PART THREE:

OPEN CIRCUITS:

The New Video Abstractionists

THE KITCHEN: An Image and Sound Laboratory:
A Rap with Woody and Steina Vasulka, Shridhar Bapat and Dmitri
Devyatkin

The Kitchen was founded in 1971 as a video and performance
space at a cultural complex on the outskirts of the SoHo area of
New York City called the Mercer Arts Center. At 240 Mercer Street,
the Kitchen, so-named for past use for the space in an annex
building to the Broadway Central Hotel, shared quarters at the
Center with Off-Off Broadway theatre spaces, acting schools and
bistros. The Kitchen initiated some of the first annual video
festivals, several versions of the first annual computer arts
festival, and programmed the work of video artists from around the
country, as well as music events and performance events, many of
which incorporated the electronic media.
The sudden collapse of the structure of the Broadway Central
Hotel in 1973 closed the Mercer Arts Center for good, but the
Kitchen re-emerged further in SoHo at 59 Wooster Street near Broome
Street. The Kitchen continues today as a well-endowed performance
center with ongoing video exhibition facilities and archival
functions close by at 484 Broome Street, and has served as a model
for other media arts spaces through the United States and Canada.
On April 1, 1973, Jud Yalkut hosted a monthly edition of the
panel show ARTISTS AND CRITICS for WBAI-FM in New York with the
founders of the Kitchen, Woody and Steina Vasulka, and their co-
workers Shridar Bapat and Dmitri Devyatkin. The discussion entailed
a complex overview of the state of video art at that time.

JUD: Let's start with the genesis of the Kitchen, what it was meant
to be, and how it relates to the current video scene.
WOODY VASULKA: When we came into the scene, into video actually, we
felt there was some kind of vacuum in the presentation of video.
But, of course, it was very subjective, because there were existing
places like Global Village, Raindance for a while, and People's
Video Theater. There were loft concerts; Bill Creston actually
advertised shows. We went to that show once with Alfons Schilling.
We were just four people who got together and rapped about the
concept of a theater, and then there were a few other places, but
they all had a problem with the audience. Of course, they were
badly advertised, and it was purely individualistically oriented,
like whatever particular groups or individuals did, they showed.
JUD: It was random generated scene.
WOODY: Exactly. So we were somehow toying with an idea of filling
up that vacuum. We were trying to put together a more egoless
concept of things, to bring more participation of other people, so
it would create its impact. Of course, the concept was much bigger
than what we ended with, always a chain of compromises. Actually,

there were 3 or 4 people talking about the theater; the first was
Andy Mannik, who physically found the space of the Kitchen, and
there was Michael Tschudin, and there was Steina and myself. Later
Dmitri Devyatkin came, and Shridar Bapat, and that's how it is
right now.
STEINA VASULKA: Michael is a musician, and he was going to combine
live music with video, and he doesn't dance himself but is very
involved with and knows what's going on in the dance scene. He was
going to do dance programs there. And we were going to try and
combine and make really mixed media.
WOODY: So, we soon realized that to present video only, as other
groups had done, was not really enough to put together a scene.
JUD: To sustain an environment.
WOODY: So we had these two concepts: one was to be a live audience ~~TEST~~
~~TEST~~ listing (?) laboratory, which was supposed to attract industries
also, to donate equipment--of course, these were dreams, like
asking Sony to give you a camera, or RCA--these are very naive
concepts. But then we said, let's take electronic media as art
material, let's put them together and do something like the future
is the rend of, using the whole environmental range of media. And
that somehow was closer to what people felt about and brought it,
so then we called it Electronic Media Theater, and that's how it
stands. Our new tendencies, since Steina and I are slowly
withdrawing to other duties, the new generation like Shridhar and
Dmitri are proceeding in electronic image programming.
      It happened in a time when there wasn't really much around,
and it was a good time to start and to unite the video scene. Of
course, we had a few people who would not participate in the
Kitchen, but we are not bitter about it because they had their own
way of presenting video, but I think mostly we got that part which
we like which is the abstract or non-figurative or electronically
generated video. So we put that scene together, I would say. *recording*
JUD: Image processed work in the medium rather than as a purely (?)
medium. Although the Kitchen had presented examples of both.
SHRIDHAR BAPAT: One of the major points that comes up with our
emphasis on processed imagery, image-oriented video, is the fact
that is the one form of video which can work in a performing
situation. We actually perform, in many cases, instead of just
presenting tapes.
JUD: Rather than being a newsreel theater.
SHRIDHAR: We're actually a performance space, and video becomes an
instrument, in the same way that a musician performs. But our
orientation has not been totally image-oriented really because we
have by and large been over the past two years the only regularly
functioning video presentation space of any kind in New York, if
not the East, in general. And some of the most successful programs
have been the open screenings.
JUD: On Wednesday nights.
SHRIDHAR: A fully unstructured kind of thing. People bring in the
worst stuff, and sometimes incredible discoveries are made.
STEINA: But the people who have found a home in the Kitchen are the
image-oriented, like the electronic image people. They've become
associates, or even like Nam June Paik who's not an associate, but
there's not a week that he doesn't show up, and Walter Wright, and

Bill Etra. Those people have found the Kitchen a very ideal space, whereas those people who deal with video as social or political impact have not made that much use of it, and it's nobody's fault. That's just how it developed; the Kitchen was just as open to them as everybody else. And there's another group of video artists who have almost not used the Kitchen at all, and those are the so-called Conceptualists--
JUD: They're mainly gallery oriented.
STEINA: I think because they are not dramatically oriented, they are more oriented towards continuous showing and the Kitchen really is a theater. So it has the concept of the audience coming in, and then the evening starts and ends, and so we have very few of them.
JUD: Many of those artists have dealers who sell videotapes in limited editions at high prices, which still uses the gallery concept for the distribution of video information.
DMITRI DEVYATKIN: I think you can look at the Kitchen in a much different way, as a real turning point over place, where lots and lots of information changes hands, and I really feel my own role there, and a large part of the role that the four of us play, is that we serve a network function--that someone comes with something that they specifically need to know and we can easily direct them to where they should go. Therefore, we represent a great deal more information than we might have ourselves personally, and this is a function that anybody could serve, but as you keep serving it, you become better and better at it. What the Kitchen has really done has been just opening and getting these new informations to cross and intermix, and especially the idea of music, dance, video and other kinds of performing interacting with each other. It's just amazing, to find artists working right down the hall from each other, and they've never seen what the other is doing. Just having a space where they can meet each other and see what others are doing generates a very healthy climate.
JUD: It generates an interest and is also a stimulation for new work in one direction or another. That's the way it was with the Filmmakers' Cinematheque and the underground film scene in New York until things became a bit more rigidified.
WOODY: I also feel that this is the dilemma of the Kitchen. If this should be a place to meet, or a place to produce, or a place to show. When we started, there wasn't a great interest in the Kitchen and we could barely make a week of programming; now, it's different. But it cuts our private time, unfortunately; I think we are too much in showing and very little in production.
STEINA: We are too much into success.
JUD: Also the atmosphere of the Mercer Arts Center with five theaters, and a weekend hangout for Off-Off Broadway types. Quite a few wander into the Kitchen from this other milieu.
WOODY: Dmitri described one function, which is the meeting place for the exchange of ideas, or the directions of visual thinking, but we have the capacity of actually making an impact by producing, but we haven't used that; it's an energy drain and we let it go. I think that's a bit of a cop-out on our part. We should be pursuing and doing more in that direction, and also on the structure of visuals rather than on the presentation of the visuals. But, since there were many presentations before, perhaps that's enough.

(Laughter)

JUD: Of course, there's been much discussion over the use of the space and how it would be difficult for it to double for both functions, and it would really require the use of another space somewhere, and of course more funding from somewhere.

SHRIDHAR: More equipment resources, more time, more personnel.

DMITRI: I think it's really important that the people who ran the Kitchen were artists on their own, and it made a very different feeling and atmosphere than if it had been people who were strictly in it for the administrative or managerial role.

JUD: Or even the purely hardware end of it.

DMITRI: Right. Like the Open House things, where you always get a chance to show your own tapes, and it's not an egotistical thing, only perhaps in some ways, but it's also a thing with a loose, spontaneous feeling, and if the person running the show has some reason of being involved themselves, it's really an exponential addition, as opposed to saying, well, here's another artist. Because the artist is doing something that's channeling other art adds another qualitative level.

JUD: It's a very healthy ego involvement for the artist to be presenting his work to an audience for the first time. The genesis of the Open screenings is a very interesting story.

STEINA: Yes, it's interesting. You were at the party when we opened; everybody was. But the thing is, there was no floor; we were dancing on a strange floor.

WOODY: Cement.

STEINA: Yes, and the walls weren't ready, or anything, but we made the party to see what we had and to use it, and the first one to come up with an idea was Shirley Clarke at that party. She had been talking to a fellow artist about the exact same thing, that there was this vacuum, that there was no place where you could take your tape and play it. And she had this actually fantastic concept that would be totally open and unprogrammed, that people would just come and show each other their tape.

WOODY: That was taken from the movies because that's what Millenium was doing.

JUD: Millenium still has open screenings. The Cinematheque used to have open screenings on Wednesday nights.

STEINA: Well, it's typical that it comes from a filmmaker, the idea of having open screenings, but we hadn't thought of that. And, sure enough, she opened it the first time, came one or two times after that, and then didn't show up any more, but that was alright since she had initiated it.

WOODY: She put a seed there.

JUD: She's a kind of prime mover in many respects.

WOODY: Extremely brilliant in concept. It was much more personal when it was very small, with very few outsiders. It was actually only fellow tapemakers who came with an audience of ten to twenty people and it was much more intimate. No Dmitri is facing a different problem; not only is he running the Wednesday nights--

STEINA: But not it's a full house.

WOODY: So now he gets an audience. He gets a crowd.

STEINA: All our things are facing that: the dilemma of success, because now we seem to be averaging something like eighty people a

night, and that was unthinkable a few months ago. So it's not playing around anymore; it's serious.

JUD: What do you think about handling that serious business?

DMITRI: Sometimes you get the feeling that the spontaneity is gone, and there's just this tension on every single moment. Days are booked up months in advance. There's a harsh competition among artists and, therefore, you're forced to start choosing between them--those are just the negative things. The positive things are that it is really starting to spread information; people are rapidly becoming more aware about video. That's an important thing. It will undoubtedly affect the communications of the future. I really see ten or twenty years from now people using video as opposed to letters. I seen an influence in people's lives in a very intense way, especially with cable and computers working together to allow people to have whatever program they want in their home. And the Kitchen will help affect that.

WOODY: It has that impact indirectly. We have found, by traveling around to Canada and the West, that people are actually informed about the Kitchen. It gives them a certain security that it's true, that electronic media are alive and are performed. We get letters from Europeans, so the idea of the Kitchen may be more important than its production. And we send calendars just to be seen around that there is something like electronic media.

STEINA: I think some of these thoughts are already coming, because we are hearing about video theaters opening up all over the United States, in the Midwest and out on the coast. Because they can't really be run commercially, not yet, even Groove Tube two years ago couldn't really make it. People are now considering the idea that as long as the rent is paid, if you get some funding, just to help pay the rent and for ~~band~~ equipment, you can run a video theater, which really wasn't thinkable two years ~~ago~~ panic

SHRIDHAR: In many ways, just running a video theater is much cheaper than running your own little portapak, if you're doing your own little productions. It's such a comparatively simple thing to do.

WOODY: It's time-consuming. It becomes monstrous.

JUD: Particularly at the Kitchen where many shows require completely different setups, just in terms of video monitors and switchers.

WOODY: Right. It couldn't be produced commercially really because it would become such an overhead, and such a hassle. We are actually lucky to be running it half-sloppily because it gives you the leeway of re-arranging things. Perhaps I'm still regretting that it didn't develop its own dramatic form. The media is still very sketchy, performed more as accident. Configurations of the monitors is still many times accidental. But that's still a dream; the electronic medium may not be yet together enough to be composed.

JUD: There are a few people who have been thinking of that, in terms of matricing monitors, like Frank Gillette and Ira Schneider.

SHRIDHAR: Some of Global Village's multi-channel mixes.

JUD: Even some of the Video Free America things which use in a dramatic context.

WOODY: Right. Those are more or less environmental. Environment is

something people respect more, because environment has been around for a while longer, sound environments, light environments.
JUD: It started with Scriabin.
WOODY: Right. I haven't seen much of, maybe it's a bad word, dramatic use of video or performances as such, when I'm talking of sounds really coming from different directions, and really making sense in those configurations, really making walls of sound, that have up and down, and right and left. Perhaps it's too literal, but to master the electronic media the way that music is mastered, that the composer really makes a little movement and it makes a difference in a tuba or a cello. So, in that sense, I guess we all are waiting for those computers, but maybe it's time to start without it. I see very little of that, and for me, that's my bag, to perfect that direction.
DMITRI: Another aspect that the Kitchen serves, I feel, is as a political place, not in the sense of Democrat or Republican politics, but political in that it affects culture and the way people relate to their society in their own minds. For example, the showing we had of THE IRISH TAPES by John Reilly and Stefan Moore, tapes made in Northern Ireland with the Catholic community, and to have that running simultaneously with scenes of the soldiers, or scenes of the B-specials of the Protestant politicians, and so on. But we all depend on this basic level of technology. And Woody's point was that we haven't gone far enough in the direction of really developing that. We've created a space. I don't think we've filled it with enough goodies yet, technologically. These aren't available yet. It's not just a question of money, video synthesizers are barely--
JUD: In their infancy.
SHRIDHAR: And low-light cameras are absolutely essential.
WOODY: Yes. And you go to an exhibit of IEEE and you see that everything is possible, but when you came to base of the daily production, and you're still dealing sometimes with old systems like CV, which is five years old, and you have beat-up cameras, and a switcher which is no good. Let's face it: what we have on our hands is a basic level of technology, and that's how we live.
JUD: One factor is that 1/2'' technology is all basically in the realm of consumer technology, and that is the last level to which all of the research filters down into.
WOODY: Well, thank go, on one level, because the prices are reasonable. If you really step up into the professional range of equipment; like we are now facing the whole problem of developing our own custom-made equipment. We were lucky enough to find good, and yet still inexpensive enough engineers, but it's incomparable with industry. It would be beyond the reach of any individual. It's a blessing that the consumer was the initiator of the whole video movement. It has these two ends.
JUD: Just as the cassette audio recorder has changed the face of non-fiction and journalism, with the ability of being able to record information anywhere, and transcribe it at one's leisure.
WOODY: Again, if you analyze the way people perform, there is already the beginnings of that video cliche, which can be expressed two ways, positive or negative, which means that there's a form to the presentation of video, so some people with no imagination have

just the cliche, but someone with imagination builds on the cliche, making something which is controllable.
JUD: A good deal of video art has been based on the transformation of cliches, like the early work of Paik, and much early work grew out of channel switching, building a collage out of broadcast garbage, and taking new forms, which was a beginning of the video switching aspect.
WOODY: My comment is this: This is the first time we are facing video synthesis. Video, especially early Nam June Paik, represented an analytical form, a form of destruction, which is heavily switched, changed, turned, and beam-deflected, so it's a kind of anarchy. It's very inspiring. But now, the new generation, very new, like Stephen Beck, has a very disciplined and oriented form of energy.
JUD: Almost virtuoso.
WOODY: Right. It's very contrary to video used to do, taking inputs off the air and processing it. Now, it has become a very rigid, disciplined whole effort, a whole direction of controlling video, which is going into a direction of finely controlled changes.
DMITRI: You really notice this in the computer pieces. We're going to have a Computer Arts Festival, for the first two weeks of April (NOTE: 1973) and the works which have been coming in fall into two basic categories: people using this immense technology of computers either to have this precise control over many, many variables, such as Walter Wright, with his programs on very highly advanced hardware, where he's able to call up any shape and any form and any distortion of the pattern at will, and he knows exactly what he's going to get when he punches it up.

"My tapes are made on the Scanimate 'computer' system built by Computer Image Corp. Scanimate is a first generation video synthesizer. Images are input in a number of ways--through (2) 1000 b & w vidicon cameras (these cameras my look at still artwork, a TV monitor, etc.), from an Ampex 2" VTR, or from a studio camera. Two of these input channels pass through a video mixer to the Scanimate CPU (main control unit) where position and size of the image are controlled . . . Also on the CPU are (3) oscillators . . . The CPU also controls the axiis (the lines about which an image folds) and allows the image to be broken into as many as (5) separate sections . . . I play Scanimate as an instrument and all my tapes are made in real time without preprogramming. I also try to avoid editing. I am designing and hope to build a live performance video synthesizer . . . Most of my tapes have a score as in music."
WALTER WRIGHT--from 1972 notes for a KITCHEN performance.

DMITRI: Then a whole bunch of people are using this technology for its random qualities, for example there's a Dutchman named Peter Struycken who sent a film which, as you watch it you can't possibly see anything change, but there are repeating, random, little patterns, and you just see day pass into night, and you can't possibly see it repeat.

"In order to gain acquaintance with the premise applying to the reciprocity between element and structure, the changing degree of

variation being the criterion, I make models which relate to this problem ... One of these models is my image programme 1-1972."-- PETER STRYCKEN from the notes to the FIRST COMPUTER ARTS FESTIVAL in the KITCHEN, 1973.

JUD: Most of the work coming in is digital?
DMITRI: Yes, but a lot of video synthesizer work is analog. David Dow, from Southern Methodist University, is coming for the Festival with live dancers with myo-electric crystals attached to their muscles, so a particular motion will generate a particular current on these electrodes, and it goes into a digital computer that's programmed to respond to these changes in motion and can cause radio and video signals to change. It's very easy to control; you know if you lift your arm, you're going to get green, whereas the feedback pieces that used to be based on electrodes to the brain are not that easy to control.
JUD: This reminds me of the E.A.T. Nine evenings piece by David Tudor, using the Bandeoneon, to make videographic abstractions and sounds simultaneously--one to one live generated imagery and sound.
WOODY: Right. There is a whole direction with audio-visual composing which is as yet basically untouched. The artists in the past seemed to try to gain access to technology and just then demonstrate what it could do. But now, artists more generally are gaining access to technology, to the tools. But, now there is another problem, how to really use these tools in a particular frame of mind, or philosophy, or direction, which we're going to have to face sooner or later. You cannot get away with just flashing images anymore. And it was so beautiful--the Kitchen was so free. People could bring things that were beautiful because they were new. But, suddenly after three years, they've become garbage to us. It's not beautiful anymore; we've seen it a hundred times.
     It's that first feedback that you do. And we started to discriminate within ourselves. Video wasn't new anymore. You are studying how many layers of images are there, that you couldn't see before because your mind wasn't able to recognize the structure of the image.
SHRIDHAR: You're looking at it from the point of view of somebody who's been working intimately from inside the medium as long as it's existed. What about the person who's never been exposed to video, or has limited exposure to video or experimental television. He walks into the room and sees the first feedback that somebody did, all those mandalas going all over the place; his reaction is much more valid, in a sense, it's more childlike. It's not geared to trying to analyze what level of technological mystery there was behind that particular image. And one reason why this still continues is that, unlike film, we do not yet have a body of criticism on video that exists.
WOODY: But, let's face it, a symphony orchestra, when they really go in sync and they draw the bows, it's beautiful. That aspect is still in the traditional mode, but if you put a tape on and you just see those two reels turning, it's something else, of course. It becomes a performance within your head, but it has very little to do with the space, because sometimes people dim lights totally. So that is a dilemma of the electronic media.

JUD: Dimming the lights is like making the theater more private.
WOODY: Making it smaller, or making it all in your head again.
DMITRI: It enhances the suspension of disbelief.
STEINA: There's no suspension of belief required when listening to a piece of music.
WOODY: But we like the Kitchen as a space; that's why we rented it. It was the physical space; every media, especially dealing with video and audio, there has to be a place, a space, the room is your stage. I'm talking about trying to perform directions, levels, movements of the image. There are so many configurations of the screen that can be done: horizontal on the floor, suspended from the ceiling, like the heavens.
JUD: Some of the dreams of Frank Gillette, thinking about the first news of flexible flat TV screens, was being able to construct a tunnel that you could crawl through and have your image all around you.
WOODY: Yes, Frank has fantastic concepts. He has done a few of them; they are on the model scale. We all work on model scales; except you can amplify sound infinitely, but you cannot amplify image. It's still the basic monitor. So you have to multiply the number, or whatever you can do, but once you get the amplification of the images, then that's it, you can terrorize anything.
SHRIDHAR: Even when we started using video projectors, a point which Rudi Stern brought up a long time ago, and obviously McLuhan made this point too, is that video is light coming out at you. Video is a light bulb, not a mirror; anything that's reflected is bound to lose some of its power.
WOODY: These may be the legends of video. There has been an incredible amount of speculation about the size, of why video is so particular, because it has this small size. It's in a box. When you project it, though, you suddenly realize that it's not really true; of course, there's the scanning, a whole field behind the scanning; you stare and you're hypnotized.
JUD: It's a low-definition cool medium, right now.
WOODY: Once you blow it up in a proper brightness, half of these legends about video just go away, because actually you deal with a frame, and you have the same law of composition as other large pictures, like film.
SHRIDHAR: Oddly enough, someone decided on a 4:3 aspect ratio a long time ago, and we've been working within that. We've been working within 60 cycles too..
JUD: Which is an interesting harmonic scale.
SHRIDHAR: Pythagorean, as well.

"There is another way to tune in to 60 cycles. Keep the power away from you by transmitting through the air. Use your ears as transducers. Convert from analog to digital. Join the most constant universal life event on our continent. Hum at 60 cycles, way down on the end of the Fletcher-Munson curve. Slip in between the molecules in the body and learn about being a clock, I tell the limp-skinned ones."--TONY CONRAD, program notes for DR. DRONE IN CONCERT, 1972, at the KITCHEN.
WOODY: But it goes back to, once the tools are developed, there's going to be more work with it, but we could do it on the model

scale, as Gillette has done. We could perform any configuration, and actually it's you mind that fills the space. You can really extend your perception, in the sense that you can eliminate the rest of the room. Once it works, it's dramatically effective. Of course, life size is the next philosophical dimension, and bigger-than-life is the next.

STEINA: A painter friend of mine started to philosophize about it, and he thought that the video screen was actually a continuation of church windows, because it's a back light; it's not a painting; so he found a continuation there that I have never thought of--

JUD: Electronic stained glass, in motion. There's a relationship to Thomas Wilfred's Lumia, which was backlit, especially when we get into performance. The space-window concept.

SHRIDHAR: Wilfred actually had a greater advantage working where he was than we do, because he was able to manipulate his images over any timespan that he chose, and many things of his took about 35 minutes to see perceivable changes, and we're still stuck within that basic time frame.

DMITRI: When I went to Princeton and saw the computer there that Aaron Marcus works with, where you have a special joystick with which you can control movement within a special cybernetic world that he's created, and you can go up and down, around, into the air; you can travel at any speed you like, and meet other people who happen to be in the same computer, traveling around that same imaginary space, and it's just a little screen. You can also put a little disc in front of your eyes that spins fast enough to make a delay from one eye to another so that it looks 3-D, and you really feel as though you're in the space, even though it's this one little screen. No, glasses, just a disc spinning in front of your eyes.

"Computer art promises to challenge more profoundly than ever before what is real and what is not."--Aaron Marcus, notes to film THE BEGINNING at the KITCHEN.

WOODY: But, again, these are what people call the gimmicks. For us, it's the universe. It seems to me that the audience wants to be convinced, so they want to enter the room and it's really there, a 3-dimensional life-size display. And, that's the difference between the establishing of the media and the research of the media. We are still really in that research; we play R&D. Our friend, Alfons Schilling, works with binocular vision; he has done beautiful exploratory works. They are important because even if you apply them to life-size, the principles are the same, the calculation of distances. But again, it's the scale.

Now, what will make the impact on a society, somehow we are stuck, because the Renaissance could really build those beautiful churches; they put them on paper, they calculated them, but they built them, and they were so big, so fantastic. If this time is a rationalization, as I believe, of art, it has to be built, it has to exist physically, and I guess we just have to catch it within our generation.

JUD: Since the Kitchen really has been a repository and filtering place for many of the tendencies in video, how do you see those

tendencies crystallizing at this point?

STEINA: It is crystallizing a lot. We are actually waiting for other such theaters to open, to crystallize it more, but eventually I think that there will be separate places, and they are going to be further and further apart.

SHRIDHAR: It's already crystallized sharply into three different things: three different areas which are defined less by their content than by the way that they're shown: cable public access, in New York particularly, has been oriented to social action uses of video, community projects, school boards, and also useful information tapes--

JUD: Yes. The New York Public Library has teenage video workshops.

SHRIDHAR: Yes, this is an example of how we're crammed full of all the other tendencies. Once a month we show young people's videotapes by the New York Public Library people, as well as many high schools around the area. The main tendency of art-oriented video has been split up between the processed image--the image people--and we're really the major showplace for them, at least in New York; and the other sharply defined group in the conceptual artist, to whom video is a kind of incidental tool.

JUD: From another side, the teledynamic environment can extend into the conceptual category, as well as the psychological aspect.

SHRIDHAR: But the conceptual category has been almost exclusively limited, with the exception of some of the Avant Garde Festivals, to certain galleries and certain museums, where the resources exist for permanently installing a setup for at least a week or two.

DMITRI: I think there's a very great hope; I see a hope of two main currents of video, the reportage or documentary style combining with the artistic or electronic thing. I could see, for example, using the electronic media with a real humanitarian sense, dealing with social issues, and what you would create would not fit into any categories at all. It would be possible to use a lot of the electronic effects, chromakey, feedback, superimpositions, but it could also deal with real content and issues that matter to people. Video has this capability more than any other form, first because it's so immediate. You can show something live or that afternoon; it's very light, very cheap, can be put into people's hands, and it's incredible the way you can manipulate the signal once you have it down on tape or live to create effects. I think if you could integrate the real part of video with the electronic part, you would get something where the whole would be more than the sum of its parts.

WOODY: Let me comment on that. Only if you master the compositional form of video, can you use it as you describe it. It's like the 19th century novel; the vocabulary was all there; there was not a missing word. So you could really go and do multi-layer analyses of society, plus fantasy, whatever you wanted, like Dostoevsky--

JUD: And eventually James Joyce--

WOODY: Right. Joyce. He describes fossil layers, because they are actually described in the Encyclopedia Britannica; they all exist. There is as yet no vocabulary of electronic image. We don't really know how to name it. How can you say that someone enters a room, and suddenly through his forehead flashes an ocean, and there's a reflection of sunset, in red, and the forehead suddenly turns pale.

These are the terms you would have to be able to script, to perform your image. Now, we are not there yet whatsoever. We are just trying to divide video further, and make sub-categories. There are some people who just deal with a loop and delay. There is still a struggle for analytic form.

We, the Vasulkas, went into almost an imitation of painters, like Magritte (NOTE: particularly the GOLDEN VOYAGE of 1973), because we couldn't stop that; there's so much potential in the painters of the past, the philosophical insertion. The boxes are not open, and if you really touch Dali and you see those exploded moments, it's just unbelievable how this predicts the whole dynamic electronic image. And if you go into Escher and his developments, those incredible computer-like, feedback-like loops, day to night, or his incredible spiral development. . . all these things that preceded video, because video people still deal with the accidental. No one has yet selected his future in video by his choice, I think. We all came to it through film, through a job, or through some other strand. There is a generation that may be born to be video, and electronic image oriented; but now it's all sketchy; it's all accidental.

SHRIDHAR: At the same time, Woody, the novelist who's sitting in the 19th century had his words. He did not necessarily depend on the existence of paper and ink to be able to use and actualize those words. But we depend on a piece of technology that does certain things, a certain basic limited number of variables that you manipulate when you manipulate a set of video images.

WOODY: Some writers today wouldn't write without a typewriter; they have to have at least a $100 typewriter. (Laughter) They refuse to write by hand.

SHRIDHAR: The typewriter still doesn't tell them what to write. They could alternately write it with their hand, or with a finger in some sand. The point I'm making is that this is like a linguistic analogy, in structural linguistics, that is, the deep structure is there; the deep structure is the equipment we're using. We're only slowly starting to actualize it, and I don't think we can afford to sit around and mathematically work out every single kind of possible image manipulation. You'd spend 60 years just doing that, and have three years of your life left to apply what you've learned.

JUD: That will be a new science, video general semantics.

DMITRI: Much of the art that you're talking about, like Escher and Dali, is something that appeals to artists, but, in my experience, showing tapes that are purely abstract to people who have strong content needs leaves them completely dry, and I feel that video can serve them also. Referring to something that's real in the world, the message that you're trying to give becomes that much more important because it's talking to someone about a question that they already have. It relates to something after they leave the room. Whereas, if what you're doing is totally abstract, there is a totally subjective reaction to that work. Like with rock and roll bands, some bands are very egotistical and somehow people who listen to their music have an individual response that's subjective; and there are other bands, like the Grateful Dead, maybe I'm prejudiced, who call up the communal feelings, who use an

objective language that gets the people, when they feel warmth to each other, and calls up human emotions that have a positive effect. I think that video can do that also. That video, maybe using real images, or maybe the language that you're talking about, Woody, like a man coming into a room with an ocean in his head; that seems to be a subjective thing. I'm referring to objective situation where you can show, with very few images, a whole situation, very quickly.

STEINA: You're talking about artist's audience relationships, but that is something that the artist can't create. He just has to be true to himself, and hopefully therefore to the audience. Because an artist who pleases the audience is often not an artist, but this will vary from one artist to another, and has always in history. You can't really say that it should be one way or the other.

DMITRI: No, I'm not saying that. I just see a need for using it another way from what we call art.

WOODY: There is a great tendency in what you describe; it's like the integration of the human into the electronic space; it sounds glamorous. But if you watched the last piece of Ed Emshwiller, SCAPEMATES, there is an attempt. It's a very important piece in that respect. He's talking of that communication between electronic space and man, but he still doesn't know what he is doing there, but that's up to you to decide if he fits there or not. But, mostly all art communicates through these human symbols.

JUD: I find that Emshwiller tape very interesting because he uses monolithic computer generated forms and complex abstraction with the organic perambulating quality of human dancers in opposition. This relates to me to the very beginnings of film abstraction where a pioneer like Hans Richter was always concerned with the conflicts between strong compositional control and the chance element which causes discoveries, with the direct confrontation of formal rigid elements with organic flowing form.

WOODY: Exactly. There are attempts of humanizing the abstract image. It's a matter of reading the image and translating it into human terms, but sometimes I even doubt if that is important because the movement of the electron can be ten times more dramatic to me than the movements of a Cecil B. DeMille with a field of soldiers and a full frame of moving horses. See, the drama itself has very little to do with humanity.

JUD: It's like the drama we see when we look through a telescope or microscope.

WOODY: Right. If you look through telescope, you can see happenings which are somewhere where you have no way of ordering them. They exist besides you. There is another dimension of human life; it's the existence of different activities somewhere else.

JUD: Also in time travel.

WOODY: Right. It's not a distance. It could be one millimeter from your eye, or it could be a hundred miles, but you just don't see it because you refuse to see these things because you want to see a human tragedy, someone killed, or someone married, all those nuisances of film. Film has come so far in the human development story, there's actually no way back. They bring the drama within the emotions as the most important element, but actually it may have nothing to do with human stories or human shapes. Drama itself

relates within the third dimension.

DMITRI: Something that comes to mind immediately is the way the war in Vietnam was covered by television. Every single person in America could turn on their Tvs at night and find out the score: the Knicks played somebody in basketball, and the Vietcong lost 5, and we lost 3. That television culture used real imagery, conveying a whole propaganda, a whole way of looking at something.

JUD: Actually, the assassination of JFK and the first moon landing were incredible communal events, and the term global village is very valid in that we are creating microcosms that may become as broad as broadcast television becomes only at such rarefied moments.

DMITRI: And it's interesting to see the way that it's manipulated, like the way Nixon invaded Cambodia the same day he had a moon landing, the live TV cameras were all on the moon. Imagine if they'd blacked out the moon cameras and put the live cameras on the helicopters.

WOODY: I understand your America dilemma. You were brought up with it, and you do believe in television, but really for Steina and I that is not the problem at all. What we work with has something to do with the electronic screen, and then there's something called television, which I understand. It's a big. . . business (laughter). It's a threat to your private securities, of course. That's why there are these confrontations between television and video. I don't find them very actual to what I live in, but of course it comes from the same box. That's why I say the box has no meaning to me. It could be projected; it could actually all be in the third dimension. It could exist in your room; it could be a ceiling; it could be a sky. On the right side should be a beach, and the left should be a hill.

STEINA: A forest.

WOODY: A forest, and you'd be walking in the sand. That's where electronic image or television progresses for me.

JUD: The quality of the can doesn't determine the quality of the product.

WOODY: What disturbs me about the communal use of video is the power struggle that goes on which is so similar to other power struggles I've seen. Like in Czechoslovakia, the first act of the revolution was to erect poles with loudspeakers on them, and once the village had loudspeakers and central room with a microphone, collectivization was a matter of two days. You can say, you're to be there at five o'clock in this place, and they'll be there. So I know the power of the media, which is incredibly strong when politically used. And the fight over the media even when it's for the public channels is the same mechanism; it's the struggle for political power. Intuitively, I object to that use, but this society has got to be flexible enough to operate with political power; that's the basis of this society.

DMITRI: Speaking of TV, we should also probably mention that approximately 80% of all 1/2" video systems are used for surveillance. You hear about the different state police buying huge volumes of cameras, and I've heard they're just around with this equipment all the time; they don't know what to do with it. But that's the primary use of it.

STEINA: But that has more to do with the pencil and the paper.
WOODY: Exactly. It's the only medium that gives you such a casuality of recording real life. You hesitate twice: should I push the button?
JUD: You really have to think.
WOODY: Video has the possibility of recording the casual life of the 20th century as it has never been before, and sometimes we see those tapes and they are very beautiful because they are conceived with such a casuality. People disregard television cameras very soon; they don't pay attention to it. It doesn't make any noise.
JUD: The best way to use video is to live with it.
WOODY: Right. Sometimes you regret that Homer didn't write about a little square where beggars would come and rap; he always had to pick up some strange heroic stories of the past. Or if the big writers of the past would have paid attention to some trivial moments. It would be so beautiful to read about a rainy day in Athens, but video for the first time will be able to bring you a rainy day in New York because it will be recorded.
SHRIDHAR: Even that requires a certain amount of discipline, because we've seen a lot of tapes like that. The person casually recording his life; if you're skilled at something, that casualness requires a lot of ability and training, the ability to be there at the right time--
WOODY: The ability to turn the right knobs--
SHRIDHAR: With the right piece of equipment.
JUD: It's a new definition of the concept of the decisive moment.
WOODY: It's just closer to that moment; it's not there yet. I feel the same way about the perception part of video; it discloses and helps to close the gap between the image and the brain, but it's just close. It's not really there yet, and may never be--
JUD: Until we tap into the synapses themselves.
WOODY: Even then, we'd be the distance of a few microns. There would still be a distance between the plane of realization, the brain and the image.
JUD: That distance has to do with the concept of consciousness, realizing that the real "I" in ourselves is the master of all the other "I's." And it's really at a distance, almost an alienation within one's self, that becomes more of an observer; it has to evolve into a more divine aspect which can creep over into our use of the media as an extension of our neurological system.
WOODY: Right. So, it's all there. We believe in video.

   WOODY AND STEINA VASULKA; The Vocabulary of Electronic Image

"We will present you sounds and images which we call Electronic Image and Sound Compositions. They can resemble something you remember from dreams or pieces of organic nature, but they never were real objects, they have all been made artificially from various frequencies, from sounds, from inaudible pitches and their beats. Accordingly, most of the sounds you will hear are products of images, processed through sound synthesizers. Furthermore, there is time, time to sit down and just surrender. There is no reason to entertain minds anymore, because that has been done and did not

help, it just does not help and there is no help anyway, there is just surrender the way you surrender to the Atlantic Ocean, the way you listen to the wind, or the way you watch the sunset and that is the time you don't regret that you had nothing else to do."--THE VASULKAS.

MEDIA BEGINNINGS

JUD: How did your emergences into video come about?

STEINA: My story is different. I was down in Virginia playing my violin, and when I came back Woody was just deep into the shit, doing video, and he introduced me to it. First we just did feedback and stuff like that, and I was just mildly interested in it. Then some photographer took Woody to the Fillmore East and they brought back Jethro Tull on tape, and that's when I really caught on, and we started going out sometimes three or four times a week with a portapak, a lot at WBAI, and taped. But Woody's story is different because he started at least a half a year before me.

WOODY: My story's completely confused basically because I started as a poet. That's how I got into film school, because they liked my poetry. And I was a failure in feature films, so I did documentaries with some success, and then I started to do experiments with film.

JUD: The example you've shown me resembles a panoramic view, either fisheye or anamorphic spread over quite a number of frames, and there's a grid-like line running through them.

WOODY: Yes, that's the error of a slit. If the slit edges are not thin enough, then the diffraction of light between them causes these secondary stripes past a slit, without any pull-down mechanism, which was removed from the camera. And the pulldown speed was locked synchronously into a rotating mirror, rotating in front of the camera--

JUD: Such as they have in high speed motion picture cameras--

WOODY: Right. But as the slit travels also, it all depends on how it is constructed, which means each revolution actually repeats after 17 frames because the frames are just a continuous pulldown, and that was my first attempt to break the environment, like 360 degrees. This was an attack on escaping a frame of film. It was a Pathe camera which I modified, and I made it battery operated, so the first shot you see is Union Square, and three rows down that's Washington Square, just in the middle of the fountain. And again I call these documentaries, but they are actual documentary recordings of a space, a 360 degree space. But then off course I went into building a projector, and that got very complicated because of the amount of light that had to be pushed through that slit, rather than through discrete frames. It's pulling down the film continuously and projecting it through a narrow slit, or a rotating mirror.

JUD: Like an optical slit--

WOODY: Then you theoretically, or practically--I saw it once only-- very dimly-- project the image the way it was recorded, the reverse process. But since you could only push a small amount of light through that slit, you had to be familiar with the image in order to see it. And then the vibration, and the whole mechanism, and the

whole heaviness of this construction just turned me off. I couldn't
deal with those machines, and luckily at that time I introduced to
video--
STEINA: But the other thing was the spotlight thing, to have the
frame following the action, so that if someone was walking from
here to there, the movie frame would just go on the wall from here
to there, so that the frame, instead of being a stationary thing in
which you could appear and disappear, the frame could go anywhere--
WOODY: But that we did with Alfons Schilling. We put a camera on a
turntable which we remotely controlled. We had three positions:
zero, forward and backward, with a rheostat. And then we put a
projector on a turntable and imitated the movement of the object,
like the person (?)lling, we were trying to follow the walk, so the
background was actually static, constantly followed, but only the
person changed the angle--
STEINA: If she started walking this way, the projector would
follow, and the projection of it back would follow her the moment
she turned around.
WOODY: Then I designed a piece with two cameras that constantly
rotated, at 180 degrees too, and I also wrote a script from two men
who would walk in it, being followed, and shake their hands. But
since these experiments involved a lot of hardware, metalwork and
a lot of mechanical arrangements, I just dropped the idea,
especially when I touched electronics because that was very much
more instantaneous, easy to process, alter and work with. I found
video immediately tailored to my taste, so I had no way back. I
sometimes dream of doing systematically what I started in film, as
I call them, "remote control" ideas. But I think Michael Snow has
done a much better job.
JUD: With "La Region Centrale." And the back-and-forth film.
WOODY: So I don't think there is a vacuum. You probably saw this
handheld strobe projector, with a powerful strobe light, and a
little motor, and it had a loop inside--I just broke the loop
before--and a transport mechanism--
JUD: Where did the transport mechanism come from?
WOODY: A motor runs this roller, and the loop was a closed loop,
and any time it passed these teeth, it would trigger the strobe,
and the registration of the strobe was intact. The whole idea was
that you could use it as a gun; you got a very sharp image and you
could shoot in a row of images. You could actually distribute
movement frame by frame, or you could scan a space, or make a
circle of drawings of images. But again, these strobes would burn
out in ten seconds. So I had these ten second pieces and I had to
pay $7 a piece for one of these strobes, so again it was just
insane. I did about three projections and that was it.
JUD: So even in the film days, you were into the hardware end of
it, as well as into the conceptual end.
WOODY: Yes, it's interesting. I could never really use film as much
as I could the verbal, written language for poetry. I could never
really use visual language for a story. It was impossible for me to
put a story into film, so that's why I found a good place for
awhile in documentaries where you really didn't have to have a
message; so I was messageless. I didn't have a story to tell, and
in those days I thought it was a disadvantage; I felt very

handicapped that I couldn't go to Hollywood. I thought there was something wrong with me.

JUD: What kind of poetry had you been into before?

WOODY: I come from a culture which is actually heavily influenced by French modern poetry, from Apollinaire through--

JUD: Mallarme.

WOODY: I went back to Rimbaud and up to Breton, probably.

JUD: Valery, Claudel.

WOODY: Right, the whole generation of French poets. And of course everyone from that area of Czechoslovakia is very much attached to Kafka. So much of the prosaic work I did was always related to Kafka. But that has nothing to do with images; as a matter of fact, I was better in verbal or written structures. I could really understand what a sonnet, or other form of poetry, was, and I could fit into that easily. In visual things, it was very different. But I could use it well because I was glad that I could leave movies, that I didn't have to deal with established tradition.

STEINA: And then came a little film, the American Can Company.

WOODY: This is an interesting moment, because the American Can Company Matrix, as the project was called, was the first time that I got in touch with people like Frank Gillette, Paul Ryan, Ira Schneider and John Reilly.

JUD: What year was that?

WOODY: 1969. And this is gossip; American Can Company was developing an industrial exhibit with Harvey Lloyd, who was my employer, and was a photographer who dealt mostly with multi-media and did a lot of films, slides and multi-screen presentations. There were two young designers working with Harvey Lloyd and me. I was doing at the time films there and also some multi-screen and slides, so at the time there was first a debate about how to do the project with a few viewing modules with film. But again, how to solve the problem because there was a deadend, so, totally innocently, I suggested television, as a system. Parallel to this, which of course is denied by now, there was an exhibit at Howard Wise, the TELEVISION AS A CREATIVE MEDIUM show.

STEINA: Did you suggest the idea before the exhibit happened?

WOODY: Sure. It's very interesting how it developed because, at the same time, these two designers went to that show and got very turned on, and subsequently we went to the show. I saw the delays in Frank and Ira's WIPE CYCLE delay piece, but that was something that technologically I could understand, but Eric Siegel's work was something I could not figure out. It was something beyond the mechanical era.

STEINA: It was fantastic--that big monitor at the end of the hall. It blew my mind.

WOODY: It was like looking into that dream--the vision.

STEINA: And also, we had just met Nam June Paik at a party somewhere, and I also knew him from reputation because he is famous in music, and I was a musician. And we found at the gallery, lying on the floor trying to get the TV BRA together; somehow it wouldn't work, you know, and he was creeping around on the floor, trying to pull it all together. And he looked up and we said: "Don't we know you from somewhere?" and he said: "Yeah, yeah." So that was the first time actually we met him because we had barely talked at the

HIM

party. So it was all so new and fantastic in those days.
WOODY: Right. And the interesting part comes when the designers said that there were these fantastic resources that should be used, so Harvey Lloyd invited them--I think--
STEINA: All four of them: Frank, Ira, Paul Ryan and John Reilly.
WOODY: But immediately they formed a company called INFORMATION STRUCTURES.
JUD: Right, I remember that.
WOODY: You do? I thought that was a public secret. Yes, that's interesting.

NOTE: "The Modular Video Matrix designed by Frank Gillette and Ira Schneider with Paul Ryan in 1969 offered flexibility in the configuration of video environments. 56 monitors encased in plexiglass with stainless steel supports allowed for stacking to produce a wall of monitors, or for arrangement into circles, semi-circles, etc. . . This matrix was designed for the American Can Corporation and contrary to the desire of the designers the software was assembled by Harvey Lloyd Productions . . . " from RADICAL SOFTWARE, VOL. II, No. 5.

AUDIO/VIDEO MANIPULATIONS
STEINA: Who were the three people who influenced you?
WOODY: Let me think, if I recall correctly in time sequence, there were three people in video, or four: the first was probably Eric Siegel, second was Nam June, and the third was Tambellini, and then what really started our trip, the first beginnings, which we did immediately, was actually inspired by Scott Bartlett, the very interesting electronic images in his film, one of his first ones. I couldn't believe my eyes. It was like going back again to the movies; you make a soundtrack which has no cultural attachment to the image--the film I saw had a classical soundtrack, some kind of guitar music--and it's totally detached. As much as the images really influenced me and turned me on, the relationship between the sound and the image was a total disaster to me. From that point on, we both actually went into that true interface, which was a relationship between the sound and the images, always reproducing sound of the image, or with the image, or very close to the image. We did two pieces this year, one with combined true sounds--
STEINA: And post-recorded sounds which are just dubbed on, but you see which sound goes with which image.
WOODY: This year is the first where we are free enough to abolish that particular law, but we have been systematic throughout.
STEINA: THE WEST was actually the first one, but we didn't show WEST very much; it's a three channel piece.
JUD: In color?
STEINA: No, colorized. It's so strange; we started with a portapak, like were really portapak freaks, some of those, starting in 1970, near the beginning of it, and we borrowed them from the American Can project which Woody was working on at the time, and we would take them around town, and tape performances, or theater or singing or whatever. We taped THE PELOPONNESIAN WAR, a dance performance going on at that time at WBAI.
WOODY: We wanted to expose the casuality of it; we didn't have a

particular direction for it at that time. We always got invited, but we didn't keep it systematic then.

STEINA: No, it was a fantastic school because I had no previous training with a camera, and by just going all the time and doing something quasi-seriously, I just picked it up so fast. And in those days nobody knew what video was. Many people asked when I said: "Can I videotape you?" "What for?" and they would want to sign all kinds of strange contracts but they didn't know what the hell it was about. Now everybody knows what videotape is.

And I was reading an ad in the paper and said to Woody: "Woody, by the way, are you interested in audio synthesizers?" I had never talked to him about it. I was interested myself, but I didn't know he was, and he had been thinking about this audio/video hookup and how to do it and that he should get an audio synthesizer, and he said: "Yes, I would be interested." So I picked up the phone and called the number in the ad and this was the Buchla that NYU had and still has; somebody was renting it out—it wasn't really legal—but somebody was making money by teaching it to outsiders, and just a little later we did our first project—

WOODY: Actually, it was Rhys Chatham with whom we did the first hookup.

STEINA: Then we found Rhys, somebody who was using that same synthesizer because there weren't many in town in those days. Now, everyone has a synthesizer; and with him did the first tape with video/audio hookup, all sort of interconnected. Woody had the structure because he comes from film; he wanted the dance and things like that, and we had the equipment at home, and I started fooling around, while he was working. I wanted to impress him and ask: "How do you think I did this, and what kind of hookup?" And that's where the roles changed; I, the musician, was starting to do video, and he would come home and say: "I like it" and he would do sounds to it. And it has pretty much stayed that way. Woody is very much sound oriented—

WOODY: I always have a sound concept, and she seldom does. She has very much a visual concept. So, as a matter of fact, I'm a secret musician. I have my tapes and my compositions which I hope one day to be discovered. (Laughter)

STEINA: But it's much harder to be discovered in audio than in video.

JUD: What kind of video visual was accompanying these sounds?

STEINA: We were doing feedback all the time, but we didn't record much of that; it was just an ongoing thing. You go home and you turn on your feedback. And then I started doing distortions, screwing up the monitor and taping it with another camera off the monitor—

JUD: Playing with the deflection yokes?

STEINA: No, I played around, not with the yokes, but with the horizontal and vertical rolling, and stuff like that. It was totally easier for me to do because I was naive. He knew that you don't really shoot off the monitor because he had the technology. I did it out of total naivete because it was the only way I could conceive of doing it. Woody, I'm not sure you would have used that, because it's very impure—

WOODY: I was totally hung up because I was insisting upon total

generation of the image. I wouldn't touch an optical, like a lens.
JUD: Only electronically.
WOODY: Right. I was only interested in working within a signal. I wouldn't even touch the raster, you know; I wouldn't distort the raster; they were all electro-mechanical things, like the magnetic field was for me too mechanical, too 19th century. The thing I appreciated about Nam June Paik was not really his raster manipulations, for example the piece where he took the three different color guns that had blown my mind because I really always liked the things within a signal; like all the video synthesizers which use raster manipulation, I could not find a relationship to.
STEINA: It's very hard when you use the word electronic to describe the aesthetic. It's a very slippery term. But you can say, this image behaves electronically, it's an electronic image and it means something; there is something organic and floating. And raster manipulated images have that too, but sometimes it gets too gimmicky and it loses the electronic sense.
WOODY: It loses the mystery. In that sense, I must give credit to Seigel, who would never, for example, conceive of the idea of manipulating the raster. It would be such a criminal act because the raster has to be evenly distributed. In that sense, I know that he is a pedant, from that type of symmetrically-minded school, how shall I say it--precise.
JUD: The geometrical abstraction school.
WOODY: I accepted that taboo--
STEINA: Like a puritan.
WOODY: I accepted that taboo not to touch anything which is an external force, and rather than try to disclose the secrets of the signal, and I was obsessed by that very much. I just believed that everything, from textures, even in 3-dimensions, was in the coding of information. It had to come not from mechanical distribution, since I had been frustrated by that filmwork, but it had to be coordinated right within that signal. I wanted to crack the genetic code of that signal.
STEINA: Right. But Eric was really the first one to make images without a camera.
WOODY: You cannot say first.
STEINA: Well, one of the first. And that's what we also dreamed about, to abolish the camera, and we used audio signals directly into it. That was Woody's bag--
JUD: You were feeding audio signals into what aspect of the video?
WOODY: At the time I didn't have the technical knowledge of how the signal is produced, so since we had bought a sound synthesizer, this was tool that we explored parallely--it is a Putney. And it goes back to the basic philosophy which somehow I always have. I couldn't spell it out--but, that all electronic art, the whole frequency range of the magnetic spectrum is the art material, and that immediately I couldn't divide sound and image; it was just inborn(?) into that. I understood that from the beginning. And what I did was just to put the output audio signal into the input of the monitor. Now, if you beat a frequency closer to sweep, frequencies which are the 15,757, you could interfere with that sweep and generate shapes which could be very rich. Of course, later when we saw generated images by Siegel and by Beck, they succeeded from a

different angle. But the richness, and 3-dimensionality of the interference pattern between the sweep and the input frequency was much more interesting to me, but, of course, I had to shoot it off the monitor again, but I could't work within the signal again as Siegel could.

JUD: You just fed the signal into the monitor via a coax.

WOODY: The only interface.

STEINA: One end had a phono-plug and the other just a coax. But this is just, of course, a signal that has no sync on it, no blanking, no nothing, just a frequency, so in order to code it on a tape we had to shoot it off a monitor.

WOODY: Sometimes it would record, but it wouldn't track because there was no sync pulse. But also by using a pair of oscillators, we found there was a horizontal and vertical frequency which would lock. So that was easy to find out by putting two oscillators into it.

JUD: In a way, it's like feeding Lissajoux patterns into it.

WOODY: Right. Lissajoux patterns were something we did one period--those tapes were stolen from us by accident--but we did about two months of those Lissajoux patterns, especially Steina got into them.

STEINA: We didn't do two months; no, it was one night. Eric left his scope here while he was working here.

WOODY: Oh, yes, we did about three hours of that.

STEINA: Something like that. It's a shame because there's a lot of potential.

WOODY: But we never stayed with tht particular direction. Ernie Gussella perfected that very much; he's very much into Lissajoux patterns. But we mostly got seduced by the shapes, we used to call them; we could make hats; insects, legs. We got into the organic nature of it. It was one period of that.

THE HORIZONTAL DRIFT DISCOVERY

WOODY: And then, by accident, we found out what a traveling frame of horizontal frequency, a different amount of horizontal frequency, meant to the image. A pieced called LATER EVOLUTION was our major aesthetic breakthrough. We found out, if you have two cameras, one locked into the ordinary sync, horizontal and vertical signal, and another which would be either superimposed or keyed, if you fed a different horizontal frequency into the camera keying over the other, the image would horizontally flow either left or right. You could feed in a frequency and alter that through the CMA (the Sony portable camera adapter).

STEINA: And we still use that a lot.

WOODY: It was one of the expressions we had. It helped us again to escape the frame. It just started to roll, and it wasn't the frame anyway because we knew behind it were other frames. The whole space behind is all electronic. So that was one of the clues we got. Since then we have gotten into texture, into simulated three-dimensions.

STEINA: But it took us a long time. We really didn't understand what made the image roll. Sometimes it was faster, sometimes slower, sometimes right to left, and sometimes left to right. And

it took us a long time to crack it. Because we would try plugging in from one AC outlet to another, and it would change, you know; if you have less or more power, it could go slower or faster.

JUD: Did you ever try it in conjunction with a variac, for example, to change the power quite consciously?

STEINA: It probably would work. Because 60 cycles is actually the vertical. But we didn't know what was doing it. We wanted to make this piece where it would be going slowly one way, and we tried it every night for 3 or 4 nights until it was the right speed, and we did the piece. And now, it's so ridiculous, because it's just a little control in the CMA, just a little oscillator in there. And you can control it exactly. It really has nothing to do with power; what it was is that it would drift because all electronic equipment drifts from day to day, so we waited for a day when it was drifting slowly, and now we know.

WOODY: All you have to do is take an oscillator, an oscillator that goes up to 15,000 cycles, and then we control that very easily.

STEINA: Through the CMA or an oscillator.

WOODY: You cna now just feed externally horizontal drive for any of the cameras that you want to do it. And when we went to California, we perfected it so much that--

STEINA: Now we have full control. We can travel it any speed, back and forth.

WOODY: Not only one. We can throw two, three, or any amount of oscillators that we have to shuffle the image.

JUD: You were presenting the works with this effect on horizontal monitor matrices, I remember, in the early shows you did at Max's Kansas City.

WOODY: Yes, those were the very first public shows.

JUD: That was several weeks.

STEINA: It's very interesting. It started that we knew Mickey at Max's had some monitors left over from some video event he had staged before, with Les Levine, so I went to him and bargained and got three of them for just a little over $300, so that was a fantastic thing. We bought three monitors at the same time. We painted them black, stuck them in a row, so the first time we saw the horizontal travel, we saw it travel over three of them. So we saw the potential of how it works in a matrix. That idea of buying three monitors influenced a lot of our thinking. You get inspired by every piece of hardware, whatever it is.

So we went to Mickey; actually we went to everybody. We asked Raindance, People's Video Theater and Global Village, but at that time no one was interested in showing other people's tapes. That was during the early funding days. And there was no concept at that time of a showplace except for what you personally were doing-- Global Village was only showing Global Village tapes then, and so forth. So we asked Mickey, and he said "I'll give you the place upstairs and if you show for free, I'll give you the place free; and if you show for money, split it with me 50/50." And he had two more monitors left, which we hadn't bought--which we should have bought. (Laughter)

THE KITCHEN

STEINA: By the time of doing those shows, we were also meeting everybody. We had the connection with Eric, but he was rapidly becoming a documentarist and turning away from his abstracts (NOTE: Eric Siegel produced STOCKHOLM VISITED and NEW YORK, NEW YORK in 1971.) We met other people, but it wasn't until we established the Kitchen that we met the people from the West Coast--

JUD: Stephen Beck and Don Hallock--

STEINA: Yes. And Willard Rosenquist, and Richard Feliciano with a very interesting piece ZAGONE which is fantastic, and it was one of the early pieces done at the San Francisco Center for Experiments in Television in San Francisco. Don Hallock hadn't done anything yet; this was the beginning of 1971. Bill Etra had hardly started. It was just so fast. First we felt we were quite alone; we didn't know there was so much.

WOODY: Actually, at that time we only knew about WGBH in Boston doing experiments which we didn't care so much about, but when we saw the West Coast, that was instant. We still have that hangup about the West Coast. It became very important to us, as a school, since Europe develops in the sense of schools, and also the respect for the school is there. So we had no hangups about recognizing the West Coast school as very important, and also we immediately wanted to visit them, which came about naturally later when we were invited there, and they saw tapes. Immediately after, it was after a show in Berkeley, there was a reponse that was competition on the globe. And we immediately started to exchange ideas and cooperations, and we worked together 3 or 4 times.

STEINA: Chronologically, it was like this: We had the Max's Kansas City show in February, at the end of March we did WBAI, and in the middle of June we opened the Kitchen, so I think we found the Kitchen space in April, or very shortly after the WBAI show, because by that time we saw that there was no sense in fitting up Max's and WBAI each time. There would have to be a permanent theater somewhere, and you had to make it. So we painted and scrubbed.

JUD: We had approached April 1971--

STEINA: In the middle of June we opened the Kitchen. April is an important month; it's when we abandoned the Kitchen, finally, mentally, this year (NOTE: 1973.)

JUD: April is the cruelest month, breeding Kitchens out of the video world.

WOODY: Right. Maybe it's a disastrous horoscope. But I can't say any more about the Kitchen. It's up to the people running it now to say that.

JUD: We could mention how the Kitchen affected your own work.

WOODY: Actually, by seeing so many tapes, we found out that we weren't much inspired. On the contrary, I think it depressed the shit out of us, because it wasn't really the great challenge we thought it was.

STEINA: But on the other hand, we met very interesting people there. And during those two years, almost everybody came through, and lots of Europeans, Canadians and South Americans.

WOODY: But it was the place of the demystification of video for us, because the Kitchen was a place where mostly tapes went through, which we thought would be more systematic, more developed, but

actually we found out that video was not fully developed at all.
Actually, that was more my trip. I got into a missionary position
almost trying to explain what video was. I got into those teaching
raps, or demonstrations, maybe the first lecture on video, and the
first workshops. It came from the concept which I felt was the lack
of the basic work which would somehow be self-exploratory. But I
don't judge it. I had just expected that video was much further
along, because I thought what I had seen from Siegel and other
people was just the beginning.
STEINA: That was a fraction of all the things that were going on,
but that was all.
WOODY: That was it somehow.
JUD: Like the essence.
WOODY: Yes, the essence; there was much more development in other
areas, like conceptual video was another discovery, but I never got
too intrigued by that part of it. It was the least mysterious, in
a sense; I could understand it; I could explain it very easily. I
am really intrigued most with what I cannot explain so simply. But
I would say that what we learned for ourselves in the Kitchen was
that video can be performed live, generated on the spot, could be
accompanied with sounds, or made by sounds or through sounds on the
spot. It does not really need any studio. It doesn't have to be
prepared weeks in advance. It can all be set up, be mobile, be
totally flexible. So that routine came to us after a while in the
Kitchen, and also when we went West last year. We made a whole
portable, battery-operated three-camera setup, so we could key,
superimpose, and do basic works--
JUD: Using portapak cameras.
WOODY: It was three portapak cameras, plus portapak decks, plus
battery-operated keyer, two keyers, a monitor, and matrix
switching--a little system.
JUD: All battery-operated?
STEINA: It was all operated off a 12-volt car battery, except that
we had special battery for the monitor. We could have driven the
monitor off the car battery, but we had gotten that battery before.
It was separate from the battery in the car we drove, that was
sitting in back as part of the video--
WOODY: Because we got frustrated by regular batteries, which don't
work reliably and have let us down so many times--in terms of life,
recharging, and just keeping track.
STEINA: You see a car battery is too heavy; you can't carry it
around with you. But if you have a car--
WOODY: We bought a little truck. We just made ourselves mobile so
we could just go into the hills, or into valleys, with no problem.
STEINA: But then car batteries are fantastic, because it's so easy.
WOODY: What was a personal disappointment about video, what hadn't
really happened yet, is what I believed the form of video was
closest to what I would call communication, or information. It's
like a whole generation of cybernetics that brought up video was
very much concerned with communication or information. And that
part, maybe in the sense of being old-fashioned, I'm not very
interested in. I was interested in the dramatic presentation of the
image itself, how the image is made, how it's composed; so that was
the main concern, and then how it is presented. But the other ideas

are how it communicates or should be information flow, the importance of that escaped me totally.

STEINA: Actually, in the sense of environment, we didn't do in the Kitchen what we originally set out to do. But that's another story. We wanted environments and happenings, and we ended up having people sitting in rows and paying an entrance and all the same shit.

WOODY: Actually, we should comment on other people we found in the same boat. Like Skip Sweeney, a man who we respect very much; his work can be characterized as quite simple, it doesn't go into too much information. Usually, it's easy to trace and its development is simple, but all he does is very much related to the electronic display of sound, and that was what we wanted very much to do.

JUD: The sound-modulated video image.

WOODY: This is his natural talent. His environment, Video Free America, in San Francisco, of course, deals wih direct images and the documentary type of work as well. He lets the other side of his talent go with the flow. He was quite important to us in the narrow interest of audio/video display.

STEINA: And in many respectss, he's also quite isolated, and has no contact with the people at the Center. He's a loner.

WOODY: So, I would say, from that experience, our mission became to actually engage ourselves more in the explanation of video, what it is. We started to categorize a little bit of what we had been doing before, and now we can see quite clearly what development we went through.

A BRIEF HISTORY

WOODY: What we really did first, the basic feedback work, with audio hookup as well; so we activated oscillators through video feedback development. Then, at that time Steina was quite independent--we really didn't start as a team in the beginning--she was doing what we call ▪▪ decays.

STEINA: Decays, and distortion, and raster, some basic raster manipulation.

WOODY: What we meant by decay, for example, was the case with the taped image, an image that would be in a freeze-frame position, but could be manually advanced so that certain areas of the image would electronically decay. She would manipulate that and shoot it off the monitor again, and that way see would record. We had two or three pieces like that (NOTE: The Decay pieces include: 1. DECAYING FACE, 2. TISSUES, 3. ELECTRONIC LANDSCAPE, and 4. DALI LANDSCAPE AND OTHER SMALL PIECES, 10 minutes.) Secondarily, she would manipulate the raster and turn the camera 90 degrees so she would get some horizontal development. She would use things like mylar, mirrors and some optical devices, and at the same time I was extremely uptight about things like that.

STEINA: That would drive Woody crazy.

WOODY: But I had to respect them, because they were quite powerful.

STEINA: It doesn't really matter how you do it, if the result is there.

WOODY: Now, I agree, in those days, I couldn't.

STEINA: You were an electronic purist at the time.

WOODY: Right, I was. Perhaps I'm compromising now. In those days, for example, she would work with tape like collages, using a CV, and she would be able to overlay many other images over an original track by insertion so she wouldn't destroy the control track.

STEINA: But basically it wasn't possible because you couldn't get a clean cut. But if you didn't want a clean cut, and wanted all this moire, what I did was to cut so close that all I got was the moires and the dirty cuts, and that became the consistent, that became the tape, the image.

WOODY: Her concepts are very much visually conceived, and I was very much the opposite way. I started to use oscillators to make an image. It was interesting that we had met a young man named Al Philips, who used to work for C.T. Lui.

STEINA: He showed with us at Max's Kansas City.

WOODY: He did some audio collages, and some video work which was extremely interesting at the time, but wasn't much appreciated by the art community, except for Siegel. Eric detected the same traces of talent as he had, because Al would do things like feed each head of a recorder with different information, after putting on a control track, and he would collage multi-layers of images, all in CV, before we could ever edit. He would do slow motion.

STEINA: He was 18 or 19 years old. He took audio collages off the air, picked up a little of this melody and that melody and put it together.

WOODY: But so unconventionally. It was original work.

STEINA: And he did the same thing with video. He seldom used a camera, though he had a nice one, very-high resolution with which he did a lot of feedback. It had the controls outside like beam, focusing, but most images he just took off the air, unconventionally. He would take David Susskind and turn him inside-out or upside down, and you couldn't even see that it was him anymore, and it was just an image.

WOODY: Actually, he inspired us very much technologically, especially in a tape sense. He was a man who understood tape and tape procedures. Steina was then doing a lot of textures, actually a texture-freak in those days, all sorts of fine textures and structures that would either move or not. Then I did one piece for her called DESCENTS where I took on her structures and then I descended it--

STEINA: You didn't do it for me. I had only finished the first track, and turned around and saw that it was five o'clock and I had to go to rehearsal, because I was still a musician in those days, and you came in just before I was packing my violin to run away, and I said, "finish this for me." I had itall set up, but Woody went further, because I was just going to roll in once, having the image decay that way with the frame going down, but he did it six times. That was a funny experiment.

WOODY: Each generation I went closer and closer, from full frame to actually 1% of the screen, so it was all within the image. It sounds conceptual but it was actually pure image work. From that point on we went into that discovery of the horizontal traveling effect which became established as an environment.

STEINA: It's called a VASULKATRIC by Bill Etra and some others.

WOODY: And we started to do serial environments and some of them

are called ELECTRONIC STORIES, like our classic is BLACK SUNRISE; that was the second. (NOTE: Two other ENVIRONMENTS tapes were called SPACE and HORIZONTAL SUNRISE.) EVOLUTION was the first attempt at composition; up to that point we hadn't tried to compose a piece; it was all fragmented. So we started to do what we called stories, or environments and after we did three or four, we decided that wasn't really where it was at. So, we descended again in the work called THE ELEMENTS.

STEINA: We started with the keyer we had gotten--a Shintron keyer--and the keyer became a new philosophy for us. I don't think we have done a tape without it since. It was such a revelation. Like, we just touched it, and we saw in the beginning what was happening, and I remember Woody exclaiming: "This is a composition, not a tool." And that's exactly what it was, because after the keyer, we couldn't do anything without it. You have to admit that it was one of the real miracles.

WOODY: So our work developed from one state into another, and then the environments which had no time limits. It was like the endless loop. And suddenly the keyer gives you the option of composing in depth, in time which is simultaneous.

JUD: Composing in levels.

WOODY: Right, and with the levels or time and image, suddenly, the whole film tradition wasn't bugging me anymore. Because editing for me was just one time sequence after the other in film, never trying to put in layers of images. I discovered in video the ability to do that with such ease, and once it existed we went into a whole trip of using that. But we also discovered that if you combine the horizontal travel with the key, you get a very drastic separation of two or three planes, and that was one extension. Then we went into working with keyed feedbacks, which is another whole dimension, more organically developed. We did ELEMENTS with that, which was a whole trip. Then we went west with the landscapes, with two keyers and the whole battery-operated rig. That was the first time we did abstract landscapes except that we had some pre-taped material from Steina's native Iceland which we sometimes keyed and colorized. We already had a colorizer at that time but we couldn't use it.

STEINA: That's interesting. We lacked the concept of colors, and the colors we had weren't worth it, so it was a real learning tool because we were playing around with it all the time. So we had our tapes in B&W and we would always run the B&W signal through a colorizer live, because it wasn't worth taping the signal.

JUD: Always live during the shows?

STEINA: Yes, even if it was pre-taped show, there was always some live element in it. We also used live musicians. But it was such luck for us that we didn't try to record it because at least we have some concept for color now. It's such a fantastic universe; I didn't know what to do with it at all. You see it also with other beginners using colorizers, that they stick very much to red and blue, and some green, but mostly red and blue because you know those colors and it's like being on home base. Or you go psychedelic, just totally out.

WOODY: At that time we were trying to perform also. We got a pin board which was the fast patching system, MATRIX, and that allowed

us to repatch and reprogram within a few seconds, so with this we could also do a few performances. We bought just the board, and the rest we built. It's a very simple routing system.

STEINA: On one side now we have camera 1, 2 and 3. We could go to 4, 5 and 6. The keyer goes in here and goes out there; camera 1 can go to either main or key or 3, and then it gets returned to the keyer and key 2 goes out here. So we can at any time exchange camera 2 into key 1 or 2 into key 2 or 1 into key 2, and we can route the signal this way, making many different combinations as we go.

WOODY: This immediately upgrades your hookups; you see people struggling with patching, even in professional studios, that whole uneasiness of changing the order of inputs and outputs. This is such an ideal thing that by going through errors, you could actually establish your final images. So that was very important to us, and it's a simple thing.

STEINA: And with color, we have always worked with limitations, but now it's getting better because Panasonic brought a deck that's usable, which wasn't possible before, and now we've started recording in color.

JUD: You never even attempted to use the old Sony 5000 color deck.

STEINA: It never had that quality, or that crispness. It wasn't really worth it. It was much better to colorize live. Now, we have the limitation of having to edit everything; what we really want to do is to go from one episode to another, either keying or laying it over into the next episode. We always have to cut and here comes the next episode.

JUD: You need an SEG in the system.

STEINA: If you work in real time. But what we are doing now is working in real time and then taking out segments, like in GOLDEN VOYAGE. But cutting it is totally unelectronic and unaesthetic. But you work with the limitations, what you have. The color is the same kind of limitation. If you go up to a professional studio, you can demand all these things, but you have to lose so many other things for it, like the (子 to explore. _TIME_

JUD: That matrix board was surplus from the computer market?

WOODY: We found one on Canal Street, but you can go much faster through the manufacturer--it's called Selector, in Mamaroneck, New York, upstate. The smallest matrix, 10 by 10, costs around $25-$35.

JUD: It's probably the most portable unit that I've seen yet.

WOODY: And we could make it more portable, if we put in BNC connectors, and just do it in two rows of six and six, and make it a smaller unit. Two switches are reversing the last two outputs, a & b, and b & a. At the same time we got turned on to hardware development that we could control ourselves, I got involved into really studying the signal. Now I can build basic, or at least keep together, equipment--if something drifts, I can go in and adjust it, or replace a transistor, but I'm not designing things. But we have found good designers. By understanding, now you can physically patch the signal together. You can take sync from somewhere, add it to a picture, and then you take burst from somewhere else, and you virtually patch it together. And thus keep the whole signal in proper proportions. It's the same way you would patch anything else, almost like the physical existence in film, you can trace the

"sprocket holes" in it. I never understood that before; now it comes so easy to me. Also how color is recorded and how it's originated, and you respect more and more people who work in television and try to understand it. That attitude of understanding the media interests me much more than not understanding the media and using the medium for another purpose, like for communication only. I like to be close to an understanding of it. It's still a mystery, a total mystery, and it will always be. The closer you get, the further it is--
STEINA: The most beautiful thing in media is the microcosm you get into. It goes by 60 cycles, 60 times a second, and that's the basic, and then the horizontal, the 15,750, and then the color burst, which is a higher frequency, and you have this incredible clockwork, and it all has to match, and to fit. And if you lose sync, you're talking about losing 1/60th of a second. It is a whole universe which has opened up for me, with a whole time existing on its own, a totally different time. It's much faster but in the outcome it's not really much faster.
WOODY: It manifests as something static because it looks like a frame. It is a frame, but with the frame, in errors in color, it's a matter of nanoseconds that can cause such a major change in color. Two missing pulses can just distort the frame so much that there is nothing you can recognize anymore. It's like burning two frames on your film.
STEINA: And I also like to listen to George Brown when he starts going on his trip, which we don't understand at all now, the whole digital thing. For him, it's his home, and also John Godfrey, from the TV Lab. They can think in this realm like we think in minutes, hours, and seconds.
JUD: It's like an N-dimensional continuum.
STEINA: It's like a microcosmos. Fantastic.
WOODY: So, after the hardware development, we arrived at some kind of system, which is very much open-ended. It's not the generation of the image that's the most important factor; it's the processing, and now lately the layering of images through the multi-layer keyer. So we have arrived up to real time collaging up to five images at the same time, and we use two channels of colorizing. WE can really independently control two channels. It would be nice to control all of it, but that's something else. And in this process we went back to what we call ELECTRONIC STORIES and did these two pieces, HOME and GOLDEN VOYAGE, in which we suggest that there is some kind of narrative, or story (в) it, but it's all visual; we don't deal with a real story there. So now we're in to the next dilemma of whether to proceed in the direction in which we're already succeeding or--In the electronic story, there is always that dilemma, should you perfect or should you go into the unknown, something again which you can call the least conceptual, and the most free, like playing with an image which we seem to somehow prefer--
STEINA: Since it is more fun.
WOODY: Not only that, it's the constantly getting closer to the mystery. Once you know how it's done and you can use it, it's like a job. In the GOLDEN VOYAGE, the inspiration comes directly from the Magritte painting THE GOLDEN LEGEND, which is the opening

scene, but then we said let's do this and that, and somehow
scripted ourselves, and we had to labor on each scene very heavily.
It was a setup preconceived--
STEINA: But we were still improvising. When you said, let's do a
scene like bread in the universe, and we took a few props and
started improvising and it was ugly, and stupid, and then suddenly
it was beautiful. I find that you're playing with all these things
and it can be so worthless, just playing around, and then suddenly
there's a moment and it's beautiful.
WOODY: And, on the other hand there are these sketches which you've
done called THE VOCABULARY, which are interesting conceptually, but
are preconceived, so they become statement, like a message. So I
guess we always have these two ways to go, which may be totally
negative because it doesn't imprison you into what exactly should
be.
STEINA: We should be really serious and do some work, quote,
unquote, and really tackle the thing.
WOODY: We have never been interested in work, like a masterpiece.
The most challenging for us from a non-visual, non-imagemaking
point was the perception part of video. We seldom talk about it
because it has to be seen. It starts as primitively as flashing two
different images in certain rates of exchange, for which George
Brown designed us a machine; or the color exchange, or the
traveling image, from left to right, and right to left; or when you
use the Pulfrich effect of slowing down one eye with a neutral
density filter, and the image travels and induces a stereoscopic
effect. We were working with it two years ago.
STEINA: It was discovered in 1921. That part of the work always
interests us most.

"THE PULFRICH PENDULUM EFFECT. A pendulum swinging in a straight
arc across the line of sight is viewed with a dark glass over one
eye, both eyes being open. It appears to swing in an ellipse. This
is due to the signals from the eye which is partly dark adapted by
the glass being delayed. The increasing effective separation from
the two eyes towards the middle of the swing is interpreted as a
difference in distance, generating an ellipse."--R.L. Gregory, EYE
AND BRAIN, McGraw-Hill, 1966.

STEINA: One day we are going to re-edit all of our tapes, if we
ever get our shit together, because we believe very strongly that
with a time-base corrector and those state-of-the-art things that
you are going to be able to work effects into the tape without
cutting. We are dying for that moment to arrive.
WOODY: Every tape that we do, we usually recolorize or do something
to it, change the length, but from the perceptual point, it goes so
far that we want to develop right now, from the beginning, two-
channel video systems where we wouldn't deal with one output only,
because we strongly believe there's a need for a second image, for
stereoscopic purposes, or just for different information for the
left and right eyes in a textural sense. We want to build two
parallel channels of video. That's probably another major direction
we want to deal with now.
STEINA: It's sort of bad news, because it means 2 lenses, 2

cameras, 2 players, or whatever--
WOODY: A symmetrical processing, symmetrical colorizing; it means two-channel manipulation in the sense that you have two control voltages there to be symmetrical, two switching; but it's like a brain, it has two sides.
JUD: The logical and the intuitive.
STEINA: But in that case we move away from the consumer, the viewer because it then becomes a one-to-one experience--
WOODY: Since it doesn't exist yet in a large display. You would have to build small viewing systems. Actually that's what Alfons Schilling is doing with visually static images, so he also has to build his instruments to be viewed.
JUD: What do you think would be the effect of completely different channels going to each eye? What would be the change of orientation in perception?
WOODY: First of all, it depends upon what you would feed it. I think, in the textural sense, you can soon fuse it. In the sense of shapes, the learning process would have to be involved in time, because we have learned by looking at certain effects.
STEINA: But the brain superimposes. If you had a circle in one eye and a square in the other, you would get a circle in a square. There's no way for the brain to deal with that differently.
WOODY: And also the exchange, between A & B, but that's the whole magic, the code that we're interested in tracking. There's so much adventure in that particular direction. We would give up any possible achievements just to do that, but it's very fragile. You have to fight for your time. In the past, we could be isolated, and quite independent, since we had a situation where we didn't depend on making a direct living, and that time was totally necessary. It's not so easy anymore, because you collect duties and deal with so many aspects, the discipline of getting together on particular aspect, at least for me, is getting more difficult. It's concentration or just the onesidedness of things that succeeds.
STEINA: It's interesting because we are some of the very few people probably in the whole world, who have decided to have a home studio at this point, because Stephen Beck, say, has a studio home in the sense that it's not home, but he has his own room and he built it there and he's the only man who uses it, and it's all in one piece. Experimental labs like the TV Lab, in some senses, are like having a piano in the corner which you can only play at most one day a month. What kind of pianist can you actually be then?
JUD: With studios, you almost have to deal with it as hit-and-run, doing as much pre-production work as possible to be able to cram in as much as possible in a limited space of time. There's never quite enough time. And if you set up in real time, something can happen quite easily, and then you're going to have to edit. Sometimes it's like being a video beggar, happy with little tidbits that open up to you, and then you have to make the most of them.
STEINA: I think we all have the same dilemma: Etra, you, me. It's hard to deal with.
WOODY: Let's put it this way. We would always prefer to establish our own conditions, control our own time, our access to the tools. We live with it and work with it systematically. It still doesn't mean that we produce systematically, but the unity between the tool

and us is a learning process that is totally inseparable. You cannot go and use the tool. You have to develop the tool and be with the tool, whatever it is. We wanted to prove that the individual has access to every technological advantage, doesn't have to really do it within an industry. He can do it independently. Of course,