1. July 24, 1977

Jon; all right I'd like to, well, first let's clarify ~~some~~ this ~~things~~ for Jan. were going to be talking generally about the field and certain kind of work in electronic media, and ~~so-forth-and-among-our~~ the concepts and so forth. Among our numerous difficulties with this is simply the lack of a common language. Today is going to be more of an attempt to define a vocabulary that ~~can be~~ be used to deal with these subjects with a fair degree of specificity. and so I think you should, if there's a word that ~~you hear~~ we come out with that is undefined or unclear or not precise to you, then you should certainly stop us and say okay what does this mean? and then, we'll try to come to a definition...

Jon: So, I think our first question should be directed towards defining first of all the relationship between the hardware, which is obviously very strong here, with the conceptual and esthetic products, that were dealing with since clearly this seems to be to me a series of concepts, a framework of concepts, which derive because the hardware reveals something to us, it gives us possibilities that we normally wouldn't have without it. It enables us to operate in an area ~~that-we-b~~ which we would not need even have need to develop the thought patterns for, because this hardware forces us to do it, it also gives us esthetic, conceptual, philosophical possibilities that we wouldn't have had before

Woody: There are two ways to deal with this question. One is to link it up to thought processes or esthetic structure, the other would ~~simply-be-to-pla-~~ be simply to trace - not simply but complicated way, to trace the television system and then find within a system alot of relationships which then would be secondary manifestated as esthetic, you see I have my own idea about how esthetic is established in let's say video. I think it comes first of all through manifestation of a system, and then after a while you in fact redalide that has been pioneer through thought process before like Magritte, Klee... hierarchy of images In this case it was totally ~~translation of thought~~ conceptually solved.

Jon: Let's start with tv, since that's perhaps where it all began. Except for work in electronic music somewhat earlier – that seems secondary here.

Woody: well I think what we should start with is an oscilloscope I mean and a cathode ray tube and display of time/energy event ~~display~~ on it. My contribution to that would be that it was, in fact, non-esthetic constructed apparatus- it was a tool to examine or observe small and subperceptual events.

Jon; Within a certain framework, also, you need to be a linear framework - a spacial framework for a non spacial event. You had to display spacially, which is to say in a writing mode, an event ~~and~~ which has almost no relation to space.

Woody: Technologically, it provides a sweep, that ~~is a~~ means the horizontal position in time* and it repeats usually, cyclically and ~~re~~ then ~~repeats~~ sweeps again in time and place and then the energy event is a constant time event and the energy time event is then translated into a certain verticality, into x coordinate

* Jon: which is an arbitrary time...

Jon: into the amplitude

Woody: I mean y coordinate. So in this case that mechanism, pre-television mechanisms utilizing such a system or instrument, But what's interesting to me about it is that it was in a way non-cultural in a sense of culture as representation of certain artistic structures or I don't know if you feel the same, I tend to separate things into ~~cultural~~ ART and broad cultural and technological. I don't have a synonym I don't say culture is everything because I need to separate.

Jon: So what you're suggesting is that the particular aspect of the oscilloscope, which is its design, its function, derived from certain necessities that had nothing to do with constructed sociological or cultural models, but rather derived directly from a kind of interaction of the we need to measure and the need to perceive and also very directly from the particular framework the particular phenomena that were under investigation.

Woody: Exactly

Jon: It's a tool that has ~~anyway~~ in a way no pre-suppositions, except technologically,

Woody: Right, yet I would say since it's a visual manifestation it tends to ~~become~~ be kind of put into a symbolic

I mean it's usually treated ~~like~~ as a symbol. Like a sine wave, eventually becomes a language, a symbol which then can be used for cross-cultural purposes

Jon: well, ~~perhaps that~~ except that what's perhaps most interesting about it isn't the symbolic aspect of it, but that what we have done is taken something which is understandable in one construct and in a way pinned it down and slowed it down so that it becomes completely within the scale of human visualization and understanding. And it's an immensely misleading tool for that reason.

Woody: Also, I'd say it's lent very much to behavioral patterns of nature, or ~~us~~ also us, Like cyclicity - we can say that certain description, or sweep, or repetition can be taken as the basis of time compositional element. In some ways also suggests that it is in fact, that it can monitor certain behavioral patterns

Jon: Or that it reflects certain preconceptions we might have.

Woody: That's right, about what composition is. But getting closer to television, I guess it's important to say that pre-television existential electronic image stressed that, because in fact it's coming back, In a kind of more contemporary expression, let's say in bio-monitoring. When the image is not, for example, a frame but the image is the state of being of an individual. or a scan like we know the satellite scan. don't really represent image as cultural construct as I would later ~~like~~ to call the frame- television frame

Jon: Wait a minute. There's a question here - which is that the CRT has no frame. And this is in a way particularly remarkable given the fact that video tv, and that kind of CRT goes to a huge amount of trouble to construct a frame. What you have in the CRT is the representation of a linear event but yet without any kind of construction. The only construction exists by giving this event time - a time base, a decoding value,

which enables it to be displayed in the particular ways ~~it~~ that it is displayed so that eliminates all the aspects of the arbitrariness - and this might be a word that we have to define - the arbitrariness that we see in television, video with a 525 ~~scan~~ line repetitive scan, so there is no frame, there is no cultural construct, there is only the time decoding device you wish to place on it for whatever conveniences it might be

Woody: It's a utility, let's face it, ~~it~~, it's an instrument, its a utility, but it's highly programmable, that's what's interesting. You can of course program the rate of the sweep, you can program the position by dialing the deflection . . . . electronic . . . esthetic condition on the cathode ray tube (???) In a way it is a new generation of tools, compared to the rather static tools of mechanics. And that brings us I guess to the proximity of a construct of a frame.

Jon: Well, I think we should go into tv first, because

Woody: But I think tv is in fact, I mean the necessity for tv is I think., of course, tv has been inspired by film, the existence of film, necessarily. And then I guess there must be a written history about it but I guess there was a dilemma how to in fact represent such a frame, a cinematic frame in the electronic design.

Jon: Except as I understand it the first television which used not a cathode ray tube but in fact ~~effect~~ wires, connected to a grid, to the face was also a mechanical scan incidentally I believe it was a circular scan, I could be wrong about this

Woody: There have been so many different kinds, but we would really have to go one to the nitty gritty.'

Jon: I think what we have to stress is that the television, electronic image ~~as-it-existed-til-new~~ up til now existed as a sequential system. And that is very significant towards the construction of the

Jan: Do you mean by sequential the imitation of successive frames?

Woody: No, that's ~~seeendary-already~~ a second order already. It's the first order, that means, every value - what I call a value is

brightness component for ~~e~~xample is a value. Every value of that primary, first level has to, or appears inevitably sequential, that means so far I haven't seen successfully constructed any parallel image displaying system, of course there have been ~~images~~ matrices, very primitive matrices of light emitting diodes which of course can do that. And I of course also believe that a future of image... at least high organizing principles will ~~eventually~~ in a way develop into parallel or multichannel displays

Jon: May I just suggest that we don't not use the word sequential, though? Because it indicates an on-off, which it's not.

Woody: No, sequential doesn't really suggest on-off.

Jon: Because on another level of looking at the same phenomenon you have continuity. Which is to say that there's only a change of state, not change of states. Not different states.

Woody: But how are we going to say that the structure of let's say television frames or television image* is ~~one~~ a single train of imformation, I mean it's one value at one time going through a single system gate

Jon: * on the technological level

Jon: Let's say that it is one interaction for the length of one television program, from the time that Channel 2 goes on in the morning ~~until~~ to the time that it goes off at night ~~is~~ it's a single beam. It's one lousy point that's working for twenty four hours, or years. So that what you have is a continuous change of state but you do not have numerous states, you have only a single state. And I think that's very important.

Woody: What do you call a single state?

Jon: Well, ~~what~~ this we have ~~is a~~ dot, when it finally gets on a display also when it starts on the viticon if it's a single viticon. So you have the single dot which exists for the entire length of the day's broadcasting, let's say. It's an incredible abstraction because ~~that dot exists even when it's turned off~~ even when it's turned off that dot exists as a reference point among the matrix of the tube. But it's not as in film where you would have one frame which is there, then the next frame then the next frame. If there ~~was~~ were a way to broadcast a video frame by

lighting up a matrix of LED's let's say. ~~in a single time of~~ at certain single time in a different pattern and so forth the shutoff and light up ~~'~~ that would be sequential. But this is a continuous change ~~in~~ of state

Woody: What you're saying is that you're separating, that you ~~are taking~~ take a television frame as a construct which ~~is~~ kind of ~~static~~ ~~esthetic~~ static in the sense of its display, relatively static from its perception

Jon: the framework is stable

Woody: But then you would say that, we know of course it's a dynamic system, it changes, but ~~in~~ subperceptual ~~ways~~ ion so it has no relevancy to the perceptual one, in this case. But then you would say that then there would be a construct and a content.. or form, which is the frame which is always there, and then there is the content of that frame which comes in various primary relationships. JON: What is content?

Woody: Content. ~~How can~~ could I agree on one thing, ~~and~~ that ~~is~~ a frame is a mental construct, we have located that by agreement that there is a frame because we observe it as a frame. As I said it broadcasts from morning to evening in relatively identical form. So it's the form, or line-by-line construct which then is a subject or is a scenario or is a territory for the content. Content can be explained by the value ~~of~~ and position of the... or code ~~and~~ or value ~~at~~ and position.

Jon: sure, which refers to the amplitude of the position.

Woody: That's right. That's means arbitrary. Anything can be the content of that static or relatively static frame if it comes in what we call synchronicity, if it's conceived in relative synchronicity. and ~~if~~ it's conceived through ~~an~~ organizing principle like a camera which takes a ~~large~~ light space as an organizing model then we achieve what we call television image.

Jon: So let's make some definitions now.

Jan: Relative synchronicity?

Jon: You were referring to the temporal encoding ~~which~~ that exists ~~in~~ the wave form, that is ~~what~~ the sync that allows it to be

Woody: Let's start again, you see, when we accept that there's a frame that exists in time and space continuously, we have to understand that that frame is repeated sixty times a second. That frame is conceived from timing elements, the frame has to be initiated through a time synchronizing pulses. That means if you

take this synchronizing structure of a frame and derive, or if you slave onto it, another system like a camera; then the camera delivers into this kind of construct of a frame I would say relatively synchronous information... it could be somehow deviated ~~in to~~ minor elements but normally we could see what the camera sees. If we would be dealing with a camera which would be seeing the same thing but would be a-synchronous to the frame, then of course we would ~~be seeing~~ information that would be redundent, it would be absolutely undecodable to ~~the brain~~ our vision, because the time code occurs also ~~appears~~.

Jon: But it's important that this ~~happens~~ in other technological media, like film the twenty-four frames per second is in fact the time code for ~~the~~ reconstruction of the event. You have this also in audio where three and three-quarters inches per second, it's a generalizable principle, really

Woody: I would say it's a referential, generally we call a referential relationship between time and location or ~~between~~ time ~~and~~/position of the image which exists not only 24 frames per second in cinema, it's also gate locations.

Jon: I just think ~~the~~ synchronicity is the wrong term. Because it's not synchronous, it's only relatively.... I mean these are mirror ~~system ima~~ image systems. All of them are.

Woody: Actually they are slaved systems.

Jon: Well, they're slaved, but you have the, it's not as if they're synchronous, you have the encoding of the instance video tape for ~~example~~, or you can store in memory conceivably. And then so that it gets reproduced ~~nine~~ many months later. So they're not synchronous ~~in that sense~~ ~~really~~, it's a relative synchronicity.

Woody: It's an approximated towards a synchronous source. You're right. There's not absolute synchronicity in those systems because in fact there is a master clock which conceives.. it varies.

But there is a gate, a gate ~~th~~ of ~~cones~~ tolerance, through which a television image still can be reproduced on a television screen even if it's deviated somehow from the master clock . But each...

Jon: But all the relative timings have to be

Woody: But once you record it, like each system of reproduction

(like television) assumes a position of the master clock and has to in fact reference itself internally to the ~~sound of~~ some master frequencies. So it is continuous master-slave relationships in which there always is the clock in one substance and that is ~~in turn created~~ treated throughout the system as the time reference. Cinema is free-running, in a way, ~~exxw~~ except when it's sixty cycle locked, some maybe projectors are sixty cycle or AC locked and you're gonna say this movie and that movie was relatively synchronous during the projection but that is of course... I think ~~that~~ in video it is more possible because there. Because a lot of recorders are hooked up to the same line and ~~derive~~ they usually derive ~~sixty~~ their sixty cycle reference from ~~the~~ 60 AC

Jon: Well, you don't have the same situation as in film here which is that there can be no storage ~~here~~ at the same time as there's reproduction. You don't have this in film. Film is inherently a storage medium . In video you can point the camera at ~~an~~ the object and have it ~~did~~ displayed with ~~an~~ the most imperceptible delay on a monitor or many monitors in many different places, so here Synchronicity might be valid Because in video it can be ~~generally~~ genuinely synchronous. But in film it's not and it's ~~a~~ a generalizable concept.

Woody: Then we can speak about hierarchy of these time references or time dependencies ~~of~~ in audio. We usually don't consider that. Because the deviate perception accommodation of these time elements is great. So we don't even have - except some people who have absolute pitch can in fact recognize the difference in In film since we have an instant reference to movement structures, in ~~reali~~live scenes, again these terms are kind of arbitrary, in film we can have some reference. In television we have to be much closer to the master clock because the systems don't tolerate ~~much~~ great deviation so what we are talking about is time confinement. Compared to audio and film, video is much more time confined. or Time defined, oh I don't know how to define it. Time

Jon: Time determined I think is much better ...Why don't we make some definitions, then. So we will have temporally determined. I think we should have perhaps two sets of categories here

So one will be the endoding, encoding/decoding, which is one whole field that we're talking about. And so under encoding/decoding we would have temporally determined , because what in fact we are talking about is the temporal determination ~~of~~ that exists in the acts of endoding and decoding.

They must be identidal in video. Do you agree?

Woody: Let me see, I understand the encoding/decoding process is of course very much...could you make the marks next to each other...

Jon: All right, so under this categoryy, which is one, we will have...all right let's call temporal synchronicity, which, this is a generalized term.., referring to all technologically based media, which is ambiguous in itself but it's... this would include film, audio, video... there are some questions about other ones.

what this (?) refers to is that

The encoding and decoding must exist within the same absolute time, which is to say that if you shoot at 24 frames per second you reproduce at 24 frames per second, otherwise the ~~decoding~~ encoding of reality is violated in some way.

Woody: Absolute time again, well, you see...

It's rather referential

Jon: Well it is, but I think we're talking about reference to reality in all these mechanisms.

So then we have temporal determination, which refers to relative time , not absolute time, and this is most strong in video.

And this means that the coordinates, that is to say the multiple coordinates of decoding must exist in precisely the same relationships. This is clear and agreeable to you?

Woody:

Jon: Relationships as the encoding process dictates.

This would mean that the horizontal blanking and ~~vertical~~ horizontal sync have to be in precisely the same...temporal....vertical sync and ~~vertical blanking~~ horizontal sync ~~have to be in precesely the same~~ must be in a precise relationsnip and so forth. ~~This~~ Which is ~~precisely~~ exactly what were talking about. Unless you intend something else for this but I'd like to keep this as schematic as possible.

Woody: There is something that I'd like to point out. First of all, this relationship between

the timing structure and the content is in fact, we can separate it only philosophically. Factually, They're conceived in the same time frame or time location.

Jon: Let's hold off on that for a moment.

Woody: If you decide to separate them, this would actually, it would rather-Let us say this is the coding process and this is the decoding process.

Jon: Well, I don't really see it that way. No I think ~~that~~- this is the generalized principle that this is the case in ~~fil~~ video. In film you have no relative timings except for that which is on the film to that which has been reproduced. There isn't the same system of coordinates.

Woody: I disagree, because you see, I found out a boundary like the edges...horizontal and vertical... a vertical edge is a carrier of a horizontal position. In fact in a ~~wa~~ strange way it is a time location~~al~~ coordinate. The same with horizontality. ~~In fact~~ Those sprocket holes are in fact carriers of a ~~p~~particular code - it's a time code.

Jon: It's a spacial code

Woody: It's a spacial code, but space ~~is~~ then, since the image is a dynamically ... Photography has ~~is~~ something similar.
Let me just try to understand it in my terms. Temporal synchonicity. Okay, what we would call that, decoding must exist within the same absolute... okay so we say that there are in a way, time referential systems and the time referen~~ce~~e is usually expressed through ~~certain~~ particular timing codes, time marks, which is the sync. Okay, I can understand that and agree with that. Temporal determination, most strong in video, multiple coordinates - decoding ~~exists~~ must exist in precisely the same relationship to the encoding process. Okay, that's what you call a mirror process.

Jon: ~~All right. Are you finished? because I'd like to say something~~. What I ~~t~~hink may ~~b~~e most significant about the temporal determination here is that it relates very directly to the cultural content.

Which is to say that we think in no sense of an oscilloscope scan at ~~let's~~ say 5 milliseconds as opposed to one microsecond as being ~~a~~ the proper mode of decoding. There is no encoding in an oscilloscope. All ~~of~~ the modes of scan in the oscilloscope are equally valid. They tell us perhaps different things about the wave forms in question but in no way do we think of one as being correct or incorrect.- think of no one as being faithful to reality or unfaithful to reality ~~,~~- it's only ~~when-we~~ with the introduction of these multiple coordinates of time encoding that we have taken ~~the~~ a view of reality and pulled it in and encoded it temporally and we've done the encoding - that there is only one correct encoding of that. Correct decoding of ~~tha~~ it that is to say. With an oscilloscope you don't have this

Woody; I would make it a little more precise. I would say ~~that~~ there is one demand ~~for~~ in oscilloscope oscillation - which is if you want to go closer, if you want to observe ~~smaller-and-smaller~~ shorter and shorter time periods, then in fact you are defining the boundary of a system that can reproduce such a time element. so. It is a problem of possibility of technology. It's correct that television frame is located in a particular time , in a particular frame. That's done. But of course oscilloscope again is tool which is totally developing in sense of access to time, smaller and smaller time elements. That limitation of it is in fact, I mean the challenge of the smallest time observation seems to be the demand.

Jon: Although there are theoretical limits, which is another question.

Woody: Foresee somehow a cathode ray tube or televison ~~wyw~~ system which eventually trails behind as a cultural construct. Will eventually be shifted higher, to the smaller time sequences because that's where the band width or information structure then will advance by...

Jon: for reasons of efficiency...

Woody: So that is, I would say a dependency but not a direct one.

Jon: Let's define some more terms if this is suitable for you. Let's define content. In this case we could call it hardware content or something like that, technological content. And we mean by this only in this framework that we're talking about it now - the energy and position specified for the beam ~~specified~~ on a raster or an oscilloscope, cathode ray tube. Do you agree?

Woody: so, yes. What I would say, I recognize two states of an image at least. One is the signal coded. That means it is the time/energy code which exists regardless of it's display, maybe it's transmitted. All it contains is the timing structure, and the content of the image - that means the time/energy code. And then I recognize the display of such a code.

Jon: You mean the translation from electrons to light?

Woody: I would say expression of the same code because it's the same time code - it durates the same length, it displays the signal itself.

Jon: It's just that I see a kind of dichotomy that exists between the point where you have the ~~scanning~~ electron beam scanning and the point where it hits the phosphers and produces light.

Woody: That's only secondary. I'm talking of the signal as totally free agent that is unbound to matter so to speak. Once it's received on the monitor, it's put through a process of being displayed, physically, it's a materialization of the signal, which is fascinating to me. And what it does, in fact, it is, it extracts from the signal which is a free agent - one component first which is the sync - by extraction, by slaving of this particualr command - this material arrangement becomes bound. Begins to ~~exe~~ obey or ~~begins to~~ execute a kind of program which is the signal. What's interesting about it is only that component is located in relative synchronicity. Because sweeps are triggered from this particular element and then exist in their own time and space, their duration ending, It's an event which is triggered.

Jon: Let's be very specific about that. So what you're saying is that as the signal enters the monitor, there is a horizontal and vertical

oscillator that lock to the time encoding the sync on it - which then translates this purely temporal information which is their relative times of ee occurrance into the spacial display.

Woody: Time mark,

Jon: Time mark is very good. Which translates this time mark into a spacial display, into a series of spacial coordinates,

Woody: But ~~that's an~~ W hat's an important ~~is the~~ its autonomous ~~of~~ on the signal it's preprogrammed, it has it's own program, that means it's only triggered ~~when~~ and it has to complete it's own destiny. Whatever that is until the next time mark.

Jon: the coordinates of its own program

Woody: During that time it displays of course what we call ~~an~~ the image. ~~ee.~~ Which is important because that length of that program, or the distance through which that beam has to travel is then vulnerable to an arrangement. You can change it through various components like notes

Jon: Which are all to deform, not to obey. I think there's one other thing to say about this. But I've completely forgotten so let's go on.

Woody: The moment through which this physicality is in a way slaved on the signal and performs a the display operation, that particular moment the construct, or reconstruction of the frame becomes the physical reality again. Like the conception was the.... these questions are very difficult to...

Jon: But I think it's also to make a distinction here between the time mark, which is a very good expression, and the content. ~~The~~ Time mark is in a sense the only objective aspect of the video screen - of the display, which is that the content, the energy levels at any given point are completely variable. You have an encoding that is subjective in voltages and in relative time ~~positions~~ to the time mark, but you can change it - by turning up the contrast or down the contrast, color is encoded only as a phase which can be anything of course...

Woody: the length of the display, cause we know ~~that~~-
it's dot . ~~We-can-stretch-it-to-50-megacycles-or-~~ W
seconds
It's about 50 microseconds, but we can stretch it to a mile or two feet high

Jon: If we had the goddamn screen to do it - exactly. And so the image beam in video is just something that we can manipulate at our convenience and there is no objectification that image.

Woody: That philosophically is linked to what used to be called direct video synthesizer and indirect video synthesizer which goes to the hardware concept. Of course it's a term which was loosely coined by the West Coast School, especially by Steve ~~Reich~~ Bank, who claimed first direct synthesizer, in fact, Siegel and he was kind of parallel, but what it stresses is that the dipplay is untouchable, the display is done. It obeys in fact the given structure of the television frame, but inner organization of the content, I would say, that means content in the sense of...Again, I don't know if you agree on what I describe as a content because in my sense and your sense, I'm sure - content is not a story, it's not a narrative, in any way, as content is usually referred to. What I see as content... ??

Jon: Well, content is not a system of signification.

Woody: It is a referent ce. It is what I would say time to position. It's the value of the position. That is to say a value has to appear in certain position towards the reference that means horizontality and verticality.

Jon: So to define value - value refers to the energy level relative to the time mark. In display?

Woody: Yea, in display, but it's also in the wave form, encoding process. And what is impprtant about it is to note that ~~his~~ when the time mark changes of course the display will change, that is the content in a way is dead bound to the time mark, at the same time if the content changes towards... I mean if the energy content changes towards the mark, again the decoding process will be artibtary. ??

Jon: Arbitrary but specified.

Woody: But maybe we should speak about what it means, because. I don't know how to name what we are looking at. What we are looking at is ~~the~~ a frame ~~that~~ which is ~~a~~ the cognitive unit. That means it's ~~f~~bound to particular display. But if you violate... if you don't change so to speak the content, but if you violate the positional code, it won't be perceived any more as an image.

Jon: It will not be perceived as a coherence.

Woody: I don't know if it exists through the photography, but it does, because Photography has it's own location, coordinates of a frame - and that is a ~~kind~~ carrier - those two edges, or those four edges ~~as~~ are the confining of a particular time zone.

Jon: ~~no, no~~ Well let's talk about this in slightly different terms. We've been talking about the wave form and the display as something which is referential to an encoding of reality. We speak of reproducing a camera image correctly by use of the various time marks, as a way ~~to~~ for the display to understand the relative values ~~that~~ the positions of the values. But yet when you speak of this you're not referring to the camera encoding but you're referring to the wave form as the only point of reference for all of this.

Woody: So then, let me ask you - What kind of terms do you use in order to describe ~~for~~ the process of encoding the light into energy components like waveforms?

Jon: Well I'm not sure that's really the primary question.

Woody: I think it has some relevance to ~~the~~ what we call the reality or the representation of it. But it should not be relevant to this.

Jon: Well, I think it's relevant in a certain way. I think that the reason that cameras came along before direct synthesis came along is because of ~~was~~ the pressure to have another mode of film that could be transmitted, and so it was convenient to our society... it was natural to our society to create image orthocon tubes with which to encode the reality.

Woody: Okay so we can agree that pre-television, that demand wasn't there of course. There was no demand to put a cultural or real live light code onto a television cathode ray tube. But the period of television brought this particular aspect to the electronic image, but we know that again it's ~~brrigi~~- brought again, radio astronomy and others of course extend that greatly again into a whole different field.

Jon: Let's put it a different way thought. We have in a studio two different processes going on in the standard broadcast television studio. You have the house sync which is a series of time references for essentially everything that goes on in the studio, that is to be encoded by a camera. Then of course you have real life which they're shooting, Jonny Carson, or whatever. So that there are two different elements going on which are brought together on the face of the orthocon tube or the vitilicon? con tube or the ~~cathode-ray~~ tube and it's only at that point that they get meshed, that the two become bound together - become joined and only for the purpose of the encoding and the final ~~encoding and~~ decoding. What it seems to me more relevant to ask about ~~it~~ is whether the primary reference of these-of the temper of the values really exist in what is before the camera, or on face of the the image tube or whether they exist in the wave form, because we know that it's possible to encode pure values and have them appear on a raster coherently and as we had encoded them, and so in a way I tend to think that the referentiality that occurs here is not one that is specifically the camera images, but rather first exists when those time marks and the light values which appear on the face of the image tube mesh, become joined together. So I think that everything that happens prior to that is, in a sense, just a coincidence, and not really critical,... in a sense arbitrary. I'm not really sure that's the proper field

Woody: I would say that there is an interference pattern of light of various densities which is tranlated into...

Jon: Why do you call it an interference pattern?

Woody: Because - unless it's decoded it's very ambiguous. It exists in space with no particular

Jon: But an interference pattern is a very specific term, so it's not that.

Woody: It's all the phasial relationships within this particular point or a plane, which happened to be the surface of this viticon. Of course if you put a lense there, you start organizing it.

Jon: All right, let's just call it pattern. Interference pattern is much more specific

Woody: For me it is an ambiguous interference pattern. Yet of course it does contain all the codes, they're just not specifically decoded for our cognitive process. But once you relate that towards time marks then of course we arrive at - especially if you use the lens - organize that ambiguity provide a cultural construct which is the frame

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Woody: I guess for this discussion, which we may find a few useful terms, I don't know how...

Jon: I think ~~it's~~ - this is actually a very valuable discussion.

Woody: Let's try a little bit more, but the question is are we going to deal with what the image is? Are we going to state with the mechanisms so far? Because you brought a good demand when you came. You had some idea about ~~it~~ the equipment, but I didn't understand what you meant. What did you mean by defining this as a technological - equipment terminology, what did you mean by that?

Jon: I think it's ~~been~~ pretty clear in what we've been talking about. We've been dealing with a number of concepts that have to do with synchronicity, with determination, with encoding and so forth. These are all questions and issues that have come to our mind only because of our involvement in video. Had we been painting, for instance, we would never have considered these...had we been writing poetry, even had we been making movies we probably wouldn't have. Because the modes of operation in video, as arbitrary as they are, nonetheless lead us to ask certain very basic questions which are on their first level only about the equipment, but ~~on a more general level~~ in their second and other levels are much more general and much more probing, actually.

(I skipped the page number 18. Jan)

this is
And ~~that is~~ why I think there's more to be done here, before we go on to... I think that's a much more difficult discussion. I'd ~~Woody~~ also like to discuss sequential and continuous. That's something we really have to pinned down.

Woody: You said before that you don't recognize sequentiality as a continuous process because it's sequence by sequence? That's what you mean? serial?

Jon: When I think of sequence I think of it as discreet units one after the other. Remember when you gave your lecture at Media Study and you were talking about the continuity of video? And I said there's got to be a grain to video because it derives from phospher? This might be where it becomes sequential, but in that encoding, in that wave form you have an absolute continuity which is - that's the problem with sequence, it's in duration, but it's not sequential.

Woody: I see, because I'm maybe always mislead by taking really as a line, as a unit. I haven't arrived to a point so to speak that I could control. It's the first time I'm thinking about it through hardware instead of computer. But sequentiality for me was totally usable in a sense of transmitting a line because then of course we know we have to alter the beam path... we have to go backwards from right to left again and write another line. So the sequentiality of television scan, meaning line by line is fairly useful idea. Also, what It suggested, that a television frame is a construct from one end to the other - speaking from upper left side to bottom right side corner, and that is in itself a time, or a subject of description. You can describe any narrative event, you can actually describe a creating a creation of line by line which resolve then in television raster as you can say about videotaping a half hour tideotape.

Jon: Sure. Except that at no point does that construct of a frame become stabilized. It's always possible to alter the content of that frame while the frame is in process - that field, let's be more specific. So that if I were halfway down the field in the scan and I decide to change a value, there's no point of determination of that until it's over, until it's been decided. It's a completely dynamic concept.

Because it never changes. It never prevents you from altering it This is an absolute distinction from film , of course. So that I think of it as partially in continuity for that reason

Woody: So what would you prefer? Having it continuous? Call frame as continuously formed image? field, or whatever? Or is it sequentially formed image?

Jon: I would think of video as being continuous in virtually every possible way. The wave form that encodes that field is of course continuous. There's no question about this. Right down to the frequency response of the various circuits, in the cameras and processing equipment and so forth, . I also think of it as continuous - so , once it gets to the display, to the monitor it's of course continuous,-there's no question about that.

Woody: That's interesting because of course you are right in the sense that of system - in other words, that's how the system does it, the system continuously performs . But I'm thinking about control. And I can say that I only have control for example over the axis, you know like line scan. Because in fact, field is only perception, of course line is also a perceptual construct. It doesn't exist - travelling kind of one point or kind of larger, because it has to decay and ignite a... But that is important to know what we are looking for because I accepted that frame as a cognitive unit, line is a workable kind of distance, A point in a way is still kind of arbitrary. You know I cannot organize the point unless towards the frame which is usually... I cannot organize what's called content on the basis of point by point control.

Jon: Because you haven't got the mechanisms to give you that control.

Woody: That's right.

Jon: I mean, you do have a keyer, which is a line switcher.

Woody: All right. So let's see what the keyer does. A keyer is a switcher, or works on the basis of that process of a line.

Jon: It switches at a faster frequency than a line.

Woody: It has significant.. We can treat it... A line is a a unit that is the most efficiently affected. That means ~~that~~ we can plot, or a set, a program which will then switch the state of this line. You know, high to low, or gate or other notes. usually from Once you have the external program for it, it is ~~the gate~~, a tool which gives you access to line and...

Jon: Smaller ~~parts~~ portions of a line, yes.

Woody: Of course in some cases, if you program vertical bars then a single line is enough to describe the whole field process. Okay, I can agree with that. It is a tool which does organize the image.

Jon: So you haven't ~~in most cases~~ perhaps efficient, in most cases or for most applications, access to a line, but you do. You have access to very very small time quantities, through the use of a keyer for instance. ~~Woody~~

Woody: This is the line, we're talking about. It's the ~~You can organize~~ esthetics which you can organize through the realization of switching on the line. That means it's a tool which has control over the line.

Jon: That's about it. Except for the computers. But that's okay, because it 's theoretically enough - because it gives you control into the megacycles.

Woody: You get very much in a range of milliseconds. You get into the range of milliseconds. That means a transition, between let's say bright or dark, high or low state of energy is within a millisecond range. By the way color, the color phase is of course very active.

Jon: So what are we talking about now?

Woody: We were talking about tools Maybe we should specify what tools are because I find this interesting because we are the least precise when we go into ... So what other tools do we have?

Jon: We have faders, which are very interesting devices, because what faders allow you to do - well, maybe we should say something in back ground to this which is that there is at least theoretically, an absolute equivalent between any camera image and a pure wave form.

in video, which is extremely important.

Woody: Say that again?

Jon: There's an absolute equivalence between an encoded camera image and a synthesized wave form in video. Which is to say that if I ~~have~~ have a wave form ~~that~~ which is let's say, dark here and then light horizontally and then dark horizontally and then light horizontally and so forth and I'm focussing my camera on this image I'm coming out with a wave form that is ~~let's~~ say a forty-thousand cycles per second which is a sine wave And what I'm doing is I'm producing with that camera that wave form. When I put in a sine wave, directly, ~~through~~ from an oscillator into some ~~kind~~ form of processing equipment that will put sync on it, then what I am doing is that I'm making with synthesizing the absolute equivalence of that wave form, that was my camera image, ~~originally~~ initially. So that there is this equivalence between what's called the real events, and electronic events.

Woody: Real, you're referring to light...

Jon: To light. To light events.

Woody: To light spacial, or light modulating or light organized?

Jon: I'm not sure what the difference between those three terms are. Light spacial, light modulating and light organized. All right, between a light event. An event that occurs outside of the system. And so you have that absolute equivalence. ~~And~~ So given that ~~if~~ then if you have something as absolutely basic as a fader, what you are doing is that you are taking two wave forms and you are deforming them, to choose a word, modifying them. Which gives you the resultant of a single wave form. You can likewise do that with two cameras. In which case when you fade them you are again deforming or modifying two wave forms ~~and~~ so ~~again~~ there is again this absolute equivalence that occurs. And I think that is actually a very elegant idea. That In video you have ~~with~~ through this equivalence a kind of control over an event which is absolutely real, absolutely relevant to the ~~lighting~~ encoding-code. And can be in fact duplicated or resembles any kind of synthesized information. That's all that a mixer is, a fader is.

You can modify these wave forms absolutely real ~~eeer-quantities~~ quantities. ~~coordinates~~. Is this in any way clear?

Woody: What's interesting about it is that - you brought this notion of a wave form into it, which the wave form is the particular expression of the ... I would call a wave form is a program.

Jon: All right, let's call it an oscillation, by the way. I think wave form is not as good.

Woody: Oscillation instead, huh. This is interesting, if you have a static set of bars which are painted, and if you point a camera of course the oscillation will happen because you will scan that and it's ~~going to be~~ suddenly translated into a whole dynamic process. Yet in a sense of a camera wave form, I would always ~~don't~~ apply a term program.

Jon: Why?

Woody: Because even if it's a light pattern or interference pattern or whatever, we call it, it brings with itself a particular program. It brings in fact the model for the display, for the system to perform. It brings a totally supreme principle. The system cannot disobey. Because it's all slaved to the primary event which is that surface.

Jon: You're now referring to the image portion of the video...

Woody: Even energy portion is performed within a system

Jon: But you're referring to the part that's plus, not the part that's minus.

Woody: Again, it's an interesting problem in which video...

Jon: But we've already spoken of these ~~qualities~~ quantities as being arbitrary.

Woody: Then we will have to talk about what it means, ~~the~~ a zero reference and all those things,,, which is a whole different ~~th~~ bag. But anyway, since you brought this idea about a wave form. I have one more remark about the wave form and the program. As I ~~sin~~ see it, since as the wave forms, is it somehow related to the fader idea?

Jon: I tend to think of it not as a program, because a program indicates that it is a formal position, in that you ~~have to find~~ act upon something that is in some sense ~~essential~~. substantial.

Woody: It's induced, or it's composed, you say.

Jon: No, I mean to say that a program is a set of operations, it is not the substance of those operations itself.

Woody: A camera looks out of a window ~~because~~ it takes a program — it's programmed the image itself becomes a program for the system to perform, inevitably.

Jon: This is perhaps the most revealing thing we've said all day, the reason being that we have so devalued cultural content, and computers and programs are a formal set of operations to be acted upon with some substantial values, so as to give you some substantial information after they've been acted upon. In video you devalue (perhaps) the ~~actual~~ cultural content, the actual what the image is , that you speak of that image ~~in~~ as being in fact ~~as being~~ a program. That you've so devalued what the image is so much that what the image is becomes only a set of instructions which have no inherent meaning.

Woody: But it has a ~~problem~~ paradox. I recognize this light/space organized image as so vastly ~~complicate~~-ex that it overshadows any induced content, any formalization. If you deal with a light code on such a small scale as it's own wave or whatever, the smallest modulating element, you find what's called band width so staggering, so superior that that's ~~trouble~~ tabpp for me. I cannot step into that particular domain of imgge. There is no way that could be performed through any system I have. I allocated that as inaccessible for me, out of reach.

Jon: Except that you can see these things through video.

Woody: No, not really.

Jon: You can see megahurz in videoWeedy

Woody: You see wave ~~form~~ length, or the modulating ability of light itself

Jon: Oh, you're referring to the light modulation

Woody: The primary ~~seuce~~ source of command for the system. It's so important to understand. Especially if you ~~talk~~ speak about sphere, I guess. The containment of that light code, the density of a light code is being...

Jon: ~~You mean the angstrom units~~

Woody: Just that the power of ~~time~~ carrying...some alteration that means some change of code. It's unbelievable.

Jon: ~~No but of course, what's unbelievable is believable to-~~ morrow.

Who would have believed that you could see megahurtz thirty years ago? But now we work with megahurz all the time.

Woody: It can be evident that light is a crude medium when you speak about like electron microscopy - it's not enough because the shadow of the negative wave

Jon: The wave length is so large that it doesn't allow you to see what you want to see.

Woody: that is important when you talk about ..... Let's not talk about But also the new recording medium like the disc bank light resolution which would seem to be the highest medium so to speak ...it carries an unbelievable band light.

So that's what I would say I would still put some significance on the complexity of the image, because that is the frontier through which the systems have to bypass - that is the gate - the light modulating abilities is in fact the challenge of any optical electronic system or imaging system. Once this gate is bypassed, then there is a whole different dimension to image which is...

Jon: Which is through the endoding mechanisms of video. I'm also curious because we've been talking so much about light but in fact there is a continuity one is able to see in video, frequencies that are substantially sub-light. One can see 30 hurtz in video as well. One has never been able to see 30 hurtz before. One, It gives a mode of visualization to frequencies that are very large, although sub-light, and frequencies that are very slow.

Woody: Like a whole field exchange?

Jon: Like a whole field exchange. This whole range of electromagnetic frequencies becomes if not concrete, then certainly workable.

Woody: This kind of accessibility to image as a dynamic process, I mean through video is very explicit, striking kind of. That's why were discussing it in a way. because I also ask many questions. Why? Why should we pay attention to video, or why would we put it as a prime medium to film? or photography or painting? In fact that's difficult.

Painting is a highly intellectual process. You are really dealing with a system, so I wouldn't mix ~~video, film~~ I wouldn't associate that with even art processes immediately I would rather a separate ~~one~~ them. So we went through the mixer, we touched the keyer slightly, now the colorizer. Do we have any opinion about colorizer?

Jon: It's such an indirect way to see frequencies that are so fast it seems to be the most arbitrary encoding that exists in video at least in this system, in the American system, that I have very few opinions about colorizerw, actually. Maybe we should explain for the people out there how a colorizer works. Do you want to explain?

Woody: So we would have to go to the basic principle of color encoding or decoding, maybe first. There are three sources in television sets. Three separate sources of light which are filtered so to speak through three separate color filters...

Jon: color phosphers...

Woody: Phosphers It's actually From these primary colors red green and blue then by proper combination achieved through process of encoding and then decoding a full color image. Now what we should say is that it happens at a modulating frequency of 3.5 megahurz, that means every pomponant of the screen has to be active at that frequency of course and that particular frequency is then referenced to the beginning of a line which has to burst which stablizes the internal reference and then decodes the position, or phase shift of that particular...

Jon: Why don't we put it slightly backwards, then, which is that at the beginning of the line there occurs an event ~~which is~~ of three eight to eleven cycles ~~of~~ of a sine wave at a frequency of 3.58 megahurtz which is the reference point for a set of ~~program~~ chroming information ~~which is~~ that exists throughout the picture portion which also occurs at a sine wave of 3.58 megahurtz. And it is the phase reference between the burst which is the reference to the chroma which is the active part ~~which~~ that tells which of the three guns, the red green and blue to send out how strong a beam of electrons the the various color phosphers.

Woody: It's also important to note that it's also an independent process once the line begins it's an inevitable event.

Jon: That's right, there's no way to stop it... Unless you had something that would operate sufficiently rapidly to do it.

Jon: You could actively change the chroma.

Woody: Yea, but then you would have to program that towards the beginning...

Jon: It's inaccessible right now.

Jan: What's a chroma?

Jon: That's a good question.

Woody: We will have to go into a whole terminology. The chroma is in fact an encoding of the subcarrier which is 3.5 megahurtz subcarrier, and it is...that code, each color, each point which contains particular color has...it contains this phase shift,

Jon: Phase reference...

Woody: Phase reference. That means that this particular color code is usually referred to as chroma, and it has three components - shift which is the color hue; it has the amplitude which is usually called saturation and what else does it have? Hue and saturation...

Jon: It has a luminence ~~level~~ value ~~power~~.

Woody: Luminence, right. That's kind of a layer mix of y signal... I don't think we should go into specifics.

Jon: So what happens is that it operates at frequencies that are inherently subdivided from 3.58 megahurtz because it's a phase reference and it's only a very small portion of that frequency. So it gives you in a sense access to very very small time quantities.

Woody: Along the same line I would say that to be conscious of time. I mean the strongest point in working with video was for me the notion that time is a certain physicality, workable. There's a control mode to time. So far, in our households the clock was the most sophisticated time instrument. Now it is the television set. Even if people don't realise it, it's there in every home. It's ticking ~~with~~ its high frequencies ~~and~~ in a great precision. That is almost symbolic meaning to the system that delivers the image is in fact time based. So that means the precision for the perception of time systems - like seconds used to be sacred, even in the last century a second meant a lot of precision. Today a second is an extremely crude event. Then length of ~~an oscillator~~ our screen is about 50 microseconds. So that's how we have to view the television system being in our homes.

Jon:

Even more than ~~that~~ this,

Jon: The electronic digital watches that people wear have a clock that's what, 30 megahurtz or something? People are wearing around these clocks with hugh resolution, but then of course don't realize it because the freqnency is manifested only in seconds or tenths of seconds.

WoodY: That's a good notion. That may be the highest...

Jon: No, this is much higher...chroma. No, perhaps not. So that is higher. It doesn't tell you very much, but it's there (the watch).

Woody: So I would retract that whole statement. It used to be that. The notinn of time as being workable, controllable - I guess that whole aspect of control, I put ~~out chroma~~ as primary instead of the esthetic or resolving ~~one~~ or cognitive one is usually the secondary ~~one~~ for me. I don't know, it depends now because you have ~~we've~~ been concentrating on, I would say content see. You ~~work~~ really work with the content. I was more interested in the construct.

JoN: All right, hold it. Because as I understand it your content was what I would understand~~ing~~ you as meaning by construct. So remember ~~maybe~~ we ~~can~~ had defined content as the energy and position of the beam. So what is construct?

Woody: The construct...First of all, what is content? Content I call a ... a time density. The value of energy component within the time reference of a field. I recognize something as ~~antiamplitude--?-~~ empty frame

Jon: Aha, I thought it was to be of a line (??)

Let's go back, because that's a fundamental misunderstanding here.

Woody: It makes not much difference., except to the cognition. But to the principle it makes no difference. Let me repeat that. I recognize two compo~~e~~nents which I separate philosophically but I didn't ~~re~~ think as an event - which is the empty frame which I call construct, and frame which carries content which is called an image so to speak. But a construct can exist without a content, because it is like a blank film which is a base going through the projector. The base is there, the time location or position location is there. Of course it's devoid of the content...It's not true because there's always some dirt...

Jon: So to clarify the construct is in a sense the formal determination.

Woody: That's right. It's actually identification of each position within a screen as time coordinates. That means if you speak about time coordinates only without the energy content of those, then we arrive at a construct of time. It's time construct of a light. of a television frame.

Jon: The only possible confusion here is if there that's no signal going into your tv set, you're still scanning. It's an organized scan.

Woody: It is an organized scan.

Jon: But it has no relevance to any relative time of any incoming signal.

Woody: But then we are talking about a hierarchy of time relationships. Which in television is the hierarchy of master clock divided into chain slaved, usually, maybe many many, like 12, 15 ~~which is~~ before it reaches in fact your television set. Actually there is a phase shift relationship between the master clock and your received signal, but since it's independently corrected, you eventually receive the same cognitive information except in absolute time relationship it is phase shifted. This chain of time dependencies I still call a construct. It's the very essence, it's the support structure for whatever the content can be.

Jon: All right, but the construct doesn't have to be realized to be a construct.

Woody: But the construct can become a content. You can take a frame which I would say is an empty frame...

Jon: Well, the content exists within the construct.

Woody: Let me put it this way. If you display only a construct, which is line-by-line frame, field, you can recognize... you man make it transparent to your system by arbitrating the energy level to zero. You can set up ~~the~~ your energy level throughout the system on zero. It won't manifest because it will become transparent. The system won't display it., because there won't be any energy to display. You can also violate that zero state and bring some arbitrary or ~~higher-amount~~ of energy or larger amount into the same state which is no actual content of image, and suddenly the empty frame will manifest as image, will provide a surface, will be a construct for a frame.

And once we put it on scan processor, that frame, that construct which it was until now a tranpparent utility, becomes in fact a content ready to be esthetically, for example, formulated. To be a subject of manipulation or control. And then in that dimension, which is only adding, not changing the content, but adding a control, the content is created. That's ~~was~~ what was astonishing to me that I could suddenly take the empty or no-content and treat it as a content.

Jon: I think that you're taking what your content is and you're.. It's funny. When you put it on a scan processor you're taking your content and you're turning it into not only the hardware content but some kind of cultural content. Because it becomes a cultural content for the hardware content of the scan processor.

Woody: That's an interesting point. Becuase you re-scan it and ~~then~~ you add in fact another frame on it. Which becomes the empty frame again, But of course since the camera takes this previously empty frame as the content of that frame it's a figure/ground relationship. Or it's a hierarchy. So in that case just transposing a construct it could commute between content and construct

Jon: In a sense, a scan processor, because it has no absolute parameters unlike a standard monitor or tv set, has nothing which can clearly be called content. Whatever you put on the scan processor becomes by the nature of the variety of manipulations, something which becomes cultural. whereas You don't have this in a standard monitor. The fact of the control, which is a very interesting kind of dynamics- that fact of the variety of control you have on it, the fact of nothing at all being decided for you on the scan processor - turns the smallest bit of luminence into a major cultural .....

Woody: That's exactly interesting. So you would then agree that the control is the content?

Jon: Well, that is not exactly what I said. I would say that the realization of control becomes the content.

Woody: I have great difficultmes ~~in~~ with deciding in which way the control...

The control is the most significant element of the work that I'm trying to do. Yet of course I envied (??) a lot of control led content which reminds me always some kind of traditional element which is in a way . That's in where the whole idea of investigation fails.

Jon: That's a question of purity more than anything.

Woody: Not purity. It is to decide what is a relevant product It's kind of a justification of your attitudes towards ~~your~~ working with the medium, assuming some professional image-making and of course you assume that some or all are producing in fact. So we touched somehow the scan processor.

Jon: But you haven't really specified what you were going to say about construct there.

Woody: The construct. I have a very mechanistic idea about it. It is as basic as building an object or a house. If you want to represent a frame of information or a frame of a workable surface, and if you have one point of energy at one time, then you come to the particular work e,dilemma, of constructing somehow the frame. You actively position this energy, and since you have on hand either electromagnetic environment or electro-static environment you provide the kinetic forces through those electromagnetic or electrostatic forces. The signal itself is only a mere organization of particular elements, of time marks.

Jon: Say that again, in different words.

Woody: Of course nothing is primary, nothing is secondary. It is a system so it has to be understood as unity, but once we have constructed time marks, I mean a signal which is containing every element of a frame, then we have on hur hand a display w with electromagnetic or electrostatic conditions, which we employ - a secondary system. We have a primary system which organizes the image or whatever - a signal - and then we have a secondary one which is the external

which means the electromagnetic or electrostatic forces which then suspend or guide or construct physically manifest this internally organized signal. And that is important because there is a labor involved, a certain way in which this metaphysical property called the signal is displayed, put together, actually constructed. The construct is not only a reconstruction of what was originally recorded, but if you sit down with an empty table and you're supposed to think how to conceive such a frame, you in fact are involved in the active construct of an image which applies today since it's done, it applies to a different type of image. If you say how do you put a three-dimensional image into a space, you have to sit down and construct such an image. And so that's my term to a construct which I apply to the actual meaning or the actual existence of such a frame, such an image, regardless of its content.

Jon: It's cultural content.

Woody: Even informational content, I still recognize television frame as a construct which has no , can exist with no content whatsoever. It does not even have to be displayed in order to exist.

Jon: What does it indicate to us?

Woody: It indicates that there is a relationship between a code, and its physical manifestation in space. It's a system which provides us with actual interface.

Jon: It also gives us a kind of stability within a range of possibilities that are immensely broad. It's a construct for our perceptions, It's a construct for our cognitions,

Woody: The question, is, it has been modeled to these needs from a more pure state which we describe as cathode ray tube events, pre-television. That was kind of more free state, now we have confined it by building a television frame as a cultural construct. We have constructed the cognitive cultural unit called a frame which we then utilize for traditional frame communication.

Jon:

Jon: But it also gives us a construct known as scanning. That is I think pretty critical, because we now know that we scan with our eyes all the time, That we scan in a way that is ~~completely~~ of course absolutely disorganized , a way that only the immensely complex ~~organising~~ encoding mechanisms of our minds can possibly re-construct into an ~~appearance~~ coherence of reality. We know that it's only through correllation with things like touch and hearing, otherwise we'd have no foundation from which to have faith in our eyes. I can see and touch at the same time. I can see and hear, I can construct space with my ears as well as with my eyes. We have this model of a scan in this, which is in a sense arbitrary because there is first of all no reason why you have to scan in a straight line, there is certainly no reason that I have to scan from left to right, there is no reason why the scan has to be organized, and it will not be, conceivably when completely digital technology comes in. But we have the model ~~of the~~ for reconstruction of the scene of of the wave form of an encoding. We have a visualization and this gives us perhaps a huge number of possibilities for ...forget it, this is too off the wall. It's completely off the wall.

Woody: What's important is that a television is forced to continu~~ing~~ously display all it's territory. It's continuously forming a space, ~~in the~~ I mean a frame, regardless, ~~it is~~ if its necessary. As you said, you have a choice with your mind to scan at your will, if you like certain information about the space in which you live provided by what you may call meaningless scan, or arbitrary or accidental. It probably has some significance. There is ~~probably~~ some inner reasoning maybe.

Jon: Let's also say something else. The scan of our eyes is based on, ~~feed-~~ is a feedback loop. I mean, I see something and I scan it, point of interest, my scan in my eyes is controlled in various ways; one, through what I see, what catches my vision, what moves

then of course in at least one model of cognition, it desired to complete the information that I had ~~seen~~ perceived in the scene to satisfy a framework that I have a priori to the actual scene. But the television scan is one that continues absolutely regardless of what's in front of it. It's a constructed visualization of reality which has in a sense absolutely nothing to do with the reality it's perceiving.

Woody: That's interesting, ~~but~~ because you see that's very wasteful, you see if you study systems and you find that there's this ~~thing~~ system that continuously creates this structure regardless of it's content so to speak.

END OF TAPE ONE SIDE TWO

Woody: I guess what's interesting about this economy, of the band width, of the creating of a ~~level~~ lot of information by most economic means, in fact the satellite scan is done sometimes the word significance of the subjects.

Jon: You mean surveillance operations?

Woody: I'm talking about systems that don't evaluate frame structures. Man of course insists, ~~instatantly~~ insistantly gets caught into reading frame. Of course there are also other ways of reading information which is numerical.

Jon: Then you are talking about satellites, I mean, orbiting satellites...

Woody: A lot of work, like in metallurgy and others is done by scan. An active scan, which is a beam of usually light that scan through a particular area, then once the significance is established it rescans only that particular area and not in a particular framer way. It could be done in an arbitrary or relevant way towards the goal. And that's where it becomes extremely important that the reasoning - this command of a structure for the reason is done then regardless of the cognitive process of man.

SCAN DEFINE TO COGNIZE INFORMANCE OF SATELLITE SCAN

Jon: But it's a kind of reasoning in the same way.

Woody: Yes, But. Lately I've been thinking about how to construct automated production facility. Because I found out that to produce ourselves visually is almost impossible. Let's say for me in this stage when I'm involved in something I have no capacity, no urge to be able to monitor in fact, what's happening. And I also found out that not many people can in fact operate like a camera subcessfully. There are some people that can ~~do it~~ never operate ~~like~~ cameras. Then I've been thinking about what it is to construct a system in which you walk in and you're produced or done, switched. I found out there are many ways of tracing human bodies, through heat, for example, through sound emitting, to set up whole syntactic possibilities of switching, zooming, focussing, In a way, producing.

post-produced,

Jon: Based upon independent variables.

Woody: How much of a basic intelligence would it take to imprint or initiate some dramatic, cognitive/dramatic structure on it

in time. I found out that all the components, that there are many more components that say man can operate cameras with. Because man has ~~actually~~ few actual factual clues because there's a lot of other intuitive, intelligent. But to be able to just record a scene and create relevant content from components which are programmed must be a whole new revelation, must be a whole ~~new~~ different way of looking at reality.

Jon: More to the point is to record a scene based ~~on~~ upon information that to our basic mechanisms is invisible.

Woody: Or be observed in a system which is not deadlocked culturally into habits or preferences or ~~communications~~ beautifications which really has a very shrewd, exact and elaborate approach. It think that is very important to have such an entity existing - probably eventually can change our way of producing. In that particular moment I found that the possibility of dealing with intelligent systems as a way of looking at events is interesting. Well, that took us further from this all.

THE END

DEFINE AFTER