

CHANNA HORWITZ
A SHORT HISTORY

After leaving school in 1963 I was able to find my own question. The desire to find out pictorially what I did not know still prevails today.

The first thing I was interested in was in reducing my choices to the least number so that I could go deeper in my search and discover more. The less choices I had the more I could discover. I reduced all of my choices for subject to the circle and the square, and all of my choices for color to black and white. I then began making three-dimensional black and white paintings.

I was also fascinated with motion and decided to make a moving sculpture. I accomplished this by creating (as my first of four in a series), a sculpture consisting of a white plexiglass cube with a small electric blower inside, and a clear vinyl ball on top. The ball would inflate and deflate a bit slower than we breathe. I loved that the content of the sculpture was transparent.

The act of capturing motion propelled me to do a proposal for the "Art and Technology Show" at the Los Angeles County Museum of Art. I proposed doing a room sized sculpture with eight beams that moved in a vertical direction between a base and a roof with magnets that controlled the motion. I thought that if industry could control magnetism to that extent then it would be of interest to them and aesthetically I would love to see it.

The sculpture had lights above and below each of the eight beams, which gave the illusion that light was controlling the movement. After completing the drawing I wondered how the eight beams would look in a given length of time. I chose to use graph paper to show time, and color to show motion in time. I notated ten minutes of time for the sculpture. This was so fascinating to me that I chose to just notate motion on graph paper for my next body of work which was the series called "Sonakinatography", a name coined for me by a friend literally meaning, sound, motion, notation.

The first four compositions in "Sonakinatography" were very simple problems in motion. I chose 8 colors that formed a color circle with one step between each of the colors. 1-green, 2-blue, 3-blue violet, 4-red violet, 5-red, 6-orange, 7-yellow, and 8-yellowgreen. Green moved on every beat, blue, once every two beats, on to yellow green that moved once every eight beats. In doing this I had created a language that I could use to graph rhythms in time. Initially I did four compositions using a one-inch. Initially I did four compositions using a one-inch grid, where the colored squares moved within each inch vertically and sequentially like a silent filmstrip.

For my first gallery show I chose to use the sculptures called "Breathers" and the early "Sonakinatography", drawings on paper. To have the show be a consistent expression about movement, I invited a modern classical choreographer to do simple movements for four classically trained dancers and a poet who spoke her own poetry about the human condition. I created three motion problems for the choreographer to answer. The dancers were to wear costumes I designed and painted that had a black half circle, or a black half square front and back so that two girls created a full circle and two girls created a full square. My request of the choreographer was that she use the circle and square motif in a three segmented piece and have the dancers dance to spoken poetry. I gave the poet a graph with sounds and silences for each minute for the duration of the three-hour show. The poet used the lady on the telephone telling the time at the beginning and end of each of her poems and the ticking of a metronome to the count of a second for the silences. The breathers were moving; there was a black and white movie of the dancers in rehearsal projected on a sculptured dome and slides of each inch of the "Sonakinatography" notation projected and playing continually.

Also in 1969, I wondered if the simple language of “Sonakinatography”, could speak to other artists in other disciplines in the same way that it spoke to me in painting. Using, “Sonakinatography” Composition #3, I contacted a choreographer and an electronic composer to interpret it into their medium as accurately as possible, asking them to use all of the limitations I imposed on myself in creating their own pieces. I wanted to see if the color flows I had created would look as beautiful in motion or sound as it did on the graph paper. The result was my first collaborative performance with a choreographer and a composer. For this performance eight dancers danced to electronic sound created on a Moog Synthesizer. The performance took place at the University of Southern California, for the, EAT show, (Experiments in Art and Technology) in 1969.

I went on to have many other interpretive performances with different choreographers and composers. A live percussive performance with a classical symphonic percussionist who did an interpretation using eight percussive instruments was staged during the opening of a drawing and painting show called “The Poetry of Systems. I did a “Poem Opera”, for a Performance arts festival in Bologna, Italy, where I used words instead of colors. I had one metronome, and eight performers each reading scripts that were 25’ long, doing a syllabic percussive interpretation of Composition #3. The performance lasted for forty-five minutes and has been seen around the world.

The drawings from “Sonakinatography” led to my next body of work called “Levels in Time and Space”. Using graph paper I had four levels in space vertically and eight squares in time horizontally. Small squares grew sequentially into large cubes in curving sweeps across the drawing. Some drawings were as large as sixteen feet long.

After completing this series of eight large drawings I wondered if I could reduce everything in one of the drawings down to its essence. For the work called, “Slices”, I reduced eight entities in time horizontally to eight inches, and four levels in space vertically to one inch each but added four more levels. I completed the first drawing and then visualized it as if it was the front slice in a loaf of bread. When I looked at it that way I realized I had eight levels, one step away from each other. I had conceptually sliced the drawings eight times from front to back giving me the eight drawings. So, I decided to slice the drawing again this time eight times top to bottom, and then eight times side to middle. This gave me three major pieces.

While doing the eight drawings, “Side to Middle”, I made a mistake in counting and ended up with an oddly shaped image. I realized I could use this error deliberately and sequentially recreated the same drawing eight times altering one aspect of the drawing each time. This became the work called, “Variation and Inversion on a Rhythm”, where I had up to one hundred and twenty drawings working as one piece depicting motion.

For the next body of work I placed one of the basic eight drawings from, “Variation and Inversion on a Rhythm”, over the other drawing, repeating with all eight of the drawings creating a very dense structure. These structures resulted in the body of work called the “Canon” series. I dissected the structures finding multiple line designs, which resulted in a new body of work.

The “Structures” led to the “Moire” series where I realized that all of the work I had been doing were really based on eight angles. I gave each of the angles numbers and a color then searched out all of the possible combinations. I did “Moirés” on gold leaf, on colored grounds; I did them subliminally and over shapes. I created mores in transparent books with Plexiglas covers and transparent pages so that one need not even open the book to see the content. I also created a flipbook where the shapes moved as the pages were leafed through.

SONAKINATOGRAPHY: (Time-Motion-Notation)

Using graph paper as time I move colored dots around on graph paper, playing with different compositions.

I had a need to compose time. I could not conceive of how a choreographer or a composer could compose time. Because of this inability and desire to compose, I devised a system that would allow me to see time visually. I felt I could use graph paper as the basis for the visual description of time, and color to show motion on the graph paper.

This initial decision had a structural truth to it, so I proceeded to add only choices that had an equal truth. Using eight entities, giving each a count equal to its number. I assigned eight colors to the eight entities. The colors created a circle cord, each one step from the next and the last one step from the first. Each of the eight entities had a number and a color.

Number one had a duration of one count and was green.

Two had a duration of two counts and was colored Blue.

Three had a duration of three counts and was colored Blue-Violet.

Four had a duration of four counts and was colored Red-Violet.

Five had a duration of five counts and was Red.

Six had a duration of six counts and was Orange.

Seven had a duration of seven counts and was Yellow.

Eight had a duration of eight counts and was Yellow-Green.

I named these eight entities, "Instruments".

With eight instruments, each having a duration in time equal to its number, I proceeded to compose.

I used a circular sequence and a linear logic to show motion in the same way that I had used a circular sequence for my choices for color.

Visually, I accomplished this by having the rhythms follow a count of 2,3,4,5,6,7,8,1,2, or 1,2,3,4,5,6,7,8,7,6,5,4,3,2,1.

Each instrument is numbered from one through eight, one - low, eight - high. Time is referred to as a beat. There is a constant or progressing measurement of time throughout the system. The time lapse between each progression depends upon the interpreting artists choice of rhythmic pattern.

"Sonakinatography" is a system of notation for the organization of time, space, color, movement, and sound, through the use of symbols. It breaks down the barriers between the arts through the use of a simple language that can be applied to each art in a different way. The compositions are logical, sequential, structures for planned, programmed movement in time. Any media (sound, color or movement) may be used to interpret the compositions, which can be performed separately, simultaneously, or sequentially. Because of their choice of sound, source, pitch, color, sculptured movement, tempo, degree or intensity, density, distance, direction of movement, etc., artists are provided extreme latitude in their interpretation of the composition. Sound or motion can be close or far from each other in intervals of intensity, pitch, and value.

I wondered if the simple language of “Sonakinatography”, could speak to other artists in other disciplines in the same way that it spoke to me in painting and drawing. Using, “Sonakinatography Composition #3”, I contacted a choreographer and a composer of Electronic music to interpret it into their medium as accurately as possible, asking them to use all of the limitations I imposed on myself and taking advantage of the freedoms I allowed in creating their own pieces. I wanted to see if the color flows I had created in painting would look as beautiful in motion or sound as it did on the graph paper. The result was my first collaborative performance with a choreographer and a composer. For this performance eight dancers danced to electronic sound created on a Moog Synthesizer.

I went on to have many other interpretive performances with different choreographers and composers, one interpretation was composed on the Boochlah synthesizer, and danced on light platforms by eight modern dancers choreographed to respond to the colored lights underfoot that also related to the sound. Also a live percussive performance with a classical symphonic percussionist who did an interpretation using eight percussive instruments was staged during the opening of a drawing and painting show.

I created a “Poem Opera” called the “Divided Person” with four categories and sixty-four words.

#1 - The Inner Person, Outer Person

#2 - The Young Person, Old Person

#3 - The Happy Person, Sad Person

#4 - The Dreamer, the Realist

Four people read 75’ scripts to the beat of a metronome for 45 minutes.

I hope I didn’t lose you in this minutia.

Channa Horwitz
May 11, 2002

file created June 28, 2005

CHANNA HORWITZ

PAINTINGS 1966

I left school when I was able to find my own questions to ask. That initial desire to find out pictorially what I did not know still prevails today.

The first thing I was interested in was reducing my choices to the least number so that I could go deeper in my search and discover more. In order to do that and find out as much as I could I decided to reduce all objects to a circle and square and all color to black and white because it seemed that with complexity comes miniaturization. That the more complex something is the smaller it seems to get. That a bee is more complex than we are. With this thought in mind I decided to reduce all of my choices to the least number and expand on those few choices. I chose the square because I felt that it would be representational of all shapes and the circle would represent the circumference of each shape.

I then made the canvases three inches thick. To give a reason for the thickness of the canvas I thought of the canvas as a sculpture and I placed the canvas in its own shadow and painted the sides four different shades of gray to correspond to what I saw as an object in shadow. I then placed a black box on top of the canvas and a thick black circle around the box. I cast a shadow over the canvas that related to the shadows on the sides and I painted a flat circle on the box that was the same size as the box on the canvas.

SCULPTURES: BREATHERS - 1968-1969

Then I gave up the color black and decided to do all white relief sculptures of a square with a half ball protruding out of the center and then I did an all white sculpture of a circle inside of a square or a square inside of a circle depending on where you looked at it.

While doing that series I had the desire to make moving sculptures that I called "Breathers". I used a Plexiglas box with an electric blower dryer inside, and a clear vinyl ball on top. The blower was set to inflate and deflate at about the same rate that we breath. I loved the idea that the content of the sculpture, "Air", was transparent and that the air was in a transparent ball. While trying to get the "Breather" made I saw that the Los Angeles County Museum of Art was accepting proposals for their show called, "Art and Technology". I knew that the breathers could be made if I could only find somebody to build them. I knew that the double breathers that had sound connected to it with a round audio tape that repeated two voices talking to each other and saying "Oy Vey" and "Yea" could be built, and I knew that my spitting machine that used magnets and springs and said "Auch Too" and had a cam that controlled the power could be made.

What really intrigued me was the use of magnetism. I felt that if industry could learn to control magnetism to that extent that they would be interested in the challenge and it would be beneficial to mankind and I would love to see the room sized sculpture that I envisioned completed.

PROPOSAL FOR “ART AND TECHNOLOGY SHOW AT LOS ANGELES COUNTY MUSEUM OF ART” - 1968 (Fig. 1)

So I drew up the plans for the sculpture I called “Suspension of Vertical Beams Moving in Space”. It had a base with eight holes with magnets in each hole and lights on each side of the hole and a roof that also had both magnets and lights for each beam. The piece would consist of eight cylindrical beams made of a very light weight substance. Each would have a magnet on the bottom and the top. The beams would all start in the base and in choreographed movements they would each move. The lights would give the illusion that they were pulling the beams because their intensity would change as they moved closer or further away. One light on each side of the magnetic hole for the beam would be constant, one light would be sputtering and they each had eleven intensities from soft to very bright and strong.

GRAPH PAPER AS TIME AND MOTION - EARLY WORK “SONAKINATOGRAPHY”

After completing the drawing of the proposal, I wondered how the beams would look in a given length of time, so I figure out how to draw the motion using graph paper and numbers on the graph paper to show time and motion. I notated ten minutes of time for the sculpture.

FIRST GALLERY SHOW AND PERFORMANCE - 1969

For my first gallery show in 1969 I chose to use the sculptures called “Breathers and the early “Sonakinatography”, drawings on paper. To have the show be a consistent expression about movement, I invited a modern classical choreographer to do simple movements for four classically trained dancers and a poet who spoke her own poetry about the human condition.

I created three motion problems for the choreographer to answer. The dancers were to wear costumes I designed and painted that had a black half circle, or a black half square front and back so that two standing next to each other created a full circle or two girls together created a full square. My request of the choreographer was that she use the circle and square motif in a three segmented piece and have the dancers dance to spoken poetry. In the first segment the choreographer did not know which dancer had which shape, but was to use the feeling of the circle and square in her choreography. In the second segment she was told which girl had which shape, and was to use it as directed in her choreography. In the third segment she could use the motif of the circle and square as she pleased.

I gave the poet a graph with sounds and silences for each minute for the duration of the three hour show. The poet used the lady on the telephone saying (“At the tone the time is 8:00 exactly, etc.”) the time at the beginning and end of each of her poems and the ticking of a metronome to the count of a second for the silences. The breathers were moving, there was a

black and white movie of the dancers in rehearsal projected on to one of the white sculptured domes and slides of each inch of the “Sonakinatography Composition 3” projected on to and playing on another sculptured dome continually.

SONAKINATOGRAPHY: DRAWINGS & PAINTINGS (Fig. 2)

Using graph paper as time was so fascinating to me that I chose to just notate motion on graph paper for my next body of work which was the series I called, “Sonakinatography”, (a name coined for me by a friend). I started to move colored dots around on graph paper, playing with different compositions. I was supposed to be getting ready for a gallery show that I had a year to prepare for and when friends called to ask how my show was going I would say that I was still just playing around and that I would get serious and do the black and white paintings I planned to do for the show really soon.

I had a need to compose time because I had knowledge of classical visual compositions and I could compose two-dimensionally, as in painting and drawing. I could compose three-dimensionally, as in sculpture, but I had no ability to compose in the fourth dimension, time. I could not conceive of how a choreographer or a composer could compose time. Because of this inability and desire to compose, I devised the system that would allow me to see time visually. I felt I could use a graph as the basis for the visual description of time.

This initial decision had a structural truth to it, so I proceeded to add only choices that had an equal truth. I chose to use eight entities, giving each a count equal to its number. I assigned eight colors to the eight entities. The colors created a circle cord - each color one step from the next color and the last color one step from the first color. Each of the eight entities had a number and a color. Number one had a duration of one count and it was green. Number two had a duration of two counts and was colored Blue. Number three had a duration of three counts and was colored Blue - Violet. Number four had a duration of four counts and was colored Red-Violet. Five had a duration of five counts and was Red. Six had a duration of six counts and was Orange. Seven had a duration of seven counts and was Yellow. Eight had a duration of eight counts and was Yellow-Green. I then named these eight entities, “Instruments”. With eight instruments, each having a duration in time equal to its number, I proceeded to compose.

To create a composition, I chose to use the same linear logic. Whatever motion appeared in time would be based on this same linear logic. I chose to use a circular sequence for the basis of my logic for motion. Visually, I could accomplish this by having my rhythms follow a count of 2,3,4,5,6,7,8,1,2, or 1,2,3,4,5,6,7,8,7,6,5,4,3,2,1. I now thought of these choices or limitations as rules for a game. I knew that by limiting my choice to the least number and questioning the work (playing games), I could find out the most. I interpret my compositions on graph paper which is used to measure time and indicate color, sound, and motion. I write the compositions in vertical or horizontal columns. If the interpretation is expressed horizontally, then it is read from left to right and from bottom to top. If the interpretation is expressed vertically, then it is read from bottom to top and from left to right. One symbol or square of color is representative of all media and is referred to on the notated sheets as instruments. Each instrument is numbered from one through eight, one - low, eight - high. Time is measured horizontally or vertically depending on the interpretation and is referred

to on the notated sheets as beat. There is a constant or progressing measurement of time throughout the system. The time lapse between each progression depends upon the interpreting artist's choice of rhythmic pattern.

Every few years I do new compositions. I have now completed twenty-two Sonakinatography compositions of varying lengths and sizes.

PHILOSOPHY

As an artist I experience freedom through limitation and structure. It would appear that limitation and structure are dichotomies to freedom, but through experience I have found them to be synonymous with and the basis of freedom.

I feel that through chance comes structure, or that if chance plays out long enough it will become structure. That if we cannot see the structure in chance we are too close to see it. The theory behind my work is that through structure comes and apparent chance. If structure plays out long enough it will appear to be chance. As I see the world, it appears to have grown and "IS" through chance, but it is, as I see it, a design that has many entities all tied together into a huge structure, and the world plays out in an apparent chance that is really a structure but we are too close to see the structure. Life's cycle flows as all things in nature flow from small and closed to full and open to shriveled and small. The cycle of life as I see it is circular. The beginning and ending are only one step away from each other.

"SONAKINATOGRAPHY COMPOSITION 3", PERFORMANCE ART: 1969 – 1992

"Sonakinatography is a system of notation for the organization of time, space, color, movement, and sound, through the use of symbols. The compositions are logical, sequential, structures for planned, programmed movement in time. Any media (sound, color or movement) may be used to interpret the compositions, which can be performed separately, simultaneously, or sequentially. Because of their choice of sound, source, pitch, color, sculptured movement, tempo, degree or intensity, density, distance, direction of movement, etc., artists are provided extreme latitude in their interpretation of the composition. Sound or motion can be close or far from each other in intervals of intensity, pitch, and value. I wondered if the simple language of "Sonakinatography", could speak to other artists in other disciplines in the same way that it spoke to me in painting. Using, "Sonakinatography Composition #3", I contacted a choreographer and an electronic composer to interpret it into their medium as accurately as possible, asking them to use all of the limitations I imposed on myself and taking advantage of the freedoms I allowed in creating their own pieces. I wanted to see if the color flows I had created would look as beautiful in motion or sound as it did on the graph paper. The result was my first collaborative performance with a choreographer and a Composer. For this performance eight dancers danced to Electronic sound created on a Moog synthesizer. The performance took place at the University of Southern California, for the Art and Technology show in 1969.

I went on to have many other interpretive performances with different choreographers and composers, one interpretation was composed on the Buchla synthesizer, and danced on light platforms by eight modern dancers choreographed to respond to the colored lights underfoot that also related to the sound. Also a live percussive performance with a classical symphonic percussionist who did an interpretation using eight percussive instruments was staged during the opening of a drawing and painting show called “The Poetry of Systems”, at California Institute of Technology. I did a “Poem Opera”, for a performance arts festival in Bologna Italy, where I used words instead of colors.

“Sonakinatography” breaks down the barriers between the arts through the use of a simple language that can be applied to each art in a different way.

TIME SCULPTURE IN SPACE, THE STAIRWELLS: - 1972

“Sonakinatography Composition 1, 2, 3, and 4, were the first compositions. I interpreted Composition 3, as a three-dimensional sculpture on a staircase. I thought of the rails on the stair case as the verticals of my graph. I numbered each space, going from the bottom of the stair case to the top and then on to the other side and back down to the bottom. I then placed black masking tape as the horizontal bars on my grid and colored acetate jells in eight colors on the numbered spaces corresponding to Composition 3.

POEM OPERA - 1978 – 1996

Besides interpreting the composition with electronic sound and choreographed motion I have interpreted the composition as a “Time Sculpture” in space (the stairwells) and as a “Poem Opera”, depicting the, (Divided Person).

For the “Poem Opera”, I had four categories. The Inner- Outer person. The Young-Old Person. The Happy - Sad Person. The Dreamer the Realist. There were sixty-four words eight for each category. I recreated the composition on twenty-five foot long scores one for each of four people who spoke the words to the beat of a metronome set at seventy-two (the rate of the average heartbeat.) The scripts were unrolled onto the floor at the beginning of the performance and ended at the feet of the performers at the end. There were three performances of the composition, two in Italy one here.

SONAKINATOGRAPHY, LEVELS IN TIME AND SPACE - 1973-74 (Fig. 3)

In 1973 I went back to the earliest drawings from “Sonakinatography” which led me to create new ones. Using black ink on graph paper I had the 1/8” squares move up eight and then down seven squares in a logical sequence.

This led to my next series of work called “Levels in Time and Space”. Using graph paper, I had four levels in space vertically and eight squares in time horizontally. Small 1/8” squares grew sequentially into one inch cubes and then into curving sweeps across the drawing and then back down to 1/8” squares. Some of these drawings were as large as sixteen feet long.

SONAKINATOGRAPHY - FIRST LEVEL

I completed about eight or ten compositions when I wondered if I could think of the top line on the graph as the bottom line and have the 1/8" black square grow to be an inch.

SONAKINATOGRAPHY - SECOND LEVEL

I created twenty new drawings of the squares doing different sequential things in their growth toward the top. This new series I called "Sonakinatography Second Level"

SONAKINATOGRAPHY EXPANDED - THIRD LEVEL - 1976

I wondered if I could consider the top line on the second level to be the bottom line and have the square grow to be a three-inch cube. Then I had three levels in space and eight entities in time.

FOURTH LEVEL

I added one more level in space by having the squares reduce from a three inch cube back to a one inch square. When I finished I had created a beautiful curved sequence that started out small and ended up small. I reversed the curve and had it go back down to the bottom in the same way that it had gotten to the top. I created six large drawings that were ten feet to sixteen feet long.

1st Level - 1/8" square goes up 1/8" every inch.

2nd Level - 1/8" square grows by 1/8" every inch until it is one inch.

3rd Level - One inch square grows to be a two inch cube.

4th Level -two inch cube reduces 1/8" and loses one line to become a one inch square at the top.

SLICES - 1977 (Fig. 4)

One of the large compositions, Composition #3, 40"x12' (Fig. 9) had all of the squares going directly to the top. Number one stayed one time at the top and then came down, number two stayed two times before coming back down, on to number eight that stayed eight times before coming down. The large drawings were getting to be too big for my studio and I had a desire for the work to get more complex. So using Composition #3, and using the concept, "with miniaturization comes complexity", I decided to reduce the work down to its essence. What I had was four levels in space (vertically) and eight entities in time (horizontally) I decided to keep the eight entities horizontally one inch apart and four levels in space (vertically) but add four more levels (vertically). So now I had eight levels in time and eight levels in space. I used a forty-five degree line on the graph paper and connected them with 1/8" to one inch horizontal lines. Again I counted sequentially and was able to create a drawing that appeared to be structural. I consulted with a mathematician (because everyone told me how mathematical my work was, when I knew I was very weak in math and all I ever did was to count the graph paper and work

with concepts) who when asked if I could put the drawing on a cathoray tube and see around it (I didn't know about computers back then) said no I didn't have enough information, that I needed to slice into it a few times. Well, I was so excited because I knew I could use the same linear logic that I used to create it, in expanding it. When I looked at the drawing I imagined it as a loaf of bread. I decided that I could slice into it seven times and have eight slices. If the first drawing started with one and ended with eight, then the second drawing could start with two and end with one. I did seven more drawings. The 8th drawing ended up being one away from the first drawing. When I finished the drawings of slices "Front to Back", I again reassembled the imaginary loaf of bread as a volume. I looked down on the volume which resembled a pyramid and I cut off the top and made seven more slices to the bottom. This gave me eight drawings for the work I called, "Top to Bottom." I then reassembled the work in my mind and looked at it and drew eight more drawings this time from, "Side to Middle."

SLICES

FIRST DRAWING - 1/8"

SECOND DRAWING - 1/4"

THIRD DRAWING - 3/8"

FOURTH DRAWING - 1/2"

FIFTH DRAWING - 5/8"

SIXTH DRAWING - 3/4"

SEVENTH DRAWING - 7/8"

EIGHTH DRAWING - 1"

VARIATION AND INVERSION ON A RHYTHM (Fig. 5)

While doing the eight drawings, "Side to middle", I made a mistake in counting the graph paper and ended up with an oddly shaped image. I realized I could use this error deliberately and sequentially recreated the same drawing eight times altering one aspect of the drawing each time. This became the work called "Variation and Inversion on a Rhythm", where I had up to one hundred and twenty drawings working as one piece depicting motion.

THE ORIGINAL CONCEPT OF MOTION IN TIME

QUESTIONED - BECAME MOTION IN TIME AND SPACE.

QUESTIONED - BECAME DISSECTED VOLUME IN TIME AND SPACE

QUESTIONED - BECAME A CONTINUUM OR CIRCULAR NON - ENDING WHOLE

THAT WAS FRAGMENTED SO THAT EACH LINE FIT INTO ITS OWN DEPTH, A

FRAGMENTED CIRCULAR VOLUME IN DEPTH.

MOTION IN TIME

MOTION IN TIME AND SPACE.

VOLUME IN TIME AND SPACE.

CIRCULAR VOLUME IN DEPTH.

LINEAR VOLUME IN DEPTH.

STRUCTURES - "CANON" 1978-80 (Fig. 6)

For the next body of work I placed one of the basic eight drawings from, "Variation and Inversion on a Rhythm", over the other drawing, repeating with all eight of the drawings creating

a very dense structure. These structures resulted in the body of work called the "Canon" series. I dissected the structures finding multiple line designs which resulted in a new body of work. With a grid measuring eight to the inch and straight lines, I plotted eight curved shapes. The curved shapes were created by using one variance in each choice I made. On the grid, a mark was placed at a starting point at the bottom of the page. I drew a vertical line that ended $1\frac{1}{8}$ " away from where I started. From that point, I drew another line and ended $1\frac{1}{4}$ " away from that line, then $1\frac{3}{8}$ " away. I continued this process eight times until I reached 1". I thought of the count as over one up one, over one up two, over one up three over one up four over one up five, over one up six over one up seven over one up eight. Going back down to where I started, I drew $\frac{1}{8}$ " away from the first line and continued the same process of mirroring the first set of vertical lines to the top and completed the first curved shape.

For the second shape, I started 1" away from the bottom of the first shape. Instead of the shape being $\frac{1}{8}$ " thick, the second shaped was made $\frac{1}{4}$ " thick and started with two. So the count was over two up two, over two up three, over two up four, over two up five, over two up six, over two up seven, over two up eight, and over two up one. Again, I went $\frac{1}{4}$ " away and mirrored the second set of lines thereby creating my second curved shape.

I did this for all eight shapes. For the eighth shape I went over eight up eight over eight up one all the way to over eight up seven.

After all eight shapes were plotted, I did eight drawings. This was accomplished by using the same process of thinking that I used to create the eight shapes. The process I chose to use for the eight drawings was, "Rotation and Displacement."

The first drawing started with the first shape and ended with the eighth shape. The second drawing (next to the first drawing) started with the second shape and ended with the first shape, on to the last drawing which started with the eighth shape and ended with the first shape.

Each drawing was one step away from the next drawing.
Each shape was one away from the next shape.
Each line one step away from the next line.

"FLOWINGS" 1978 - 1980 (Fig.7)

For this work I wanted to see motion caused by "Displacement and Inversion". I completed the first drawing which started with one and ended with eight.

For the second drawing (over the first drawing) I inverted the first shape keeping the other seven shapes the same.

For the third drawing (up) I inverted the first two shapes keeping the other six the same.

For the fourth drawing (up) I inverted the first three shapes keeping the other six the same, on to

the top drawing which inverted all eight shapes. one over the other.

“Flowings 1” is 40”x 12’

“Flowings 2” is 15’x23’ and has 81 modules or individual drawings butted together as one piece.

“8” 1979 (Fig.8)

- The logic is the same for all eight structures.
- the count is always 1-2-3-4-5-6-7-8 or 2-3-4-5-6-7-8-1- or 3-4-5-6-7-8-1-2
- As I drew the structures I was amazed at the lip shape that started and then turned into a wing shape.

Structure Drawing #1 - Based on 1/8”

Curve on the left side:

Starting with the eight basic structural shapes from “FLOWINGS”, I decided to expand each one. Shape number one starts with over one up one and then over one up two, so I went over one eight times and then up one eight times on to over eight up eight.

This gave me one side of a new structure of eight shapes. At the top I went over 1/8” for the first shape on to one inch for the eighth of biggest shape.

Curve on the right side:

To expand the curve on the left side of the structure I started at the same spot and plotted vertically 1/8” for each of the eight shapes. To expand the curve on the right side of the structure I went over 1/8” for each of the eight shapes and then drew a line to the top. This structure is one inch at the bottom and top and one inch off center at the top.

Structure #2 - Based on 1/4”

Curve on the left side:

Shape number 2 starts with over two up two on to over two up one. I followed the same logic in plotting this structure as I had in plotting structure #1 except that it starts with 2 - 3 - 4 - 5 - 6 - 7 - 8 - 1 -. I counted over two up two over two up three on to over two up eight and then over two up one. After doing the first shape as 1/4” all the way up I placed one dot over the other, 1/8” eight times on the left side of the top.

Curve on the right side:

On the right side of the structure I horizontally duplicated the spacing up to the top, going over 1/4” each time and then I joined the right side to the top with a straight line. This gave the structure the look of a hard fold one half way down from the top. This structure is two inches at the bottom and top and two inches off center at the top.

Structure #3 - Based on 3/8"

Curve at the left side:

Shape number three starts with over three up three and ends with over three up two. This time the lip is growing into a wing shape.

Structures #4 through #8 keep growing, with the wing getting larger and larger and the body of the structure getting shorter and shorter.

FUGUE - 1981 (Fig. 9)

When all eight of the structural drawings were complete, I decided to duplicate the drawing but only use the bodies of the structures.

I did many other drawings that dissected the different forms in "8". In some I used only the body of the structure and not the wing, in others I used only the wing and not the body, in others I used only the base of the structure and spread it out so that it looked like the bones in a fish.

VARIATION AND INVERSION ON A RHYTHM 1980 (Fig. 10)

In doing one of the drawings in side to middle I made a mistake in my count and the resulting drawing looked funny. It had a hanging wiggly shape in one of the columns that made it look funny. I liked the look so decided to deliberately make mistakes sequentially one per drawing on each of the lines. This gave me the series called "Variation and Inversion on a Rhythm".

In creating this set of drawings, I started with the eight drawings called "Slices Front to Back". Again, I assembled the eight drawings in my mind as a loaf of bread and I turned the loaf so that I was seeing the left side. I then sliced into the loaf eight times from left to the middle. While doing the eight drawings, I accidentally inverted one line. When I finished the drawing, the shaped appeared to be dangling and I like it. By varying the work in this way I arrived at a set of sixty four drawings.

The set exists because of the possibility of variations with the numbers within the game. The structure of the rhythm within the set of sixty-four drawings is the result of a split in time rhythm, the split being that of a primary and secondary motion.

The primary rhythm is arrived at through the use of the logical number sequences. The secondary rhythm is arrived at through the use of an inversion, where a different line on each successive drawing is inverted one space. In the first series of sixty-four drawings, this inversion shifts one space back on one line of each successive drawing. In the second series, the inversion of one space back is retained on each line on each drawing and one additional inversion is added in each successive drawing. In the third series, the inversion manifests itself in a reversed direction of one space on each successive line of each successive drawing resulting in one hundred twelve drawings.

CANON SERIES 1980 (Fig. 11)

After completing all eight drawings, “Side to Middle”, I drew them again. This time I thought of them as overlays and drew them one over the other. Always maintaining the same starting point at the bottom left. This resulted in a basic structure. This structure became the basis for my next series of drawings, called “Canon 2”. I eliminated sequences of lines in the structure by choosing only one set of lines as in “Canon # 6”, and I segmented the structure into a pie shape which I repeated and reversed, creating the circular shapes as in “Centered #1 Variation 1”. I repeated the structure, reversing the structure and played the structure over itself, which, resulted in the dense drawing in “Canon #7”. I mirrored every inch in “Canon #7, revealing eight layers and then each of the eight layers was separated to reveal the eight designs that make up that one inch. This was repeated for each mirrored line in “Canon #7” and resulted in sixty-four separate designs. All eight drawings on each line was superimposed one over the other resulting in eight dense drawings for the horizontal drawings and eight dense drawings for the designs vertically.

For “Canon #7 in 3 Parts” 1990, I used eight colors, one for each of the eight layers superimposed one over the other. I then separated each color in two panels revealing all eight designs.

*In 2001 a friend sent me a catalog “The Universe - A Convergence of Art, Music, and Science. On page 45, Fig. 17, there is a reproduction of Athanasius Kircher’s *Ars magna scienda*, 1669 called *Epilogismus, Combinationis Linearis*. This drawing is almost exactly like the drawing I did “Canon #6”.

DESIGNS FROM THE CANON SERIES - 1983 (Fig. 12)

For the next body of work I placed one of the basic eight drawings from, “Variation and Inversion on a Rhythm”, over the other drawing, repeating with all eight of the drawings creating a very dense structure. These structures resulted in the body of work called the “Canon” series. I dissected the structures finding multiple line designs which resulted in a new body of work.

MOIRE Fig. (13)

When I looked at what I had been doing all of those years I realized that I had been working on eight angles and I that I used eight colors. I decided to do my next body of work limiting myself to just that.

“GOLD” Fig. (14)

I used one color for each of eight angles and placed them one over the other in layers. There are eight layers, eight angles and eight colors.

1. - MULTIPLES COMPOSITIONS USING DIFFERENT MOIRE'S SEQUENTIALLY.

2. - "MOIRE" BOOKS"
3. - A SET OF 64 MOIRE SQUARES WITH ONE COLOR IN THE MIDDLE (ONE IS FINISHED AND SEVEN MORE TO DO) 43"x36 1/2" - 1984
4. - "MOIRE" SAMPLERS -1990
5. - "MOIRE" 9 - 1987
6. - "MOIRE" ON GOLD LEAF
- 13.
7. - SUBLIMINAL "MOIRE" SAMPLERS
8. - SUBLIMINAL SQUARES
9. - 64 "MOIRE" W/ GOLD LEAF
- 10 -1988-90 56 - "RHYTHM OF LINES" 30"x40" - Two sets of angled lines one over the other. Gold leaf is under where they cross.
11. - SMALL ABSTRACT PAINTINGS FROM "MOIRE" SAMPLER - 1992 - 11"x15"
12. - LARGE ABSTRACT PAINTINGS FROM "MOIRE" SAMPLER - 1994 - 36"x48"
13. - "NOISY" - 1997
14. - "SONAKINATOGRAPHY COMPOSITION 16" -
15. - MATRIX - "VARIATION & INVERSION ON A RHYTHM" 1998
16. - "TO THE TOP" FROM 1975 - 1999
- 17.- SUBLIMINAL CIRCLES - 2001

"MATRIX" 1980 - 2001 (Fig. 15)

Whenever I did a large drawing I would find a very simple way of seeing the work. I would go down to the essence of the work and then see it symbolically.

Example: a 16' drawing could be seen in one inch.

A 12'x 8' multiple drawing could be seen in 12"x8".

All matrix drawings were done using the numbers one through eight because those numbers represented the color and angle used. Starting in 1990 I started to do paintings using the matrices from work done in 1981. I am still doing those drawings today.