VIDEO TECHNOLOGY AND ANTHROPOLOGY

INTRODUCTION

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In 1956 the U.S. based corporation Ampex introduced the first practical video tape recorder (VTR). The machine was very large, very expensive and designed primarily for TV broadcasters. Eleven years later Japanese manufacturers introduced the United States to a very different type of video recording technology. The Japanese version made use of very small, portable cameras and recorders which were inexpensive and designed primarily for non-broadcast users.

Unlike the large TV broadcast VTR's which made use of two inch wide videotape, many manufacturers of the small Japanese VTR's made use of half inch wide tape. The Japanese non-broadcast technology had one flaw, an industrial standard was lacking. Videotapes recorded on one company's equipment would not always play back on equipment designed by another. To make matters more complicated, some tapes could only be played back upon the VTR's on which they were originally recorded. The chaos was ended in 1969 when Japanese manufacturers agreed to standardize the half inch video equipment. After standardization wide spread acceptance was rapid.

Anthropologists, having a tradition of using film and photo material in their research, soon looked into the feasibility of working with the new low cost electronic form of image making. As early as 1970 the PIEF Newsletter received inquiries regarding the field use of video. Responding to the questions Karl Heider noted that he and Eleanor R. Heider were using video in their West New Guinea studies. The "Achilles heel" of the system, as Heider described it, was an unreliable battery supply source. He added that Paul Ekman was experiencing similar difficulties (Heider 1970:4-5). In a later article referring to the same generation video equipment Schaeffer, working in rural Jamaica, reported that his Sony equipment proved to be a "reliable tool" even after being soaked in rains and accidentally dropped down stone slopes. He also noted that it was an "inconvenience" to work with the limited power supply provided by the batteries (Schaeffer 1975:267).

The severity of the portable power supply problem was lessened in the mid 1970's when design improvements reduced the power consumption of cameras and recorders, and increased the life span and power retention of rechargeable batteries. Introduction of three quarter inch videotape recording and playback systems, new half inch industrial cassette formats and high resolution color cameras all added to the field reliability of video systems and improved the quality of the video image.

Microchip technology, which made portable video possible, is playing an ever increasing role in the production and presentation of moving images. Advances in film to video transfers (Fisher 1981:570) and the manufacture of computer controlled frame to frame video editors are making it possible to edit film on videotape. The practice is gaining acceptance in film productions planned for TV audiences. Film footage for several programs in the recent PBS series ODYSSEY was assembled in this manner (D. and C. Restuccio 1981:34). Improvement in video to film transfer technology is making it possible to distribute work originally produced on videotape to film audiences. This method of production and distribution is being used in Lomax, Bishop and Long's "The Land Where the Blues Began." The videotape was originally produced for TV in cooperation with the Mississippi Authority for Educational Television (Bishop 1980:18) and will soon be available on film.

The cinema has entered the electronic age. The electronic motion picture is a reality. Motion picture production is changing from a mechanical process to an electronic one. The film camera is being replaced by the electronic television camera. Motion picture film is being superseded by magnetic tape. Even the motion picture projector is giving way to the large screen electronic projector (Abramson 1955:1).

While some might consider the above quotation to be a fitting end to this note, it should be emphasized that it was published in 1955. It is presented here to serve as a reminder that electronic image making has been a long time coming. As anthropologists our concern is not whether video will replace film. Rather, our interest should focus on questions regarding the appropriateness and possible advantages of the new technology in various aspects of our studies.

The articles presented in this issue of the Newsletter were written by members of a newly formed group, "Collaborations in Media and Anthropology" (CIMA). CIMA members are working with moving and still images for a variety of purposes related to anthropology. The following articles indicate the diverse interests of the group.
NOTES

1 For summaries on the development of small format video, available formats of equipment, and procedures for proper use and care of video equipment see Bensinger 1977; Robinson 1978: Utz 1980.

2 A film copy of the videotape was screened at the 1981 Margaret Mead Film Festival and will soon be available from Phoenix Films.

REFERENCES CITED

Abramson, Albert

Bensinger, Charles
1977 The Video Guide. Santa Barbara, California: Video-Info Publications.

Bishop, John M.

Fisher, Bob

Heider, Karl

Restuccio, Daniel and Catherino

Robinson, Richard

Schaeffer, Joseph H.

Utz, Peter

VIDEO AS A RESEARCH AND DOCUMENTATION TOOL IN ANTHROPOLOGICAL FIELD RESEARCH

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In January, 1980, we set off for five months of video taping in Chiapas, the southernmost state in Mexico. Our production group included Lyn Tiefenbacher, a graduate student in the Visual Anthropology program at Temple University who together with Dave Pentecost had been producing videotapes on ritual events in New York City for over a year; Mike Bruno, also a student in the Temple program; and Denise DiLanni, a friend who had worked on other projects in Latin America.

Our goal was twofold: (1) to examine certain concepts of collaborative and applied anthropology through the use of video recording and playback, and (2) to explore the role of visual information in anthropological research, i.e. what types of information and events are best documented, what questions best asked and answered in this medium.

CHIAPAS: A Testing Ground

As a testing ground for the use of video in a field situation, Chiapas was a logical choice. We had done research there the year before on Indian attitudes towards media, filmmakers and photographers, and so had an idea of what type of treatment to expect, what attitudes we'd need to overcome, and what type of subject matter was available. At that time, friends and anthropologists working in Chiapas encouraged us to bring our equipment down to collaborate with them on programs.

Chiapas has been the site of major ethnographical research projects for over 20 years. We made use of the existing literature on Mayan cultures in both pre-production planning and in the field as our work progressed.

EQUIPMENT: An Experiment With Technology

When we bought our equipment in 1979 we had three criteria: portability, dependability, and quality of image, i.e. good color, stable video signal. We chose the industrial Betamax recorder which weighs 20 lbs. and takes a one-hour color cassette, and the Sony 1610 color camera. This combination can easily be handled by one person.

We also took along a second video deck to make copies of our tapes for playback and study in the field. Our original tapes were never touched after they were recorded and copied, thus keeping them in good shape for a final edit. In addition we had a 5” battery operated color tv, microphones, cables, extra batteries for the camera and deck, and spare parts (which we never used) for minor equipment repairs.

Although video has a poor reputation for dependability we have never had equipment failure in over three years of heavy use. In Chiapas we put it to the test, traveling from the dry dusty highlands to the moist tropical rainforests and back. Reliability is critical in a situation where field repairs are difficult if not impossible. While we were in the selva shooting with the Lacandon Indians we met a film crew from California who had to be flown back to Mexico City twice for repairs on their 16mm camera.

POLITICS AND ECONOMICS

We are strongly committed to the politics and economics of using video rather than film. In our culture it is often easy to lose an economic perspective, and particularly easy when dealing with media. It is common to spend $2,000 or more per minute to produce an independent film, and then have problems getting it distributed when and if it is finished. We question this type of expenditure and its cost/benefit ratio when dealing with other cultures. On our project an hour of videotape cost $10. We shot over 40 hours of tape for under $1,000 including copy tapes. While post production will raise those costs, they will never be as expensive as film. We are pleased with the quality of our image. With care in editing and duplication, the finished program has excellent color, detail, and presence. For our purposes (distribution to educational institutions and broadcast and cablecast markets) video is the most appropriate medium to work in.

On the political side, there are some anthropologists who are viewed with suspicion by those they work amongst. A pre-literate society has no access to our research when it is recorded and interpreted through the written word. In Chiapas we found this distrust extended to filmmakers, for
although many had shot there, few had returned with the films.

As students of the French anthropologist and filmmaker Jean Rouch, one of our goals was to explore the ways in which our studies and videotapes could be produced in collaboration with the people in Chiapas. The ability to instantly play back what we had shot, and to view it over and over again for interpretation and annotation opened up many avenues of collaboration with the people we were taping. Playback was a gesture of inclusion which showed what we were doing, and welcomed their participation. Playback sessions were occasions of entertainment and good will as well as aids to further study. Throughout our stay, tapes of West Indian Carnival in Brooklyn which we had brought along were great favorites for showings. Tapes of rare jungle animals in the state Capital zoo created excitement among the Lacandons as Chan’kin Viejo, their patriarch, led his sons and grandsons in naming them all. A replay of a cock fight to the GALLEROS in a favorite bar almost started a new round of betting.

FLEXIBILITY

Our light weight equipment and plentiful tape supply allowed us the flexibility to be open to suggestions and last minute changes in plans. Two tapes in particular resulted from changing conditions.

"Modern Mayan Women"

Although we had been invited to work on a documentary about a state wide weaving cooperative, local politics involving outside American and Mexican advisors had us stymied. A decision was made in mid March to work directly with individual women we had met. Two of the Indian women became extremely involved in this production, learning how to take sound, conduct interviews, and log and translate tapes. The result is a look at the lives of six Indian women in different stages of acculturation, from a tiny Tzeltal speaking community to a Ladino lifestyle in the city. This change in approach allowed us a broader understanding of the issues and events in these women’s lives, and since the two women were active in the cooperative, that information was included without compromising our original intent.

"The Vanishing Forest"

This tape is a look at highland deforestation and the destruction of the tropical rainforest. Although it was on our list of possible tapes while still in New York, it wasn’t until we arrived in Chiapas that we realized what a high priority issue it is to the local people. In the highlands, wood for cooking and heating is becoming increasingly scarce, and towns whose economies depend on it for pottery, furniture making, etc., are facing economic crisis. In the tropical rainforest the Lacandon culture is being destroyed as international logging interests tear up the environment. Everywhere we went people were talking about wood. To ignore this while we shot carnivals would be to ignore the political and economic realities faced by the people.

POST PRODUCTION

In New York we were joined by Juliana Perez, one of the Mayan women who worked on our tapes with us. She stayed for four months working on translations and annotations. Our first completed tape, "Working Women," portrayed potters in her home town of Amatenango del Valle. The second tape we released is entitled "Media Encounters," and consists of the "out-takes" from other tapes, those incidents of interaction between the filmmaker and the ethnographer which usually don’t make it to the final edit: haggling over permit fees, watching a tape being played back, and discussing a tape’s purpose. These reflexive pieces are particularly useful as teaching tools in anthropology classes.

We are presently working on a number of other tapes from our material. With over 40 hours shot, we have a variety of programs in the rough edit stage: process tapes on flint knapping and pottery making, ethnographic study footage on the symbolic role of the monkey figure in highland carnival, songs and myths of the Lacandons told by Chan’kin Viejo, the last patriarch of the jungle, and political tapes on tourism and acculturation. In closing, if one tape could be said to embody the spirit of this project it is "TV on the Sacred Mountain." In this tape we see Chamulan Indian men teaching their young sons the centuries old rituals, including prayer, smoking, drinking, and lighting of fireworks; they perform these rituals in order to communicate with their animal spirit which resides in the Sacred Mountain, to which they have made their annual pilgrimage. Above them looms the massive TV relay station installed by the Mexican government to take advantage of the highest mountain in the state. In this scene are the most personal, public, ancient, and modern forms of communication.

IS THERE HOPE IN COMMERCIAL TV FOR ANTHROPOLOGISTS?  

Faye Ginsburg  
CUNY

I started using video in 1978 to document my own research on ritual in a Syrian Jewish community and spent several years producing on small grants and with "low-tech" equipment. As my knowledge of video grew more sophisticated, I grew curious about the possibilities for anthropology in television. Was the broadcasting world the wasteland I thought it was? Could one produce high-quality ethnographic documentaries within the framework of a TV station? Is there a place in the system for the skills of an anthropologist?

During the summer of 1981, I had a chance to test those questions. I was one of twenty recipients of a Mass Media Fellowship from the American Association of the Advancement of Science. These three-month wards are granted
yearly to graduate students in science who are interested in working in print or broadcast journalism. The objective is to improve the coverage of science in mass media.

Unlike most of the other “fellows,” I had a specifically defined interest in using film or video to present ethnographic material to the public. I had been influenced by the verité style developed by French anthropologist and filmmaker Jean Rouch (with whom I studied in the summer of 1979). Given my interests, I was fortunate to be given the one fellowship placement with a documentary unit, rather than a newsroom.

My assignment was with the public affairs division of WCCO-TV, a local CBS affiliate in Minneapolis. The “Moore Report,” as the documentary unit is called, has eight full-time staff people: a director, two producers, two camera people/editors, a grip/soundperson, a researcher, an administrator and occasional interns. Each producer is responsible for two hour-long documentaries a year. They are free to choose their own topics and approach, subject to final approval from the director.

Since I expected a hierarchical work situation, I was pleasantly surprised by the informality and creative collaboration that took place in the office. My colleagues informed me that this is a rare exception in the world of television. In fact, the support of such a documentary unit altogether is unusual. Currently, there are only ten such units supported by commercial affiliates.

Producers at WCCO usually took about four months to produce a documentary from initial research to final broadcast. In addition to salaries and general overhead costs, $5000 was available for expenses. The four months of production are intensive work periods. During the last four weeks, the producer and editor are generally working 12-14 hours a day, six or seven days a week. To compensate for this schedule, production staff are able to take time off between documentaries.

The focus of the project I worked on was a large community of Indochinese refugees that had settled in Minneapolis. The people we worked with are Laotian Hmong. Until recently they lived as slash-and-burn agriculturists in the hills surrounding the Plain of Jars. During the Vietnam War, they were recruited by the CIA as guerrilla fighters and pilots. Since the Communist takeover of Laos in 1975, they have been systematically killed by the Pathet Lao. Over 100,000 have fled their homeland. 40,000 have settled in the U.S. and at least that many are in refugee camps in Thailand.

When I arrived at WCCO in June of 1981, I started to flesh out the preliminary inquiries the producer had made. My overall responsibilities included all production tasks: research, field production, script-writing and editorial decision making. The work process underscored the similarities between documentary production and anthropological work. Both require the definition of issues in a particular locale and sociocultural frame. Each field attempt to examine the roots of some problem in order to illuminate some general human dilemma. Differences may lie in the journalist’s emphasis on general concerns for as broad an audience as possible. While this is not foreign to anthropology, it is rarely the stated goal of a scientist interested in the development of theory for a small community of scholars.

Initially, I tried to get as much information as possible on the Hmong living in the U.S. My library work was thorough but not scholarly. I read available ethnographies for my own interest. But, rather than search through the AMERICAN ANTHROPOLOGIST, I looked for more journalistic articles and books that highlighted salient, newsworthy “angles” on Hmong life and history, as well as on refugees in general. My purpose was to understand the people with whom we would be working and find the frame that would most effectively communicate my knowledge to a large viewing audience of Midwesterners who were, for the most part, ignorant of this foreign culture in their midst. Opinion polls and reports of conflicts in neighborhoods where Hmong lived confirmed my impression that many Minnesotans lacked knowledge of or were openly hostile to Hmong refugees. I hoped to find a way to present issues to viewers that would generate interest, sympathy and a desire to know more.

Much of my time was spent getting involved with the local Hmong. My first week on the job, a national conference for Hmong leadership was held in St. Paul, providing me with a quick entry into the community. I also spent time interviewing social workers, policemen, anthropologists, linguists, psychiatrists and medical personnel who worked with Hmong. We eventually returned to those who were most articulate and insightful for on-camera interviews which were woven into the documentary as a way of providing some different perspectives. This technique is used frequently by journalists and is one way for the work of social science to gain media attention. In this production, we worked closely with a psychiatrist who ran a clinic for Indochinese, a navy medic who had administered a Hmong refugee camp, and a woman who coordinated refugee programs in Thailand.

The producer and I shared a commitment to creating an immediate human connection for an audience who would no doubt be puzzled by the cultural differences and tragic history presented by the Hmong. To do this, we decided to tell the story through the eyes of a family. I began tracking down a unit that would be more or less representative in terms of structure and experience of historical events that have disrupted Hmong life over the last thirty years. We also looked for people whose immediate circumstances would provide dramatic focus for an hour-long production. For these reasons, we chose an extended family group that was awaiting the arrival of an uncle from a refugee camp in Thailand. While any well-informed journalist might have made the same selection, my knowledge of kinship and family form were clearly an asset in making this choice.

Most television documentaries are heavily scripted and use people as object illustrations rather than the subject of a story. I expected to fight for a more anthropological approach that would ground the production in the informant’s everyday concerns. Fortunately, the producer was in favor of this "natural narrative" style in which issues
emerge from the material. Perhaps because of our general agreement on form, I was allowed as much responsibility as I wanted. In fact, I was left to run the first week of shooting while the producer went on vacation.

The moment of crisis came when the producer decided to follow our Minneapolis family's relative in Thailand on their journey from the refugee camp to Minnesota. Everyone agreed that I would be an asset in the field, but budget only allowed travel costs for the producer and the cameraman. (This fact immediately destroyed my illusions about the vast sums of money available in commercial television.) I managed to raise the money for the trip and the station agreed to pay most of my inland travel costs.

The three weeks we spent in Thailand provided me with an excellent, if exhausting, field production experience. Since there were only three of us (plus a bilingual driver), I was able to take sound and handle equipment; (in Minneapolis, union rules prohibited me from such activities). Most of our time was spent in a Hmong refugee camp near the Laotian border where our "hero" and his family had been living for two years. When we arrived, we discovered he could not leave as scheduled for bureaucratic reasons. After some panic that we had just lost the key element of our story, we regrouped, deciding that our hero's dilemma would effectively dramatize the difficulties faced by refugees. Our last few days were spent near the Burmese border in a native Thai Hmong village, in order to get footage that would show what life was like for Hmong whose life had not been disrupted by war.

When we returned from the trip, our broadcast date was only five weeks away. After shooting a few more local scenes, we began to log the 25 hours of tapes we had shot. The producer and I then blocked out the basic story line on paper and began writing the script. In addition to the constraints of time (55 minutes plus credit rolls and introduction) we had to work around two commercial breaks and write a narration for the anchor man of the station who introduces and narrates all of the Moore Report. Within those limits, we tried as much as possible to let the story be told by our characters and a few key interview people who had worked with the Hmong for years. On a good day, we might produce five minutes of script which we would then turn over to the editor. I was skeptical of this division of labor but it actually worked out quite well. Our cameraman/editor had a superb eye and ear and enough distance from the "research" to assess what worked and what was too obscure for a general audience. Again, the producer in this case gave the editor the same kind of freedom he gave me, so that the process of building the production was a true collaboration.

One of the major frustrations of working on "TV time" (i.e. against a scheduled airdate) is that there is no time for a rough cut. I'm not sure we would have changed much if we had had the luxury to refine a first edit, nonetheless, producing work that you know cannot be altered is nerve-wracking and one of the critical complaints of the staff.

To add to the panic around the preparation for broadcast, the station also runs a "Town Meeting" after the first airing of the documentary. Basically, this is an hour following the documentary during which four or five people with expertise on the issues raised in the show answer questions phoned in by the public. This particular one worked out quite well. As one of the people who selected calls to go on air, I had a good opportunity to judge audience response. There were the usual questions asking whether Hmong eat dogs, etc. However, most calls indicated that the documentary had moved people to think about who in fact are these strange people they see on the streets. This audience response was even more gratifying for me personally than the numerous positive newspaper reviews of the show (entitled "Farewell to Freedom").

My initial interest in using visual media in anthropology was to bring the insights of the field to the general public. For all its problems, television does reach and influence more people than any other medium. And the banalities of most programming are not inevitable. Good anthropological documentaries do draw an audience and can be effective. For instance, the British "Disappearing World" and "Tribal Eye" series were not only very popular; but during their period of broadcast, attendance at the Museum of Mankind in London doubled. Unfortunately, U.S. television has not been so open to using the resources of their own anthropological community. The struggles and short life-span of the Odyssey series on PBS bears witness to this resistance, even in public television. As a result, those of us interested in creating anthropological film and video are consigned to scrambling for the scarce funds available for independent media and showing our work through the limited non-profit distribution networks.

But, the problem does not lie only in the attitudes of people working in media. Anthropologists have long been nervous about revealing themselves to the public. The ambivalent feelings some anthropologists have toward Margaret Mead, the great publicist of anthropology, reflect our tribal sanctions against those who stray too far from the academic fold. Can our work be brought to a broad audience in a language they can understand and still maintain its scholarly status? Rather than repudiate mass media, we should consider how we might be more effective in influencing the coverage of our work.

My experience working on a documentary at a commercial TV station convinced me that some inroads can be made in the broadcasting world. In fact, I was struck by the similarities between my own concerns and those of the journalists with whom I worked. Now, the development of portable, inexpensive video equipment and the expansion of access through cable and satellite provide unprecedented opportunities for the presentation of anthropological material. If indeed one of the larger goals of our discipline is to study other cultures to shed light on our own, then we need to take seriously the possibilities presented by new developments in the media to give new shape and scope to our work.

NOTE

1 Information on the Mass Media Fellowship can be obtained from the American Association for the Advancement of Science, 1776 Massachusetts Ave. N.W., Washington D.C.
TIME STUDIES WITH FILM

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Until the past decade, motion picture film was the only practical technology for the recording of events as they transform through time. However, with the many recent developments in video technology, film is no longer the only choice. Current video cameras and recorders have been successfully engineered for the type of rugged applications and remote environments often encountered by ethnographers and archaeologists. Video has the distinct advantage of instant playback, as well as being more economical than motion picture film to use.

As video replaces film as the preferred format in documentary field recording, what might we expect for the future of motion pictures? While video will remain superior for the “real time” recording of cultural process and archeological activities, there could be a new type of application for film as an anthropological research tool. Because of the fundamental differences in the technology used to produce an image, film cameras can operate at a variety of recording speeds while video is limited to a single recording rate. Motion picture equipment offers the potential for expanding and compressing the time domain of events, thereby revealing patterns that have eluded our direct perception. This unique ability of film to present alternative views of temporal events could provide anthropologists with new methods for research and investigation. It is this use of film that will not be replaced by video in the foreseeable future.

The traditional method of time compression uses the film camera in a “time-lapse” mode. In this technique, single picture frames are recorded at intervals slower than the standard “real time” recording rate of 24 frames per second (fps). When time-lapse film is projected at the standard 24 fps rate, the projection rate is more rapid than the recording rate. The result is the apparent compression of the time domain of the original event.

Some commercially available motion picture cameras have been engineered with the feature of single frame operation. When recording in a time-lapse mode, however, such cameras have the distinct limitation of being restricted to only one exposure rate, usually 1/50 of a second. The lack of exposure control causes the jerky, staccato appearance that is often annoying in time-lapse films. Consider, for example, that we were filming at a rate of one frame per second. Our camera would record for 1/50 of a second, wait 49/50 of a second, record for 1/50 of a second, wait for 49/50 of a second, and so on. Thus, for each one second of activity, only 1/50 of a second is recorded. The camera is actually recording just two percent of time and 98 percent of the event remains undocumented.

Two factors determine how time domains are recorded on film, duration of the exposure and duration of the interval between successive exposures. A motion picture camera that independently operates exposure and interval duration rates would provide many options when working in time-lapse modes. If, for example, the exposure could be ½ of a second when filming at one frame per second, 50 percent of an event would be documented while the entire action would be compressed by a factor of 24 times.

The new filming techniques that I was considering for time compression studies seemed appropriate to try out during my filming of the market at Aligra and of the public park at Monceau in Paris a few years ago. Aligra has been a center of commerce for several hundred years. It is located in a vacant circular plaza where vendors arrive before dawn with foods and household goods. They set up stands and arrange their merchandise. By 9 a.m. Aligra surges with activity. At noon the market officially closes. The vendors recreate their unsold items, dismantle their stands, load everything back into vans and depart. The municipal refuse workers clean the plaza and by 3 p.m. Aligra becomes the neighborhood playground for the local children. The rhythmic changes of Aligra from dawn to dusk are fascinating. Every day the plaza goes through remarkable physical and social transformations.

While I studied the market, I concurrently assembled a new type of film camera that would give operating control of both exposure and intervals. Composed of rental components, the camera was clumsy but it worked. The approach to the cinematography was cinema verite, with the additional element that the daily patterns of the market were being documented in a compressed time domain. I varied the camera speed but was generally recording with exposures and intervals between 1/2 to 1/6 of a second. With the film at Aligra, over 50 percent of the continuous action was recorded while the event was compressed by a factor of six. In comparison, a standard motion picture camera operating at 24 fps records only 50 percent of the continuous action. The resulting footage reveals both the form and the rhythm of Aligra. The ebb and flow of market activity is preserved. Recorded with the new camera, the imagery does not have the erratic movement from frame to frame that we have come to expect from time-lapse films.

Time compression at Parc Monceau was not utilized to condense the transformations of an entire day, as with Aligra, but to explore the temporal patterns of the three age groups who regularly visit the park. The relationships and rhythm at Parc Monceau reflect the tempo of children, parents and the elderly. Accompanied by their parents, young children enjoy the swings, the large oval sandbox and, especially, the motorized carousel ride. The elderly stroll through landscaped paths and pass the time relaxing on park benches while watching the spirited activity of the children. The parents gather in small groups, conversing and keeping an alert, protective eye on the children. Their repose is periodically interrupted as a parent rushes to prevent an accident or to respond to a minor emergency.

Recording the activity and interrelationships at Parc Monceau required the capability of changing the field of view through the use of zooms and camera movements. Generally, time-lapse film cameras are locked in a fixed position since pans and tilts tend to be awkward because
they are greatly accelerated by the time compression and since any extraneous camera movement is distracting. However, if the camera movements could be slowed so that they were proportional to the rates of exposure and intervals, the static camera position would not be required. For example, if the exposure rate was 1/5 of a second, which is ten times slower than the standard 1/50 of a second, the camera should be panned ten times slower. When the film is projected, the camera movements will appear to change at familiar rates, thus allowing the viewer to follow the progression of events. For the filming at Parc Monceau, the camera was mounted on a special gear-head tripod. The stable and smooth operation of the tripod made it possible to follow action with slow, steady and precise camera movements.

The film footage at Monceau is effective in revealing the basic patterns of social interaction at the park. The time compression is also successful in illustrating the synchronization and temporal differentiation among children, parents and the elderly.

The camera that I used in Paris worked surprisingly well but a more portable instrument with a wider range of control was needed. Since no commercially available motion picture camera could fulfill the requirements, there was no choice other than building my own. Over the past two years, the design of a "Cinechron" has been realized. The major components of this camera are:

1. A 16mm, pin-registered, film transport for precise alignment of each frame in the exposure gate.
2. A servo-motor system that provides independent operation of the exposure and interval between successive frames.
3. The Cine-controller, a micro-computer that independently times and controls all camera functions.
4. A zoom lens with reflex viewing and exposure control in both manual and automatic modes.
5. A portable, gear-head tripod.

The Cinechron can be used in all the traditional modes of cinematography including slow motion and time-lapse modes. The exposure and interval can be independently controlled. Both the exposure and the interval rates range from 1/100 of a second to 100 hours in 1/100 of a second increments. Any combination of exposure and interval can be selected and these rates can be varied while the camera is running. The camera system is very portable and has been designed for hand-held, as well as tripod-mounted, cinematography. In three months since completion, the camera has operated very reliably under many kinds of filming conditions.

Along with varying the recording rates, there is considerable research potential in varying the rates at which the film is projected. By reducing, increasing, stopping and reversing the projection speed, specific temporal patterns can be observed in greater detail. The rate of projection also influences the viewers' interpretation of film recordings. Meaning seems to change as the projector speeds up or slows down. When the footage of Aligra is shown at 24 fps, audiences respond to the physical and architectural aspects of the market. When the same footage is projected at 4 fps, the response changes to the consideration of the social and cultural aspects of Aligra.

When preparing a film of this type for distribution, it is possible to include the variation in projection speed by reprinting the original footage. One method is to use an optical printer; however, the cost of this procedure is prohibitively expensive. An alternative method is to accomplish the reprinting by re-recording the original film onto videotape with a variable-speed, film-chain projector. This technique is economical and it encourages experimentation in studying the original film.

Using film cameras like the Cinechron, researchers can illustrate and study patterns that are inaccessible to our visual perception. While video is excellent to document what our eyes perceive, motion picture film may be able to document patterns that could only be imagined.

APPLICATIONS FOR THE USE OF SMALL FORMAT VIDEO IN ANTHROPOLOGY

Anja Dalhreup
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For the past two years I have been studying visual anthropology at Temple University. In conjunction with my studies I have made several videotapes. These tapes were produced in collaboration with Glen Muschio, a fellow graduate student.

In the Spring of 1980 the chairman of the Anthropology Department, Dr. Richard Chalfen, asked us to produce a series of videotapes depicting activities of the department’s annual archeology field school. The tapes were intended to acquaint students with archeology survey and excavation methods.

The 1980 field school was held at May's Landing, 30 miles north of Atlantic City in the New Jersey pine barrens. Preliminary archeological survey of the area revealed a number of habitation sites located along the Great Egg Harbor river suggesting occupation dates of 3,000 to 2,000 BC. The field school site was chosen because it was thought that archeological excavation would shed light on the prehistoric settlement pattern of the Great Egg Harbor region and because the site was soon to be razed for a housing development. In view of the site's pending destruction the videotape would be of value not only for class instructions, but also as a document of the ecology of the area before massive land grading and road construction began.

For recording purposes we used a Sony AV-8400 reel to reel VTR and a Sony DXC 1600 color camera. While the color quality and picture resolution of the DXC 1600 is very good, the portability left something to be desired. Unlike today's portable color video cameras the color components of the DXC 1600, a first generation color portable video camera, were housed in a bulky external apparatus called a color control unit (CCU). Painfully aware of our VTR, CCU and camera would make us "mobile" only in the most loosely conceived sense of the word, we decided to throw our semblance of portability to the wind and used a 12 Volt car battery to power our VTR and camera. This power source supplied us with almost 8 hours of power and
replaced two 3½ lb. batteries which supplied 20 minutes of power each. Our entire equipment package was loaded onto a two wheel dolly. On our first day of pushing the equipment through the underbrush of May's Landing the dolly was quickly dubbed, "the almost mobile rover." By necessity the video equipment used for this project was many generations removed from today's lightweight portable models. Yet we found that the equipment which many label "obsolete," can still function quite adequately. Mobility would have made our work much easier working at an archaeological site. However, being able to freely walk about with a camera was not essential. Video taping occurred at grids or locations where people worked in well defined areas. The 15 feet of cable which attached our camera to the VTR afforded us enough mobility to adequately cover the event.

In all, 10 hours of videotape were recorded over a 7 week period. From the material a ½ hour overview of the fieldschool was edited for classroom use. The tape, entitled "Gravely Run," depicts the day to day activities of fieldschool participants.

The editing was done on two Sony AV-8650 reel to reel editing decks. After the master was completed 3rd generation copies were electronically color enhanced and time base corrected in order to preserve the quality of the 2nd generation master.

In the two semesters since its completion the tape has been shown in six introductory level anthropology classes. From the original recorded material several additional tapes are planned, including the technique of taking a column sample recorded in real time, map making, and an account of the history of archeological excavation in the Great Egg Harbor region.

My second major undertaking was carried out in conjunction with the Anthropology Department and the Native American Studies Program (NASP) of Kampsville, Illinois. NASP is sponsored by the Northwestern Archeology Program and the Center for American Archeology (formerly known as the Foundation for Illinois Archeology). Since 1977 NASP has conducted workshops designed to further understanding of ancient North American cultures through integration of the archeological record and ethnographic sources.

In the Spring of 1981 the Anthropology Department received an inquiry from NASP investigating possible interest in producing a film on the subject of one of their summer workshops. The planned workshop was on bullrush and cattail weaving. The two week workshop would be taught by Wapahokokwa, a Mexican Kickapoo, assisted by John White, director of NASP. There would be 15 participants including 11 Native Americans from nine tribes located in the U.S. and Canada. The workshop was designed to teach participants all aspects of bullrush and cattail weaving. After gaining proficiency, Native American participants would return to their homes to teach the techniques they had learned to other interested tribe members. In addition to actual weaving techniques, participants at the workshop would gather bullrushes and cattails, prepare dyes, and learn about commercially available substitutes for use in geographic areas where the natural materials were not readily available.

NASP desired to produce a film which would document all aspects of the weaving process. They envisioned that workshop participants would bring the film back to their communities and use it as a teaching tool to train others how to weave.

Glen Muschio and I found the idea of the project very interesting. However, there was simply not enough money to make a film. We suggested that rather than a film, a videotape be made. We felt that for the stated purpose of the project video would be more appropriate than film.

In a teaching situation video can easily be stopped while retaining the image on the monitor, a tape can be fast forwarded and fast rewound and some machines have rapid scanning functions and slow motion capabilities. We thought that these functions would be a helpful device when teaching others how to weave.

For the actual taping of the workshop we used our DXC 1800 color camera and a Sony VO-3800 ¾" recording deck. This equipment gave us the mobility we needed to keep up with Wapahokokwa as she gathered bullrushes and cattails from local swamps or darted about the village watching over and instructing her 13 student weavers.

The tapes we produced over the last two years have all been completed on minuscule budgets. "Gravely Run" was produced for under $500 in tape supply. The tape cost for the weaving project amounted to $1,600. This included 18 hours of recorded tape plus 18 hours of copy tape. It would have been impossible to shoot and process a comparable amount of film with these types of budget.
ANNOUNCEMENTS AND NOTICES...

COOPERATION COLUMN

Richard Chalfen would like to hear from readers who have used the series NAVAJO FILM THEMSELVES in teaching or other contexts. Specifically, he is interested in collecting examples of problems and questions raised by colleagues and students as part of their classroom teaching and learning. What are the most common responses to these films? What kinds of additional information would make the Navajo films and the entire project more useful? His paper that reviews and summarizes some of these problems is available to contributors.

Richard is also preparing a symposium on "Subject-Generated Documentary Images" for the XIth ICAES to be held in Canada in August, 1983. He is interested in hearing from readers who have done subject-generated research using still photography, film, or video, and who would like to give a paper (an illustrated presentation) during this symposium.

Richard is an associate professor in the Department of Anthropology at Temple University but may be reached this academic year at the following address: 1968 Hopi Road, Santa Fe, NM 87501.

Martin Taureg is in the process of expanding his international bibliographic list entitled "Ethnographic Film: A Preliminary Bibliographical List," which incorporates written materials on ethnographic film in a variety of languages. The present list is especially strong in German language literature on the subject but he is interested in learning about theses and dissertations which are relevant to the project in all languages and from all countries. He would like anyone who might have knowledge of relevant works to send him the complete bibliographic reference and the place where the full work may be consulted if it is not readily available for purchase. He would also greatly appreciate actual copies of the works.

Martin is also gathering information on ethnographic films (or documentary films "with ethnographic content") on Central and South America and on Caribbean peoples which were filmed during the early periods of cinematography (i.e., primarily before 1945 although he is interested in films of the late forties and early fifties as well). Correspondence about these films should include title, author, year of shooting, ethnic group or region treated, holder of rights, and distributor.

All correspondence may be directed to Martin at the following address: Martin Taureg, c/o Volkerkundesammlung des Museums fuer Kunst und Kulturgeschichte, Duevekenstr.21, D-2400 Luebeck 1, West Germany.

GRANTS AWARDED

Peter S. Allen, associate professor of Anthropology at Rhode Island College, has received a $41,000 grant from the National Endowment for the Humanities to compile and produce a comprehensive annotated catalogue of archaeological films and other audio-visual materials. The grant will be administered by the Archaeological Institute of America. Suggestions for inclusion should be addressed to the following address:

Professor Peter S. Allen
Department of Anthropology and Geography
Rhode Island College
Providence, RI 02908

Richard Chalfen has received a full year grant from the National Science Foundation to do postdoctoral work at the Anthropology Film Center on Canyon Road.

Chalfen directs the masters program in Visual Anthropology at Temple University in Philadelphia, a program of studies run in conjunction with the Anthropology Film Center. Working under a professional development fellowship, Chalfen will work with Carroll and Joan Williams on problems of ethnographic film production, as well as curriculum and career development in visual anthropology. Chalfen, who is on leave from the Department of Anthropology at Temple, is completing a book tentatively entitled "Kodak Culture and Polaroid People," which examined relationships between amateur photography and American culture. He has also completed studies on Navajo film communication, on first films made by Philadelphia teenagers, and on home moviemaking.

NATIVE AMERICANS ON FILM AND VIDEO, a selective catalog describing nearly 400 films and videotapes is now available from the Museum of the American Indian. Covering films on Native Americans in North, Central, and South America, the catalog emphasizes works produced since 1970, works by Indian filmmakers, and ethnographic films. The catalog also contains descriptions of media resources and special-interest film collections. A limited number of copies are available free to Native American organizations. The organization should address a free copy request on letterhead stationery. Copies may be ordered from: The Film Project, Museum of the American Indian, Broadway at 155th Street, New York, NY 10032.
THE 1982 ANNUAL MEETING OF THE SOUTHWESTERN ANTHROPOLOGICAL ASSOCIATION

WHEN: April 8, 9, 10, 1982
WHERE: Mansion Inn, Sacramento, California
DEADLINE FOR SUBMISSION OF PAPERS AND SYMPOSIA: January 8, 1982
CONTACTS:
PROGRAM: Dr. Carolyn M. Clark
Kerr Hall
Board of Anthropology
University of California
Santa Cruz, CA 95064

LOCAL ARRANGEMENTS: Dr. Mel Weiss
Department of Anthropology
California State University
Sacramento, CA 95819

REGISTRAR: Nancy Peterson Walter, Secretary
17048 Sunburst
Northridge, CA 91325
Telephone: (213) 349-0382

CORRECTION OF INFORMATION IN SAVICOM NEWSLETTER 8:3

I would like to call your attention to a major error on page 12 of SAVICOM NEWSLETTER 8:3, 1980. Pamela Haas incorrectly says that Tozer Library no longer uses anthropological subject headings. This is untrue. A major revision of the subject headings has been in process for four years and the second revised edition of Tozer Library's subject headings has just been published by G.K. Hall & Co. It includes 177 double column pages of anthropological subject headings! These subject headings are still used at Tozer Library and in our published library catalogue.

Only selected subject headings for major sub-disciplines of anthropology, archaeological sites and cultures, ethnic and linguistic groups, and geographic areas are used in Tozer Library's quarterly journal ANTHROPOLOGICAL LITERATURE. The reason for this, manual compilation of the journal entries, has been explained both in editorials in ANTHROPOLOGICAL LITERATURE and in my article in THE OTHER FIELDWORK referred to by Ms. Haas.

Why Ms. Haas even mentioned Tozer Library's subject headings is unclear, for Tozer Library does not have visual collections. Therefore, one could hardly expect us to have special subject headings for visual collections. However, I might point out that our staff conferred with the staff of Peabody Museum Photoarchives in the establishment of their subject headings (which are mentioned in the same issue of the SAVICOM NEWSLETTER.)

Finally, to correct another error in the article, Tozer Library no longer belongs to Peabody Museum. Tozer Library is, and has been since July 1979, a department of Harvard College Library of Harvard University.

Nancy J. Schmidt
Librarian

Australian Institute of Aboriginal Studies

Visiting Research Fellowship

Impact and implications of introducing television on remote Aboriginal communities

$19821-$25871 3 YEARS

The Institute is a Commonwealth Statutory Authority based in Canberra; its principal function is the promotion of Aboriginal Studies.

Within the next three years commercial television will be accessible to remote Aboriginal communities throughout Australia. The Council of the Institute is seeking a suitably qualified person to design and carry out a study of the impact and implications of introducing television into one to two remote communities.

The successful applicant will be expected to have tertiary qualifications in a relevant area of the social sciences, an awareness of the issues raised by cross-cultural research and a willingness to spend at least half of the period of the fellowship in the relevant communities. Field expenses incurred during the project will be funded by the Institute. The appointee will be based at the Institute.

Applicants must include with their application a three to five page outline of a possible framework for the project which situates it in the context of the relevant literature, paying particular attention to the methodology to be employed.

Applications, together with the names of three academic referees, should be forwarded to:

The Registrar,
Australian Institute of Aboriginal Studies,
PO Box 553,
CANBERRA CITY, ACT 2601

Closing date: 31 March 1982

SUBSCRIPTION INFORMATION

The SAVICOM NEWSLETTER is published three times a year: fall, winter, and spring. Subscriptions to the NEWSLETTER may be through either of two means:

(1) Membership in the Society for the Anthropology of Visual Communications (SAVICOM). Membership is U.S. $18.00 per year. For this amount, members receive a subscription to the journal STUDIES IN VISUAL COMMUNICATION and a subscription to the SAVICOM NEWSLETTER as well as other benefits of membership.

(2) Subscription specifically for the SAVICOM NEWSLETTER. Subscription to the NEWSLETTER is U.S. $5.00 per year.

Inquiries concerning membership in the Society for the Anthropology of Visual Communications or concerning subscriptions to the SAVICOM NEWSLETTER should be sent to: SAVICOM, ATTN: Chris Wessel, 3620 Walnut Street, C/5, Philadelphia, PA 19104 U.S.A.. Payment should accompany any order. Checks should be payable to the Society for the Anthropology of Visual Communication.