

1976

# Fibers and Fabrics in Stuffed Sculpture

Carol Ann Haskell Kessler

*Eastern Illinois University*

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FIBERS AND FABRICS

IN STUFFED SCULPTURE

(TITLE)

BY

CAROL ANN HASKELL KESSLER

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF ARTS

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY

CHARLESTON, ILLINOIS

1976

YEAR

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## ACKNOWLEDGMENT

Many thanks go out to those who helped me to complete my requirements for my Master of Arts Degree. They include my husband, Dave, Miss Suzan Braun, and Dr. June Krutza. An extra special thanks is more than deserved by Mr. Cary Knoop who spent much extra time in this endeavor and went out of the way many times on my behalf.

## STATEMENT OF THESIS

This thesis is a report of my experiences with fibers and fabrics in producing sculptural forms. They begin with my use of fibers in unstuffed sculpture and proceed to the use of stuffing materials in many varieties. To give an historical perspective, included are a number of related works, both primitive and recent. For the purpose of critical analysis, each sculptural form is pictorially presented and discussed.

## I

### HISTORY OF FIBERS AND FABRICS IN STUFFED SCULPTURE

Examples of fibers that have been used on, with, or as three dimensional forms generally do not survive the test of time except in dry desert climates. Used often in the making of masks were perishable plant fibers and animal hair. Examples, however, can be found in the art of primitive oceanic peoples of the Pacific, the American Indians, and the Africans.

The mask in Illustration 1 is an example of a "helmet-mask found in the Purari River region, Gulf of Papua in New Guinea."<sup>1</sup> Beaten bark has been stretched over a reed structure. Fiber tufts are fastened to the pointed ears.<sup>2</sup>

Another mask, Illustration 2, showing the tribal character of African art, comes from the Dan tribe living in the contiguous areas of eastern Liberia, Guinea, and the western Ivory Coast. This example shows the essentially restrained and humanistic quality in face masks. Men's societies adopted this trait as a single broadly consistent art form among most tribes in the same area. In striving for the realistic effect, fibers were used to represent hair.<sup>3</sup>



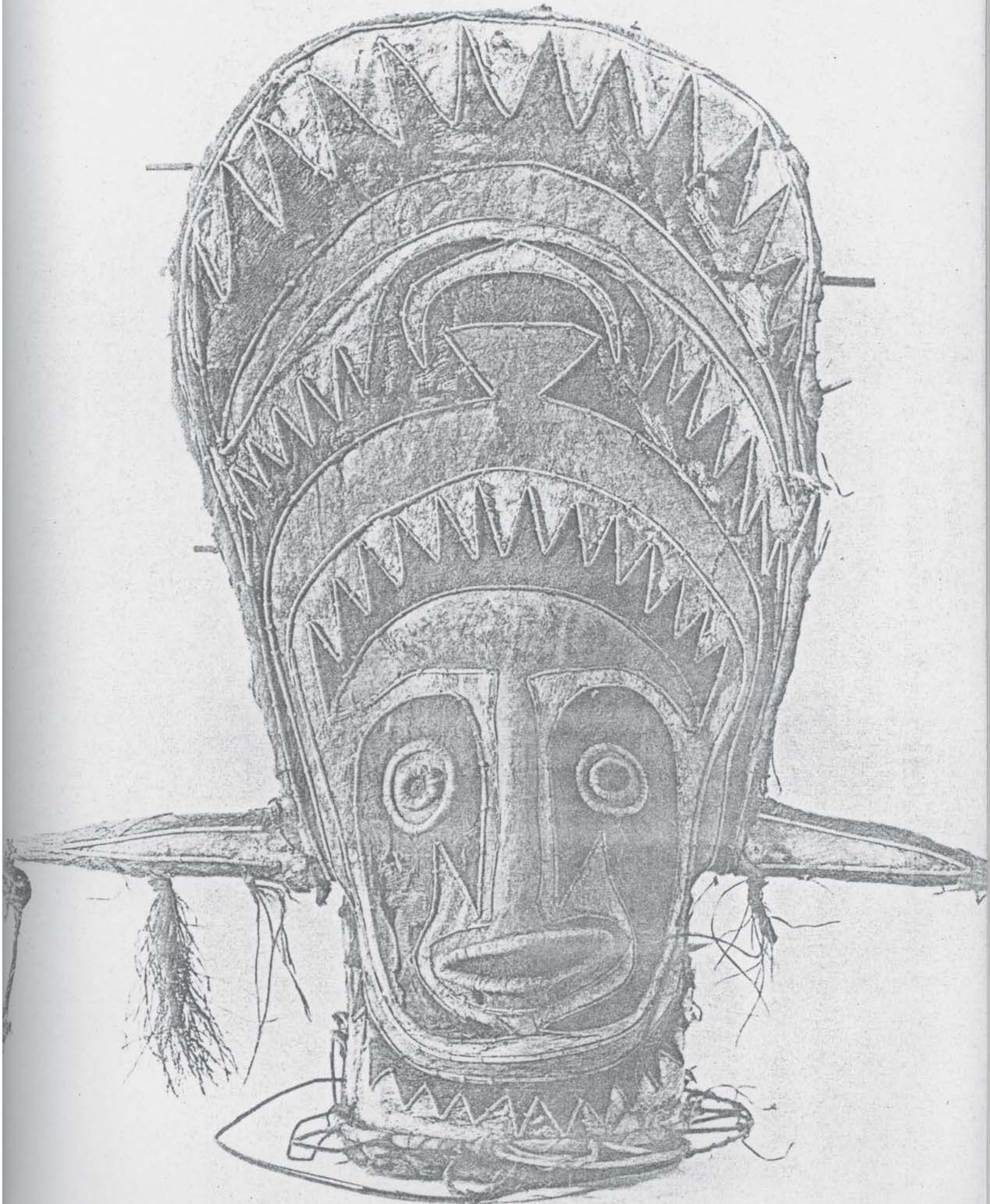


Illustration 1





Illustration 2



All masks were not made in the same way, as seen here, but were produced in innumerable varieties, from the simplest of crude 'false faces' held by a handle, to complete head coverings with ingenious movable parts and hidden faces. Mask makers have shown great resourcefulness in selecting and combining available materials. Among the substances utilized are woods, metals, shells, fibers, ivory, clay, horn, stone, feathers, leather, furs, paper, cloth, and cornhusks. Surface treatments have ranged from rugged simplicity to intricate carving, from polished woods and mosaics to gaudy adornments.

Masks were usually worn with a costume which concealed the identity or even the entire body of the wearer. When the mask was worn on top of the head as a cap, the wearer looked out from between the clothing and the main body of the mask where fibers often were used to hide the opening.

Fibers were constructed into everyday items as well as in religious and ritual ornaments of the primitive peoples. They were woven into mats, cloth, baskets, and other common articles. Fibers did not become prevalent again in sculpture until very recently, but have constantly been used in woven pieces. When used in sculpture, they were often constructed with the use of stuffing materials to aid in the three dimensional effect.

By comparing primitive mask examples with our modern sculpture made through the use of fibers, parallels can be noted. Just by comparing Illustration 1 and Illustration 2 with examples of contemporary work, my own and that of other artists noted within this paper, similarities can be seen. Some of these are:

1. Working with fibers or fiber-like materials over a frame.
2. Adding fibers to materials other than other fibers.
3. Braiding, twisting, wrapping, and knotting of fibers.
4. Use of appliqué.

Probably the artist using fibers in his sculpture, with whom we are most familiar, is Claes Oldenburg. He came into prominence with his experimentation with soft, stuffed sculptures in the early 1960's, at the same time that weaving was moving away from the wall. Such soft objects later held a definite place within the style of pop art.

Mr. Oldenburg's soft sculptures, in vinyl plastic and in canvas, were produced "perhaps to reduce the personal expressionist quality"<sup>4</sup>. Among them are his French Fries (Illustration 3, showing Pat Oldenburg with French Fries and Ketchup) blown up to colossal proportion; sewn together by his wife, the gigantic potato straws filled with kapok are movable and soft to the touch--like high cushions. They are arranged

any way one likes, with a large dollop of red ketchup on top, also in cuddly, kapok-stuffed washable vinyl.<sup>5</sup>



Illustration 3

With the exhibition Deliberate Entanglements held at the University of California in Los Angeles during the month of November, 1971, weaving broke through its confines and presented itself as sculpture. Again in January, 1972, and April, 1973, exhibits at New York's Museum of Contemporary Crafts entitled



Sculpture in Fiber and Sewn, Stitched, and Stuffed

were available to the public. The first show exhibited woven and non-woven fiber forms; the second concentrated on stuffed fabrics as a sculptural medium.<sup>6</sup>

## VARIETIES OF FIBERS

Fibers are units of matter having length at least 100 times their diameter or width. Fibers suitable for textile use possess adequate length, fineness, strength, and flexibility for yarn formation and fabric construction, and for withstanding the intended use of the completed fabric. (A fabric is a web woven from fibers or otherwise.) Other properties affecting textile fiber performance include elasticity, crimp (waviness), moisture absorption, reaction to heat and sunlight, reaction to the various chemicals applied during processing and in the dry cleaning or laundering of the completed fabric, and resistance to insects and micro-organisms.<sup>7</sup> The wide variation of such properties among textile fibers determines their suitability for various uses.

Fibers are either natural or man-made. The important natural fibers are cotton, wool, linen, jute, sisal, and silk. Although silk has long been considered the most elegant and desirable of all natural fibers, it does not stand up well under direct sunlight and heat and, in general, requires more care than most other fibers. Wool, like silk, is an animal fiber.

Depending upon its weave, it can be made into extremely strong and beautiful fabrics. Both cotton and linen are made from vegetable fibers and are both durable and pliable. Unless cotton and linen are interwoven with other fibers, however, they are not generally as strong as wools or man-made fibers and tend to be restricted to light-duty interior purposes. Much coarser plant fibers, jute and sisal are being used more in fabrics. Jute has become second to cotton in world fiber consumption.<sup>8</sup> Sisal is valued for use as cordage because of its strength, durability, ability to stretch, affinity for certain dyestuffs, and resistance to deterioration in salt water.<sup>9</sup>

Man-made (synthetic) fibers in the 20th century exist under a variety of trade names, and new synthetics are continuously being developed. Some of the major families of synthetic fibers are glass fibers, acetate, acrylic and modacrylic, nylon, olefin, polyester, rayon, and saran. The chemical composition and processes used in the manufacture of man-made fibers make possible a variety of specific qualities. Some offer strength and elasticity (acetate, modacrylic, nylon, polyester); some offer resistance to fire (acetate, modacrylic, polyester, glass fibers), stain (acetate), mildew, sun, or abrasion (acrylic); and some offer resistance

to moisture and organic agents (modacrylic, acrylic, polyester); others to crushing and wrinkling (polyester).

Many fabrics are woven in a combination of two or more fibers in an attempt to improve the appearance or utility or both. Another factor in selecting or specifying fibers or fabrics is the touch or the 'hand' of each.<sup>10</sup> Personal taste also enters into the preference of one fabric over another. With the large selection of both natural and man-made fibers today, one should not find it difficult to obtain suitable fabrics.

## VARIETIES OF STUFFINGS

With imagination, an artist can use many materials readily available to him for stuffing his sculpture. Around the home, one might find any of the following: cut-up second-hand mattresses, old pillow material, rock wool insulation, feathers, cotton or dacron batting, hay or straw, newspaper balls, old nylon stockings, cork, steel wool, rags, yarns, and clothing material.

Others which are common to most fabric or department stores include foam rubber, polyester fibers, polyurethane, and polystyrene (styrofoam). Because of the different properties of each, artists have chosen one over the other to achieve the desired effect.

### FOAM RUBBER

Also called sponge rubber or latex foam, foam rubber is made of latex compounded with various ingredients and whipped into a froth. The resulting product contains roughly 85 percent air and 15 percent rubber and can be molded and vulcanized. It is used for a wide range of consumers' goods, including padding for upholstered furniture, mattresses, and pillows.<sup>11</sup>

In Claes Oldenburg's Giant Hamburger, his materials are listed as canvas, cloth, Dacron, metal, foam rubber, and Plexiglas. Foam rubber was used here as the stuffing material.<sup>12</sup> (Illustration 4)

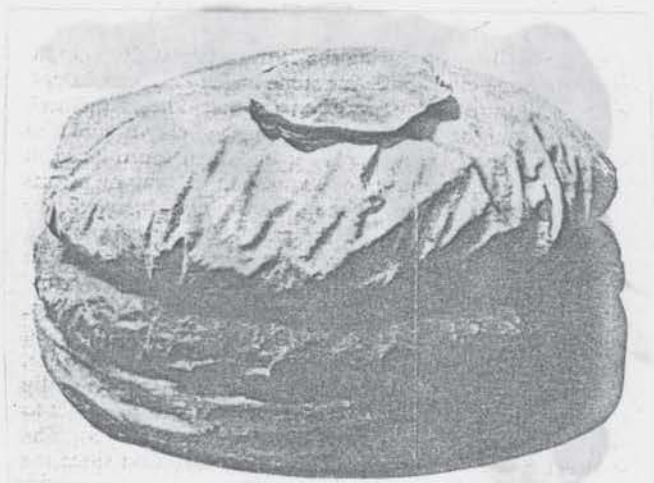


Illustration 4

#### POLYESTER FIBERS

Polyester is any of a class of substances composed of large linear (chainlike) or cross-linked (net-work) molecules, or polymers, formed from a large number of smaller molecules, or monomers, by establishment of ester linkages between them.

The long-chain polyester made from ethylene glycol and terephthalic acid is the basis of the fiber called Dacron, Fortrel, or Terylene and the film Mylar.

The polyester fibers are generally similar in performance and properties. Some high-strength filament types are processed to withstand loads in the range of 105,000 to 125,000 pounds per square inch,



comparable to high-tenacity nylon and considerably higher than regular nylon filament; other types have somewhat less tensile strength. Normal filament types can be stretched about 20 to 30 percent beyond their original length, both in the dry and wet states; strong filament types can be stretched about 7 to 14 percent; and staple fiber can be stretched about 25 to 40 percent. The polyester fibers have high elastic recovery and are low in moisture absorption. They are not combustible but will usually melt at about 260°C (500° F). Prolonged exposure to light reduces strength but does not effect color. Polyesters have good resistance to chemicals. They can be washed in alkaline solution; but extremely strong, hot solutions may produce decomposition. They can be dry-cleaned with most common cleaning solvents. Polyesters are resistant to attack by insects and micro-organisms. Low moisture content makes them likely to accumulate static charges unless treated with antistatic agents.<sup>13</sup>

#### POLYURETHANE

Polyurethanes are of a class of synthetic resinous, fibrous, or elastomeric compounds belonging to the family of organic polymers, consisting of large molecules formed by chemical combination of many small ones (monomers) into chains or networks. The best

known polyurethanes are flexible foams--used as upholstery material, mattresses, and the like--and rigid forms--used for such lightweight structural elements as cores for airplane wings.

Polyurethanes are made by the reaction of diisocyanates (organic compounds containing two functional groups of structure--NCO) with other difunctional compounds such as glycols. Foamed polyurethanes result from the reaction of diisocyanates with organic compounds, usually polyesters, containing carboxyl groups; these reactions liberate bubbles of carbon dioxide that remain dispersed throughout the product. Use of polyethers or polyesters containing hydroxyl groups in preparing polyurethanes results in the formation of elastomeric fibers or rubbers that have outstanding resistance to attack by ozone but are vulnerable to the action of acids or alkalies.

In textiles the synthetic fiber known generically as spandex is composed of at least 85 percent by weight of segmented polyurethane. Such fibers are generally used for their highly elastic properties. Trademarked fibers in this group include Lycra, Numa, Spandelle, and Vyrene. Such fibers have, for many textile purposes, largely replaced the fiber group known generally as rubber that includes both natural and synthetic



rubber fiber manufactured under such trademarked names as Lactron, Lastex, and Contro.

Although somewhat low in strength in the relaxed state, spandex fibers can be stretched about 500 to 610 percent beyond their original length without breaking and have excellent and quick return to their original length. The fiber, usually white with dull lustre, is readily dyed. It is extremely low in moisture absorption, retaining only 0.3 percent of its weight in moisture. It melts at about 250° C (480° F) and yellows with prolonged exposure to heat or light. Items made of spandex can be machine washed and dried at moderate temperatures. Use of chlorine bleach can produce yellowing. Spandex fibers are frequently covered with other fibers of nylon, rayon, acetate, or cotton. By the 1960's, use of the uncovered fiber had greatly increased; and efforts were being made to develop methods to correct its tendency to discolor.<sup>14</sup>

#### POLYSTYRENE

An important member of the class of synthetic organic polymers, polystyrene is composed of long-chain molecules prepared by a chemical reaction in which many (usually 2,000 to 3,000) molecules of the aromatic hydrocarbon styrene become linked together.

Large-scale manufacture of polystyrene was begun in the late 1930's; usually the styrene is dispersed

in water with the aid of soap, and the polymerization reaction is initiated by free-radical catalysts. The product, an inexpensive, strong, thermoplastic (softened by heat) resin that resists attack by acids, alkalies, and many solvents, does not absorb water and is an excellent electrical insulator.

Addition of rubber latex to the suspension in which polystyrene is made greatly increases its resistance to impact. By the mid-1960's, more than half the polystyrene made in the U.S. was produced by this process. Polystyrene has numerous uses, as in making housings for such large household appliances as refrigerators and air conditioners.<sup>15</sup>

Styrene polymerizes readily in pure form or in solution, suspension, or emulsion--usually under the influence of peroxide catalysts. The polymer is a colorless, transparent, thermoplastic resin (polymer product used to make objects of plastic with the application of heat), which has a specific gravity around 1.08 and a molecular weight range from 50,000 to 200,000. Commercially produced polystyrene is amorphous, has useful electrical and mechanical properties, and softens around 90° C (194° F). It is highly resistant to moisture, acids, and bases but is easily attacked by organic solvents. Polystyrene and closely related

polymers are the most popular resins for certain molding and extrusion procedures in the forming of plastic objects.<sup>16</sup>

MAJOR USES OF FIBERS, FABRICS,  
AND STUFFING IN SCULPTURE

FIBERS

Craftsmen have been seeking additional techniques compatible with the woven surface that would allow them a greater freedom than those used with the loom: a freedom to explore the potential of fiber structurally and expressively. Soon a whole new vitality burst forth. Macramé became a method and an end in itself that captured unprecedented enthusiasm among craftsmen. The knots themselves provided a structural, expressive, and decorative quality by virtue of repetition. Other techniques that were explored included twining, braiding, plaiting, knitting, crochet, and basketry methods. All are single element techniques that are as ancient as they are new. They are techniques that have appeared in utilitarian fiber objects. It was only for the artist to use these techniques in a new emphasis and apply them to their contemporary statements.<sup>17</sup>

Following are examples of end products of the use of fibers in unwoven sculpture: (Illustrations 5 through 9)



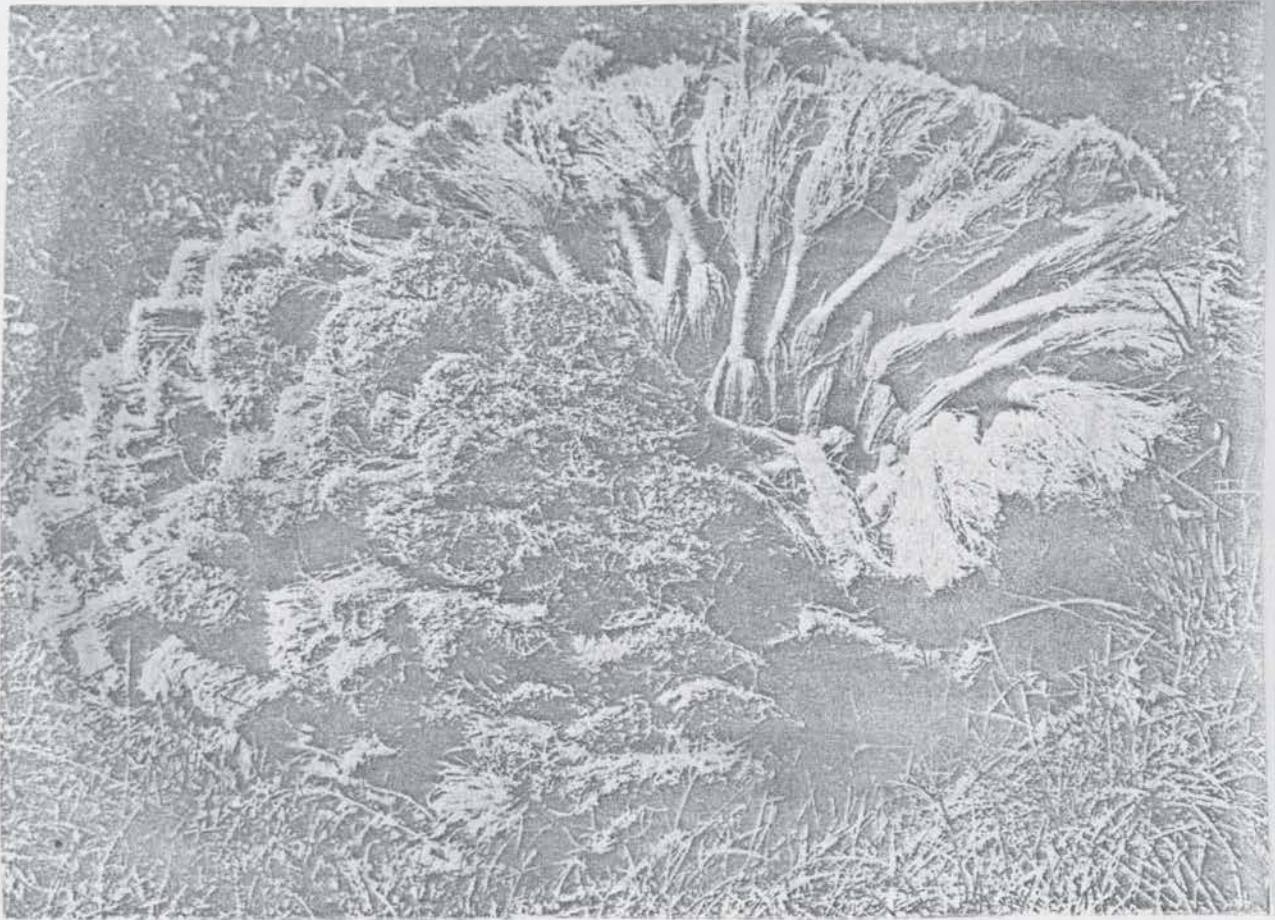


Illustration 5: Untitled. Sheila Hicks. 1968.  
36" wide. 36" deep. Wrapped linen.<sup>18</sup>

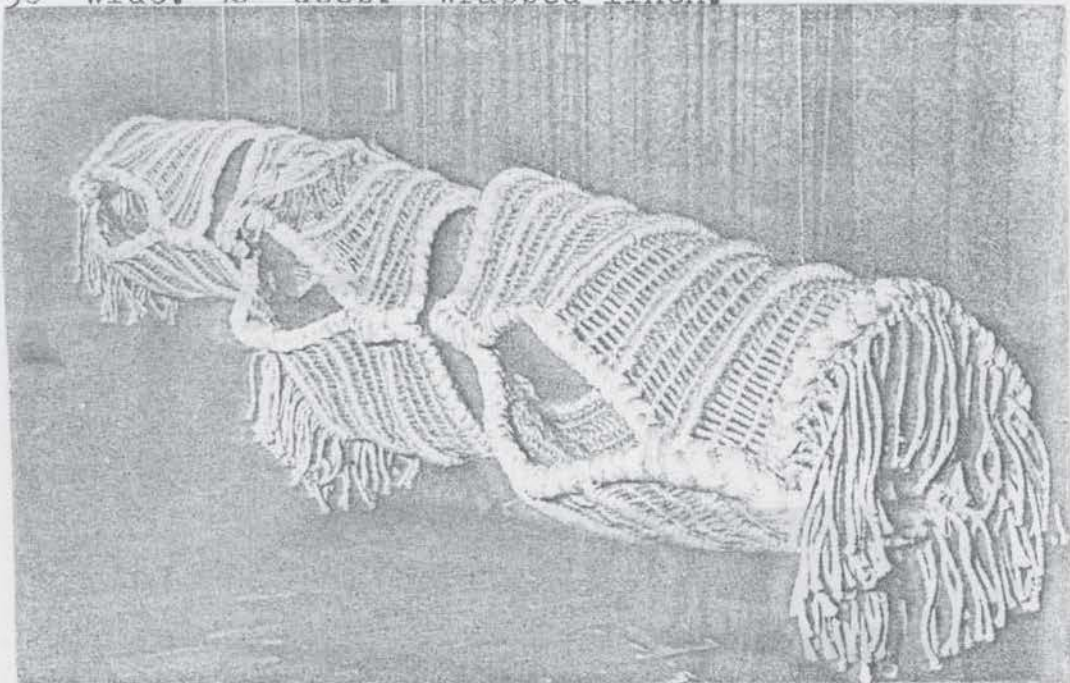


Illustration 6: Untitled. Mary Ann Glantz. 1972.  
18" high, 10' wide. Jute and polypropylene. Macramé  
and twining.<sup>19</sup>



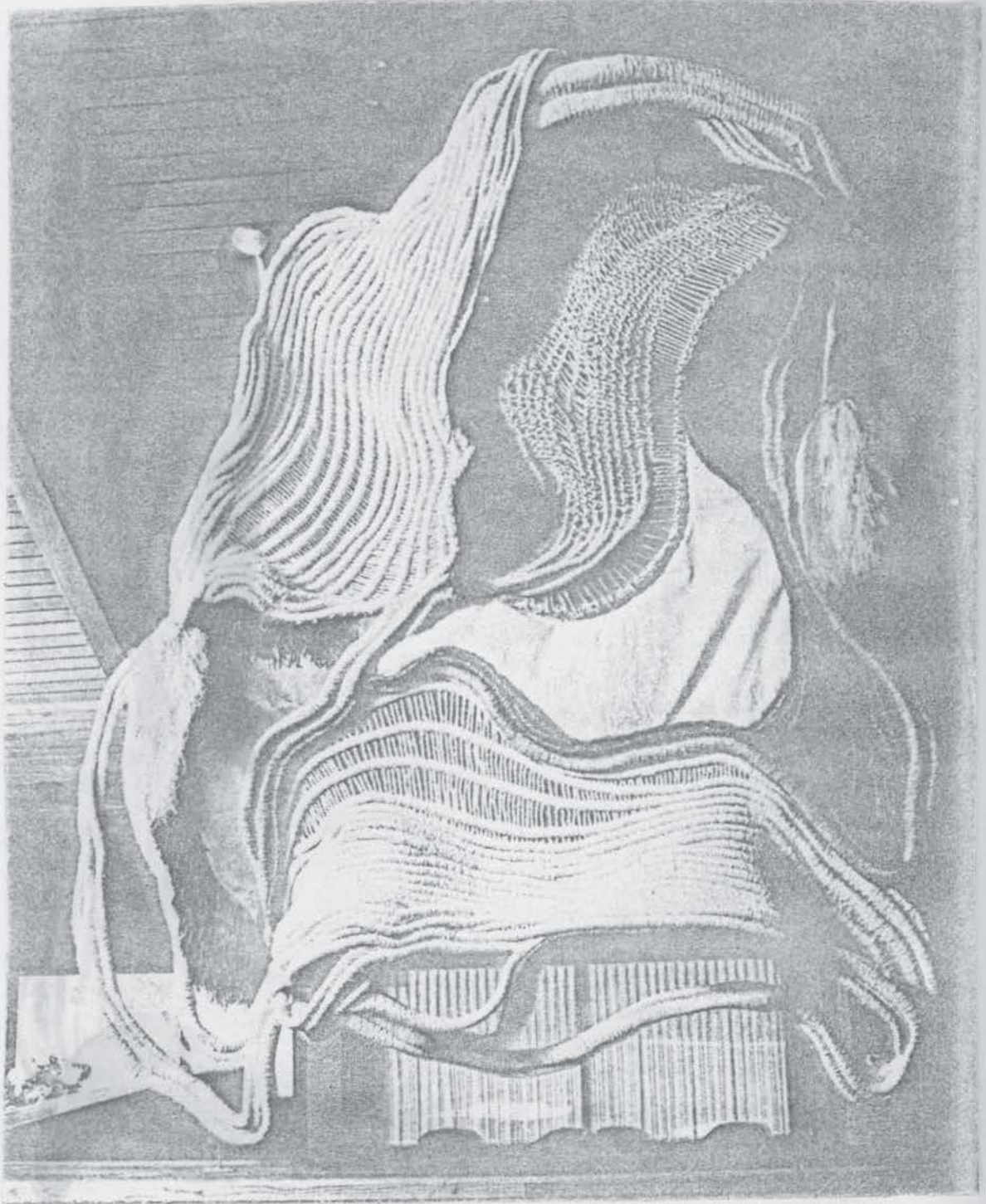


Illustration 7: Fiber Sculpture Wall. Libby Platus. 1972. 12' high, 10' wide, 2' deep. Sisal, cowhide, and leather. An environmental wall created as part of the architectural planning of the Irvine Corp., Big Canyon Country Club, Newport Beach, California.<sup>20</sup>

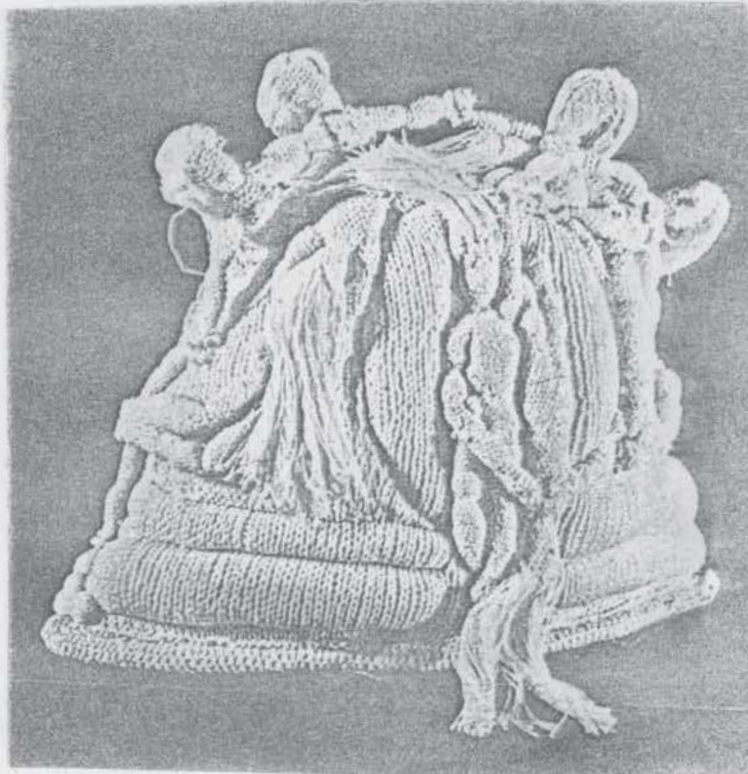


Illustration 8: For Women Only. Norma Minkowitz.  
Crochet, stitchery, trapunto, and hooking.<sup>21</sup>

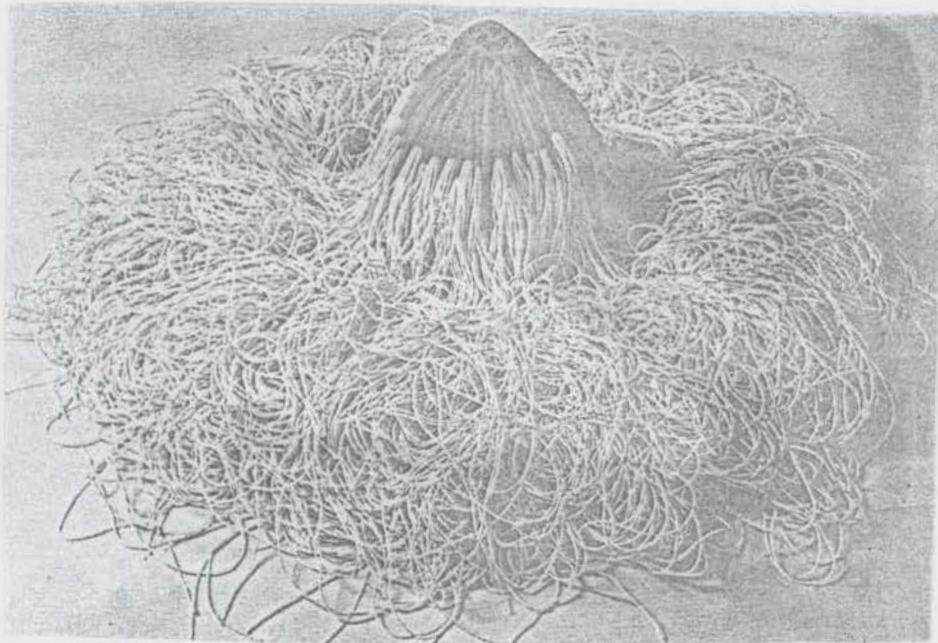


Illustration 9: Endometruim. Park Chambers, 30"  
high, 6' diameter.<sup>22</sup>



## HAND-WOVEN FABRIC

Woven forms have broken away from conservative approaches; they have fragmented into a staggering variety of innovative trends and statements. Simultaneously, weaving techniques also have changed. Traditional looms are, and always will be, popular. The weaver has also adapted many off-loom weaving techniques; these have been stimulated by the study of historical weaving methods by primitive peoples who devised and improvised weaving methods based on materials at hand. Such devices as simple frames, circular hoops, branches, and cardboard are all warped and used for weaving. Finger weaving and braiding, Indian braiding, and other techniques have been investigated and adapted to modern woven work.<sup>23</sup>

Often large weavings are composed of assembled parts. The piece is planned so it can be made in sections, either on the loom or on an off-loom device, and then the pieces are put together either by weaving or other techniques such as knotting, crochet, and tying, so the threads purposely extend beyond the surface plane to yield texture and dimension.<sup>24</sup>

Following are examples of hand-woven sculpture:  
(Illustrations 10 through 14)





Illustration 10: Midsummer Night's Dream. Jan  
Wagstaff. 1971. 96" high, 48" wide. Wool.<sup>25</sup>



Illus  
Abaka

lena

Illustration 12: The Wraith. Max Lenderman. 1972.  
8' high, 40" wide, 14" deep. Linen, wool, rayon, roving,  
and chenille; quadruple woven Rya knotting. Polyester  
stuffing. 27



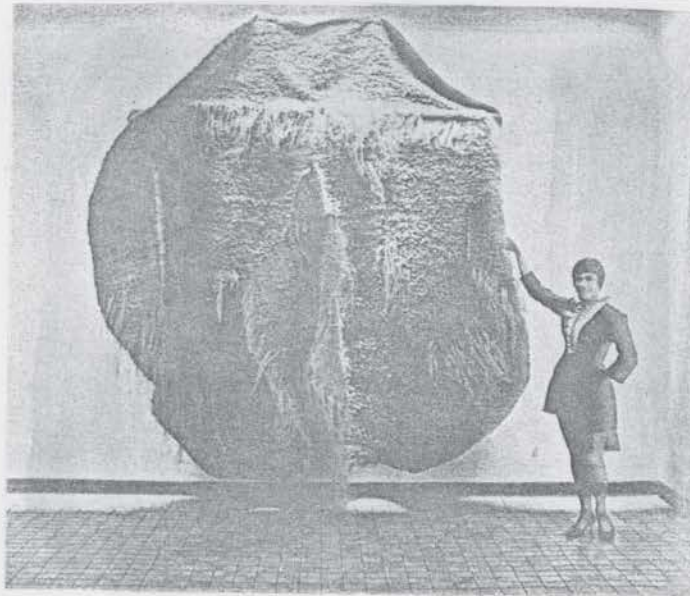


Illustration 11: Yellow Orange Abakan. Magdalena Abakanowicz. 1969.<sup>20</sup>

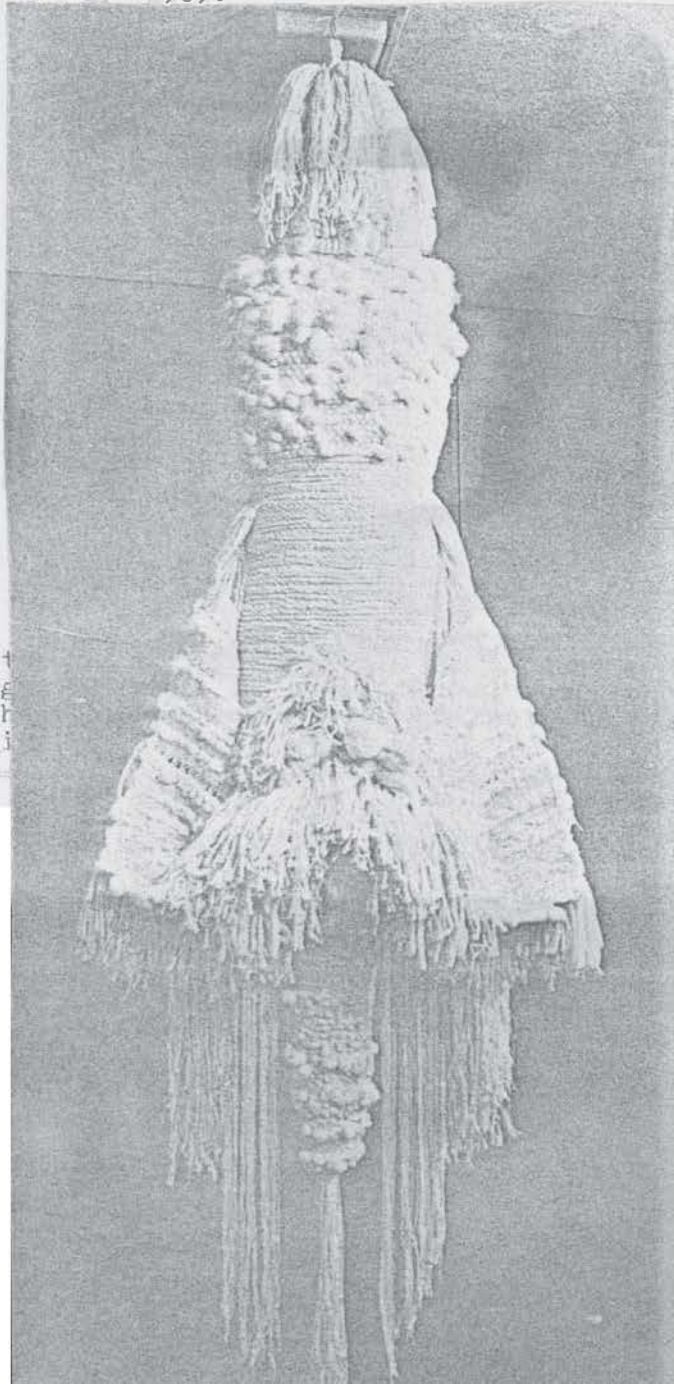


Illustration 12: Yellow Orange Abakan. Magdalena Abakanowicz. 1972.  
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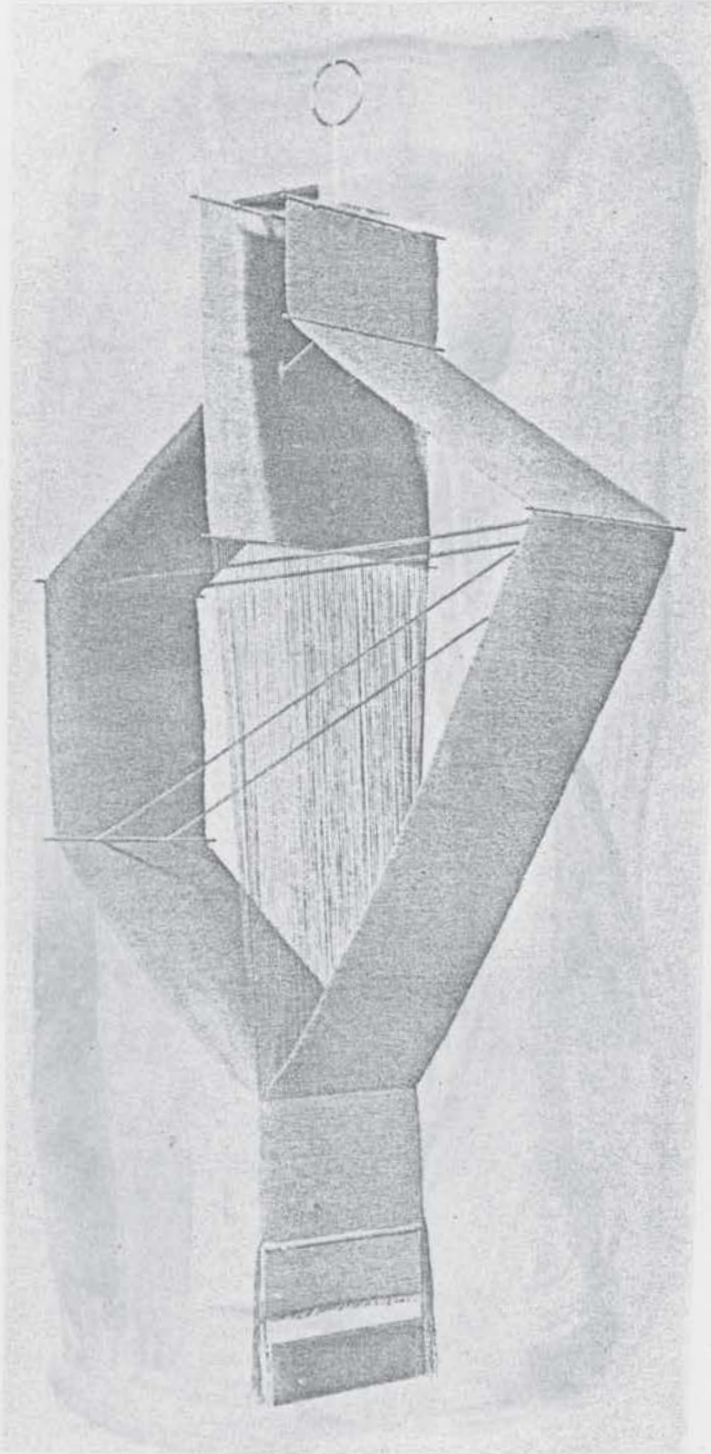


Illustration 13: Flying Form 1. Budd Stalnaker. 63" high, 40" wide, 17" deep. An architectural hanging composed of wool, linen, brass, and bronze.<sup>28</sup>

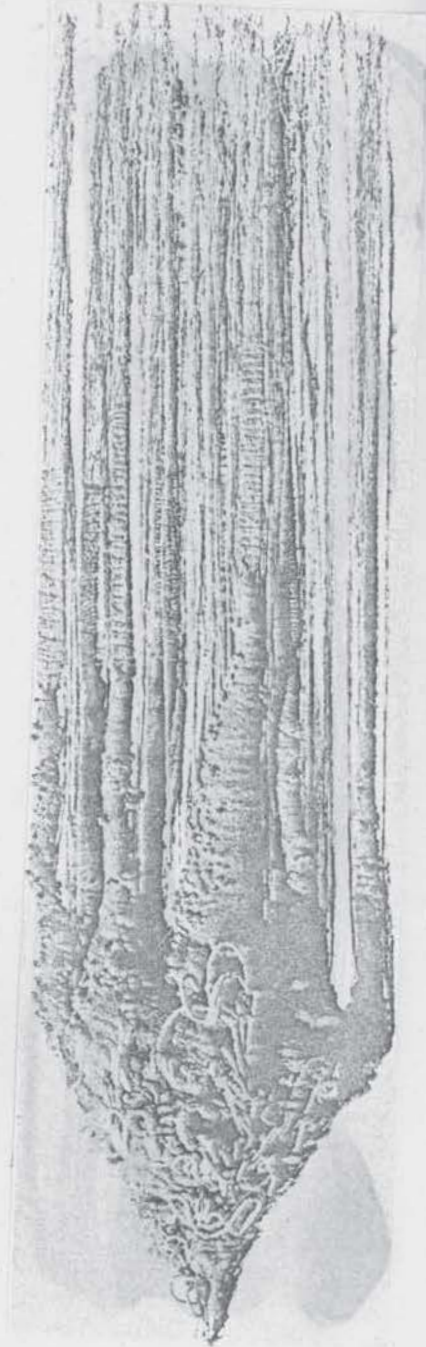


Illustration 14: Untitled. Peg Wood Greenfield. 1972. 84" high, 23" wide. (One of two related forms.) Double woven with slits in each section to allow unwoven cords from one portion to be pulled through the other. French knots and wrapping.<sup>29</sup>



## PURCHASED FABRIC

The relief dimension in soft art is an intriguing offshoot of the combination of fabric collage and traditional quilting techniques. The result is usually a brilliantly colored work rich in shimmering textured fabrics that exploit the changes of light and shadow on the surfaces. Satins, silks, rayons, velvets, wet-look synthetics, shantung, and moiré satins are favored materials because of their color and their 'light-bouncing' qualities. To people who are interested in traditional quilting, its application to new art forms is another surprise showing the ability of the innovative mind to apply old techniques to contemporary statements.<sup>30</sup>

Today's artist often develops his own technique. He may make a 'pocket' in two layers of fabric and stuff this shape. A completely padded extra shape may be incorporated onto the surface of the work. This form may be made much as a throw pillow for a couch and then stitched to the background.

Another technique which the artist can use is to bond the fabric to a sheet of foam rubber either by gluing or sewing. This process gives a soft padded background to which other padded shapes may be sewn.

Modern sewing machines are a boon to the artist because a variety of linear qualities can easily be

achieved by changing the type of stitch: satin, zig-zag, buttonhole, overcast, and so forth. Hand-stitching is also included in many of the works.

Further imagery can be applied with textile paints and waterproof felt-tip pens, if desired.<sup>31</sup>

Following are examples of purchased fabric incorporated into sculpture: (Illustrations 15 through 20)



Illustration 15: Return to Quietism. Janice Ring. 1972. 6' high, 2' wide. Wool yarn, burlap, raku beads, marine cord, velvet upholstery fabric. Free-form pieces must often be constructed as they are worked; no basic technique may apply to every piece. This hanging was done on a frame and combined weaving with fabric. Weaving was done, the velvet form was manipulated, pinned, and stuffed, then sewn in place, and weaving continued. Additional woven portions were assembled later. Beads and macramé were added last.<sup>32</sup>

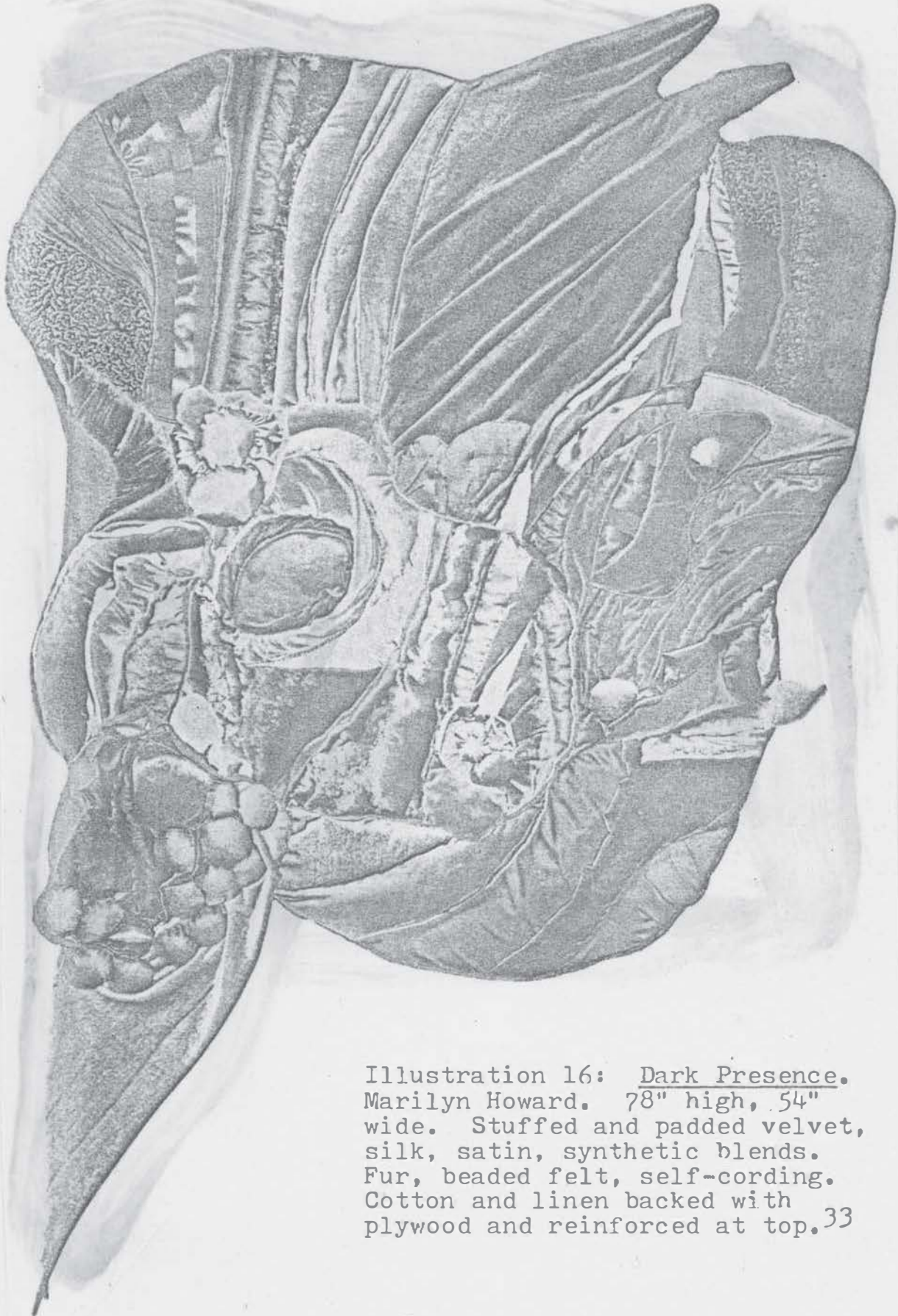


Illustration 16: Dark Presence.  
Marilyn Howard. 78" high, 54"  
wide. Stuffed and padded velvet,  
silk, satin, synthetic blends.  
Fur, beaded felt, self-cording.  
Cotton and linen backed with  
plywood and reinforced at top.<sup>33</sup>





Illustration 17:  
Wall Hanging. M.  
 Joan Lintault.  
 1972. 3'7½" X  
 3'2". Cotton,  
 trapunto.<sup>34</sup>

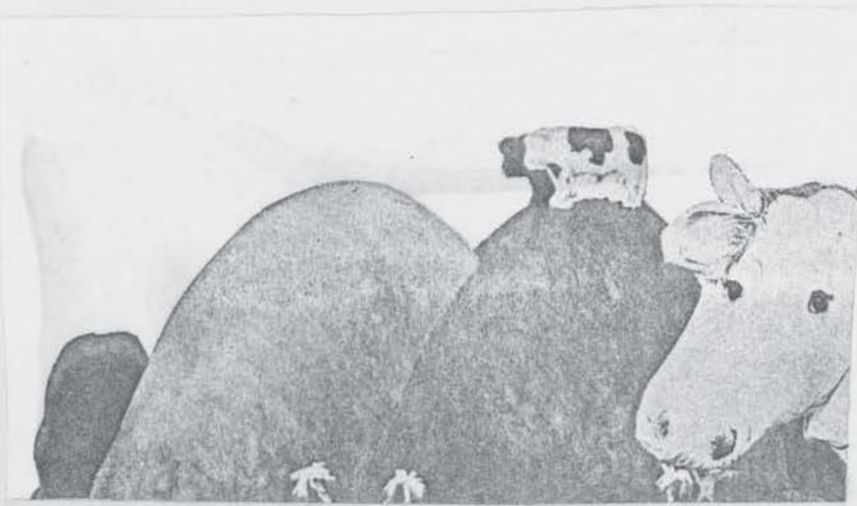


Illustration 18: The Love Affair or The Cow Pasture Bed.  
 Michelle Gamm Clifton. 1972.. 6'8" X 6'8" X 3'7".  
 Plywood, dacron, muslin, fur-like fabric, acrylic paint,  
 charcoal drawing.<sup>35</sup>



Illustration 17:  
Wall Hanging. M.  
Joan Lintault.  
1972. 3'7 $\frac{1}{2}$ " X  
3'2". Cotton,  
trapunto.<sup>34</sup>



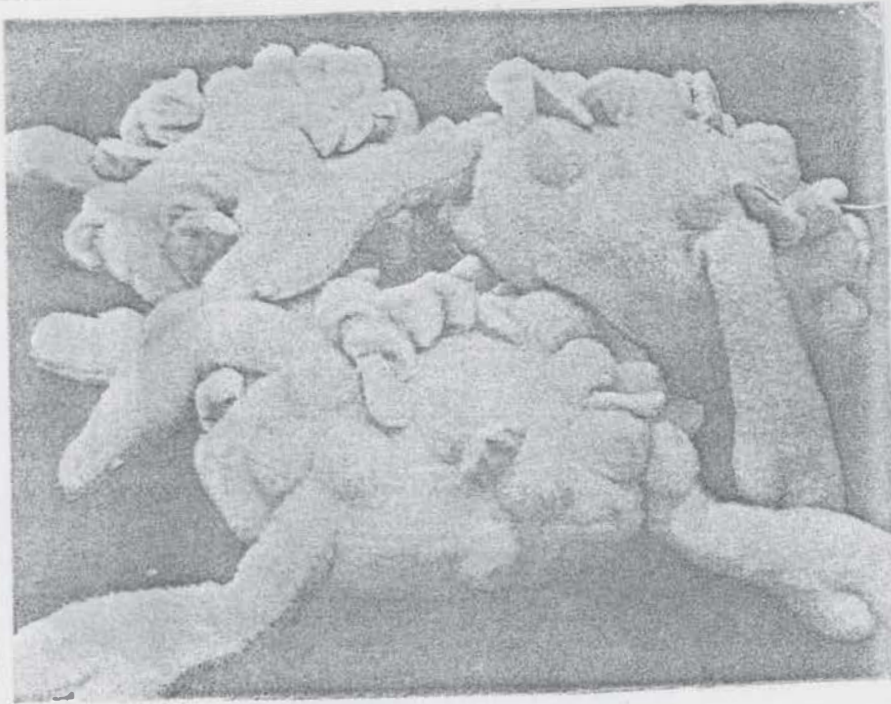


Illustration 19:  
Sheila, Wanda  
 and Mona.  
 Glory MacDonald.  
 1972. 12" high,  
 66" deep,  
 Lambskin.  
 Motors and  
 squeaky toys  
 are placed  
 inside so  
 when the piece  
 is electrically  
 activated it  
 undulates and  
 squeaks.<sup>36</sup>



Illustration 20:  
Butterfly. Noami  
 Kahan. 1972. 36"  
 high, 27" wide.  
 Dyed natural linen  
 quilted and stuffed  
 with Dacron. The  
 linen has been  
 fringed; metal  
 objects hang from  
 the leather.<sup>37</sup>



## STUFFING

The act of stuffing is both an additive and subtractive sculptural process. One can create forms and assemble them; if they are not right or do not work, one can make them shorter, thinner, or remove them altogether. Alterations and revisions are relatively simple.<sup>38</sup>

Varieties of stuffing materials have been discussed earlier on pages 11 through 16. An artist will choose the stuffing which best fits his needs or plan of his sculpture.

Following are sculptures using a variety of stuffing materials: (Illustrations 21 through 31)

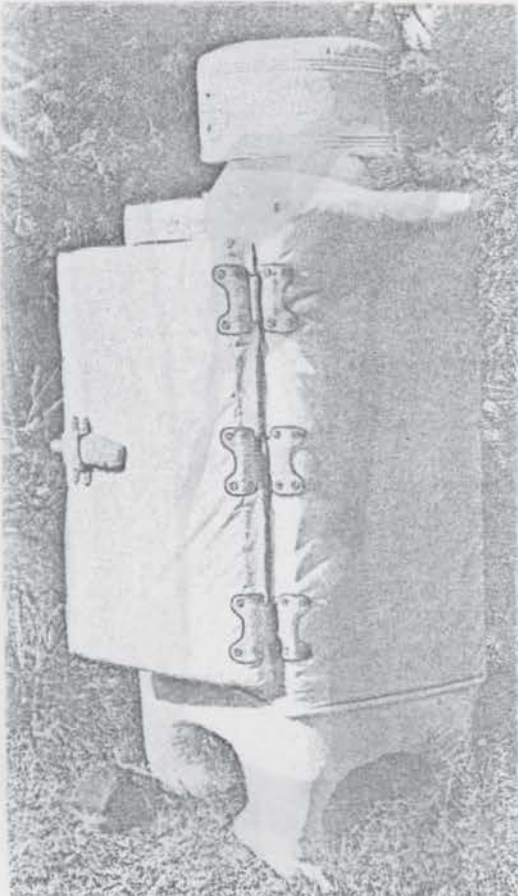


Illustration 21: Soft Refrigerator. Karlen Allard. 1972. 5' high. The vinyl material covers layers of laminated foam with cotton batting around it. A wood base and some wood framing is used.<sup>39</sup>



Illustration 22:  
Model (Ghost)  
Telephone. Claes  
 Oldenburg. 1963.  
 71" high, 48" wide,  
 11" deep. Muslin  
 and foam rubber.<sup>40</sup>

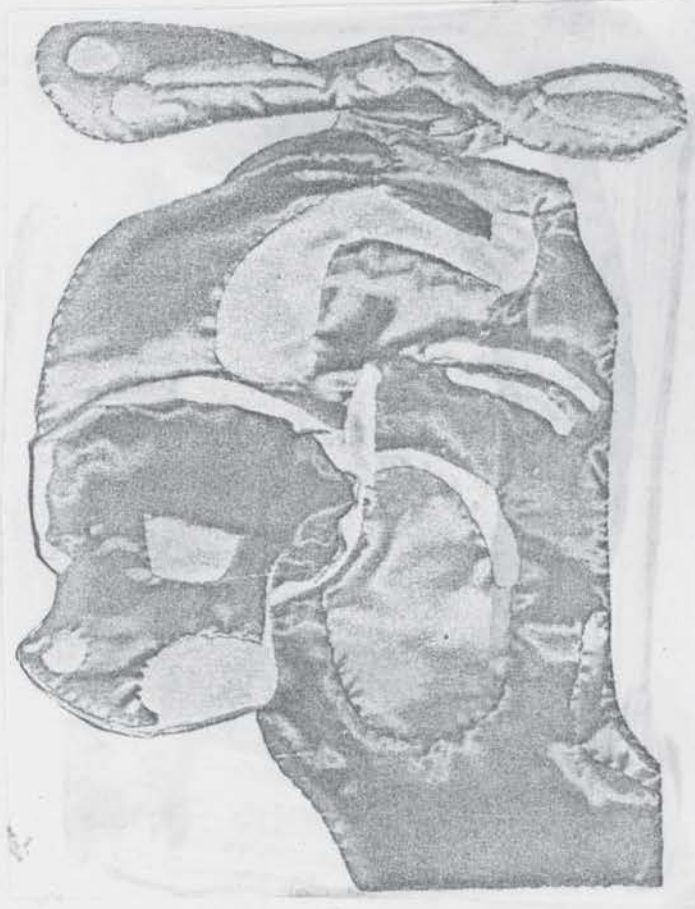


Illustration 23: Water Faucet.  
 Coral Onopa. 1973. 14" high,  
 11" wide. Gray and white satin  
 are stitched to a foam-rubber  
 pad for the soft backing;  
 other shapes stand out as  
 relief dimensions.<sup>41</sup>





Illustration 24: Four Ballerinas. Ruth Geneslaw. 1972. 61" high. Tubular weave in white wool and unspun fleece. The tubes are reinforced with metal rods and wires for structural support and stuffed with polyester.<sup>42</sup>

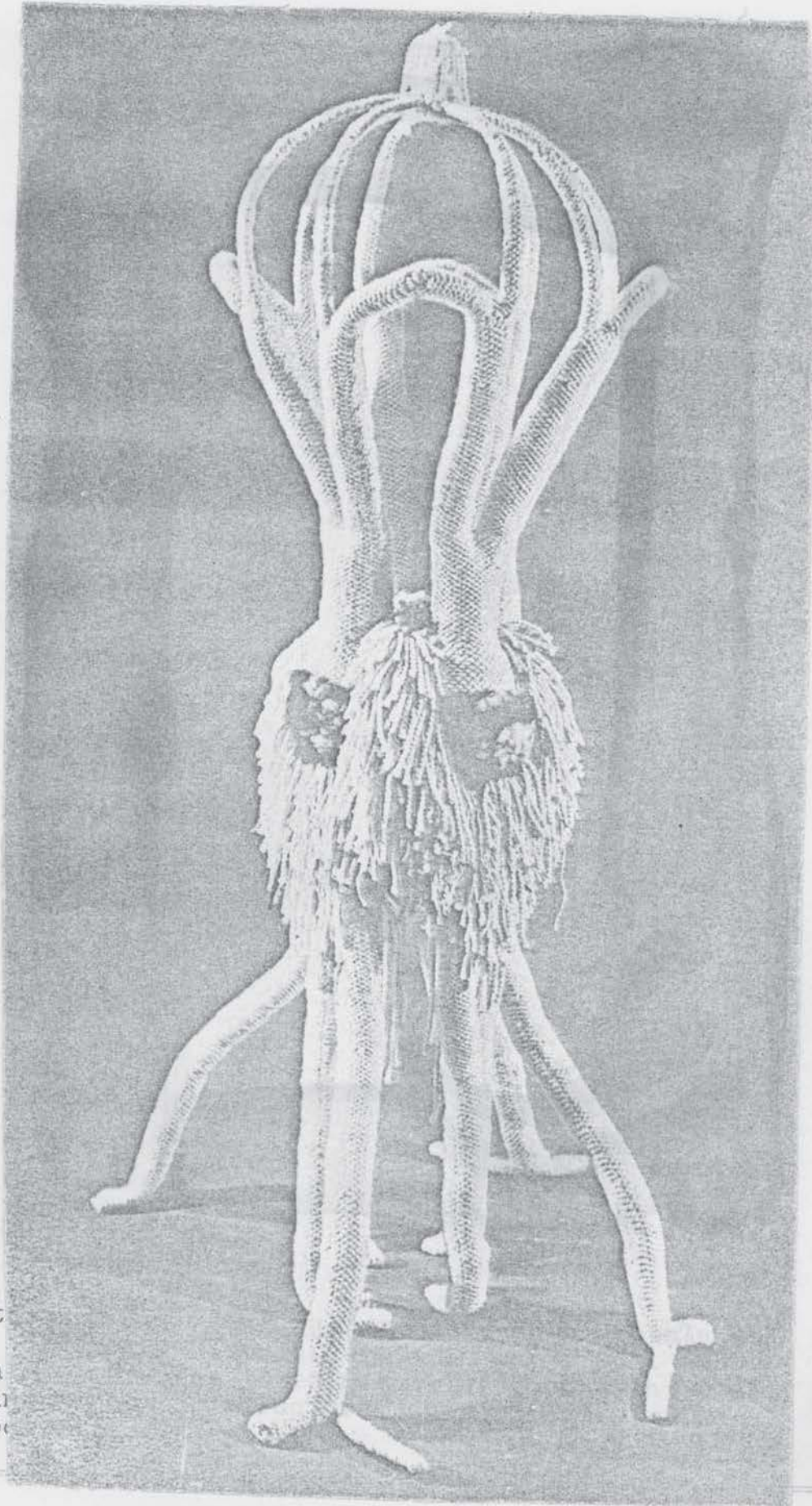


Illustration  
1972.  
unspun  
rods and  
with pe



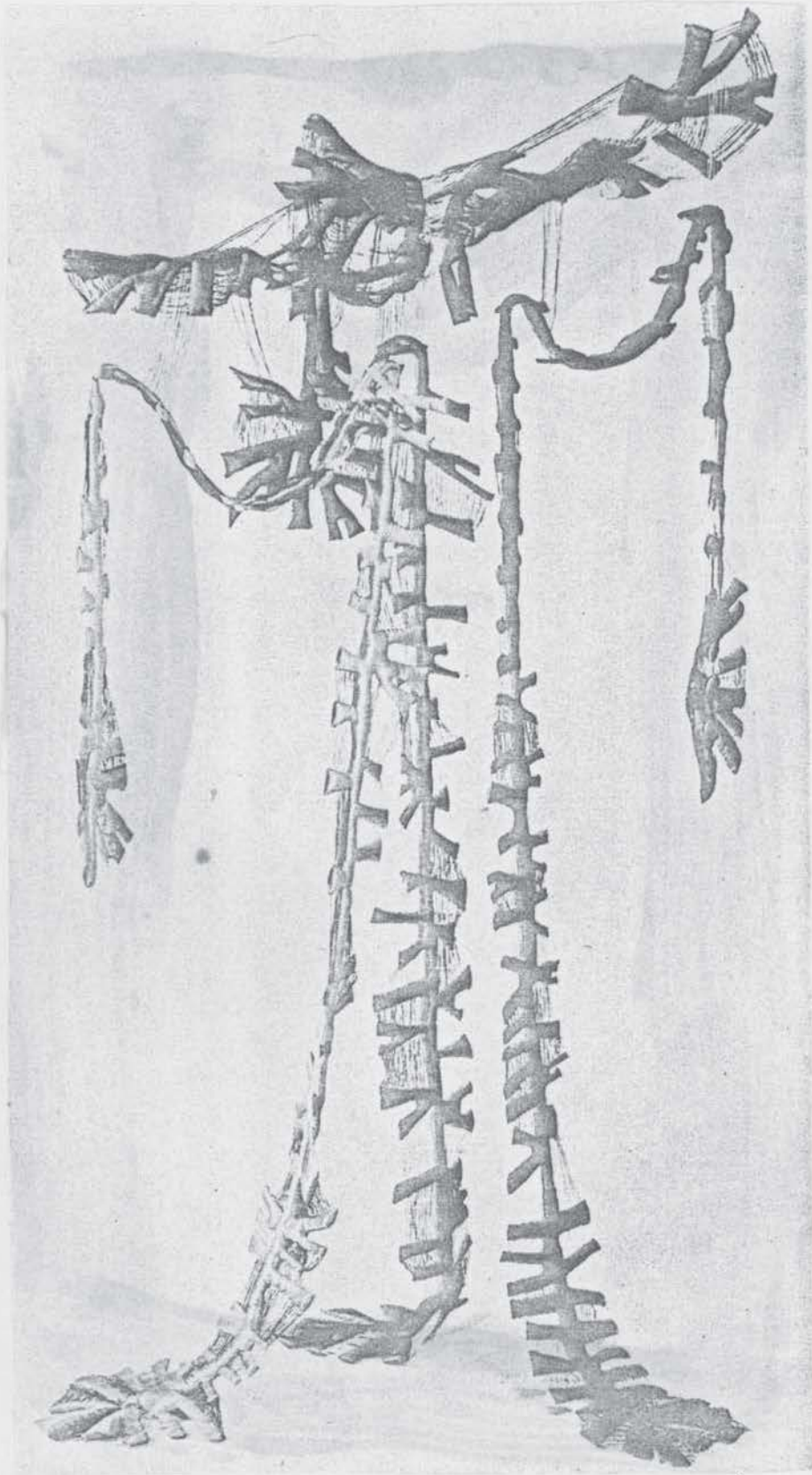


Illustration 25: Polly and Esther Doubleknit. Priscilla Sage. 1972. 11" high, 4" wide. Doubleknit polyester fabrics stuffed with polyester.<sup>43</sup>



Illustration 26: Flow as Life Flows.  
Janice Ring. 4' high, 6' wide. Jute,  
wool, and silk yarns, velvet fabric,  
and Dacron stuffing.<sup>44</sup>



Illustration 27: Pouch. Naomi Kahan.  
1972. 40" high, 20" wide. Jute and  
linen stuffed with Dacron.<sup>45</sup>



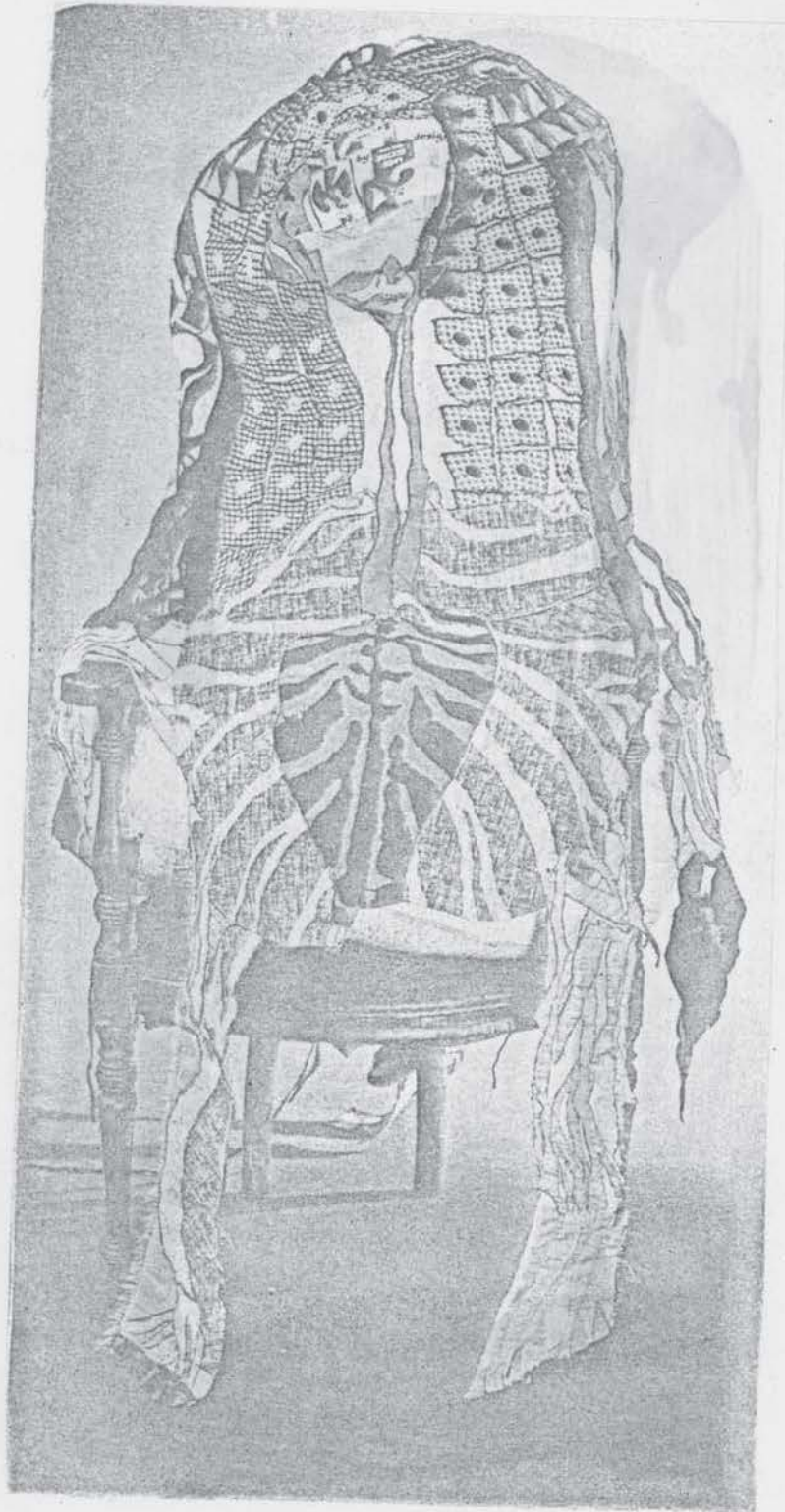


Illustration 28: The Chair Woman. Nell Booker Sonnemann. 1972.  $4\frac{1}{2}$ ' high. A plastic bag stuffed with foam pellets is covered with assorted fabrics appliquéd. 46

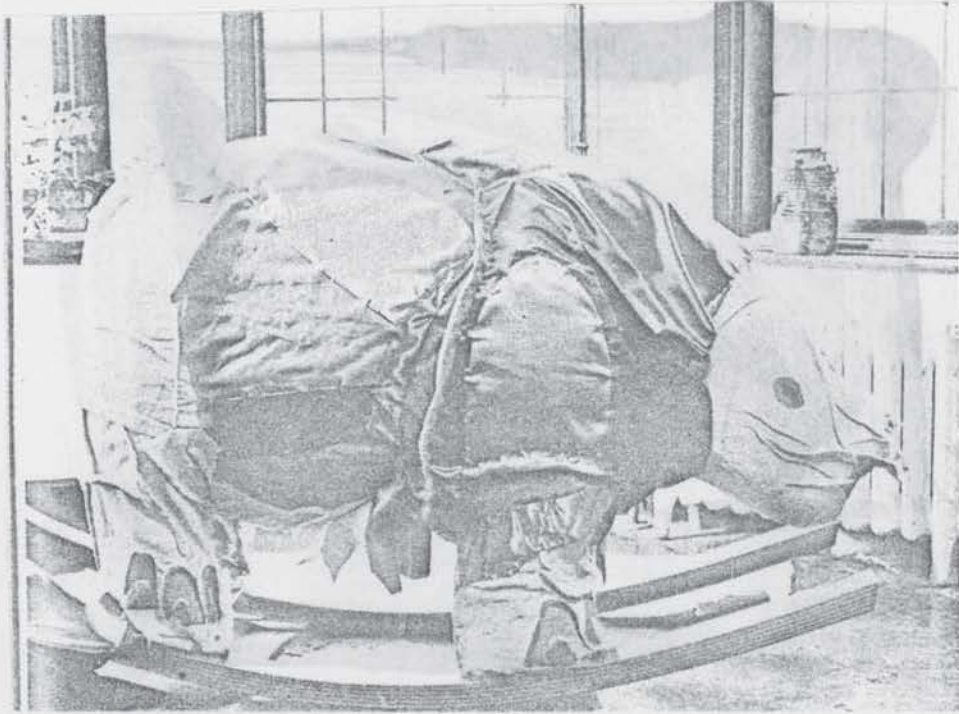


Illustration 29: Rocking Rhino. Dorothy Zeidman Lipski. 4' high, 5' wide. In progress photo shows the colored fabrics pinned in place. The understructure is hand-carved Styrofoam; it is covered with Fiberglas cloth and epoxy resin and then <sup>two</sup> layers of Dacron batting. <sup>47</sup>

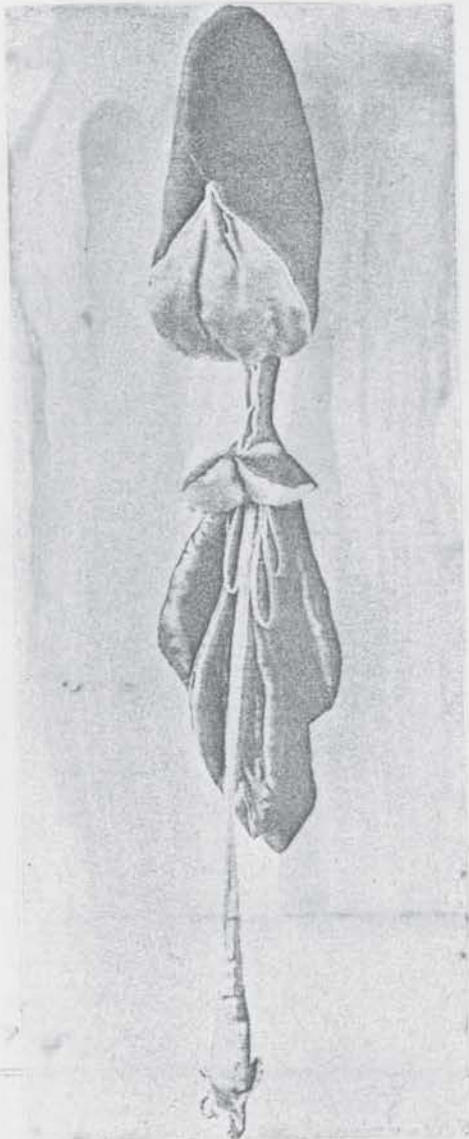


Illustration 30: Fabric Sculpture #1. Jan Wagstaff. 50" high, 8" wide. Satin and velvet stuffed with kapok. <sup>48</sup>





Illustration 31: Bernini Column. Gillian Bradshaw-Smith. 1971. 62" high. 40" wide, 47" deep. Linen canvas sewn to shape over a wood box construction. The linen is stuffed with polystyrene pellets and drawn on with ink and sewn with threads to emphasize the linear elements. 49



II  
PROJECTS WITH OBJECTIVES,  
WORKING PROCESSES,  
AND  
CRITICAL COMMENTS



Illustration 32



Illustration 33

Title- 3-Layered Space Hanging  
 Size- 12 inches by 39 inches  
 Date Completed- Summer 1973

Objective- To gain the experience of weaving fibers on a loom with two warp beams.

Process- The loom was dressed using a loom with two warp beams and eight harnesses. Each layer was woven independently (unattached) of the others except in creating the pouches. Wrapping was completed after the piece was removed from the loom. Threads left unwoven on each side were cut and used as the base for wrapping. Warp threads at the bottom were used as the base for the lower wrapping.

#### Observation and Criticism

1. The piece tends to become very flat the longer it hangs. Stuffing added to the pouched areas would have been one way to solve this problem.
2. Weaving layers together makes a much stronger joint than hand or machine stitching.
3. On Illustration 33, the middle wrapping does not work as well as is seen in Illustration 32. Two different thicknesses of threads were used for the wrapping. The thicker of the two works better.



Illustration 34

Title- Three-Headed Form  
 Size- 15 inches by 30 inches  
 Date Completed- Summer 1973

Objective- To create a soft sculpture that is free-standing without the use of any outward frame or support other than the base.

Process- During planning, paper was cut in three different pieces, each a different shape and with different placement of holes. They were used as patterns to cut out burlap which was sewn together on the wrong side and turned right side out. Each sewn shape was then dipped into bleach just where holes were planned, to lighten just those areas. The holes were finished by hand and the stuffing added. The three forms were then hand-stitched together and placed on a walnut base that had been prepared with dowel rods glued into holes in the base to support each form.

#### Observation and Criticism

1. Due to a very large hole left in one of the end forms, this piece has a front view that is more pleasing than the other view.
2. In moving the sculpture many times, the dowel rod in one of the legs broke. By having legs and dowels larger, this might have been avoided.
3. Even though the dowel rods do not show up from a distance and are not left uncovered, they do make a hard bulge in a few places when someone is viewing the sculpture at close range.



4. The bleached areas around the holes or negative areas do not show up as much as they did when the sculpture was completed. Exposure to the sun has faded the darker gold of the burlap.
5. The softness of such a piece of 'soft sculpture' has been lost due to the tight stuffing of the polyester fiber. I prefer the softer look and touch.



Illustration 35

Title- Wormed Peepholes  
 Size- 17 inches by 25 inches  
 Date Completed- Summer 1973

Objective- To incorporate wrapping to enhance a free-standing sculpture.

Process- The first stage involved the arrangement of areas and the sewing of the basic form. The areas to be later left open were dipped into watercolor. The color was allowed to bleed, resulting in the slightly varied color around the negative spaces. Irregular shape outlines were sewn on the right side of the fabric and then the fabric frayed to the stitches, leaving threads to be used as a base for the wrapping. The form was then stuffed with polyester fiber, the base is made out of redwood in which the muslin extends into the base  $\frac{3}{4}$  of an inch. By adding other cords to the frayed muslin threads they could be made longer.

#### Observation and Criticism

1. This sculpture has one side that is more appealing to me than the other. The side containing more wrapping seems to be overdone with the wrapping and the side shown here is not too complicated.
2. The muslin form needs to have more support other than just the base. As work was done on the wrapping, the polyester fiber used for stuffing became flexible and tends to bend forward or backward when placed on a table unless a specific effort is made to straighten it up.

3. Compared with Three-Headed Form which preceded it, this sculpture seems softer for a number of reasons:
  - a. The muslin is smoother to touch.
  - b. There is no support within the stuffed form.
  - c. The feeling of more softness comes with shapes that are more collapsible or movable.





Illustration 36



Illustration 37

Title- Variable Use Pillow Forms  
 Size- Open: 14 inches by 32 inches  
       Closed: 14 inches square  
 Date Completed: Summer 1973

Objective- To incorporate wrapping in a double-woven sculpture.

Process- Five different colors of threads were used for warp, placed at random through the reed. The two wrapped areas on each side of the center pillow were completed on the loom. After the fabric was removed from the loom, stuffing in the center pillow was done by using a slit that was left in the woven fabric. Side pillows were stuffed through open ends before wrapping of the warp threads. All other areas were wrapped to complete the piece.

#### Observation and Criticism

1. The piece is definitely more interesting when open.

2. The piece is so versatile, that it can also be hung on a wall by the two middle open wrapped areas so that the side pillows hang out freely.
3. Along the two ends of the small pillows, polyester fiber that was used as the stuffing can often be seen if viewed very closely. This is due to the fact that they were not woven together, but left open for the purpose of stuffing. A solution would be to have slits on the back of the small pillows as well..
4. The wrapping helps to greatly enhance the squareness of the double-woven forms.
5. This piece looks best when placed in a corner.



Illustration 38

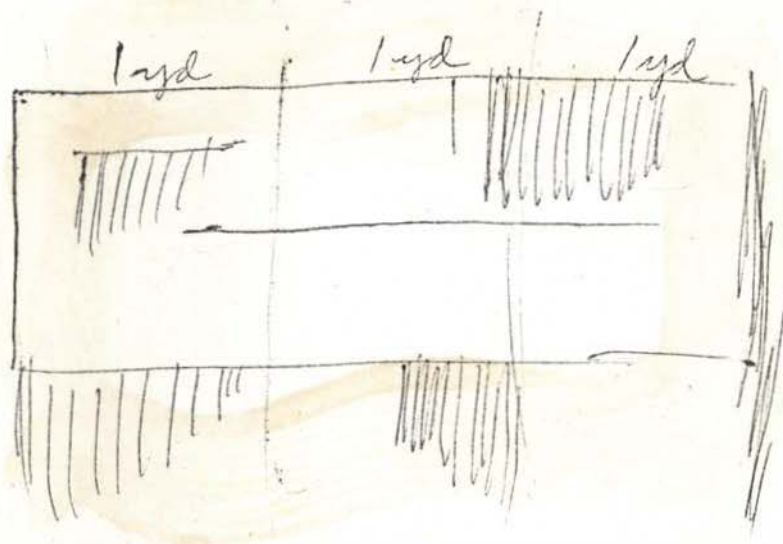


Illustration 39

Title- Looped Entanglement  
 Size- 35 inches by 46 inches  
 Date Completed- Summer 1975

Objective- To produce a double-woven form on a loom  
 in a flat, straight piece, to be stuffed and  
 twisted after being removed to change the shape.



Process- The loom was dressed with various threads in an 'at random' manner as the reed was sleyed. The original drawing or plan can be seen in Illustration 39. In the weaving process, two slits were left open so that parts could be twisted or turned. Fringe was left along some borders to add interest. The ends were woven together and a slit was left on the underneath side for the addition of stuffing material. After the fabric was removed from the loom, stuffing was added and twisting, turning, and stitching was done to complete the project.

#### Observation and Criticism

1. The end product is much more interesting than the flat, straightness of the woven piece.
2. The chartreuse threads help to liven up the piece even though they are few in number.
3. The concept of a double-woven form has been extremely changed due to the twisting and turning.



Illustration 40

Title- The Nested Space Hanging

Size- 10 inches by 5 feet

Date Completed- Summer 1975

Objective- After weaving Looped Entanglement and having a length of warp threads left on the loom, the intention was to produce a totally different effect with the use of the same warp threads. Also, exposure of the stuffing material as well as using it in the interior was wanted.

Process- The fabric was woven with weft threads left out at each selvedge to provide the fringe at the top and bottom of the finished piece. After removal from the loom, the piece was sewn together along the warp ends rather than the selvedge ends as would normally be expected. Two areas were left open to expose stuffing material which was added after the top was pulled together by the use of wrapping. The bottom was also wrapped and stitches were taken in between to produce a bulging effect after the stuffing was completed.

### Observation and Criticism

1. Even though this piece was woven with the same warp threads as Looped Entanglement, the effect is totally different. The result is dissimilar because: a. warp threads were horizontally placed, b. different colors were used, c. the shape is contrasting, and d. it is a space hanging rather than one that hangs on a wall.
2. Without stitching in the center, the form is much less interesting.
3. Using the stuffing material as a part of the outward appearance of the form was very successful.
4. The piece has a definite front to it even though it is a space hanging and allowed to move freely.
5. The looped areas help to add other areas of interest other than what would be considered the front pictured here.
6. By only dressing the loom once for the weaving of two pieces, much time was saved.





Illustration 41

Title- Sunny Side Up  
 Size- 20 inches square  
 Date Completed- Summer 1973

Objective- With the form of a fried egg in mind, the objective was to present it in a three-dimensional form, being higher in the 'yolk' area by the use of rya knots and thin or lower on the outer edges through the simple tabby weave. Because a three-dimensional form was to be achieved, the 'yolk' area needed to protrude past the thickness of the frame when seen at a side view.

Process- The center woven area was produced by the use of a frame loom with natural fibers as the tabby and many varieties of natural and man-made fibers for the rya. After the weaving was completed and removed from the frame, it was tacked to a piece of particle board. At the same time, it was stuffed with polyester fiber. The center of a second piece of particle board was cut out in the irregular shape which was placed on top to surround the weaving. This second piece of particle board was colored with oil pastels then with turpentine rubbed into it. Both boards were joined together with the redwood trim so that the woven area protrudes in the center. The rya area was then tacked down around its circumference.

### Observation and Criticism

1. Even though the colors are not realistic, they blend well together to form a pleasing unit unrelated to the egg.
2. Because of poor judgment in the cutting of the irregularly shaped particle board, the woven area is slightly too small. The whole area is covered, but there is evidence of the woven fabric edge along the upper right edge.
3. The haphazard free movement of the rya fibers repeats the irregular flowing line of the egg exterior. The straight woven effect of the egg 'white' echoes the square evenness of the frame.



Illustration 42

Title- Stuffed Painting #1  
Size- 35½ inches square  
Date Completed- Summer 1975

Objective- Being the first 'stuffed painting', a need to experiment was felt. It was important to understand what could be done with muslin to achieve a three-dimensional wall relief.

Process- Firstly, canvas was stretched on a wood frame. To this frame, the muslin was stitched down with buttonhole thread working through both the canvas and muslin. At the same time, polyester fiber was placed in such a way to produce the planned design. Permanent colored markers were used to produce green, reddish-brown, and brown to accent the depth created by stuffing. The frame was constructed from redwood and then waxed.

#### Observation and Criticism

1. The stuffed muslin extending over the frame helps to break away from the usual idea of a painting as does the whole idea of using cloth in a three-dimensional way within the confines of a frame.
2. Of all of the 'stuffed paintings', this one works most successfully because of the shapes and shadow work added with the markers.



3. While observing the finished product against a surface that lets light through the back, one can see lights and darks due to the placement of the polyester fiber being thicker or thinner in the areas. This observation was the catalyst for producing Experiment in Light.
4. Even though there is a definite center of interest, there is a fight for importance within it; between the smallest stuffed area and the least stuffed darkened area. Because the emphasis is on stuffing, one would expect the stuffed area to pop out as the more prominent, but due to the contrast between lights and darks, the least stuffed area vies for attention.
5. The idea for this work stemmed from seeing Europa by James T. Sault. (Illustration 43) It is constructed of gessoed muslin stuffed with polyurethane foam, then drawn and painted upon with silver paint and acrylic paint. It was mounted on a rigid board.<sup>50</sup>



Illustration 43



Illustration 44



Illustration 45

Title- Experiment in Light  
 Size- 26 inches by 42 inches  
 Date Completed- Summer 1975

Objective- Because of the effect of natural light seen through the back of Stuffed Painting #1, the goal was to achieve an aesthetic effect with and without the use of light behind the piece as it hangs on the wall.

Process- Canvas was stretched over a frame and natural muslin hand stitched through both surfaces. The stitching was done with and without the use of two florescent tubes that had been attached to the inside of the frame, one on each side with a common cord extending through a hole in the bottom of the frame. More polyester fiber was placed as filling where darker areas were desired when the light was on. After all stuffing was completed, various natural and man-made fibers were added to the outermost surface through the use of couching, again, with and without the light.

#### Observation and Criticism

1. The lights work most effectively in a dark room.
2. With the lights on, only three basic tonal areas appear, losing the tonal variations of the colored yarns.
3. The effect of the sculpture is much more dramatic with the use of the lights.

4. As the yarn was added to the exterior, the intention was to cover the darker areas that were produced by thicker polyester fiber used in the stuffing. By covering over these areas, some of the effect was lost.
5. When the lights are in use, the white yarns in the uppermost center of the couched areas are turned to black or darkened, which throws the balance of the sculpture off, making it top heavy.





Illustration 46

Title- The Webbed Sphere  
 Size- 38 inches square  
 Date Completed- Summer 1975

Objective- Being the second 'stuffed painting', this piece was to be a continuation of experimentation with the idea and developing it a little further with the use of added fibers.

Process- The same process as in Stuffed Painting #1 was followed for the basic construction of canvas, wood, and muslin. Instead of markers being used to achieve color, contrast, and design, various types of threads were couched onto the muslin surface in various lengths. The frame was constructed from redwood and painted flat black.

#### Observation and Criticism

1. Even though the same basic idea and technique was used for this piece as was used for Stuffed Painting #1, the piece is not as interesting due to the general shape of the center form. It also tends to lose some of its interest by having the 'sphere' so smooth and fairly flat.
2. Couching is easily done using many threads together as you would use one thread. Using couching with many threads allows the gradual switching of colors and the process to go much faster.



Illustration 47

Title- Experience with Nature  
 Size- 18 inches by 36 inches  
 Date Completed- Summer 1975

Objective- To incorporate a found wood piece with stuffing and fibers successfully.

Process- Canvas was stretched over a frame and muslin stitched in the center with stuffing lightly around the edges. The wood piece was then attached to the top of the muslin by placing a piece of plywood to the back of the wood. More stuffing was then added and muslin tacked down to the frame. Tubes were sewn together out of muslin, stuffed and stitched in place. Threads were added by couching and a black frame added to finish the piece.

#### Observation and Criticism

1. The objective was fully accomplished.
2. The colors blend well with the wood tones and other colors of nature.
3. The muslin tubes help to add more interest to the piece and are a very integral part of the whole.
4. The 'legs', produced with fibers, echo the wood form in shape.
5. This piece is the most successful 'stuffed painting' on which threads were added by couching.



Illustration 48

Title- A New Twist  
Size- 27 inches by 46 inches  
Date Completed- May, 1976

Objective- To produce an irregularly shaped wall-hanging without the use of a frame, experimenting with polyurethane foam sheet as the main stuffing material.

Process- A rectangular piece of foam was slit and shaped, then covered with a single knit piece of material sewn to fit. Parts of the single knit were hand-stitched to each other so that the foam would hold its shape. Uncut corduroy was stitched onto the knit and bubbled by the use of nylon stockings and polyester fiber.

#### Observation and Criticism

1. This piece was very successful. It contains contrast not only in the colors chosen, but in the texture of the material as well.
2. Because all materials were purchased, work went fairly fast.





Illustration 49

Title- Mister, Mister!  
 Size-  $7\frac{1}{2}$  inches by  $8\frac{3}{4}$  inches  
 Date Completed- June, 1976

Objective- To use a preformed styrofoam form as the base for a wall relief and as the main stuffing material.

Process- The styrofoam form was first covered with white lining material with the use of acrylic polymer medium. Various other layers of fabric were then added while the medium was still wet. Additional medium was added where needed. Added last, were threads and brown stuffing fibers. Hand stitching was done to help to insure that the fabric remained in place.

#### Observation and Criticism

1. After all constructing had been completed, it could be noticed that human facial features were recognizable.
2. Acrylic polymer medium works extremely well to attach fabric to styrofoam as well as other materials and is very easy to use.
3. Because of the formally balanced nature of this piece, it inspired the construction of an assymetrical piece that could prove more interesting.
4. For such a small piece, the finished product tends to have a heavy look.
5. A larger similar work could be much more effective.



Illustration 50

Title- Pinkie  
 Size- 20 inches by 37 inches  
 Date Completed- June, 1976

Objective- To incorporate a purchased, 14 inch, round, polyurethane pillow form into a three-dimensional wall piece.

Process- A hole was cut out of the center of the pillow form and a single cotton knit fabric covered over it. The fabric was brought from the back through the hole. Threads were added through the hole. This form was then added to a background of more knit fabric stuffed with polyester fiber. More color was then added with the use of permanent markers to create color variation in the fabric.

#### Observation and Criticism

1. The effect from the permanent markers was needed to give more tonal interest to the fabric.
2. Because of the weight of the areas, a few stitched tracts are pulled, distracting from the whole.
3. The softness of the fabric and stuffing materials is echoed by the color.

4. This is a very pleasing piece.
5. Without the use of more fabric and polyester fiber stuffing, this piece would not have been nearly as successful.



## CONCLUSION

The materials worked with here, were selected for a number of reasons. A great interest in weaving led to the creation of some hand-woven pieces. With hand-woven fabric, textural qualities are unlimited and can be adapted to each individual piece. Desired shapes and sizes can be attained during the weaving process. Exact color combinations within a woven web are easily accomplished. But because of the large selection of cloth that can be found at ones fingertips and the time saved in its acquisition, adoption of purchased fabric was later preferred. In all probability, the qualities of hand-woven fabric would not have enhanced the work to any greater extent than did the commercial fabric.

Due to the desire to weave textured fabric, it seems most natural that a variety of surface qualities would be used even when employing commercial material.

The stuffing material used most often was polyester fiber. It was chosen because of its quality to remain in position when hung or moved. Other substances have a tendency to shift in the same situation. Polyester fiber also has qualities other materials do not possess. It is very strong, washable, and has

a resistance to attack by insects and micro-organisms. As work was developed, a need to experiment with other stuffings was felt. Preference went more towards the stiffer types, polyurethane and styrofoam. In working with each of these a need arose to use polyester fiber to stuff some areas.

There are many facets in soft sculpture that have not yet been explored. Some conceivable ones are:

- a. Working with polyurethane or styrofoam as the only stuffing material within any one piece.
- b. Creating soft or rounded sculpture without the use of any stuffing, perhaps through basketry or wire forms.
- c. Using a number of woven or sewn forms to create one form.
- d. Working with acrylic polymers as a means to protect soft forms when used as outdoor sculpture.
- e. Using stuffed fabrics as complete wall coverings or screens.

Since working with stuffed materials is a recent development in the production of sculpture, presumably any further developments along this line would become very meaningful in the history of art. Fibers, fabrics, and stuffing materials are so versatile that they could be used in painting, with ceramics, as jewelry, and most crafts. There are so many directions that are yet to be explored.

## GLOSSARY

- Acrylic- A manufactured fiber in which the fiber-forming substance is composed of any regenerated naturally occurring proteins.
- Amorphous- Without definite form or shape.
- Breast beam- Front rail on a loom over which the woven fabric travels.
- Catalyst- Any substance that causes an increase in the rate of a chemical reaction, caused by the addition of a substance that is not permanently altered by the reaction.
- Couch- An embroidery technique in which fibers are attached by passing another thread over them and attaching to fabric.
- Crimp- To bend or press into ridges or folds; corrugate; flute.
- Dressing- A method of preparing warp for the loom in which the yarn is evenly distributed and given uniform tension.
- Ester- Any of a class of organic compounds formed by decomposing certain ethylene compounds and used as an antifreeze, solvent, and lubricant.
- Harness- Frame to raise and lower warp threads.
- Kapok- A cottony or silky fiber covering the seeds of the kapok tree, used for mattresses, life preservers, insulation material, etc.
- Latex- The sticky emulsion secreted by certain plants, as the rubber tree, milkweed, etc., that coagulates on exposure to air and is the basis of natural rubber. It can be either natural or synthetic rubber in liquid form; in addition to other forms, latex may be extruded or cast to form an elastic yarn. These may be used bare or wrapped with textile yarns.
- Modacrylic- A modified form of the acrylic group, fibers composed of a minimum of 85 percent acrylonitrile.
- Moiré- A finishing process which produces a wavy or rippling pattern with engraved rollers which press the design into the fabric. The difference in reflection of the rays of light from the uncrushed parts of the design is the result. It produces a watered or clouded effect on silk.



- Olefin- The generic name given to an unsaturated hydrocarbon containing one or more pairs of carbon atoms linked by a double bond. It is a manufactured fiber in which the fiber forming substance is any long chain of synthetic polymer composed of at least 85 percent by weight of ethylene, propylene, or other olefin units.
- Plait- To interlace strands, as rope, straw and similar materials. Sometimes used as a synonym for braid, but generally restricted to the interweaving of foregoing materials, for baskets, hats, etc.
- Polymer- Any of two or more compounds formed by changing the molecular arrangement of a compound so as to form new compounds having the same percentage composition as the original, but of greater molecular weight and different properties.
- Reed- A comb-like device on a loom which spaces the warp yarns in the desired order and also places each succeeding filling thread against that already woven.
- Resin- Synthetics in many varieties used in finishing fabrics, such as urea formaldehyde, phenol formaldehyde, and melamine. These and others are polymerized on the fabric or yarn to give so-called 'permanent' finishes to impart crush resistance, dimensional stability, hand, etc.
- Roving- A loose assemblage of fibers drawn or rubbed into a single strand, with very little twist.
- Rya- A knot produced by bringing both yarn ends to the surface together between two warp yarns.
- Saran- A trademark for resin, filaments and fabrics derived from vinylidene chloride. The material is thermoplastic, and may be extruded in strands or various sizes which can be woven into fabric with a variety of textures such as rattan, reed or a lustrous fabric with a hard hand, used for automobile seat covers, luggage and similar purposes.
- Shantung- A rough, plain weave silk fabric made of uneven yarns to produce a textured effect, particularly evidenced in occasional thicker threads in the filling. Yarns retain all knots, lumps and other imperfections.
- Sleying- Putting the warp threads through the dents or open spaces of the reed.
- Tabby- Same as plain weave. Warp and filling alternate.
- Tenacity- The state or quality of having great cohesiveness of parts; tough.
- Tensile-strength- The resistance of a material to forces of rupture and stress in the direction of length; usually expressed in pounds per square inch.

- Terephthalic acid- A crystalline aromatic dicarboxylic acid isomeric with phthalic acid; it is obtainable by oxidation a para-xylene and is principally used in making polyester.
- Thermoplastic- Plastic formed in the presence of or under the application of heat, as certain synthetic molding materials.
- Trapunto- An Italian version of quilting using two layers of material but the design is not restricted to parallel lines.
- Tuft- A lock of wool from a well-conditioned sheep containing a hundred or more fibers stuck together. Several tufts are often united into one large one called a staple.
- Vinyl chloride- A colorless, flammable, toxic gas belonging to the family of organic halogen compounds, used principally in making polyvinyl chloride, an important synthetic resin.
- Vulcanize- To treat (crude rubber) with sulfur or sulfur compounds in varying proportions and at different temperatures, thereby increasing its strength and elasticity.
- Warp beam- Roller in back of a loom on which the warp is wound.

## FOOTNOTES

<sup>1</sup>Ornament and Sculpture in Primitive Society,  
(New York: October House Inc., 1966), p. 131.

<sup>2</sup>Ibid.

<sup>3</sup>William Fagg, Tribes and Forms in African Art,  
(New York: Tudor Publishing Co., 1965), p. 11.

<sup>4</sup>M. Wortz, "Watching Letters Go By," Art News,  
April 1975, p. 74.

<sup>5</sup>Ibid.

<sup>6</sup>Dona Z. Meilach, Soft Sculpture and Other Soft  
Art Forms, (New York: Crown Publishers, Inc., 1974),  
pp. 6-7.

<sup>7</sup>Encyclopaedia Britannica, 1975 ed., s.v. "Textile  
Fibres."

<sup>8</sup>Ibid., "Jute."

<sup>9</sup>Ibid., "Sisal."

<sup>10</sup>Ibid., "Fabrics."

<sup>11</sup>Ibid., "Foam rubber."

<sup>12</sup>Ibid., "Sculpture and the Decorative Arts."

<sup>13</sup>Ibid., "Polyester."

<sup>14</sup>Ibid., "Polyurethane."

<sup>15</sup>Ibid., "Polystyrene."

<sup>16</sup>Ibid., "Synthetic Polymers."

<sup>17</sup>Meilach, Soft Sculpture, p. 93

<sup>18</sup>Ibid., p. 95.

<sup>19</sup>Ibid., p. 99.

<sup>20</sup>Ibid., p. 107.



- <sup>21</sup>Ibid., p. 86.
- <sup>22</sup>Ibid., p. 88.
- <sup>23</sup>Ibid., p. 127.
- <sup>24</sup>Ibid., p. 129.
- <sup>25</sup>Ibid., p. 126.
- <sup>26</sup>Ibid., p. 131.
- <sup>27</sup>Ibid., p. 135.
- <sup>28</sup>Ibid., p. 140.
- <sup>29</sup>Ibid., p. 145.
- <sup>30</sup>Ibid., p. 31.
- <sup>31</sup>Ibid., p. 33.
- <sup>32</sup>Ibid., p. 15.
- <sup>33</sup>Ibid., p. 38.
- <sup>34</sup>The Museum of Contemporary Crafts of the American Crafts Council, Sewn, Stitched, and Stuffed (New York: The Museum of Contemporary Crafts of the American Crafts Council, 1973), p. 3.
- <sup>35</sup>Ibid., p. 9.
- <sup>36</sup>Meilach, Soft Sculpture, p. 57.
- <sup>37</sup>Ibid., p. 63.
- <sup>38</sup>Ibid., p. 47.
- <sup>39</sup>Ibid., p. 74.
- <sup>40</sup>Ibid., p. 6.
- <sup>41</sup>Ibid., p. 35.
- <sup>42</sup>Ibid., p. 134.
- <sup>43</sup>Ibid., p. 52.
- <sup>44</sup>Ibid., p. 16.
- <sup>45</sup>Ibid., p. 63.

46 Ibid., p. 66.

47 Ibid., p. 19.

48 Ibid., p. 88.

49 Ibid., p. 54.

50 Ibid., p. 230.

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