

VIDEO

An Introduction to the
State of the Art

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The initial problem of a critical analysis is that this subject has no given name. Generically the medium is television, but mass media TV as we all know and loathe it was never quite like *this*. Experimental video suffers by association with its disreputable parent, an association misleading in the same sense that movies are said to derive from photography: key functional distinctions are obscured. Admittedly the Video Revolution was a development of television technology, but not in the same sense that Cinemascope and Cinerama and Sensaround and 3-D were ballyhooed as revolutionizing the film industry. To understand video is to consider it a separate form with its own identity, in some ways closer to film than to television, but demonstrably unique and sufficient unto itself.

Two primary factors alone, size and cost, transform the very nature of the beast. 1/2" (half-inch) video tape, the standard black-and-white format that has become so common, bears about the same size relation to 2" (two-inch) video tape, the broadcast standard, as 8mm movie film bears to the 35mm feature film format. Like 8mm film, 1/2" video tape began as an amateur format, a new toy like the pocket transistor radio

in the 50's, targeted to the educational and industrial training markets. The markets boomed. After a decade of tinkering, the toys can do approximately what the pros do (in terms of making and recording images and sound) and, in certain circumstances, more. Though picture quality is not as refined, the difference between 1/2" and 3/4" video tape and 2" (broadcast standard) video tape is less than that between 8mm and 35mm film, or even 16mm (an acknowledged professional format) and 35mm film. The smaller size of the television screen minimizes the difference in resolution that the motion picture screen magnifies.

Size is also a determining factor in the active capability of the equipment. A professional studio television camera is about the same size and bulk as the Biograph camera that Billy Bitzer cranked for D.W. Griffith in 1910, and just as cumbersome. Armchair critics of monotonous TV shows can't imagine how tedious it can be to mount an ordinary production with these great white elephants, which remains a pervasive influence on dramatic structure in television. Why the endless daytime quiz shows and talk shows and soap operas? Because that's what one can do in a studio. The singular advantage of the television studio is instantaneous editing, switching from one picture to another, whereas film requires post-production time to physically cut and paste the pieces together. But even with expensive broadcast-quality equipment, local productions at television stations in

Maine are laughably primitive. Commercials are usually posters or postcard slides or crude film clips with voice-over narration: nothing fancy, to put it mildly. One of those rare annually televised local events, the Maine State High School Basketball Championship is seen from one solitary camera perched high in the bleachers. When the band marches in and plays the National Anthem toward the opposite wall with their backs to the only camera, the only cameraman must die a slow and Existential death.

In contrast, small cameras can be carried anywhere, running rings around the elephants. Some models can be packed into a suitcase and plugged into any ac outlet on location; others can be operated on batteries and carried over the shoulder. In a recent video project here in Maine, scenes were taped at 71 locations outside the studio, as adventurous as a low-budget feature film schedule, and in most cases with a one-man crew. A complete production facility could be transported in a bread van. That mobile flexibility, so long the aspiration of technical efforts throughout the history of motion picture production, suggests that video resembles film more than television.

But comparative cost is the clincher. In round figures, a broadcast television camera may easily cost \$100,000. A small-format color camera of reasonable quality may cost \$5,000. A 2" quad video tape recorder (VTR) may cost \$100,000.

A corresponding small-format VTR may cost less than \$5,000. That full production studio in a bread van could be put together for under \$100,000. When pricing a broadcast trailer for location production, a million-dollar capital investment would not be extraordinary. Whatever the differences in fine quality, the gross disparities in cost are bound to affect the industry, the market, and the choice of production modes.

To launch his career, my friend devoted the accumulated profit of a year's earnings to pay for 16mm film stock and processing in order to make a 15-minute experimental film to enter in the Ann Arbor Film Festival. Film stock is a major expense; 1/2" video tape costs about \$10 per half hour and can supposedly be reused 500 times. In the local video project previously mentioned, a documentary series made on 1/2" video tape costing about \$600 would have cost \$30,000 in 16mm film stock alone. For the first time since Edison demonstrated the Kinetoscope before the turn of the century, full production capability may be affordable not only to heavily financed corporations, but to institutions and even individuals as well.

In essence, the basic apparatus to produce and project motion pictures was developed by 1890. It took nearly 25 years to construct film syntax--the fundamentals of editing, camera shots, camera motion, narrative continuity--and another 15 years until synchronized sound. Color appeared soon after,

but since then, aside from progress in style and technique, the mechanics of movies haven't changed drastically.

Since the dawn of broadcast television in the late 40's, analagous in film to the first clumsy talkies in the late 20's, the problem of the big white elephants leashed inside the studio walls has dominated the situation, in local production and in the industry generally. The notable exception has been big-time sports, where the major networks have devoted big money, technical research and development, imagination, and organizational power toward creating the means to do the job, on location and outside the studio, and do it in style. Otherwise, most location shooting, for news or comedies or any outside action, is still produced on film.

Some news departments in commercial television stations around the country are now converting to small-format video systems for their news gathering operations, a significant first step. Actually, the first step came from behind the scenes in the late 60's, when the Electronic Industries Association of Japan promulgated the E.I.A.J. standards which mandated that all 1/2" video equipment exported by any Japanese manufacturer must be compatible: i.e., a Sony VTR must be able to play a tape recorded on a Panasonic VTR. So the coordinated invasion came and the markets boomed, conceding the propinquity of prosperous times, though passing tribute ought to be paid to the phenomenal marketing campaigns of the

companies that detonated the boom.

The early years of the Video Revolution saw the proliferation of equipment everywhere, from neighborhoods in New York City to high schools in rural Maine, together with a market instability symptomatic of the growing pains of a hybrid technology. Reminiscent of the competition between rival inventors and inventions to set uniform standards for the motion picture industry, various video formats and novel gimmicks and rival systems also proliferated, adding chaos to confusion when color arrived. During the gold rush, opportunists launched new products, sold out their inventory, and closed accounts, leaving customers with machines soon to become so much junk; (e.g., all the vocational institutes in Maine have Craig VTR's, lately defunct).

Finally, after considerable trial and tribulation, the heir apparent has at last succeeded to become the recognized standard format for distribution--the 3/4" cassette--a reasonably certain common mode for the foreseeable future; (which means *la guerre est finie* and Sony won). The foundation is now complete. If the analogy holds true, video production is finally ready to proceed in the paths pioneered by film production; whereas television production, with rare exception, simply is not.

Unexpectedly, the manifestations of an ubiquitous video art, the burgeoning of indigenous talent in every suburban

hamlet, never quite happened. The heralded democratization of the airwaves through "public access" to multiplying cable television outlets (which can legally transmit signals generated by small-format video equipment) produced a plague of dismal amateurism. After all, the propagation of the electric guitar produced a new music, or, if that's too presumptuous, a thriving empire. What has come of the Video Revolution? Given the availability of video gear, where are the production groups, the distribution networks, the cablecasters and their original programming?

Looking back, the movie pioneers, the Hollywood homesteaders as a group, accomplished more with less. Perhaps poverty is the prime mover after all, when introduced to the opportunities of virgin territory, unexplored and unexploited, in contrast with the supersaturation of modern mass media. The question here is not what happened in Hollywood 60 years ago, but what didn't happen everywhere in the last five years.

There are reasons and more reasons, some worth identifying in order to find out and explain what works and what doesn't. The usual pedestrian complaint is that the equipment doesn't work, at least not consistently and reliably. Oftentimes, the equipment in a school media department, for example, is not kept in operational condition. That in turn may be the result of: 1) no maintenance person with the necessary tools and training; or 2) no money in the budget to send machines

to the dealer for repair; or 3) too much rugged use by too many people. All too frequently, however, equipment malfunction does not provoke resourcefulness: the user will give up rather than try to figure out the problem and fix it or work around it. As chronicled in *Zen and the Art of Motorcycle Maintenance*, we live in a consumer society peopled with anti-technologists who become emotionally dispirited at the first sign of technical trouble they can't understand.

Understanding is the greater issue. Video equipment is so easy to turn on and play with that either the user remains content just to play with it, or else seriously underestimates the imperatives of taking it further and making something out of it that's worthwhile. If video production does not demand highly sophisticated skills, it does require *time*, even though the video process in comparison with other production methods is relatively fast. Though basic operation is fairly simple to learn, any coordinated effort requires people, usually voluntary manpower. Many too many video "producers"--educational and non-profit institutions, foundations and agencies that finance video outfits--are unfamiliar with production requirements and unwilling to allocate resources for production time, paid talent, technical crew, and ongoing maintenance. Nevertheless, it's disheartening to discover that the cultural atmosphere of our bureaucratic educational system is more repressive than that of the Sam Goldwyns, Louis Mayers, and Harry Cohns.

Still, these are ordinary obstacles, limiting perhaps, but hardly insurmountable. If these miniature cut-rate imitations are truly machines and not just gadgets, what prevents or postpones the grass roots from flourishing as promised? The delay must be partly attributed to a failure of ambition. Thousands of schools and businesses and cable companies have each purchased thousands of dollars' worth of production equipment, but venturesome productions and projects are rare indeed. Despite the proliferation of hardware, video enterprises remain isolated, solitary, separate from each other, from related arts and artists, from the public and the airwaves. It is a failure of vision, for those within reach to grasp the tools at hand with an eye to the near future. It is, finally, the simple lack of understanding: the technology may have arrived, but mostly among innocents. The average American sees far more movies and television dramas than he or she reads books, but most would find it far more difficult to make a decent movie than to write a good book.

It is not the ordinary users in every village and town who have advanced the art by extending its potential throughout the land, but rather a few extraordinary individuals who have made progress through essentially individual achievements. These are the video artists. In the past, television like theatre has been by necessity a collective art: lots of people

on the set each performing specialized tasks. Now, with the cost and mobility factors previously discussed, combined with the pushbutton consumer/convenience gadgetry, video can provide an autonomy, an integrity, a personal control of the image that is virtually unknown in film and television production, except in experimental film, which video now surpasses in technical facility.

Contempt for television blinds most creative minds to video as a means of expression; but a few oddballs are motivated by that contempt; some even seem blind to any contempt at all, and thus approach video without any cultural hangups, but then again these are most likely the blue-blooded avant-garde who would just as soon paint with their toes if they pleased: (i.e., the incorrigibles). Other than their disregard for convention, about the only trait that can be said to characterize video artists is that they don't come from television, not from commercial or educational television, not from broadcast schools. Video artists are abstract painters, or experimental filmmakers, or theatrical performers. Originally they are from somewhere else, and they do not come out of nowhere: the video artist usually has sufficient experience and reputation in some related art to secure sponsorship and opportunity for experimentation. So it is not the indigenous popular movement that has shaped the video metamorphosis, as was expected, but the

ingenuity of eccentrics.

South Korean and now New Yorker Nam June Paik, once a musician, has been described as the George Washington of experimental video, and elsewhere referred to as a cultural terrorist. He was experimenting with television as an art form and showing his work in art galleries in the early 60's. With engineer Shuya Abe he designed the Paik/Abe Video Synthesizer to electronically manipulate the video image. In Paik's own work, it is not the image that is manipulated so much as the experience itself, often a bizarre conjunction of events in the tradition of the happenings and the John Cage concerts that Paik first admired. If his compositions are outrageous, it is because they are just what ordinary reality is not, absolutely not.

Paik's iconoclasm is typical of the video artist. I met Bill Etra in his Manhattan apartment where he works, as he was on his way to the public library "to read up on digital electronics." He says nonchalantly that five years ago he didn't know anything about electronics; (he was a filmmaker). He is the co-inventor of the Rutt/Etra Video Synthesizer and recently the Hern-Etra Synthesizer-Mixer, which is in his livingroom (in a not-too-lovely New York neighborhood) along with computers and cameras and lights and VTR's everywhere. His livingroom is listed as one of the most sophisticated

computer animation studios in the world. He reminded me of Frank Morgan as the Wizard of Oz.

Ed Emshwiller was a filmmaker and painter, though perhaps no one has gone so far in using the new video technology to create new kinds of image and narrative. His *Scape-mates* (1972) is a landmark achievement which illustrates the shapes and forms and mutations unique to the video process. It is not so surprising that abstract artists and conceptualists have been drawn to electronic painting: poor Mondrian was born too soon.

Creative practitioners like Stephen Beck (also a musician) and Walter Wright design their own tools, their own synthesizers, illustrating a unique aspect in this field of the artist as electronics engineer. Often their works explore the new world of purely abstract imagery, form, and pattern, a logical and kinetic extension of abstract painting, but with the added dimensions of motion and change. It is somewhat of a wonder that commercial television has not taken greater advantage of this facet of experimental video in their logos and promos and such.

The opposite of the artist-engineer who weaves dazzling patterns, William Wegman is an example of the kind of creative genius that might have appeared coincidentally in random locales, but didn't: not that he is so ordinary, but that he utilizes ordinary effects, objects, and situations. Maybe

the best way to describe his work is to explain his method. He turns the camera on, gets in front of it with some prop, and fools around. He is a dry comic, but his productions typically last only 20 seconds, and as he remarks it's difficult to dislike a tape that runs only 20 seconds. Frequently they are hilarious gems. But essentially anyone can do what William Wegman does: the particular quality of the medium that he mimics and exploits is the video reproduction of ordinary reality.

In a different sense, that is the quality that attracts the documentarians: reproducing an image of the real world as it is. Perhaps the most successful of the practitioners in the field is a group that calls itself Top Value Television (TVTV)--actually they're a bunch of freeks with cameras. They're audacious, as befits those journalists who would investigate reality with a camera. They demonstrate the ability to take these video cameras anywhere, and then to make programs from their tapes that are both innovative and professional (in the sense of looking smart and well-produced). Their inside-but-counter-culture view of the 1972 Republican and Democratic conventions were eventually purchased by Westinghouse Broadcasting and shown on the big-city Westinghouse stations. Since then, TVTV has continued to produce feature-length documentaries, such as *Gerald Ford's America*, and *The Lord of the Universe*,

an incisive expose of the empire of childgod Guru Maharaj ji.

In most cases, the technology employed by these video artists in making their various marvels--the equipment--is now commercially manufactured and available on the open market. A complete system may be within the financial range of local and regional institutions. However, as has been shown time and again, success is determined less by the equipment than by the user and by how it is used.

Just what can the equipment do that is so incredible? To begin with, the cameras take pictures, moving pictures, in sharp, vivid color, with synchronous sound. First miracle. The pictures can be recorded on inexpensive magnetic tape, which can be erased and re-recorded and replayed many times. This virtue shouldn't be taken for granted. When the scene has been shot, it can be replayed and checked and, if necessary, reshot immediately until it's right; in contrast to shooting on film and waiting days or weeks for laboratory processing and shipping. That's one reason that makes film, and all photography for that matter, difficult to learn: it takes so long to see the consequences of the many decisions made when the picture was taken that one forgets what one was looking for. Video gives instant reinforcement, if one is aware of how to learn from it.

Format refers to the width of the magnetic tape on which the image and sound information is recorded; small-format video

is a branch in the recent development of miniaturization in electronics. As noted, the reduction in size affects the flexibility of the equipment and the cost of the materials. On small-format tape stock priced at about 5% of the cost of 2" high-band broadcast tape, programs can be recorded, easily copied, distributed by mail, and replayed in other places on machines that are simple to operate. Video tapes recorded on small-format equipment can be transmitted directly by cable. This is why the utilization of video in the early stages has become so closely associated, at least in the public eye, with cable television. It was thought that cable would provide immediate exposure for video novices nationwide, which would soon rival the dominance of commercial canned TV. After the plague of monotonous amateurism, however, most cable companies revealed little patience or stomach for the problems of primitive production and reverted to the role of carrying multiple commercial stations and occasional canned programming.

If the electronic signals are processed through a machine called a time-base corrector, programs produced or recorded on this miniature equipment then meet FCC standards for broadcast by commercial and public TV stations. But the cost of the time-base corrector--in the \$15,000 range--has provoked surprising resentment and misunderstanding. There are those who are disillusioned by what appear to be hidden costs. While they

complain that the machine whose essential function is to clean up a dirty signal costs more than all the equipment that produced the signal in the first place, their argument is confusing the issue: production equipment *including* an expensive time-base corrector still costs far less than conventional broadcast production equipment.

According to television engineers who maintain the high technical standards of the broadcasting industry, the small-format product is not what they would call broadcast quality, though aesthetically the standards have been shown to be somewhat arbitrary. The small-format camera may not have the equivalent sensitive tuned circuits of the broadcast camera, yet nevertheless it can be a beautiful instrument. The picture has excellent definition and color reproduction. Zoom lenses surpass anything available when most of the great film masterpieces were photographed; (in fact, it's so easy to zoom in and out that zooming easily becomes a routine bad habit, again characteristic of the technological progress with which once-difficult visual effects are no longer difficult, at least for the operator of the equipment, to accomplish). All the usual accessories--studio pedestals and portable tripods, intercom headphones and tally lights, sound systems with a full range of microphones, etc.--are available, generally at cheaper cost. Lighting requirements for the vidicon tubes used in small-format cameras

are less than the image-orthicon studio cameras need, so lighting is less expensive.

The editing functions of video equipment were refined more slowly than other basic capabilities. Like the early audio tape recorders, the machines were designed to record and replay, while post-production functions were at a cruder stage of development. Early video productions were often bothered by the inability to make smooth edits without a "glitch" or a roll in the picture. VTR editing decks could be modified to improve their editing capability--(assorted engineering companies and consulting firms have sprung up around the video industry)--but the possible modifications and supportive gear are unknown to the general user. More sophisticated pushbutton editing equipment is now available: though at added expense, precise frame-by-frame editing can be achieved, light years faster than film editing, also faster and more accurate than the equipment employed at most broadcast facilities.

The functions performed by the S.E.G., (special effects generator)--the machine beneath the control board with the buttons that switch the picture--duplicate all of the fancy effects that can be done on film, even the expensive effects that demand elaborate, and scarce, post-production equipment. Basic dissolves, fades, and patterned wipes, as well as live cuts, are simple lever and pushbutton operations, the same as on the control boards in a broadcast studio. With the

installation of a gen lock, recorded material can be mixed with live material, or recorded materials can be changed: e.g., black and white pictures can be painted with a colorizer, (which assigns colors in the spectrum to various shades of gray on the screen).

Perhaps the most amazing and useful gimmick of the S.E.G. is the chromakey, which makes the equivalent of the matte or process shot in film, though the latter is more extravagant and time-consuming. Using the chromakey, the person can be put into a different background--often in television, the background is no background, or limbo, or the background is used to illustrate the person's narration, such as the news scenes that appear behind Walter Cronkite--or objects, scenes, and human figures can be melded together in synthetic color schemes. If this suggests mostly fanciful applications of somewhat restricted use, keep in mind that the beautiful action locations throughout most of *The African Queen* (with Bogart and Hepburn) are one long process shot; (because it was feared the white actors would get sick in African waters, so they stayed in Hollywood).

The mobile capability of video systems has been described. Units can be rigged for an individual to carry a lightweight self-contained camera and battery-operated VTR, or for a small crew to operate a complete mobile color production facility. Where video can go can be further enhanced by the ability of

some cameras to see in very low light levels.

Beyond these traditional and comparable capabilities, video synthesizers can control and rearrange the video image, or create their own electronic images in infinite variations, or follow the complex programming instructions of a computer. Capability is the word that keeps reoccurring: the capability of video systems to produce images is nearly equal or superior to that of film or television. Synthesizers transcend even that comparison.

If this capability is available to everyone, why are there no examples in this neighborhood of all that potential being put to imaginative use? Few of the buyers and owners of video outfits think in terms grand enough to encompass the full perspective. Fascinated by the capabilities of the basic equipment, perhaps limited to bottom-line budgets in non-profit institutions, most are content to build a beginner's erector set, when an arithmetic increase in expenditure would produce a geometric expansion of capability in the system. Their disappointment in immediate results is frequently reinforced by an ignorance of the developmental needs of the personnel, for training and learning, in adapting their imaginations to new situations. As a teacher in Maine who has experienced the frustrations of running a school production facility testifies: "The first few years you spend just covering your ass with the administration, trying to explain why productions

are clumsy and things don't work and you don't know why yet, just so you can hold out until you finally do know what you're doing." Numerous cable companies have cancelled their local origination efforts after discouraging experiments. In a particularly arrant case, a school in Maine that purchased \$30,000 worth of color video equipment hasn't used the equipment for a single production in two years. Now that's caution! On the other end of that continuum are the cable companies who churn out several hours of locally originated programming each and every day, imitating the worst aspect of mass media TV, the tyranny of time, trying to do maximum quantity on minimum quality. It should be obvious that great new things cannot be done without giving video experiments room and range and free rein.

If the obstacles that have prevented that kind of operation are understood, what are the prospects for establishing a video facility that does fulfill its promise and potential, say in the middle of Maine? Essentially there's no reason why not. But by now it should also be plain that there are important requirements to the success of a major video enterprise. With the new video equipment already in schools around the state, and the dreary status of the old television equipment utilized in local stations, there ought to be a fully-equipped central facility that exists for the purpose of advancing the

state of the art, if that is truly within the means of a frugal regional economy.

The first requirement, of course, will be a substantial capital investment, though far less than that for conventional production equipment, which hopefully can be partly offset by federal and/or foundation funds; (major funding sources for video enterprises include the National Endowment for the Arts and Humanities and the Rockefeller Foundation). Though initial capital requirements are considerable, stringent economizing should not be permitted to emasculate the full capability of an experimental video production center. After not thinking small enough, (to give small-format video serious consideration), the next major fallacy is not thinking big enough, to provide the full complement of production equipment. Most new buyers think in terms of the bottom line, raising just enough money to cover a basic system while planning to add new components piecemeal as more budget money becomes available, which almost never happens. A more pragmatic strategy would be to wait for a full commitment, then marshall all available funds and purchase the entire system at once, so that the maximum capabilities of the system can be integrated, tested, and demonstrated. To show what video can do, a centralized production facility should have a time-base corrector, a video synthesizer, a multiplexer, a gen lock device, colorizers,

etc., at the start, in order to make their effect and contribution immediately visible and apparent. To repeat an assertion, a somewhat-increased expenditure will be justified by a vastly increased capability. Incidentally, it would be fiscally wise to earmark an extra two or three percent of the purchase price to hire one of the recognized video consulting firms to advise on equipment and prevent costly uninformed mistakes.

Likewise, from the beginning, operating expenses must also be taken into account. As explained, given an initial heavy capital investment in hardware, small-format video can be the least expensive process to produce sound motion pictures ever invented. This does *not* mean that operating costs are nonexistent, just that they are minimal. Still, it is a common error for institutions to buy and build video systems without planning for regular budget allocations to run and maintain the systems. Lightbulbs pop, tubes burn out, recording heads wear down--many repairs are minor, some are major and require shipping costs, dealer or factory maintenance, and time delay, which of course diminishes efficiency. However, where efficiency really gets sapped is in the insufficient budget, when money must be scrounged every time a bulb has to be replaced: then "down time" can become a chronic problem.

Of course a complete video facility requires adequate space, though often that is the least of problems, since the

amount of space needed is neither grand nor the technical specifications any too complicated, and typically such video operations can be adapted to the available environment. Administrators who know little about production typically place undue priority on the physical and aesthetic accommodations of the studio. For example, the administrator who governs the use of the aforementioned \$30,000 unused facility seems most eager to dress his showplace in curtains and carpets before any production commences; whereas the experimental video lab at WNET in New York City--certainly one of the foremost studios of its kind in the world--has not found it necessary to employ either curtains or carpets.

Maintenance is a primary need, and one that is often neglected or underestimated. In school media departments, studio maintenance is frequently delegated to the same repairman who fixes slide projectors and tape recorders, when in reality video equipment usually demands a full-time person with specialized knowledge and training. Depending on the person's qualifications and experience, however, maintenance functions can sometimes be combined effectively with the production functions of the studio manager, limiting the necessary job positions to a minimum. These dual capabilities, though, are not usually present in a single individual: in television as in theatre, production people and technical people are

discretely separate, fundamentally different types of people.

But the studio manager, the person in charge of operations and production, is probably the most critical human element in the video enterprise. The trouble with most video enterprises that are having trouble, regardless of technical difficulties or equipment inadequacies, resides first in the creative imagination and administrative skill of the person in charge of the studio. The equipment may well be phenomenal, but management is the key to making video worth its investment.

In turn, there are two fundamental factors in good video management. First, video rarely survives as a totally independent operation, especially at a university. Rather, video must involve the cooperative efforts of many people in associated fields and arts: the performing arts, (radio-TV, drama, music), journalism, speech, art, etc. Video is cost-effective only if it is used and fully supported by a broad spectrum of participants. The critical importance of this factor cannot be overstated. And therefore, the first step in organizing a centralized video production facility is to organize a strong base of cooperative support.

The second fundamental factor concerns how the facility is used. In a similar sense, video shouldn't be concentrated solely on one function. Again, in order to be cost-effective, the production equipment must serve a multiplicity of purposes. Each of the supporting participants must have direct access

to using the equipment for their own specific needs. By serving several functions, not only is the total cost spread over several areas, but the flexible capability of the medium can be implemented to its best effect.

The danger is in trying to make the facility serve too many masters, which is another common error that hinders the success of video enterprises. At the same time that video is used to serve the needs of participants from drama, journalism, and music, video should not be merely an adjunct of these programs. Video does have its own identity. It is not simply a means of recording a theatre play, for example. Video is not film, (which is why the two are so frequently compared in this report). Video is not educational TV, to be used as a replacement for a live lecturer, nor is it television. Those who view *All in the Family* as a triumph of integrity over convention are not prepared to understand video as a tool which offers the potential of integrity instead of convention.

Though participants from allied fields must be enlisted in the support and use of the facility, video must be defined in its own terms. At the outset, access should be determined by the validity and the appropriateness of the user's approach to video. Theatrical plays should not be videotaped; rather, video plays should be developed. A mobile video unit should not be dispatched to Augusta to cover the legislature alongside the commercial TV newscasters; rather, the mobile unit should

be driven to California and back to produce a news documentary. Video projects should do what others can't, in ways that only video can. In every related field, video should be utilized according to its own character, not derived from the conventions of the established media. The purpose of a video production center should be to advance the video arts.

If so, why Maine? We are not exactly at the vortex of the technological society. And yet what makes a sophisticated video operation possible here in this unsophisticated neighborhood is that the technology, the cost, the art, are now within the means and reach of the smaller institutions and regions. Maine is neither so backward nor poor to preclude a viable video system on a par with any other in the country, even in the major cities and universities, which is true of very few endeavors that could be generated in Maine. Traditionally, Maine has served as a haven for artists, particularly the visual artists--the proportion of painters to the general population, for example, is greater than that in comparable rural areas. Maine not only provides the natural beauty to please the eye, but offers the isolation from urban civilization that allows the artist to concentrate and create without constant distraction. New York and Boston and San Francisco cannot boast of that singular advantage: peace and quiet. Thus in one sense, Maine is the ideal setting for an experimental video facility.

Maine is wide open. Certainly the other audio-visual

media, television and film, have not ventured back into the woods to any significant extent. This is virgin territory. That is also the essence of experimental video itself: the field is wide open.

The literature is thin. Though there's a surfeit of books, the underwhelming majority are feeble simplifications that mislead rather than inform the general reader. The following rare exceptions provide further background and resources.

Artists Videotapes from Electronic Arts Intermix; annual catalog; Electronic Arts Intermix; 84 Fifth Avenue; New York, New York, 10011. A rental catalog from the major distributor in the field--offers an excellent selection of the important artists, producers, and tapes with brief descriptions of each.

How to Prepare a Production Budget For Film & Video Tape by Sylvia Allen Costa; Tab Books; Blue Ridge Summit, Pa., 17214; 1976. Though this small volume favors film and the video information is basically for broadcast applications, it is a money book, giving a clear picture of the kinds of considerations, financial and otherwise, that go into making production decisions.

Spaghetti City Video Manual by Videofreex; Praeger Publishers, Inc.; New York; 1975. This is the best book yet written to convey the inside feel of the new medium. Subtitled "A Guide to Use, Repair, and Maintenance," the latter two are stressed, (an invaluable reference for the layman). The principles of how video works are also introduced, (also invaluable to the layman).

The Video Primer by Richard Robinson; Links Books, a division of Music Sales Corp.; New York; 1974. The first part of this handbook describes how to use video equipment; the second half describes video production; and the appendices contain much useful miscellany.