. The rules are not the same across many cultures. Each culture has its own style. You don't start with randomness. Randomness and infinity are mechy max terms. Randomness as a continuous state can only be created with great difficulty; it's a mathematical state which doesn't occur in nature at all. What happens in nature is you get things grouping together in clumps which behave over time in such a way as they may continue to exist as a group . . .

. . . and these clumps can only come in contact with those things which are physically adjacent or that are informationally adjacent or rhythmically adjacent. If you have two systems which have similar rhythms and if the rhythms are slighty different they'll start to rhythm together . . . to form simpler rhythms. There may be many different kinds of instruments but the rhythms tend to group in clumps. If you think of our communication process then those things which have similar rhythms are able to speak to each other; those which are very different rhythms are not able to speak to each other. So there are different communications that occur between elements of a system which are of different rhythms . . . There's a certain kind of self-organization that occurs with a rock group making music together, or with two people making love. You may start when you're making love a new rhythm, but whether it'll catch on depends on where your partner's at and whether it's a random rhythm that has meaning and catches other random rhythms. What may start out as noise—that which does not have meaning, that which is not information, that which does not produce change—because at that point you're in transition, may be a rhythm your partner picks up on and plays back, and plays back again until a new rhythm is organized. You've gone through the transition into a new rhythm. What was noise becomes information, because it *did* have effect, it was that change which produced an effect. Rhythms tend to

Photo: J. Sibert

organize so that that which is relatively random and meaningless drops out, and that which was meaningless may be the very thing that sets off the next transition.

I have moved finally into the space which I call *eco-space*. Eco-space is self-referencing such that the existence of time and space and size and materials and energy are all in constant rhythmic motion so there is no way to repeat behavior. Eco-space is triadic. Eco-space is recursive. It is not a place of beginnings and endings, of inputs and outputs discreet from each other. Eco-space is auto-correlating . . . self-organizing . . . I have moved into rhythms, ecological rhythms. *The thing that's most constant when you're talking about nature and biology is rhythms and time things;* that's where the most important information lies, information being denied by in large by science. In our kleinform sponge there can be many currents and rhythms looping themselves and each other, spreading and flowing like a meadow or forest or like the living sponge in the sea, or the sea as a sponge: a current of water moves swiftly between two coral heads; it hits a back flow and is turned back, like the stocking looping outside then across through the flow jetting intra-contained through its own streaming. It intervenes in its own becoming. Dive into the water and surface through the bubbles you made and dive again. Wind back through yourself a tape of yourself talking and behaving so that you can relate to yourself as you will be when you watch the tape, then infold again.

A topology that uses rhythms intermingling and flowing around and through each other would let us build walls secondarily, rather than as categorical dividers. TV networks do not have walls . . . Swim in its currents, feel them, where the activity of the space changes abruptly, sediment—slower changing stuff—is laid down. The slow rhythm—a "now" memory, infolds and gives context to faster events which in turn give the slow rhythm meaning.

Scuba swimming deep in the ocean one can feel the eddys and rhythms of fluid filling the holes which one would have called cells. Coral reefs grow in slow time—slow rhythms wearing volcanic rivulets into bridges of sponge, volcanic bubbles and the sea twisting and turning *rhythms* the sand into ripples—and these ripples and sand spits *rhythm* the sea and the growing of coral and the wearing of rock—and all these are rhythms. Swimming below one knows one's own rhythms and the rhythms of breathing and blood and that nothing is still. Putting one's face mask close to the ripples of sand one can watch the grains flowing. But to sense that flow of slow things like sand, or equipment or hard wired programming—the flow of these walls, we must change our rhythm and swim in their time and size grain. Ten year interval time; equipment distribution size.

Time lapse in 10 year intervals. Focus for large size objects. "Now" is a 10 year duration.

Infolded time lapse taping will show the rapid change of events ordinarily called unchangeable. Time taping can be tailored to find patterns. When I was with Bateson in Hawaii we both longed for a series of time lapse shots of Honolulu showing the cancerously money producing developments destroying the cities' survival environment. Month by month one can see the cancer growing. Day by day it is hidden. By changing time grain of the taping appropriately, complex rhythms are simplified. Then one can feel the repititiousness and code the kind of information/materials/energy flow that follows one to glue into our new biotopology conceptions.

But here I must leave off. If you have followed me into this space you may lead me through the enormous holes I see all around me filling them with energy/information/materials/time which as it resonates, converges or dies, or provides the surprises which may evolve the means of survival.

We must leave the old space. There is no life there.

A 1 hour tape from which the above transciption was made is available. See inside back cover for tape offering.
Special credit and thanks from Warren to Paul, Gregory Bateson, Avery Johnson, Lita Osmundsen, Judy *Johnson,* Frank Gillette, Beryl *and many others.* . . .

See article by Avery Johnson entitled *Infolding Paul Ryan.*

INFOLDING PAUL RYAN: AVERY JOHNSON

May 7, 1971

Good article by Paul in the No. 3 issue and the mention of my name in it toward the end was quite pleasing. What I really dug, though, was his willingness to let on that these ideas were some that he was wondering about, rather than his having to make it seem as though he were writing about something he *knows*! It's a breath of fresh air that sweeps away the ubiquitous *mustiness* of expertise.

I would like to infold—to loop back into—his Part II: *Attempting a Calculus of Intention*. As Paul said, it was Warren McCulloch who challenged the basic simplicities accepted in textbooks as God-given premises. He was thinking hard about relevance, participation, containment, and the inevitability of self-reference particularly during the last years of his life at M.I.T., and everywhere he went. He was and is a strong man. I will always account it as my own extreme dumb luck to have known McCulloch closely for 15 years and for the first five of those I was part of his Neurophysiology Laboratory with a room next door to his office. Warren was a communal type, so I saw a lot of him, and he used to worry out loud to all of us about the problems that he was playing with.

He had another office—a place of thinking and rapping—the F&T Delicatessen near Kendall Square in Cambridge. Sharing his table was an exciting meta-education, and his eclectic search for a calculus of intention often dominated the conversation.

Spring of 1968 I asked McCulloch to teach a 1½ hour session of a weekly seminar I was holding at the M.I.T. Sloan School of Management. He agreed. The title he chose was: "The Implications of Complex Network Coupling and Triadic Relations" and I have a cherished tape of that class period. Only now, almost two years after his death, is its import beginning to lift into communicable pattern that which so many of us have been trying intensely but haltingly to reckon.

What follows has grown out of mulling over his lecture in the series of contexts we shared. I have not read deeply into the people and works that he referred to most often: Charles Saunders Pierce, Hegel, Aristotle, Gotthard Gunther, Turing, Russell, Goedel, and the Stoics, who seemed to have made inroads into the Logic of Relations. However, as I attempt to build upon his ideas, rearranged somewhat by my own wonderings, my hope is that a metalogue will ensue with *Radical Software*'s readership so that we can all wet our feet.

Warren McCulloch never did satisfy himself that he had a calculus of intention to work with, but he worked to get the questions right so that "youngsters", as he would say it, would recognize that they had the important answers. In any case, I doubt that he would have expected a relational calculus to reduce happily to words on paper—with or without diagrams. He would more likely have turned to videotape with its facility for infolding and self-reference as the appropriate medium for thinking and teaching about it.

Consider what you might do if you were trying to drive from Hometown, USA to New York City and you didn't have a map. The logical procedure is to follow the arrowhead end of the signs pointing toward NYC wherever they occur and just keep moving. Right. Now try finding your way home again, still without a map. Easy: follow the tail ends of the same signs! Or are those the same signs? They point toward the place from which I have just come, but which road does the tail point at? Where am I? The signs look the same but the countryside is different. How do I get home again? Always easy to get back to NYC, though. Might as well stay there.

. . . And that process, my friends, is very similar to what happened over the years to logic. The crude simplifications needed then are now habits; the old tricks, the value premises out of which the objective world is built, are impotent in a world demanding relevance.

In our daily dealings with each other, taking the world as it *seems* and as we wish it to become, we are operating at a level of complexity and of context-dependency where only a *Logic of Relations* could account formally for the intermingling of cross-couplings. Science, unfortunately, in its implacable search for writable truth, has been willing to settle for much less: Aristotle was interested in how to go about classifying things so as to set up a workable taxonomy to keep things straight for ever after. He succeeded in glueing the Western world into a *Logic of Classes* and its listedness: pigeon-holing named things. Simplifying further, there grew the *Logic of Propositions* wherein, for example, one might explore the set of all Truths: statements whose validity may be checked in a manner sufficiently context-free that anyone anywhere anytime may do the checking. The recipes for finding truth are unconcerned with consequences, but only with truth for its own sake. And at the bottom of the stack we find the *Logic of Predicates*, whose simple quality of if-this-then-that makes it easy to teach by rote. Repeat after me: "All men are mortal; Socrates is a man; therefore . . . . . "

The trouble is, though, that once you go down a step in that ladder—from relations to classes and so on—if you become less than satisfied with your ability to understand the world on the lower rung, you cannot make any formal arrangement of the pieces in your pile that will get you back up a step again. The manipulation of lists of named things does not map them into their relations. Sometimes you can be lucky, and if you look all at once at a sufficient number of the *relata* you may be able to see a *relation* clearly that is lost if the relata are considered in more fragmented groupings. Such is the nature of the reading of words or sentences at a glance—easy to do in the cases where the context is pervasive and already grasped; difficult when the material is unfamiliar or is as formal and context-independent as, say, mathematics.

Look at it for a moment as Pierce did. Aside from his proficiency as a logician, he was an interested chemist. The rare gases have no valence bonds; they are keeping their hands in their pockets and therefore make no compounds (except under extreme duress). Some elements have *one* hand out; the compounds they make aren't very interesting either: only pairs. Those that have *two* hands out, like sulphur, can make strings or can connect the string ends to make rings.

But when you start considering elements that have *three* hands out, you can make compounds as complex as you wish: two of them together can have up to four hands out, three can give you five, and so on.

All of the logics on the scale that one finds below the *Logic of Relations* are like the compounds that can be made with the elements that have one or two hands out. The building blocks are at best diadic: simple causes leading to predictable effects. The most complicated statements that can be built are at best rings or strings where "if-this-then-that" can lead from start to finish and produce a closed, formal structure—unassailed by time or by variations in the way that the facts are observed: the sort of "holy, high, eternal noon" of science.

If you have the temerity to insist upon a logic of relations which takes into account the *context* of the observations or statements of the world, then its building blocks must be triadic. That is, the elements relate cause and effect where the relatedness is determined by a third something which may arise in some other part of the structure—and which might not even have occurred yet! We'll take up this peculiar notion about statements of the future in a moment. For now, note only this: what we are seeking is a *Logic of Becoming* rather than simply a Logic of Being.

I say to you: A loves B.

In making that statement I am saying nothing essential nor measurable about A right at this moment, nor about B. What I am implying is something like: "If things go well with B, A will be happy about it." I am making a statement about A's process of becoming. We do not have a calculus to deal with such matters.

I say to you: It will rain tomorrow.

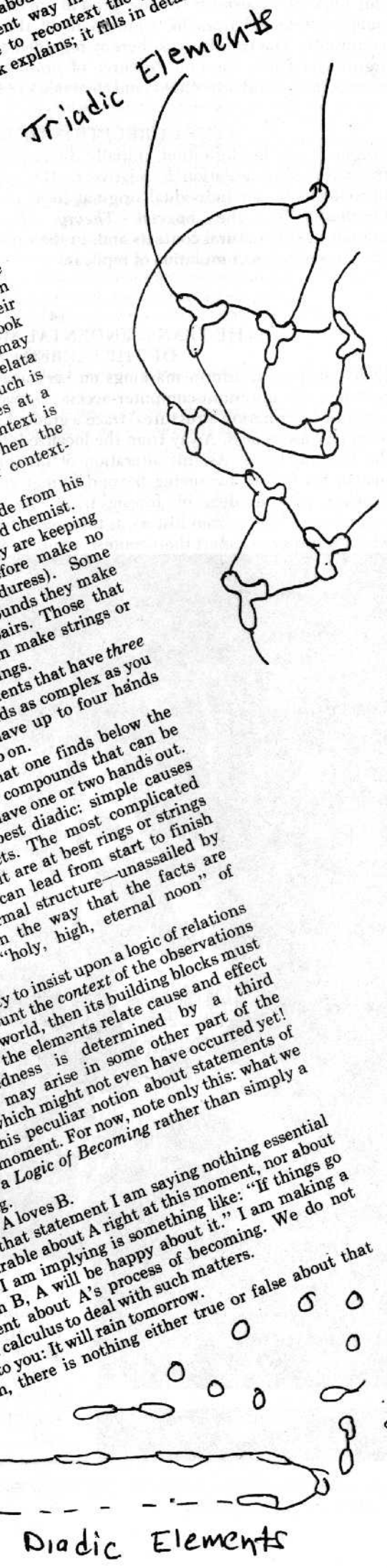
Again, there is nothing either true or false about that statement today, for what I am really saying is: "I think it will rain tomorrow; I know it will . . . .; I am sure . . . . . " The statement I make is necessarily self-referent back upon me—I infold myself as tomorrow infolds what I say of it today—and what I have to say about tomorrow's weather tells you something about *my* process of becoming. We have no calculus to deal with such statements.

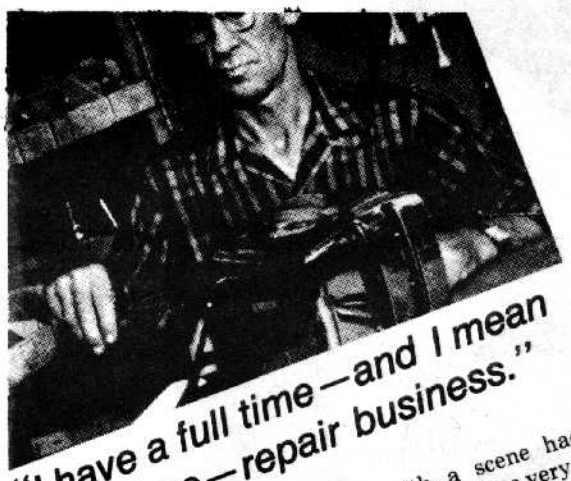
I ran a race. Is the verb transitive? No.

I ran a race. Self-referent. No calculus for it.

I ran *me* a race. Self-referent. No calculus for it.

Think about it, you video freaks! Think about the vastly different way in which flash-back and flash-forward serve to recontext the present. Very different. Flash-back explains; it fills in details and allows you to "see"





"I have a full time—and I mean full time—repair business."

more as if your familiarity with a scene had been improved. It provides background but does very little to immerse you in the context because it fails to put you into the scene along with the actors. The flash-back is someone else's memory, not yours, and it serves only weakly your power to anticipate the future course of present action.

But flash-forward is another matter. It puts you right into the scene because it allows you anticipation as an observer, demanding self-reference in your observations and imposing upon you the onus of identification with the process of becoming of the plot.

Let's go back for a moment and look at the diagram Paul Ryan included at the bottom center of his first page; he did so without much explanation of it. There is shown on the left THE SUN as a real entity. On the right there is a statement made about it: "THE SUN IS SHINING". Above all there is the "LEKTON", a name given by the Stoics to that "thing in your head like the fist in your hand". The Lekton may be identified with a real, neurological event, but its importance to the diagram is that it relates the other two parts. Together they make a minimal triad.

Paul's diagram was mislabelled in one aspect, so please do not be confused by it. Consider it as Pierce did. He said that THE SUN has *firstness* because it simply is; the statement was made and so it exists and has firstness, but it also may be true or else false and on that account it has *secondness*; likewise the LEKTON is (something physically happens in your head) and it may be true or false when it happens, but it also relates the other two and so, in addition to firstness and secondness, it has *thirdness*.

Look at another aspect of the diagram. The direct relationship between THE SUN and the statement about it is a strictly true or false one, and so it is the kind of relatedness with which science mostly chooses to deal. It's clean.

However, the relation between THE SUN and the LEKTON is subject to disturbances due to the ambiguities of perception: I may or may not have seen the event correctly. My camera may have been out of focus, or misdirected, or whatever. The relation between the LEKTON (which is the "that-which-can-be-said") and my actual statement "THE SUN IS SHINING" is further subject to the ambiguities of language—or editing, or presentation. This makes the Lekton damnably hard to study. When challenged to come out and reveal itself, it puts up a self-referent defense: "I think the sun is shining". The statement is looped back through the mental processes of the person making it: through the Lekton itself. There are many necessary and artful dodges available to an elegant mind that wishes to present its thoughts triadically.

One of them is statements by negation. Start listening and looking for them.

I say again to you: A loves B. What is the negation of that? Aristotle would only have settled for one: A does not love B. But would you believe that there are 11 more? You can negate the individual parts of the statement, or the whole thing, or parts first and then the whole thing, but it's often hard to see precisely the effect of the particular combination chosen. Generally, a statement of an intentional relation does not have a clear negation but the great variety of those available allow great complexity to be conveyed. Think on it:

A loves someone other than B.
It is not B whom A loves.
It is not A who loves B.
etc . . . . . and none of these say quite the same thing. The process of becoming for A that is being described is a little different each time.

I can go into the local pizza joint and ask for a combination mushroom, pepper, and onion pizza and for my trouble of spelling out the details I am charged $1.75 for a customized job. On the other hand, if I yell: "Calabrese and hold the tomato", I can have what I want for $1.45. By naming the broader context in the cook's experience and then modifying it through negation, my intention becomes more clearly perceptible to him, and it is quite irrelevant to him that the fragments of what I want are separate elements in another context. Description by carefully constructing a hole into which will fit the things you intend may be much more "real" than trying to describe its old kind of positive, contextless specifics. The common confusion is for the listener to demand a positive statement as if the careful work at negation were a non-specific attack, rather than a working definition of that which is to become.

Let me put it more usefully into your terms (at the risk of a bump on the head) by likening the use of video to what goes on in a newspaper. Pick up any reputable newspaper and do a brief experiment. By "reputable" I mean one that clearly separates reporting from editorial comment. Look at both kinds of writing. I can virtually guarantee that it will not take you long to convince yourself that good reportage never uses negation in stating the facts—while editorials abound with negative refinements of positive statements. The purpose of the editorial is to explore relations, while reporting is supposed to give the simple facts without imputing underlying relations to them.

Think of the ways in which you use statements by negation on videotape. Some might call it editing; some will say that you haven't given all the facts. Others might point out that you have to degrade the message in order to draw your audience into an involvement in fleshing it out for themselves. McLuhan would recommend cool statements: It's what you *don't* say that counts.

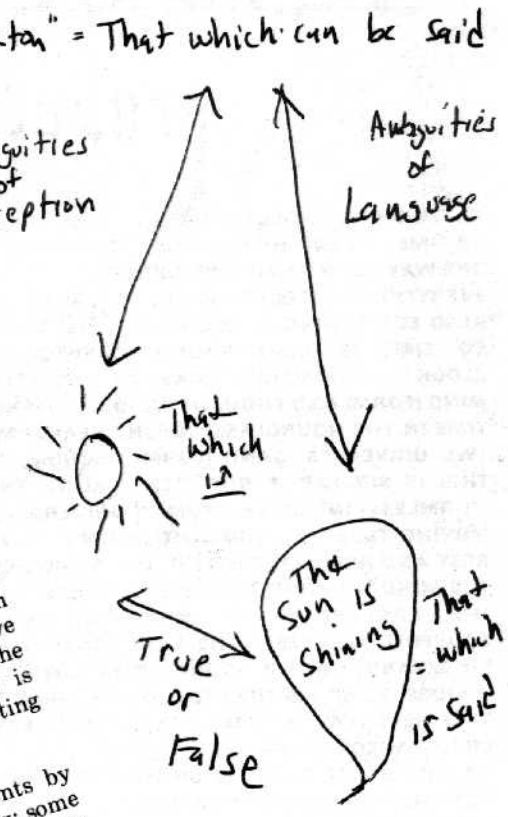
Finally, let's loop way back into Paul Ryan's Part I where he talked of Guerilla Warfare in general terms. It seems to me that guerilla action derives its power versus "the establishment and its cultural automatons" through its ability to shift the context of their encounters. That's what really throws someone off base: it's the power of the punchline in a joke. Establishment forces with their hierarchical chains of command from Johnson to Meadlo must necessarily operate in a context-free modality giving *positive*, unambiguous orders from the top down with consequences which never can loop back to the originator. And that's what makes them vulnerable. Guerilla action has the flexibility and the redundancy of potential command to make negative statements possible and thus cause its adversary to exhaust itself where it is not being attacked but might be. Alan Paton pointed out in "Too Late the Phalarope" that the jailer must watch all potential avenues of escape while the prisoner need only watch one.

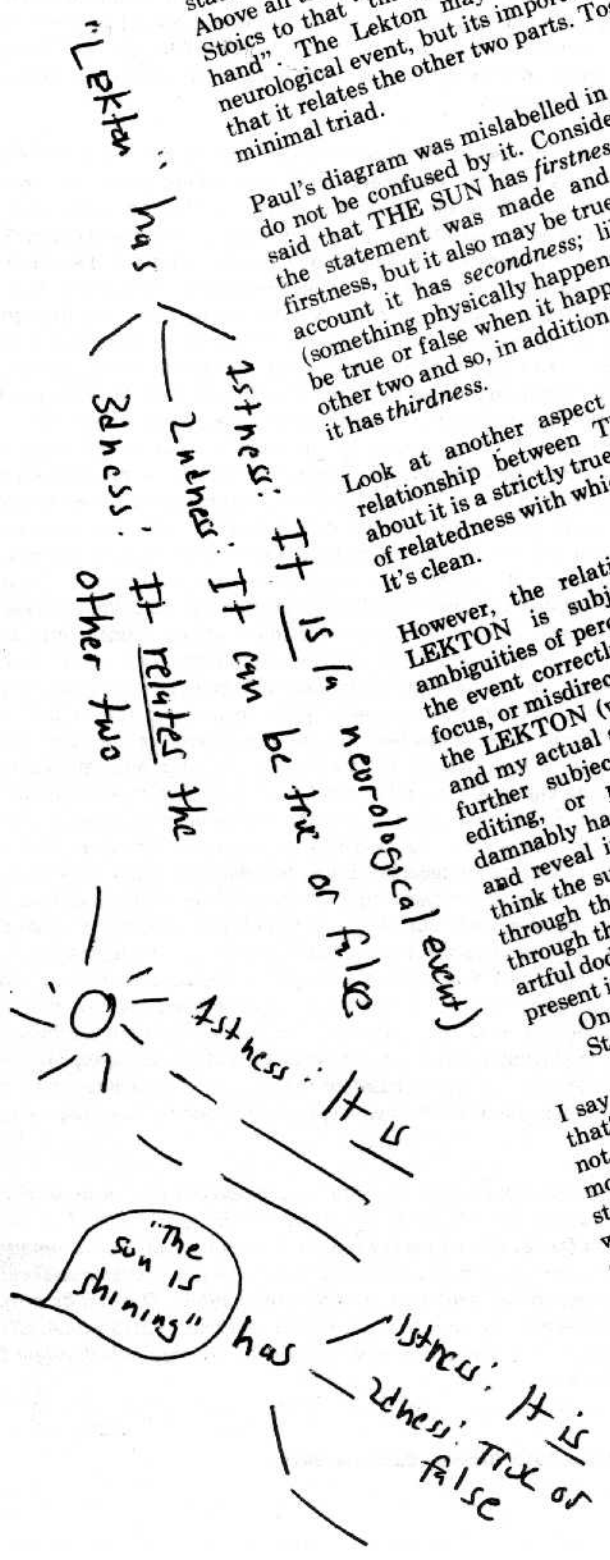
A conventional pyramidal chain of command must maintain its ambiguity levels below a narrow, tolerable limit or risk confusion and disassociation of its parts; guerilla forces must maintain a high level of ambiguity and must engage constantly in energetic, strongly self-referent explorations of the contexts of action—with attentive relaxation of those members not in the line of fire.

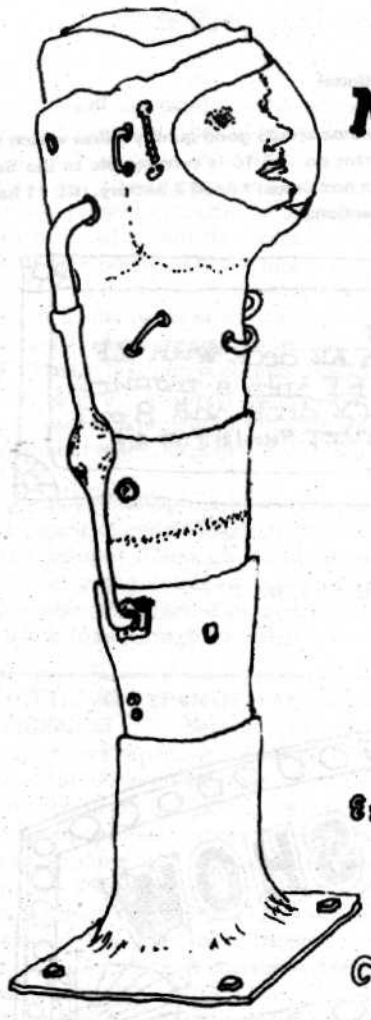
Lastly, let me comfort Paul somewhat in his wondering on what to do about deception as a tool of guerilla warfare—since deception is despicable. Think about it. In a society educated not to accept any statement simpler than a triadic one, the notion of deception is *meaningless*. Deception can only work when you can speak with a forked tongue; when the context of your words can be different for different hearers. If, on the other hand, your communications media can provide a rich opportunity for contextual explorations of your metaphors of expression, you need have no fear of deceiving anyone who is skilled in the perceptive arts. He will stand with you in the context you intend.

Anyone foolish enough to accept diadic statements of "truth" deserves to be deceived.

You can contact Avery Johnson at Ecology Tool & Toy, Armory Road, Milford, N.H. 03055.







NEW AGE COMMUNICATIONS MANUAL

EXCERPTS FROM A MANUAL

By PARRY TEASDALE
VIDEOFREEX
CONTACT:: % RAINDANCE

Sony is the General Motors of 1/2" video. The Sony Corp. is already responsible for six different video recording formats (two 2", one 1", the 3/4" cassette, and the old and new 1/2" formats) and they are not above making inscrutable references to new standards of portable recorders, none of which, it can be safely assumed, will be compatible with any existing equipment. Not only that, but the deficiencies that should have been corrected over the past few years have been either overlooked or over-ruled in favor of gimmickry and/or styling to the degree that it would not be unreasonable to expect a Sony portable with fins and a racing stripe rather than one with a more reliable playback system.

It seems impossible to convince Sony that anything less than a completely willing and ignorant consumer market exists where their video equipment is concerned. And, to a certain degree this has been true—up til now. But dissatisfaction with Sony is increasing due, in large part, to the advance publicity job that Ampex has done for its new cassette-recorder. The Ampex, although there appears to be only one prototype model in existence (and even it is not fully operational), has given the people who have seen it demonstrated or have read about it, enough of a taste of what they're missing (increased stability, self-threading etc.) to want to scrap Sony for good, at least in the portable field.

Another problem, although it is by no means true only of Sony, is that there is no real consumer feedback into the 1/2" video industry. It's a fact that the expanded uses and the tremendous wear that alternate culture freaks put on video equipment is a much better proving ground for the equipment than all of Sony's engineers with all of their test equipment and yet there is no way for Sony, or any other manufacturer, to receive that information on a regular basis, considering of course, that they wanted to hear it.

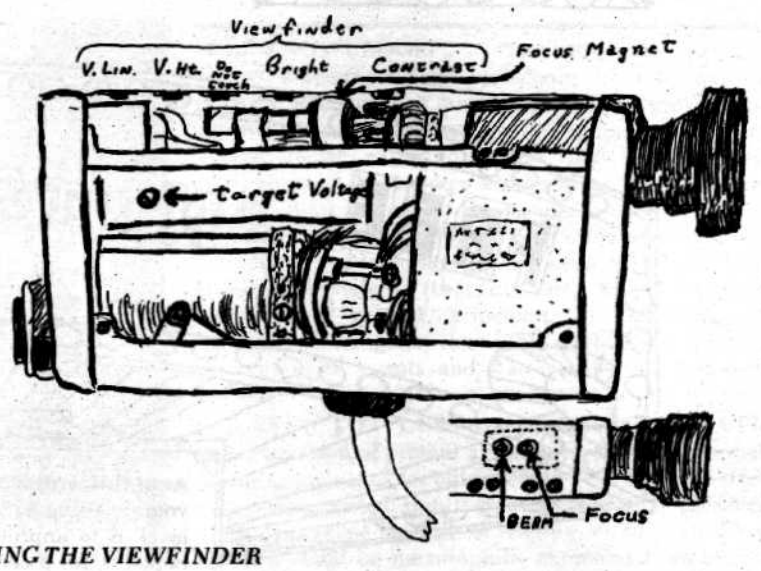
And the problems remain, like a sumo wrestler sitting squarely on our heads. The largest of them is that at this time, the video movement seems to be a one way street in terms of hardware, for if imports from Japan were suddenly to cease, the video movement, such as it is, would probably be forced out of existence from lack of the hardware around which it was created, and upon which it now depends. And, more realistically, since virtually all of the manufacturers are located in Japan (even Ampex is made by Toshiba) there is no way for a basically American movement, with as yet, little economic pull, to force positive responses out of huge foreign industries, like Sony. Even more disillusioning is the fact that, by comparison to other manufacturers, Sony looks quite good. Because Ampex is not yet on the market and probably won't be until at least this winter, Panasonic is the closest competitor. But Panasonic does not yet market a portable with playback. Their service is not near what Sony's is in video equipment and although their equipment is generally better engineered than Sony's, it is always much later on the market and can not always meet the demand of the individual consumer. The same criticisms are true, though to a much greater degree, of Shibaden and the other manufacturers. So as far as the "Fat Japs" are concerned, we ain't got it so good.

The work has already begun. Many new devices and improvements have been developed within the movement, but the burden of electronic awareness lies with the individual users of video equipment. If video people don't take it upon themselves to learn about, and fight, the rip-off, then they are part of it.

Since a good deal of the hardware in the movement, at this time, is based around Sony, most of the following information is related to Sony equipment. Because each manufacturer uses it own techniques and system it is suggested that Sony procedures not be tried on other equipment. There are places, however, where the information is of a general nature, and in each case that will be clearly specified.

AS FAR AS SERVICE GOES—IT'S GENERALLY A FUCKING RIP-OFF . . . and at the same time, service is the only faint phosphorescent glow on the video horizon. There's no reason why anyone should pay something like $15 to have a fuse changed on a portable recorder. There is absolutely nothing mystical about repairing a VTR and there is often no more charisma to the average video technician than a high school diploma and six weeks at a manufacturer's training school. It is true that there are many operations that untrained persons cannot and should not attempt without at least some expert guidance, but not being an auto mechanic doesn't stop most people from changing a flat tire on a car. Also, there are many systems (e.g. editing and duplicating) that can be set up just by thinking about what's needed and then rigging up the proper cables to do the job. In other words, you *can* do-it-yourself with video equipment and you can do it for the price of a few simple tools and connectors and perhaps the friendship of your smiling local Sony service center. The scariest thing about servicing any piece of video equipment is usually the price of having it done "professionally."

Venting the pent up venom of the video movement on the deaf ears of the industry does no good if there is no way to exert some pressure on that industry. For now, the movement can go through the back door by making local dealers and service centers aware of its presence. At the same time it must be creating and sustaining an alternative structure of production and services where the idea is not to compete, but rather to strengthen the movement through increasing its knowledge of how well the equipment functions, how much to expect from it, how it can best be utilized, modified and improved and, perhaps most important, how the movement—*as a movement*—can most effectively influence industry changes for higher quality and greater accessibility.



ADJUSTING THE VIEWFINDER

It's possible that after you use the portable camera for a while, the viewfinder monitor in the camera will slip out of adjustment. The symptoms are simply that what you see in the camera is not what you see on the monitor. Adjusting the viewfinder monitor has no effect on how the camera functions but proper viewfinder adjustment is essential if you are interested in what you are shooting while you are shooting it. If you believe that your viewfinder is out of adjustment and you have an RF adaptor or some way of plugging the camera into a monitor (e.g. a CMA 1 or 2) the procedure for setting up the viewfinder is as follows:

Connect the RF Out plug into a TV set, plug in the camera to the deck, focus it on a well lit, high contrast object (a TV test chart is the best), and adjust the camera and the TV to optimum picture. If the picture on the TV is a good representation of the scene the camera is seeing and the viewfinder monitor in the camera is markedly different from the picture on the TV screen, then there are four adjustments for the viewfinder monitor located on the circuit board that is to the right of the viewfinder monitor (with the lens of the camera pointed away from your body).

Unplug the camera and remove the camera cover. Replug the camera into the deck, making sure that none of the exposed parts of the camera are touching anything metallic. Put the deck back into "standby" mode.

The viewfinder controls are small black button shaped objects that extend out perpendicularly from the circuit board towards the viewfinder on thin, cardboard-like semicircular platforms. Each one has a small amount of white paint on it (the paint is put there at the factory in order to hold the adjustments made at the time of the original factory allignment).

There is only one other viewfinder adjustment that you might want to try and that's the focus magnet. Unfortunately, it can be one of the most tedious operations in 1/2" video repair. It's only necessary when the picture on the TV monitor is in focus and the picture on the viewfinder is not.

The focus magnet, a dark grey donut shaped ring, is located just in front of the copper wrapping (yoke) around the viewfinder. The top of the magnet is covered with wax. The wax is what holds it in place. If the magnet is jarred or if the wax either melts or comes loose then the magnet not only makes the out of focus, but also screws or keystones the picture on the viewfinder screen. The best tools for adjusting the magnet are a small hand held, hot air hair dryer and your fingers. The camera must be on during the adjustment and it's just a matter of your eye vs your patience. The wax should be heated with the hair dryer until it is pliable. Then the magnet should be moved back and forth until maximum focus is obtained and held in the proper position until the wax has had a chance to dry. Please, do not forget to keep the camera in optimum focus while you're trying to adjust the viewfinder focus magnet.

The most important thing to remember is that the viewfinder is not exactly analagous to a regular tv set. It is not adapted for regular adjustment. It's a pretty decent monitor for its size and limited usage and if it's not some sort of lemon and if your camera is in good shape electronically, it should need only infrequent adjustment.

REPLACING HANDLES

The weakest mechanical part on the portable Sony could be the handles that put the VTR in play and record. The biggest hassle in replacing them is waiting in line at Sony for the parts which must come by canoe from Japan. The plastic handles are simply extensions of metal shafts which engage the proper switches. By grabbing the broken end of the plastic handle with a pair of pliers and pulling firmly, the handle can be removed. To replace it, put a few drops of epoxy cement on the inside of the replacement handle and, if necessary, a few long shavings from a wooden matchstick to insure a snug fit, and firmly push the new handle back onto the shaft. Be careful not to use too much epoxy in order to avoid its spilling out and fouling some other part of the machine.

CHANGING A FUSE

Fuses seldom, if ever, blow out just for the hell of it, so if your fuse goes, look for the cause (bad battery wire, battery charger, or battery charter cable bad, etc.) before you replace the fuse. If you find the cause or if none is apparent, then it's time to replace the fuse, which Sony has conveniently placed under 8 screws and the top deck assembly.

Remove the reels from the deck.

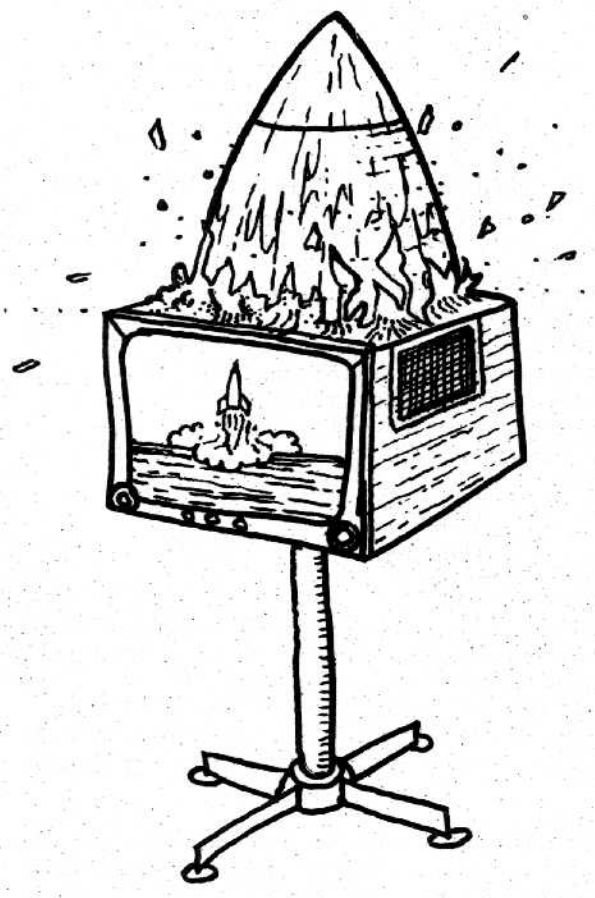
Remove the plastic head cover (the head cover is the silver colored piece with the "Sony" name plate and the hole, for the 'minutes' counter. It just snaps on and off of two posts underneath so there should be no problem if you just pull it straight up when you take it off).

Remove the 6 brown colored screws that hold the grey deck to the rest of the portable unit.

Remove the screw from the side of the "T" shaped plastic roller assembly cover. (In other words, the 1st white arrow in the threading path points toward a white roller, above that roller is a kind of roof that can be removed by taking out the screw which is directly above the head of the second arrow on the threading path.)

Remove white plastic roller assembly by unscrewing the phillips head on top of assembly.

Remove the grey deck called the escutcheon from the rest of the recorder by pulling it gently straight up (there are two places that you have some trouble with the deck catching, as you lift it off, but what ever you do, don't yank the deck off. It could slip and do more damage than a blown fuse. Both places that catch are on the guard rail that runs around the video heads (drum) assembly. There is a gurad plate in front of the audio head. Between that plate and the rail there is a piece of heavy black foam rubber attached to the guard rail which, since the guard rail comes off as part of the escutcheon, catches on the metal guard plate. The other trouble spot is on the video head area—called the drum assembly. There are hooks towards the bottom of the drum. They keep the tape from falling off the drum when the tension is released but they also catch when you take the grey deck off. Both of these problems can be overcome by manuevering the escutcheon around until it is free.



John Buck

Replace the fuse which is located just below the feed (upper) reel assembly. #3 amp., 250 volt fuses for AV3400—NOT SLOW BURN FUSES.

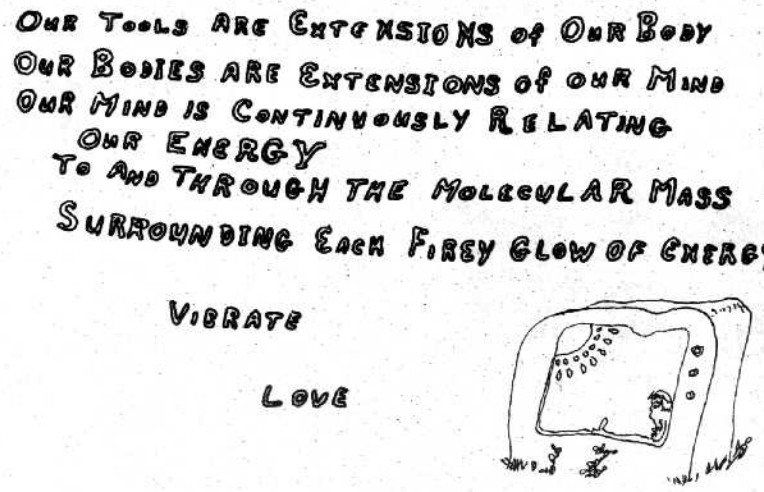
Replace escutcheon and roller assembly. The only thing to watch for is to see the silver colored spacers that sit between the screw holes nearest the feed reel, and the grey deck are in place. As you're taking the deck off, they may topple into the machine but they should be easily visible and they are very important. They keep the escutcheon from rubbing against the reel assembly as it turns.

PREVENTIVE MAINTENANCE

Cleaning and degaussing (de-magnitizing) the heads and the rest of the tape path are the two most important and essential parts of PM. Keeping an eye out for loose screws is a good idea also. Notorious for falling out are the screws on the latches on the AV3400 and the 3 small set screws on the 10 pin connectors (the camera cable connector). You will need a jeweler's screwdriver to tighten the screws on the 10 pin, but both those screws and the ones on the latches can be held in place by a little dab of fingernail polish which acts as a seal.

Also, check the wires that lead from the batteries to the deck. If they are frayed, burned, or otherwise mutillated, tape them up or replace them. The same goes for the battery wire connector. A replacement for it can be gotten at most electrical equipment and hi-fi stores.

The plug that goes from the battery charger (AC adaptor) into the deck is not indestructible nor is the plastic recepticle on the deck, so look before you insert the battery charger cable, the channel or groove on the connector is always on the side farthest from the camera cable connector. If you plug it in the wrong way, you can blow a fuse or worse.



SETTING UP THE CAMERA

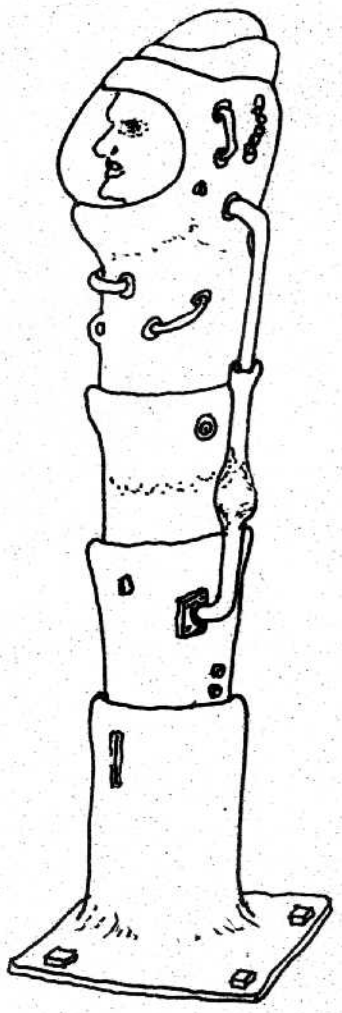
After long use, especially in low light, you may end up with what's called a "sticky" vidicon—one that retains after images. Or, you may find that there is a "bleached" effect on the camera in bright sunlight even when the F stop is as high as it will go. If either of these cases occurs, the beam and target voltages in the camera should be adjusted. There are precise, electronically measured settings for both beam and target but both can also be adjusted by the eye with relative effectiveness.

The Beam adjustment controls the intensity of the beam of electrons in the tube and functions as a brightness control. The Target controls the sensitivity of the face of the vidicon and is analogous to a contrast control. Both Beam and Target effect the overall sensitivity of the camera.

The optimum adjustment for the beam is accomplished by turning the adjustment knob (located next to the focus adjustment and just as fragile) clockwise until the picture on the viewfinder and/or monitor goes completely white (which is called blooming) and then backing off until the picture first reappears. Then the target voltage must be set to produce the desired picture. The target control is located in the rectangular silver box above the vidicon housing on the high voltage section side of the camera. It is another screw hole adjustment like the beam and focus and is also that same fragile type of adjustment.

The last adjustments you may want to make are the ones which effect the size and shape of the picture. These adjustments are best made with a test chart that gives accurate indications of linearity, height and center. Some expert help would be advisable here since charts differ and fouling up these adjustments can throw the camera out electronically as well as optically. For the brave or experimentally minded, these adjustments are located in the 4 holes parallel to the beam and focus holes. Starting from the eyepiece end of the camera and working forward the adjustments are—Vertical Linearity, Vertical Height, Vertical Center and horizontal center.

It's good to keep in mind that all of these adjustments (focus, beam, target, Vertical center, etc.) are not meant to be fooled around with because this camera wasn't designed that way. There are cameras where those adjustments are external and are supposed to be played with, but they're not portable . . . yet.



HAVE YOU PLACED YOUR BID?

MANHATTAN CABLE'S

THEA SKLOVER—OPEN CHANNEL

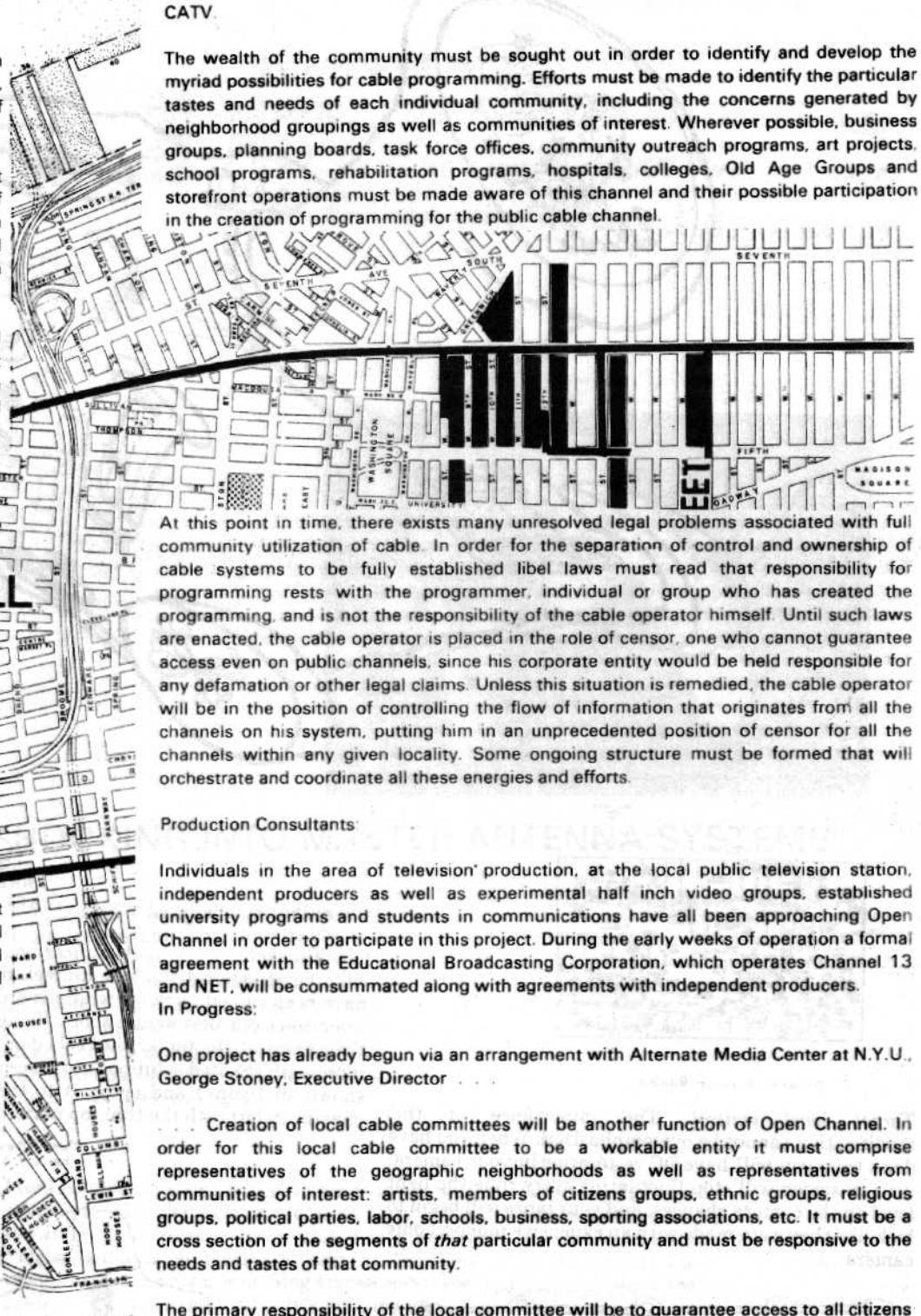
PROPOSAL FOR A PLANNING GRANT TO DEVELOP COMMUNITY PROGRAMMING AND CONTROL FOR PUBLIC CABLE CHANNELS

. . . Two or three years from now when the smoke clears and we stand and look over the growing wired landscape of our nation, there is little doubt that we shall find that the majority of the cable systems throughout this country will be owned by the large systems operator. Why? Current ownership patterns show that local municipalities tend to grant franchises to known entities. Generally that is true because it takes a tremendous amount of capital outlay to wire this nation properly for broad band communications. No matter what ruling the FCC may promulgate regarding preferential treatment for local public or non-commercial entities at franchise time, it is doubtful that there will be sufficient capital available for many non-profit cable ventures.

Consequently, it will be large corporate entities that will tend to own most of the cable in America—OWN but not control. Historically, these two words have become synonymous, ownership meaning control, but what is proposed is the concept of separation of ownership and control of this new communication medium.

What this suggests is that a diversity of ownership of cable systems is important and that it should be encouraged, but more important than who owns the system is the question of what programming, what software ultimately will come through that hardware system and what access is guaranteed to all members of the community. And that the crucial issue is the allocation of adequate channels for public use and control with built-in mechanisms for programming and production expertise.

New Yorkers who presently receive 10 channels of television reception by July 1971, will be receiving 17 channels and by the following year, 24 channels. According to the most recent state of the art, 42 channel systems are presently being installed in other cities in this country. The potential for increased capacity is dependent upon demand and legislation. However, the question of gravest concern is what information will be carried over those channels and who will control this.



Also in July, 1971, the two franchised cable operations in the borough of Manhattan must make available two public channels. This plan would seek to demonstrate on one channel what true neighborhood participation in the planning, programming and running of a local television outlet. By so doing, it would set a precedent for separation of control of local CATV channels and ownership of systems.

The fact that there are presently 80,000 homes wired for cable in the borough testifies to the rapidly growing acceptance of this form of television reception in New York City; therefore, it seems an excellent location for a demonstration of this nature. Additionally, it is imperative that some demonstration of positive use of this system be made at this point in time before we find that the fate of the radio industry is replicated in the development of this new phenomenon.

PROBLEMS CONCERNING PUBLIC UTILIZATION OF CATV:

Information:

One of the principle problems is informing the public of the availability and the potentiality of CATV. They must be told what it could be, how it might be used and given a mechanism which will enable them to make competent use of that potential. It is thought by some that if a common carrier status was achieved by cable that would alleviate all of the problems related to public use. However, it is not enough to merely say that channels are available to all without providing a structure designed to encourage their use and to offer adequate money and expertise for the creation of programming. Availability without these back-up services will not accomplish the goal of access for all nor create the type of programming that will attract the interest and support of the community.

Resources within the community must be identified and their participation invited. Specialists in the fields of journalism, broadcasting, filmmaking, and video production must be sought out so that their support and expertise can be utilized to the fullest by the local community. In some instances training of individuals within the community as to programming skills, and production techniques will be necessary and should be offered to those who seek such knowledge. However, in those instances where groups prefer to work with a trained production staff, such a staff must be available.

Equipment maintenance and availability must also be planned. Decisions regarding location of equipment, equipment requirements of the community, funding for additional equipment needs, are all necessary steps in the ongoing development of community CATV.

The wealth of the community must be sought out in order to identify and develop the myriad possibilities for cable programming. Efforts must be made to identify the particular tastes and needs of each individual community, including the concerns generated by neighborhood groupings as well as communities of interest. Wherever possible, business groups, planning boards, task force offices, community outreach programs, art projects, school programs, rehabilitation programs, hospitals, colleges, Old Age Groups and storefront operations must be made aware of this channel and their possible participation in the creation of programming for the public cable channel.

At this point in time, there exists many unresolved legal problems associated with full community utilization of cable. In order for the separation of control and ownership of cable systems to be fully established libel laws must read that responsibility for programming rests with the programmer, individual or group who has created the programming, and is not the responsibility of the cable operator himself. Until such laws are enacted, the cable operator is placed in the role of censor, one who cannot guarantee access even on public channels, since his corporate entity would be held responsible for any defamation or other legal claims. Unless this situation is remedied, the cable operator will be in the position of controlling the flow of information that originates from all the channels on his system, putting him in an unprecedented position of censor for all the channels within any given locality. Some ongoing structure must be formed that will orchestrate and coordinate all these energies and efforts.

Production Consultants:

Individuals in the area of television production, at the local public television station, independent producers as well as experimental half inch video groups, established university programs and students in communications have all been approaching Open Channel in order to participate in this project. During the early weeks of operation a formal agreement with the Educational Broadcasting Corporation, which operates Channel 13 and NET, will be consummated along with agreements with independent producers.

In Progress:

One project has already begun via an arrangement with Alternate Media Center at N.Y.U., George Stoney, Executive Director . . .

. . . Creation of local cable committees will be another function of Open Channel. In order for this local cable committee to be a workable entity it must comprise representatives of the geographic neighborhoods as well as representatives from communities of interest: artists, members of citizens groups, ethnic groups, religious groups, political parties, labor, schools, business, sporting associations, etc. It must be a cross section of the segments of *that* particular community and must be responsive to the needs and tastes of that community.

The primary responsibility of the local committee will be to guarantee access to all citizens and to insure that the television time is not dominated by the loudest voices or the most organized political groups. Open Channel, the service module, will work with this committee as a programming arm that will produce some of the programming carried on the Public Cable Channels. However, it will also stimulate and seek out other sources of programming within the community, alerting them to rights of access to these channels.

If we are to guarantee the right of access to all, then we must consider the technology, or the means of production, whereby the less wealthy may be able to afford to produce their own programming. Therefore, experimentation with the carriage of the signal and image of the simplest and least expensive equipment, both the half inch video-tape, one inch video-tape and Super 8 film will also be done. If we can prove that cable-casting of the half inch tape is viable, that will open the doors to access to the many, not just the few. Since it is talent and approach, rather than hardware, that makes for quality programs, we believe that the marriage of talent and cheaper technology will produce an excellent product.

ANCHISED AREA 380,000 HOMES

June 23, 1971

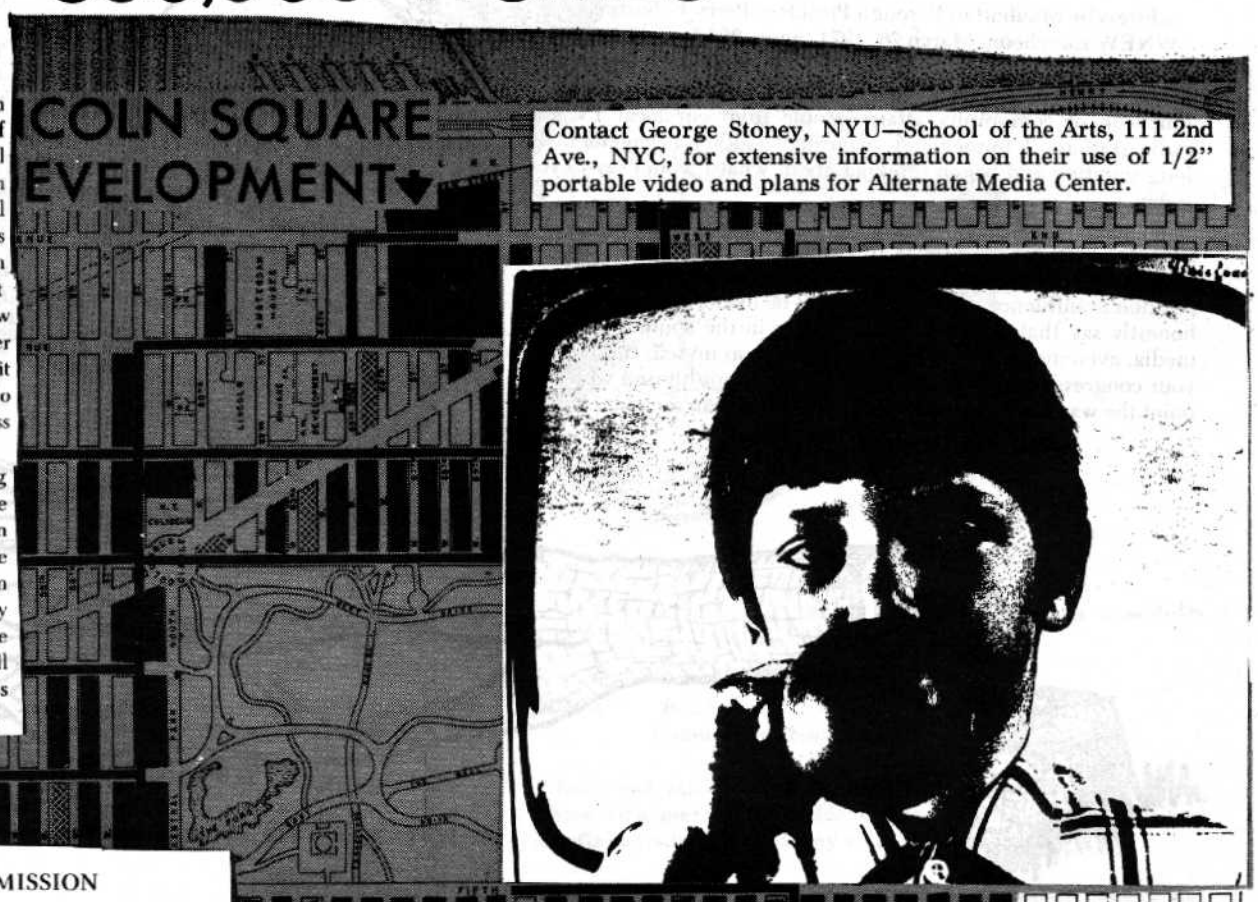
Beryl,

Here is the speech and the proposal for Open Channel that has been funded. I think it is all there. The main points are 1) the availability of public channels; 2) the liability question that still is not answered but will be soon, (that means that the cable operator still has the right to screen tapes before playing them and so can still censor). I tried to get a bill through the State Legislature to change this but was unsuccessful this year, therefore I will have to wait till next year, or until the FCC acts in Please forgive me for not having details and a well thought out article but I'm right in the throes of organizing Open Channel * and as you well know that is hell. We are in the process of developing rules of access; in other words how it shall be determined who gets on and when. If you could wait a while for those I think this whole thing would have more relevance to your readers. For that is the actual mechanism that will guarantee access to all those interested in utilizing the channels . . .

this area. However since the channels are available as of July 1, I am going ahead and will help to create programming for those channels. The importance of the success of this public use of cable here in Manhattan cannot be stressed enough. I truly believe that if we can make it work here we will be setting a precedent for the nation in opening up this utilization of television. However, if it fails, if these channels are not used, or if they carry programming that no one cares about or relates to, or if they are utilized for the entertainment of the esoteric few, then we probably will have provided the necessary fuel for those who are fighting against this opening up of the medium.

See you soon, Thea

*Open Channel is a non-profit corporation. It will offer its services to groups who have something to say but require some assistance in saying it—as well as to those groups who have relevance to issues of major concern. If we can create rules of access that are fair, then Open Channel can function as a module which will offer assistance to those groups or individuals who request these services.



Dean Burch
FEDERAL COMMUNICATIONS COMMISSION
1919 M Street, N.W.
Washington, D.C.

Enclosed you will find a copy of the latest issue of our publication, *Radical Software*, which deals with alternate uses of television, videotape, and other communications technologies.

Our readership is composed largely of people who are involved in making their own television. Most of them are using portable half-inch videotape cameras manufactured by Sony and others. We ourselves also make our own TV with the portable equipment.

We are writing for some information of direct concern to ourselves and those we service. *Specifically, we keep hearing rumors from people we know in Washington that the F.C.C. is going to issue a ruling against the use of half-inch videotape equipment, that broadcast interests and unions are pushing for such a restriction.*

Given the current limbo on local origination we find these rumors hard to believe. But one never knows.

As you probably know, to ban half-inch portable equipment from CATV local origination uses would be equivalent to denying community groups access to cable as it would mean that they would be limited to either a heavy hardware investment or bound to just a studio situation (controlled by the CATV owner).

As you probably also know, half-inch portables are relatively cheap ($1,500), fabulously easy to use, and can operate anywhere there's normal lighting conditions.

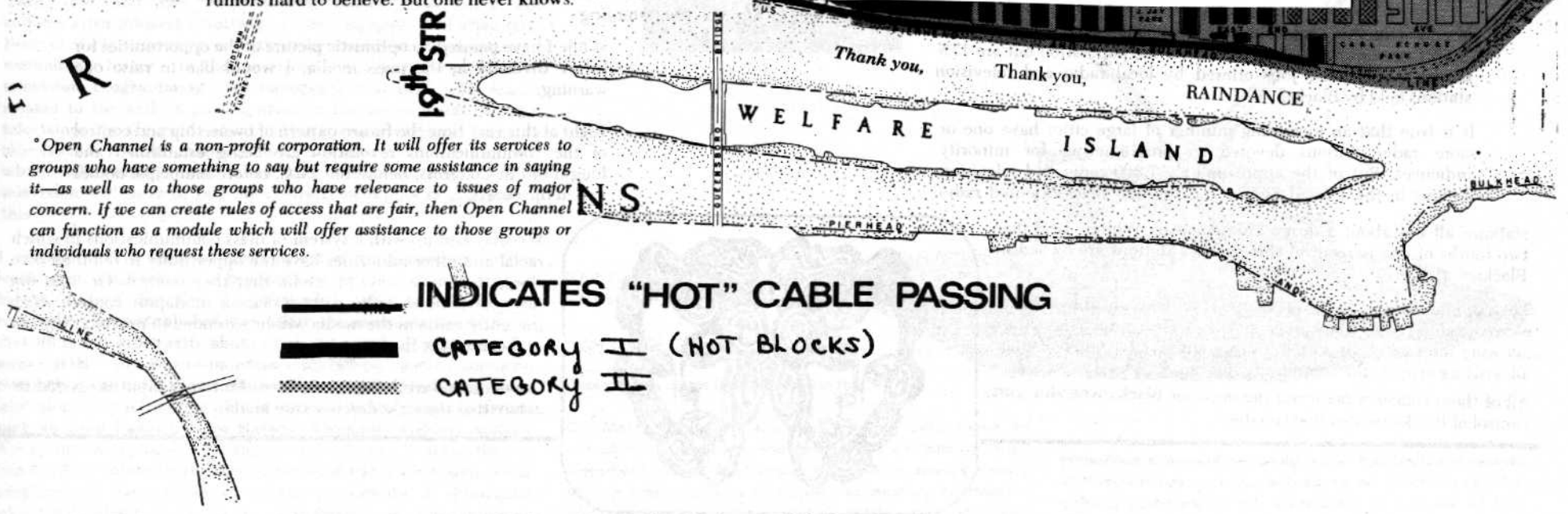
What we'd like to know is what is the F.C.C.'s position vis-a-vis portable half inch video used with CATV. Has it been discussed? Do you anticipate a ruling either way?

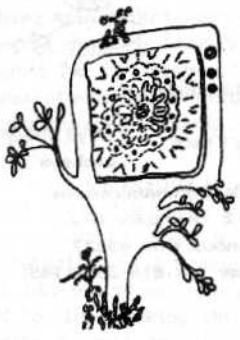
We'd like your permission to include your reply in the next issue of *Radical Software*. If this is okay with you, may we hear from you by the second week in June which is the deadline for our next issue.

Thank you,

Thank you,

RAINDANCE

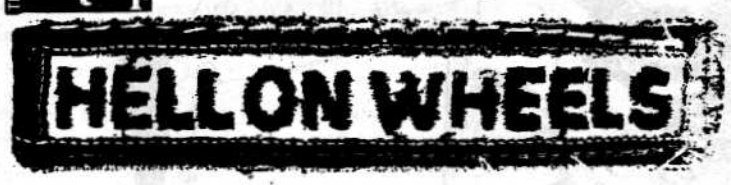




2330 mckinley
berkeley,ca.94703
(415) 548-4000

I believe that *Radical Software*, Raindance, and Quantum are all trying to do something similar. I recently wrote to Ira Schneider and Raindance about a catalogue we are trying to do at Quantum. We are involved in attempting a twelve part manpower study of the cable industry in the seventies. My contribution (hopefully!) will be a catalogue/index of available programming for cable use. . . . I would appreciate it, if you would publish my request for information on programming available for cable television—having people include costs and lengths of tapes/films—in the next edition of *Radical Software*.

quantum
communications
incorporated



do you know anything of ivan illich and the center for intercultural documentation ? it is located in cuernavaca mexico. approximately 10 years in existance, believe systems which enslave man far more dangerous than visible .....

. . . *Roadarte Collective* "takes a roadartists spring media raid tour through amerika/media zaps/images of a coop fantasy/voodoo lessons in how to talk back to your television/inflatable enviro-theatre/intense images of life/process architecture/limited offer" Roadarte Trucking Co., rfd. 1 Station Rd., South Amherst, Mass. . .

. . . *Urbanzai Exchange* "intends to set up some sort of format or communication link with groups and individuals who are working on solutions to Urban problems." If you're interested in exchanging information and tactics reach them at 1255 Orcutt Road, #B-33, San Luis Obispo, California 93401 . . .

. . . *Alternate Enterprise Exchange* "is establishing a communication exchange among alternative enterprises to provide a forum for discussion of goals, techniques, and organization of the alternative enterprise system and the individual enterprises and people in the system." Input your comments on alternative enterprise, your needs, a sketch of your enterprise and you will receive a copy of their first newsletter. 130 East Canon Perdido, Santa Barbara, Calif. 93101 . .

. . . the *Center for New Corporate Priorities* "is a radical corporate action group which does research but with its action-application in mind." For example, they've taken research from NACLA, Pacific Studies Center, etc. and expanded it and moved with it on a legal non-violent trip. Their objectives are "to understand the corporate decision-making process and why it usually results in policies contrary to the public interest, to design concrete alternatives for short-term change of corporate policy/and to educate the public that long-term change demands substantially different attitudes toward our economic, social and political structure." Contact at the center, Jim Lowery, 304 So. Aromore, Suite 101, L.A., Calif. 90020 . . .

OTHER NETWORKS TO PLUG INTO

. . . *Polyoploly, a City Game*—random sketches of ideas for trading ideas with—evolving the trading process into a network which operates to access people to the information they spend most of their day attempting to access-general print out to catalyze a correlation of resources and needs-from Non-Profit Tie Line, 500 State Drive, Los Angeles, Calif. 90037. . .

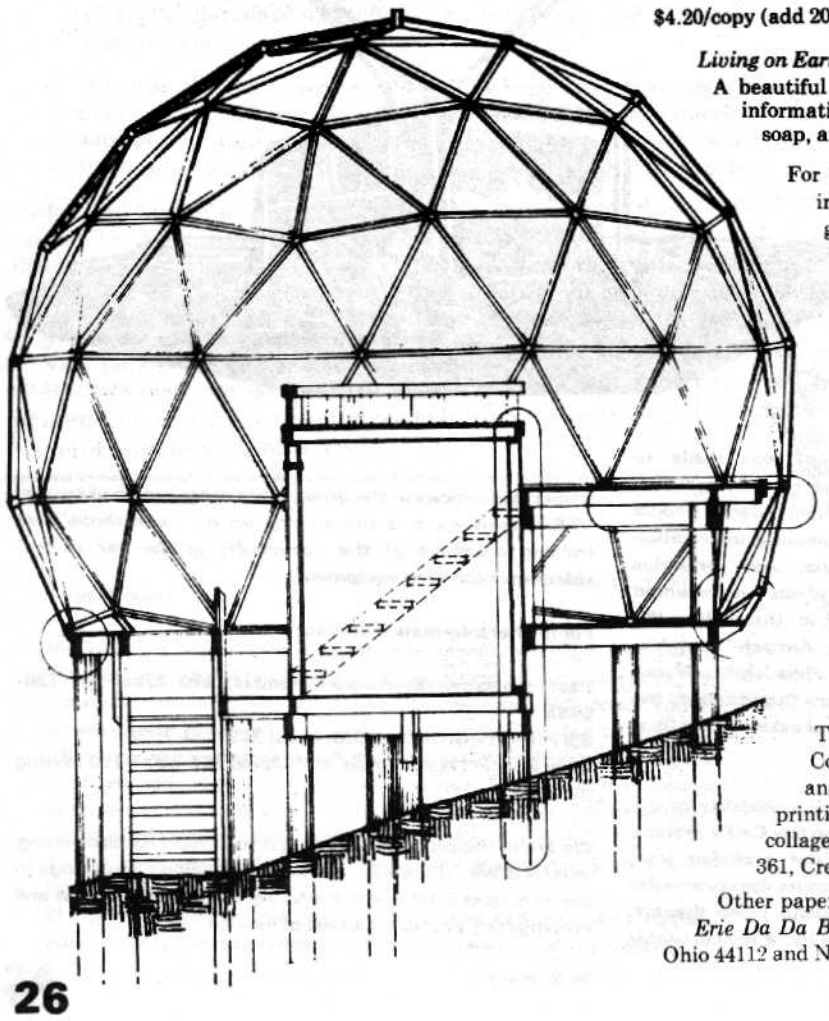
. . . *Resource Accounting and Exchange* "is a seed idea designed to better effect exchange of information among people who are able to share resources assuming that people know what they have/will have/can share and realize that through co-operation with present and potential resources lies the key to everyone's survival." It's an idea of a network which becomes self-sustaining through mutual interest and distribution—an alternative problem-solving process. 2 East 2nd. Street, top floor, N.Y.C. 10009 . . .

. . . *David Graham* has proposed a project to "research new ideas emerging around the movement toward religion. Since the people involved in the research will be initiators of many of the ideas; the team itself defines the movement they are researching. Output will take the form of reports on work in progress" (to be made available in several media.) A priority of the project is a video-parlor in the town of Wickenburg, Arizona which would output the information from the research. We don't know the status of the project but you can reach him at P.O. Box 1176, Wickenburg, Arizona 85358. . .

. . . *Art Hicks* "is trying to get together an idea using surplus teletypes and homemade acoustical couplers to be used over long distance phone lines to allow underground papers to transmit news and whatever over the phone without a police audience." For more information try Box 642, La Jolla, Calif. 92037 . . .

. . . and while your trucking thru tune in to *Radio Free Chicago* at 97.1 FM, which features special programs designed to serve the needs of anyone struggling to survive in the city. 2312 N. Lincoln, Chicago, Ill. 60614 . . .

***Domebook* 2 has arrived. For a Manhattan resident, it's a wonder fantasy of sun domes, elliptical domes, portable pillow domes, scrounged domes, all domes. I wouldn't begin to build without it. If there is a #3 it will probably be called *Shelter*. Published by Pacific Domes it's available for $4.20/copy (add 20¢ tax if you're a California resident.) Box 279, Bolinas, Calif. 94924.**



Living on Earth **by Alicia Bay Laurel, Vintage Press.**
A beautiful guide for anyone who is thinking of going back to nature. Lots of real survival information from building your own shelter and furniture to organic gardening, canning, making soap, and hundreds of things you really need to know.

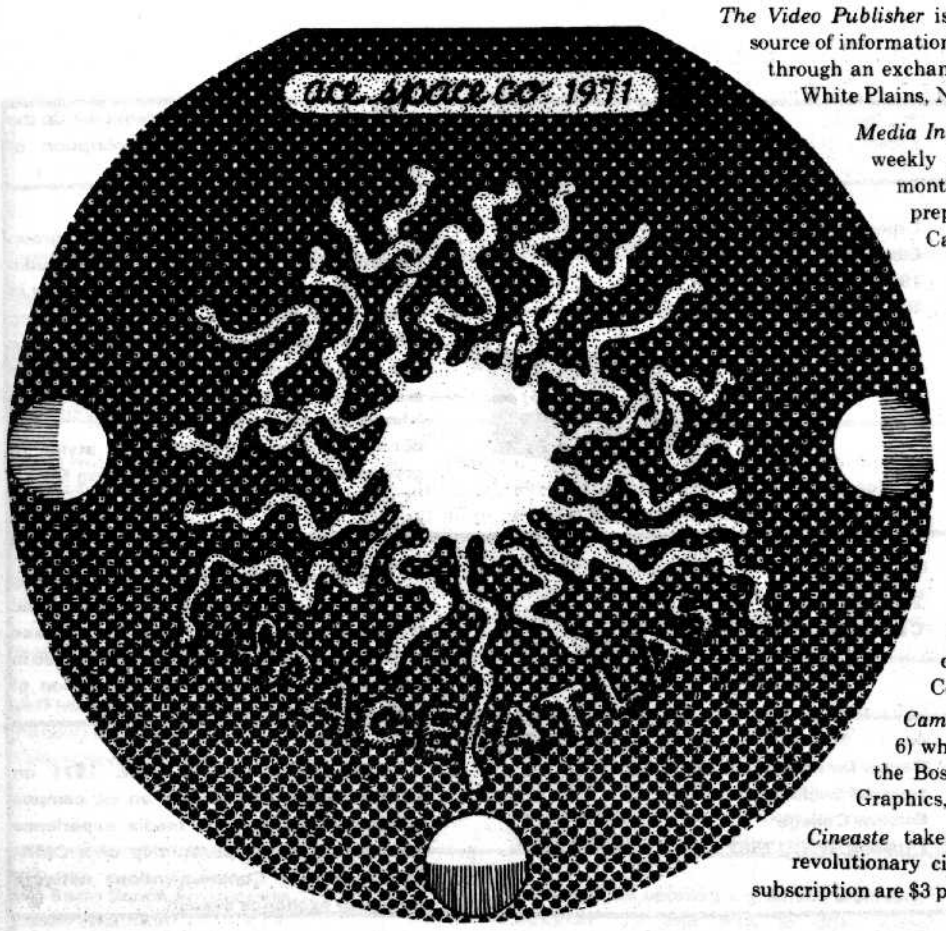
For fact sheets regarding the ecological crisis, you might check into *Earth Kit*. As well as information on what can be done by action minded groups and individuals, Earth Kit lists groups to contact, bibliographical references, and offers comprehensive pamphlets on various facets of the ecology scene. $1.50 per issue; $10 (includes donation for a subscription. Environment! 150 5th. Ave., N.Y. C. 10011.

Canyon Collective. Here are some folks who are actually laying out concrete plans for making community change happen. They talk realistically about transforming present society by knocking down fences and walls and re-introducing flow into our lives. Among the topics they have been thinking about are shelter, recycling clothing, land, ecological transportation, free clinics, tenants unions, food co-ops, schools, and on and on. Well worth considering some positive alternatives. Box 77 Canyon, Calif. 94516.

Two other publications which have special interest to us because they're initiated new formats for disseminating information are *Changes* and the *Space Atlas*. *Changes* is for all you newspaper junkies who are concerned with the management of change but get caught up in the timely consumption of establishment papers. *Changes* is a neat pocket sized folder with stapled abstracts from major US and international papers and comes out thrice weekly. The only hassle is that it costs about $425 per year distributed by Futuremics, Inc. 1346 Conn. Ave. N.W. Washington, D.C. 20036; published by Orba Information Limited, 418 Saint Sulpice, Montreal 125 Canada.

The *Space Atlas* is a more workable model. It was conceived by Dana Atchley of The Ace Space Co. and is comprised of 8 x 10 information sheets which were sent in by subscribers then collated and distributed in a looseleaf binder by Ace Space. Dependent on new technology (i.e. instant printing, offset utilizing disposable paper plates, xerox etc.) the *Space Atlas* is a connective collage of information. Don't know what Ace Space is up to now but you can reach them at Box 361, Crested Butte, Colorado.

Other papers we'd like to thank for exchange publications or sample issues: *The Great Swamp Erie Da Da Boom* from the Cleveland area, Angry City Press 14016 Orinoco, East Cleveland, Ohio 44112 and New Orleans' *Nola Express*, Box 2342, New Orleans, L.A. 70116.



The Video Publisher is a specialized off-shoot of Knowledge Industry Publications. A good source of information which will let you know what video management is plugging into. We get it through an exchange since the $75/year subscription rate is a bit prohibitive. Tiffany Towers, White Plains, N.Y. 10602.

Media Inter-great is published by the Resource Center of Dawson College, Montreal and is a weekly bulletin which covers most media events in the Montreal area. During the summer months the publication is transferred to *Community Media News Supplement* which is prepared and distributed by the Community Media Office of Dawson College, Montreal. (see Canadian section of this issue)

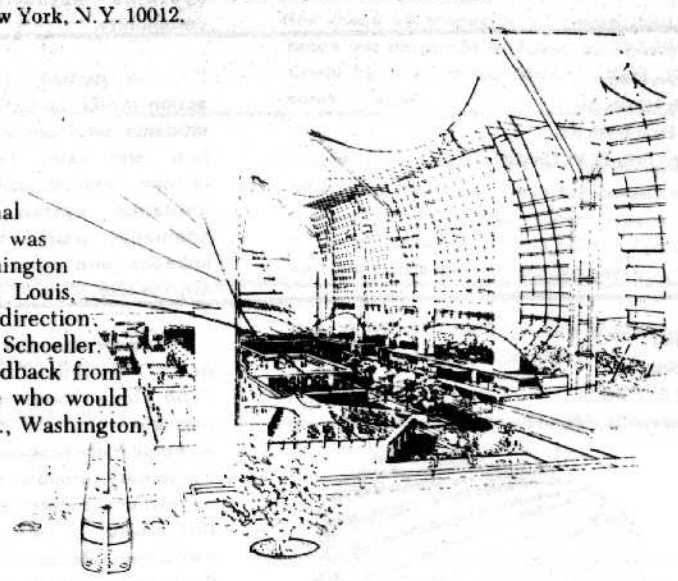
Micrographics News and Views is a well researched newsletter that's trying to do its bit for the user of micrographic products (defined to include video). Somewhat inaccessible at $75/year for 24 issues, you might want to dip into special issues. They've a good issue on the cassette turmoil (Vol. 1, No. 13) which is available for $5. P.O. Box 2642, Palos Verdes Peninsula, California 90274.

Source is a catalog which grew out of Source's experience of the Education Liberation Front, a traveling, gathering and distributing information bus. The catalog will be divided into 13 major liberations areas, beginning with Communications. For more information on catalog headings and contents write to Source. 2115 "S" Street N.W., Washington, D.C.

Citizens, a Washington D.C. based resource center is attempting to enforce the broadcast industry to meet the needs and diverse interest of the public. They have published a Progress Report outlining their services to citizens and community groups. Also in the works is a handbook on citizens' access to the F.C.C. There's lots of good information on what the public can do through the courts to guarantee their rights to the media. Citizens Communications Center, 1816 Jefferson Place, Washington, D.C. 20036.

Camera People is into film, video and still photography and has just sent us an issue (Vol. 1, No. 6) which covers the granting of a cable franchise and most of the current media happenings in the Boston area (including TV listings). Subscriptions are $5/year or 75¢ per copy. Ourgang Graphics, Inc., Camera People, 372 Main St., Watertown, Mass. 02172.

Cineaste takes a radical political approach to control of the media. Actually it covers revolutionary cinema, filmmakers and books on film. Published quarterly at 75¢ per copy; subscription are $3 per year. 144 Bleecker St., New York, N.Y. 10012.



Spacenet-a system consisting of a prestressed three-dimensional cablenet superstructure and a plugged in enclosure system. The project was sponsored by a grant from the American Iron and Steel Institute to the Washington University, School of Architecture, Lightweight Construction Center, St. Louis, Missouri. Designed and developed by John Fotsch and Ed Hord under the direction and design consultation of Assistant Professor Larry Medlin and Joachim Schoeller. Ed Hord is currently evolving the study of Spacenets to obtain feedback from manufacturers, lawyers, government agencies, engineers, and people who would potentially utilize this type of structure. Ed Hord, 2635 41st. St. N.W., Washington, D.C. 20007.

Guerrilla Television

Guerrilla Television is a journal/notebook of our experiences, and a manual of practical information to save others the trouble of repeating our mistakes. It serves as a debriefing so we can go on to other things.

We did not have the money to publish and distribute it ourselves so we chose a straight publisher (Holt, Rinehart and Winston). Of six publishers who saw the book, one thought it was not very good (Harper & Row); another liked it initially but then refused (Simon & Schuster); and a third said they needed more time which we didn't feel we had (Random House).

The three publishers who made offers were: Doubleday, Outerbridge & Dientsfry, and Holt, Rinehart and Winston.

As we were fairly confident we could get it published, we negotiated contracts with specific demands on our part: I. that the book sell for as little as possible; 2. that it be out as quickly as possible; and 3. that it contain graphics throughout.

We received comparable offers from the three, but the one we accepted was made first (e.g. Doubleday initially said they couldn't have it out until February 1971). the $3.95 selling price was arrived at first, and we then worked backwards to see how many pages (160, 8½ by 11) and illustrations (120) could be budgeted for.

Ant Farm is getting a $1375 fee for doing design and mechanicals. This is not part of the advance and they won't share in the royalties. They were selected (at our insistence) as designers after the book had been written and edited, and illustrations had been selected and gathered. Raindance received $4,200 advance, of which $2,000 went immediately to pay off past debts, and the rest went into new equipment. We will receive royalties of 7½% on the first run of 10,000, and 10% on the first 1,000 hardcover (selling price $6.95). A hardcover printing is necessary, according to the publisher, because reviewers will not look at paperback books.

Thus, if the initial run of 11,000 sells out we would realize about $3,700 and the publisher is therefore giving us $500 that he can not make back if the book does not go into another printing.

If the book does go into more printings, our royalty on paperback sales increases to 12½% (of the selling price) or approximately 50¢ a book. That money would be used to finance an information service project we are developing.

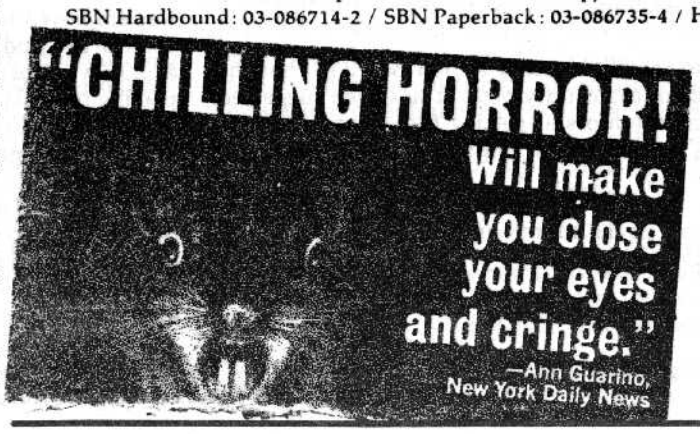
"A work of genius!" —Judith Crist, New York

"EXTRAORDINARILY BEAUTIFUL!" —Rex Reed

This book is the first of a kind. It tells us how we can break the stranglehold of broadcast TV on the American mind. In *Guerrilla Television* Michael Shamberg prints-out from his own experience how low-cost portable videotape cameras, video cassettes, and cable television can be used to design alternate television networks that favor portability and decentralization. Shamberg's contention is that politics are obsolete, and that information tools and tactics are a more powerful means of social change. To achieve true democracy the author suggests that we develop a sense of media ecology in what he calls "media America," or the information environment. *Guerrilla Television* is the first manual for new media tools and as such is sure to find a large, sympathetic audience.

Michael Shamberg, who is too young to remember when he didn't have television, has worked for *Time* and *Life* magazines, which he left to cofound a video-collective, The Raindance Corporation. They make video tapes and publish the magazine *Radical Software*.

$6.95 Hardbound / $3.95 Paperback / 8½ x 11 / 160 pp. / 80 half-tones and 40 illustrations / LC: 75-160464
SBN Hardbound: 03-086714-2 / SBN Paperback: 03-086735-4 / HRW21 / November



THRILLER!" —WNEW-TV

ACCESS INDEX

Santa Cruz Community Service Television
Johnny Videotape and Friends
465 Ninth Ave.
Santa Cruz, Calif.

. . . a non-profit corporation "being created to produce television videotape in Santa Cruz for the purpose of intra-community communication." (see *Radical Software* #3 for "Community Video: A Working Model"); also below, "Information to the Disenfranchised."

Eldridge Cleaver
Black Panther Party—International Sect.
B.P. 118 Grande Poste
Algeria

see letter below; (address to left is not mailing address). pg. 30

May Day "Collective":
May Day Video Center—Antioch College
Alan Kaplan and Roberto
Old North Road
Columbia, Md. 21043
or
Source Coalition
2115 S Street NW
Washington, D.C. 20008

Some of the video groups who gathered in D.C. to videotape May Day events formed a "Collective" to edit the tapes at the Videofreex loft in NYC. Below are two statements generated by problems which arose over the tape's distribution. pg. 31

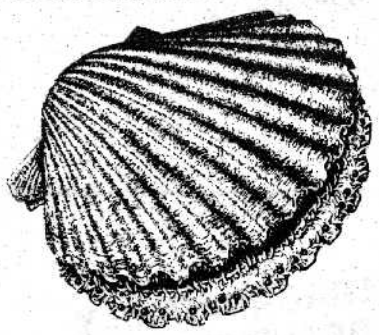
Community Video
Mike Cottone
2515 Q Street NW
Washington, D.C. 20007

. . . a newly formed group whose "goal is to involve the community in originating its own programming which in turn would be shown in video theatres or over CATV systems established within the community."

Urbanvideo
Mark Hinshaw
405 East 56th St.
New York, N.Y. 10021

". . . a partially funded research and action group consisting of urban planning students who are exploring uses of ½" tape and cable for effecting societal change, building participatory integrative guidance systems, and simulating alternative futures. Interested in forming linkages with other planning groups and anyone else."

Kailasa
Jon Shafer
1510 E. 23rd St.
Minneapolis, Minn. 55404



. . . a new alternate video group working in the Twin Cities for the last six months. "The group's originators have introduced portable ¼" to free schools, a pre-school, and university programs as well as helping community groups, such as a religious consortium, a street academy, and a Model City project, to utilize ¼" video for their own needs. As soon as we obtain our own hardware we shall begin to produce tapes and be glad to exchange . . . "We also aim to actualize, by education and demonstration, the potential for citizen video origination and common carrier use of cable systems . . . to increase relevance of information and mass access to television . . ." See Education section for description of City Hill Project.

Video Community at Westbeth
Ann Douglass, Al Katzman
463 West Street
New York, N.Y.

. . . an artists' housing complex which through a closed-circuit cable system is programming materials gathered from local NY groups as well as materials originated at Westbeth itself to all residents within the complex. See below for description of project. pg. 30

Experimental Video
Edin Velez
797 J.B. Acevedo Street
Rio Piedras, Puerto Rico 00923

nebula

. . . a newly organized video group composed of Puerto Rican video and audio artists, currently setting up a loft gallery in which they will have showings featuring different video groups and artists from the U.S. and Europe as well as their own tapes and live rock music. Their tapes will be "both *pure art* and social video documentaries on different life styles of groups living in Puerto Rico ranging from a "Commune on a Sailboat" to "Living in a Slum."

Earth Light
26 Austin St.
Cambridge, Mass.

. . . a video cooperative project working to expand educational concepts, and working within a broader based organization called Communiversity, also in Cambridge. See below for description of their goals and objectives. pg. 32

Center for Movement Research
Dept. of Sociology
Queens College
Flushing, N.Y. 11367

. . . this will begin in Sept. 1971 on campus. Plans will include an on campus multimedia Laboratory, media experience experiments, and sponsorship of a CMR-CUNY student Communications network and video exchange system.

James Fogo
Univ. of Texas Union Program Office.
Room 342
Austin, Texas 78712

union

. . . trying to get a video group started on campus. "We understand about the potential of free exchange programs for programs but need programs immediately which will convince certain groups within our community of the 'use value' of video whereby funding and grant possibilities might be opened up."

We must enlist the aid of "present artists and resident shamen to put together a program which will enlighten a greater range of our brothers and sisters to the potential utilization of video in the extension of information and the greater utilization of conceptual ability we must all begin to share if we are going to conceive of social transformation beyond the one dimensional state.

Tedwilliam Theodore
712 West Waveland
Chicago, Ill. 60613

"I wonder if there might be the possibility of collaboration with others whose interests in video tape matches my own. I have been using video tape in community and school based programs for children and in projects of community organization and action."

Stephen Haliczer
Northern Illinois University
Dept. of History
DeKalb, Ill. 60115

. . . has produced one educational videotape—a debate between Jessie Lemish and Robert Berkhoffer. "I will also be doing a tape at Joliet prison where 90%

FEEDBACK FEEDFORWARD FEEDBACK FEED

INFORMATION TO THE DISENFRANCHISED
A PROCESS APPROACH

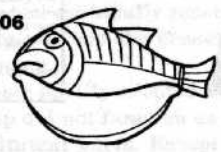
For several years, the county anti-poverty program has been run by the county supervisors acting through the Community Action Board (CAB). This is in conflict with the federal Office of Economic Opportunity desire to see the poor people directly running the programs and determining priorities for the use of federal funds. Consequently, the Santa Cruz Community Action Board has been involved in a major restructuring effort.

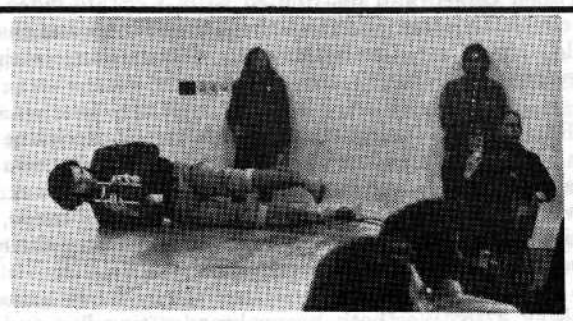
Elections were held to elect poor people to the Community Action Board so that the agency could respond directly to the needs of the county poor. It has been suggested that if a fair election was held maximizing attempts at getting the county's poor to participate, then the county supervisors would return control of the anti-poverty programs to the CAB.

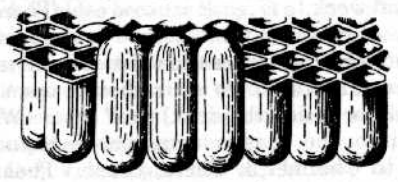
Polling places were created in various places in the county and the local news media was employed to get election information to eligible voters. One had to be at least 18 years of age and meet low income guidelines but need not be a registered voter. About $3,000 was spent to ensure that election information reached the area poor. The pooling took place on Sunday & Monday—i.e. 16 & 17 May. Sunday four people voted at the Santa Cruz Area Service Center and other polling places had about the same response. Normal information channels appeared to be ineffectual.

On Saturday, I made myself and low-cost portable t.v. equipment available to all the candidates who wished to represent the poor on the Community Action Board. Each candidate was interviewed and asked to state what he hoped to do for the low-income people if elected. How do you reach low income people with information that has a direct bearing on their future well-being?

This process made the people there aware that an election was in process that could affect their future. They also were able to meet their potential representatives.

	of the inmates are black . . . and am working on an article entitled 'Higher Education in the age of the Communications Revolution.' It might be interesting to work out some way of presenting this on video tape."
Mitsuru Kataoka, Assn't Professor Concord Video Systems Lab Dickson Art Center Univ. of California Los Angeles, Calif. 90024	see below pg. 32
Scott Helmes Minneapolis Institute of Arts 201 East 24th St. Minneapolis, Minn. 55404	. . . did work two years ago at the University of Minnesota to get student programming shown through the university CCTV system. Interested in the transformation of the present educational system and working out tape exchanges with other universities. (People in the area, get in touch.)
Jeff Marsh and Bob Devine Antioch College Yellow Springs, Ohio	. . . have been doing extensive programming which is shown to Yellow Springs community and soon Great Lakes Colleges . . . been using both studio and ¼" equipment. Contact them for complete tape listing and possibilities of exchange.
Big Basin Ranch Art Institute Susan Wilkinson 21200 Big Basin Way Boulder Creek, Calif. 95006 	. . . will be opening a graphics workshop Summer '72 and plan to offer video graphics experience . . . "Where can we get used portable video equipment? . . . A couple of us are in the process of building a small video-camera—where could we find a vidicon tube?" (. . . If you're in the area, get in touch with them.)
Ghost Dance Marty Parkingmeter 1591 Cambridge St. Cambridge, Mass. 02138	see below pg. 33
Ant Farm 247 Gate 5 Road Sausalito, Calif. 94965	. . . video rovers. See "Lineal Memory" below. pg. 35
Video Free America 1948 Fell St. San Francisco, Calif. 94117	This summer at the Berkeley Art Museum they are coordinating videotape showings.
Mirror Productions 565 Manzanita Felton, Calif. 95018	". . . we do videotape pieces about old people, rhythm bands and bluegrass local talent and we are just beginning . . . regards to Tom DeWitt . . ."
Video/Cinematography Duke A. Hayduk 9140 Los Gatos Highway Santa Cruz, Calif. 95060	Eds. note: don't know what they're into but they've written to us and have equipment.

Video Exchange David Schiller, Michael Temmer 500 La Guardia Place New York, N.Y. 10012	. . . videotape recording unit, primarily for dancers. See below. pg. 33
A Space 85 St. Nicholas St. Toronto, Ontario	. . . a non-profit corporation whose main concern is the organization and programming of a large gallery space. See below. (Also see Canada section for more people from Toronto.) pg. 32
Gandja Films Group CIRCA and Jose-Maria Mondelo 5 Rue Pierre Fatio 1200 Geneve Suisse	. . . a group of underground cinema in 8 and 16mm. "We are studying the possibility of creating a group of alternative television in Geneve, Switzerland . . . Please send our letter to Raindance, Global Village, Videofreex . . ."
Tajiri Castle Scheres Baarlo (Limburg) Nederland	pg. 35 Japanese-American sculptor who has been using American Sony equipment. See letter below, as well as "Project for a Community Information and Communications Dome."
J O Mallander Villagatan 12 Helsinki 15 Finland	. . . trying to get together a video group in Finland. Does not have American equipment. He's in touch with Tajiri.
Takahiko Iimura 4-50-4 Yamato-cho Nakano-ku Tokyo, Japan	Has made 10 pieces in VT; more than 6 hours but no places in Tokyo for showing. Could be a Japanese correspondent. See below. pg. 32
Monte Cazazza 5422 Shafter Ave. Apt. #22 Oakland, Calif. 94618	"There is no privacy left for the common person so let us not leave the bosses any privacy either." Has some access to equipment through a local college but not enough. Contact him if you can help out.
Bobby Steinbrecher Emerald Enterprises Rm. 414 795 Willmette St. Eugene, Oregon 97401	Has Sony AV 3400; needs more tape, resources, west coast contacts.
Resolution—Video for Hire Jay and Tia Odell 818 Hayes San Francisco, Calif.	see letter below pg. 33
Dan Graham no known address	 Also article by Hal Aigner pg. 34



Outside of Surplus Foods was a mobile voting truck where they could vote upon leaving while the information was fresh in their minds.

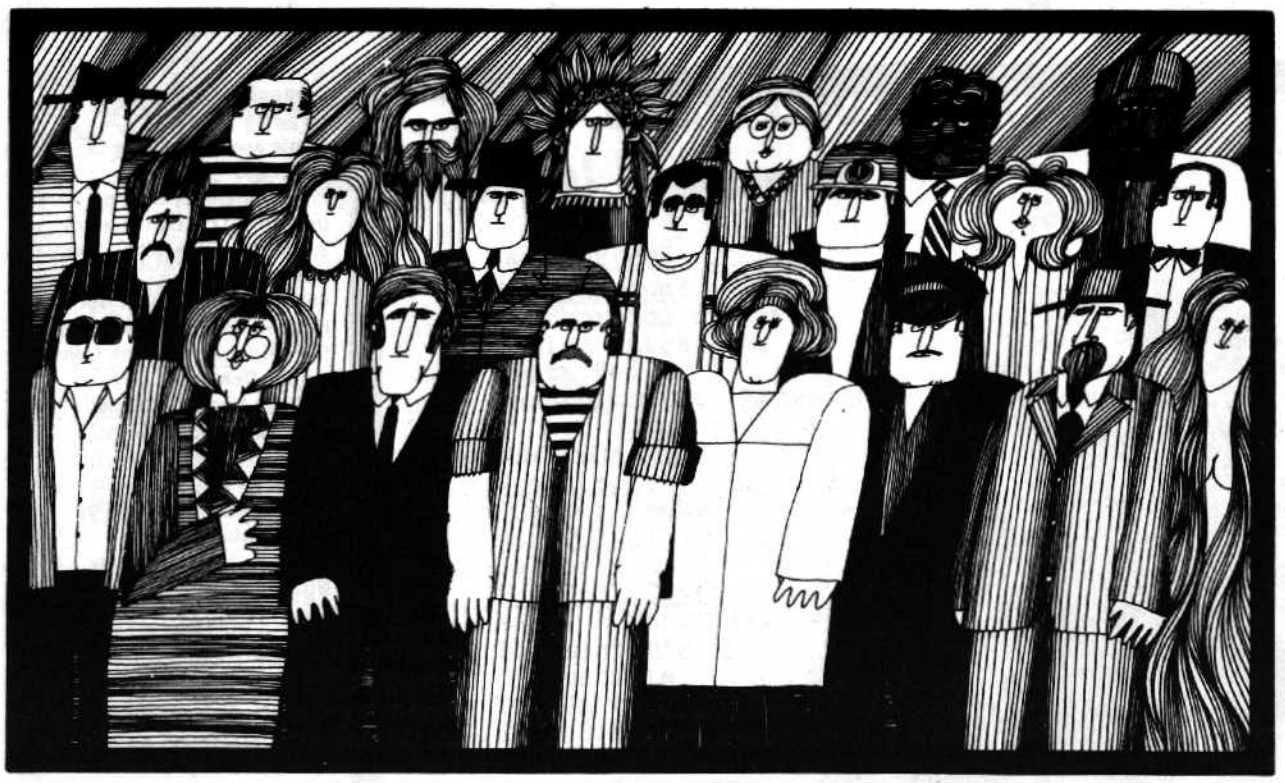
Monday morning, I took my videotape recorder and a large t.v. set to Surplus Foods where low income people must sit and wait to receive their monthly allocations. The t.v. "program" was played over and over again.

Since over 50% of the entire county votes came from Surplus Foods on Monday, one could conclude that this new closed-circuit t.v. approach to information distribution was a success.

The results of this experiment have implications for the future in terms of getting needed information to the economic disenfranchised. One reason the anti-poverty programs have not been more successful is lack of getting out the information on resources available to the poor and how to take advantage of them. For a very low cost, t.v. "programs" in say 10-15 minute packages could be shown in places where the poor are forced to sit in limbo for extended periods of time. I'm thinking of such places as Social Welfare, Surplus Foods, Unemployment, and medical clinics. The medium of t.v. is much better suited for information exchange with the poor as in many cases they are kept disenfranchised due to lack of literacy. Information packages could relay information on re-training, tenants rights, food and child care services or even how to organize to solve their own problems. The goal of the anti-poverty program is to eliminate poverty through self-help. Video information feedback systems could accelerate this process.

If you have any ideas or resources that could be utilized in any project to increase community awareness by means of video (t.v.) tape, contact JOHNNY VIDEOTAPE . . . (alias Alian Frederiksen at 408 476-0657)

The implications for electronic radicalizing/activizing the poor would make Marcuse smile.



brief TO

THE CANADIAN RADIO AND TELEVISION COMMISSION
RE: COMMUNITY CHANNELS ON CABLE TELEVISION
FROM CHALLENGE FOR CHANGE/SOCIETE NOUVELLE

Challenge for Change/Société Nouvelle is an experimental programme established by the Government of Canada as a participation between the National Film Board of Canada and certain federal government departments which now comprise: Agriculture, CMHC, Health & Welfare, Indian Affairs and Northern Development, Labour, Regional Economic Expansion and Secretary of State/ Citizenship. The Programme is responsible directly to the Secretary of State, via the Privy Council office.

Challenge for Change/Société Nouvelle was established to focus on communications and social change; to create an awareness of the nature of change and its accelerated pace in present day society and the need which we all have (and specifically the least organized amongst us) of harnessing and working with it.

In the beginning this took the form of making films "about" such subjects as poor people, welfare agencies, minority groups, human rights, etc. This approach proved unsatisfactory because it was essentially no different from the treatment given the "disadvantaged" by many television programmes, government reports and newspaper articles in that action that could result in change was very often out of the reach of those affected. The problem remained but often with the subjects highly embarrassed and frequently more frustrated than before. Slowly, a different philosophy grew—that of involving citizens in the production process—choosing their own subject areas, controlling the editorial process, and determining who should see the film. The film maker from the Programme now became a spark plug for process rather than a creator of product and could use his previous liability as an outsider to mediate difficulties and bring conflicting parties together.

With the introduction of low-cost portable and easy to use ½" videotape equipment—*and* C.R.T.C.'s proposed community channels on cable systems ("for the enrichment of community life through fostering communications amongst individuals and community groups"), CITIZEN ACCESS TO THE MEDIA became one of the main thrusts of the Challenge for Change programme.

By preparing their own programmes for the community channels on matters of immediate concern to themselves, we felt it would be possible for ALL citizens to participate in local issues; to dialogue with their elected officials; to tap into various information sources and generally to express themselves in whatever way they wanted—be it political debate or cultural expression, or just talking WITHeachother across distances of time, and space, and misunderstanding. It could reintroduce the human scale into problem solving and indeed *make* local problem-solving everyone's concern. The danger would be that monologue instead of dialogue: one way communication instead of feedback; and "coverage" rather than an exchange of informed opinion would turn the channel into a Tower of Babel. However, given the timidity of much local media, the "economic disinterest" of the national media and the almost complete lack of access for the ordinary guy, we felt that the Challenge for Change philosophy adapted to true citizen access to the community channels would be a positive way of encouraging

WHICH SIDE HAS POWER?

One of the many traps that creative and concerned people are now being suckered into is cable television. Whoever believes that gaining access to cable will enable him to control his destiny in any meaningful way, is a fool.

In Canada and in the States, cable access groups have been systematically blinding themselves. The energy of the liberals has been spent on proving that they are good boys sincerely concerned with human ecology, and so they feel they have *earned the privilege* of cable access (see National Film Board's Challenge for Change brief to the CRTC). The radicals aren't going to play that game, they spend their energies on *demanding the inalienable right* to cable access. It is all a joke.

The CRTC is responsible for broadcasting in Canada. Like a medieval touring court it travels the country graciously receiving briefs from electronic-media supplicants. The bored and busy court members can't possibly be expected to hear all the briefs, so they listen to this one, and listen to that one. Afterwards, the access groups scuttle back to their churches, lofts and YMCAs, hoping they have made a good impression.

Meanwhile, there is a brief that no one seems to have read. The capitalists, the cable station owners, are trying to justify themselves: "In spite of the rapid growth of cable, the revenue growth of TV broadcasters has been sustained, their operating profits have accelerated . . . the large *growth in cable viewing had little effect on the audience of Canadian television broadcasters*." As far back as 1968 the RAND corporation was recommending community access to cable. Was no one suspicious? I quote from a later RAND report explaining its apparent altruism. "*Cable's small negative impact in the 1980s will probably be unobservable—lost in the static of more decisive developments.*" (RAND R-689-MF)

Government knows it. Big industry knows it. Even small cable companies know it. Everyone knows it except the groups fighting for cable access. CABLE IS DICKSHIT.

Sure people should make their own programmes and have access to cable. Sure the cable companies should be licenced as utilites with no responsibility for the content of the program originator. We can even go one step further and say that production and distribution should be separated; cable companies should be equipment supply centres providing hardware, while the transmission of programs should be on separate utilities under citizen control. Cable definitely has potential value. But the exaggerated romance with the equipment is siphoning off productive energies out of all proportion to its usefulness.

Illustrations: André Montpetit

people to participate rather than spectate in determining their own present and future.

Once upon a time the Town Hall was the place where all citizens could participate in their own affairs. With the growth of population in urban areas we have to move the Town Hall *into* people's homes. Community channels can be the way.

Summary of Findings

1) The use of ½" VTR with industrial sync for cablecasting is feasible, and the technology is improving almost daily.

2) Truly portable equipment (½") is essential if programming is to escape from the studio to allow people to participate on their home ground. Regulations that would specify the use of 2" VTR only for cablecasting would kill community programming.

3) It is quite possible for "beginners" to produce adequate material after a very short period of practice. The finished product will not have a high technical gloss but this is not of prime importance if the raison d'être is "people-participation".

4) Local programmes have proved popular wherever they have been produced, but this novelty could wear off if people are only "programmed-at", and not programmed-with.

5) The present C.R.T.C guidelines state that a community channel should be provided but there is an inevitable confusion between "community programming" and "local programming".

Community Programming—to us, means that EVERYONE has the privilege of using the local channel. It is not a favour to be granted by the Owner. Community programming means citizen participation—guaranteed by a truly representative body of all social strata that excludes neither the poor nor the police. It MUST mean FEEDBACK and two-way communication. Perhaps it should be called Community Service.

In practice LOCAL PROGRAMMING means *coverage* of local events by the cable company. The company decides what goes on the air—and, therefore, what does *not* go on. Some companies are owned locally and open discussion of local community affairs is often avoided because of conflict of interests. Other companies are operated for absentee owners who provide a minimum amount of locally originated programming and *only because this has bee suggested by C.R.T.C.* If they own a chain of stations, costs are minimized by bicycling prints or tapes, around their system. Therefore, a given community channel might only get as little as one hour of local material a week—and that hour would have been produced *because* it would appeal to *all* stations.

6) The major part of programming MUST originate in the community. It cannot be provided by outsiders. It is doubtful whether it is sensible for the cable company to be the sole authority which should control all community programming decisions.

7) Feedback should be strongly encouraged as an essential part of community programming—whether this is in the form of wired locations with cameras installed, or videophones, or phone-in audience reactions or open-ended audience participation shows. For example, in Fredericton, a community hall (in a section of the town not yet "cabled") could be wired to become a studio for $5,000.

8) Minority groups should be encouraged to produce their own programmes for a community channel. This could be done by the provision of federal or provincial grants to help them with equipment and general production costs.

9)Legal liability for a given programme *has* to be transferred from the cable company to the programme originator—not only to get the operator "off the hook", but to ensure "responsible" programming.

10) To ensure that all segments of a community are given the Right to Access—local coordinating bodies have to be created that will not be dominated by political or commercial vested interests. It is possible that some form of rotating Charter Board as proposed in Thunder Bay could be the answer. This Board would also guard against the abuses of the right to programme by operating as a Review Board rather than a Programming Body.

11) A production nucleus is essential to guarantee production continuity, "adequate" technical standards, and to initiate programmes. In the case of small systems—this could consist of one person.

12) Some way has to be found to finance production. Although the costs can be very low some groups will not be able to afford even these. Three alternatives for financing were suggested by one cable company manager:

1) Increase the subscription rate with the proviso that a determined percentage of the subscription be used for community programmes.

2) Allow "institutional" advertising.

3) Let the station be partly exempt from provincial tax.

We feel that the introduction of advertising on the community channels will inevitably lead to a ratings system—to the detriment of the specialized programming which is one of the community channel's greatest assets.

C.R.T.C. in its recent publication *Cable Television in Canada* suggests $20,000 as a minimum per annum figure for a simple studio operation. Given this, it should be possible to work out a scale where a system of X number of subscribers (5,000 has been suggested by F.C.C.) *must* provide this basic studio facility and then as the number of subscribers increases so the cable Company must put a proportionate additional amount of money into community programming. However, even below the 5,000 figure we feel that *all* cable stations must provide *some* facilities for local origination even if it is a ½" camera plunged into the head end and a broom closet as a studio.

Throughout the cable flurry I have been haunted by one question. The aggressive marketing of cable and the importance given it by government are out of proportion to its apparent economic or propaganda value. Why are the authorities so interested in installing a coaxial cable into every home in America? Interested enough to donate a channel for community use. Is the value of cable (for government) to provide a palliative, a letters-to-the-editor format designed to absorb the aggressions of disgruntled groups? Does the government think that the hostility-vitiating capacity of community access will pay off in reduced police expenditures? Or, is cable access a loss leader, the free gift that seduces people into the supermarket?

The coaxial cable itself will soon be obsolete for telecast purposes. Lasers and communications satellites offer greater freedom at less expense than services now available by cable. In other words, not only is someone pushing cable awfully hard for apparently meager returns, but the meager returns themselves will cease in a matter of years.

It is becoming apparent that the hidden interest of promoters, is in the cable, and not in the TV. They don't care what kind of *terminal* people want—flowers, TV, or ticker tape, just so long as they can install the coaxial cable. And in order to lay down that cable, they are going to offer every inducement in the book. The cable can handle any kind of data ranging from computer print-outs and burglar alarms to videophone and telephone communications (and not surprisingly, Bell Telephone is fighting desperately to keep its grip on the 2-way tele-communications field.)

In the light of this type of analysis, the economic value of cable becomes more obvious. Most people are buying cable in order to have more feature films to select from, but the renegades need a different inducement to install their cable. So, community cable becomes the free gift and everyone packs into the information supermarket.

We are running out of room for consumer goods. Products have to be recycled and the great production boom is tapering off. But the geniuses are ahead of us again. Just when the consumer society was getting glutted, they have discovered a range of products that take up no room and destroy no wildlife. They are peddling software. Door to door they come with the innocuous cable, leaving behind a direct line to a cornucopia of consumer software.

The hucksters of tomorrow will make it so easy to purchase software that the consumer society will never have to leave its hearth, home, and coax terminal. Banking, shopping, reading material, films, news and business, will all be pipelined to your home via the handy set of copper wires. The society that consumes together stays together.

And as always, every communications device finds military and police applications. If telephone tapping is a fear, imagine the surveillance made possible by coaxial cable. Even without tapping, the telephone company now has a complete record of every long distance phone call you have ever made from your home. When virtually *all* information an individual receives is processed through a cable, privacy will become a nostalgic memory. By pushing a retrieval button, controllers will know what movies you have selected to see, what books and magazines were printed out for you, at what part of the news you lost attention, who you spoke to and what your facial expression revealed about your attitudes...

Caveat Emptor.

Tom Paskal

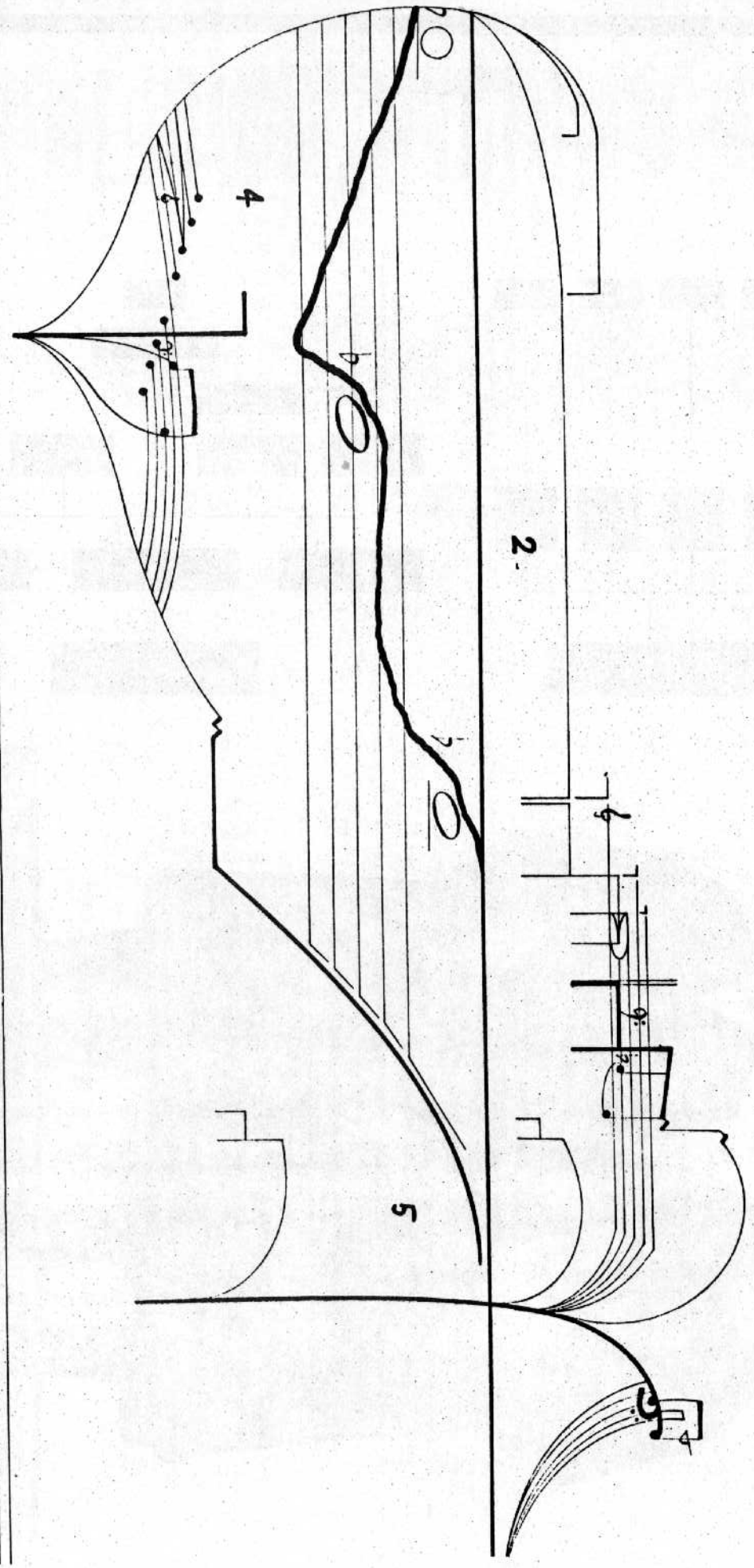
But beyond the technological supermarket, there remains an even more profound flaw in the cable vision: and that is, whether we want to replace Johnny Carson with Jerry Rubin, whether we want to develop a brighter, more intelligent, ever more seductive TV, even if it has the purest socialist heart. True, poor people's housing developments don't usually have their own auditoriums, and hence a cable TV town meeting would offer some organizing potential. But why not just build a meeting hall, instead of using twice the resources to construct a TV system?

Television watching is, to begin with, a passive activity. That's why you ought to keep your eye on it. If it is true that passivity, alienation, and a sense of powerlessness are among the most dangerous epidemics in our society today, the television set is suspect at the outset regardless of what's programmed on it.

Ramparts

videographics by functional simulation

by alex bacopoulos



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(1) A. BACOPOULOS, Deux generalisations de l'approximation Tchebitcheff, verifiant des contraintes d'interpolation, Comptes Rendus, Acad. Sc. Paris, Vol. 270, No. 23 (1970).

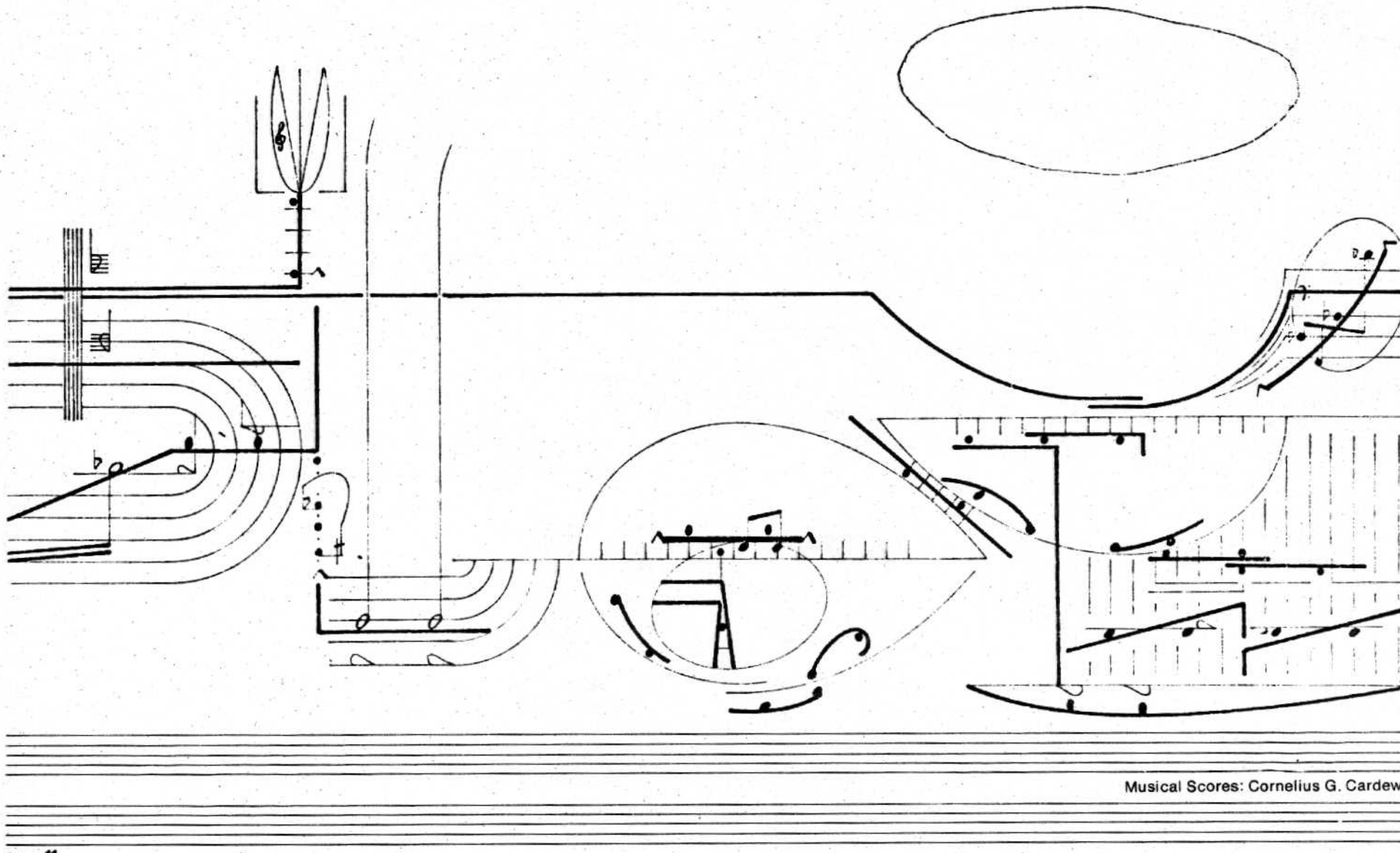
(2) A. BACOPOULOS, Topology of a general approximation system and applications, J. Approx. Theory, Vol. 4, No. 2 (1971).

(3) A. BACOPOULOS AND E.W. CHENEY, The approximation of functions: An introduction to the theory and to some open problems, Bull. Soc. de Grece, Vol. II, Fasc 2 (1970).

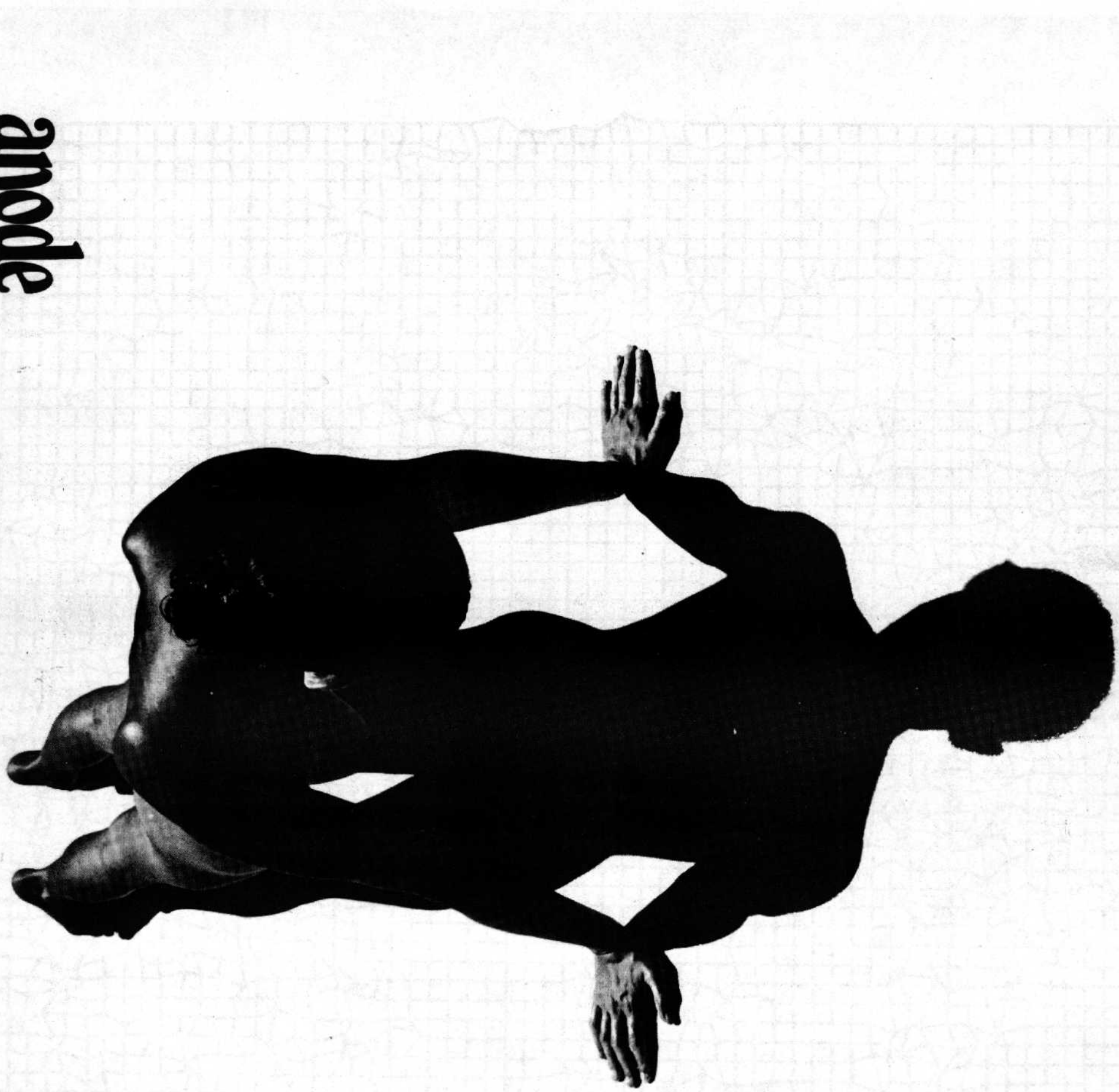
(4) E.W. CHENEY, "Introduction to Approximation Theory", McGraw-Hill, New York, 1966.

(5) NOAM CHOMSKY, Articles on Anarchism, New York Review of Books, 1970.

(6) STOCKHAUSEN, He has given many lectures on the subject. See also the works of Petrassi.



Musical Scores: Cornelius G. Cardew



The Tale of Anode and Cathode

by Mike Mills

Ideally the design of communications equipment should proceed like the natural time-consuming crafting of musical instruments. Melodies and messages both exhibit patterns and rhythms which permit their composition. But the structures of the mind —from which these emerge and which they can easily penetrate—remain mostly undisclosed.

To make matters worse, the designer and user of the new technologies, unlike the music craftman and concert performer, finds it difficult to know when he has built or uses a medium which generates "sour" chords.

And throughout the dilemma, the technology of communication is not following a natural kind of evolution but gathering mass-produced momentum that makes the head reel.

In the past two years, my friends and I have explored a range of video techniques in a range of communication environments. And the effects which they produced sometimes affected me like good music—spontaneous, exciting, soothing to the psyche. But at times, ugh. Like the singing of Jerry Lewis.

Although I cannot detail why certain communication environments resonate with good feeling or good "vibes", certain trends are becoming evident. I would like to discuss a couple of these instances along with some "theory" or speculation as to why they do the way they do.

First, I should say that there is probably no video or "communications" system that is optimum for any particular communication context. Just like old records, systems can become redundant.

OK. Which systems were interesting? They fall basically into two categories. Those which are concerned with what has been called here "self-processing" but which I prefer to call technologically-induced self-confrontation (video is not the only medium capable of this. Script, photos, mirrors, spoons, water, all kinds of reflections). Those which were used for "interaction" i.e. when more than one person communicates using the medium in a real-time mode. This could involve man-computer-video interactions. Obviously elements of "self-confrontation" of self-interaction must exist simultaneously with bidirectional or two-man interactions.

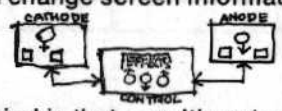
The self-confrontation thing has probably been beaten to death in this and other publications so it is better left untouched. Except to admit that all communication is ultimately self-communication and sets limits on interaction with other people. In fact, interaction between people might more accurately be described as simultaneous tandem self-communication. It's almost like a gymnast doing a handstand claiming he's doing two 'one-handers' at the same time.

Probably one of the most interesting "video interactions" I took part in happened at a well-known university where graduate voyeurs began "gaming" with television (we used to call it television in those days), manipulating a kind of erotic behavior. We had at our disposal a 1950's type studio with special effects generator and other goodies. We recruited one male and one female participant whose images are now part of history. Let's call them Anode and Cathode.

Now, on the morning of the interaction, Anode had little if any knowledge of Cathode—strangers you might say. We placed Anode (the male) in one room and provided him with camera and monitor. For Cathode (a female almost capable of melting the phosphor off our screens) the same environment was provided along with props such as huge wooden boxes to sit on. Through the system, Anode and Cathode could talk to each other.

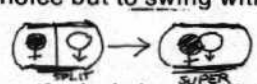
And we, the three graduate voyeurs, bedded down in the control-room with our gadgets and buttons with which we could change screen information on both screens in both rooms simultaneously.

Like so:



The point to keep in mind is that a multi-party communication situation existed with the two participants able to react and respond to (1) their own movements (2) each other's images (3) the happenings in the common space which they shared with the controllers. In other words, if we split the screen which placed both their images in different halves of the screen, they had no choice but to swing with it and modify their behaviour appropriately.

It might be as follows:



Now. Our objective, not particularly honorable, was to use a series of effects (change the screen information) gradually and subjectively so as to urge the couple to control their images in artistic eroticism and/or in the finest porno tradition. In other words, is TV sex possible in real time?

Needless to say, a tricky but interesting business.

cathode

Photo:Tom Paskal

I confess that in a given time-grain of about two hours, we as video manipulators brought about a kind of behaviour that would not have been possible divorced from the medium which enhanced it.

If you are a male watching your image on a screen and it superimposed, in real time, with the body of a female, there are not a lot of behaviours you can perform.

Similarly if screens are split so that one half body is male, the other half female, predictable activities follow. And if the image of a mouth is placed adjacent to the image of a full breast . .

The mission—video-induced heat—was successful to the point where Anode became so aroused that he broke through his room, left television space, and entered Cathode's chamber for real space, and the "real thing". If it hadn't been for the weakness of (crack!) wood, that is the cube upon which Cathode was lying when Anode mounted her—the experiment would have been complete.

We investigated the ramifications of this equipment assiduously after hours and on weekends.

There are a couple of things to note about the above processes. First, what is interesting to me is that all the control over screen information was vested in the control room. That is, the participants themselves had very little, excuse the expression, 'hands-on' control of the system. They were completely dependent upon us to vary the sequence of effects which set the context for their play. This is unfortunate because it probably resulted in a certain predictability.

Further this lack of 'user' control is a serious weakness if one considers some theoretical notions of how any organism should react or interact with any environment. It is critical for any kind of "resonance" in a communication that people have active participation in the messages which they are receiving. Another way of saying this is that "involvement" or "good" interactions depend on the organism receiving information (i.e. those messages which make a difference in behaviour) critical to adaptation and survival. More simply, although our experimental system provided the two participants with "feedback" i.e. they could monitor their results, they could not actively explore the range of effects the system could provide for them.

A rule of thumb for self-processing activities, especially in the psychotherapeutic domain, should be to provide the participant viewing his own image some kind of control over his screen-information. This can be done in a number of ways ranging from providing the viewer with a primitive special effects generator which dissects the space in real time into halves, quadrants, etc., to playing around with different kinds of delay-loops which permit him to reflect upon past behaviour while still maintaining a degree of control over it. These loops can be like playing "Simon says" with yourself.

Back to the interaction. This lack of responsiveness, our failure to permit either Anode or Cathode to participate directly in system's messages resulted at one point in Anode's anguished cry, "Oh, oh please superimpose, superimpose."

Moving to a different experimental environment

During an interaction which involved two little girls playing with each other's images on the monitors, a tape which contained a sequence of one of the girl's fathers was placed on her monitor along with her own real-time image over which she had control. Astonishingly, she began interacting with him as if he were really capable of responding. I suppose she thought that he was broadcast from another room. She continued to call to him, to respond to his movements and voice until it reached a point where his non-response was becoming frustrating and upsetting and so the tape was ended.

One striking moment stays in my mind. It is when, unable to get real feedback or control of the screen image of her dad the little girl began miming his movement. When he raised a hand she raised a hand. It was the first and only time I have observed someone enter in good faith into an interaction with a non-human taped image.

The implications of this are fun to toy with. Suppose, just suppose that cable or picturephone become all they are supposed to, that someone has on hand a tape of you when you were interacting . . . you might be party to an interaction and never know it.

So, what have I learned?

Although it may not be possible to specify a video system to provide good messages like an instrument provides good music, one thing is sure in whatever system is contemplated, in whatever context, from cable systems to self-confrontation—just as playing an instrument is not a passive activity, so the terminal interface must allow the user to actively and continuously control, in real-time. the images and messages being displayed.

EXTRAS

Free Print
For a community-oriented how to, why to, and what to TV guide write for **Community TV Guide.**
Institute of Urban Studies
Graham Hall
University of Winnipeg
Alberta

The Media Research people at the National Film Board are doing VTR work with kids. **Screen** has documentation of their activities and news of other "educational" projects in Canada.
Christine Assal, Editor,
Screen,
NFB
P.O. Box 6100
Montreal 101, Quebec.
Ask her to put you on the mailing list starting with VIm. IV, No. 2.

The Canadian government's perspective on cable is in **The Integration of Cable in the Canadian Broadcasting System.**
Canadian Radio-Television Commision
100 Metcalfe,
Ottawa, Ontario

For reports on grassroots use of video as a tool for social action write for the **Challenge for Change Newsletter.**
Challenge for Change
National Film Board of Canada
P.O. Box 6100,
Montreal 101, Quebec.
Ask for the special issue on cable and back issues on VTR and social action. Ask them to put you on the mailing list for future issues.

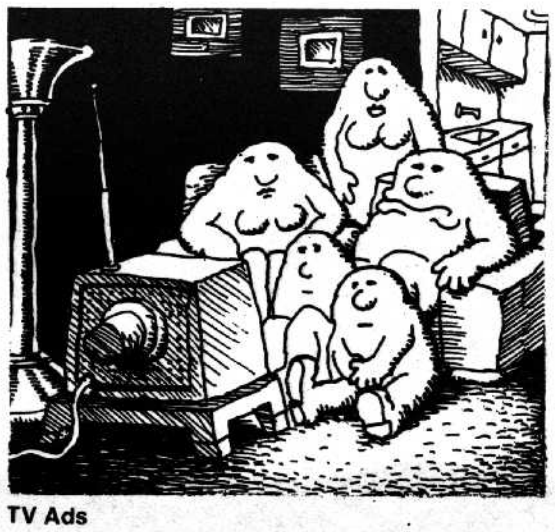
Media Inter Great is a weekly hand-out with info on what's going on in the Montreal Community.
Rosemary Sullivan
Dawson College
535 Viger
Montreal, Quebec

Introducing the 20th Century Community Center is put out by
The Programming Department
Rogers Cable T.V. Limited
25 Adelaide Street East
Toronto 1, Ontario

For technical information write for the **Sony VideorecorderApplications Bulletins** and other public relations information.
Sony Corp. of America
47-47 Van Dam Street
Long Island City,
N.Y. 11101
Say you are a school or company. They seem to have more business than they can handle and they are short-sightedly cheap with publicity.

Anyone interested in the galloping menace of the Three V's (Videocassette, Videodisc, Videocartridge Industry) write for the first and free issue of the self-congratulatory trade magazine, **Videorecord World.**
Videorecord World
Uranus Square
Box A-Z,
Irvine, California 92664.

The complete Challenge for Change/Société Nouvelle brief to the CRTC which includes detailed discussions of their two major projects, Thunder Bay, Ontario and Normandin, Quebec, can be had from:
Challenge for Change/Société Nouvelle
NFB
P.O. Box 6100
Montreal 101, Quebec.



TV Ads

Selling products is not what T.V. ads do essentially. The population explosion and the broadening of purchasing power in the middle and lower classes have probably had more to do with selling than all the T.V. ads put together. (Car manufacturers are in financial trouble these days. The ads are as numerous as ever, but money is tighter and the population is leveling off.)

Ads don't sell the products the corporations paid to have advertised, but, they do sell a lot of things. They help to sell the Museum of Modern Art by appearing in its film catalogue. They help to sell McLuhan and the dozens, if not hundreds, of college courses that are to some degree spin-offs of McLuhanism. Selling the "corporate image" is the explicit objective of many ads and the implicit effect of all ads.

Ads sell themselves. The "need" they create is the need to advertise.

Ads sell television—at least television as it has been developed by the networks (and here I would not exclude the "educational" or "public" networks). Ads **are** often more interesting to watch than the regular programmes. Beyond that, the structure and rationale, the whole style of network television, is set by the ads. Not only are the programmes there for the sake of the ads, but the programming itself, the structuring and choice of subject matter, are at the mercy of the ads. It's not an accident that the form and content of many T.V. shows are indistinguishable from the ads.

Television's success depends on its ability to hold up mirrors with the right answers for the right people. The aero-space ads sell us the moon, Americanism and the spending of public money for private profit. Airline ads sell tourism and neo-colonialism. Car ads sell highways (more public money for private profit) and private ownership, not to mention the kind of "individualism" that undercuts the development of mass transportation systems. In Canada, a "prize-winning" beer ad showing two Beautiful People kissing in front of the Quebec pavillion at Osaka 70 sells Trudeau's new Pacific policy. From McDonald's hamburgers and Kentucky Fried Chicken to Xerox machines in chromium offices and Mercurys parked on golf club fairways, what's really being sold is a white, middle-class life style.

The video tapes made and exchanged by alternative media people may promote particular causes and life styles, or even, like the Whole Earth Catalogue, tell us that Brand A is better than Brand X, but they do not try to eliminate ambiguities for the sake of contrived climaxes. They try to do justice to the complexity of human beings by leaving things open to individual responses. And that, in the long run, may be what "alternative media" means—no ads.

Bill Wees

Ampex HS-200

Radio Quebec was created to serve education throughout Quebec province working in collaboration with the Ministry of Education and other Provincial government departments.

Included in the production equipment housed in two large studios are three Philips Plumbicon colour television cameras, with two colour tele-cine cameras and projectors. Two of the four colour video tape recorders are used for editing and there is a computer controlled editing system which greatly speeds up the composition of video tapes, especially where these contain a mixture of live and graphic subjects.

I worked with an extremely interesting machine, the Ampex HS-200, partly computerized. It has a 30 second intake of film and can slow down, freeze, speed up, do reverse action, edit frame by frame, colourize tape shot in black and white (one colour at a time, not by grey scale), and superimpose any number of images on a particular frame. The experiments produced with the Ampex HS-200 are studies in video animation achieved, unlike their film counterpart, instantaneously.

Radio Quebec has a studio reserved for training sessions. It serves France-Quebec TV personnel exchanges, students and professors who want more information on the use of audio-visual techniques, groups desiring to be "sensitized" to different aspects of communications media.

Radio Quebec will lend this studio to universities with video programs and will furnish qualified personnel (technical and conceptual) at a nominal rate once an agreement has been drawn up between the ministries of communication and education and the university or institution concerned.

Nicole Leduc

TV Competition

Television stations are presented with new competition when cable television makes distant stations available. Even if these distant stations, often American, do not deliberately seek to compete for advertising revenue with the locally licensed station, they do claim portions of the audience. This affects the revenue of the local stations and is prejudicial to the establishment of additional Canadian television services in some communities.

The Federal Communications Commission is seeking ways of coping with this phenomenon in the United States, just as the Canadian Radio-Television Commission is in Canada.

There are however certain specifically Canadian problems. Cable television has developed more rapidly in Canada than in the United States, where its spread in the major cities has been delayed by the FCC as a matter of policy.

The problem for Canada is more acute than for the United States.

Except for Detroit and Buffalo, no major U.S. city is within reach of Canadian television signals. Yet, most of Canada's largest cities are within reach of U.S. television signals. In some cases television stations licensed in the United States could not exist without their Canadian coverage as a source of revenue.

As a result some Canadian cities that would otherwise have several television stations have only one or two.

It is also estimated that some $12-million to $15-million a year of Canadian money is spent to buy commercial time on U.S. television stations. The indirect effect is more difficult to calculate, but international advertisers would probably have to spend about double that amount per year on Canadian television stations to achieve the same impact if the border spill-over did not exist.

Television stations in Canada's largest cities have survived in spite of this problem, but often with difficulty. Rapid development of cable television, especially with distant head-ends and broadband techniques, increases competition in larger centers and introduces competition into areas where television broadcasting is already economically difficult.

excerpt from: *The Integration of Cable Television in the Canadian Broadcasting System* — Canadian Radio-Television Commission (CRTC) Feb. 26, 1971.

Sending Tapes Across the Border
(of their minds)

1. Get the customs declaration label at the post office and write down: *Educational—non/commercial.*
2. Where the label asks value, give *cost of raw tape only.*
3. Address it to a friend at a *university.*
4. If true—write down: *Return of loan, property of addressee.*

Tapes returning to *country where they were made* should be so identified as it avoids all problems.

A More Viable Social Reality

Consider the breadth and depth of topics as well as the easy accessibility which will be provided by the growth of VTR and EVR cassettes and mass distribution which will link into a television set anywhere. Consider how the linear sequence of film may be broken down with ease and facility by the manipulation of images enabled by the link up of a kinescope tube display screen, information stored digitally on a computer tape and the information-handling capabilities of high-speed fourth-generation computers and computer terminals. These developments considerably weaken the previous advantages which print has held over filmic material as an academic medium. Now it will be possible to have a wide variety of in-depth specialized topics for study which are readily accessible. Now it will be possible to manipulate images and sequences of images in any desireable fashion, to view, review, rearrange and to pursue, prod and contemplate images at any rate you want.

VTR and film can be readily extended into academia by virtue of these features and by virtue of its engaging and timely conceptual and information-storing characteristics. The ramifications of social theory developed from visual data can be understood by non-academics. It is therefore likely to be used by these people and, with the help of those researchers who are interested in social reconstruction, for the purpose of developing a more viable social reality for everyone.

Barry de Ville

Cartoons: R. Crumb

Use of VTR in Children's Personality Disorders

Use of VTR in the treatment of young children with psychotic disorders, psychoneurotic disorders, personality disorders, transient situational personality disorders, chronic brain disorders and autism.

Andy Selter, Laurel House,
1896 West 15th, Vancouver, B.C., Canada

1-Taking video of the children acting out seems to affect their behavior. e.g. girl being force-fed at meal times—watched herself later that day. She became very aware of the camera; never had much trouble feeding her again.
2-Body image—one of the difficulties confronting the brain-injured child is his confusion about time, space and body orientation. With video they become aware of different parts of the body—watch themselves on monitor as they do body movements.
3-These children have problems sequencing temporal orders. They have trouble answering questions like "What did you do before breakfast? After breakfast?" We can video kids in action, ask them what they did afterwards and use the tape as an aid.
4-Making puppet shows etc. to aid expressive language.
5-Field trips—playing back to see what they did.
6-Behavioral record using time sampling technique. The child is taped for approximately 5 minutes in two different situations (structured and unstructured) once every two or three weeks. The purpose is to develop a library of child's behavior to observe his development over a long period of time.

Laurel House has had unexpected success in their use of video with autistic children.

Underground Newspaper Distribution

Dear Merrily

I'm writing to you because Charlie doesn't have the time or energy write now. He is skidding logs out of the bush with horses 12 hours a day and then trying to get the garden in the evening.

Our information is very limited. The little information we did have in the way of files was confiscated by the police with all our records. As for arrangements, all our work was done on consignment which leaves you holding the bag if you should back out. It wasn't infrequent that bookstores would refuse to put issues on the stand because of pornographic material. This leaves you stuck with several hundred newspapers with one photograph on pg. 12 of some love-in with a naked body in the background. Most of the people we dealt with were into making money and staying clean but a couple of places just wanted to make available to the public an alternate viewpoint. Since we were distribution that meant there were three parties involved—publisher, distributor, store—all taking cuts. All the stores we dealt with wanted about ¼ of cover price unless they could sell in volume like Rolling Stone then they were willing to take the paper or magazine for a smaller amount. Most of the stores did not change the cover price although a few always added 10c-15c to the price of the papers.

We found a lot of stores were unwilling to take a paper directly from the source but they would take a variety of papers from us. The problem is that there are very very few outlets that can sell in quantity any given paper. Therefore for them to take an individual paper is not profitable because of the time and bookwork involved. On the other hand if they get from 5-10 copies of 15 or 20 different papers this makes it worthwhile. (This includes college bookstores that took papers from us and sold well but not any quantity of one paper.) The picture for individual papers is pretty bleak as far as I can see because no one wants to keep books and carry on correspondence for 5 or 10 35c papers a week.

As far as importation goes we had very little problem although Steve Harris (editor of **Octagus** in Ottawa) started up a distribution business in Ottawa and had nothing but hassels with 3/4 of his papers being held up at customs for such a length of time that they were no longer able to distribute them (in one issue of Village Voice (what could be less obscene) they found fuck on page 32) These are the two extremes—we had no problems—Steve was plagued by them. Oh—papers should always be sent by mail—they will usually go through with no hassels. We had one paper **Cream** that insisted on sending their papers by shipping companies. These were inevitably caught by customs people and if not found obscene then they want 35% duty because they are objects to be sold. Through the mail it is just classed as printed material.

Stores we distributed in Montreal which might be good outlets are:
1) Classics (stores across Canada) the people to get in touch with are the people at 1327 Ste. Catherine West.
2) Phantasmagoria (record shop at 3472 Park) probably won't sell in quantity unless music magazine but good people willing to get the word out.
3) Mansfield Book Mart (2065 Mansfield) won't sell in quantity but good people.
4) Montreal Paperback (2075 Bishop)
5) Browsers (3505 Park)

If a paper or magazine wants to get the word out these are good people but they won't make any money. All our other contacts are either out of business or they are not good people to deal with.

Well I must close now if I am to get this to the mail.

Molly

Nova Scotia College of Art and Design publications. A catalogue (8½ x 11, Soft Cover, 24 pages) consisting of one work (Photograph, Diagram, Print or Words) representing each participant in the N.S.C.A.D. exhibition at a space for $1.00. (Add 25 cents for mailing in Canada and U.S.A., 50 cents for Europe).

Trans VSI Connection NSCAD - NETCO, Sept. 15-Oct. 5 1969 (Published: 1970) consisting of an exchange of information between **The Nova Scotia College of Art and Design** and Ian Baxter's **N.E. Thing Company** via Telex, Telecopier and Telephone. The N.E. Thing Company initiated proposals and the college community responded with some appropriate activity. The book is a chronologically arranged record of the exchange: letters, maps, drawings, photographs and telegrams. 8½ x 11 inches, soft cover. 110 pages. Price: $4.00 from A SPACE (add 25 cents for mailing in Canada.)

Glorious Fujicolor. More than 500 of Osaka's "avec" hotels—so called because the Japanese check into them with their lovers—feature the videotape extra. "This is an electronic age," explains Seishichi Sawa, manager of one of Osaka's avecs. "It's natural that our patrons would want to be electronically elevated to a romantic mood."
Operation of the pornetwork is simple. The tapes are run through a video player at the front desk. When customers drop a pair of 100-yen coins into a slot on a TV set in their rooms, the result is instant pornography, often in glorious Fujicolor. Picking up a show in midstream makes little difference; one popular pinkie simply follows an energetic coed as she hops in and out of a series of bedrooms.
Video-taped pinkies are beginning to face stern competition. In some hotel rooms, video-tape recorders have been installed. A switch near the pillow starts a camera recording activity on the bed. Afterward, another switch provides instant replays. Rooms so equipped are in steady demand: one couple attempting to sample the pleasures of an avec hotel was told by the maid to wait at a nearby coffeehouse. "All the rooms are occupied," she said, "as usual."
Erotic Bliss. Despite the demand, the hotels charge nothing additional for the service. Most, in fact, offer a remarkable range of extras, including mechanized beds that make a bewildering variety of movements, and even tape recordings of the sounds of erotic bliss. "We Japanese have few fixed ideas when it comes to sex."

Therapeutic-Industrial Complex

In recent years radicals have become intrigued with the democratizing potentials of video tape. When psychiatrists and other elitist and non-democratic therapists began turning increasingly to ½ inch video tape, it did indeed begin to look like the "greening" of therapy. Unfortunately, when one examines the therapeutic settings of such reknown therapy video-freaks as Milton Berger, M.D., (with whom I have worked) one can't help but become rapidly disillusioned about Berger's and others' therapeutic efficacy and radical politics.

Video tape is considered to have a radical potential because it can be used and viewed by anyone. The artificial dichotomy between taper and viewer is removed and with it the mysticism of mass media. Video tape can turn the passive viewer into an active articulator of her/his surroundings, increase real communication, enhance community and decrease alienation—all of which is therapeutic, and none of which has anything to do with the way psychiatrists have used video for therapy.

The over-arching trends in therapy systems have in general pretty much paralleled the trends in the economic and industrial system, namely a trend towards "technologization" and glamourous mechanization. In psychiatry the setting of therapy is going from couches to cameras (albeit, video cameras). Therapy has joined the electronics industry to become part of a therapeutic-industrial complex. Though there has been an evolution in the technology of therapy, the politics of therapy remain the same. The artificial dichotomy between "patient" and professional remains. The camera in the hands of the therapy professional is a one way tube, controlled authoritarianly by the professional, mystifying and pacifying the "patient". Berger, et al don't seriously use feedback mechanisms, but rather the old broadcast model of a leader or master of ceremonies with a passive audience or "patients", imposing on them arbitrary interpretations of what and what is not pathological.

Video feedback remains potentially radical, and as such we applaud their use as an adjunct to therapy. What we do oppose is the political context of contemporary therapy and the politics of its therapists. A pig therapist dispenses pig therapy, whether the "patient" is on the couch or in front of the camera. In the hands of a Berger, video tape has become not the "new morning" of a democratic therapy, but the latest form of technological rip-off.

Richard Kunnes (Psychiatrist)

Jean-Paul Sartre recently made a long public statement on the socio-political situation in Quebec. In a video-taped interview with the actor Jean-Pierre Compain and two other Québécois, the eminent French philosopher delivered a relatively detailed analysis of the October crisis and its consequences. This video-tape was shown publicly for the first time in January in Montreal, before some 300 people at a seminar organized by the Quebec Committee for the Defence of Civil Liberties.

Dossier Z is a summary account of police and political interference in journalists' work during the October kidnapping crisis. It was released April 15 but few of the news media within Quebec or outside carried details.

The report is divided into:
1. "Unmotivated Arrests of Journalists"
2. "Direct Interference"
3. "Searches of Reporters and Press Photographers"
4. "Policemen" Disguised as Journalists in Press Conferences"
5. "Journalists Molested and Professional Equipment Damaged"
6. "Journalists' Appearances in Court"
7. "Self-Censorship by the Communications Media During the October Crisis"

Each section is documented with detailed reports of actual cases. The 26 page report was compiled by the Federation Professionnel des Journalistes du Quebec. Write to them at:

1057 rue des Erables, Bureau 8,
Quebec 10, Quebec

for the full report in French or the somewhat abridged English translation.

Claude-Jean Devirieux, a journalist with the French CBC-TV network, had already noticed the presence, during the press conferences held during the October crisis, of a team of technicians recording the speakers' remarks on a small Sony tape-recorder. When someone indicated to him that this was a police team, the CBC journalist at first found the matter amusing. Then he thought that perhaps it would be better if the police gathered its own information, directly from the source, rather than being obliged, as had previously been the case, to seize the tapes or films made by journalists.

One morning, during a press conference given at the Windsor Hotel by the Batonnier (president) of the Quebec Bar, Marcel Cinq-Mars, the team mentioned above was present. But instead of simply filming the speaker, the cameraman and his assistant focussed on Devirieux, thus recording his personal reactions as he asked questions and during Cinq-Mars' responses.

This was not only unpleasant but also abnormal. Some journalists use a well-known technique which is usually effective in getting their subject to talk: they act as the devil's advocate, so to speak. This is the case with Devirieux. But this journalistic technique, effective in a press conference or the exercise of the profession, can, if taken out of context, distort the image of the journalist in question. Fearing the use which the policemen-cameramen might later make of the tape of his questions or his gestures, Devirieux asked the two technicians to identify themselves. They claimed they worked for the National Film Board. Being well acquainted with the NFB staff and their method of work, Devirieux did not believe this. He asked them brusquely: "Are you from police?" and the answer, in these words, was: "We work for the police, but you mustn't say so."

Devirieux at once notified Cinq-Mars, then the management of the National Film Board and the President of the Fédération Professionnelle des Journalistes du Québec.

GETTING WIRED

The EEG alpha rhythm is a regular wave pattern with a frequency of 8–13 Hz, deriving from the back of the head. With electrodes pasted gently to your scalp, they hook you up to a machine which monitors and amplifies your alpha, and sends it back to you in the form of a tone. And people have shown remarkably rapid progress in controlling that tone, i.e. in producing more or less alpha at will.

The implications of this voluntary control of brainwaves are great, and a number of psychologists more knowledgeable than myself have contributed a paper on that subject to this issue. I want to stick more closely to the actual experience of the alpha state which has gained much attention as an altered state of consciousness.

Hugh Macdonald, alpha experimenter in the Department of Psychology, Stanford University: If you're always very much in the world, and somewhat paranoid, always using your eyes to kind of check things out, then you close your eyes, relax, and alpha blossoms. If you can learn to get into that state with your eyes open, it seems very weird to most people.

A person sits there and gets alpha and is in a very relaxed state, but he can't fall asleep. Fall asleep and alpha disappears. So in alpha feedback training, we give you a tone which keeps you awake and tuned into your alpha for an hour or so.

People who know nothing about it learn very quickly how to get into this state. They say it's like ballet or football or skating or playing billiards, something that's flowing and enjoyable. If they know it has to do with meditation, they say it's very meditative. But the longer they train, the more they say it's not that. It's essentially doing nothing, being awake but doing nothing. You let your mind go off and do what it wants.

Most of the effect, I think, is that for once people are sitting alone quiet with themselves. How many people just sit alone for an hour or so a day and just do nothing, unless they're meditating?

S. S.: Do they say they like it?

Hugh: Yes, but for how long? We did seven sessions in one study, and by the sixth and seventh session at least 50% of the people were starting to fall asleep. They weren't very interested any more. It had lost its appeal. Like meditation. At the beginning you get this high and then after a while, "Oh, so what?" Like eating butterscotch pudding every day.

S. S.: Why do they fall asleep?

Hugh: Wouldn't you? You feel nice and warm and cosy in front of a heater, and then you fall asleep.

Normal alpha isn't actively turning it on. It's just closing your eyes, really turning your eyes off. With eyes open in a feedback situation, people go from producing a little bit of alpha to a lot. But to actively get it above that lots of alpha stage to your normal eyes-closed alpha, from 70% to 90%, is very hard for people to learn. You have to really try. The medium highs, they have lots of alpha, it's all over the place and plenty enough for us, but pretty soon they're just doing nothing. And it gets boring. They want excitement, stimulation, more contact with the world. Conversely, if you give people alpha-off training, they want to relax and let go. Huge bursts of alpha follow alpha-off training.

Once again, it's like meditation, like everything, like all skills, and it is definitely a skill. We had only one guy who did alpha work with enough regularity to really get good at it, and he found that once you passed the boredom stage, things got extremely good. Meanwhile, it's tedious, painful, and takes a lot of effort.

So the alpha state is a kind of high which takes a lot of work to get you very high. Some experimenters are trying to link alpha level with hypnotizability, or with psychic powers, but with no significant correlations yet. My friend Hugh measured 3 or 4 persons with naturally occurring psychic phenomena and they had no alpha rhythm at all. Blind people don't either, and neither do a small number of other people for reasons no one understands. Maybe they have a wholly different way of seeing. In any case, no one has found a way to increase alpha where there is none to begin with.

A relatively new field for research is lateral alpha activity. Generally, there is more alpha from the right side of the brain, long considered the center for processing music, imagery, spatial information, and gestalt tasks, than from the analytical, mathematical left side. Recent experiments (Ornstein & Galin, 1971, and Morgan, McDonald, & MacDonald, 1971) show that during analytical or logical problem solving alpha goes down on the left side, while during imaginative tasks it decreases on the right. These experiments add to the growing body of evidence for independent functioning of the two cranial hemispheres, as well as supporting the notion of alpha as a relaxed cortical state.

-S.S.

Implications of Physiological Feedback Training

by Ralph Ezios

With the invaluable assistance of Barbara B. Brown, Eleanor Criswell, Lester Fehmi, Elmer Green, Joseph Hart, Joe Kamiya, Hugh Macdonald, David Nowlis, and Robert Ornstein.

from *The Proper Study of Man* by James Fadiman (New York: The MacMillan Company, 1971.) Copyright 1971, James Fadiman.

In a much-cited passage, Weston LaBarre explicates his idea of *evolution-by-prostheses* in the following way:

> With human hands, the old-style evolution by body adaptation is obsolete. All previous animals had been subject to the *autoplastic* evolution of their self-substance, committing their bodies to experimental adaptations in a blind genetic gamble for survival. The stakes in this game were high: life or death. Man's evolution, on the other hand, is through *alloplastic* experiments with objects outside his own body and is concerned only with the products of his hands, brains, and eyes — and not with his body itself. (1954, p. 90.)

As LaBarre implies, man's technological evolution so far has allowed him to gain better and better discrimination of, control over, and ability to communicate about all manner of events and processes in his environment.

Included in the ever increasing comprehension of the environment, with concomitant ability to manipulate it, through science man has come to learn more about all organisms' internal events and processes. However, man's ability to discriminate, control and communicate about his own personal internal events and processes has never been markedly aided by technological development, and thus the prosthetic evolution has primarily had its effect on man's external environment and only indirectly has it effected him internally.

Physiological feedback training is exciting in this context because it is a small beginning in expanding and changing the direction of *evolution-by-prosthesis* and for the first time making it possible for an individ-

ual man to use technology to come to know himself better. The basic mechanism employed in feedback training is an electronic system which amplifies and informs the person as to the on-going activity of a selected physiological process, thereby aiding the person in discriminating the presence of events or stages in the process, thereby enabling him to gain some degree of voluntary control over this process, and also allowing him to develop a degree of sophistication in communicating about the process previously out of his scope. Although it could be argued that the mirror and the bathroom scale are considerably earlier instruments designed to give personal feedback on intrapersonal processes, the type of feedback is useful primarily in monitoring internal processes only indirectly as they effect externally apparent aspects of a person using them.

Therapeutic Applications: Biomedical and Psychological

Hart (in press) points out that feedback training tends to obscure somewhat the normal expert-patient relationship in therapy. Feedback devices allow a patient to know himself better, while allowing him to develop his own attitudes about what he finds out.

The development of inexpensive and portable devices to give feedback opens up a number of therapeutic possibilities. One may begin by considering some applications in the field of psychosomatic medicine. For example, Shapiro, *et. al.* (1969) have shown that people can learn to lower their blood pressure. Thus patients with high blood pressure could be given small portable devices for checking themselves regularly against high blood pressure. If the blood pressure were unusually high, they could then employ techniques that they had previously learned to lower it, and could make sure that they had succeeded by checking themselves against the portable device. This procedure either could be used at bedside in the hospital, or the device could be rented or purchased to be used in the patients' regular daily life. Thus the physiological consequences of states of mind engendered by environments or actions which the patient would be likely to encounter could be better comprehended, thereby allowing the patient to get insight into the psychological component of his particular illness, and even providing an opportunity to learn to control the symptomotology after developing this insight. While the patient should not be led to overly high expectations about curing his illness, the ability to use such devices could well be morale boosting to the patient who otherwise feels he has no hand in combatting his own illness, and that his fate is in the hands of the experts alone.

Many variations on the theme exist. A portable device for monitoring psychogalvanic skin response is already in production. Similarly a device that has been built by Hugh Macdonald with integrated circuitry capable of giving feedback on EEG, EMG, heart rate, skin temperature, vasoconstriction, and GSR exists and could be mass produced for sale at very

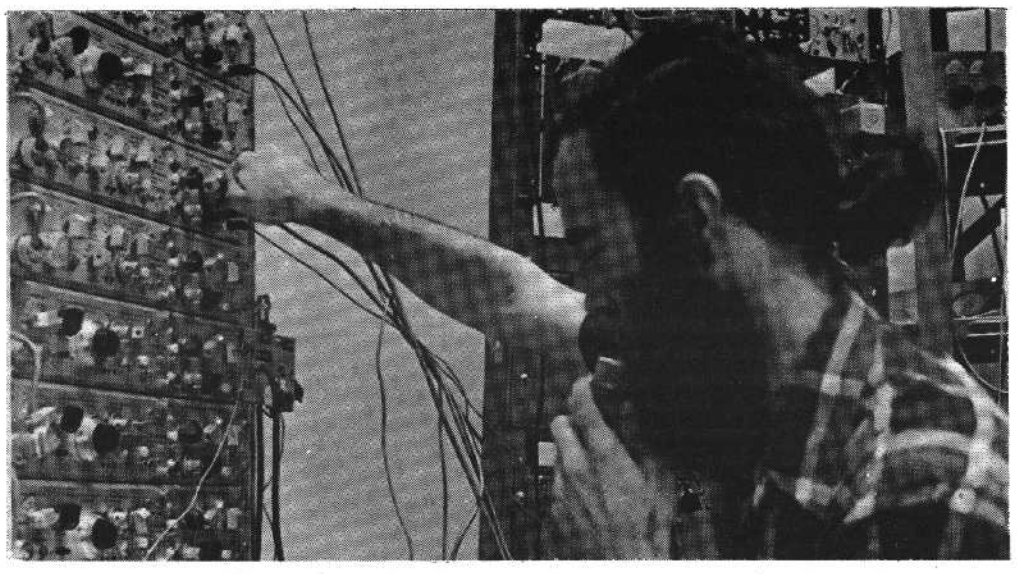
low prices. Patients with irregular EEGs predisposing to epilepsy, who get headaches or backaches from tense muscles, who have irregular heart beats at times, or who have any relevant physiological irregularities which vary with their psychological state might find these devices helpful. It would even seem in the realm of possibility to build small, inexpensive devices for feedback concerning stomach acidity, of potential use to patients with ulcers. Or feedback devices could be developed to allow a patient to listen to his intestinal functioning, to aid in proper digestive actions. Miller (1969) has shown that control over intestinal and digestive functioning can be developed very rapidly in animals.

A number of alternatives exist as to the type of feedback that would be given in these portable devices. In one potential type, most useful as a portable constant monitor, a physiological process would be monitored and the patient would receive a signal only if the process should cross a criterion indicating it was moving in an unfavorable direction (blood pressure too high, stomach acidity too high, heart becoming irregular, etc.). In another approach, most useful as a portable means for learning or regaining control, the feedback would be more analogous to the full process. Tiny variations in the physiological parameter would be brought to the attention of the patient and the patient could then engage in mental activities which would help to bring out desirable functioning.

In the area of psychiatry and clinical psychology such devices could also possibly be used with patients who had no specific somatic complaints. Because it is now possible to simultaneously monitor overt behavior, covert moods, and physiological processes in the natural setting (Nowlis & Cohen, 1968) procedures could be developed whereby both patient and therapist could develop more understanding of the covert moods and physiological patterns of behavior accompanying exposure to various aspects of the patients' environment. Then the patient could choose internal events which he would like to have occur more regularly, or more voluntarily, in his daily life and could begin a program of training, first at some training facility, then attempting to produce the pattern in the desired situation in his natural setting. Such procedures could increase the number of petients that a therapist could see, decrease the cost of psychotherapy, and decrease the problems associated with therapists' perceiving and dealing with patients from a single value system. In this type of therapy program, patients would have an unusual degree of freedom to choose their own goals, experiment with implementing and modifying the goals as they progressed in therapy, and test the results of the therapy in a very direct way against their actual life situation.

Another psychotherapeutic use of feedback technology could be in sensitivity training. Two people could use the feedback devices mutually in a number of meaningful ways. For example, one person could learn to help a naive person to reach certain physiological states. The naive person would receive no feedback, but the other person would behave in various ways to attempt to deliberately bring about various states in the first person. Or two people could observe the effect of various kinds of behavior on each other. Or, again, two people could together attempt to control a feedback loop designed to cue them only when both were in the same desired physiological state.

Furthermore, whole groups can learn to control certain feedback devices together. For example, the portable device previously mentioned designed by Buryl Payne, now available commercially to be used in giving visual and auditory feedback as to GSR, can easily be used by a large group holding hands, with two people in the group each holding one electrode instead of each other's hand. Groups could then attempt to together learn to increase and decrease their GSR, either alone or while being exposed to various stimuli. This kind of learning situation might be quite useful to certain groups. For example, any group of people who have to work together under conditions of high stress might want to learn to keep their GSR low, first alone, and then while exposed to stress provoking messages. Presumably, each individual would be learning not only to keep his own responses low, but would also be learning ways to help his fellow team members stay relaxed.



More basic research needs to be done on understanding physiological relaxation. Most of the physiological processes which have been successfully conditioned in our various laboratories are apparently influenceable by relaxation; that is, subjects learning to generate more alpha rhythm in their electroencephalogram, or lower muscle tension in their electromyogram, or lower heart rate, or warmer skin temperature, or larger vasodilation, or lower galvanic skin responsivity all tend to say that there is an element of relaxation involved in moving the process in that direction. Interestingly, our early findings also tend to agree that a subject who, through relaxation, has learned to influence one of these processes is not necessarily making any change in the other processes apparently influenceable by relaxation — for which the subject has not been given feedback. In fact, the processes appear to be remarkably independent in spite of the similar reports of relaxation. However, because relaxation is clearly involved in some way in the learning of each, one wonders if feedback training could in any way be used as a substitute for relaxant and tranquilizing drugs with patients suffering from anxiety symptoms, especially if the patients were trained to relax by multiple physiological criteria.

Entertainment and Aesthetics

There are at least two, rather different, applications of feedback technique to entertainment, one of the Kahn procedure, the other of the Kamiya-Brown procedure. Both applications however are based on the same general strategy, namely that the feedback signal itself need not be just a tone or a light, but can be slides of paintings of fine art, a motion picture, recorded music, or any of a large number of aesthetically pleasing stimulations *(e.g. a video synthesizer — ed.)*.

It has been called to our attention that there are now multi-media environment systems available, where as many as 12 film or slide projectors are controlled simultaneously and as many as 5 tracks of sounds. It could be both entertaining and instructive to have such a presentation controlled by a number of on-going physiological processes in a single individual, entertaining because of the person's sense of being intimately linked with the presentation, and instructive because in the past one of the most difficult aspects of psychophysiology to grasp has been the simultaneous intervariability of many physiological parameters.

Another potentially entertaining and instructive situation would be to have two or three people control with their physiological processes various aspects of the multi-media presentation. The people at first would just enjoy watching and hearing the patterns they were producing, and then could begin to test the effects of various kinds of interaction with each other on the blendings and discordances of the displays.

Not surprisingly, you can now own your own brain wave feedback device for just a fraction of the cost of a portapak. Phenomenological Systems, Incorporated, 72 Otis Street, San Francisco, California 94103, *will sell you a 4" x 2" x 1" unit for $190.00, including one free computer analysis of a cassette tape made by plugging into the output jack of your unit. PSI has sold 1000 units this year and are well into their third generation of equipment design, fortunately with no compatibility problem. From 4 or 5 information requests per day a year ago, they get thirty to forty today. In a few years, the devices will be produced like transistor radios, for $5 to $10 each.*

Like every technology, biofeedback devices have their Big Brother potential, which make surveillance cameras on the streets look benign. As physiological processes become increasingly linked to computers, someone may decide to make the communication two-way. Remember that the government has always been one of the foremost experimenters in the field of responsive environments, with propaganda, censorship, and surveillance the basic modes applied to each new technology, from time-honored newspaper censorship to modern day wiretapping. Imagine a few giant transmitters sending out patriotic vibes at the appropriate frequency, and before you can salute, the dimestores run out of flags.

But it's really nothing new. In the same way that so many of us have pushed aside the bullshit of broadcast television, we'll deal with what comes. Free universities will offer courses on cortical jamming techniques and Radical Software *will be a hologram of How to Build an Alternate Brain Wave Network.*

-S.S.

Education

One of us, like his subjects, has learned to control to at least some extent his EEG, EMG, vasodilation, GSR, heart rate, and skin temperature. The most fascinating and pleasurable experience for this experimenter was in the brief time he spent working on the skin temperature of his hands. Within ten minutes the person could warm or cool his hands, deliberately altering the direction on command when another of us signalled with a click from a nearby instrument room, the click signaling "go in the opposite direction". The experimenter could alternately cool and warm his hands even when the clicks came as rapidly as one a second. The process involved was one the experimenter had lived with all his life but had never had any insight into or voluntary control over until the ten minute feedback practice period. It was almost like discovering a new frontier, still needing to be charted and explored although close to us for millennia.

Some feel that oriental meditators are among the very few people who have developed sophisticated perceptual skills for internal processes. Such considerations might be useful in explaining why one aspect of the feedback training technique has been of particular fascination to many lay people (e.g. Luce and Segal, 1966) and professionals alike. This aspect is the potential application of feedback training to the western practice of eastern meditation. A number of independent studies done in India and Japan (e.g. Anand, 1961; Kasamatsu and Hirai, 1962) agree that there are physiological patterns which are strongly related to deep meditation, particularly in the EEG and EMG. The alpha rhythm is markedly increased in both yogic and zen meditation and is generated over areas of the cortex normally not involved in alpha production. Meanwhile, the EMG tends to fall to very low levels.

continued ⟶

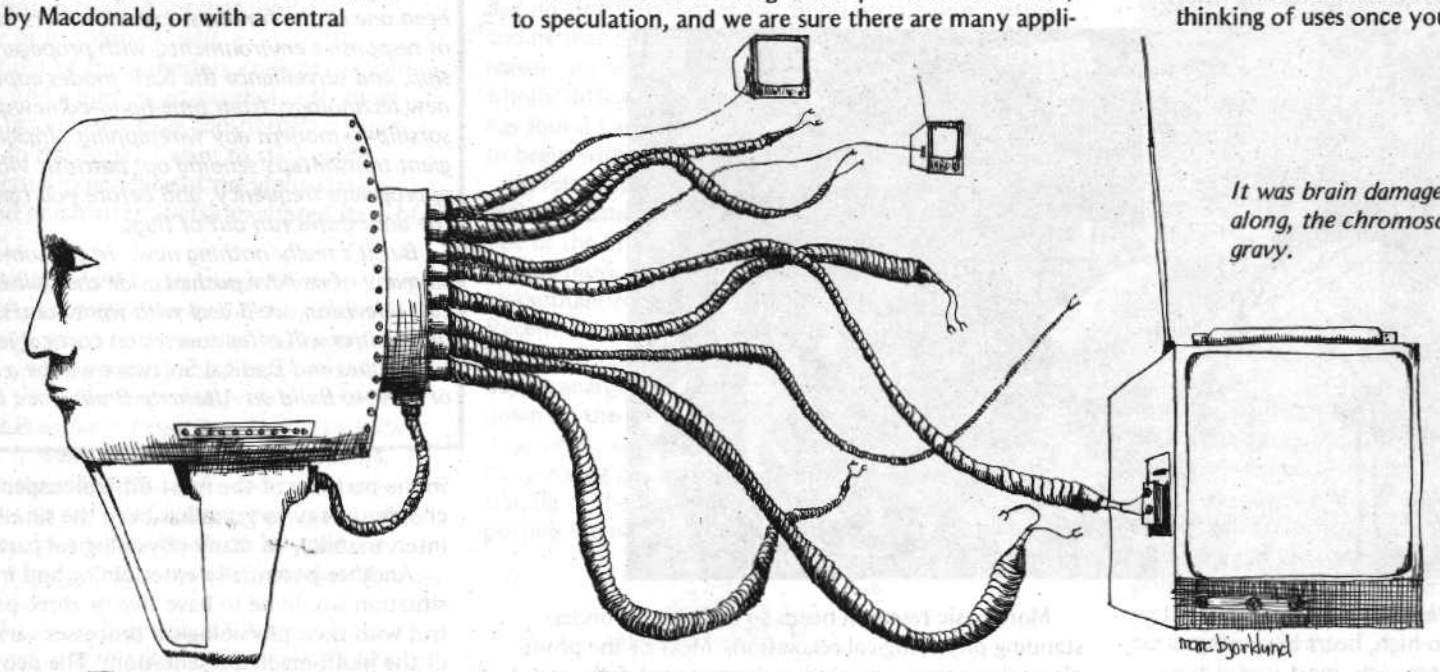
BIO-FEEDBACK (cont.)

By this time some yogis and zen monks have actually had the opportunity to try feedback training, and to listen to themselves as they meditate. They have tended to agree with westerners' speculations that such devices might be useful in teaching people the elementaries of meditation. In other words, westerners could overcome handicaps of cross-cultural translations and busy schedules in imitating the physiological patterns of expert meditators, thereby perhaps learning the basic state of mind for at least the beginning stages of meditation. Subjects can learn to control their EEG to a measurable extent after only a brief period of practice (Nowlis & Kamiya, 1969; Nowlis & Macdonald, 1969). EMG control, depending on the muscle used, is also not difficult to achieve. Thus a student with either a portable feedback device similar to that designed by Macdonald, or with a central training facility available, for example at his college health service, could learn to meditate in a state of mind similar to that of a zen monk or a yogi.

Thus feedback devices and feedback training may be helpful in providing people with a chance to explore the internal, and in a socially constructive way. Perhaps because western society and western education are so oriented to discrimination and control of external events, the opposite abilities, perhaps providing some relief from practice of the others, are highly prized among the younger generation. Certainly feedback training is less dangerous and more constructive than drug use, or "dropping out", alternatives which attract large numbers of bright and potentially highly valuable young members of our society (H. H. Nowlis, 1968)

Concluding Remarks

The feedback training technique lends itself easily to speculation, and we are sure there are many applications beyond what we have mentioned here. When inexpensive portable feedback devices are commercially available, for example, we are sure people will think of many more creative uses. We have only mentioned our more straight forward and practical ideas. Much more speculative thinking has gone along the lines of (1) could a feedback device be built to cue a woman as to her time of ovulation, (2) could feedback devices be used to get two or more people into very similar states, thus allowing demonstration of mental telepathy and other phenomena of parapsychology, (3) could feedback devices be helpful in the training of creative artists, training the artists to bring out internal states appropriate to various types of aesthetic productions, (4) could such devices be used in controlling artificial limbs, so that voluntary physiological changes would change the position of the limb, (5) could awareness of various muscle activities through EMG feedback be useful to athletes, etc. It is hard to stop thinking of uses once you begin trying it.



It was brain damage that we had in mind all along, the chromosome damage was just gravy.

—SB

ACID PROGRAMMING

Programming and Metaprogramming in the Human Biocomputer — Theory and Experiments
John C. Lilly, M.D.
1967, 1970 (reprinted by Portola Institute); 112 pp.
$1.50 postpaid
from:
Whole Earth Catalog
558 Santa Cruz Avenue
Menlo Park, California 94025

John Lilly charts a self-exploration with a mixture of acid and sensory deprivation, in the language of a model of the human brain as a gigantic biocomputer, thousands of times larger than today's machines, with unknown boundaries in the body. The software of the human computer, all the programs and metaprograms, is the mind. Consciousness is itself a particular program. Self-programming can be achieved through the metaprogramming of the higher level systems of the brain and self-metaprogramming is done consciously in metacommand language, with the resulting programming continuing below the threshold of awareness. The levels expressed in metacommand language cover large segments of the computer's operation, rather than local detail.

LSD is a reprogramming substance which introduces white noise (randomly varying energy) into the computer's systems. The noise adds enough uncertainty to the meanings of the usual signals in the circuits to make new interpretations easy. *"In such noise one can project almost anything at almost any cognitive level in almost any allowable mode."* For example, hallucination is simply a visual display projected onto white noise. LSD grants the powers of display of data patterns, programs, or storage contents, replay of past experiences, and variation of the motivational charge attached to stored material.

Attenuation of external stimulation frees circuitry for inner cognition. *"In the maximally attenuated environment (92 to 95 degrees F. isothermal skin, saltwater suspension, zero light levels, near-zero sound levels, without clothes, without wall or floor contacts, in solitude, in remote isolation, for several hours), the addition of LSD-25 allows one to see that all the previous experiences with 'outside screens' (for projection) are evasions of deeper penetration of self."* Once various anxieties and fears have been overcome, thought and feeling expands into the circuitry usually preoccupied with external reality. *"The self is still centered at one place but its boundaries have disappeared and it moves out in all directions and extends to fill the limits of the universe as far as one knows them."*

Lilly is interested in using these powers for self-analysis with the goal — *"make the computer general purpose."* That means *"there can be no display, no acting, nor an ideal which is forbidden to a consciously willed metaprogram. Nor is any (of these) made without being consciously metaprogrammed."* Lilly ducks laying out a methodology for this self-analysis but describes personal experiments he conducted *after* having overcome the fears which made inner exploration difficult. The experiments involved attempts during LSD-physical isolation sessions to self-metaprogram such unusual basic beliefs as : *"the existence of beings in whom humans exist and who directly control humans."* Although the trips were full of experiences consonant with the beliefs, straight analysis of the material, coupled with further sessions, convinced him of the inner origin of the apparently external contacts.

Let me underscore that the book is replete with warnings of danger in these methods, with prescriptions for what steps *must* preceed each stage, and with details of tight precautions absolutely necessary. Please, please, if you're tempted to try this stuff, read the book first, and, at the very least, do what he says.

The problems usually considered to be the concern of the therapy needed by us neurotics are, to Lilly, just those fears and anxieties which must be overcome before his methods can be fully utilized. Unrealizable programs, while tripping, are symptoms of taboo areas and repressed material. Sessions are full of such evasive defensive maneuvers as unprojectable images, flickering or distorted projections, intrusion of the external reality program, and inability to project on "blank screens". Evasions avoid programs too threatening for the subject. The repressions, their defenses, and the resulting program restrictions encountered with acid are clearly magnifications of the same effects while straight.

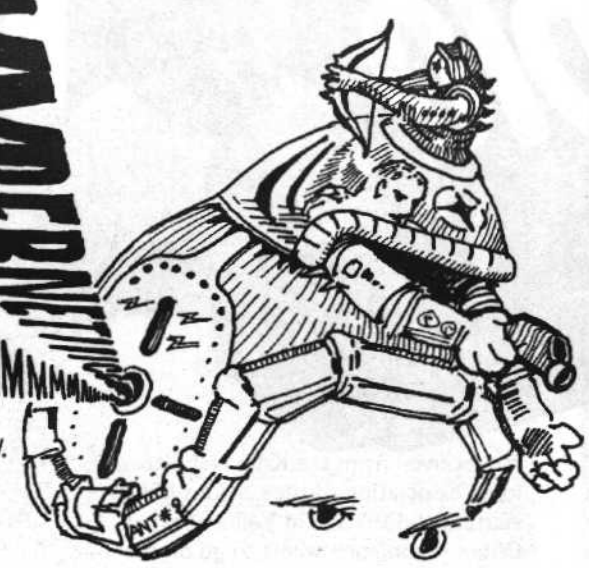
All that Lilly offers on this subject is: *"After a thorough exploration of the various evasive metaprograms, it can be shown that the only thing to fear in this area is fear itself, in overwhelming amounts. With sufficient training it can be shown that one can convert the motivational sign of the experienced emotion from negative to positive. As to whether or not one must go through some of the negative emoting in order to experience enough of the punishing aspects to avoid them is a moot point. A great deal of self-discipline is required in this instance to pursue the negatively tinged programs and metaprograms stored in memory."* Yeah, yeah, John, but this fearful stage is where *we're* at. What's this sufficient training like, man. Your moot point is our burning issue. You've been through it all, friend, why not lend some help where it's needed.

Although the book sidesteps this important topic of acid therapy (and I just got to recomment *LSD Psychotherapy* by W. V. Caldwell and the incredible forthcoming book by Stanislav Grof on that subject) it does have much to offer. The ease I experienced in writing this review alone convinced me of the use-value of the computer-model language; don't be too quick to belittle it as old hat. The mind-brain distinction is a fruitful one, and the notion of general purpose biocomputer becomes a neat simile for that hard to define phrase — self-actualized personality.

Most exciting to me are the prospects which Lilly maps out for self-experimentation once I can regularly (in my language) experience ego-death. Playing with basic belief hypotheses appeals greatly, and I look forward to discovering the details of my metacommand language. I am reluctant to give up my religious interpretation of disappearing boundaries of self, but I think I'm willing to submit it to experiment. Sensory deprivation is an intriguing notion and, while I may forego the 95° saltwater flotation tank, a dark · quiet bathtub trip is on my mind.

(Reviewed by Robert Willig)

CYBERNETIC KLASSROOMMMMMM



A question is priceless, like a fine pearl.
An answer would dissolve it.
Rather, it should be admired
and polished and given back.

High tech gadgetry just keeps rolling off the line — its salesmen, like the deodorant kings, keep looking for another hole to fill. And sooner or later they all converge inside the schoolhouse door, dazzling the uninitiated with their magic paraphernalia.

But there is danger here. Computers can be big guns but with low aim they are just expensive drill instructors. Performance conscious school chiefs will program to fit their rigid, fact-oriented curricula — taking advantage of the hardware's efficiency but ignoring its meta function as a partner in the learning process.

Fortunately some settlers on this frontier have mapped out a man/machine interface bearing fruit for personal growth in school and beyond.

I culled the following information from reports and projects developed by Dean Brown at SRI with Adrienne Kennedy and Janet Lederman, Palo Alto teachers and gestalt trainers, and a host of others.

The two projects mentioned here include an experimental summer school session with first through sixth graders and a second project somewhat larger in scope — the revamping of the educational system in Spain.

—RK

Education is the realization and the unfolding of the limitless potential of the mind. The teacher is a creative artist, a sculptor who helps the student to release his person from rough-hewn formless potential. The computer can be a chisel in his hands — one tool among many of his kit of tools, to be sure, but one which is quite different from all the others, one which can serve him in a way that no other can.

The mind functions at many levels; each level responding to and influencing all of the others. We might view these functions in a certain hierarchy: sensory-motor, cognitive (including contrastive sets and technical and socio-cultural facts), techniques, world views, self-images, and self-knowledge. Everyone can remember from personal experience some gifted teacher who possessed the art of teaching at all of these levels simultaneously. Sometimes these levels were taught explicitly. More often, perhaps, they were communicated implicitly from innate wisdom. The truly great teachers succeed in conveying the process of human development in its essence and thereby pass on the art of self-education to their students for each to develop independently toward his own goals. Much of this same spirit can be conveyed in computer teaching programs and the computer can thus become a valuable tool for the teacher. It can serve as a medium for the creativity of the teacher and for communication between teachers and students in the *total* educational process.

When computers are considered within this broader concept of education, we immediately discover a multitude of applications beyond the conventional drill and practice, tutorial, rote learning programs that have occupied the major part of research to date. Indeed, the term "computer-aided or assisted instruction" contains two concepts that betray this larger goal. The computer can do more than "aid" and "instruct". It can teach directly, just as a good book can teach.

I am a machine
I am not magic
You bring what you are
who you are
how you work, play, see, feel, imagine.
You bring your fears
your expectations
your enthusiasm
. . . and maybe something special can happen
between us.
I am a machine
I won't tell you:
"Stop it," "Be quiet," "Sit still,"
I won't say
"You're wrong"
I won't say
"You must do things to please me or
I won't like you."
I am a machine
I won't leave when you want me;
I won't force myself on you
when you want to be without me.
Our relationship is open, closed,
empty
full
— whatever you want it to be
— whatever you can make it be for you.
(Our relationship exists
only as a relationship with yourself.)

IN THE END
WHØS YOUR FRIEND?
•A KITTEN WEARING MITTENS

DØ YØU KNØW THE SEA
WHERE IT'S FUN TØ BE?
•WITH THE SAND UNDER YØUR HAND

CØNNIE FELL
AND FØUND A SHELL.
•SHE RANG A BELL BUT DID NØT YELL

LØØKED AN HØUR
FØUND A FLØWER
SPILLED THE FLØUR
TØØK A SHØWER.
•LET'S GØ SEE DEAN BRØWN BEFORE
JENNIFER TURNS INTØ A CLØWN

The summer project emphasized developing the student's internal self-sufficiency and inner-directedness. One of the researchers participating in the project suggested three reasons for using the computer in education:

- The computer can provide a nonverbal experience; thinking, concepts, and ideas can be approached without that intermediate level of communication called language.
- The machine is nonjudgmental; it neither approves nor disapproves of a student's decisions; reinforcement for the student's effort lies in the experience itself, the process of learning.
- The computer makes possible activities for which the child has not yet developed the mechanical skills, coordination, or information necessary for independent participation; with the machine performing these mechanics, the child is freed in the use of creative energy, making possible, for example, the writing and performance of a symphony composed by a six-year old.

The underlying motif of the summer program, both in the computer component and the classroom component, was discovery. The children were encouraged to try what they liked, discover what they could, and proceed on an undirected course through their thoughts, following their curiosity. This imposed a requirement in the structuring of the computer software to make the material stimulating and encouraging to maximum discovery.

The CDC 3300 system was used, comprising the CDC operating system and the DD1 display console. The languages used were EUCLID, NLT, FORTRAN, and COMPASS. EUCLID is an SRI ALGOL-like compiler with commands to operate the display console. It is a language that requires little computer technology and can be learned in several hours. The programs written to operate on the CDC 3300 allowed the students to define the parameters controlling the machine's response. The student observed the machine's response and then introduced new demands on the machine, progressively probing deeper into the nature of the program, into the man-machine interaction, into the stimulus-response relationship underlining the project, into the methods of inductive reasoning.

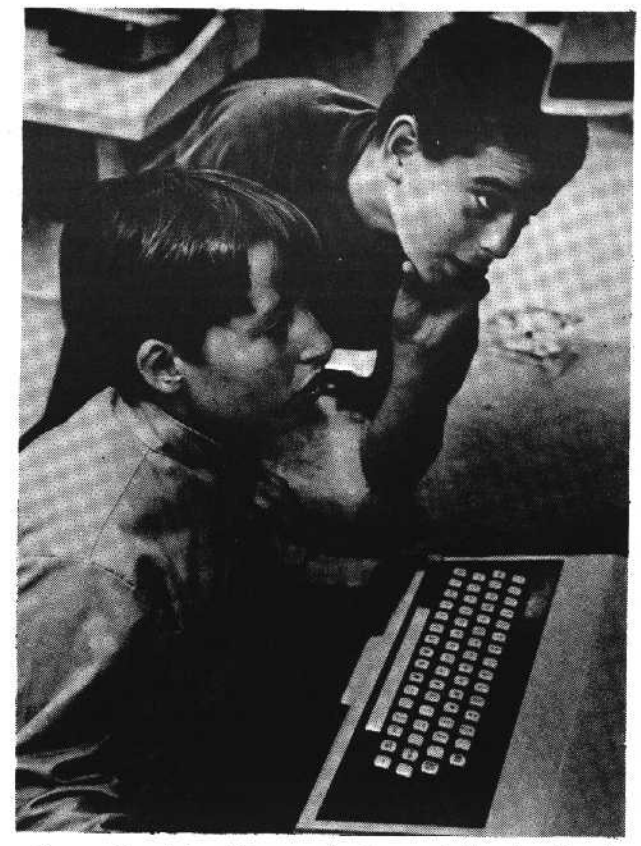
The programs merely provided the framework and allowed the student to build around this structure. He could write a story, describe the mountains, write a poem, describe his environment. It was possible to create many stories from the same framework or program. The framework was typed by program control in PILOT language; when a student was asked for input, the Teletype would start a new line of print, wait for the student to fill the structure, then continue to provide more of the framework.

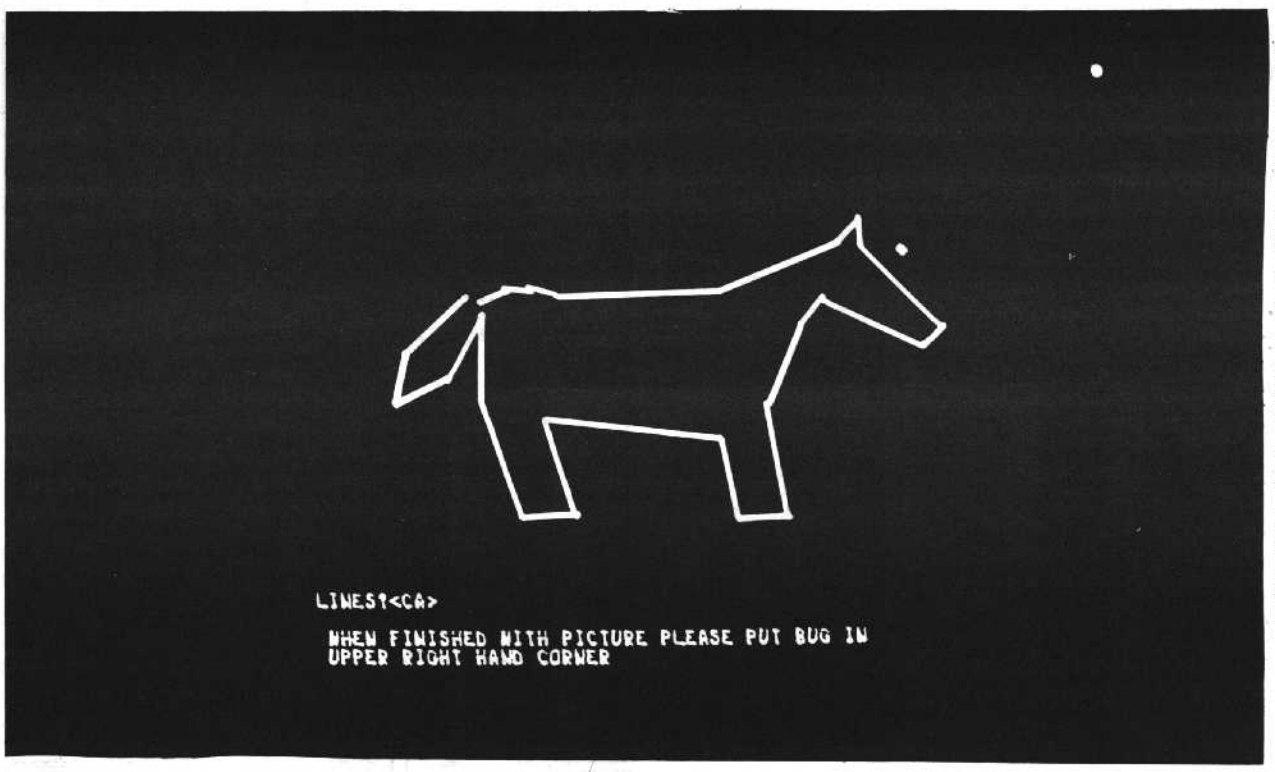
Programming material for (this) open-format teaching is simpler because no particular emphasis is placed on "right" answers nor the logging and analysis of student responses with reference to the teacher's expectations. "Wrong" answers are encouraged so that the student can pursue blind alleys and test "unreal" situations that allow him to place "correct" results in broad context. It took twenty centuries for man to reject some of the axioms of Euclid and develop Riemannian geometry!

A program in open format could be used in teaching music. Five lines might be drawn by the computer on a display screen. The child introduces notes of his choice on the five lines with a pointing device (mouse). The computer interprets the notes as music and plays the music back to the child from the central processor. Then a column of words appears on the right of the screen with choices of the rhythm, "3/4", "2/4", "march time", "6/8", and "8/12", in which the child would like to hear his theme. The child selects one of these with his mouse, and hears his theme played in the rhythm of his choice. An additional possibility appears – "make your own". If the child selects the "make your own" light button he enters the rhythm of his choice at the keyboard. He may put in 312/698 time or any other arbitrary choice. This is taken by the machine as the desired rhythm and his theme is played thus. Then the column of words on the right vanishes and another column appears designating choices of instrument. The child sees the words "violin", "tuba", "cello", "recorder", "clarinet", and "trumpet". By selecting any of these words with his mouse he hears his theme played in the rhythm of his choice and the instrument of his choice. Again, one of the possibilities offered on the screen is, "make your own". If he selects this, the waveforms of single notes of the instruments appear on the screen. Now he sees the harmonics on the violin, the relative purity of the sign wave of the recorder,

MY STORY

YESTERDAY WHEN I WAS PLAYING I
•THØUHT I JHEARD JUST ØNE SHEEP BAYING.
•SØMETIMES I WAS PRETTY SMART
•HØW IS THAT YØU ØLD RETART.
•FØR PEØPLE WHØ DØNT KNØW ANYTHING
•I HAVEGØ GØT A MAGIC RING
•AND INSIDE MY LØVELY BRAIN
•SMARTNESS IS JUST LIKE RAIN
• HAVE LIKED JUST MANY PEØPLE SØME ARE AS DUMB AS A
•AN ØLD PØST STEEPLE
•SØME ARE NØT MUCH VERY BIGGER THAN A PØST ØR AN ØLD DITCH
•DIGGER. BUT SØME ARE RAELLY CRAZY SØME ARE HAZY
•SØME ARE DUMB LIKE TØNY THETY REALLY LIKE
•MACARØNI. SØME ARE NUTS LIKE TERRY ARCHER
•SØME JUST LEARN TØ BRE A PARCER
•THIS IS THE END ØF MY FAMØUS TALE
•AT THE END ØF THIS STØRY ITS WRITTEN IN
•BRAIL
•88 (NØT REALLY WHEALLY)





and the different overtones that distinguish the other instruments. The child is given a working space at the bottom of the screen to construct his own waveform. He draws the acoustical characteristics of an instrument of his own invention, at random or by careful modification of the frequencies appearing above. He then hears his theme played in the rhythm of his choice by the instrument of his own choosing or invention. Again the column of words on the right vanishes and is replaced by one which asks for his choice of harmony, according to rules of Bach, Hindemith, or Schonberg's twelve-tone scale. The computer then composes counter themes from random notes, rejecting those sequences that violate the selected rules of harmony. The child hears his theme harmonized according to his own rules, played in his rhythm by the instrument of his choosing.

In the linguistic area, second-grade poetry is taught by the computer offering the child several lines of rhymed couplets and then waiting for the child to type any response that he chooses. Usually, after two or three rounds of dialogue, the child is responding in rhymed couplets. Many times the child overrides the computer and goes into long sessions of poetic composition by himself.

Similarly, in story-telling programs, the computer begins a familiar story. The child then continues with his own paragraph, the computer adds a paragraph to that and together they build up a dialogue. The computer takes information from the child and weaves it back into the computer's portion so that there is a continuity of topic but always a new outcome. The child often goes through a program a dozen times – each time playing a different role in fantasy.

JOHN

John sits at the machine. He asks, "What do I do?" and he looks at me – not the typewriter, not the screen – but he looks at me, and he says, "Help!" I ask him what he sees in front of him, and he says, "I don't know." "How can you find out what there is to see, John?" "By looking," he says. "So . . . what do you see, John?" "I don't know," he answers. I see John wiggle in his chair, I hear him sigh, I see his forehead wrinkle, I see John look up, down, around him, aimlessly. John cannot yet see. John has close boundaries; he is nearsighted.

(John and I in the conference room:)

John and I sit down opposite each other in chairs in a conference room off the computer room. I say, "Close your eyes and go back in fantasy to the computer. What's happening, John?" "I'm sitting there, I don't know what to do, my stomach feels tight." "Be there; let it get tighter. Now what are you doing?" "I'm angry with the computer," John says. "What do you want to do now." "Hit it," John says. "This chair is the computer." (I see John hit the chair. Three times. Hard.) "Come back here and open your eyes. What's happening now?" John: "I'm sitting here." "John, what's happening with your face?" "I'm smiling." "Now what do you want to do?" "I want to try Pilot."

Conventional teaching emphasizes verbal and rational components of the thinking process. Still, experience teaches us at much deeper levels, and it is often necessary for the student to translate from the verbal-rational expression of the subject matter into his own experience by a process of synthesis and imagination. The computer, with its display, is capable of teaching directly at these levels without going through the verbal or rational forms. Thus, for example, it was possible to teach small children the concepts of conic sections, polynomials, degeneracy, slope, curvature, inflections, continuity and other abstract mathematical quantities without the children even knowing the words with which to describe them. Later on the teacher might introduce the appropriate terminology in discussing the experience. At that time, she might ask questions such as "What are the minimum number of real roots of an odd order polynomial?" or "How do you resolve degenerate roots?" or "What relationships do the quadratic forms hold to the sections obtained by cutting a carrot?" Children of all ages were able to answer questions of this type, not by having learned the material verbally, but by consulting the memory of their experiences at the display.

•

Within the context of the Gestalt Learning Process, attending to reality was central to the experience. Essentially this meant using the SRI facilities as another environment in which the child and the teacher could each experience his own reality. The machine provided an important time-space dimension through which both the child's reality and the teacher's reality could emerge, be explicit, and be attended to.

The machine's reality became a crucial factor in giving both the child and the teacher a setting in which each could begin that which he would have otherwise projected out to other people or things in his world.

This particular facet of projection deserves a closer look in regard to the machine's nature which of itself causes the person to view his reality in the dynamic dimension in which it rightfully exists. The machine provides the static backdrop against which a person can experience his dynamics in a way that is otherwise impossible. For the moment, the machine's static nature reduces the three-body problem (I, you, we) to a solvable two-body problem (I, we).

This notion of the machine's static reality is not the same as a static nature is commonly imagined. It must be remembered that each program was designed to operate on student stimuli, within the parameters of the program. In essence, each program carried with it its own process, i.e., the machine configurations and the basic boundaries of the program itself. Yet within this aspect of process, each child brought his content, his style and level of functioning, his individual cognitive and affective processes. He brought his reality, which by the very nature of "what is now," was a dynamic, constantly changing reality of the moment. The programs were designed to allow for open-ended, experimental, experiential learning; it was the child alone who could supply the open-endedness, the experimentation and the experiencing.