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The Use of Fiber to Create Sculptural Forms

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THE USE OF FIBER TO CREATE

SCULPTURAL FORMS

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BY

CHRISTINE DANNER

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The direction of contemporary weaving is not surprising with the realization of what industrialization has done to the art and craft of weaving. I can appreciate and admire traditional weaving in its functional form. I can look at it and see the many hours and the loving energy within a functional piece. Even realizing and accepting this as the origin of weaving as art, I cannot see a blending of the two, as they are done for such entirely different reasons.

Artist-weavers have come to contradict this advancement by the rejection of the functional aspect of the woven form and also of the traditional loom and the limitations it puts on weaving. Today, the Industrial Revolution has caused weaving to be done out of the need for expression and communication, which we have nearly lost in our world of machines and impersonality created by industrial progress.

Weaving in a functional sense began because of the lack of mass production and the need for fabric objects with which to make life easier and more comfortable. Weaving, now, has broken out of its restrictive boundary into the boundless world of art. As a result of being free from the need to be practical in the area of weaving by means of the Industrial Revolution, we are now free to use our time and energy to express ourselves and communicate thoughts and transmit personal energy to ourselves and those around us. It seems fitting that with the rejection of weaving as a functional craft, it becomes an exciting means of personal as well as public expression, and a truly free art form.

It is ironic, though, how the Industrial Revolution has given us the chance to use weaving as an art form yet this cold, impersonal age is the very thing we reject and try to break away from. This forward movement is carrying us to yet another Industrial Revolution. And in this "next Industrial Revolution, on which we are embarking, the imagination and agility of the craftsman is invaluable not just in the peripheral areas of aesthetics and taste but in conceptualizing direct solutions to very basic needs."¹

To me, the beginning of weaving as art and sculpture is not simply a "child" or a continuing step in the flow of traditional, functional weaving, but a truly new art form and means of expression. I feel that there are not confines or barriers to hamper the artist-weaver's creative thinking. There is no reason to be shy or unsure about the woven form as art because it is a free and open way of communication. In other words, it doesn't have to be anything--just be. The old rules of weaving are not relevant to my thoughts about weaving, therefore, the challenge is not in the technique but in the vast number of thought and design possibilities ahead of me.

To many, the process of dressing the loom may seem like a very major restriction in itself. This is the process of putting the warp, which has been measured off on a warping board, onto the loom. The warp is attached to the warp beam, goes over and under the lease sticks, through the proper heddle on the proper harness, through the dents of the reed in the beater, and is then attached to the cloth

¹2: page 41.

beam. There is not a lot of creative freedom in this task as there is usually a fairly set way it must be carried out. However, I came to appreciate this job as it gave me time to think about and become involved in the piece from the very beginning. If the traditional and necessary steps in a woven piece are looked at as a chance to grow and become a part of the piece, then these techniques become sources of personal growth rather than an uninvolved step in the creation of the piece.

The ability to weave well should not become confused with being able to weave creatively. If a weaver's vision becomes too clouded by past images, he or she cannot see the wealth of explorative freedom at his grasp. Too much involvement with the techniques can cause a loss of perspective and, therefore, confusion about what one wants to say or express, when what is really important is only that there is an understanding of oneself and one's involvement with his or her world.

In 1963, the woven art form was launched in America with the show, Woven Forms, at the Museum of Contemporary Crafts in New York. Included were works of Lenore Tawney, Alice Adams, Sheila Hicks, Dorian Zachai, and Claire Zeisler. "Woven Forms was heralded as the confrontation with a new kind of fabric and a new art form. As one critic remarked, 'they (the artists) slashed enough ties with traditional weaving to delight and offend and to set one thinking that weaving is older than the loom'."²

The importance of weaving as an art form has grown faster than any other media. Not only woven forms have made their mark, but many other techniques in fiber have been rediscovered on a much more creative, free, and expressive level. These other techniques include macramé, knitting, crocheting, bobbin lace, twining, and netting.

Sculptural weaving further broke into the world of art with the exhibition, Deliberate Entanglements, in November, 1971. This show was held at the University of California in Los Angeles and during the following year, toured several cities. "The thirteen invited exhibitors who proved the trend was international included Magdalena Abakanowicz (Poland), Neda Al-Hilali (California), Olga de Amaral (Columbia), Tadek Beutlich (England), Jagoda Buic (Yugoslavia), Francoise Grossen (New York), Sheila Hicks (France), Ritzi and Peter Jacobi (Germany), Aurelia Munoz (Spain), Walter Nottingham (Wisconsin), Kay Sekimachi (California), Dorian Zachai (New Hampshire), and Claire Zeisler (Illinois)."³

From here, the exhibition, Sculpture in Fiber, proved that weaving was going in a three-dimensional direction. This show took place at New York's Museum of Contemporary Crafts in January, 1972. In April, 1973, at the same museum, another show entitled, Sewn, Stitched, and Stuffed, was held and concentrated on stuffed fabrics as a sculptural medium.

From these major shows and many smaller shows of similar intent that were happening throughout the country, it was becoming apparent

³3: pages 6 and 7.

that for contemporary weavers "the importance was the message, the expressiveness, and the concept that was brought to the viewer."⁴

The works discussed on the following pages are products of weaving in a sculptural sense. They are works conceived for non-utilitarian reasons, for the sake of creation and expression. Most are relief pieces, to be hung on a supporting wall but they move away from the wall to create another dimension in space. They invade the negative space surrounding them and become positive space. Therefore, the viewer cannot escape involvement with the piece.

The majority of the pieces were done by use of a double weave technique on the loom. For the most part, some preplanning was necessary to carry this out, but I found that I became freer and less restricted by original plans or thoughts as my work progressed. Basically, to dress the loom for a double weave, the harnesses are tied up so that the warp is divided in half--half of the threads being on top and half on the bottom. Each separate half is then divided in half a second time. Two sheds are therefore created to be woven as two layers at once. This, in itself, sounds very traditional and restrictive, but the possibilities to be discovered from the basic double weave and the potentials of breaking beyond the second dimension are inexhaustable.

My personal objective to working in fiber is not to find absolute answers of solutions but to become aware of possibilities and to find a closer link between myself and the world I am involved in.

INTERGALACTIC SPECTRUM

This piece is large (8' x 40") using a simple basic shape, the rectangle, in a group of three to make up the whole, finished composition.

The warp is white rug wool threaded 16 ends per inch. Therefore, on the double weave areas there are eight ends per inch which give a looser, less controlled result than in the one layer areas where the color is concentrated. In these single layer areas, the warp was painted with acrylics in one foot lengths the entire width of the piece. When the paint dried, I wove each of the three sections almost up to the non-painted area, moved the warp forward, painted another foot, let dry, then wove the most recently painted width. I continued this until the color areas had all been painted and woven. I used floating, free weft shots of different densities with some weft ends left hanging and some with loops pulled up in the color areas of each section to enhance the texture. The use of a free tapestry technique here brings out or subdues colors in the warp which gives depth to these technically flat areas. The swirling colors shooting from the center shape represent a release of tension in the universe--here and everywhere--the tension that is inescapable in a total sense and, therefore, must be dealt with.

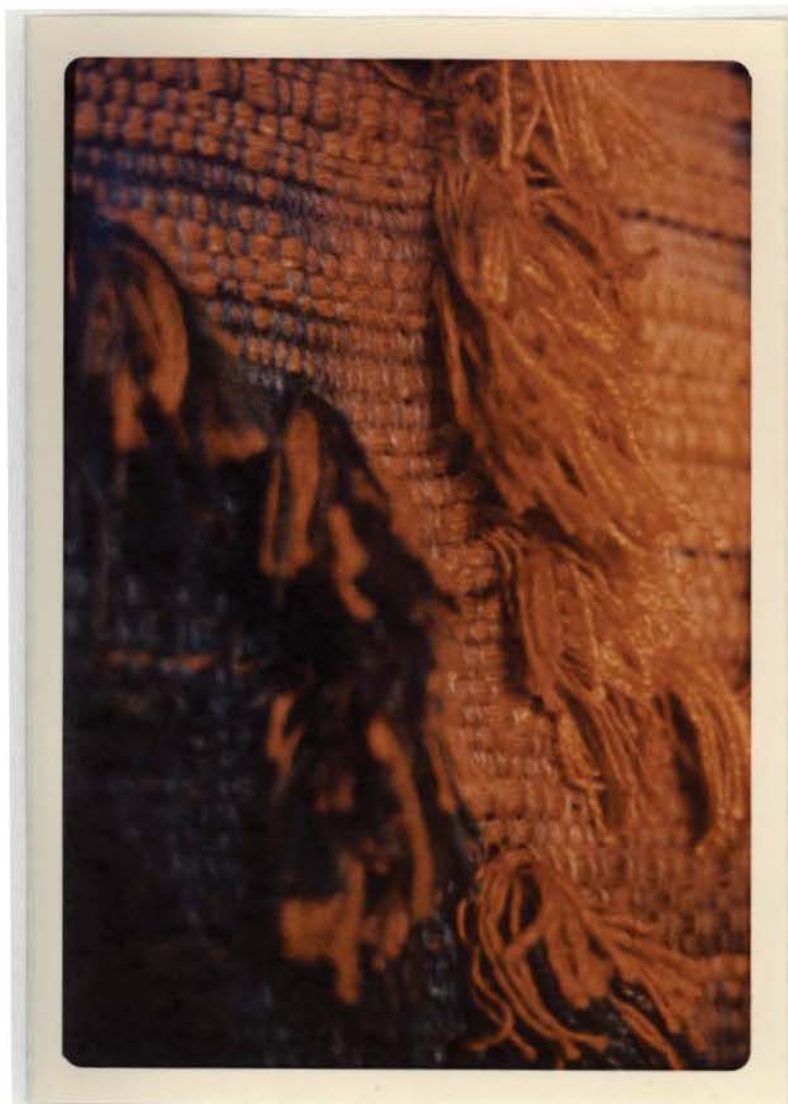


Plate 1

In the double, tubular white areas on the lower parts of each section, the weft densities are also varied and again, loops (larger here) are pulled out in a way that I hoped would contain and balance the design at the top. I also added some green loops in this lower part to hold the top and bottom of the composition together to obtain a unified whole.



Plate 2

BEFORE THE CREATION OF ORDER

This piece was woven on the loom as eight separate strips, three are three inches in width and five are two inches wide. Each strip is ten feet long and the warp was sleyed at 12 ends per inch using thin tightly twisted yarn. The weft is basically a combination of white yarns of different sizes, materials, and shades of white used throughout. At random intervals, large shots of a single type of weft were used in order to enhance the texture. The strips were woven double (tubular and two individual layers) in some areas, but, for the most part, the strips are single layers.



Plate 3

After the strips were woven and removed from the loom, I used them sculpturally by tangling, twisting, and intertwining them. I wanted the arrangement to be somewhat controlled but still very free and loose to represent a sense of entanglement and confusion. The arrangement is visually heavy with the weight seeming to sag to the bottom. This concept is successful because there is not only a visual sag, but an actual one, with the bulk of the strips being centered at the bottom of the piece.



Plate 4

FUTURE PRESERVATION OF A PAST

The thought I attempted to communicate with this piece was the approaching future's insensitivity and impersonality toward human need of creativity. I chose the use of incongruent, inconsistent materials to achieve this. The material "of the future" used is the plastic which completely covers the woven areas of the piece.

The piece was woven as two completely separate layers on the loom so that the plastic could be sewn with them later. From the center slit, come yarns encased in plastic tubing. These spill out from the seeming inability to be contained any longer at this visually and physically heavy, sagging area.



Plate 5

The form is hung from the two outermost points which also help to create a feeling of weight at the focal point in the center of the piece.



Plate 6

ASSEMBLAGE OF THREE

This piece consists of three forms which are somewhat repetitious but still individual in character due to size and warp color. Black yarn was used for warp on the two outer forms and brown for the center form. The weft yarn used moved from dark at the top to lighter then back to dark in a range of neutral colors. Large, solid shots of black or brown yarn were used to separate and define the different color areas which progress subtly. The lower sections of the forms also carry out the solid black and brown color areas. These sections seem to be pressed and forced away from the wall out onto the floor as a result of the weight above.

The three forms were woven as separate layers on the loom. They were shaped somewhat during the weaving process then redefined later as a result of being sewn and stuffed, then gathered at the dividing point of the upper and lower sections. The separate forms were stitched together by hand from the back to keep them in position.



Plate 7

AND THE GLOW STILL REMAINS....

My objective with this piece was to create a draped, loose, and freely hung form with the top layer spilling down toward the ground. The work is hung on its side so that the selvages are on the top and bottom. This piece was woven as two layers simultaneously, joined only at a now, vertical area. This area, since woven as one layer, creates alternate purple and orange strips due to the fact that orange was the warp color on the top layer and purple on the bottom.



Plate 8

The top, orange layer was woven with dyed orange sisal weft. The bottom, purple layer was woven with three shades and types of dark purple yarn along with a strand of navy blue giving a sense of depth.

I wanted to carry the orange color which dominated the top layer through, to a certain extent, on the bottom purple layer. To do this, I dyed strips of varying widths of cotton fabric with orange cold-water Procion dye. However, I discovered that since the Procion dye is a fiber-reactive dye, it would not affect the sisal in the same way that it affected the cotton. I therefore, had to dye the sisal with Rit dye to get as deep a shade of orange as was the cotton fabric dyed with Procion dye. This created a problem since the two shades of orange were a bit different. This seemed to become more apparent to me after the piece was finished. I attempted to alter the color of the cloth somewhat with thickened Procion dye but this caused the fabric to become stiff in texture and dulled in color. I, therefore, decided to leave the color as it was.

Another problem I encountered was that when the piece was hung, the weight of the top layer caused the piece to pull away from the wall. The addition of several hanging rings (4) to the back was necessary to counteract this. Also, a drawstring was needed to hold the draping and gathering of the back layer in the position that I wanted it.



Plate 9

OPPOSITE OUTLET

This piece differs from the other double woven pieces in that it is a double weave with a pick-up design. In this type of double woven fabric, the warps are threaded in different colors so that the design appears in the reverse color on the reverse side of the fabric. I used four colors of warp thread: two colors alternating on one layer and two colors alternating on the other layer. Two shuttles of weft thread were used: each wound with the two colors of one layer. A pick-up stick was used to pick up the circular design so that one shot could be thrown completely through the shed with one treadling. The outcome of this double woven piece is two layers of fabric with the warp threads of one layer coming up or going back to create the circular design.

The "lips" which seem to come from the slits in the center were woven with the extra warp still on the loom after the piece itself had been completed. These were sewn on during the off-loom completion of the piece.

The visual attachment of the circular design to the background of the piece was achieved by carrying the design completely across at the horizontal center of the circle. This, I feel, keeps the circle from floating or seeming lost and uninvolved with its background.

The yarns that spill out of the split areas are handspun wool. I spun hand dyed wool roving in the four matching colors of the yarns used throughout the woven areas. This was then spun with a spindle

to give a loose, free, inconsistently spun texture to contrast the tight, controlled feeling of the woven areas.



Plate 10

This piece is hung so that it may be viewed from both sides. In this way, the viewer may be aware of the contradiction and yet also the consistency of the opposite effects.



Plate 11

ALL THINGS ARE TRANSITIONAL

This piece is made up of a series of freely moving planes which intersect the rigid back plane. Upon entering, these mobile planes show control and order but upon their reinvasion of our visual plane become chaotic and confusing. This symbolizes the thought that upon interruption, all things are changeable.



Plate 12

This piece was, again, woven as two layers, the top consisting of eight strips and the back a solid plane with slits. The warp of the

back layer was wound onto the warp beam of another loom which was placed back to back with the loom I used to weave on. This was done because the length of the back layer of the piece was much shorter than the top which needed extra length to move in and out of the slits of the back. This, therefore, eliminated a lot of wasted, unwoven warp threads which would have been inescapable if only one warp beam had been used.

Burgundy was the warp color of the back layer, gold of the top layer. The weft color of the back was consistent with the warp with a strand of darker burgundy added to give a feeling of depth. Varying densities of weft shots were used to give a slight textural effect in order to escape too much flatness. On the top gold layer of strips, I used weft shots of monochromatic color ranging from the gold of the top warp through orange, red, then to the burgundy of the back warp. The monotony of color and texture was broken by very large shots of the closest color of top layer weft yarns.

This piece is hung so that the bottom of the back layer just touches the floor. This allows the remaining length of the strips to spill freely onto the floor, therefore, making the supporting wall and floor a part of the total composition.



Plate 13

FRAME LOOM

This weaving is the only one discussed here that was not done on a four harness loom. The sculptural aspect, therefore, in this piece is achieved by use of highly textural woven areas in combination with added stuffed and draped fabric.

I used a large frame loom with nails in the top and bottom placed so that when warped, the sett was about four ends per inch. The warp is tightly spun bleached linen and has been painted dark brown in the dark woven areas so that the white warp does not overpower those areas.

The form is not achieved by use of a loom but through manipulation of the weft yarns. Discontinuous and varied lengths of yarn were used in freely conceived tapestry, soumak, and rya techniques. The use of various types of cords and heavy hairs such as Turkish cotton string, human hair, silk, mohair, and sisal increase the tactile and visual texture.



Plate 14

After the woven areas were completed and the piece was still on the frame, the fabric forms were manipulated, pinned, stuffed, then sewn invisibly into place. The natural movement and flow of these draped fabrics increase the feeling of mobility from the upper rigid horizontal plane to the lower, freely finished edge of the piece.

I enjoyed creating this piece very much as I was unrestricted by a loom and free from rigid planning. I discovered for myself that free form pieces, possible through the use of a frame loom, are most rewarding when they are constructed as they are worked. By doing this, I felt that immediate spontaneous creativity and a feeling of personal success were the dominating factors during the working of the piece.



Plate 15

GLOSSARY

CLOTH BEAM--Front roller on loom on which woven fabric is wound.

DENSITY--Number of yarns in a single weft shot.

DOUBLE WEAVE--A four-element weaving technique using two sets of warp and two sets of weft, producing two interwoven cloths, one over the other.

ENDS--Individual warp threads.

FABRIC--A pliable plane of any material or technique. Most fabrics are constructed of fibrous yarns.

FREE WEAVING--Weaving in which pattern is not controlled by the loom but through manipulation by the weaver, usually with a discontinuous weft. Examples are tapestry, soumak, and knotted pile.

HARNESS--In the loom, a frame from which are suspended the heddles, through which the warp yarns are threaded.

HEDDLE--In the loom, one of a set of cords or wires, suspended from a harness, with heddle eyes through which warp ends are threaded.

PICK-UP STICK--Flat stick for making hand controlled patterns.

REED--Removable part of the beater which spreads the warp.

ROVING--A rope of unspun fiber suitable for spinning.

RYA--The Finnish designation for a long, hand-knotted pile technique.

SELVAGE--In a woven cloth, the warpwise edges at which the weft wraps around the outermost warps as it reenters the web. The selvages prevent unraveling.

SETT--The number of warp threads used per inch.

SHAPED WEAVING--Cloth in which the selvages are not parallel but angled or curved, usually achieved by releasing warp tension and pulling in on the weft yarn.

SHED--Opening in warp through which shuttle passes.

SHOT--A single strand of weft.

SHUTTLE--The device that carries the weft or filling yarn through the warp.

SOU MAK--A technique of wrapping wefts around two or more warp ends to produce a surface similar to chain stitch.

TABBY--Plain weave.

TAPESTRY--Any of several free weaving techniques for joining or separating wefts that are horizontally adjacent. In slit tapestry the separation is made by consistently turning the wefts around adjacent warp ends so as to produce a vertical slit.

THREAD--In weaving terminology, a synonym for yarn.

TREADLING--Sequence in which harness combinations are used.

WARP--The lengthwise or vertical element in woven cloth which is threaded onto the loom. The warp is composed of many yarns individually called "ends."

WARP BEAM--Roller in back of a loom on which the warp is wound.

WARP FACE--Cloth in which the warp or vertical element dominates over the weft.

WEAVING--Interlacing of warp and weft threads to form a fabric.

WEFT--Threads crossing the width of the warp.

WEFT FACE--Cloth in which the weft or horizontal element dominates over the warp.

YARN--A continuous thread spun from natural or synthetic fibers or filaments.

BIBLIOGRAPHY

1. Bluenua, Lili. Creative Design in Wall Hangings. New York: Crown Publishers, 1967.
2. Constantine, Mildred and Jack Lenor Larsen. Beyond Craft: The Art Fabric. New York: Van Nostrand Reinhold Co.
3. Meilach, Dona Z. Soft Sculpture and Other Soft Art Forms with Stuffed Fabrics, Fibers, and Plastics. New York: Crown Publishers, 1974.
4. Meilach, Dona Z. and Lee Erlin Snow. Weaving Off-Loom. Chicago: Henry Regnery Co., 1973.
5. Regensteiner, Else. The Art of Weaving. New York: Van Nostrand Reinhold Co., 1970.
6. Willcox, Donald J. New Design in Weaving. New York: Van Nostrand Reinhold Co., 1970.

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