THE DAN SANDIN IMAGE PROCESSOR

(PRESENTLY 'OPTIMIZED' FOR VIDEO SIGNALS)

'...a member of a special class of EDUCATIONAL machines called a DESIGN-TOOL-LEARNING-MACHINE...'

IN BRIEF THE IMAGE PROCESSOR (I-P) IS A PATCH PROGRAMMABLE GENERAL PURPOSE ANALOG COMPUTER WHICH IS OPTIMIZED FOR REAL-TIME PROCESSING OF IMAGES. I HAVE BEEN DESIGNING AND BUILDING IT OVER THE LAST TWO YEARS...

THE I-P ACCEPTS NATURALISTIC IMAGES, MODIFIES AND COMBINES THEM IN COMPLEX WAYS AND DISPLAYS OR STORES THE RESULT. A TELEVISION CAMERA, FILM-CHAIN, VIDEO-TAPE RECORDER OR SIMILIAR DEVICE CAN BE USED TO DECODE MOVING IMAGES IN TO AN ELECTRONIC SIGNAL, A FORM WHICH THE I-P ACCEPTS. A TELEVISION MONITOR DECODES THE SIGNAL AND DISPLAYS THE MODIFIED IMAGE. THE INSTRUMENT IS PROGRAMMED BY ROUTING THE IMAGE THROUGH VARIOUS PROCESSING MODULES AND THEN OUT TO A MONITOR OR VIDEO-TAPE RECORDER. THE MODULES ARE DESIGNED TO MAXIMIZE THE POSSIBILITY OF INTER-CONNECTION, THEREBY, MAXIMIZING THE NUMBER OF POSSIBLE MODIFICATIONS OF THE IMAGE.

This description of the image processor may sound like a sophisticated special-effects board in a television station. There is of course a similiarity. A good analogy would be to compare a desk calculator to a general-purpose digital computer; both the desk calculator and digital computer can ADD and SUBTRACT numbers. The 'digital-computer' however, can STORE a program which it executes in time...and more importantly, the 'digital-computer' can modify its program based on RESULTS of the program.

The image processor has in addition, the power to execute a program-in-time, and more importantly, to modify what modification is done based on the content of the input image and the program. The image processor is a GENERAL PURPOSE 'machine' and the special-effects board is not. Further-on than processing, the image processor synthesizes, generates, and colorizes black and white video images into COLOR .

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES

MOTIVATION

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES
Teaching machines usually depend on adversive external rewards, ie: grade threats of failure to encourage user to use machine...	The user is able to do what he considers to be something worth doing, ie: a problem or project of his own choice...

DIRECTION OF ACTION

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES
The machine directs the user along prescribed paths with little options left to user discretion...	The user acts on the machine by structuring it to do a personally-preferred task...

AVAILABILITY OF STRUCTURE

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES
The structure of the machine (the program and logic behind the program) is inaccessible, contributing to the users lack of control of the situation...	The structure of the machine is accessible to the user, allowing him more control of the learning situation...

PROBLEM OF VARYING LEVELS OF COMPETENCE

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES
Must have separate programs tailored to various levels of competency with attendent placement of problems...	Because of its generalized structure users of varying levels may interact with the machine profitably...

PACING OF USER

Although the user may go along at his own pace, he cannot skip sections in which he is not interested (and come to them later), and can usually not investigate one area to much greater depth than other users' executing the same program...	The user is in control; he may take as long or as short of a time period as he likes. He may investigate any area he desires to in depth...

REPERTORY OF USERS' RESPONSES
(INPUT TO MACHINE)

Limited to a small number of specific operations, ie: pushing one of 5 to 26 buttons...	Large and varied, including keyboard, joysticks, biological and environmental sensors...

FEEDBACK
(OUTPUTS OF MACHINE WHICH RESPOND TO USER'S ACTION IN-TIME)

Often delayed and usually limited to correct/incorrect with perhaps some additional information or a program branch...	Instantaneous, immediate, multi-sensual, unambiguous and varied; includes colored kinetic events, tactile audio and environmental information...

TEACHING MACHINES	DESIGN-TOOL-LEARNING-MACHINES

GENERALITY

The machine is usually designed for a particular subject and requires reprogramming by other than the user, to new things...	The machine can accomplish many tasks and can be restructured to accomplish new tasks under user control...

NU·ANCE

The teaching machine is sensitive only to gross ordering of input of information...	The design-tool-learning-machine is capable of sensing small variations of input (much information is carried in small variations of intonation, gesture, etc...)...

At yet another level the IMAGE PROCESSOR and allied machines are designed for the express purpose of modifying consciousness, increasing awareness, centering, learning, (non-linguistically) etc...

Machines whose primary function is this 'consciousness modification' are not new; a musical instrument is a good example of a machine designed to modify "'consciousness'" (what else is it used for)...

AT THE MOST IMMEDIATE LEVEL AND AT THE FINAL LEVEL IT HAS BEEN A 'JOY' WORKING WITH THE INSTRUMENT; I HAVE LEARNED A GREAT DEAL FROM IT...

The IMAGE PROCESSOR is not yet finished per se; yet it is functioning completely and perfectly. It is 'modular' in electrical and physical construction and as a result 'grows' in proportion to user-extensibility-of-desire...(lust-for-power/lust-for-subtlety)...
EXPANSION-ing/EXTENSIBILE-ity is steady, slow and full-of-love for/in a cybernetic 'BEIN

lettering

NOTE: *SAIC/VIDEO students should try to get-in a look/see:hear/here*
_____ *at video cassette # 26 (re: Dan Sandin Image Processor) before*
_____ *next Thursday, Nov. 15...DAN and his STUDENTS will be here for*
_____ *two days with the COLOR IMAGE PROCESSOR to give a "...free color*
video synthesis event by the NEWSPACE CULT...8:00-8:00, 11/16/73.

WE'RE DOING IT:::

I look at it from the 'design' point of view...I look at how I interact with my
environment, with machines and other things in the environment...and then extract
what appears to be the relevent descriptions.   feedback-control-theroy is the primary
relevent description...and that everything that I do is dependent upon feedback, from
walking across the room as example (you know you don't start out to walk across 35 feet
by pointing in one direction...you are continually correcting your actions until you
get to the place) that's the way you pick up a pencil or anything else. To prove that
all you have to do is mess-up the feedback loop and you're stopped or severely handicapped
the classic example thing is to talk into a microphone and have a delay coming back into
your ear that is off by a few tensth of a second and you just can't talk...

WHEN YOU MESS_UP THE FEEDBACK, YOU MESS UP THE .RESULTS...that's all there is to it!

So I got into designing machines mainly in terms of their feedback...one of my personal
problems when into photography and film was the removed feedback; I couldn't get where
I wanted to go fast enough...to learn things I needed to know to do what I wanted to do.

SO, I WENT ABOUT DESIGNING THE VIDEO IMAGE PROCESSOR...

The primary idea was to do instant modification of instant feedback...simply the
experience of getting INSTANT feedback is an extra-ordinary thing...it is a NEW
thing with the realization of electronics...

IT HAS BEEN LESS THAN A QUARTER OF A CENTURY SINCE WE HAVE HAD non_HUMAN, or at least
NON-LIVING real-time INFORMATION PROCESSING ENTITIES IN THE UNIVERSE...

all of our other infromation processing entitites like print, photography, painting,
and any number of them have been very much in DELAYED-TIME. So 'real-time' information
processing is a new thing! (That is, outside of the human-sphere; humans have always
been real-time information-processors) That's one of the things that makes such an
extra-ordinary distinction between something like:

"writing something down for someone" / "and talking to someone about it"

It is simply the real-time information processing verses the stored-time processing...

PUT YOURSELF IN A FEEDBACK LOOP

yes, the reason you put yourself in a feedback loop is so you can learn something, or
rather learn to do something...you know, you do something and the results get processed
somehow, perhaps just by yourself just looking at it,...and you do another thing and
the results of that get processed etc...and your action can constantly be tuned or
corrected or refined by what you see...

IT'S BEEN THE HISTORICAL PROBLEM AT LEAST WITH 'ART' MEDIA, THAT THE DELAY OF THE
FINAL PRODUCT IN ANY EVENT HAS ALWAYS BEEN FAR-BEHIND THE INITIATING-ACT-OF-IT...

in other words, even tho you get instant feedback while dobbling paint on a canvas,
it takes a hu-mungously long time before you get the 'finished' product...

WITH A VIDEO-IMAGE YOU INSTANTANEOUSLY HAVE THE WHOLE 'PICTURE' THERE ALL-THE-TIME///
///THAT IS,
NO VISUAL FEEDBACK DELAY...

DAN SANDIN – INVENTOR OF THE IMAGE PROCESSOR, ASST PROF UNIV. OF ILL.

PHIL MORTON – COPIER OF THE IMAGE PROCESSOR, ASST PROF ART INST. OF CHGO.

CONVER .TION & AL PROCESS):

I CONSTANTLY HAVE THIS FEELING OF 'MORE' ALWAYS BEING AVAILABLE ALL THE TIME THAN I CAN SEE...THAT'S A FAR-OUT STATE TO FIND ONES 'SELF' DEFINE IN.

You know how we often don't feel too good about the XXXXXXX tapes we just get done processing...? Well, I think it is because we, when making them, always are looking at the image as 'negative-feedback', that is, we are oriented to it to find out XXXXXXXXXXXX what is wrong-so-as-to-tune it on to be 'better' that we end up when the tape is over with this feeling that the whole tape was an experience-string of 'not-so-good' images...later on in a couple of weeks when we see the tape played back we usually feel that it was considerably more successful than we had thought...

A PERSON 'SEEING' IN A FEEDBACK LOOP THAT IS HIGHLY INTERACTIVE is considerably different than 'SEEING' in stored-time-lag...

A polaroid camera even has a 10 second or a minute delay in its feedback loop. Any typical photographer has many hours or even days of time delay in his feedback loop.

YOU CAN'T LEARN ANY FASTER THAN THE DELAY IN YOUR FEEDBACK LOOP...

SO WE SUBSTITUTE ALL KINDS OF PREDICTING TOOLS BECAUSE WE DON'T HAVE ENOUGH FEEDBACK...SO WE USE EXPOSURE METERS TO PREDICT HOW THE PHOTOGRAPH WILL TURN OUT..WE TRAIN OUR VISION NOT TO REALIZE HOW THINGS CAN BE VISUALLY STRONG OR POWERFUL, BUT SIMPLY TO JUST BE ABLE TO PREDICT WHAT IS GOING TO HAPPEN.

THAT BECOMES SO IMPORTANT THAT MOST OF A PHOTOGRAPHERS TRAINING IS ONE OF LEARNING HOW TO PREDICT WHAT THE PICTURE IS GOING TO LOOK-LIKE!!!

WITH ELECTRONIC-VISUAL-EYE-ZATION DONE PROPERLY, THE FEEDBACK IS

WITH ELECTRONIC INFORMATION PROCESSING DONE PROPERLY THE FEEDBACK IS

NO LONGER THE LIMIT...

then the limit becomes how fast your own mind can process information; and that is a much-higher limit in some cases, especially when processing visual information. We are able to take in just incredible amounts of visual information as far as I can figure out...its alittle had to define it. But putting yourself in that feedback loop allows you to:

TUNE AND GROW FAST AT A RATE THAT IS SELF-LIMITED
RATHER THAN LIMITED BY AN EXTERNAL-MEDIUM..

You're still limited by the charater of the feedback butno-longer by the time it takes for the feedback to get 'back'.

SIMPLY TO GET 'INSTANT' FEEDBACK IS A PLEASUREABLE EXPERIENCE...JUST TO TOUCH SOMETHING AND SOMETHING HAPPENS IS FAR-OUT-EDUCATIONAL-EXPERIENCE.

Of course to push something and to have it happen considerably later can be a pleasure too...especially if it is a big-bang...if it is just a little thing it is not as nice.

tee-hee-tee-hee...

(...a ONE-MAN show...)

See if the ART SYSTEM could give <u>everybody</u> a BIG-BANG <u>every</u> month/then it might still make sense to bbb make what 'they' call ART. But shit, all I ended up doing 4 or 5 years ago was crowding myself out of my living-studio place by being filled up with art-abjects. I was really into learning fast you see so I had to make stuff to get the feedback-back fast; quickly what I did was make myself right out onto the street with no-room for me to move around...I polutted myself out!

To go back to basics: my claim is that the car teaches you how to drive the car.

-of course somebody came in and told you about clutches, levers, brakes and stuff like that , but beyond that...everything you learn about driving a car you learn by driving a car. The car taught you...in general. That's a paradigm...

I mean most musicians learn how to play something pretty much on their own...you certainly can take lessons on musical instruments but a great number of people have done the majority of their learning, and at some point all-musicians have done the majority of their learning without being 'taught'...okay, well who is teaching you? LEARNING IS BEING DONE. At one level you are teaching yourself and that makes sense; but at another level the INSTRUMENT is teaching you. the fact that you can hear stuff you are producing and then you 'push' on the instrument differently which produces different stuff you hear...it's that LOOP which is teaching you about the instrument and how to use the instrument and how to make sounds that you like.

PART OF THE REASON THAT MUSIC HAS SUCH A UNIVERSAL APPEAL AND IS SUCH A HIGHLY EVOLVED FORM IS THAT MUSICIANS HAVE ALWAYS HAD REAL-TIME FEEDBACK SYSTEMS TO WORK WITH...

THEY HAVE NEVER HAD TO WORK WITH STORED-TIME FEEDBACK SYSTEMS AS A PERFORMER; NOW THE COMPOSER HAS A DIFFERENT ORIENTATION TO IT

why it is that ELECTRONIC MUSIC ISN't particulary 'popular' is that electronic-musicians who use the powerful tool like electronicxxxxxxxxxxxxxxxxsound synthesizer, have had their own sonic-perception so radically amplified...they have sped-up their own sonic learning so quickly with this powerful tool they've had, THAT THEY HAVE RUN away and out-distanced their audience. '...learned their way away from the culture.......'

SOUND-ARTISTS HAVE ALWAYS HAD REAL-TIME TOOLS TO WORK/PLAY WITH...
VISUAL-ARTISTS HAVE NEVER HAD REAL-TIME TOOLS TO WORK/PLAY WITH...EXCEPT NOW.

SO THE PREDICTION IS THAT THE SAME THING IS GOING TO HAPPEN AND IS HAPPENING TO THE VISUAL ARTIST (US) bbb WHO ARE USING REAL-TIME VISUAL PROCESSING INSTRUMENT...IT MAY GOES AS FAR AS TO HAVE A HIGHLY ARTICULATED LANGUAGE...I MEAN A LANGUAGE LIKE THAT I AM USING RIGHT-NOW WHEN TALKING/NOT LIKE NOW WHEN I AM WRITING, WRITE-NOW...

YOU NEED A REAL-TIME MANIPULATOR TO DEVELOPE VISUAL-LANGUAGE RIGHT NOW...*developing a language is a very complex thing and you need fast-feedback to be able to do IT.*

.*Our voice-box is a very precise articulator of sonic entities and our instruments are more specialized and more precise in general as articulators of sonic-constructs.*

Alot of our perception of sound and music and language has to do with that 'cultural experience' and 'biological experience' of having such a powerful real-time articulator of sound-constructs...

        ...and now we got it in visual images.

So maybe sometime in the future we may have a similiar kind of structure for visual images that we now have with sound images...including a completely referential language...!

I love Bucky's thing so much when he says: "...LOOK AT THE ENGLISH DICTIONARY;
OF COURSE WE CAN AGREE ON THINGS...
THERE'S 100,000 THINGIES THERE WE
ALL AGREE-ON..."

OH, THANK-YOU...ARE THESE REALLY LITTLE CHOCOLATE KISSES?

NO, THEY ARE LITTLE GIRLS NIPPLES WHO LOST THEIR CANDY...WHAT?
(yes, wrapped up in aluminum foil)

Wow, this will sound strange when I put that in the audio-transcript of this tape...wow, little cnadies who lost thier girls...

WELL PRESUMEABLY IT WON'T MAKE IT IN. I REALLY THINK WE SHOULD MAKE IT
FAIRLY COMPACT AND MAYBE EVEN UNDERSTANDABLE...?   YES-SIR!

(well for sure we will put that in)   *WE'VE GOT TO HAVE MORE POLUTION BEFORE*
WE CAN SEE READING AS VERY VALUABLE
CANDIE-KISSES for sucking instead of
DEAD-use-less WASTE-of-words...

4

OKAY, ONE OF THE REASONS OF DESIGNING THE IMAGE PROCESSOR WAS TO MAKE
A MACHINE THAT MET THE CONDITIONS OF HIGH FEEDBACK AND MULTI-SENSUALITY.

THAT IS, YOU USE TWO SENSES; TURN SOME KNOBS AND YOU SEE RESULT, THATS
TWO SENSES, of course it can process sound and do other things too.

DESIGN A MACHINE FROM THE POINT OF VIEW OF <u>WHAT A PERSON DOES TO DO WITH
THEM</u> and not from the point of view of <u>what can the machine do.</u>

...and the IMAGE PROCESSOR is the first one of those machines, hopefully
not the last.

YOU'RE SUPPOSED TO TALK TOO PHIL...you're supposed to say/talk about
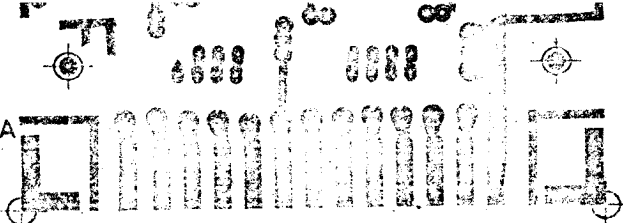whether it worked or not...or what it worked!

I DON'T HAVE THE TIME. I WANT TO TYPE THIS UP AND RUN UP TO THE ZROX
MACHINE TO PASS-IT-AROUND TO MY STUDENTS AND STUFF.................

alternate goth

HAAS

made in U.S.A

Alternate

(((WELL WE'RE GOING TO GET STARTED THIS MORNING...*today we have video-phil with us*
and he's going to talk about: TECK ART *he's the head in the video area*
TECK-ART
upstairs and runs the DATA BANK *which is a kind of video-library*)))))))))))

WHILE WE ARE ON THE SUBJECT OF AESTHETIC EXPERIENCES, I WOULD LIKE TO
RELAY THE LAST ONE WHICH I HAD: it has to do with our man-made technological
environment. It may sound rather simple however it was a very complex and 'shaking'
real-experience. It has to do with light; very powerful and 'space-y' light. Light as
'natural' stuff like that which comes from the sun and light as 'artifical' stuff which
comes from light-bulbs and flourescent fixtures and tv tubes etc...(you know, that MAN-MADE
STUFF)...

I WAS HOME IN MY OWN PLACE WHICH IS COMPLETELY BLACKED-OUT WITH PLASTIC
SEALING OUT THE NATURAL LIGHT WHICH MIGHT COME THRU THE SKYLIGHT AND
WINDOWS...IT WAS THE WEEK-END, WHICH IS A TIME THAT I GET INTO DIFFERENT
KINDS OF ENVIRONMENTAL RYTHUMS TO PACE MY BEHAVIOR...THERE IS NO 8:00 GET
UP AND COME TO SCHOOL THING/4:00 SCHOOL'S OVER-GO-HOME THING...

WELL, I HAD BEEN TYPING AWAY AND CAT-NAPPING AND EATING AND TYPING AND
EATING AND...AND I HAPPENED TO GLANCE AT ONE OF THE 10 TELEVISIONS IN
MY PLACE AND
THERE WAS A VERY NICE COLOR TV FOOTBALL GAME ON...NO SOUND,
JUST COLORED-VISUAL STUFF WITH PEOPLE-PUSHING-GOING-ON-A-LOT...I WATCHED
IT FOR TWO HOURS OR SO-REALLY NICE AND QUIET VISUAL WHAM-BANGS...SPECTATORS
HOLDING UP THEIR LITTLE PORTABLE TV(S) TO SHOW ABC THEIR OWN BROADCAST AND
CAMERA-MEN SCANNING THE SPECTATORS TO FIND PRETTY GIRLS AND SIGNS LIKE

GO-TEAM-GO/RAW-RAW-RAW/KILL/WE'RE NO. 1:::

NOW I KNOW THAT FOOTBALL GAMES HAPPEN IN THE AFTERNOON BEING AN OLD PENN
STATE COLLEGE GRADUATE FROM WAY BACK THERE IN 1967; AND THEY ARE USUALLY
OVER AROUND 3:00 OR 4:00 IN THE AFTERNOON...
WELL FROM THE 'FEEL' OF THE
VISUALS I GOT THE SENSE THAT THIS GAME WAS ABOUT TO BE OVER SO I GOT UP
AND STRETCHED AND DECIDED THAT I WAS HUNGRY SO I WOULD HAVE TO GOTO THE
GROCERY STORE IN THE NEXT BLOCK TO GET SOME BREAD AND CHEESE AS I HAD
EXHAUSTED ALL MY IN-HOUSE GOODIES IN THE PAST DAY OR SO...

I OPENED MY STREET DOOR TO STEP OUT OF MY PLACE: AESTHETIC EXPERIENCE...

EN-LIGHT-ENMENT...

GOD-SAVE-THE-PRESIDENT-DICK

NO-people in the street...NO-cars zipping by...street-lights out in the
immediate three blocks and it is obviously-NIGHT-black-night BLACKBLACKBLACK

Now I knew it was mid-afternoon (football-TV-time) and not NIGHTNIGHTNIGHTNI

so i stood there going crazy: YES/NO:YES/NO:YES/NO: screeeeeeeeeeeseeeeeeeee

So having dug the AESTHETIC EXPERIENCE I decided that I would make some
sense out of IT all and reference my TV GUIDE...I came back in and 'read'
the clock, the TV GUIDE, the sound-of-the-game still being finished off:

"...9:45 PM...A NIGHT FOOTBALL GAME IN A LIGHTED FOOTBALL STADIUM..."

)))

My orientation of watching TV with no sound, having no sun-light coming in, as-
suming football games in the afternoon...that is, having read that reality the way I
did in complete faith had me 'up' in another bandwidth which is becoming more-and-more
'natural' in our increasingly more-and-more man-made technological environment.

YES, IT WAS A NICE FEELING...I TRY TO HAVE A NICE AESTHETIC EXPERIENCE
EVERYDAY,...and the way you do that is by changing your own environment when you are
just simply conscious of that which IS your environment...aesthetic experience happens
unto you; you can't 'try' or make IT happen...you can only change your environment and
hang-around-awhile to live it out

Now I believe what we're supposed to be focusing on is the issue of TECHNOLOGICAL ART!

After-all this is an art-history class and you are studying the recent phenomena of
what art-history calls 'tech-art'. We can (usually we do) get into this thing of trying
to figure out whether tech-art is historically okay...okay to study...okay to do...okay
to talk about etc. At least this is the feeling I get when I hear all the arguements and
people discussing/rapping about technology and art. I am not particularly interested
in any of those positions in art-history; however, I am more interested in what we are
...doing right now and that is talking (thinking-out-loud), primarily me thinking-out-loud
because Phil invited me to come do-my-thing...and that's fun...but really what I am doing
is sitting here in headphones transcribing the audio tape which I made when I was back
there in a paranthetical expression in this line of type............

JUST RECEIVED A PHONE-CALL AND A COME-ON-OVER (INVITE)...BE BACK IN THE
next light
     line   ....

eeeeeeeeeeeeeeeeeeeeeeeeeee eeeeeeeeeeeeeeeeeeeeeeeeeeeee

chartpak transfer

...you can use different kinds of clues and adopt any kind of behavior/sense making
patterns to get oneself oriented to this technology and art issue. We have a whole
'world' and beyond to reference our beings to when seeking information about teck-art.
If we want to expand our ideas-and-art then we have to look/find 'data' about that every
where; in any experience/time which we are in; that includes right here talking to you
all; typing/transcribing this-all from an audio recording; playing the game of a student
in an art-and-ideas class; riding the train home at night etc. and on and on... And I am
very interested in that orientation of 'everywhere' is any okay place/time
for getting-off and getting-on with it.

We unconsciously assume that a little $19.95 audio cassette recorder is
not enough to make teck-art...and that in order to really be significant
as an artist we have to use a $995.00 Nagra audio recorder...as if there
is some important coalation between the financial cost of a tool and its
power to spue out teck-art. In fact we don't even think that its okay to
investigate a tool like an audio recorder with the same vigor which we
give-in to a tool-system like a painting studio.

LIKE our CULTURE (which is a man-made system of very complex values) has
the most of us so convinced of what the tools for making art are that we
have to become almost severely 'insane' in order to break-thru into the
clear 20th Century-blue of having a beautiful creative time.

HOW DO WE LEARN THESE CULTURAL VALUES? By just living around in our own
MAN-MADE ENVIRONMENT, like art schools...everything about an art school is
telling us what/when/how to do. It really is that simple. And it really
is simple to become a 'significant' culture-maker (artist) by simply playing
around with one's own environment. Anyone who is playing with his environ-
ment of man-made tools/values is a technological-artist. So you see we have
this beautiful view of a technological-artist as anyone who is interacting
consciously with some environmental data. So what's this stuff called:

"DATA"

(like)
ART is a channel selector on a tv set. Right now we have in Chicago
about 8 channels to tune into to experience the 'issue' of TV. So in our
school we have about 8 departments of art to tune-into to make 'art'. We
think that 8 channels are finite and that's it. Well, the spectrum of
places to tune-into are infinite...we're only using the 8 channels because
of thinking about TV in relation to financial 'value'. It costs $15,000.00
per 30 seconds of use on the Johnny Carson TONIGHT SHOW if you are a user
of TV as we know it culturally-en-masse today. Of course the only 'user'
of TV presently is the big-bucks establishment businesses who want to ad-
vertise their products. That's what we do here at SAIC; the only users
of our 'set' is those who can pay the $150.00 to advertise their products
(themselves as artist/stuff as art) in a one channel art-department out
of an eight channel spectrum. If you want to give/do something that is FREE
you hardly can do it...so we have what is called a communication-gap!

YOU KNOW, the per-verbial old cork-up-the-rectum to convince us that its only an
8 channel spectrum of competition/catastrophies/hero s/violence et al. Because thats
the techniques you have to know in order to use the man-made 'set' or you just don't
get on TV.

TRY DOING/GIVING SOMETHING FOR FREE TO THIS SCHOOL OR A CLASS
AND OBSERVE THE TECHNIQUES THAT YOU HAVE TO RESOLVE TO IN ORDER
TO LET-IT-HAPPEN...OBSERVE THE RESPONSE YOU GET FROM TEACHERS,
YOUR FELLOW STUDENTS, THE ADMINISTRATION ET AL. THE RESPONSE
GENERALLY IS IN THE REALM OF: "...unle$$ you have our value$ you
haven't done anything worthwhile; do it this way because this is
the way it works..."

And we spend 8 hours a day here trying to figure out the way it
works so we can get 'me' into an important role as an American
Artist...

The 'spirit' of a creator is this-trick; THE FARTHER-OUT YOU GET THE MORE YOU SEE THE
INFINITE SPECTRUM OF IT ALL INSTEAD OF ITS
FINITE man-made departments...

Try to see America in that picture.....
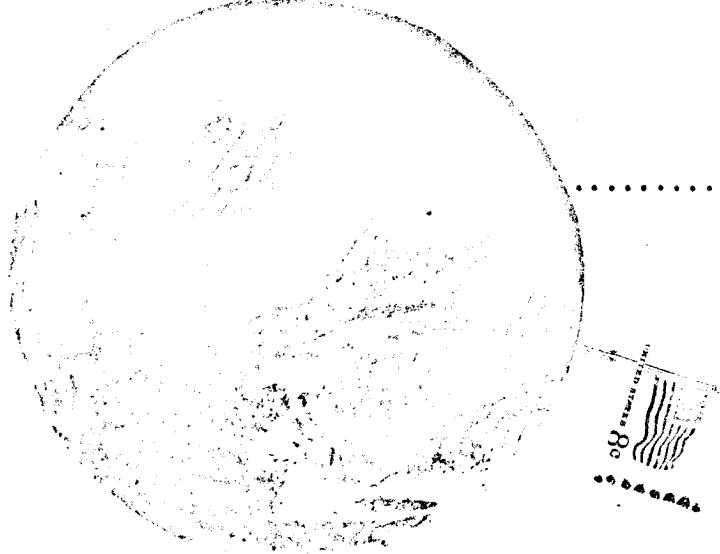
IF *you want to be a VIDEO-ARTIST then it's very simple; you use video-tools to do stuff
and people will say; "Wow, you are far-out frontier artist using contemporary te ch!"*

IF *you want to be a PAINTER then it's very simple; you use painting-tools to do stuff
and people will say: "Wow, you are far-out frontier artist using contemporary tech!"*

*You see, there is a plethora of tools in our real-time contemporary environment. All
the tools from the 'past' and all the tools from the 'present'. ONLY depending upon
where you are AT, that is how far-out you are, will your technological tools make sense.*

*Your 'art' simply is a measurement of where YOU ARE AT in all-time as a visual-I-zer.
A painting or a video-tape or a performance is just another 'tool' man has created for
his fellow beings to measure their sense-of-IT-all.*

THINK ABOUT A THERMOMETER THAT WE USE TO TELL US THE TEMPERATURE OF OUR ENVIRONMENT LIKE
OUR HOUSE...

WHAT DOES A THERMOMETER MEASURE WHEN IT IS FLOATING IN FREE-SPACE LIKE ALONG IN ORBIT
WITH SOME OF OUR SATTELITES OUT THERE BEYOND OUR EARTH'S ATMOSPHERE ...?

(You do have all-the-time in the world so think about the thermometer 'bit'...)

EVEN THE CHANNEL OF 'ART' IS A SEVERE LIMIT ON OUR THINKING....WE THINK THAT THE ABILITY TO BE CREATIVE IS SOMETHING THAT IS THE SPECIAL-TALENT ONLY OF THOSE-WHO-HAPPEN TO ADOPT THE SOCIAL-CATEGORY CALLED 'BEING-AN-ARTIST'.

WHAT ABOUT THOSE OTHER FOLKS WHO ARE BEING-A-PHYSICIST; BEING-A-NURSE; BEING-AN-ADMINISTRATO BEING-A-ZOOLOGIST; BEING-A-HOUSEWIFE OR WHATEVER IT IS THAT TEMPORARILY HAPPENS TO BE ONES SOCIALLY-TAGGED GIG ?

DON'T THEY PUT-OUT STUFFS INTO OUR VISUAL ENVIRONMENT!

DON'T WE PUT-OUT STUFFS INTO OUR PHYSICAL, MEDICAL, POLITICAL, ETC. ENVIRONMENT...?

It is only a mater-of-degree as to who is outputting the most 'creative' stuff within any cut of the society you choose...creative-creatures are creative creatures and you can't tell by looking for a category to put them in where they are to be found most often. You can only sense it by being it no matter who or where you are.

Quite often people tell me they can't understand my writing (even those people who are supposed to be my institutional-superiors). Now what's that mean to me when they can't understand the writing. It only means that when they are 'being-a-reader' which is the same thing as being-a-physicist or being-an-administrator or being-a-housewife...when BEING-A-READER they can't get-out-there to the degree which I was out-there when writing.

YOU SEE IT'S JUST A DUMB-GAME OF MEASUREMENT OF PLACES...it doesn't 'mean' anything. I have nothing to say about teck-art. I am just sitting here in my headphones/running this stuff off an a ZROX machine for the practice of doing-it. .

same

WHEN YOU HAVE understanding you immediately are at the/orientation-in-place...the writer didn't make you get-out there...the writing didn't take you out-there; 'BEING-acreative-READER' you all of a sudden are there! You see, all writing can do is 'look' different at some level so you can see it (like put you in a situation so you have to use different techniques-facilities of your being to 'read') or you literally DON'T SEE IT. The same with teck-art; it only has to look different so as to be seen-as soon as it is seen it is understood to some degree. It really does work that fast...so fast that it's really very funny. That's why creative-creatures laugh alot at the most serious matters...like teck-art. It is so fast and simple that it's funny to be sitting here in an art-and-ideas class trying to figure it out...which is measuring it and slowing it down tremendously

HAVE YOU PICKED UP ON HOW FAST THE TIME-TENSES CHANGE IN THIS KIND OF WRITING??? IT IS A-HAPPENING SO FAST THAT I CAN'T EVEN SEE TIME-TENSES (CHANGES) ANYMORE...SO OF COURSE THERE IS NO OLD-GRAMATICAL HANDLE ON THIS WIREING...

TOO, THAT IS WHY I CAN'T SEE TECK-ART ANYMORE AS A 'TENSE' THING TO GET ALL SHOOK-UP ABOUT TRYING TO FIGURE IT OUT...*i need alot of SLOW time to type this and DO-IT-OUT-........*

You don't know it yet but what I am going to do is come into your class a few hours from this writing and hand to each of you a ZROX copy of this writing. You will understand at some level that that is what I am doing when I do it (when we do it). Now reading this you will understand that past interaction experience differently...because 'creative-reading' changes the past. Likewise, my inter-ruption of your class in the present makes to some-degree your future sense/'present-reading' of this past-print-out. It gets stickier as you go on trying to figure it out..
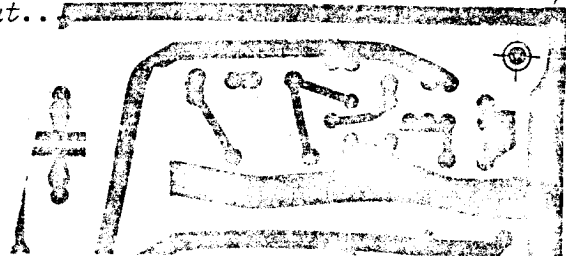
I just counted the pages of this transcript and see that the last page made number
five and this will be number six; using both sides of the ZROX 'page' I will be able
to stop with this page and not 'zap' the zrox budget too much-too severely. That's
one of the most beautiful things that has happened to me in (our) own environment (SAIC)
The Dean gave me permission to use the ZROX machine to run a number of manuscripts off
of the book I was writing the last two years to send to publishers last summer. I decided
that the book-form takes too-long for me to learn thru...so it is more meaningful for me
to use the 'allowance' this way. See what a beautiful place SAIC is!!! Just full of
contemporary technology to make it thru-art.

Well I have only made it thru about the first 10 minutes of the audio-tape that i planned
to make for you all who requested a dub-of the tape...I hope this 'energy-out-pour' is
accepted in evolutionary substitute-on-going and okay, instead of a 2 hour 'talky'...

If you want more 'talkies' and (perceptual-try-ons) come on up to the VIDEO DATA BANK and
explore the environment of video-cassettes...Matt or myself or another student will show
you how...we're here everyday.

NOW FOR A STRING OF WORDS FROM THE REST OF THE AUDIO TAPE ...bye.

"...there is 100 and thousand other ways of doing it..."
"...it has to be done with the technology you have..."
"...you know I'm sick just by being in a bed in a hospital..."
"...the fifth-dimension is INTERACTION; patterns, structures, behaviors..."
"...what is the total field of technology that I have available..."
"...we've talked about art for hundreds of years; lets talk about something else..."
"...it's alright to study stuff like African Art and Classical Music; you just can't make it
    today..."
"...not the painting, not the video-tape but DOING...action..."
"...my discipline is COPYING; the harder I try to copy-the weirder it gets..."
"...different rythums all-of-a-sudden..."
"...we go to a nice 'safe' place and make an environment like an art gallery; WELL TRY ON
    YOUR OWN BEDROOM!..."
"...when is the last time you really had a surprise..."
"...its a time for exploring alternatives..."
"...six years ago there began this 'underground' thing with fone-phreaks; freaks who want
    to make Ma' Bell better..."
"...zip, it's open and zip, it's closed - without any knobs..."
"...human beings have the amazing capacity of being able to learn..."
"...and adapt..."
"...assumptions hold us back..."
"...there is no surprises in school anymore..."
"...when the shu fits; you wear it out..."
"...the farthest-out fashion design is the space suit that keeps a cosmo-not from becoming
    one with nothing in outer space (boiling)..."
"...successive times is only one illusion of movement..."
"...a hospital takes you in anytime/all the time..."
"...an electronic man-made environment is USER oriented..."
"...'music' is only a very-very small knitch in the spectrum of sound-construct possibilitie
..."
"...how do you explain the fundamentals/there is no fundamentals in the present...the
    present is just mental-fun..."
"...if you make historically-consistant 'art' now, all you are doing is creating a fut
    which is like that past and making the 'history' stronger..."
"...that's the ass-whole kind of view of looking backwards to see what tomorrow is going
    to look like..."
"...we can't have Ann Margret sitting on commercial tv in contemporary underwear; but we
    put her in 30 year old 'honky-tonk' setting in a glitter-corset and get away with it..."
"...fantastic plastic bubbles..."