

DOUBLE WEAVE

A RETROSPECTIVE

PAUL R. O'CONNOR

A RETROSPECTIVE EXHIBIT
COMPLEX WEAVERS SEMINARS
HOPE COLLEGE
HOLLAND, MICHIGAN
JULY 1 – JULY 4, 2006

© 2006, Paul R. O'Connor
All rights reserved
www.haven.com/proc
pauldw23@aol.com

FOREWORD

When I was approached by Ruth Blau and Margaret Coe to create a retrospective exhibit I was surprised and delighted. Early in my endeavors in weaving I was introduced to double weave and gradually devoted more and more of my time to this technique. Initially I followed the usual rules for double weave, but soon discovered that my design ideas led to expanding those rules. Call it what you will, passion or obsession, double weave became my all consuming interest and the opportunity for a retrospective exhibit a distinct honor.

About the same time I was contacted by Laurie Autio, President of Complex Weavers, and Marjie Thompson, Seminars Chair, to see if I would be the keynote speaker for the 2006 Complex Weavers Seminars. Another surprise and honor: to address the weavers I most admired, who would understand what I had to say. Things began to jell. Keynote speech, retrospective exhibit, and a CD as a way to make the exhibit available to a larger audience.

I want to thank a number of people who helped immeasurably to bring this all about. Ruth and Margaret for starting the ball rolling, for their patience and persistence in the development of the CD, and for their computer skills and editorial advice.

Jay Magoffin who photographed my weavings over the last 30 years. Fred Waltz who converted many of Jay's photographs to digital format and prepared the CD used for my talk at the Complex Weavers Seminars. Also my barber who in her spare time is a picture framer.

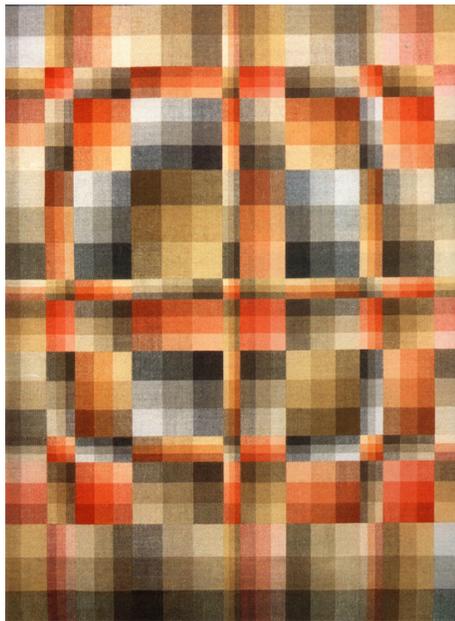
My family has been supportive and patient as my second career developed. My wife, Pat, who survived only one day of floor loom and after that left weaving to me. Her interests in spinning, knitting, and basket making merge well with my interests in weaving and made many of our travels into textile adventures. Our son, Mike, who developed my web page and brought my computer skills up from zero to moderate proficiency. Our daughter, Maggie, for being such an eager collector of my weavings!

Paul R. O'Connor

INTRODUCTION

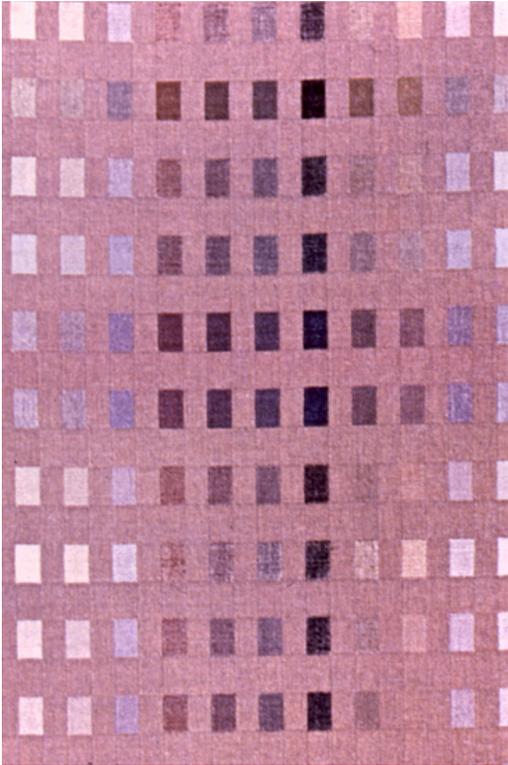
The two books that Ruth Constantine and Jack Lenor Larsen published in the mid 1970's *Beyond Craft: The Art Fabric* and *The Art Fabric: Mainstream* featured many fiber artists including Richard Landis and Kay Sekimachi. Landis specializes in 8-shaft double weave wall hangings in either linen or sewing thread using two basic double weave designs—the checkerboard and the window. Sekimachi is well known for multilayer and 3-dimensional weavings in linen or monofilament nylon.

Many of the weavings in this exhibit show the strong influence of Landis and Sekimachi.

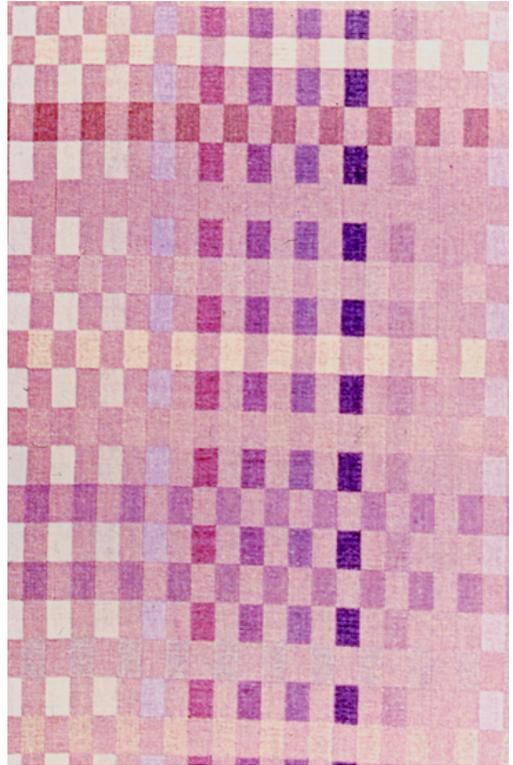


RICHARD LANDIS

RICHARD LANDIS

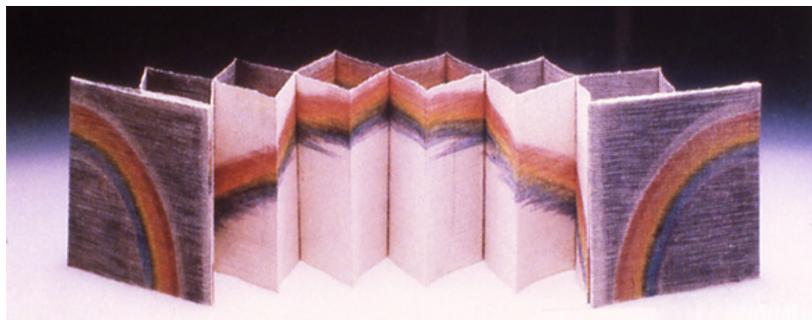
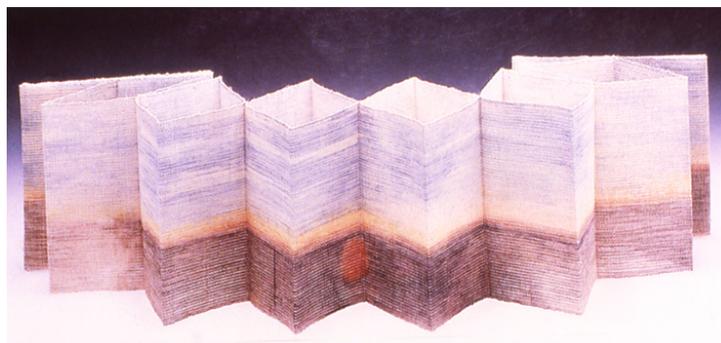
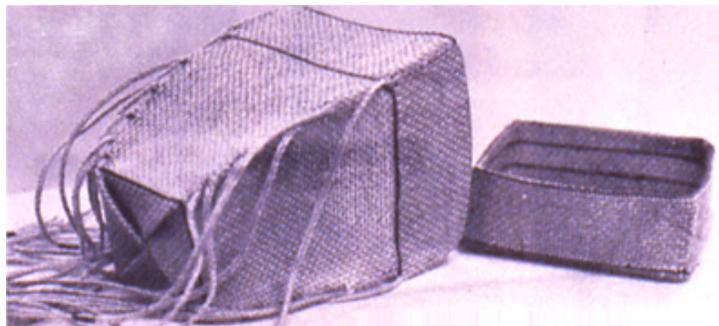


FRONT

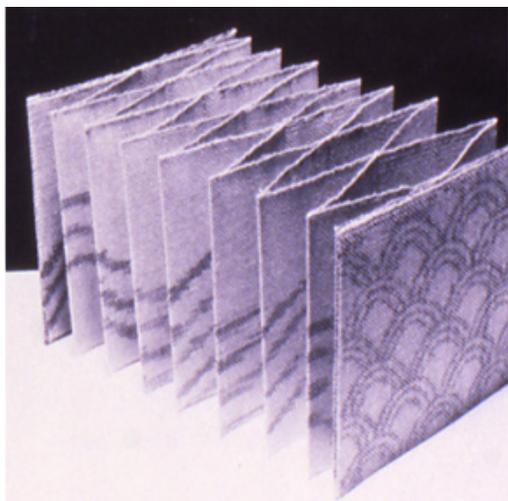


BACK

KAY SEKIMACHI

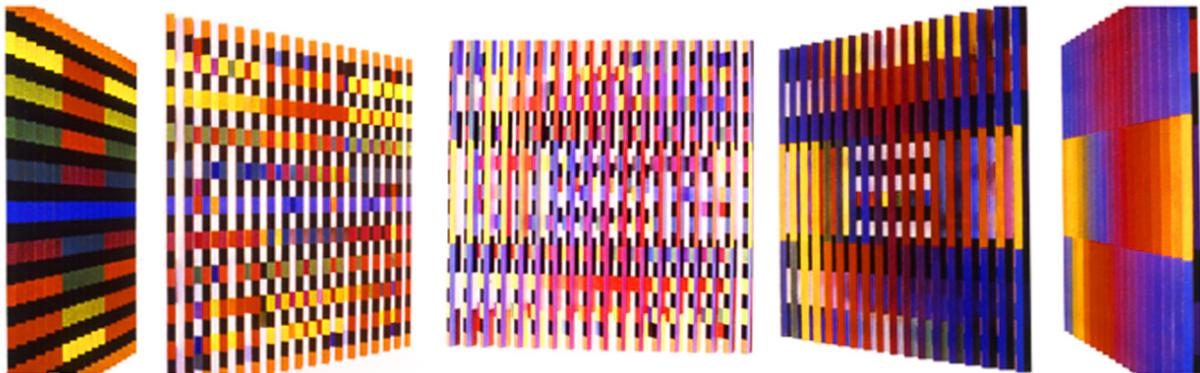


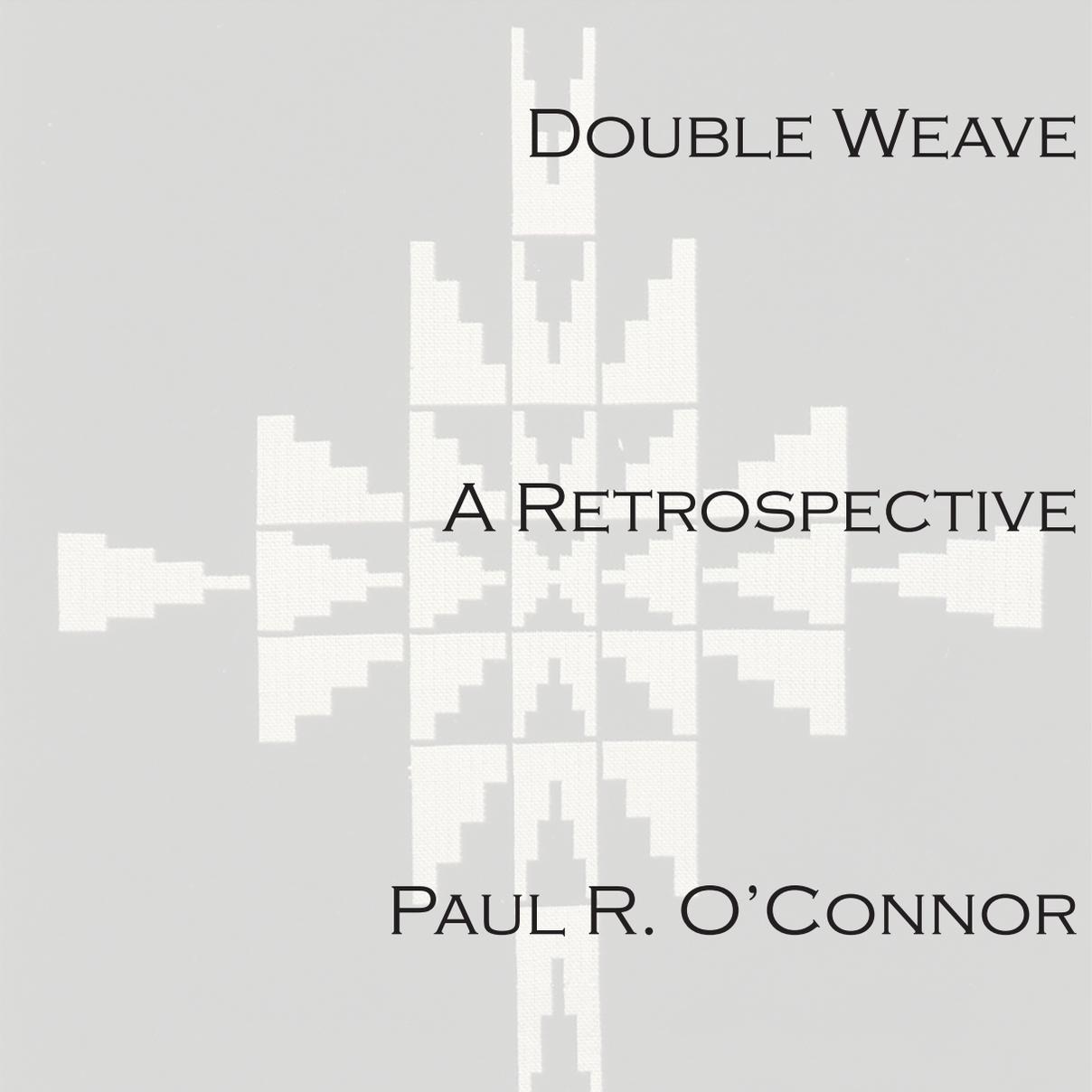
KAY SEKIMACHI



YAAKOV AGAM

The Israeli painter and sculptor Yaakov Agam is a kinetic artist who invites the viewer to change his sculptures by moving them or more simply by walking past his paintings in the gallery. Most of his paintings are on triangular-faced canvases or metal. Here is an example of one painting that the viewer sees as though entering the gallery from the right. The image changes as you move to the center of the gallery and once again as you exit the gallery on the left. Perhaps some of these techniques could be adapted to weaving, specifically double weaving.





DOUBLE WEAVE

A RETROSPECTIVE

PAUL R. O'CONNOR

GANESHA • 1973

The instructions for the double weave workshop were straightforward. Make up a warp, for a four-shaft weave, of jute, sisal, and cotton of different sizes and colors of the fibers, divide the warp into a number of small widths, and weave them separately in any of the techniques of double weave: two layers, tubular weave, or double-width. Begin to widen these sections until you are weaving across the entire warp. Reverse the process, dividing the warp into smaller widths. After cutting the weaving from the loom, manipulate the warp ends by braiding, knotting, or twisting them. Finally arrange the weaving in some manner that appeals to you.

Having recently returned from a number of years in India, I wanted to weave an elephant's head to represent the beloved Ganesha, the god of wisdom and academics and other good things. Ganesha was the son of Siva and Parvati. Siva grew angry with Parvati and proclaimed that the child would be born with the head of the first human or animal that Parvati saw that day, which turned out to be an elephant.

My wife and I decided to stuff the central section of the weaving with newspapers and began to arrange and rearrange what looked like an octopus over a yoke for oxen that we had brought home from India. Suddenly and rather magically the octopus turned into Ganesha. Unfortunately, probably because of the sisal that was used in the warp, our Ganesha had a rather short lifetime.

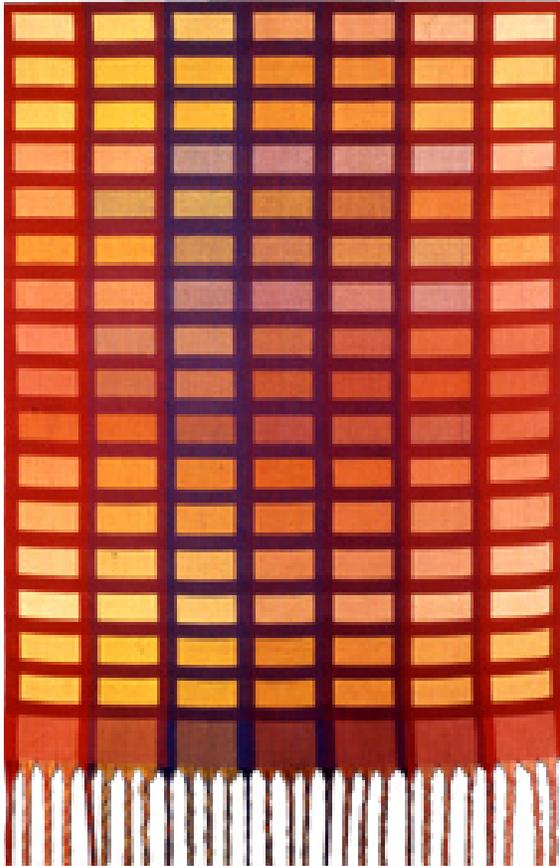


GANESHA • 1973
3' x 5' jute, sisal, cotton varying sizes

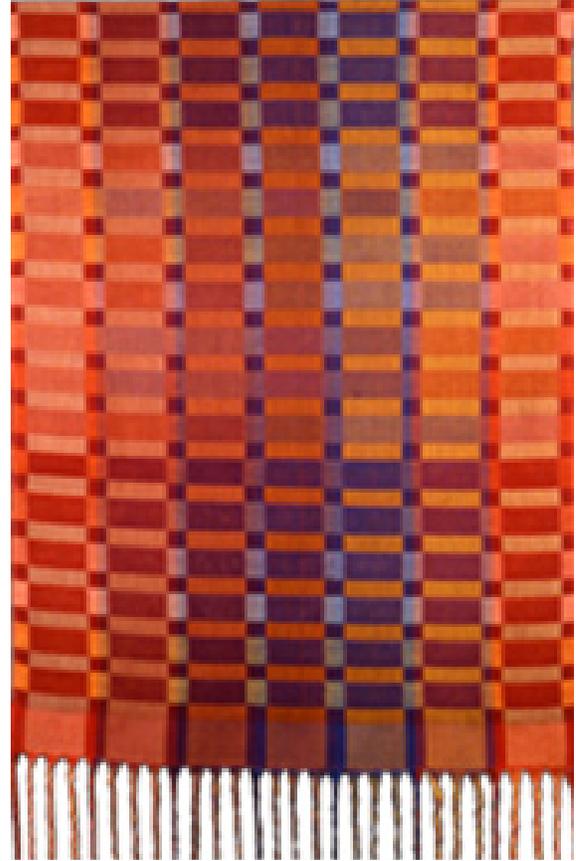
WOMEN OF RAJASTHAN • 1978

A weaving in the Landis window design style, which requires an 8-shaft loom. Sewing thread is used for the warp and weft yarns and proves to be very easy to work with in double weave. The thread is tightly spun and smooth, the warp and weft do not stick to each other, and it is very easy to control the straight lines of the selvages.

This weaving begins with the two basic double weave tie-ups, but a third of the way into the weaving an “aha” moment occurs. There are six double weave tie-ups that determine which of the six possible warp color pairs weave in the top layer (with the complementary warp color pair in the bottom layer). Traditional double weave is the only weave structure that offers this possibility. You can see that something changes in the weaving with the darkening of some areas (this is more readily seen in the back view where the same areas appear lighter). About two-thirds through the weaving, the original two tie-ups are used again to provide visual balance for the wall hanging. Another important aspect of double weave is that the design for each side of the weaving may be quite different. Sometimes only a color reversal from the positive to the negative image occurs. In *Women of Rajasthan* the window design has changed to a plaid.



FRONT



BACK

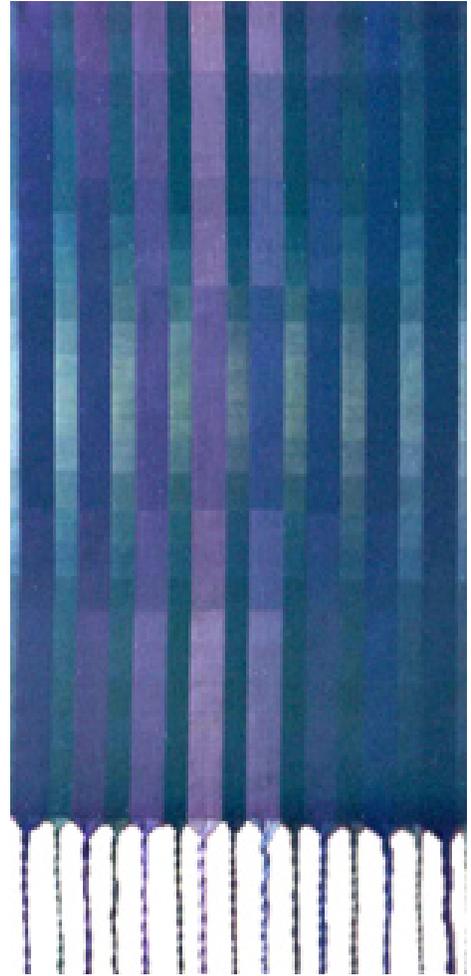
WOMEN OF RAJASTHAN • 1978
16" x 24" cotton covered sewing thread

MEDITATION • 1978

The design is based on the first line of a checkerboard design extended the length of the weaving. Color gradation is explored using the 6 double weave tie-ups where weft X is in the top layer. A very close color gradation can be achieved by changing both the tie-ups and the color of the weft threads. The eye blends the colors of warp and weft because of the small size of the sewing thread.



FRONT

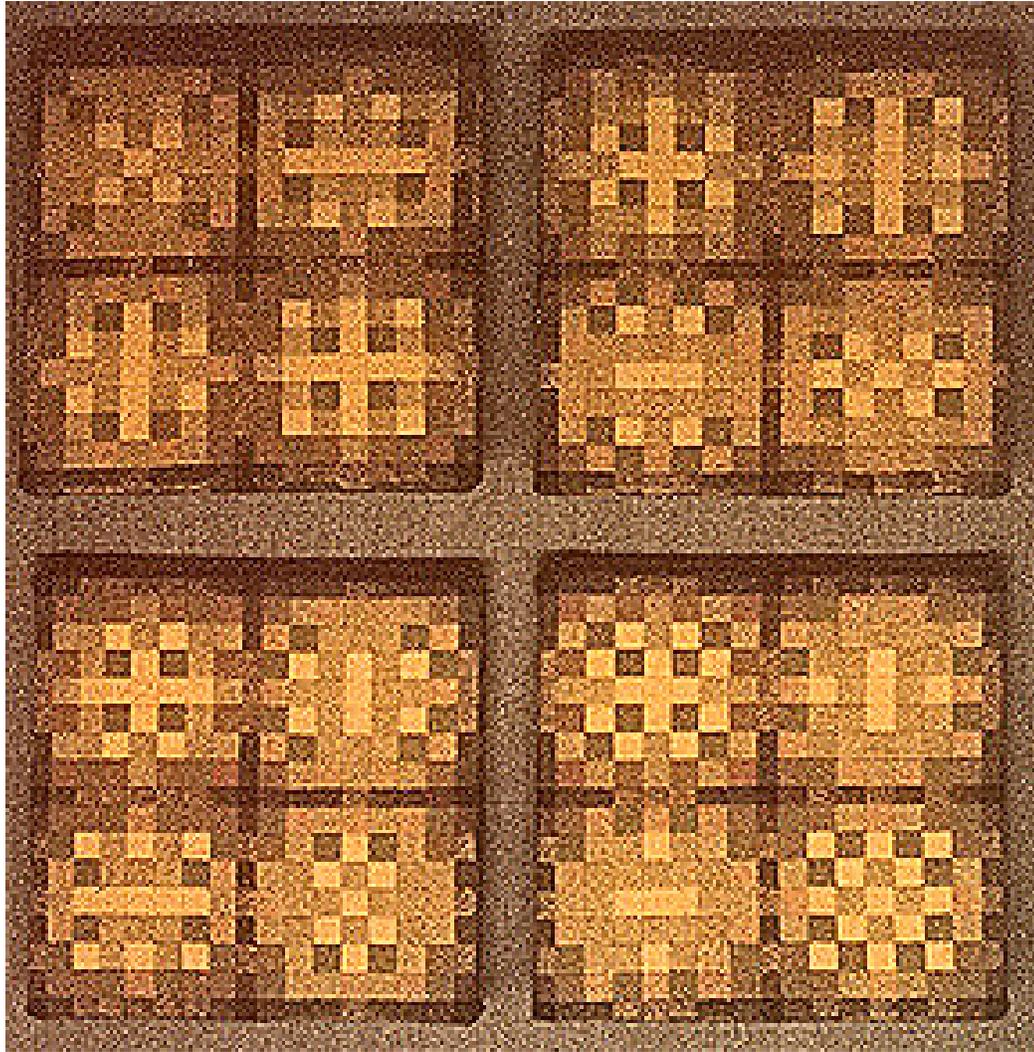


BACK

MEDITATION • 1978
11" x 20" cotton covered sewing thread

HOMAGE TO HARRIET TIDBALL • 1979

Based on the technique of polychrome double weave discussed by Tidball in her monograph *Double Weave*. An 8-shaft two-block checkerboard design. There are two choices for the warp behavior in each block (either in the top or the bottom cloth layers) and two choices for the weft behavior in each block (either in the top or the bottom cloth layers). This means there are $2 \times 2 \times 2 \times 2 = 16$ possible designs shown in these four weavings. The four designs on the diagonal from upper left to lower right are unique. The other twelve designs are related by pairs through reflection in the same diagonal.

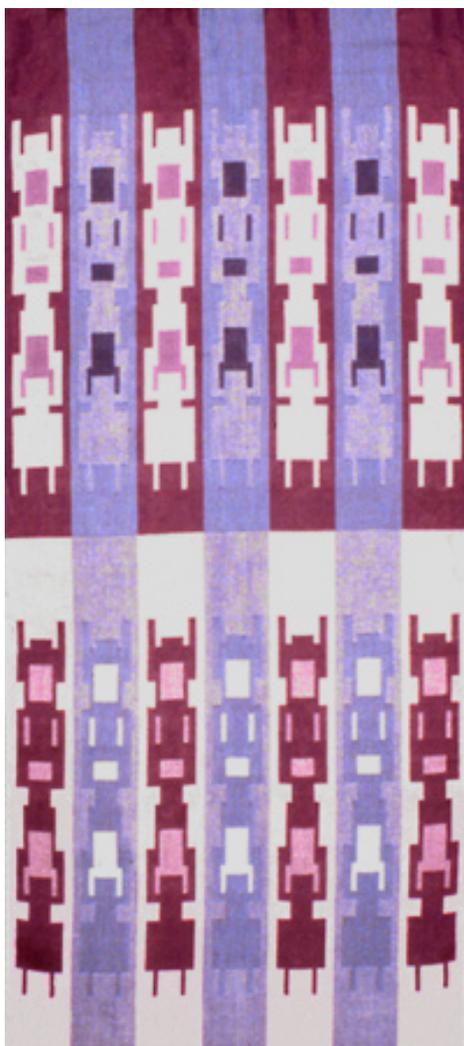


HOMMAGE TO HARRIET TIDBALL • 1979
each of the four squares 24" x 24" wool

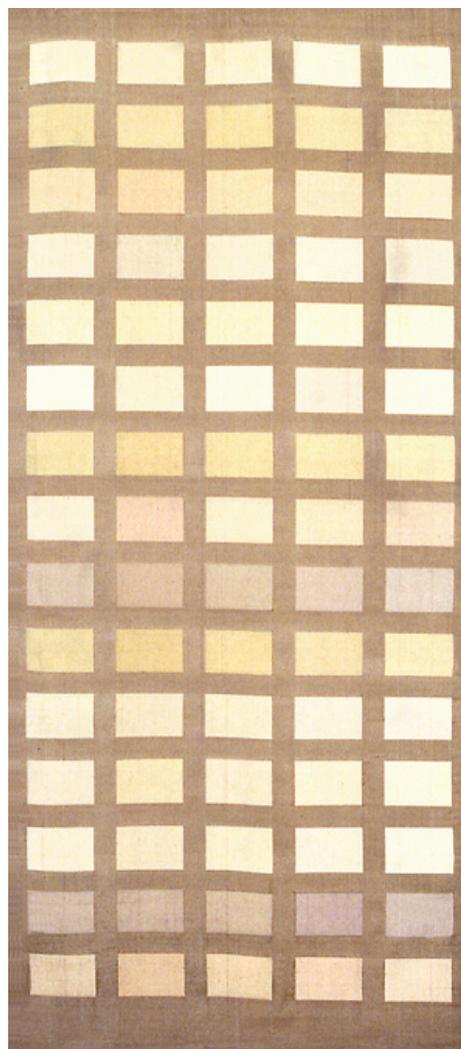
CORN DANCERS • 1980

SILK WINDOWS • 1985

Two 16-shaft window designs. Thin brass tubes have been woven into these weavings. Invisible nylon sewing thread can be threaded through the tubes to serve as a hanging device. Another method for displaying the weavings is simply to balance the tubes on small brads.



CORN DANCERS • 1980
12" x 24" cotton covered sewing thread



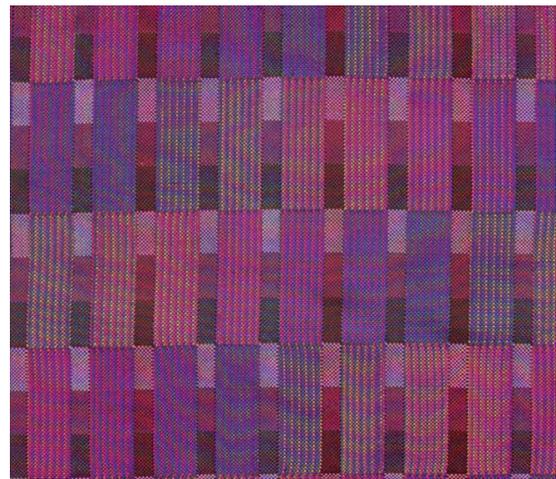
SILK WINDOWS • 1985
13" x 26" silk embroidery thread

THREE SAMPLES IN SILK • 1983

Twelve-shaft weave. The major innovation introduced in these three weavings is the use of 8 colors around a color wheel (yellow, orange, red, magenta, purple, blue, turquoise, and green) in the warp of the pattern sections. The threading is such that four colors in the top layer shift by one color unit from section to section. The first pattern block has yellow, orange, red, and magenta warp threads in the top layer; the second pattern section has orange, red, magenta, and purple warp threads in the top layer; and so on. The color shifts that take place across each warp row are easy to see.

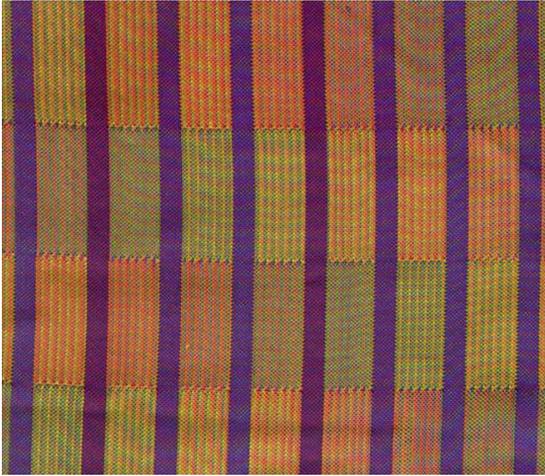


FRONT



BACK

SILK SAMPLES • 1983
12" x 8" silk embroidery thread



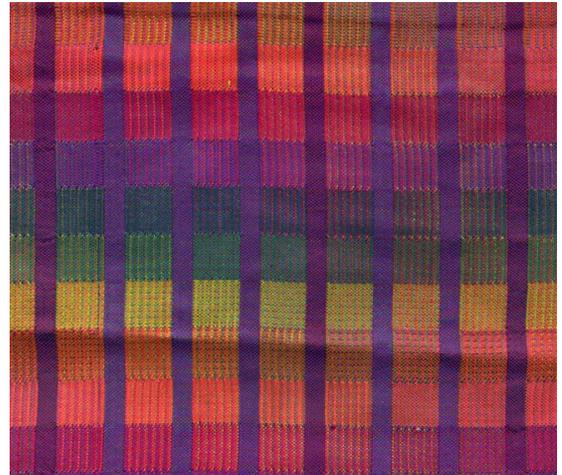
FRONT



BACK



FRONT



BACK

PERMUTATIONS I AND II • 1985

Sixteen-shaft weaves with four double weave design blocks available. In these two weavings, each warp block is the same size but the block order (ABCD or BDAC or...) is permuted among the 24 possible permutations of four letters.



PERMUTATIONS I • 1985
12" x 15" cotton covered sewing thread



PERMUTATIONS II • 1985
14" x 30" wool

MY BUTTERFLY COLLECTION • 1985

MIGRATION • 1985



MY BUTTERFLY COLLECTION • 1985

6" x 8" cotton covered sewing thread



FRONT

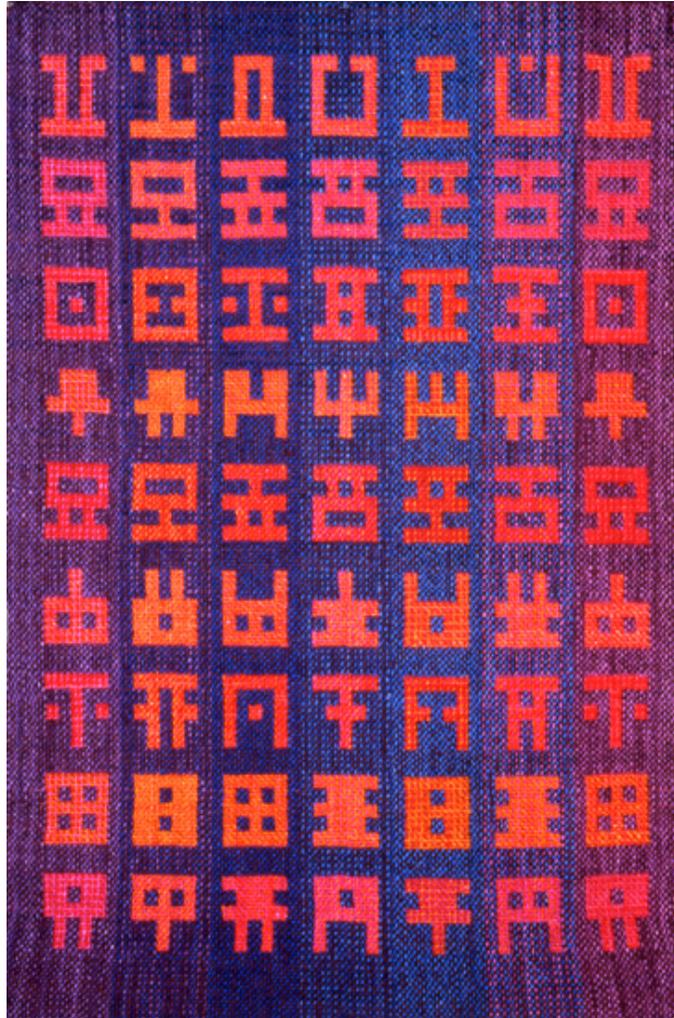


BACK

MIGRATION • 1985
8' x 9' cotton covered sewing thread

NOT EVEN THE GREEKS DISCOVERED ZERO • 1985

Sixteen-shaft four-block design. Symmetry and permutations are at the heart of this design. The secret for this weaving lies in its title.



NOT EVEN THE GREEKS DISCOVERED ZERO • 1985
3' x 5' wool

AGAM IV • 1986

The intention was to weave a triple weave on 12 shafts to develop one of Agam's designs. The three warps were in strong primary and secondary colors, but not every design idea turns out the way one hopes! This one was deemed a failure because of the harshness of the colors, and the weaving was discarded.

What to do with the rest of the warp?

Another "aha" moment was needed and color theory provided the answer. In the new weaving, two of the three warps weave together in the same shed in the top layer and the third warp weaves in the bottom layer. The colors for the paired warp threads in the top layer, are selected to be opposite on the color wheel in order to de-saturate the strong primary and secondary colors of the three warps.



DETAIL



FRONT



BACK

AGAM IV • 1986
14" x 32" cotton covered sewing thread

BLUE, PURPLE, GREEN • 1986

This weaving, which looks like an 8-shaft double weave design, is woven as a 12-shaft triple weave to provide color changes that are not easily analyzed.



FRONT

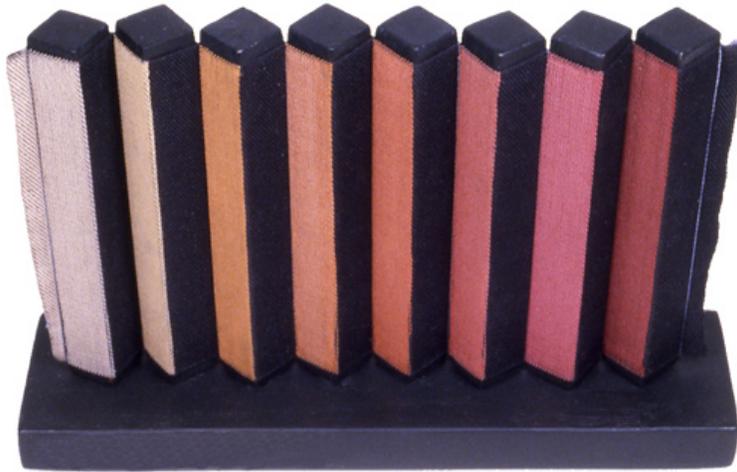


BACK

BLUE, PURPLE, GREEN • 1986
12"x 30" cotton covered sewing thread

HOMAGE TO AGAM • 1978

Agam's paintings on triangular surfaces immediately suggest the possibility of interchanging double weave layers and inserting square dowels to offer views of weavings that compare in style with Agam's paintings.



FRONT



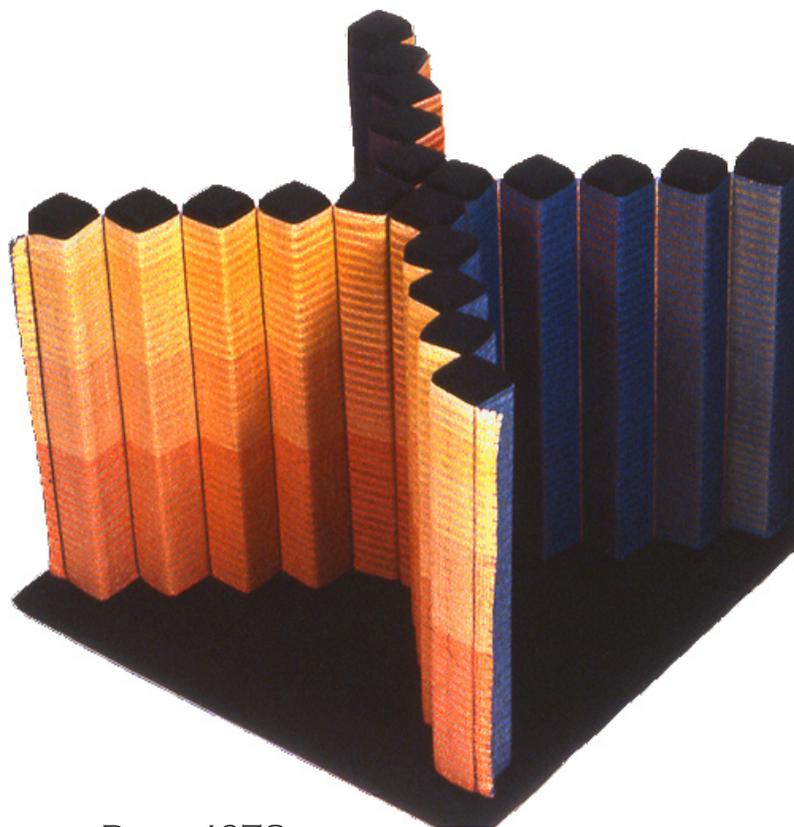
BACK

HOMAGE TO AGAM #3 • 1978
12" x 3" x 6" high cotton covered sewing thread

NIGHT AND DAY • 1978

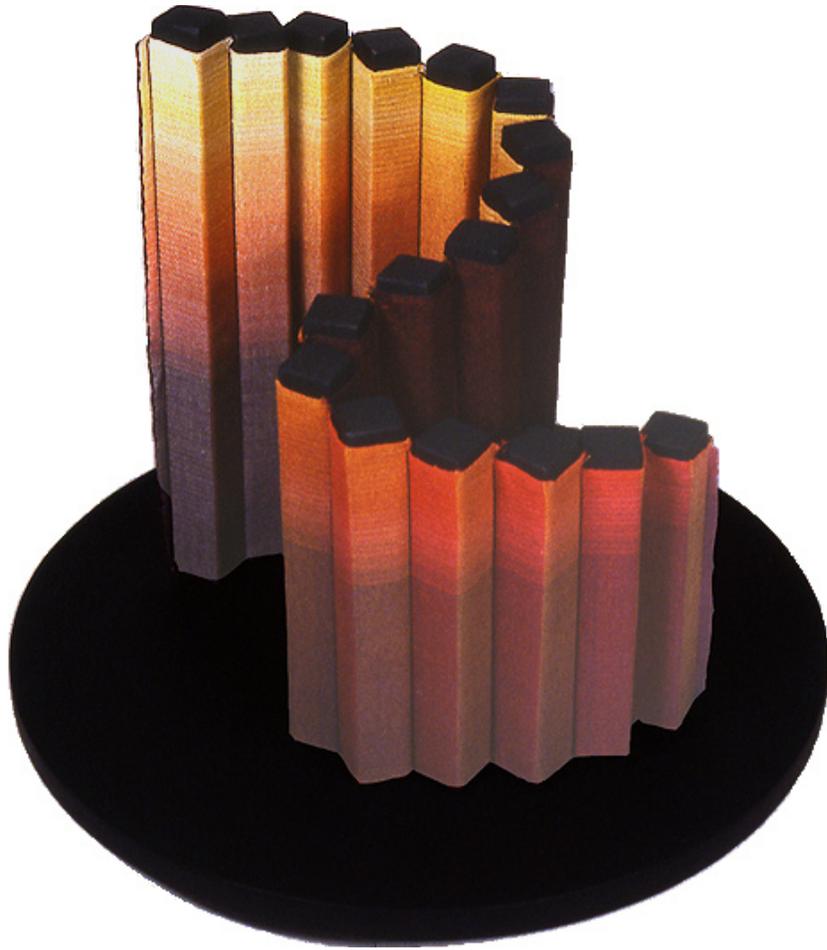
AGAM'S SPIRAL • 1978

8-shaft and 4-shaft weaving respectively.



NIGHT AND DAY • 1978

12" x 12" x 6" high cotton covered sewing thread

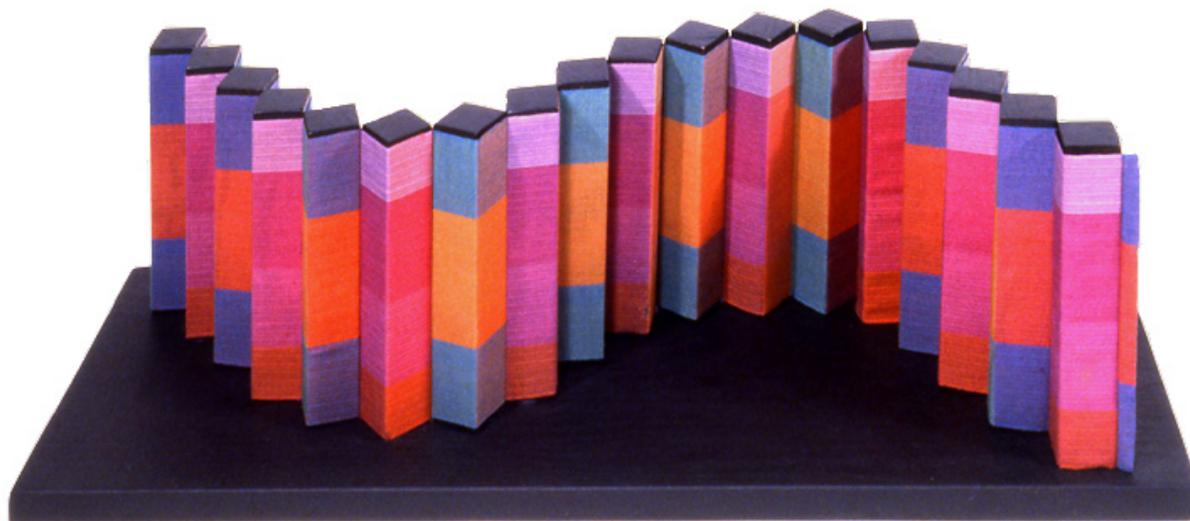


AGAM'S SPIRAL • 1978
12" x 12" x 12" high cotton covered sewing thread

S-TWIST • 1980

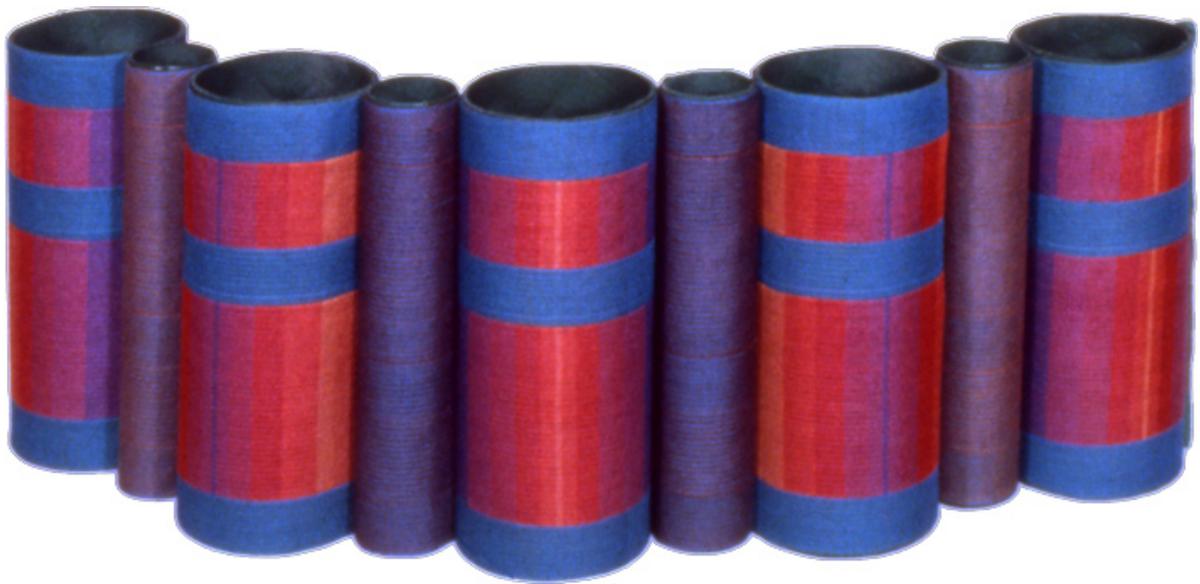
EMPTY SILOS • 1980

Both are 16-shaft weaves. However, instead of the use of wood dowels, for *Empty Silos*, Mylar film is rolled up and dropped into the opening created by interchanging layers.



S-TWIST • 1980

24" x 12" x 6" high cotton covered sewing thread



EMPTY SILOS • 1980
18" x 3" x 8" high cotton covered sewing thread

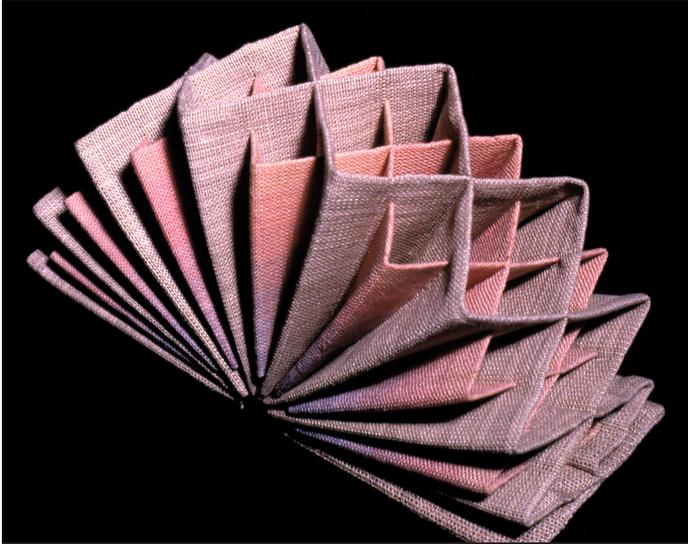
EIGHT-SHAFT FAN • 1980

SIXTEEN-SHAFT FAN • 1980

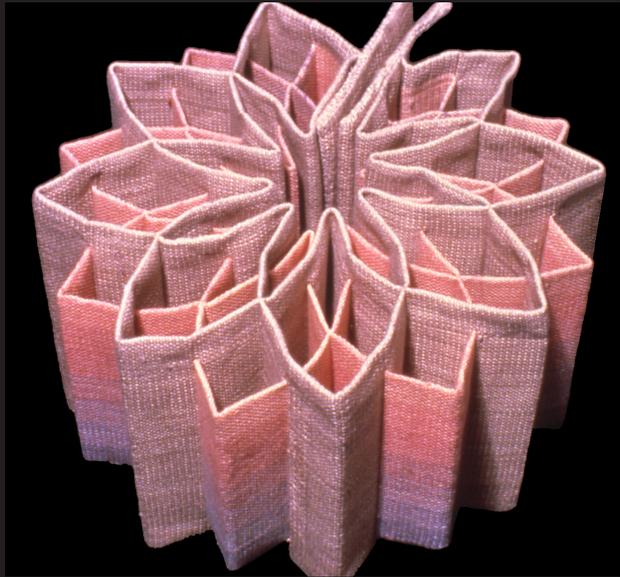
FAN AS FLOWER • 1980

Interchanging double-width layers is the basis for these sculptural weavings in linen. After the weaving is removed from the loom, buckram is inserted in the open sides of the double-width layers and the layers are sewn shut. Double-width sections can be woven between the two layers of other double-width sections until bringing them out as required for the design.





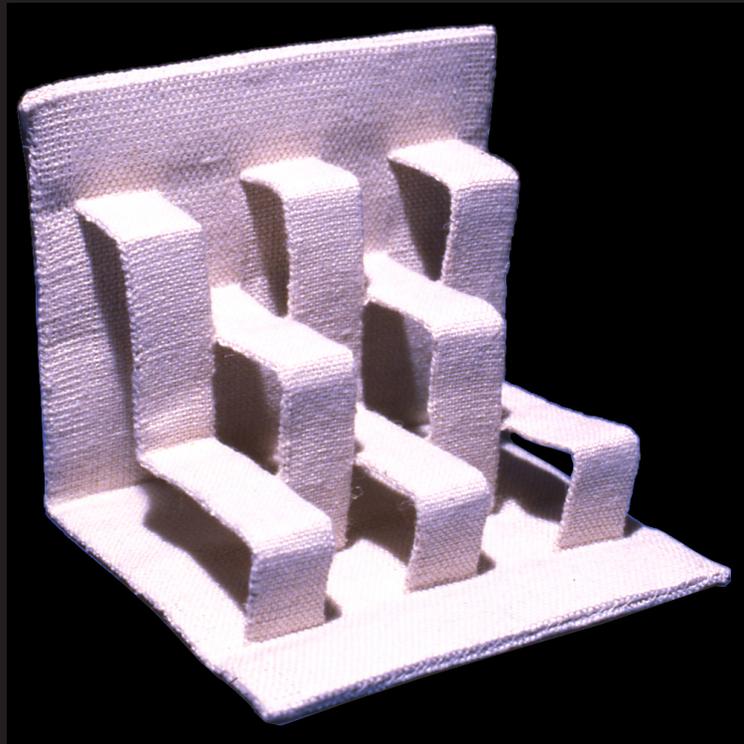
16-SHAFT FAN • 1980
12" x 6" x 6" high linen



FAN AS FLOWER • 1980
12" x 6" x 6" high linen

PAPER SCULPTURE • 1982

From a book on paper sculpture. This weaving, 6" x 6" x 6" in size, is woven as a three-block double weave using 12 shafts. Double-width sections for blocks B and C are woven between the large double-width section that is block A forming the back and the base of this weaving.



PAPER SCULPTURE • 1982
6" x 6" x 6" high linen

CROSS FOR JEAN • 1992

The background is a Landis checkerboard with pickup double weave to “erase” the upper left and lower right squares. Two cross arms are woven separately, using the technique of weaving double width sections between double-width sections, and sewn onto the background. Tensioning the warp on two different back beams allows for the weaving of the folds for the painted warp cross arms.