TAKE III, KEY TO THE SYSTEM

FRANK: The key has 4 or rather, in actuality, 4 variables. An 'E' is a variable only available in the number 4 system or the super system. 'A' is live tape, or rather, live feed, and 'A' has 6 parts or 6 possibilities. Camera 1, camera 2, camera 3, camera 4, camera 5 and camera 6. 'B' refers to tape and there are 4 tape programs. Program 'a', 'ba', 'bb', 'bc', 'bd'.

HARVEY: I see, a,b,c,d, but tape also refers to anything we put on the tape, which can be stills, motion picture, type, anything.

FRANK: Right, anything you can put on that tape is included in one of those four programs. 'C' refers to color tape and 'D' refers to the 10 second delay image. Now, that 10 second delay image goes back to 'A', it can be 10 second delay from camera 1, 10 second delay from camera 2,3,4,5, or 6, and that's the key.

HARVEY: What's the last thing that you didn't mention?

FRANK: 'E' is a matting capability, which is only available is system 4.

HARVEY: Matting meaning ...?

FRANK: Matting meaning that, for example, you can have tape matted over with live image or a live image matted in with tape.

HARVEY: We can't do that because of switching?

FRANK: Right, that requires an introduction of new circuitry.

HARVEY: I think it's too soon for that, anyhow.

FRANK: That's extraneous to everything else excpet system 4. The following diagrams are non-randomly selected possibilities given the circuitry we're going to produce. (This is a continuation of the input mixes). Only, this time, a new factor is added -- split screen.. and, this will be a horizontal split, this would be a diagonal split, this would be a vertical split.

HARVEY: We should have recorded this whole, bloody explanation!

FRANK: Further continuation - of input mixes - this could be live, delayed, live from camera 3, delayed from camera 4, delayed from camera 5, live from camera 6. That ends the input mixes. Now, we come to overlap. You can overlap live from camera 1, over delay from camera 6, and then you can switch to tape 'b', exchanging the tape 'a'.

EXPLANATION OF DIAGRAMS

FRANK:

(continued) Prior to the explanation of diagrams, let me re-read the key. The key is as follows: 'A' is live feed - there are 6 possibilities on live feed - camera 1, camera 2, camera 3, camera 4, camera 5 and camera 6. 'B' is tape input - four possibilities labeles A,B,C, and D. 'C' is color tape and 'D' is 10-second delay -- again, six possibilities from camera 1,2,3,4,5 and 6.

DIAGRAM 1 - is the simplist exchange cycle - it refers to monitors 5,6,7 and 8 as a cluster or 9,10,11 and 12 as a cluster. Each one of the clusters can be expanded by a factor of 4. Every 20 seconds, tape 'A' exchanges places with tape 'B', exchanges places with tape 'C', exchanges places with tape 'D', re-cycled to tape 'A'. On any of these 4 cluster monitors, 5 through 8 or 9 through 12. That's the simplist.

HARVEY: What has happened to 1 through 4?

FRANK: 1 through 4, as I said before, can be explained in reference to diagram 1 by diagram 7, which explains that 1 through 4 or any quantative factor after 4 is a constant feed of the non-switching, constant feed of the tape inputs - 'A' on monitor 1, 'B' on monitor 2, 'C' on monitor 3 and 'D' on monitor 4. These are constant inputs, and they are re-cycled in a staggered fashion, so you don't have a hole in the system.

HARVEY: I'm still not clear. The cycles are on these groups of monitors, but the group of monitors I through 4 are taking direct program material continuously. Oh, I see, and then it is a delay on this section and a further delay on this section. I understand, okay ...

FRANK: And them to Diagram 2 - which is live feedback/tape input exchange, that is to say, it is the combination of live feed and tape input in an exchange circuitry. For example, monitors 9 through 12. This is also possible on monitors 5 through 8. This is not possible on monitors 1 through 4 or on monitors 13 and 14, which will be explained later. Monitors 9 through 12, for example, you have to switch every 20 seconds - you switch tape 'A' to live from camera 1, back to tape 'A' to live from camera 2, back to tape 'A', to delayed on any one of, in this case, delayed camera 1, back to tape 'A', delayed to camera 1, then you switch to tape 'B' to live from camera 5, back to tape 'B', live from camera 6, and tape 'B', delayed back to tape 'B', and then a delay from camera 2.

To continue on - Diagram 3 - you have tape 'C' being exchanged with live from camera 3, back to tape 'C' to live from camera 4 to tape 'C' with a delayed image from camera 5 to tape 'C' to delayed image from camera 5 to tape 'D' to live feedback from camera 5 to tape 'D' to live feed back from camera 6 to tape 'D' to delayed image from camera 6 - a full cycle is d minutes. That is to say, this circuitry pattern - the entire thing - is over in 8 minutes. Diagram 4 - this refers to simultaneous input variables - at any one given period of time over a 30 second period. Monitors 5 through 12 are thusly described. In the first 10 seconds of the circuitry pattern, you have live on camera 1, live on camera 2, tape 'C', tape 'D', delayed on camera 6, and delayed on camera 1. For example, the second 10 seconds or the 20 seconds into the circuitry pattern, you have tape 'A' with delayed from camera 1, live from camera 3, delayed from camera 5, live from camera 1, back to tape 'B' - in the last third of the circuitry pattern, you have delayed from camera 2, tape from tape 'D', delayed from camera 4, live from camera 6, tape from tape 'B' and live from camera 5. That full cycle requires 3 minutes. In other words, it will repeat itself over a 3-minute period.

HARVEY: We could take a piece of input that we had 4 - three minute tapes of, and program it into this cycle.

FRANK: That's correct.

HARVEY: And, these cycles are of a sense you can make anykind of cycles you want, or whatever you may think is appropriate for the particular material.

FRANK: All the diagrams refer to non-randomly selected possibilities of the system. In other words, I just didn't pick these selections out of the air.

HARVEY: This is built into the system, so that we select a sequence to fit the material that we think it belongs in - or vice versa.

FRANK: It can be live from any one of the cameras.

HARVEY: While this is built into the system...

FRANK: Each one of these points represents a variable aside from the example it represents.

HARVEY: But the actual switching is not a variable.

FRANK: No.

HARVEY: The switching is built in, and we can feed into it from any camera or any tape. That is a constant variable.

FRANK: Diagram 5 - refers to the composition on the screen. Thusly, you can have a full screen with any one of 6 live feedbacks - you can have a full screen with any one of 4 tape feedbacks. You can have a full screen with any one of 6 delayed images. You can have a screen diagonally composed from lower left to upper right, with live feed any one of the 6 possibilities sharing the composition with a tape input with any one of 4 possibilities.

HARVEY: You can divide the screen into 2 verticals, 2 horizontals, or 2 diagonals or whole screen.

FRANK: These are all the screen composition capabilities. That's on both video projectors and any of these two clusters of monitors or any factor thereof.

FRANK: Diagram 6 - this is a 3 possible inputs for the video projector, each one of them having different components. The first example is a switching mechanism from tape on, let's say, 2 seconds, not 20, tape 'A' for 2 seconds to live for 1 second from camera 1, back to tape 'B' for 2 seconds live to camera 2 for 1 second, back to tape 'C' for 1 second, live to camera 5 for 2 seconds - you would reverse the pattern, back to tape 'D' for 10 seconds to live camera 6 for 20 re-cycle or, live delayed - live for 2 seconds, delayed for 1. Live from camera 1, delayed from camera 1 - live from camera 2, delayed from camera 2, live from 3, delayed from 3, live from 4, delayed from 4, live from 5, delayed from 5, live from 6, delayed from 6. That's the second variable -- you understand the quality of distinction between the two. is live and delayed, this is tape and live the third is tape and delayed - so you have tape, live - live delay - delayed tape and live combined. In the third case, you have tape 'A' fro 1 second delayed from camera 6 for 10, rather for 1, or then switching to live from camera 6 to tape 'B' for 1, back to delayed from camera 5 to live from camera 5, back to tape 'C' for 1 second and then delayed from camera 2 - you understand the exhaustion of variables. But, you have three distinct territories of variables being explained in Diagram

Inputs to monitors 1,2,3, and 4 - this is what we explained prior to this.

HARVEY: . Is this your entire program.

FRANK: Right.

HARVEY: And we can give it as much as 40 minutes. After 40 minutes, it starts all over again.

FRANK: You have 160 minutes maximum programming. This is in the black and white system. In the color, you have another 40 minutes.

HARVEY: But, we're running all 4 simultaneously, aren't we?

FRANK: Yes, all 4 simultaneously, only they are re-cycled 15 seconds apart. When you re-cycle, don't re-cycle all at once, or else you have a temporal hole in the system. The period it takes for each one of the machines to re-cycle. Figure one minute of rewinding for every stagger.

Diagram 8 refers to input mixes as opposed to exchanges. For example, monitors 5 through 8 you can have live from camera 1, exchanging with tape 'A' - live from camera 2 exchanging. This is all simultaneous now, all happening at the same time, and you can time - I have a 40 minute second mix exchange. You can vary that - you can bring it all the way down to 4 seconds - 4 seconds would be too little. You can bring it down to about 8 seconds. That's the least you could do - I have it for 40.

HARVEY: This is the switching sequence?

FRANK: These are mixing sequences - not switching. By mixing, I mean an exchange like this kind of - get back to Diagram 1 - for comparison. It illustrates your comparison. In this you have tape 'A' moving across, tape 'E' moving across, like a ferris wheel of information. This you have a pulsating - moving back and forth - now that's one set of variables in diagram A, another set of variables in diagram 9. In diagram 9, the distinction is that you have one program on 2 monitors, while you have a different display on live feed. Delayed from 3 and 4, on 8 and 11, which is showing A and B, and live from 2 on 12 and live from 1 on 7.

FRANK: On Diagram 10, where you have all your tapes going directly into the monitors simultaneously, but on the live input side, you have a split screen. In other words, on monitor 9 switching with program 'A', you have a split horizontal.

HARVEY: 1 and 2 are on 9, and that alternates with tape 'A'.

FRANK: Any period you want, but you shouldn't go below, let's say, 2 seconds. This would be a diagonal split, horizontal split. These are more variables on the input mixes. You can take that concept over here, that's diagram 11. Ok?

HARVEY: Just one thing I wanted to see. There was a split ... Oh, I see, you're putting 2 in a split screen.

FRANK: Diagram 12 refers to the overlap variables or double image on monitors 5 through 12. For example, you can have exchanging live from camera 1 overlapping with the delay image from camera 6.

HARVEY: What do you mean overlapping?

FRANK: Literally, overlapping. You have the two on this screen at the same time.

HARVEY: I see, ok, great.

FRANK: Then, you have 2 from live to 5 from delayed - 3 from live over or with - they are not exactly over, they are with each other - overlapping on the screen - and 1 and 2. This refers to Diagram 12, and this exchanges with 'B' and 'A'. 'C' or 'B', 'D' or 'C', or 'A' or 'D' - all the variables. The final diagram - diagram 13, is a non-scale, floor plan. On one of the extreme walls, this is one possibility - somewhere you have a video-projector

FRANK: (continued) with all those inputs, you have helically distributed monitors 1,2,3 4 or any quantatative factor after that, which are a constant feed from A,B,C and D. Right? you have monitors 5,6,7,8,9,10,11 and 12, on variation of all these inputs. Okay? A - 5 is a rotating camera, which is fed back on 14. In other words, this would be a wide-angle lens of this entire half of the environment. And, that would be fed on that end going out on monitor 14. This is a wide-angle lens of this half of the environment, which would be fed out on monitor 13. So, it's like seeing through the other side of the environment through the screen. And A-2 and A-1 would refer to automatic zoom cameras which would place in the system. Monitors 15,16, 17,18,19 and 20 are color tape. Their variables are described thusly. Broken down into 4 points: 1) a constant program feed. These are the color system variables - in other words, all of the 6 color monitors receiving the information from the 1-color VTR in a constant feed. 2) a total grid saturation of 6 monitors - that is to say, that all 6 monitors are all at once giving the same information. The constant program feed is that you can have part of the constant feed to the color system, giving live feed from a color monitor on color monitors. That is to say, the color systems will accept momochromatic - red, green or blue, of live feed of audience. 3) refers to the flux pattern.

HARVEY: Total grid saturation is all of the tape, is that what you mean? Off the color tape?

FRANK: Constant program feed is that you have all the monitors doing any one of the 2,3, or 4. The flux pattern refers to the simple circuitry moving from A,B,C,D,E and F.

HARVEY: In other words, moving from tape to live to tape to live to tape to live. Very good. It seems to me that on the basis of all this ... how much of this have you been familiar with in your designing up to now?

"THEATRE OF THE MEDIA"

Total theatre of the electronic decade... interpenetrating structure ... audience ... you ... I ... we ... they ... co-habit a freeform structured space ... light ... thin ... spidery ... structure ... honeycomb ... tensegrity structure ... players ... people ... media ... T.V.... monitors ... T.V. playbacks ... T.V. cameras ... projection screens ... you are everywhere ... drama is inside/outside ... televised ... microcosm is macrocosm ... all senses involved ... tactile platforms ... inflatable stages ... multi-hued projections ... voices ... sounds ... emotions ... intermingle all senses ... all elements ... you ... I ... we ... they ... share the Godhead ...

theatre of media is Creator ... omnipotent
... omniscient ... total tune in of senses
... studio control center turned inside
out ... proscenium ... arena ... stage
inverted ... toppled ... reversed ... you
... I ... we ... they ... all together ...
our chorus is their ambience ... our presence
fragmented ... their performance separated
... all are one ... one for all ... dressing
room ... laboratory ... set ... stage ...
studio ... the action, acted on ... the total
instrument ... total theatre ... media
become genie ... magician ... conjurer ...

TOTAL MEDIA THEATRE

All media are present. The real world and the fantasy world, you and I, we and they ... share past and present. We are a tribe. We create our collective unconscious. Television monitors surround us. Video cameras record replay, select, project. I and you are disoriented, detached from reality in a super-reality, confronted by total communication feedback.

Players, musicians, images, sound tapes, envelop us. We and they share an expanding awareness. I and you are brothers, friends, lovers and children. We and they project a mosaic of shared human experience, shared human poetry.

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We discharge the energy of our collective unconscious. Our tribe is numberless.

We create the world anew. We share the omnipotence of the Godhead ...

the ecstasy of Dionysius.

You and I are oracle and fate, lovers and murderers, children and wise men.

We are electronic and human ... flesh and machine ... seer and seen ... many and unity.

You, I, we and they are one with the earth.

Many with multitudes, alone in myself, together in present, past and future.

I see, you hear, we smell and touch together.

We are the enchanted children of the magic media...

TELEVISION TAKE I

HARVEY: Frank, a few minutes ago you said that the use of television that we're going to make is very different than the way television has been used, and you compared it to the difference between thinking the earth is flat and finding out that it's round. Would you explain that, please.

FRANK: The premise behind the system is that all communication is essentially environment and all environment is essentially communication. The distinction between communication and environment is one of description. It's that which you choose to describe in the environment that you describe as communication. It's that which you choose to describe in terms of environment that is environment. In other words, you're as much a piece of information as tomorrow morning's headlines. Tomorrow morning's headline is as much a piece of environment as a wall. Communication is environment -- environment is communication. The system we are going to try to introduce is an attempt to fuse the two -- make the entire environment total conscious information and the entire information the entire environment -- relinquish the distinctions between information and environment. Have them read as one. This is a departure from the usual understanding of information taking place in an environment. It is a total systems approach. The entirety of the environment is the entirety of the communication. The entirety of the communication is the entirety of the environment. One is the other

HARVEY: Is this another way of saying that medium is the message?

FRANK: More accurately, it is saying the message is the medium. The reverse is important.

DALE: What does the reverse mean?

FRANK: The real point is not that the medium is the message but that the message --- the real message --- the thing that actually registers in the skull, is stored in the memory bank and is fed into your responses in the future is the message and that message constitutes the medium. The medium in this case is television. Television will be one with the environment, and that environment will be totally information. So, information is conveyed through the total environment, which is understood as communication.

HARVEY: You're describing what you say information is, I take it.

I'm trying to re-describe or re-define information in terms of ... what I'm discussing now is essentially the premise. I've not yet introduced any detailes of how this premise is manifested -- I'm speaking of merely the premise. The premise is that you re-educate people to understand that their environment is information. That all communication -- information is the stuff of communication -- all environment communicates. It is a question of at what point you find it useful to demarcate and say thats information or thats communication and thats environment. environment is communication and vice versa. One thing - they are the contiguous surface of our senses. That's it. Now, information is detailed environment, you might say. That's the continuation of the premise ... that any piece of information is a detail of the total environment.

FRANK (continued): Now, if you can develop a system of conveying specific information in such a way that is fuses with a sense of the total environment, that the entire environment becomes the information conveyed, not little specks of information flowing through a point of the environment -- for example, when you enter a living room in the average home, there's no sense of a total environment because the television sits in one corner and all the information seems to be flowing out of that corner into the room. In this case, the entire room seems to become as important as the television set and its continuous flow of information.

HARVEY: The case you're talking about is what?

FRANK: It is the information structure for American Can, specifically. The capabilities of that information structure I'll enumerate now, unless it's too premature.

HARVEY: What you're saying, as I understand it, and the way in which what we are doing differs from a television set in a room, you said that a television set in a room is a point in the environment of the room from which information is coming, but it is not the actual environment.

FRANK: No, its an overemphasis on one point, one coordinate, one component, in the entire environment. It's a bad way to receive information. Information is intrinsically environmental, the nature of the information is such that it is discontinuous. There is no sequential continuity to it. That's how we receive all our information about the world it is discontinuous - you pick up patterns - they conflict with other patterns -- these patterns are synthesized -- it is in a constant discontinuous process.

FRANK (continued): People who think in terms of continuity in information usually are rendered obsolete. An example is during the 40's, during the war, there was a shortage of news print - newspapers. Two major newspapers in New York had a choice - how were they going to handle this scarcity of newsprint? The Herald-Tribune decided that it would use its newsprint for advertising. The New York Times used it for news. Today, news being a discontinuous flow of information - advertising or advertising copy being a continuous flow of information - being sequential. The Herald-Tribune is obsolete. The New York Times is thriving.

HARVEY: Than, what you are saying is that the information structure will present information in a kind of mosaic - or natural form that a newspaper does, and that we are all accustomed to. The front page of a newspaper is continuous information.

FRANK: Right, a newspaper is a metaphor now. It has to be understood as a distinct model of the system we are premising. Let me continue with that metaphor .. I think it will render further understanding. The way a newspaper presents information, is it has a tacit key the way a story is headlined - the kind of typography that is used in the headline. The italics or large, bold - these are all pattern points. They introduce an immediate pattern, in other words, they force you to recognize a pattern. The pattern of the information that is being conveyed is triggered off by the typography, by the size of the typography, by the pithiness of the first line, and so on. It is this recognition that discontinuity renders real, that is to say, you

FRANK (continued): have all this discontinuous information. You cannot digest it ... you cannot consume it in a sequential fashion. So, what happens is more or less, all this continuous information kind of like piles up in front of you and you can't handle this sequentially, so you are immediately forced to make patterns, and these patterns drain your sense of information --- drain you realization of what you've consumed, up to a high level of understanding. It's like riding along in a desert in a car, and only understanding where you are on the road, and then looking at a map -- and understanding the entire pattern of where you're going, where you've been and what you're adjacent to.

HARVEY: Oh, that's beautiful. Then the information structure is going to reveal patterns as opposed to linear sequences, and the advantage of that is that it will help you to position yourself in a larger frame of reference.

FRANK: It will unconsciously ... not only consciously ... but unconsciously provide the viewer with the means and necessary means to make pattern recognition. Even if someone went in there determined to receive information in sequential, continuous flows, he would not be able to. He would be re-educated by the environment - the environment being a total communication -- the total communication being information processes and subject.

HARVEY: In other words, the computer is a recognizer of patterns as opposed to linear information?

FRANK: A computer compiles patterns -retranslates them into an interface mechanism
and serves them out in terms of tape or cards.
Yes, to that extent, it is.

JOHN: Another point is that the information structure when it is considered on an environmental scale, the way we're using them, is going to interface the person in the information flow. So, not only is this pattern recognition of the information flow, but he's part of it. He's in effect, becoming a substansive part of the pattern.

FRANK: Let me illustrate that, tying it in with something I said before. It's a physical demonstration that you, when you're in this environment, that you are as much a piece of environment as the walls in this building.

HARVEY: This is why, in our information structure, we are going to use live cameras, so that not only are you going to be fed information that has already been programmed, but be fed information about yourself.

FRANK: You are going to be feeding that which is receiving the information, and in other words, you're going to implode the viewer, implode the audience -- he's going to be under the recognition, he's going to be under the impact of the recognition that he, too, is information, and this is not a demeaning factor. This is a liberating factor, because it accelerates and illustrates and underlines the effect of the discontinuous nature of information, and thereby his own recognition, however it's articulated by each member in the audience, that he's receiving patterns, he's understanding things in patterns in wholes, as opposed to sequential parts, which he digests linearly - if that makes any sense.

HARVEY: Yes, so the information structure is a means of educating the viewer as a byproduct of involving the viewer.

FRANK: It's the central part of it -- the viewer, the audience - the entire environment is built around the audience. No conception or coordinate part of the environment is considered separate from or prior to the presense of the audience. It's not an abstracted system that's implanted and then, unexpectedly the audience is to respond. The entire system is designed, all diagrams are designed to incorporate immediately the audience in the entirety of the environment... to make him realize that he is as much a part of the environment as any of the people in the exhibit ... it's not didactic ... it's a non-didactic method for re-educating.

HARVEY: You're reinforcing what all audiences are really becoming aware of -- the fact of the --- of sitting in front of your television set and watching the men on the moon -- I think made everyone aware that there was no gulf between what was happening and their perception of it.

FRANK: That's right -- except for a matter of something less than a second - the time it took the signals to be received at receiving stations, one and a half seconds delay.

HARVEY: Also, the men on the moon were not doing it in isolation, as all previously had been done.

FRANK: In the past, all discoveries like Byrd at the North Pole or Edmond Hillary's conquering of Mt. Everest, were done in isolation and privacy. And, therefore, they had to reconfirm their experience along back to the public --- back to the public world --- while the two astronauts on the moon ... the entire planet was confirming their experience at the same time they were experiencing it.

FRANK (continued): It's a completely and entirely new introduction to the human experience... that the entire race, the entire species is making these moves ... to the extent that it is confirming their experiences. These astronauts didn't have to go to the moon and then come back and describe their experience - we saw that. We eliminate the middle man in description, but the thing that's reinforcing about that is the confirmation of experience which is an important element in human determination.

JOHN: It's interesting that along with this the New York Times attempted in the Monday edition of the Times to present an information grid - now they did it in a linear manner which rendered it really ineffective, but the attempt was there, and the attempt was this. They said while man lands on the moon, what is happening on the earth? and they gave you a whole page of bits of information of around the country people. Some guys sitting on a fence in Iowa, but it was presented in a linear manner which was not effective. But, if this were done through a video grid, the impact would have been exactly simultaneous inputs.

HARVEY: In other words, one could almost imagine being in a huge hall, filled with teleivsion screens, and seeing what was happening all over the world at the same time as you were seeing what was happening on the moon.

FRANK: It is technically possible to build a system which would not be as exhaustive as described, but is representative. You could build an information structure which would include inputs from all over the world simultaneously. The main attraction which would be, let's say, the landing on the moon.

JOHN: But, certainly the analogy applies to what we're doing with American Can... where you can feed in simultaneous inputs and information which are related only, let's say, in an abstract way, not related directly -- like the man in Iowa has no direct relationship to the guys walking on the moon except that, in effect, he's part of the human race, which is conceived at this moment, which has reached 1969 - he's in Iowa, and this man is on the moon. And, we can use the same configurations, the same grid patterns, notions in inputting information into our structures.

HARVEY: It was interesting what you said about the Times attempting to do something after the fact. After Pearl Harbor, for instance, you grabbed a newspaper the next morning and you found out what happened - but after the moon thing, the newspaper came as something of an anti-climax.

FRANK: The difference is that during the Pearl Harbor period, you read the newspaper to find out what happened, but now, you read the newspaper to see how the newspaper handles information you already know.

HARVEY: ... to see how they tell you what you already know, anyhow.

DALE: How does the audience, the world audience, how does it get information when it's viewing the astronauts on the moon?

FRANK: Because, it's part of the total environment which they are demarcating as a receiver. The receiver, the thing that's having the input come in a is as much a peice of the environment

FRANK (continued): as the thing that's coming in. Environment is communication. You're communicating by receiving ... environment is communication - communication is the totality of all information, so therefore, he is as much a piece of communication or information as ...

HARVEY: That makes very clear to me what you meant by saying the world is flat until you know that it's round. Now I begin to understand what you mean by saying we or the audience, or whatever you want, is information as well as information that is presented to an audience, that is, all interconnected.

FRANK: It's a whole system.

HARVEY: It is a whole system. What I want to know next is how practically do we use the information structure we're talking about to present information?

By getting down, let's say, that among the things that the information structure will do will be a three-dimensional reality of its own premise. For example, in geometry or in mathmatics, the premise is usually a picture, an abstract picture, of all the extensions and all the possibilities of the idea behind the premise - the axiom. It takes care of everything in the simplist fashion. The information structure will be at the same time that it is the conveyance of information which is demarcated as such' -- it is specified -- specialized information and it's in a discontinuous flow. It would be also a model of how to present information. It will be the prototype of what it is and, at the same time, will be more advanced than the prototype. But its embryonic nature will be -- it's as if you could view something in all its fetal stages and then see it at birth.

HARVEY: For instance, in the use of the information structure as we are conceiving it to show the Apollo flight to the moon, or show the space program, we're in a position, with the information structure, to do what the television networks at that time were unable to do, which is show the event itself and the reaction to the event and the involvement of everybody in the world.

JOHN: It's a simultaneous input of information.

FRANK: We can structure it as the pattern -let me rephrase that the advantage of the system
we introduce here is that it isn't in any way
concealed. It doesn't in any way embellish
its own components. It's right down to its
bone ... there's no embellishment at all. It
is a lean, well wrought system. It's sinewy ..
it's economic ... in fact, elegant in its
connections --- there's no fat. Every piece
is a piece of information that reinforces the
pattern in this continuity of information,
thereby forcing pattern recognition on the
part of the audience.

JOHN: You asked a specific question before which I wanted to answer. You said, what is the practical benefit of using an information structure, let's say, in the American Can Exhibit. Now, let me try to answer it. In fact, it seems that we receive information now in a random, non-sequential manner. That is the way we gather information in our lives - we see a piece from a sign -- somebody says something to you inbetween that -- and you are simulating all this information in your head -- trying to make a pattern out of it in your head. This is a conditioning of 20th century man.

FRANK: Go back to the original metaphor. A map and its relationship to the landscape.

JOHN: So that, in effect, our inputs are on the order of an information structure only a total environment information structure. we are doing is taking that concept and reducing it to a single environment, which is a chamber, which is a room -- and feeding in the multiple inputs that the man would be receiving in his own environment outside the external world, in the same patterns -- in the same kinetic feelings that he would be getting outside and, in effect, taking advantage of the fact that his receiver of information in no longer linear. It is no longer a written page with facts or it's no longer a tribal chieftan, standing in front of him, giving him didactic information. In fact it's pictures, it's science, it's children, it's everything -- it's a total environment.

FRANK: It is antithetical to the didactic technique.

JOHN: Right, so that the information structure is a realization of that whole theory or receival of information which is the prevailing way that we get information.

HARVEY: So that the information structure is actually presenting information to the viewer in exactly the manner in which he normally sees it in his contact with the world.

JOHN: Only in a high concentrated form --- no embellishments and very lean, and, therefore it accelerates the same processes which are natural to him.

HARVEY: In other words, if I'm walking in the street, I may see a sign, and I may see an automobile crash, I may see a person I recognize but I also see a thousand other things that I have to avoid seeing.

FRANK: Well, think of it like this. It is the difference between breathing air or breathing pure oxygen. The essential part about breathing air is that you are breathing oxygen, and all the rest is embellishment. And, to a certain degree, comfort. When you enter a pure oxygen environment the central issue is ...

DALE: The reason the information strucutre is antithetical to didactic method is that the information depends upon the pattern recognition of the audience -- is that right?

FRANK: Correct.

HARVEY: And, actually, we are really recognizers of patterns in our naive form. We only have been taught to assimilate information linearly -- it isn't necessarily the logic by which the mind works.

FRANK: The teaching method does not prevail now with what can be noted as the television generation because, in fact, the child who has been brought up with a television set in the home has look at the television set long before he has learned to read -- long before linear information is given to him -- he's had random input of information from the television.

JOHN: There is a new literacy - they're electronically literate.

FRANK: Exactly -- writers who don't read.

HARVEY: Alright. Can we now go on to the specific capabilities of the information structure that we are proposing for American Can Company's exhibits.

TV TAKE II and III

CAPABILITIES OF THE INFORMATION STRUCTURE

DALE: Based upon what we have just heard, information - the economics of information in a society - how what information becomes as a product as capital as a marketing item and what relationship it has to what we've just said - I think it's something essential to those poeple who, for the first time, are going to try and understand an information structure.

Information's value is determined by FRANK: access. There's such a thing as belligerent access, for example - mass mailing advertising where everybody in the world can have access to a certain piece of information. And, then, there are higher and higher levels of accessibility. For example, none around this table has access to information being passed back and forth between the world community of esoteric mathmaticians - maybe there are only about five hundred people in the world who are completely familiar with, and at home with, discussing and communicating in terms of the higher realms of set theory and symbolic logic. And, the way you get into that community is by gaining access to the information that is being circulated. There's an example of information as capital. They hold that capital. Therefore, their means of making other people accessible to it is their means of letting that capital become useful, integrating it into the system. People use ideas. People use information, clearly or unclearly, implicitly or explicitly, as capital. That's why information is sold like hardware - softwear is as important as hardware where the central spine, the core of any software system, is the information access level.

FRANK (continued): Access level is the key point - access level equals capital. want to communicate information with metaphor, for this I think is if you want to make information accessible only to a few people, you produce a secret code - only those with access to the code have access to the information. think that basically illustrates the point of view and in our case, we're making information accessible to specialists - people who are in the industry. And, that is to say, the information should be so structured that anyone walking in off the street would not have immediate access to it - it is not a case of belligerent access - we are not putting up billboards -- we are not making our information public, in a sense. We are making it selectively accessible --- and the structures should so configure themselves to that end. The argument with capital, that is to say ...

HARVEY: I don't want to go into that because that's another aspect of what we are doing. But, let's go into the actual capabilities of the information structure that we are going to build for American Can Company.

FRANK: For convenience sake, and convenience sake only, none of the capabilities describe a specific set of hardware systems. What they do instead is they describe aspects of the software distinctions of the entire hardware system. And, they are broken down into nine parts. The first capability is entitled AUDIENCE PROJECTION MATRIX, and what that simply describes is the ability for the system to digest or incorporate or integrate the audience into the entirety of information and feed it back on to the audience.

FRANK (continued): Where the audience becomes the viewer of itself, aside from the fact that it views information separate from itself. That is to say, the Matrix includes projection of the audience upon itself. That's the first capability.

JOHN: Just one point on that. One of the advantages of, let's say, using that as opposed to feeding purely input external information, is the pure notion of integration of audience into assimilation of information that when the audience in fact realizes as Frank said before, that it is part of the headlines, that it is part of the news that's being made, it, itself, is making the news and making the information. Its ability to digest this information is enhanced. That is an advantage of this Matrix.

The second is entitled AUDIENCE FRANK: PROJECTION OVERLAP. This refers to the potential of the entire system to take any audience and overlap it - not integrate it with the system in terms of juxtaposition, where you have the audience in different time sequences - a ten second delay with the present tense, and so on. All the variables that it implies. You have six live inputs, therefore, you have six delayed inputs. That is twelve variables - you can juxtapose any of these twelve variables in a series of possibilities with a combination factor which is in excess of two thousand. You would have to select which of those two thousand possibilities you would actually want to program into the circuitry, of course, but that does not in any way take away from the fact that potentially this system has these twelve variables working on itself. It's a servomechanism for the audience. AUDIENCE PROJECTION OVERLAP.

FRANK: The third capability is entitled, MULTIPLE DELAYED FEEDBACK. It simply replies to the fact that the system will give you information that holds for a period of time and, at the same time, identically with that, give you information that is entirely present tense. You can look in one of these circuited programming systems, you will see yourself on a screen ten seconds ago, let's say. For example, juxtapose next to a programmed tape or programmed information next to yourself being fed back on a different camera, on a different input, live, this is a direct, live feedback, that's a new factor of variables introduced.

FRANK: The fourth capability is entitled. INTEGRATING PROGRAMMING OR INTEGRATING PROGRAM - which describes the capability of the system to integrate all its factors and distribute them as one system ... as one flow of information, however, discontinuous - it is this continuity that you have to recall doesn't interfere with the totality of the information. This continuity has to be re-understood, has to be re-digested on the part of the audience. It will subliminaly re-digest it anyway. That is a separate factor. But, the fact that it re-digests itself - the servo-mechanism that serves the properties - that is a most salient fact.

HARVEY: Would you explain that a little more?

FRANK: Sure. Like the front page of the New York Times, it's multiply integrated. You can view each one of the components separately. You can read the right-hand column all the way down to where it says continued on page twenty-six, and you can go to page twenty-six. That's a voluntary possibility. Well, you can read the entire page at once, or you can read two columns and pick up later, or you can read three columns and pick up later - or any of the variables where possible when reading the New York Time's front page. It's voluntary on the part of the audience - and at the same time, the possibility for any one of those variations is always there -- it is ubiquitous.

JOHN: An additional factor with this would be that the audience, by means of sensing devices introduced into the environment can influence directly the information being fed. In other words, if a person moves to a specific area by his presence, he can influence what a portion of the grid might be feeding.

FRANK: He changes the composition of the feedback environment as he changes his location within the total environment.

JOHN: In other words, if you select to read the whole front page of the New York Times by skimming all the twelve articles let's say, without finishing any one, that's your choice. What if you'd rather pick the one on the lower-left-hand corner and follow that through first. Well, in fact, a member of the audience can go to a specific area, which we can have a sensing device triggering part of the grid to feed specific information to him there as opposed to the random access.

HARVEY: He could control himself by pushing a button or by plugging into a sound output.

JOHN: Eactly. Let's go over that again. There are three possibilities. One is that a sensing device by his body presence will alter the grid, turn on something, turn off something, feed information, introduce new composition.

FRANK: Secondly, a physical input by the person, namely, he can switch a switch, push a button to elicit information and thirdly, he can plug himself into the system by means of sound at a series of points.

HARVEY: In other words, we could give him a program where the information is programmed so he has, perhaps, five minutes of something we want him to have, and we can have something like a free-play period where he selects a variety of things of his proximity triggers them unexpectedly: Then, he also can have the capability of plugging into any part of an information sequence through what sound he wanted to listen to.

JOHN: But the contingency on any of the variables is voluntary -- that's the enhancing factor of the system. It's on a didactic sequential system. He's forced to accept that one road across the desert. It is up to him.

JOHN: The fifth capability is MULTIPLE POSTION VIDEO ENVIRONMENT. This refers to the contiguous nature of the environment. The complex environment will be multiple and its multiplicity will be determined by its positioning. It's like considering the four walls of the room we are in as all information factors, as opposed to merely structural components of the building.

FRANK: The beauty of this is that as your presentation needs change, the multiplicity can also be reconfigured. So that the structure can conform to your needs.

JOHN: Let me just add an addendum to five, to even give it a further illustration. Part of the system will be a 9 x 12 video projector screen which will, more or less, become a salient information service in the entire environment.

HARVEY: 9×12 feet?

JOHN: The total height would be eight feet. It doesn't have to be 9 x 12.

Capability number six is SPACE FRANK: INVERSION FEEDBACK SYSTEM. That implies a whole myriad of qualities which is determined by the viewer. For example, you are in the center of this information environment -- you are fed back a live image of yourself in complete scale. At the same time, you are fed back a delayed image of a zoom shot of a close-up you see, at the same time, ten seconds prior to the present tense, a close-up of yourself, and, at the present tense, a shot from the distance. Completely collapsing one's sense of present tense space. It's space inverting - now, that will not be merely one factor in the system, but the entire system will be programmed at any one point in the system, any one point in time, any location in the space, will always be doing something of that nautre i.e. one of the qualities of the system will be that it will be constantly inverting the viewer's sense of space ... giving him a greater sense of its dimension. It is not disorienting -- it is elastic. It gives him a sense of the elasticity of it - not its confining factor. Plus, it's an aesthetic experience most people don't associate with information intake.

Capability number seven is OVERLOAD FRANK: DEPRIVATION FLUX PATTERN. That refers to the audience's capability of taking EVERYTHING in - in other words, overload information and where that overload is depriving him of a sequential unit or a sequential series of systems. It is the overwhelming factor of the information --- not overwhelming in any negative sense at all, but it the positive sense. You have to be an extraordinarily uptight and 19th century literalist to be rendered uncomfortable in this overload pattern. It's like the best way to explain it is that we best register intake or input when it is all there at once, and the, we have a pause for it to digest. The information will not be redundant. There will be so many circuitry patterns, so many systems functioning in an overlap fashion, that at any point, an individual can become overloaded with information --- completely overloaded with it, and the next minute, can be sitting in the middle of that environment and reflect on information he has already received. So, he can deprive himself of the information he can be completely acceptable to it. Again, it emphasizes the voluntary nature of the individual.

JOHN: The oldest example of this might be something like a three-ring circus, where in effect, you are presenting more information than in any given moment the person is digesting. But, by overloading him with information, you are causing the adrenalin to flow in effect and you're getting him to select and to be involved, even though he is getting more information than he's really digesting at any given moment.

FRANK: The INTEGRATED DISTORTION SYSTEM, which is capability number eight, refers to the fact that none of the distortion, whether they be time distortions and ten second delay, whether they be camera distortion or close-ups or fish-eye lens or rotating camera --- none of them are read as deparate distortions --- none of them are read as embellishments on the overall information - but, they are entirely integrated because they are always juxtaposed to information that is being fed directly. In other words, the system is not grist for some cute mill which plays around with the information as if it were a ping pong ball, or if it were a ball of clay --- that you have your cake and eat it, too.

JOHN: Let me add a point. Also, this notion of distortion and the word is used not quite accurately, but it can also be simply that the audience is integrated into a shot of the sponsor's product. In distortion in the sense you take a reality, which is a person there, physically, and by means of a split screen, and white or super-imposition, integrate him directly with the sponsor's product, which is being fed into another channel, through means of a split screen.

FRANK: That's a manifistation of the example.

FRANK: The last point, capability number nine is INFORMATION STROBE SYSTEM. refers to the overall quality to the information not being delivered again in piecemeal fashion, but being delivered in a total fashion. It's as if all the four walls of the room we are stting in were pulsating with information --- strobe like, literally --- all the information is defined by light, for example. Everything is light defined. You don't have light being deployed on it to reveal the information --- the information is fed out by light - strobe light, as a matter of fact -- through switching mechanisms, through time delays, through split screen mechanisms. It is a strobe effect. Usually when one speaks of a strobe effect, one speaks of an informationless experience. One in which all the information takes place in associations within the skull. This will render that experience with information -- it will give it one more dimension or, conversely, will give information intake one more dimension in that it's received as a pulsating factor, this is an alive system - has organic quality - part of that organic quality is its constantly doing something in all of its parts that register as whole.

JOHN: Two points on this. This system is best conceived in an enclosed environment, so that external light sound does not interfere with the strobe effect. And, secondly, its best conceived with a multiple of monitors. A multiple of input, so it probably would function best with the largest master proposal.

HARVEY: I'm not convinced that the structure needs to be that insulated from what is outside of it. For instance, again, to me a transparent inflatable environment where you dimly see something outside, I don't think is necessarily disturbing, you don't watch the t.v. set, for instance, in a darkened room -- its not necessary.

FRANK: In a darkened room, the television set functions as a cyclops. In the average environment, in the average home environment, it becomes a cyclops. Because, the television is unrelated to the entirety of the environment. Most people's living rooms are up-dated concepts of the Victorian living room.

HARVEY: It's a transitional thing in that you can, you do, accept it ... to become part of your environment. It's not working against you.

FRANK: I meant that specifically, though, in terms of having the strobe effect be an overload sensation - it would be maximized since the brightness of the tube is limited if the environment were in some way controlled.

HARVEY: I agree with that. I think that would be fine. Now, what more do I need explained?

JOHN: Those are the nine capabilities.

HARVEY: That seems to explain to me pretty well what the systems are going to do. Not literally, but we're not talking literally, we're talking patterns. So, I'll accept it that way. The explanation of the diagrams we can go into later.

As the source for general information, entertainment and the news, television is each individual's window to the universe. In the "recent future", it will become the specialist's window to his profession, field or business. It will reconfigure and extent the particular knowledge each of us considers critical to his activities and work, whether he be a physician, artist, teacher, engineer, manufacturer, sociologist or industrialist. It is the system through which specialists will communicate with one another (and with other specialists) as well as the general public.

SYSTEM I

\$40,300 system

This system will allow for the presentation of pretaped color programming on six-color monitors. Six black and white video cameras will provide live input of audience participation, products and machine processes which may be integrated with taped materials from any combination of the above and other sources into a twelve monitor environment matrix. This system contains three V & R's black and white feed as well as one color 1" helican scan V & R.

SYSTEM III

\$62,350 system

This system is designed to allow for maximum flexibility in a moderately priced system. It will incorporate one complete color and one complete black and white system.

The color system incorporates a oneinch helical scan VTR - with video distribution system and six color monitors. The system can handle prerecorded tapes, (with original material from film or slides.)

The black and white system incorporates a video projection system, four helical scan VTR's, six videcon remote cameras, forty monitors, and special effects generator. This system will allow for live input to the video projection as well as input to monitors placed about the environment. The special effects generator allows for integration of audience and product information on the same monitor or video projection. (Overlap).

SYSTEM III - continued

The audience interface extends beyond the image feedback to spacial interplay between audience and T.V. matrix. Audience movement induces change in the grid pattern of the matrix.

It is possible in this system to make use of a limited audience activation of the T.V. matrix by use of a basic form of information retrieval systems.

SYSTEM IV

\$172,450 system

The master system known as Master Video Environment incorporating the component necessary to structure and restructure a series of video matrices for a wide variety of needs.

The system will incorporate two systems: one color and one black and white. The color system consists of twelve color monitors and two helical scan color VTR. This will allow for two separate feeds of pretaped film or slides in full color. This system will incorporate a color live camera for live full color feed of the display area. Secondary feeds in monochromatic color are possible in live feed.

The black and white system has seventy-two monitors, eight videcon cameras, eight VTS's, a special effects generator, a master control console, delay effects and a limited "computerized" retrieval system.

This system will respond to audience movement by means of sensing devices and a control panel.

SYSTEM IV - continued

The system has up to ten feeds of information plus ten live feeds on a total combination of twenty taped and live feeds into the matrix.

The system incorporates two black and white video projection units for pretaped or live feeds.

The special effects generator allows for incorporation of product and audience in the same image (overlap) on one or more screens.

CAPABILITIES*

- 1. Audience Projection Matrix
- 2. Audience Projection Overlap
- 3. Multiple Delayed Feedback
- 4. Integrating Programmed
- 5. Multiple Position Video Environment
- 6. Space Inversion Feedback Systems
- 7. "Overload Deprivation" Flux Pattern
- 8. Integrated Distortion System
- 9. Information Strobe System

*Additional explanation included as transcript of aural presentation to H. Lloyd 7-22-69.

KEY

A -- live feed (1,2,3,4,5 and 6)

B -- tape (a,b,c,d)

C -- color tape

D -- 10 second delay

E -- matting capability (system IV only)

COLOR SYSTEM VARIABLES

- 1. Constant program feed
- 2. Total grid saturation (6 monitors)
- 3. Flux pattern

4. Live feed on color monitors
 (Color systems will accept monochromatic
 -- red, green, blue -- live feed of
 audience).

TAPE INPUT, (B), VARIABLES FOR FOURTEEN B & W MONITORS

VTR (a) 1,2,3,4,5,8,9,10,11,12

VTR (b) 1,2,3,4,6,7,8,9,10,12

VTR (c) 1,2,3,4,5,6,7,8,9,11,12

VTR (d) 1,2,3,4,5,6,7,8,9,11,12

LIVE INPUT, (A), VARIABLES FOR FOURTEEN B & W MONITORS

CAMERA # 1 5,6,7,8,9,11

CAMERA # 2 5,6,7,8,10,12

CAMERA # 3 13

CAMERA # 4 14

CAMERA # 5 5,6,7,8,10,12

CAMERA # 6 5,6,7,8,9,11

LIVE AND DELAYED FEEDBACK, (A).

SIX CAMERAS:

TWO AUTO ZOOM LENS #'s 1 & 2

TWO FISHEYE LENS #183&4

TWO ROTATING #'s 5 & 6

MONITORS-5,6,7,8+9,10,11,12

20-SECOND CYCLE

(Shift of TAPE INPUT)

Live feedback/TAPEINPOT Exchange
(20 SEC.) #2

$$(e.g.)$$

VTR. \rightarrow
 Q
 $A-1$
 $A-2$
 Q
 $A-1$
 $A-2$
 Q
 $A-1$
 $A-2$
 Q
 $A-1$
 $A-2$
 $A-1$
 $A-2$
 $A-1$
 $A-2$
 $A-1$
 $A-2$
 $A-1$
 $A-3$
 $A-4$
 $A-4$
 $A-5$
 $A-5$
 $A-6$
 $A-7$
 $A-$

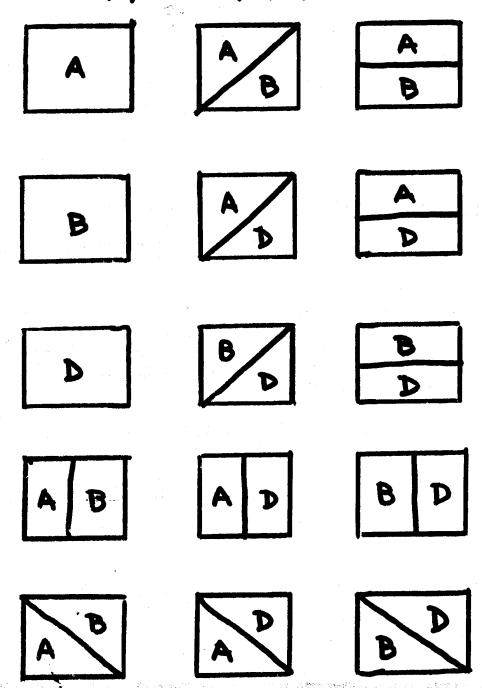
LIVE FEEDBACK TAPE INPUT EXCHANGE (CONTINUDE) #3 PROPERTY D BC A-3 BC A-4 PROPERTY D (D= A-5) PROPERTY D PROPERTY D

10, 20, 30 SEC. INPUT VARIABLES

(FUII CYCLE = 3 MIN.)

SCREEN COMPOSITION
VARIABLES FOR VIDEO
PROJECTOR AND MONITORS
5,6,7,8 + 9,10,11,12

#5



(EXTENTION: A-1, A-2, A-3, A-4, A-5, A-6, Ba, Bb, Bc, Bd, D-1, D-2, D-3, D-4, D-5,D-6)

VIDEO PROJECTOR (9'X 12') #6

INPUT TO MONITORS#1,2,3,4

(B)	#7
a TRM	1 -> (40 min. Program)
b yiem>	2 > (40 min Program)
c lytkhw>	3 > (40 min. Program)
d mehmy	4 > (40 min. Program)
STACK	FR

SPACKER (RE-CYCLE)

INPUT MIXES

MONITORS: 5,6,7,8, 9,10,11,12 #8

 $(A) \qquad \qquad \in \mathcal{G}. \tag{B}$

#5 -> 2 4 myrrelc

70 SEC. MIX EXCHANGE

INPUT MIXES (CONTY) #9 (B) (A)

70 SEC. MIX EXCHANGE

INPUT MIXES (CONTINUE)

#10

(A)

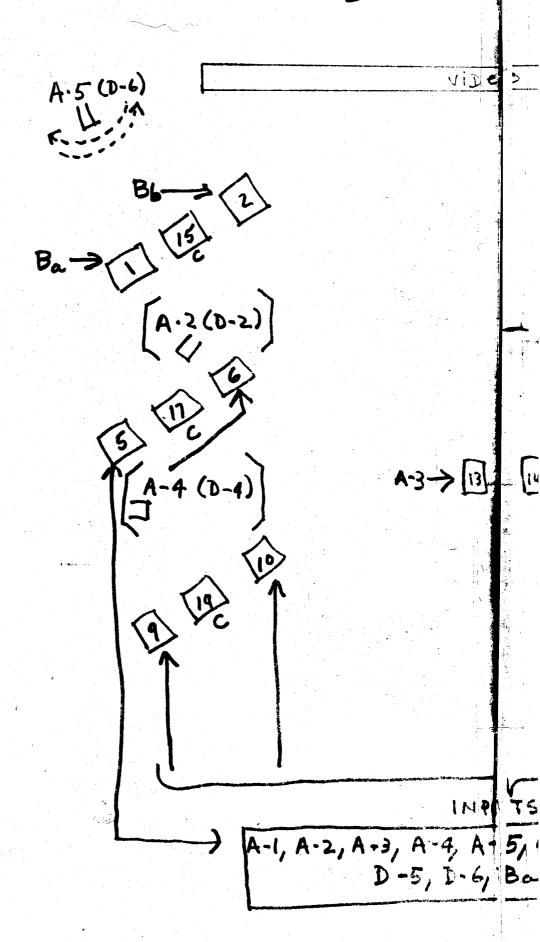
(B)

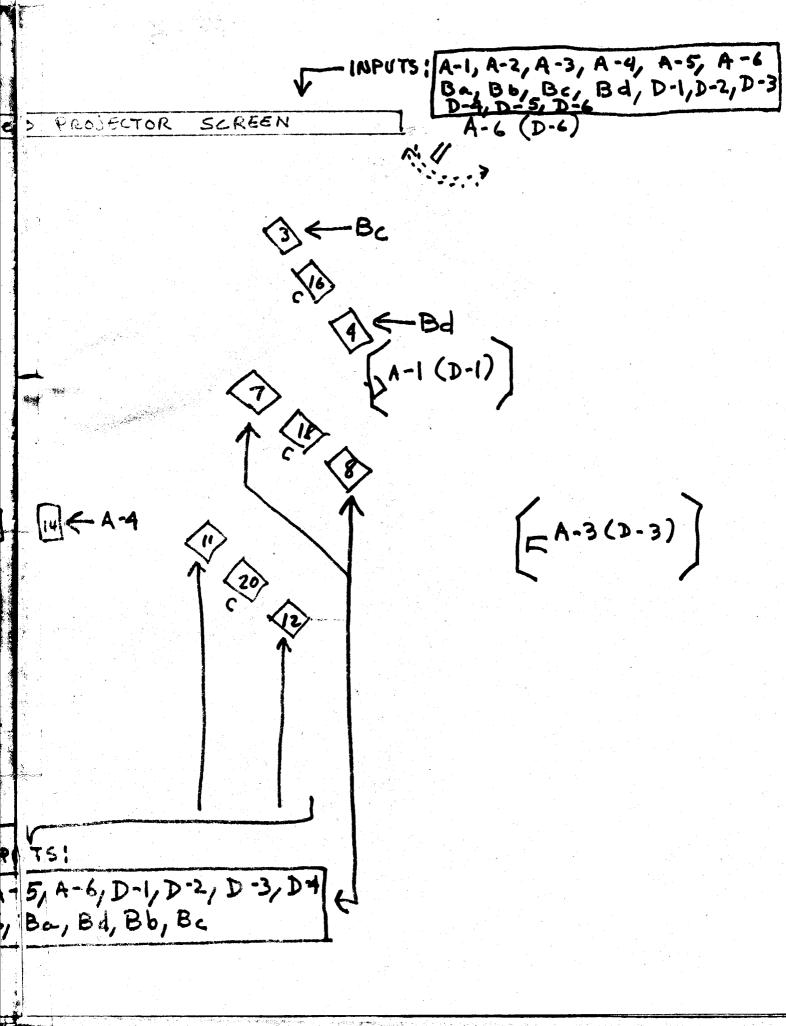
INPUT MIXES (CONTINUE)

#11 (A) (B)

CTC

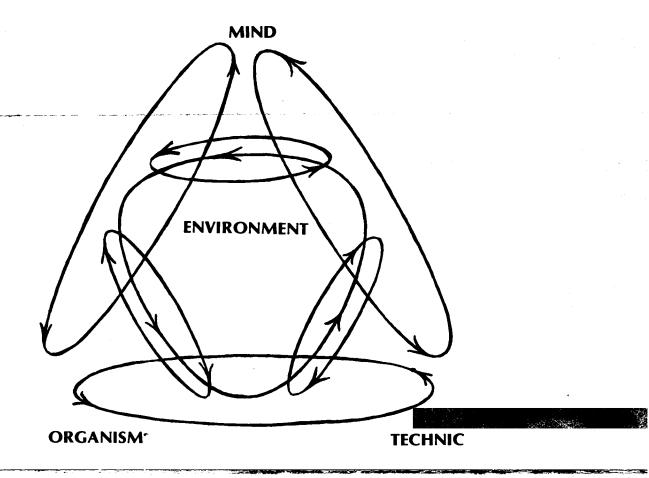
OVER LAPUARIABLES (DOUBLEIMAG MONITORS: 5,6,7,8,9,10, # 12 $(A/D) \qquad e.g. \qquad (D)$ $\#1+6 \rightarrow \boxed{9} \leftarrow b + \text{ answel} a$ #2 +5-> [10] <- C+ answer 6 #3 + 4> 11 +d + amvire c #1 + 2 -> 12 = a + amyTR d





FRANK GILLETTE

EVERSON MUSEUM OF ART SYRACUSE, NEW YORK MAY 19 - JUNE 18

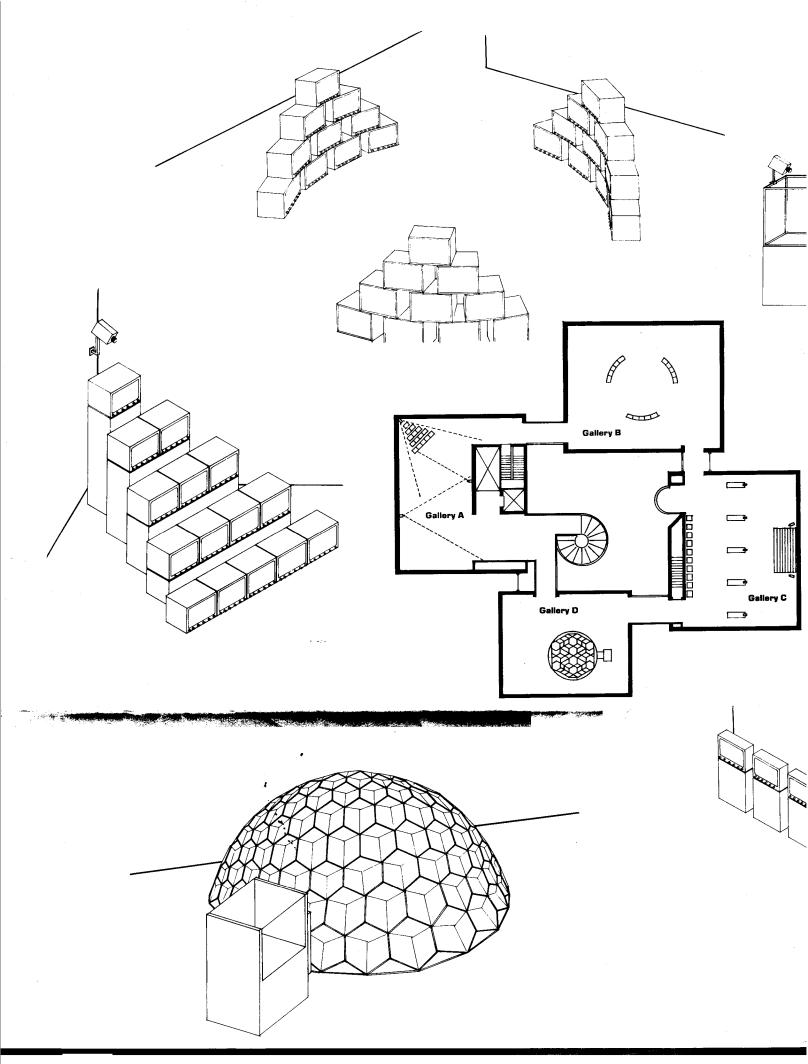


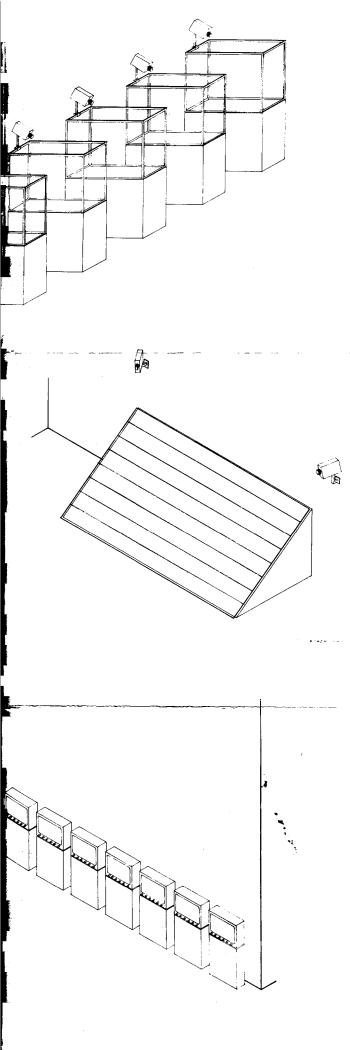
Frank Gillette's compositional elements are natural processes—juxtapositions of biological, ecological and technological systems. His work explores the aesthetics of these processes and the references between them.

The effects and influences of advanced communication technology are becomming increasingly important to the artist as well as the television-oriented public. Although Gillette's work emerges from the interface between cybernetics and natural systems, it remains accessible, that is, it provides a complex experience in a complex form but is still concerned with the classical aesthetic. It is work which connects ecological principles and key contemporary information systems.

Implicit in Gillette's thinking is the belief that the technology man has used to extend his dominance over nature has been so successful that it threatens to virtually destroy him and his environment. If man is to survive, he is impelled to develop ways to define technology in terms of the environment, rather than impose preconceived concepts of technology upon nature. The work suggests that man reunify his concepts of nature with his concepts of technology and that he reconceive them as being two parts of the same whole. Alternatives such as these need to be perceived, explored and experienced.

The function of the artist is to create new metaphors, new references to reality which re-relate man, his environment (nature) and his extensions (technology) so as to create and evolve new values and perspectives. As Gillette juxtaposes biological, ecological and technological systems and their processes, he both redefines television and places these processes within the realm of aesthetics.





The exhibition includes nine separate works. A series of information environments will fill all four of the Everson's upper galleries, and a video tape retrospective will be shown in the video gallery.

- 1. Between Paradigms (Published by Gordon and Breach,1973): A mythological text connecting classical modes of thought with systems theory and cybernetic principles.
- 2. Video tape retrospective: A series of video tapes will be shown in the video gallery throughout the duration of the exhibition. The retrospective ranges from 1968 through 1973.
- 3. Tetragramaton: Thirty television monitors are placed equidistant around a 25 foot diameter circle, in three sets of ten. Each set of ten is stacked to form an equilateral triangle. Six channels of video information are simultaneously displayed on the monitors, two different channels to each stack of ten. The piece is designed to immerse the audience in the processes of nature and thus surrounds the viewer with a video ecology of oceans, forests, ponds, insect life, birds, clouds and lakes. A single audio track of natural sounds unifies the work.
- 5. Track/Trace: Three television cameras record and transmit the contents of the gallery to a matrix of 15 television monitors arranged in the face of a tetrahedron. A switcher changes images every eight seconds. One television monitor is mounted at the apex, two televisions are mounted on the second row down, and so on to the bottom row, which contains five monitors.

A television camera pointed at the observer feeds a "live" real-time image to the single apex monitor. The image is delayed three seconds and then replayed on the second row. It is then delayed an additional three seconds (a total of six seconds) and replayed on the third row. The process continues until the bottom, or fifth row, displays the original image 12 seconds after it appeared on the top monitor. These images, and those from two other television cameras placed in the environment, are alternated on the monitors. All 15 monitors feed back their contents simultaneously.

Track/Trace incorporates the audience as content. The viewer becomes the information, which he receives both in real time and in four layers of delayed time, so that he experiences "self" at five different periods in time, simultaneously; and from three different points in space, sequentially.

6. Gestation/Growth: At the center of the gallery an 18 foot diameter geodesic dome is connected to an incubator. Each day a row of eggs hatches and the chicks enter the dome to grow. The environment continues for 21 days, the gestation period of a chicken.

Two scanning television cameras translate the birth/growth process into information via closed circuit television. The images are displayed on a matrix of monitors in an adjacent gallery. The processes inside this environment are both discontinuous and continuous; i.e. eggs evolving into chickens, and the growth of chickens into maturity.

- 7. Subterranean Field: Along the wall of the gallery, a closed environment, six feet high and eight feet long, houses approximately 10,000 termites and cherry wood veneers. The termites devour the thin sheets of wood, creating random patterns. Two television cameras scan the evolving ecological process from above and transmit the information to a matrix of monitors in the same gallery.
- 8. Terraquae: Five identical cases, nine feet high, six feet long, two feet wide, are positioned down the center of the gallery. A television camera is mounted at the top of each case. The camera scans the contents of the cases and transmits it, in real time, to a horizontal matrix of ten monitors in the same gallery.

Each case houses an evolving life cycle: metabolic exchange, symbiosis, birth/growth and decay/growth. The first case contains agar, spores and bacterial molds; the second, iguanas and geraniums; the third, snails, slugs and insect larva; the fourth, tortoises and tarantulas; the fifth, shell life, crabs and crickets.

The processes occurring in the systems evolve and exchange at different rates. The television cameras/monitors depict these systems as information. The audience's participation of both levels produces a third, or meta-level.

9. Integration Matrix: Ten monitors display the information from Track/ Trace, Gestation/Growth, Subterranean Field and Terraquae. This integration of information from the different ecological systems exposes the differences and similarities between the systems. The nature of these differences and similarities, and their permutations, is the primary theme of the show.

EVERSON MUSEUM OF ART 401 HARRISON STREET SYRACUSE, NEW YORK 1973

FRANK GILLETTE

1941	born 26 July, Jersey City, N.J.
1962	left Pratt Institute after three years of study.
1963	first group show (paintings), Lovisco Gallery, New York, N.Y.
1964	first one-man show (paintings), Granite Gallery, New York, N.Y.
1966	moved from painting to experimenting with electronic delay and retrieval systems and informational environments.
1967	appointed director of the Free University of New York, N.Y. conducted seminar, "Communication and the Environment," at the Free University of New York, N.Y. began working with video tape and computer systems.
1968	produced first extensive video tape work (St. Mark's tapes).
1969	founded Raindance Corporation (a group of artists and engineers involved in researching and developing alternate information resources and closed circuit television environments). exhibited "Feedback/Interface," Raindance Studio, New York, N.Y.
	exhibited "Tape," Antioch College, Yellow Springs, Ohio. participated in "TV as a Creative Medium," Howard Wise Gallery, New York, N.Y.
	participated in "Reflections," Howard Wise Gallery, New York, N.Y. member of the Princeton Conference on Social Change.
1970	participated in "Vision and Television," Rose Art Museum, Brandeis University, Waltham, Massachusetts. member of the Wenner-Gren Conference on the Ecology of Cities.
1971	participated in "Review" (1968-1970), Raindance Studio, New
	York, N.Y. participated in "Air," "Data Abstract (Metalogue for an Air Show)," Everson Museum of Art, Syracuse, N.Y.
1972	directed a ten week seminar, "Cybernetics and Art," at the New York University Graduate School of Arts and Sciences, School of the Arts, New York, N.Y.
	participated in the "St. Jude Video Invitational," de Saisset Museum, University of Santa Clara, Santa Clara, California and the Everson Museum of Art, Syracuse, N.Y.
1973	participated in "Circuit: A Video Invitational," Everson Museum of Art, Syracuse, N.Y., Cranbrook Academy Museum, Detroit, Mich. and Henry Gallery, University of Washington, Seattle, Wash.
	published Between Paradigms, Gordon and Breach, New York, N.Y. conducted a six part graduate seminar at the Everson Museum of Art for the Syracuse University School of Communication, Syracuse, N.Y.
	one-man exhibition at the Everson Museum of Art, Syracuse, N.Y.
الألمام ما	the French Citiette multiphes regularly in Redical Coffware in a

In addition Frank Gillette publishes regularly in *Radical Software*, is a research fellow at the Center of Social Change, New York, N.Y., is an adjunct professor of media ecology at Jersey City State, Jersey City, N.J., and is represented by the Howard Wise Gallery, New York, N.Y.