Sandim

Before I was into video . . . I worked in false color still photography. And when I tried to move into motion, film, everything become so cumbersome I couldn't go forward, like I'm too dumb. The way I say it: I couldn't get the feedback fast enough to know what it was I wanted to do. And I couldn't play enough to find the special places that I wanted to work in as I could in still photography, play and find the place and work in it. And it occurred to me an electronic processor of TV could do similar things that I did chemically, primarily, and by funny exposures and sometimes optically with still photography.

The motivation for it, was the idea of wanting to play with moving images and the processes that I was using in still images were too cumbersome to take into film because turn around times were even worse, more expensive. I tried doing some stuff in Super-8 with my own processing. I just came to a halt.

And we asked the question of what it would mean to do the visual equivalent of a Moog synthesizer. And that's the way we presented the question to ourselves. And so I took each Moog synthesizer module, let's say a voltage controlled amplifier, well that could do fades and keys, right? A voltage controlled filter I said could control resolution, really I didn't know it was going to be more trouble than that. And I just went through all the Moog modules and said if you center their bandwidth to handle video and you did the right things with synch and everything, what would they do? And it would kind of catalog these visual effects. Well, the step from that to the analog IP was a very small one in concept.

So I had the idea long before I knew any technology to implement it except I researched it to know it could be implemented. I got the Moog synthesizer plans and looked at them, understood how the circuits worked, kind of . . . I could understand it but I couldn't design it, I didn't have the tools of design. So that idea just sat around until the Cambodian crisis, which was '69, wasn't it?

In the fall of '69 when the Cambodia crisis, I had met video yet, but I worked computer stuff and photography, environmental stuff .

Computer controlled environments.

Some of them were mechanical but a lot of them had to do with light and sound.

It was the Cambodian crisis, the school was shut now. The arts faculty, because they trusted their students and worked with them, kept the art department open against the general trend although we diffused a lot of . . . concentrated all the activity in the art building. We were kind of a media center for a lot of movement stuff. We did posters, graphic art, utilitarian stuff for the great movement. Well, one of the problems with that was that there were all these instantaneous courses and stuff and it was a real problem letting people know where they were. So someone suggested the idea

of setting up a string of video monitors with a camera and a roller kind of thing just like a titler only mechanical variety typewriter roller paper business to announce these meetings and have them run continuously so someone could run in and it would be up in a few minutes. My collective was meeting at, you know the graphics collective, was meeting at blank . . . But we set this up and in the process, borrowed some cheap Sony equipment, no tape recorder, just a single camera with a RF modulator strung to 6 RF monitors up the column where the elevator was which went to all the lounges, one to each floor. I became fascinated with the image. And then we televised some meetings. When the meeting was really crowded we put a camera and a mike in there, just broadcast, cablecast. And I just became fascinated with the image on the screen, and I would sit by the screen and stroke it, there was just something about the image that just got me. And then, and my first video piece was actually done there, I couldn't resist. One morning I got a nude model to sit over in a corner and I set up a camera so that it would view people walking by the model but the model wasn't in the camera's view. So you had all these people walking by doing doubletakes. Then they would go up and sit down in the lobby lounge and watch other people do doubletakes. That was my first video piece.

I'd been pretty political. I'd been in jail and stuff. I'd been pretty political at Wisconsin.

The anti-war movement. And Kent State is what had caused the crisis. That was a hundred miles away. And a lot of schools shut down all around the country because of that. It's an obvious rallying point, they'd shot three of us.

Woody: Because that's interesting because I'm finding all over that video technologists were (inaudible) radicals. If you take Lee Felsenstein, he was an activist.

Don: At the end of that I took off on my long motorcycle tour which was 20,000 miles around the country in four months. Т circumnavigated the country. While I was taking that motorcycle tour it became very clear to me about the goals I had tried to achieve in still photography and failed in film could be achieved in video with a sophisticated video device. I'd already thought about the idea of the Image Processor very close to the way it finally came out. At that point I started taking apart the concept, considering all sorts of alternative organizational structures, pin programming, all sorts of other possibilities. After I researched the thing in my head it came pretty much to this thing. So now it's a year later, the fall after the Kent State thing and I apply for a grant in Innovations in Undergraduate Education to do the Image Processor with the idea of using it to teach visual stuff. And I got that grant.

Which gives me the ideas I was thinking about at the time I designed the IP. I thought I was going to knock out the IP in a couple of months. So then . . . so I got the grant and proceeded . . . that fall I started to teach myself electronic design.

I'd been a radio amateur when I'd been a kid, so I had an affinity with it, but I certainly didn't know how to design circuits. I could certainly copy things out of Popular Electronics. I was comfortable with it but I didn't have any design, I didn't know enough. So during that nine months I taught myself electronic design by getting photo boards and building circuits and experimenting with video circuits and did some video stuff and did . . . before the IP was started I did an event in an inflatable structure with Laura (Volkernine??). Where I just did some simple closed circuit video in a big inflatable structure, 80 feet long stuck out onto the Lake. And then during the evening I rented a black and white projector and did feedback with the projector, and a little electronic circuit to beef it up to work and people would walk . . . it was set up so people when the would walk they would walk in front of the screen and cause the thing to swirl around and stuff.

The summer, in the spring just before I started the IP. This was one year later than the Cambodian thing I went to New York and I knew there were video synthesizers. I had heard that and I went to go find out what they did. And the only video synthesizer I could see was Eric Siegel's thing. It was in the gallery of what is now Electronic Arts Intermix.

Woody: Howard Wise Gallery.

Don: Somebody was there but not Howard Wise nor Eric Siegel. He showed me the machine and showed me some tapes and I had heard about the Paik/Abe machine, had an idea how it worked. Called up Global Village . . I had a lot of trouble seeing people. I was very naive. I was from the Midwest and I had dropped into New York, sitting in a phone booth calling people up to go see them.

So then I came back and started to build it. It took me about a full year to build it before it was running even in black and white. I did some early stuff with Jim Weisman who had a copy of the Paik/Abe synthesizer . . .

Steven Beck and Salvatore Martirano came to a concert in Chicago and the IP at that point was just getting underway.

Then I met Steven Beck who had been at the University of Illinois and had done this thing which was based on oscillators and relays and stuff and Salvatore had this early vision of the Sal-Mar construction and was performing on it. Then that's when I met Phil Morton who was at the Art Institute and I saw him showing some tapes over in the corner.

Well, when it got its own color encoder it became a much different instrument. Paik/Abe is a beautiful colorizer but it's traditional. You can't say, I'm going to get up this kind of key situation and put red here, for instance. You can't drive it, you can only ride it, that's Nam June's story. So when the color encoder came to the IP you could really drive it in color and it made it a very different machine. And then the amplitude classifier and then refinements after that. Output mixer, audio input and some other stuff. So that's kind of the story of the beginning of that.

I had always the idea of giving it away and letting people copy it. But I had assumed it would require someone of considerable technical background to copy it. And Phil Morton asked me if he could copy the IP.

Long before any building started, that was my own philosophy. To give it away and take this business about being paid by the state to develop and disseminate information very seriously.

I'm paid by the state to do it. Economics allow me to do it. I didn't have to support myself with this development of mine so . . . I mean if my support system were different my religion would be different.

So I was able to make that choice by virtue of the way I was employed.

The IP is primarily an image processor although it can do some image generation. Most of the computer stuff is image generation stuff, like Tom's system. Also, it turns out that with a good model that Moog developed you can make very usable machines by just paying attention to some of the details of how you design the modules and stuff. And the digital problem I think is much more severe.

Jim Weisman and Paul Challicoe (?) who came with Nam June Paik to visit the Art Institute. They were at Cal Arts and Nam June was there too and the Tude paid them to come visit and do a visiting artists gig and the IP then was kind of up in black and white and I played it a little bit so I brought it over at Jim's and Paul's and Nam June's urging. I brought it over and set it up and it worked. I was using his device as a colorizer for it, in a sense. And we had a wonderful time playing. Jim and Phil and me and Paul Gallico and a couple of other people. It was a very pleasurable . . . And Drew Browning was a student and Gregory Dawe and Ed Rancus were all students then. Before I was into video . . . I worked in false color still photography. And when I tried to move into motion, film, everything become so cumbersome I couldn't go forward, like I'm too dumb. The way I say it: I couldn't get the feedback fast enough to know what it was I wanted to do. And I couldn't play enough to find the special places that I wanted to work in as I could in still photography, play and find the place and work in it. And it occurred to me an electronic processor of TV could do similar things that I did chemically, primarily, and by funny exposures and sometimes optically with still photography.

The motivation for it, was the idea of wanting to play with moving images and the processes that I was using in still images were too cumbersome to take into film because turn around times were even worse, more expensive. I tried doing some stuff in Super-8 with my own processing. I just came to a halt.

And we asked the question of what it would mean to do the visual equivalent of a Moog synthesizer. And that's the way we presented the question to ourselves. And so I took each Moog synthesizer module, let's say a voltage controlled amplifier, well that could do fades and keys, right? A voltage controlled filter I said could control resolution, really I didn't know it was going to be more trouble than that. And I just went through all the Moog modules and said if you center their bandwidth to handle video and you did the right things with synch and everything, what would they do? And it would kind of catalog these visual effects. Well, the step from that to the analog IP was a very small one in concept.

So I had the idea long before I knew any technology to implement it except I researched it to know it could be implemented. I got the Moog synthesizer plans and looked at them, understood how the circuits worked, kind of . . . I could understand it but I couldn't design it, I didn't have the tools of design. So that idea just sat around until the Cambodian crisis, which was '69, wasn't it?

In the fall of '69 when the Cambodia crisis, I had met video yet, but I worked computer stuff and photography, environmental stuff .

Computer controlled environments.

Some of them were mechanical but a lot of them had to do with light and sound.

It was the Cambodian crisis, the school was shut now. The arts faculty, because they trusted their students and worked with them, kept the art department open against the general trend although we diffused a lot of . . . concentrated all the activity in the art building. We were kind of a media center for a lot of movement stuff. We did posters, graphic art, utilitarian stuff for the great movement. Well, one of the problems with that was that there were all these instantaneous courses and stuff and it was a real problem letting people know where they were. So someone suggested the idea

of setting up a string of video monitors with a camera and a roller kind of thing just like a titler only mechanical variety typewriter roller paper business to announce these meetings and have them run continuously so someone could run in and it would be up in a few minutes. My collective was meeting at, you know the graphics collective, was meeting at blank . . . But we set this up and in the process, borrowed some cheap Sony equipment, no tape recorder, just a single camera with a RF modulator strung to 6 RF monitors up the column where the elevator was which went to all the lounges, one to each floor. I became fascinated with the image. And then we televised some meetings. When the meeting was really crowded we put a camera and a mike in there, just broadcast, cablecast. And I just became fascinated with the image on the screen, and I would sit by the screen and stroke it, there was just something about the image that just got me. And then, and my first video piece was actually done there, I couldn't resist. One morning I got a nude model to sit over in a corner and I set up a camera so that it would view people walking by the model but the model wasn't in the camera's view. So you had all these people walking by doing doubletakes. Then they would go up and sit down in the lobby lounge and watch other people do doubletakes. That was my first video piece.

I'd been pretty political. I'd been in jail and stuff. I'd been pretty political at Wisconsin.

The anti-war movement. And Kent State is what had caused the crisis. That was a hundred miles away. And a lot of schools shut down all around the country because of that. It's an obvious rallying point, they'd shot three of us.

Woody: Because that's interesting because I'm finding all over that video technologists were (inaudible) radicals. If you take Lee Felsenstein, he was an activist.

Don: At the end of that I took off on my long motorcycle tour which was 20,000 miles around the country in four months. Ι circumnavigated the country. While I was taking that motorcycle tour it became very clear to me about the goals I had tried to achieve in still photography and failed in film could be achieved in video with a sophisticated video device. I'd already thought about the idea of the Image Processor very close to the way it finally came out. At that point I started taking apart the concept, considering all sorts of alternative organizational structures, pin programming, all sorts of other possibilities. After I researched the thing in my head it came pretty much to this thing. So now it's a year later, the fall after the Kent State thing and I apply for a grant in Innovations in Undergraduate Education to do the Image Processor with the idea of using it to teach visual stuff. And I got that grant.

Which gives me the ideas I was thinking about at the time I designed the IP. I thought I was going to knock out the IP in a couple of months. So then . . . so I got the grant and proceeded . . . that fall I started to teach myself electronic design.

I'd been a radio amateur when I'd been a kid, so I had an affinity with it, but I certainly didn't know how to design circuits. I could certainly copy things out of Popular Electronics. I was comfortable with it but I didn't have any design, I didn't know enough. So during that nine months I taught myself electronic design by getting photo boards and building circuits and experimenting with video circuits and did some video stuff and did . . . before the IP was started I did an event in an inflatable structure with Laura (Volkernine??). Where I just did some simple closed circuit video in a big inflatable structure, 80 feet long stuck out onto the Lake. And then during the evening I rented a black and white projector and did feedback with the projector, and a little electronic circuit to beef it up to work and people would walk . . . it was set up so people when the would walk they would walk in front of the screen and cause the thing to swirl around and stuff.

The summer, in the spring just before I started the IP. This was one year later than the Cambodian thing I went to New York and I knew there were video synthesizers. I had heard that and I went to go find out what they did. And the only video synthesizer I could see was Eric Siegel's thing. It was in the gallery of what is now Electronic Arts Intermix.

Woody: Howard Wise Gallery.

Don: Somebody was there but not Howard Wise nor Eric Siegel. He showed me the machine and showed me some tapes and I had heard about the Paik/Abe machine, had an idea how it worked. Called up Global Village . . I had a lot of trouble seeing people. I was very naive. I was from the Midwest and I had dropped into New York, sitting in a phone booth calling people up to go see them.

So then I came back and started to build it. It took me about a full year to build it before it was running even in black and white. I did some early stuff with Jim Weisman who had a copy of the Paik/Abe synthesizer . . .

Steven Beck and Salvatore Martirano came to a concert in Chicago and the IP at that point was just getting underway.

Then I met Steven Beck who had been at the University of Illinois and had done this thing which was based on oscillators and relays and stuff and Salvatore had this early vision of the Sal-Mar construction and was performing on it. Then that's when I met Phil Morton who was at the Art Institute and I saw him showing some tapes over in the corner.

Well, when it got its own color encoder it became a much different instrument. Paik/Abe is a beautiful colorizer but it's traditional. You can't say, I'm going to get up this kind of key situation and put red here, for instance. You can't drive it, you can only ride it, that's Nam June's story. So when the color encoder came to the IP you could really drive it in color and it made it a very different machine. And then the amplitude classifier and then refinements after that. Output mixer, audio input and some other stuff. So that's kind of the story of the beginning of that.

I had always the idea of giving it away and letting people copy it. But I had assumed it would require someone of considerable technical background to copy it. And Phil Morton asked me if he could copy the IP.

Long before any building started, that was my own philosophy. To give it away and take this business about being paid by the state to develop and disseminate information very seriously.

I'm paid by the state to do it. Economics allow me to do it. I didn't have to support myself with this development of mine so . . . I mean if my support system were different my religion would be different.

So I was able to make that choice by virtue of the way I was employed.

The IP is primarily an image processor although it can do some image generation. Most of the computer stuff is image generation stuff, like Tom's system. Also, it turns out that with a good model that Moog developed you can make very usable machines by just paying attention to some of the details of how you design the modules and stuff. And the digital problem I think is much more severe.

Jim Weisman and Paul Challicoe (?) who came with Nam June Paik to visit the Art Institute. They were at Cal Arts and Nam June was there too and the Tude paid them to come visit and do a visiting artists gig and the IP then was kind of up in black and white and I played it a little bit so I brought it over at Jim's and Paul's and Nam June's urging. I brought it over and set it up and it worked. I was using his device as a colorizer for it, in a sense. And we had a wonderful time playing. Jim and Phil and me and Paul Gallico and a couple of other people. It was a very pleasurable . . . And Drew Browning was a student and Gregory Dawe and Ed Rancus were all students then. Before I was into video . . . I worked in false color still photography. And when I tried to move into motion, film, everything become so cumbersome I couldn't go forward, like I'm too dumb. The way I say it: I couldn't get the feedback fast enough to know what it was I wanted to do. And I couldn't play enough to find the special places that I wanted to work in as I could in still photography, play and find the place and work in it. And it occurred to me an electronic processor of TV could do similar things that I did chemically, primarily, and by funny exposures and sometimes optically with still photography.

The motivation for it, was the idea of wanting to play with moving images and the processes that I was using in still images were too cumbersome to take into film because turn around times were even worse, more expensive. I tried doing some stuff in Super-8 with my own processing. I just came to a halt.

And we asked the question of what it would mean to do the visual equivalent of a Moog synthesizer. And that's the way we presented the question to ourselves. And so I took each Moog synthesizer module, let's say a voltage controlled amplifier, well that could do fades and keys, right? A voltage controlled filter I said could control resolution, really I didn't know it was going to be more trouble than that. And I just went through all the Moog modules and said if you center their bandwidth to handle video and you did the right things with synch and everything, what would they do? And it would kind of catalog these visual effects. Well, the step from that to the analog IP was a very small one in concept.

So I had the idea long before I knew any technology to implement it except I researched it to know it could be implemented. I got the Moog synthesizer plans and looked at them, understood how the circuits worked, kind of . . . I could understand it but I couldn't design it, I didn't have the tools of design. So that idea just sat around until the Cambodian crisis, which was '69, wasn't it?

In the fall of '69 when the Cambodia crisis, I had met video yet, but I worked computer stuff and photography, environmental stuff . . . .

Computer controlled environments.

Some of them were mechanical but a lot of them had to do with light and sound.

It was the Cambodian crisis, the school was shut now. The arts faculty, because they trusted their students and worked with them, kept the art department open against the general trend although we diffused a lot of . . . concentrated all the activity in the art building. We were kind of a media center for a lot of movement stuff. We did posters, graphic art, utilitarian stuff for the great movement. Well, one of the problems with that was that there were all these instantaneous courses and stuff and it was a real problem letting people know where they were. So someone suggested the idea of setting up a string of video monitors with a camera and a roller kind of thing just like a titler only mechanical variety typewriter roller paper business to announce these meetings and have them run continuously so someone could run in and it would be up in a few minutes. My collective was meeting at, you know the graphics collective, was meeting at blank . . . But we set this up and in the process, borrowed some cheap Sony equipment, no tape recorder, just a single camera with a RF modulator strung to 6 RF monitors up the column where the elevator was which went to all the lounges, one to each floor. I became fascinated with the image. And then we televised some meetings. When the meeting was really crowded we put a camera and a mike in there, just broadcast, cablecast. And I just became fascinated with the image on the screen, and I would sit by the screen and stroke it, there was just something about the image that just got me. And then, and my first video piece was actually done there, I couldn't resist. One morning I got a nude model to sit over in a corner and I set up a camera so that it would view people walking by the model but the model wasn't in the camera's view. So you had all these people walking by doing doubletakes. Then they would go up and sit down in the lobby lounge and watch other people do doubletakes. That was my first video piece.

I'd been pretty political. I'd been in jail and stuff. I'd been pretty political at Wisconsin.

The anti-war movement. And Kent State is what had caused the crisis. That was a hundred miles away. And a lot of schools shut down all around the country because of that. It's an obvious rallying point, they'd shot three of us.

Woody: Because that's interesting because I'm finding all over that video technologists were (inaudible) radicals. If you take Lee Felsenstein, he was an activist.

Don: At the end of that I took off on my long motorcycle tour which 20,000 miles around the country in four months. was Т circumnavigated the country. While I was taking that motorcycle tour it became very clear to me about the goals I had tried to achieve in still photography and failed in film could be achieved in video with a sophisticated video device. I'd already thought about the idea of the Image Processor very close to the way it finally came out. At that point I started taking apart the concept, considering all sorts of alternative organizational structures, pin programming, all sorts of other possibilities. After I researched the thing in my head it came pretty much to this thing. So now it's a year later, the fall after the Kent State thing and I apply for a grant in Innovations in Undergraduate Education to do the Image Processor with the idea of using it to teach visual stuff. And I got that grant.

Which gives me the ideas I was thinking about at the time I designed the IP. I thought I was going to knock out the IP in a couple of months. So then . . . so I got the grant and proceeded . . . that fall I started to teach myself electronic design.

I'd been a radio amateur when I'd been a kid, so I had an affinity with it, but I certainly didn't know how to design circuits. I could certainly copy things out of Popular Electronics. I was comfortable with it but I didn't have any design, I didn't know enough. So during that nine months I taught myself electronic design by getting photo boards and building circuits and experimenting with video circuits and did some video stuff and did . . . before the IP was started I did an event in an inflatable structure with Laura (Volkernine??). Where I just did some simple closed circuit video in a big inflatable structure, 80 feet long stuck out onto the Lake. And then during the evening I rented a black and white projector and did feedback with the projector, and a little electronic circuit to beef it up to work and people would walk . . . it was set up so people when the would walk they would walk in front of the screen and cause the thing to swirl around and stuff.

The summer, in the spring just before I started the IP. This was one year later than the Cambodian thing I went to New York and I knew there were video synthesizers. I had heard that and I went to go find out what they did. And the only video synthesizer I could see was Eric Siegel's thing. It was in the gallery of what is now Electronic Arts Intermix.

Woody: Howard Wise Gallery.

Don: Somebody was there but not Howard Wise nor Eric Siegel. He showed me the machine and showed me some tapes and I had heard about the Paik/Abe machine, had an idea how it worked. Called up Global Village . . . I had a lot of trouble seeing people. I was very naive. I was from the Midwest and I had dropped into New York, sitting in a phone booth calling people up to go see them.

So then I came back and started to build it. It took me about a full year to build it before it was running even in black and white. I did some early stuff with Jim Weisman who had a copy of the Paik/Abe synthesizer . . .

Steven Beck and Salvatore Martirano came to a concert in Chicago and the IP at that point was just getting underway.

Then I met Steven Beck who had been at the University of Illinois and had done this thing which was based on oscillators and relays and stuff and Salvatore had this early vision of the Sal-Mar construction and was performing on it. Then that's when I met Phil Morton who was at the Art Institute and I saw him showing some tapes over in the corner.

Well, when it got its own color encoder it became a much different instrument. Paik/Abe is a beautiful colorizer but it's traditional. You can't say, I'm going to get up this kind of key situation and put red here, for instance. You can't drive it, you can only ride it, that's Nam June's story. So when the color encoder came to the IP you could really drive it in color and it made it a very different machine. And then the amplitude classifier and then refinements after that. Output mixer, audio input and some other stuff. So that's kind of the story of the beginning of that.

I had always the idea of giving it away and letting people copy it. But I had assumed it would require someone of considerable technical background to copy it. And Phil Morton asked me if he could copy the IP.

Long before any building started, that was my own philosophy. To give it away and take this business about being paid by the state to develop and disseminate information very seriously.

I'm paid by the state to do it. Economics allow me to do it. I didn't have to support myself with this development of mine so . . . I mean if my support system were different my religion would be different.

So I was able to make that choice by virtue of the way I was employed.

The IP is primarily an image processor although it can do some image generation. Most of the computer stuff is image generation stuff, like Tom's system. Also, it turns out that with a good model that Moog developed you can make very usable machines by just paying attention to some of the details of how you design the modules and stuff. And the digital problem I think is much more severe.

Jim Weisman and Paul Challicoe (?) who came with Nam June Paik to visit the Art Institute. They were at Cal Arts and Nam June was there too and the Tude paid them to come visit and do a visiting artists gig and the IP then was kind of up in black and white and I played it a little bit so I brought it over at Jim's and Paul's and Nam June's urging. I brought it over and set it up and it worked. I was using his device as a colorizer for it, in a sense. And we had a wonderful time playing. Jim and Phil and me and Paul Gallico and a couple of other people. It was a very pleasurable . . . And Drew Browning was a student and Gregory Dawe and Ed Rancus were all students then.