

Manfred Maier

The Foundation Program at the School of Design
Basel, Switzerland

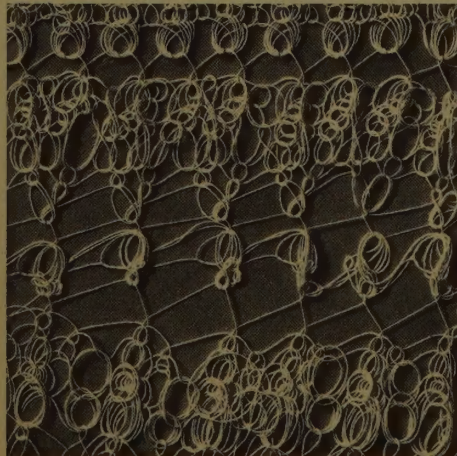
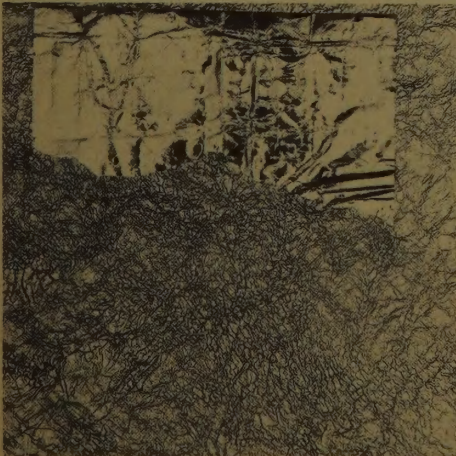
3

Basic Principles of Design

Van Nostrand/
Reinhold

Volume
3

Material Studies
Textile Design
Color 2





VAN NOSTRAND REINHOLD COMPANY

NEW YORK CINCINNATI TORONTO LONDON MELBOURNE

Basic Principles of Design

Volume 1	Object Drawing
	Object and Museum Drawing
	Nature Drawing

Volume 2	Memory Drawing
	Technical Drawing and Perspective
	Lettering

Volume 3	Material Studies
	Textile Design
	Color 2

Volume 4	Color 1
	Graphic Exercises
	Dimensional Design

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Elementare Entwurfs- und Gestaltungsprozesse.

Die Grundkurse an der Kunstgewerbeschule

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General Introduction

Kurt Hauert,
Head of the Foundation Program

The Foundation Program at the School of Design in Basel, Switzerland is a fundamental education in art and design. It offers a number of interrelated, equally important courses. Subjects include drawing, color, three-dimensional studies, materials and tools, and exercises in form, aesthetics, and concepts, all of which are designed to promote optical and tactical sensitivity, formal perception, manual dexterity, and a clear understanding of creative processes and to clarify the students' individual talents. The program enables them to choose future professional training in graphic design, photography, typography, display design, goldsmithery, pottery, fine art, sculpture, and other related fields.

To be admitted into the program, students must be at least 15 years old, pass an entrance examination, and attend all the classes. The one-year program includes 42 classroom hours per week. All classes are conducted at the school and are limited to a maximum of 24 students.

Most of the faculty members are also professionals in their field, certified specialists who are active in visual, creative areas. Throughout the entire program, the teachers are available for individual or group consultation, which ensures that every student has an equal opportunity for a successful training. The teaching-learning process varies with each course. It can progress in several directions: linear, from simple to difficult principles; punctual, a collection of experiences derived from individual assignments; or complex, an analysis of variation sequences as an insight into the creative process.

The current standards of the program are outlined in this series, and the working procedure is explained clearly and understandably in chronological sequence. In order to clarify the interrelationships among the courses, they are categorized according to the teaching-learning process involved. The entire visual-creative program is presented in four volumes, each of which is a complete unit in itself and provides an introduction, course descriptions, and detailed illustrations.

The Foundation Program is based on an objective, developmental educational system over the past thirty years. It disregards fashionable vogues but allows enough freedom to integrate necessary innovations. It offers a model for all teachers, students, and administrators who are interested in a critical, investigatory approach.

In conclusion special thanks are expressed to those who devoted their time and energy to the realization of this work.

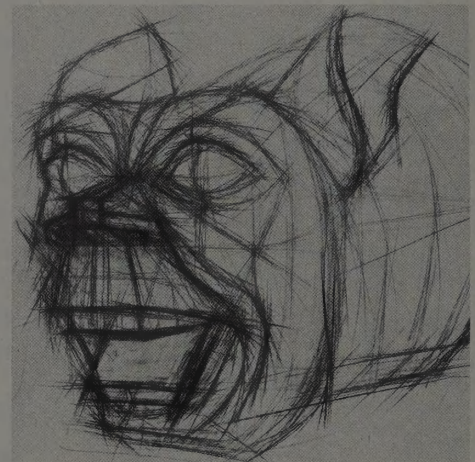
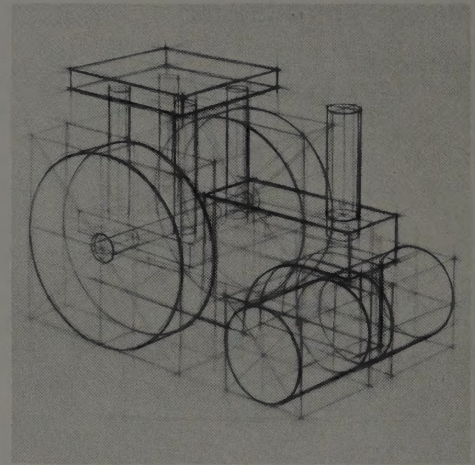
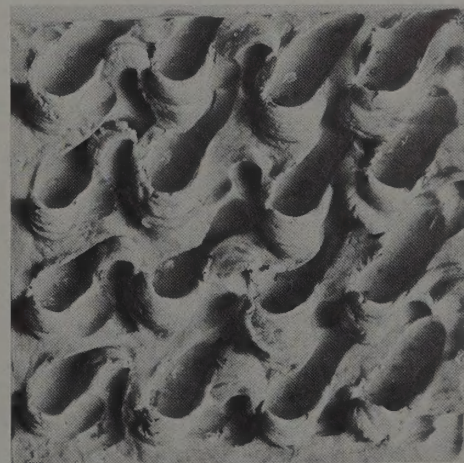
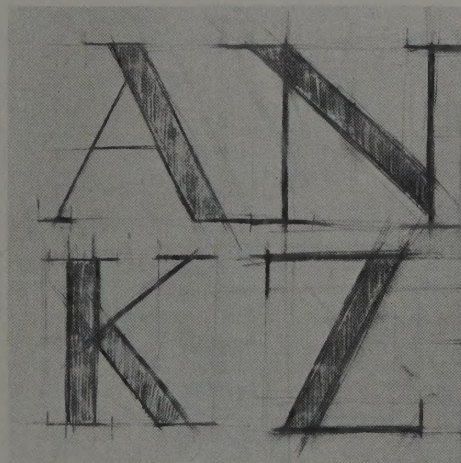
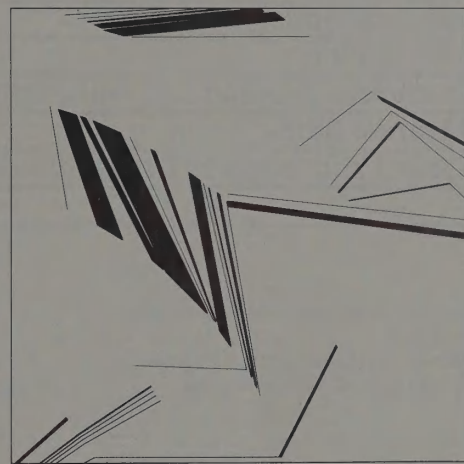
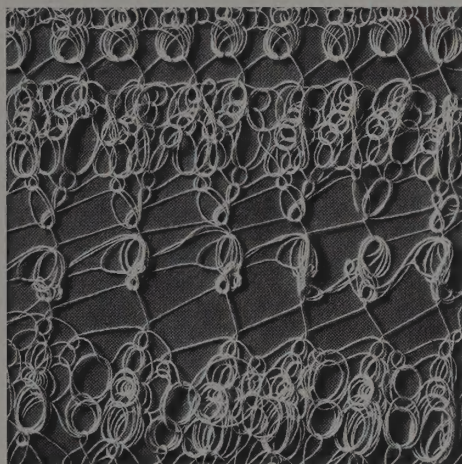
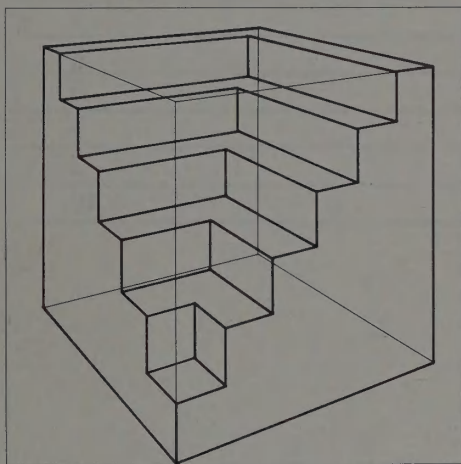
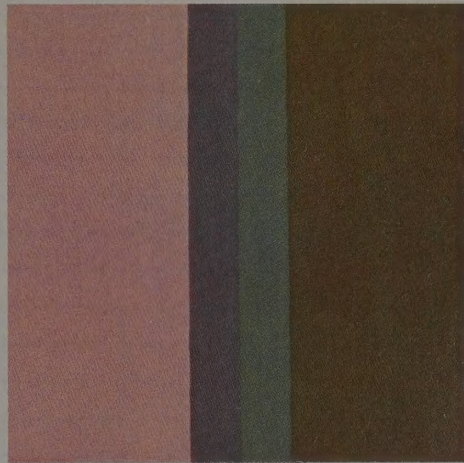


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Number of faculty in the Foundation Program	26
Number of students in the Foundation Program in six parallel classes	130 ca.

Directorship:

until 1970 Emil Ruder
since 1971 Niklaus Morgenthaler
Head of the Foundation Program:
since 1971 Kurt Hauert

Faculty of the Foundation Program

Beck, A.	Economics	Bernoulli, L.	Architecture	1972-73
Bieseke, I.	Graphic Design	Bühler, G.	Drawing	1968-69
Bollin, M.	Sculpture	Ganahl, K.	Press-editing	1966-67
Bürgin, G.	Decoration	Gruber, A.	Sculpture	1969-70
Burla, J.	Sculpture	Hartmann, H.	Drawing	1968-69
Eya, L.	Architecture	Hauert, K.	Drawing	1969-70
Gautschi, R.	Painting	Hernandez-Moor, L.	Textile Design	1972-73
Grossenbacher, M.	Sculpture	Keller, J.	Drawing	1974-75
Gürtler, A.	Letter Design	Lienhard, E.	Sculpture	1972-73
His, A.	Painting	Messerli, E.	Painting	1972-73
Hutter, J.	Painting	Ryser, F.	Painting	1973-74
Keller, T.	Painting	Stettler, G.	Painting	1967-68
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Kern, U.	Drawing	Sulzbachner, M.	Painting	1968-69
Klotz, L.	Painting	Vollé, R.	Architecture	1968-69
Maier, M.	Graphic Design	Vieira, M.	Sculpture	1968-69
Mengelt, C.	Graphic Design	Weidmann, H.	Painting	1966-67
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Pola, P.	Painting			
Schäfer, E.	Drawing			
Sommer, H. P.	Graphic Design			
Thomann, M.	Language			
Tramèr, J.	Painting			
Von Tomei, J.	Graphic Design			
Zwimpfer, G.	Graphic Design			
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Volume	Material Studies
3	Textile Design
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The primary feeling for material, for its beauty and possibilities of expression, is largely lost with technological and industrial specialization. We daily encounter new materials and larger quantities, which demand more than abstract, intellectual, and commercial knowledge and behavior. An involvement with materials goes back to the teachers of the Bauhaus and the development of fine arts during the last 50 years. The goals of this volume are a familiarity with the interrelation of material, technique, and form and with tactile and optical qualities, a differentiation of tactile feeling, observation, manual experimentation, spontaneous invention and discovery, and an understanding of different techniques and raw materials.

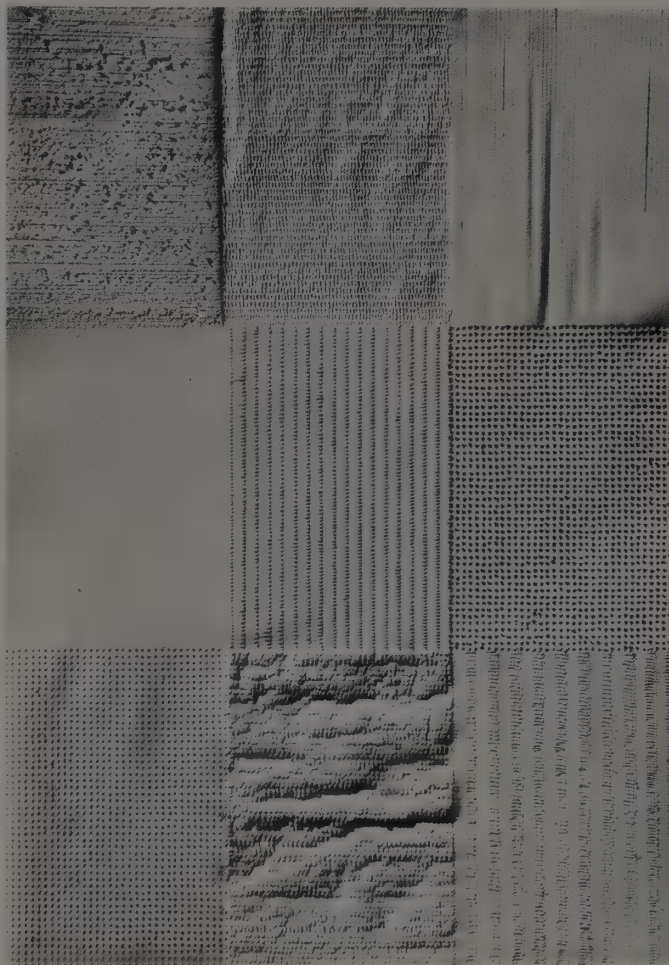
Single results are achieved in many elementary exercises with minimal material and technical investment. The individual exercises are not arranged systematically: corresponding to the subjective, spontaneous working method, the evaluation of criteria is re-defined in each exercise by comparing results. Experience with the materials and with their characteristics is derived from creative involvement with optical and tactile sensitivity and with the critical consciousness. Personal, intuitive differentiations corresponding to individual abilities result through experimentation and stimulate new goals for faculty as well as students. The goals of the teaching and learning process are clarified through cooperative involvement with the more structured courses described in volume 4.

In today's technical civilization a feeling for the characteristics and possibilities of materials is suppressed. Tactual sensitivity and fantasy are the goals of this course: students are stimulated by manipulating and working the materials as form and expression. Unbiased experimentation, spontaneous perception of chance occurrences and their consequent development produce new, surprising possibilities that are unpredictable intellectually.

In elementary exercises students investigate the changing appearances of materials in different environments, the manipulation of the surface, the kind and incidence of light, and compositional rules. The relationships between the character, form, and color of materials present limitations in the definition of expressive possibilities. Ordinary raw materials and disposables are worked with simple tools; awareness of the media is developed through exercises in alteration, texture, and touch (with disposable materials); discovery (with wood and synthetics); connecting (with many materials); and themes (transparency and fluidity). Unusual elementary working techniques such as tearing, scratching, breaking, burning, folding, slitting, scoring, hammering, cutting, gluing, and fastening are explored and used.

Manual-technical, formal, and compositional interrelations are compared and evaluated through single exercises and themes with as many variations as possible. Thus, new stimulation and various qualities of expression are produced. The students' valuation possibilities consist in exchanging experiences, comparing working results, and working together. Technical ability, critical consciousness, and manual aptitude develop with the number and complexity of the exercises.

Paper is used everyday in a conventional manner as wrapping or packing material and for drawing, writing, and printing. The natural surface and structure are transformed and disfigured through unconventional mechanical activities. Experience with the material characteristics of paper through physical contact with the resulting textures develops tactile sensitivity. A new optical relationship to the raw material through its transformation is produced in technical, consciously unpretentious exercises with simple tools.



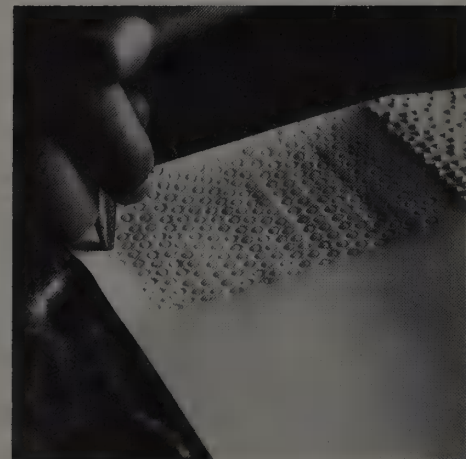
A sheet of paper is divided into nine sections, each of which is gradually differentiated in texture with simple tools: knives, nails, and needles. The number of sections can be expanded for other discovered possibilities. The illustrations on the following two pages show details and single studies of such work.

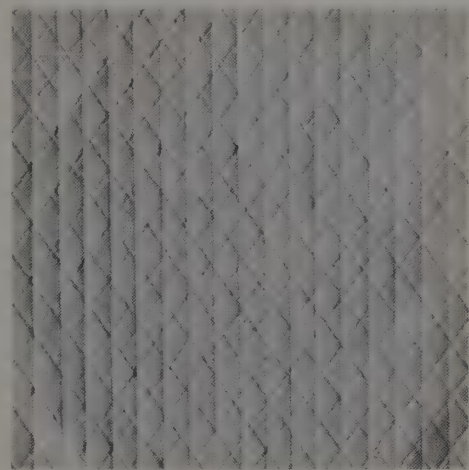
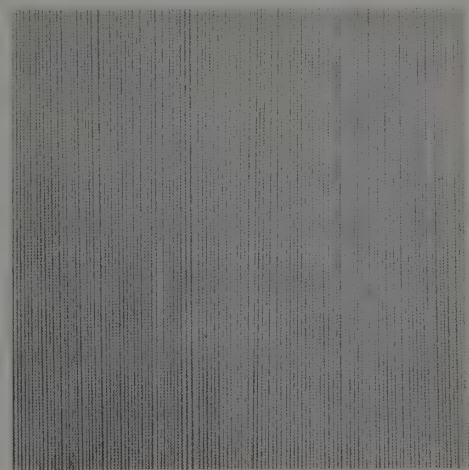
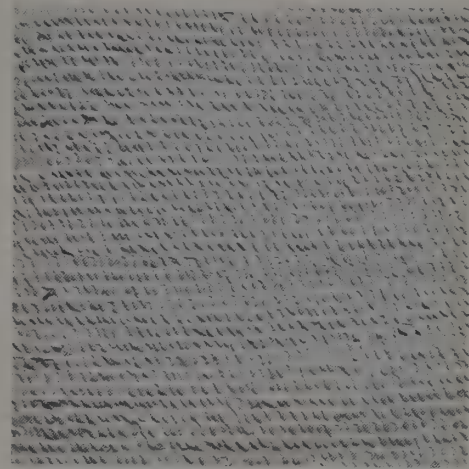
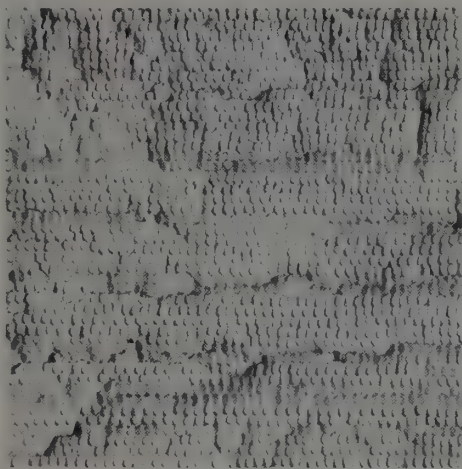
The photographs here and on the following two pages document the methods and tools used to create textures.

A textural relief is produced by lightly tapping on a wood chisel and its even shifting.



Indented round forms are produced by pressing or lightly tapping on a metal punch.





From top to bottom:

The head of a nail is slanted and hammered with different intensities against the paper.

The imprints from a nail head tapped against the paper on soft cardboard produces a raised surface on the opposite side.

The surface of the paper is scratched or lightly cut with a dull knife held at a slight angle from the side.

A spatula or wood chisel is used rhythmically to create hammered depressions at regular intervals.

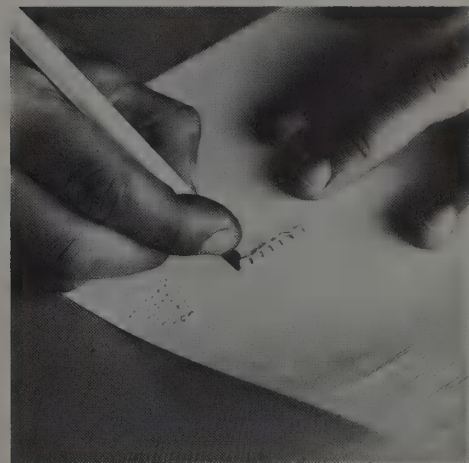
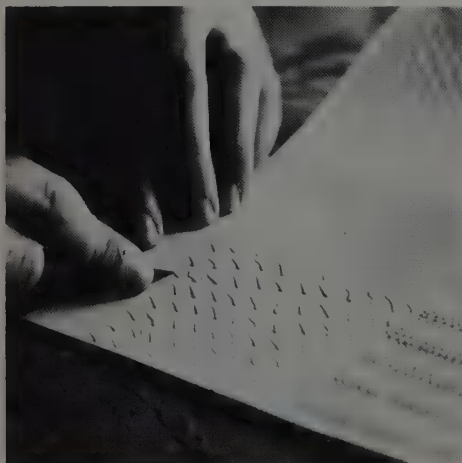
Finely scored surfaces are achieved with the point of the nail, needles, the back of the knife blade, or similar tools.

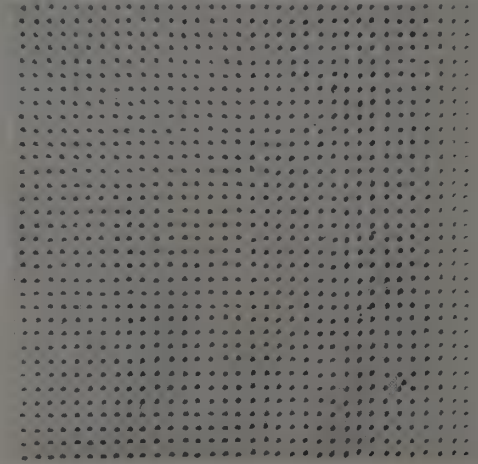
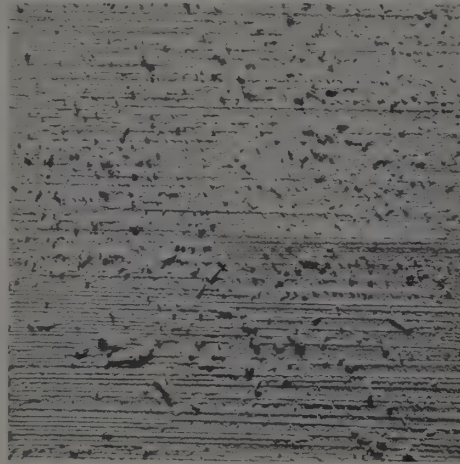
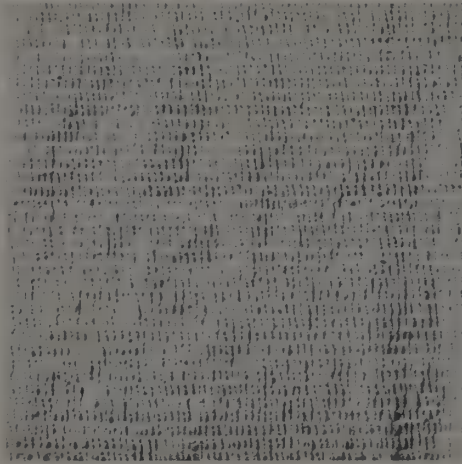
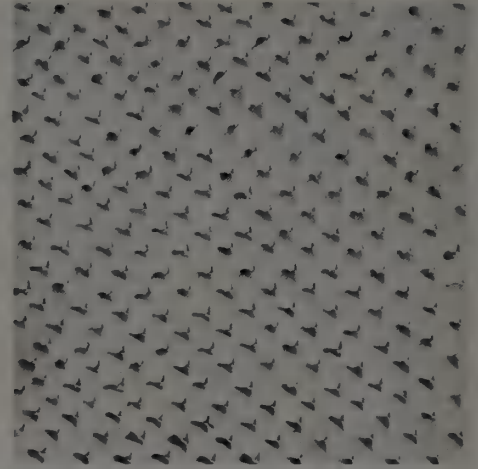
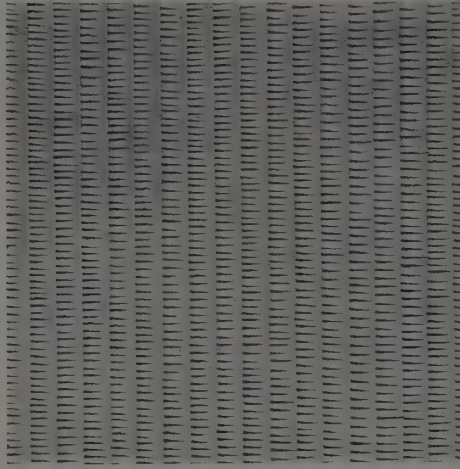
Linear reliefs are produced by scoring the back side of the paper on a soft support.

The surface of the paper is slit or cut with a knife held at a slight angle.

Various textures are discovered by scratching the paper with knives held in different positions.

Small triangular shapes with a relieflike grid are formed by cutting and folding back the resulting elements with a knife.





From top to bottom:

Fine, irregular holes, made with a needle on a soft support, produce amorphous elevations on the back of the paper.

Small vertical slits are formed on the surface with a knife held at a slight angle.

Regular, repeated notching of the paper surface is produced with the point of a knife held at a steep angle.

The surface is torn and scratched with a knife or needle by repeated scoring at a slanted position.

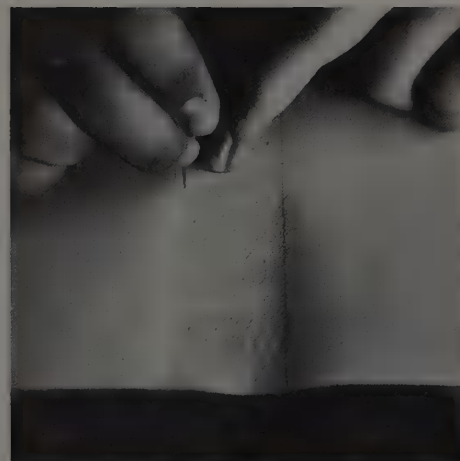
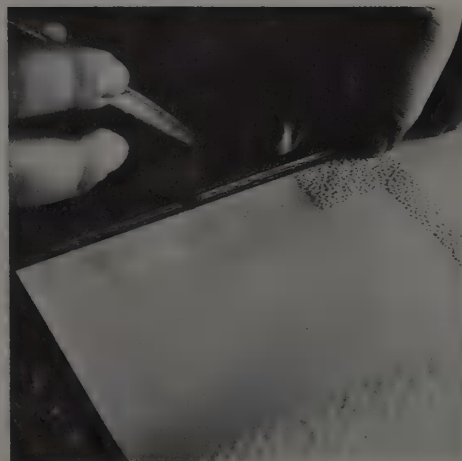
Small, regular incisions are opened with the flat point of the knife.

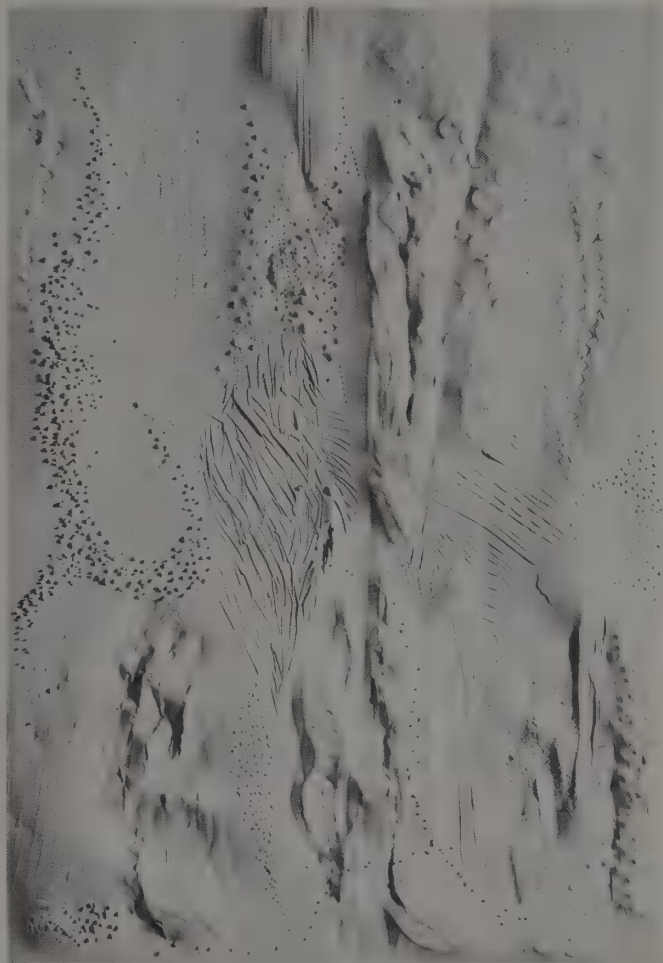
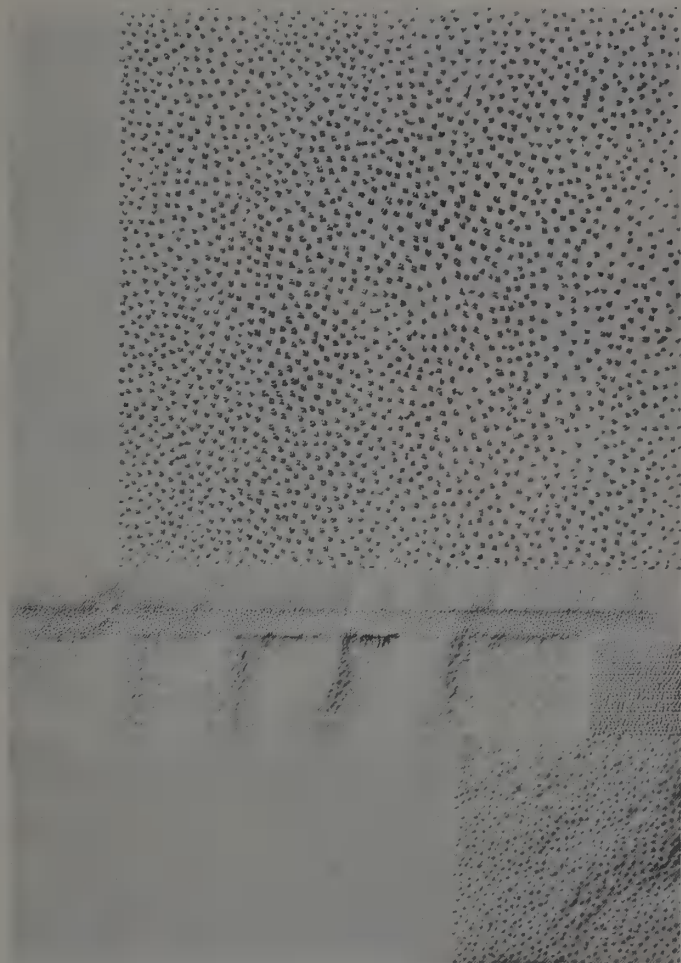
Uniform holes are made by punching a needle through the paper.

The surface of the paper is slit or scored with a knife and ■ straightedge.

The paper is punctured with a needle held perpendicular to the surface on a cardboard support.

Various textures are achieved by changing the position of the needle and using different supports.



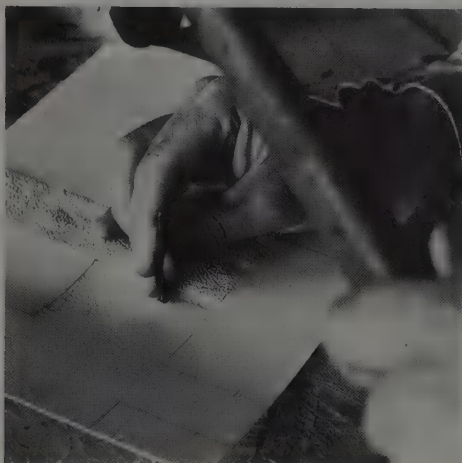
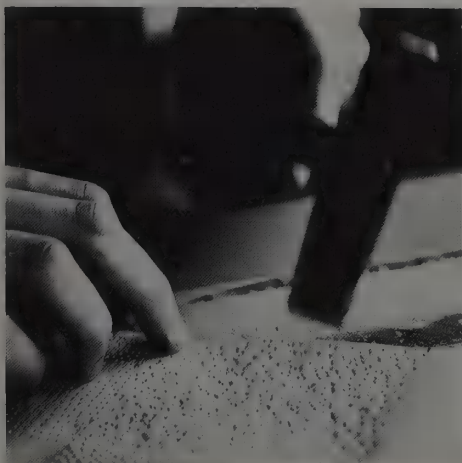


Results from the individual textural studies are used in a horizontal-vertical, architectural composition. A contrasting free, organic composition is shown on the right.

The surface is worked by tapping with a hammer.

Abundant variations are produced by tapping the head or tip of a nail against the paper.

Notching is produced by lightly tapping a chisel or spatula with a hammer. Similar effects are possible with other tools.

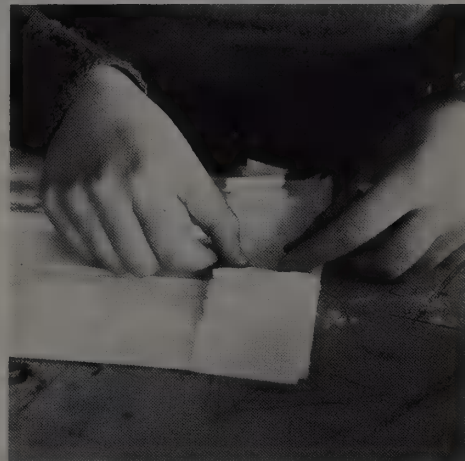


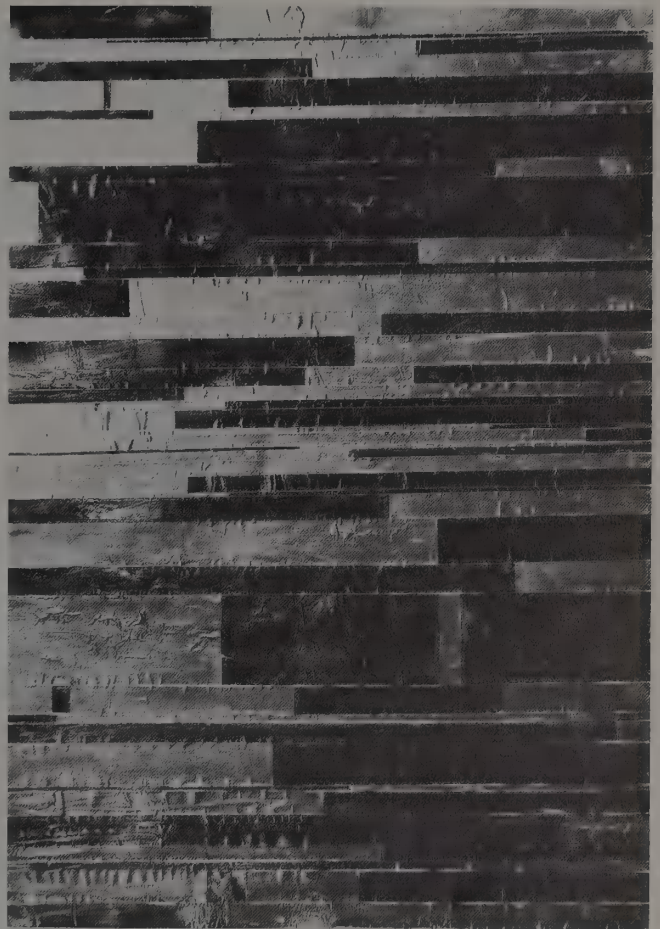
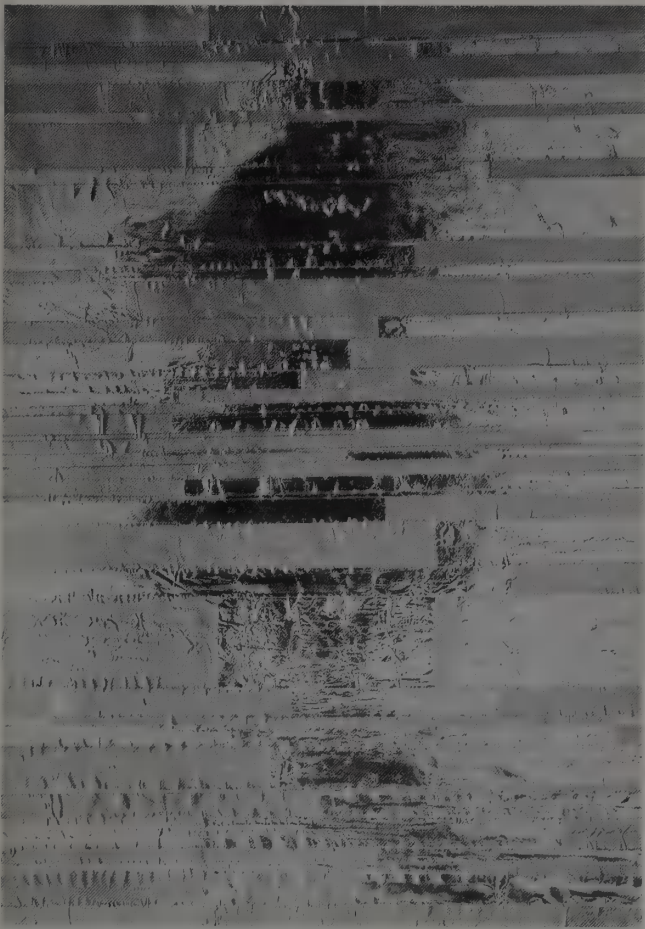


Further possibilities are found by manipulating different paper qualities. White or dull papers and cardboards are used to avoid confusion between the expression of the material itself and color.

In the two following examples the structure of soft paper, napkins, and corrugated cardboard is changed by tearing, folding, crumbling, layering, and soaking in water.

The photographs show how napkins are worked into a composition by folding, cutting, and gluing.





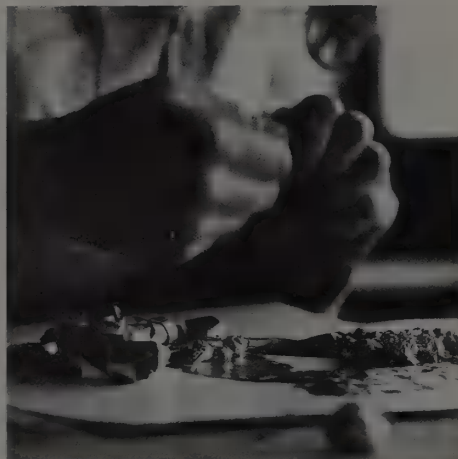
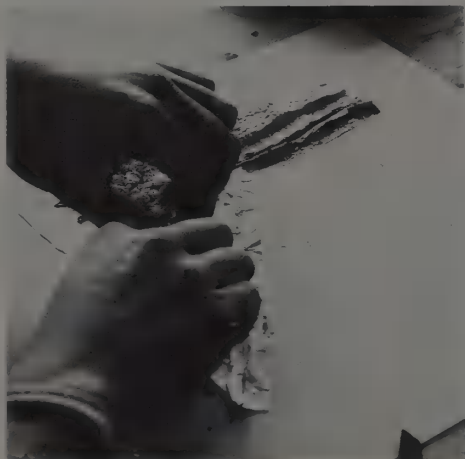
Here and on the following two pages is shown work based on the contrast mat-glossy. Unlike the preceding exercises, in which tactile experiences are primary, changed optical appearances, based on the reflective properties of light, predominate. Disposable materials, wrapping paper, and used aluminum foil are extensively worked with tools such as knives, scissors, scoring sticks, and glue. Abundant and unexpected creative possibilities are produced by discovering chance effects in geometric and organic compositions.

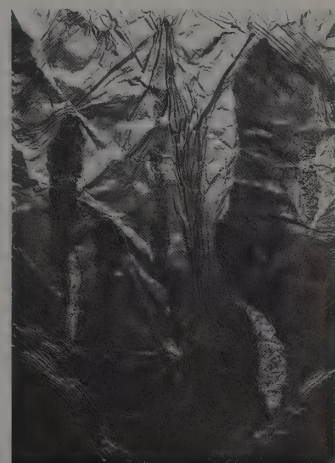
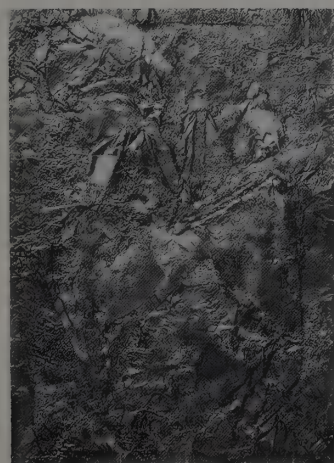
Both examples show the same complex, horizontal-vertical composition under different lighting conditions.



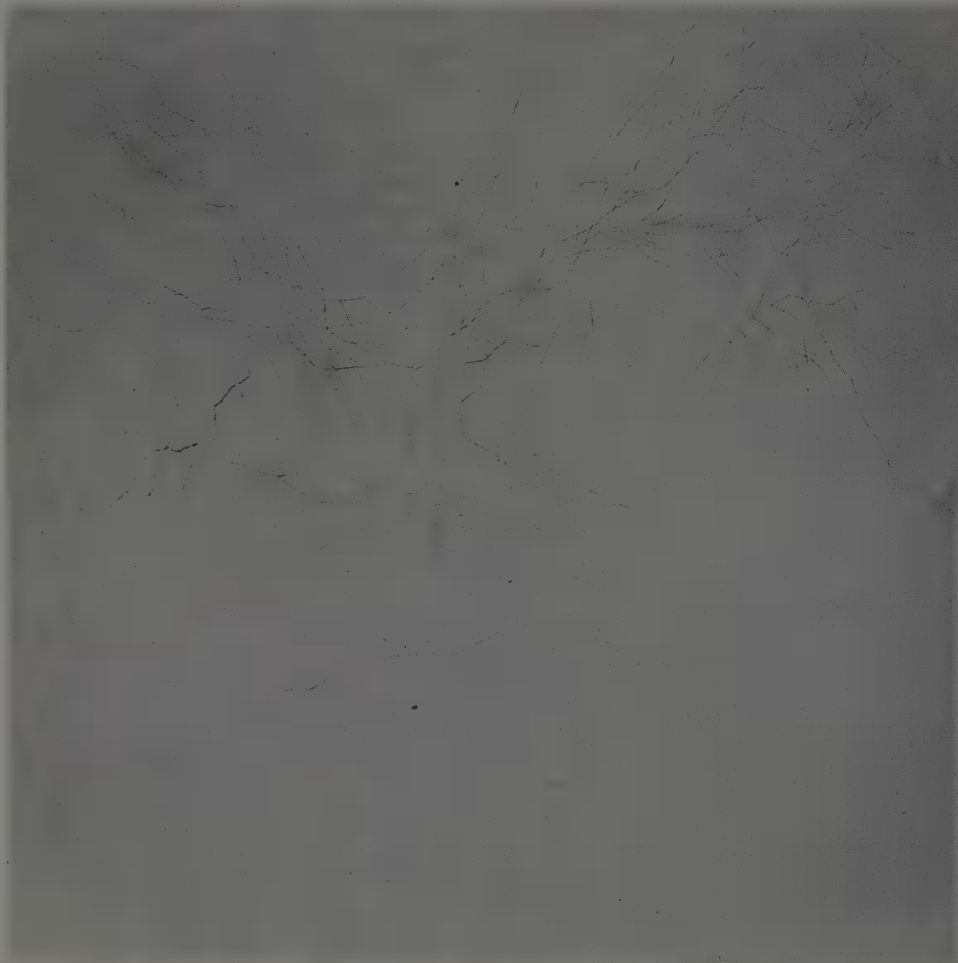
The dark-light effect of this reduced composition is reversed through different light reflections. The finely textured sections appear matter than the less worked material.

The three photographs give an insight into the simple working process by which tinfoil is manually worked and formed.

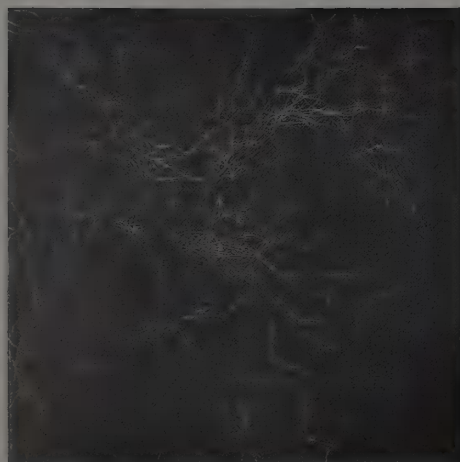




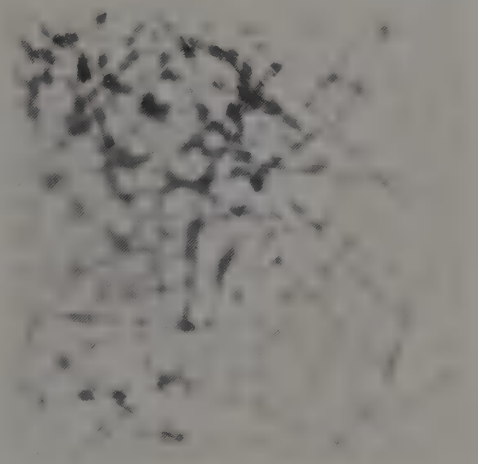
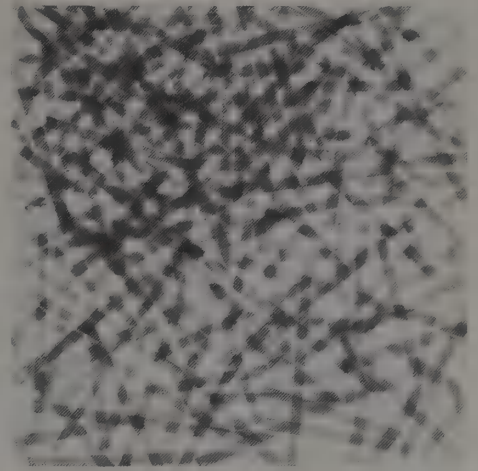
In the two examples of free, organic compositions the accompanying reductions appear different, although they are taken from the same original under different lighting conditions.



In the following exercise on the theme transparency the student must find a suitable material and corresponding working process. More than in the preceding exercises light is incorporated in different transparent effects. Many different materials are suited to this theme. In these exercises transparent paper is used in flat layers or in movable three-dimensional reliefs. Formal elements and differentiated gray values result from the various layers of material. The contrast between diffuse and clear forms must often be playfully discovered and consciously formulated.



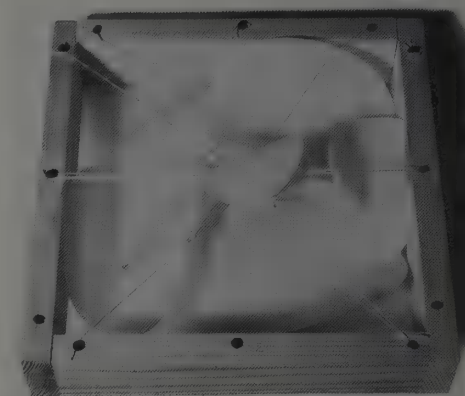
The three examples show the same work, in which the surface of the tracing paper was scratched with a needle, against light, dark, and transparent backgrounds.



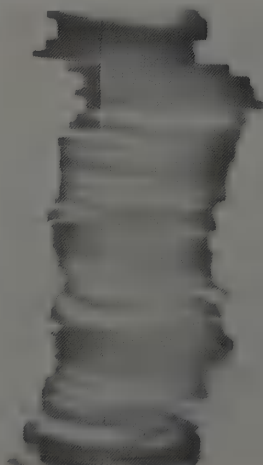
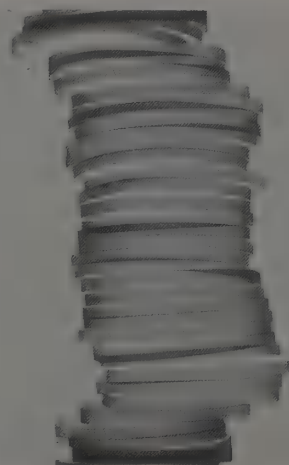
In this work the tracing paper is cut into strips, overlapped in layers, and mounted, resulting in differentiated gray values. The two accompanying pieces show other transparency effects.

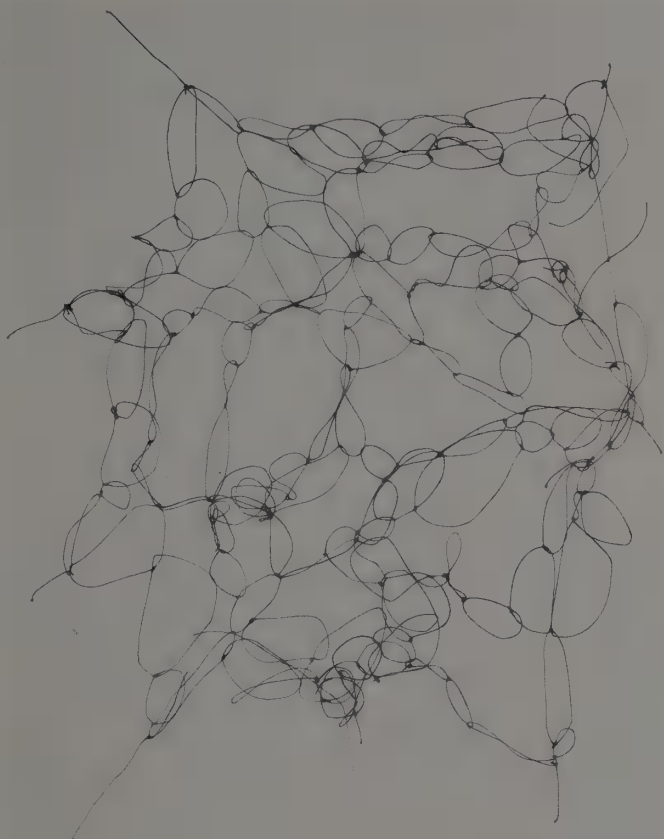
The teacher and the students are at work.





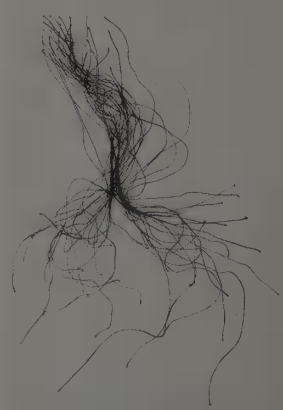
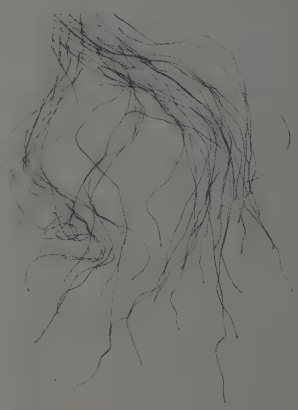
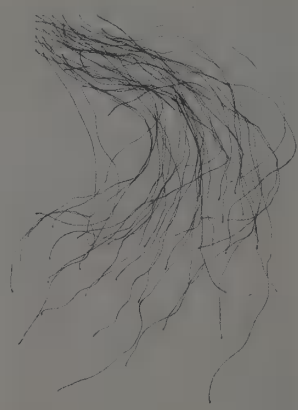
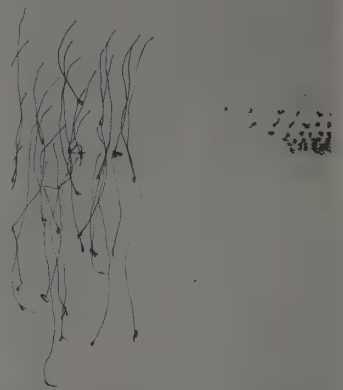
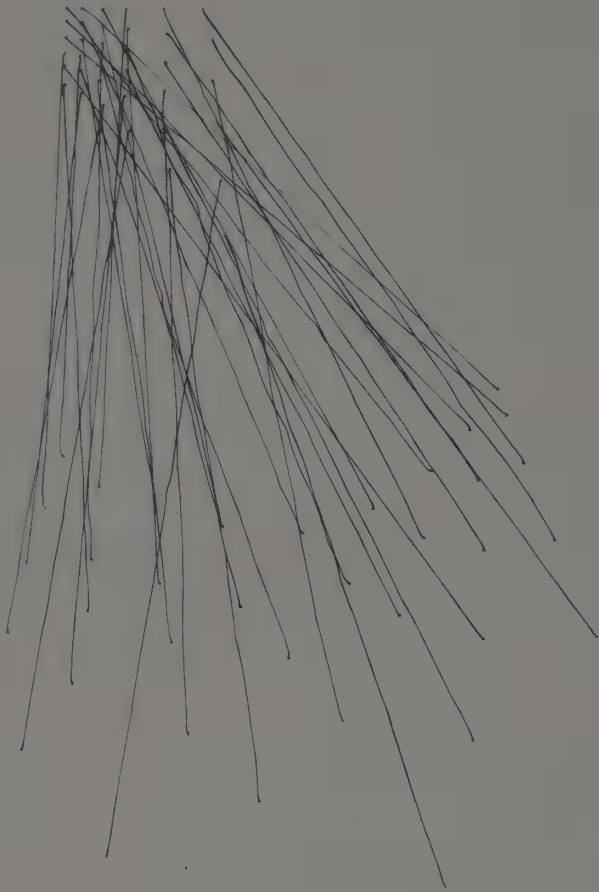
Two examples of three-dimensional work on the theme transparency. Above, pieces cut out of tracing paper are freely mounted in a wooden frame, and a layer of tracing paper is attached to the front side. The three photographs show the front and back views and the simple method of attaching the pieces to the back of the frame. Below, on the back of a piece of tracing paper fixed into a cardboard frame, a cylinder made from the same material is cut into segments and mounted. The individual rings, on the left, move from side to side; the other two examples show phases of movement with different diffusion effects from the front.



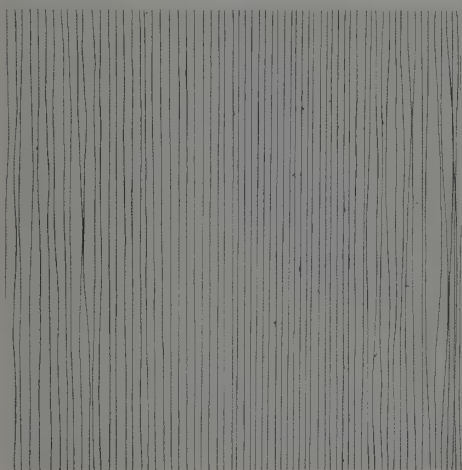
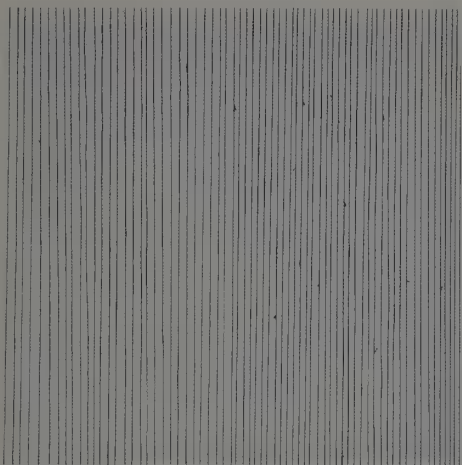


In contrast to the ordinary media of pencil, pen, and brush, a linear, graphic appearance is achieved with black thread on a white ground, or vice versa. Tonal-value exercises with white thread on a white background and black thread on a black background emphasize the characteristics of the textile material. Many unplanned possibilities, such as concentrations, repetitions, and mobile conceptions, are produced by spontaneous play with thread and other linear materials.

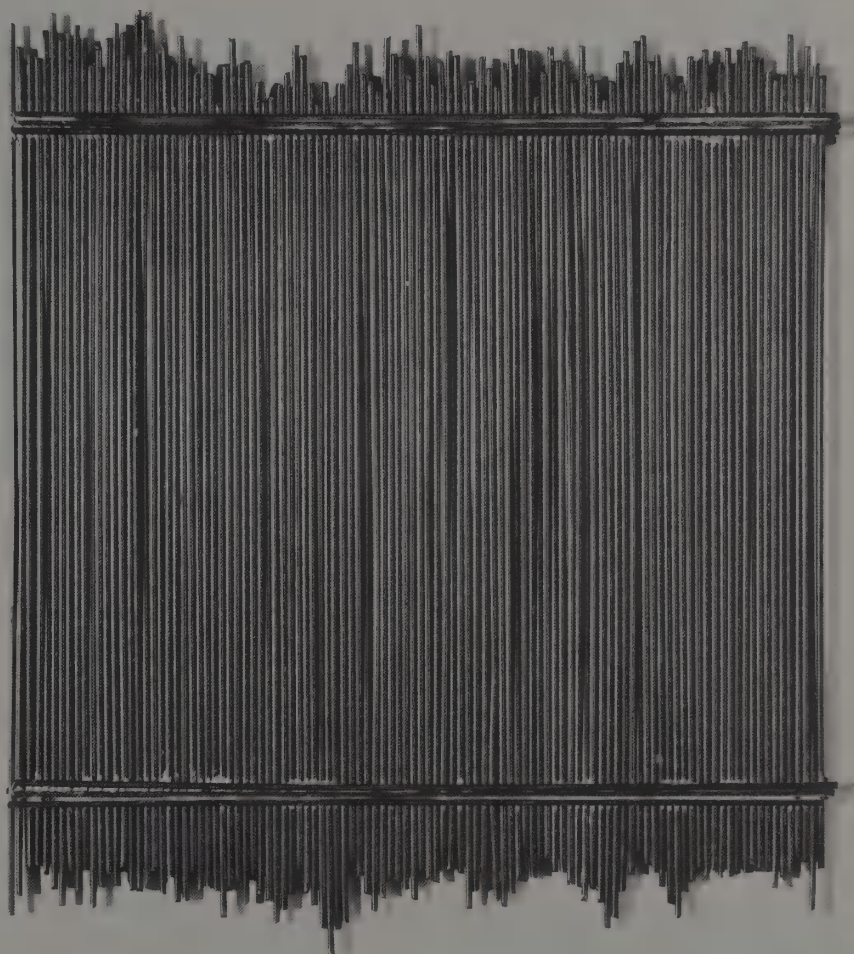
In these two examples looped and knotted threads are inserted at the edges of the cardboard and tied together on the back. The compositions, especially the negative spaces, can be changed by moving the bound threads on the back. In the study on the right concentrated accents are composed with contrasting tight and loose threads.



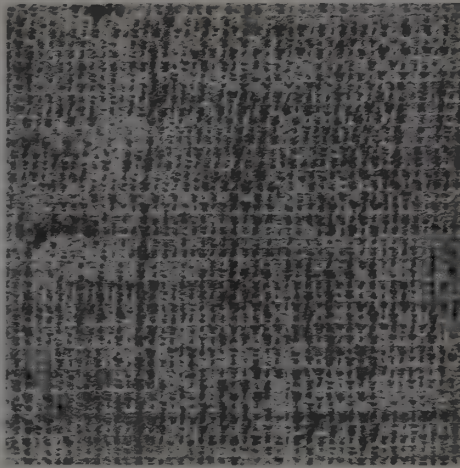
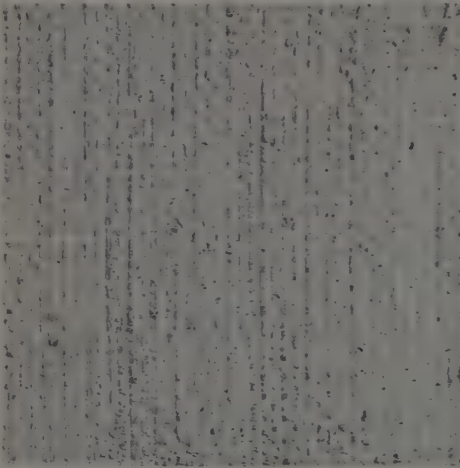
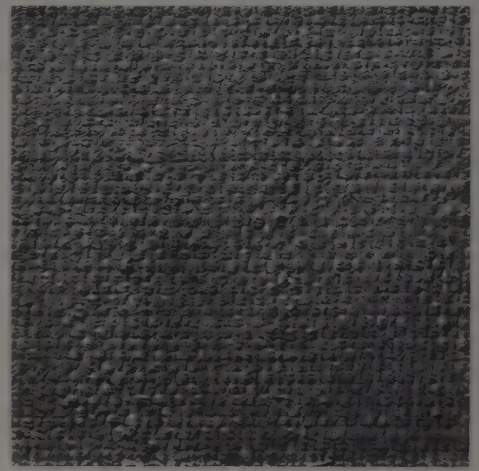
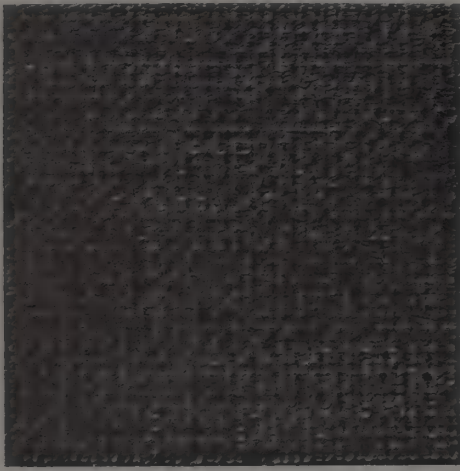
This composition shows radiating, partially overlapping threads that project from the upper left to the lower right. The threads are pulled through holes in the cardboard and knotted at different lengths, as in the two small examples at the top. The other four examples show how the basic composition can be changed by moving the threads on the front surface.



Compositions with vertically arranged threads can be altered by shifting the threads sideways.



Soldered rods form a compact, linear mass.



In this course color is investigated in terms of its material characteristics. ■ is investigated in monochromatic exercises as a material in pigment form. Instead of oil paint white latex paint and binder are used, as they dry and harden quickly. Prepared burlap is divided into sections and serves as the ground. In order to compare the original character of the burlap, one area is left unworked. The paint is applied in different quantities with bristle brushes and spatulas, using various techniques on the remaining surfaces. The surfaces should be essentially, optically, and tactilely differentiated. After drying sections can be changed with sandpaper.

The first example, at upper left, is natural burlap. The remaining five examples show different surface treatments.

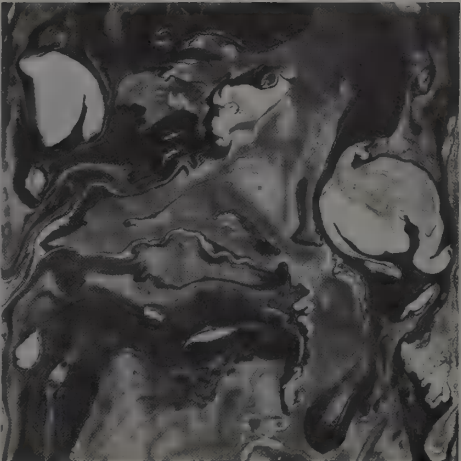
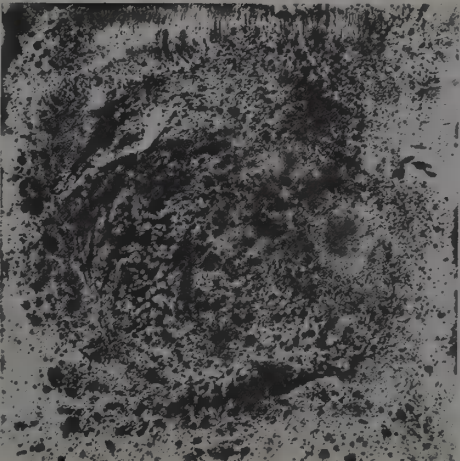
The examples on the theme fluidity show differentiated effects of the paint material. Dark colors with a fluid consistency are applied to different partially wet papers.



This composition shows horizontal-vertical divisions from the diagonal and the progression of color densities to the lower-right corner. The last and smallest rectangular surface was scraped and sanded smooth.



In contrast to the above organized, geometric exercise, a free, organic composition with expressive forms results from spontaneous but controlled actions.

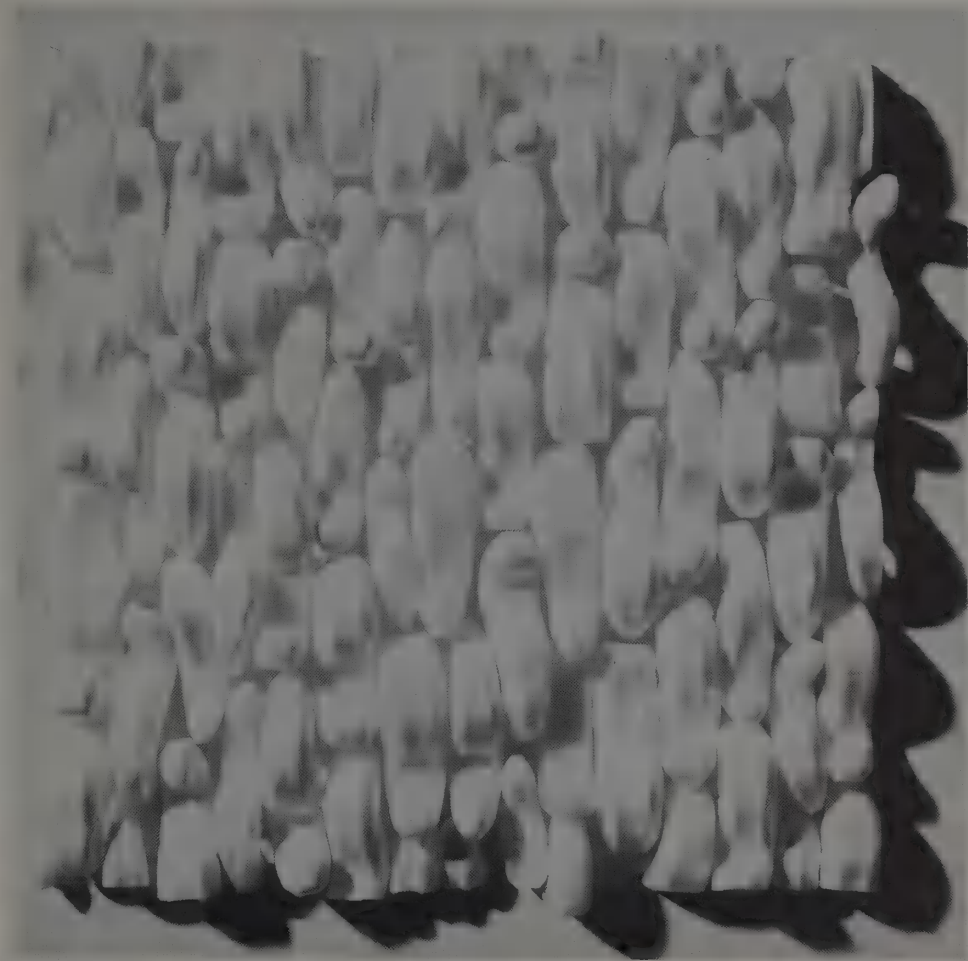




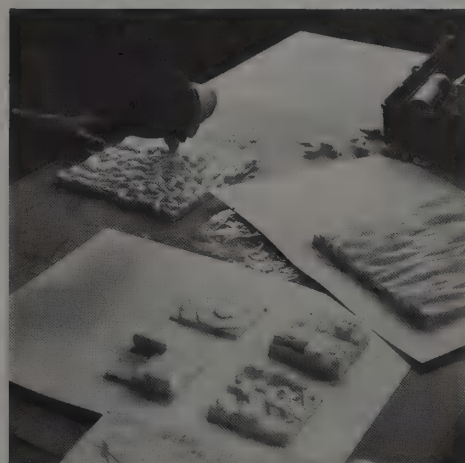
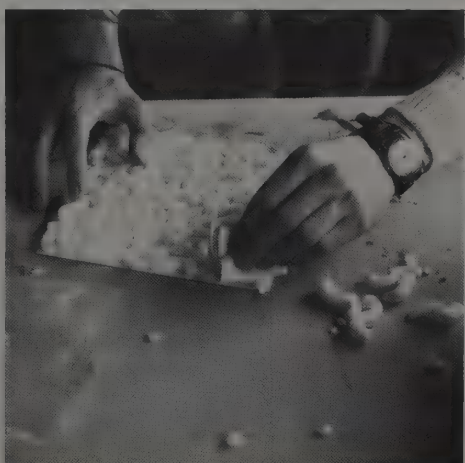
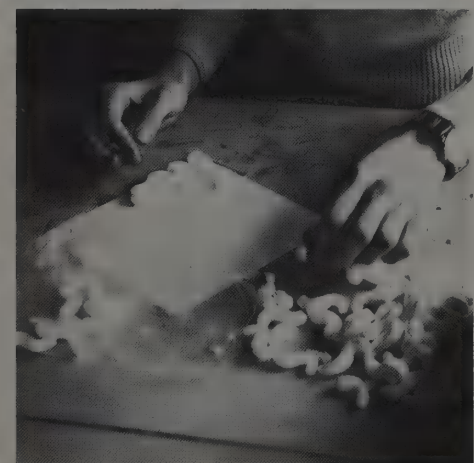
In connection to color as a material the investigation is expanded through exercises with monochromatic, white styrofoam, a prefabricated packing material. These combinations and compositions are unrelated to its original function. The material is manipulated through breaking, cutting, and layering.

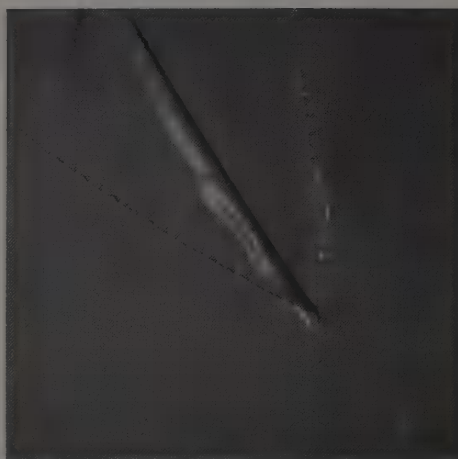
The illustrations show, at top left, styrofoam beads glued in different densities on rectangular pieces; top right, pressed elements glued in a relieflike fashion in rhythmically free rows.





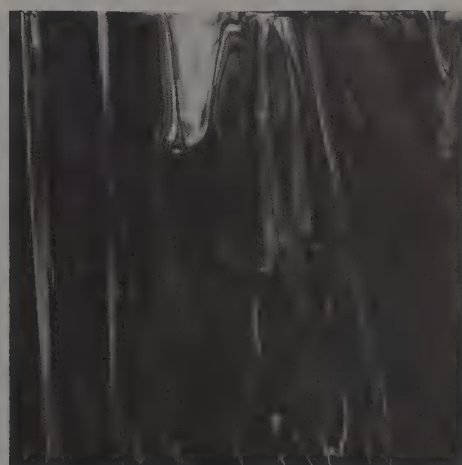
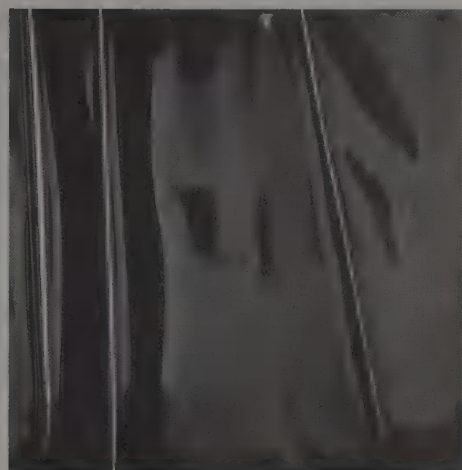
The three photographs demonstrate the simple working process with styrofoam.





Creative possibilities, unburdened by tradition, are produced from a spontaneous confrontation with PVC plastic, a modern industrial product. This material is reflective, smooth, tough, flexible, and translucent. It permits numerous treatments such as folding, bending, layering, tearing, cutting, heating, burning, and stretching.

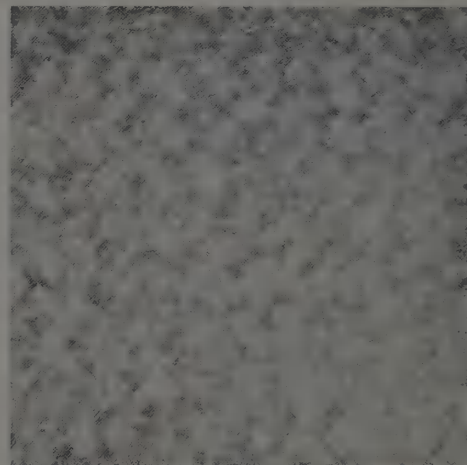
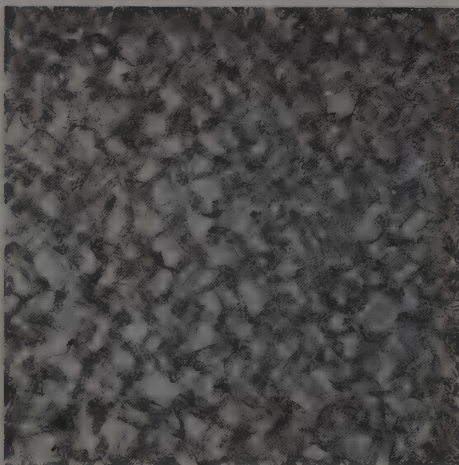
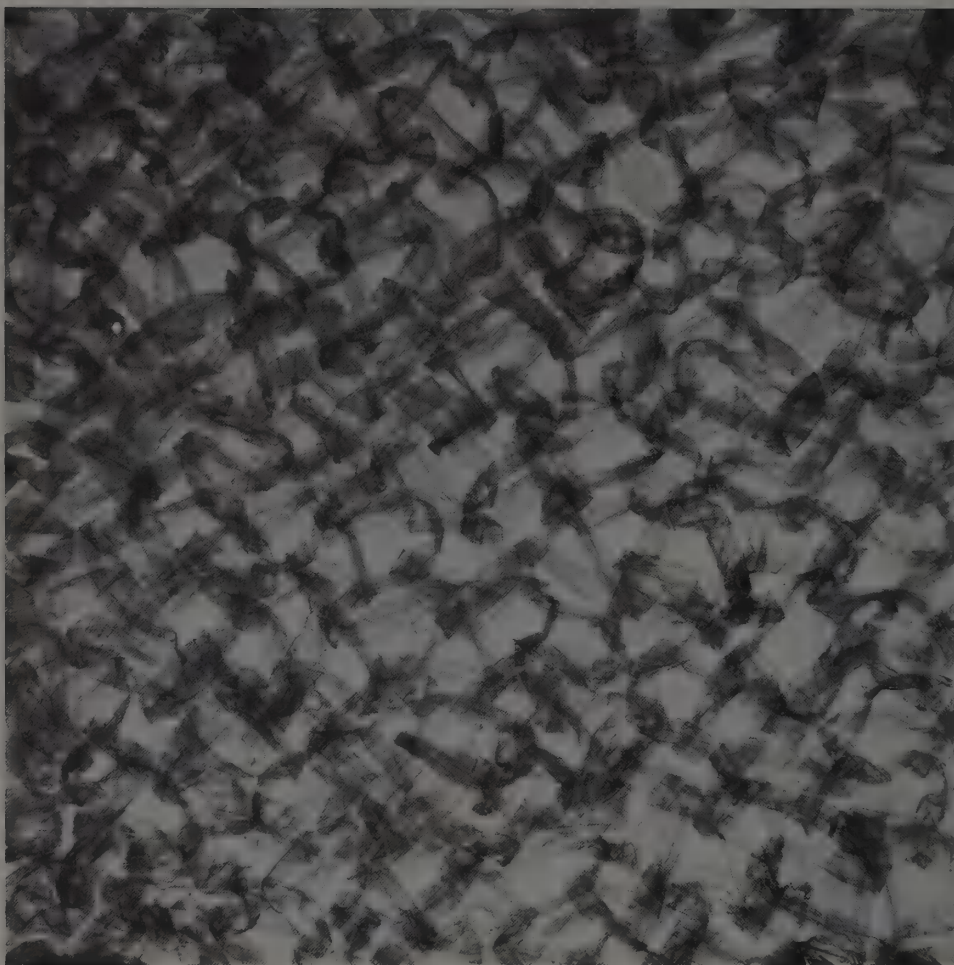
Three elementary examples are produced by heating and crumpling, tearing and folding, and burning the material. The four examples on the right show the methods used on a sheet of folded black plastic. Different effects are produced through various light treatments.



Further exercises on the theme transparency supplement and expand the results achieved with tracing paper. The studies shown here were done with transparent plastic. The students are free to choose their own materials and working methods.

In the following example folded strips of plastic are looped like textiles. The thickness of the material and the looping produce a gradual differentiated effect through the transparency and surface reflections of various lights.

The examples on the right-hand page show, above, plastic scratched, partially torn with a sharp object (nail, needle, or knife), and placed on a light and a dark background; below, overlapping layers of scrumpled plastic under different lights.

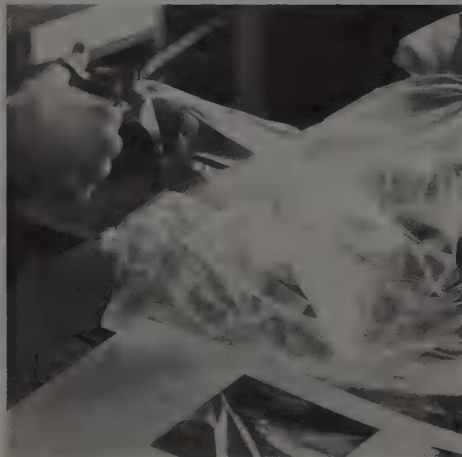




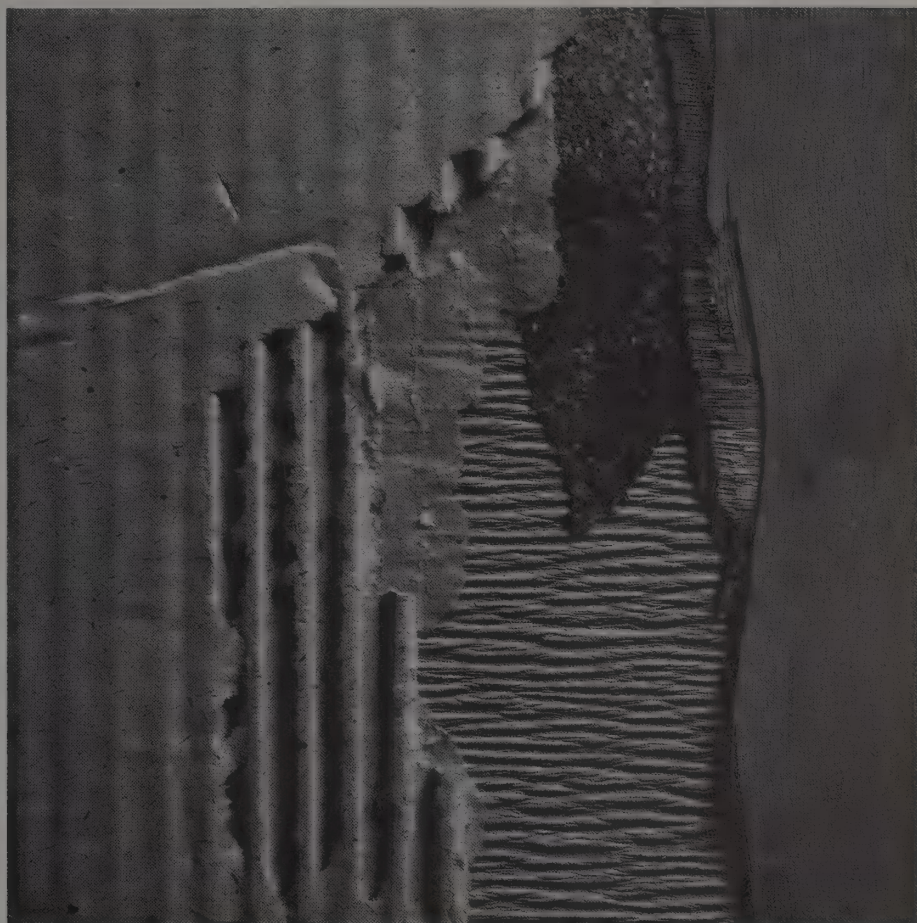


Holes are burned into the folded, overlapped plastic layers. The three examples show the same work under different illuminations against a dark background. The reflections almost disappear when a counter light is used.

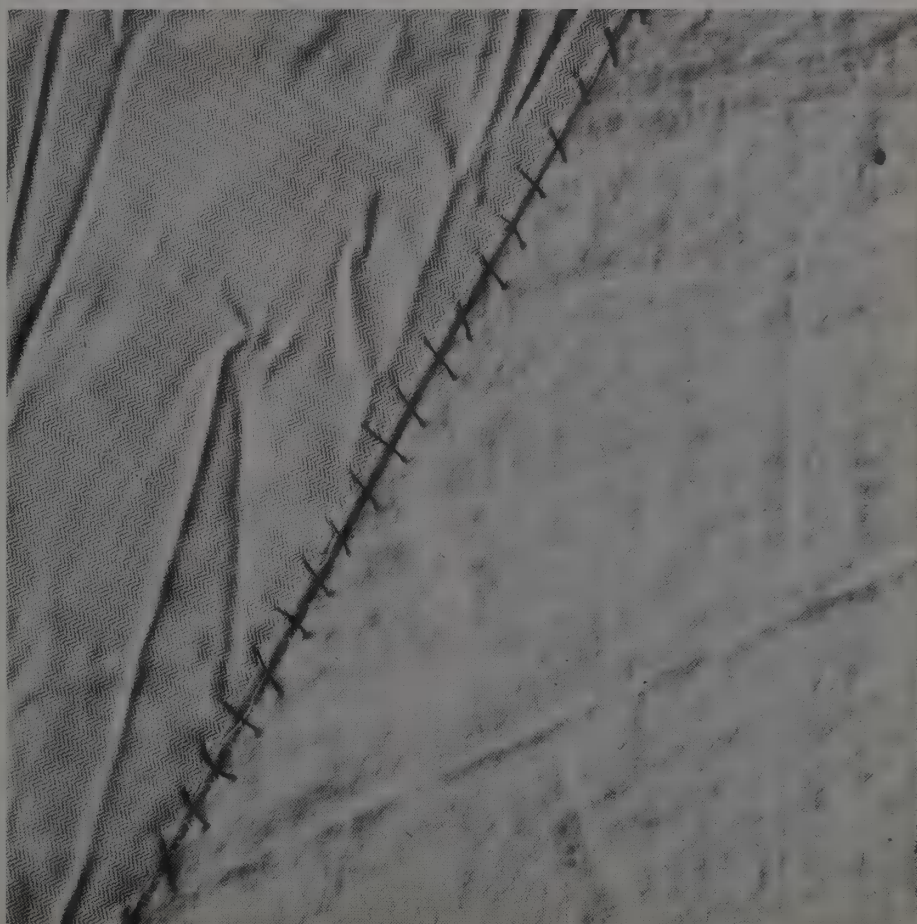
Raw materials are cut and worked under simple conditions.



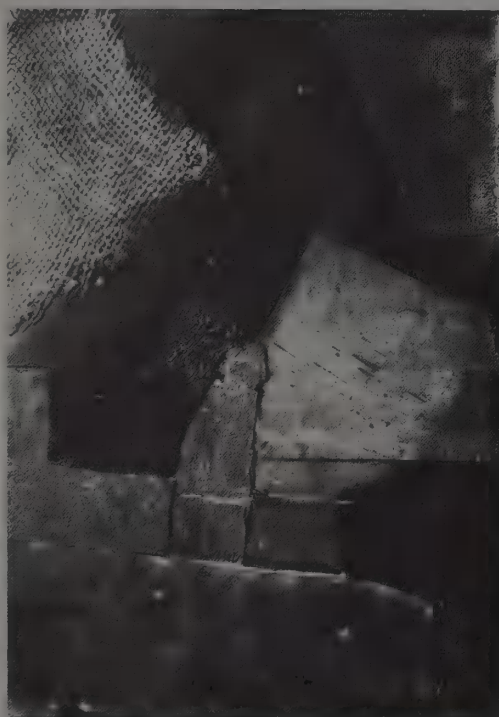
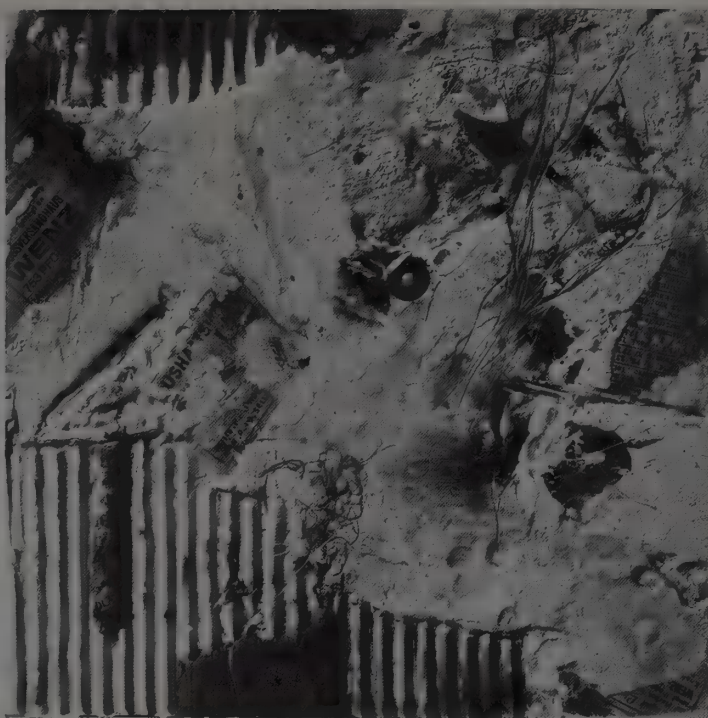
The pictures here and on the following two pages show exercises on the theme combinations of diverse materials into a new unity. This theme occurs consciously in our everyday lives—for example, in clothing. Numerous unforeseeable optical and tactile combinations and compositions are produced through the free selection of materials and techniques. The experience from the previous exercises with themes such as matte-shiny, color as material, etc., is integrated in this problem situation.



Corrugated cardboard, crepe packing paper, roofing felt, and plywood are combined in this horizontally-vertically textured composition by tearing and breaking the materials.



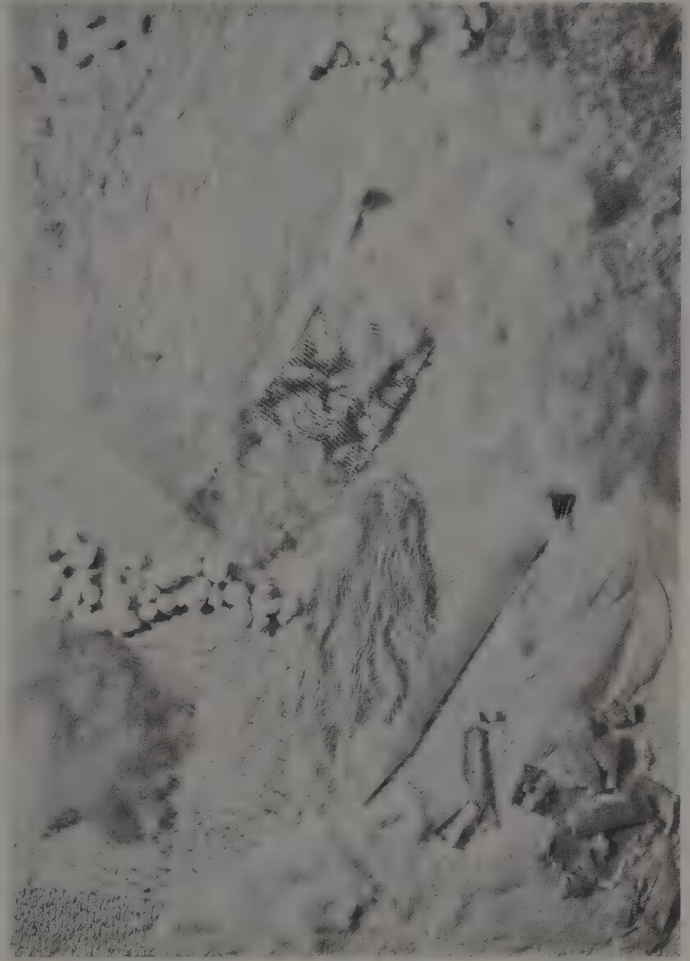
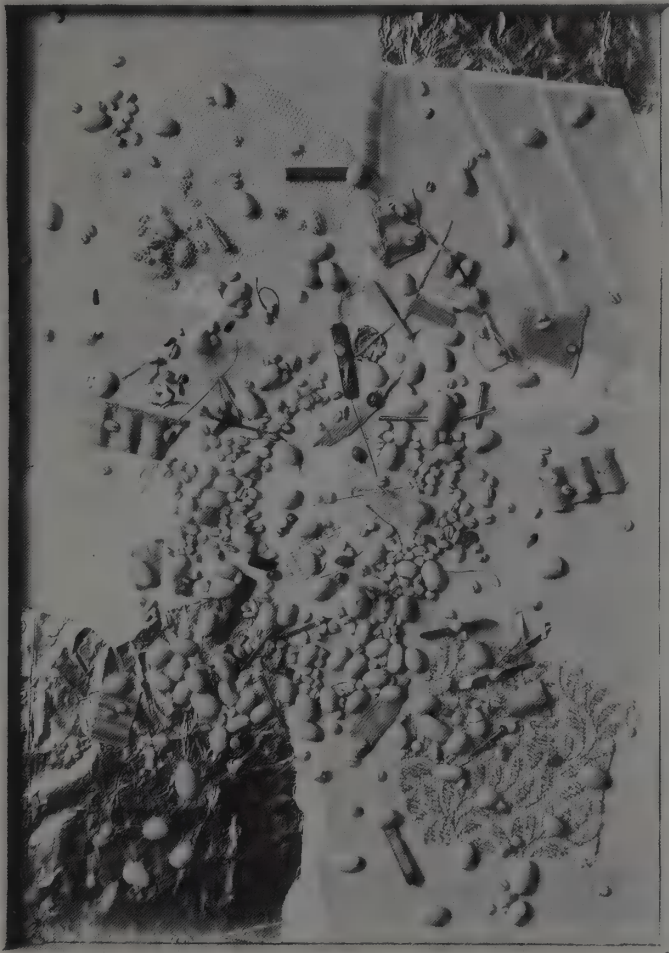
Two different textiles are joined through sewing. The dominant diagonal is balanced by the counter-movement of the threads.



Above left is a composition utilizing dark, freely looped and twisted threads; partially frayed burlap; and nails.

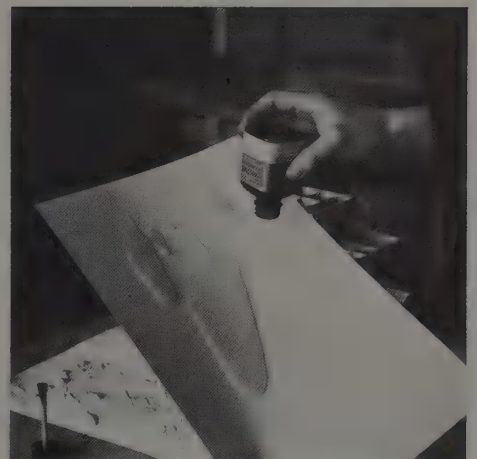
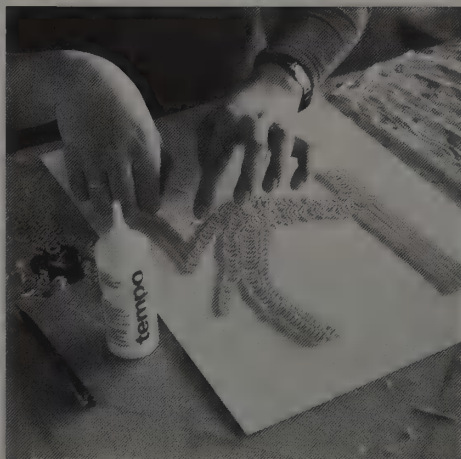
Below are two collagelike compositions: left, pieces of metal, burlap, paper, cardboard, and leather; right, with the contrast matte-shiny combinations of metal, wire, and tinfoil painted with dull colors.

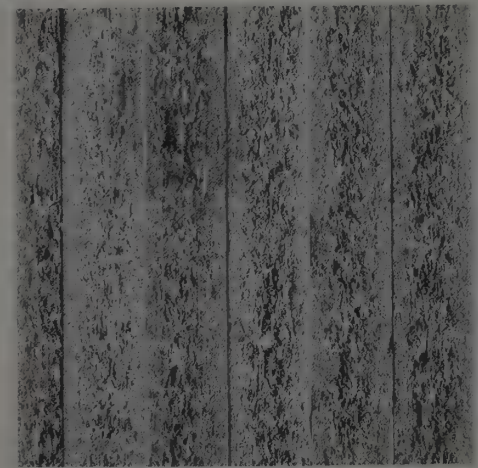
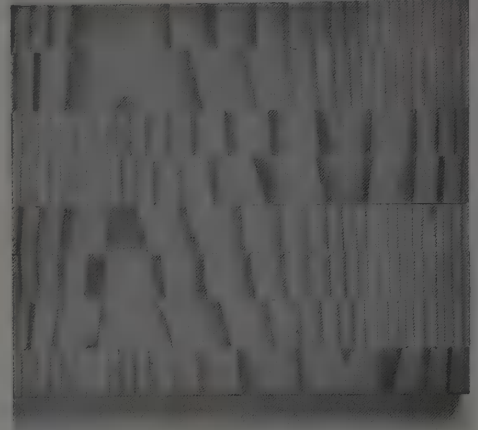
Above right, pieces of newspaper, tacks, plaster, paint, and a cigarette butt are combined to contrast with the rhythmic, vertical texture of the corrugated cardboard.



In these two examples the appearance of the materials is primary and clarified through subtle tonal values. Beans, textiles, papers, acetate, nails, feathers, and metal type are used.

The photographs show students at work with paper, plastic, drinking straws, and liquid candle wax.

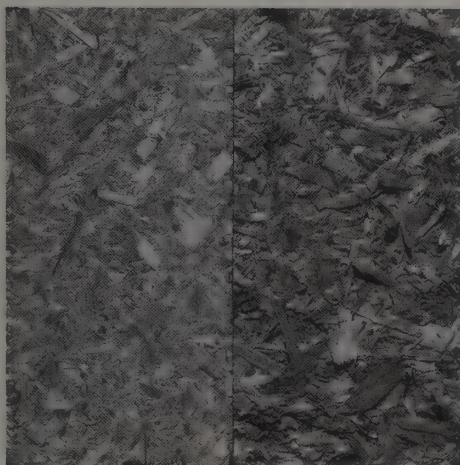
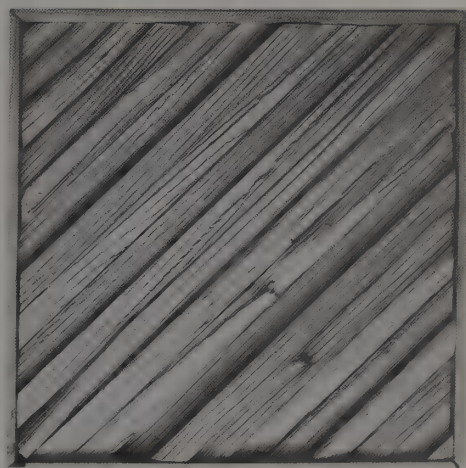
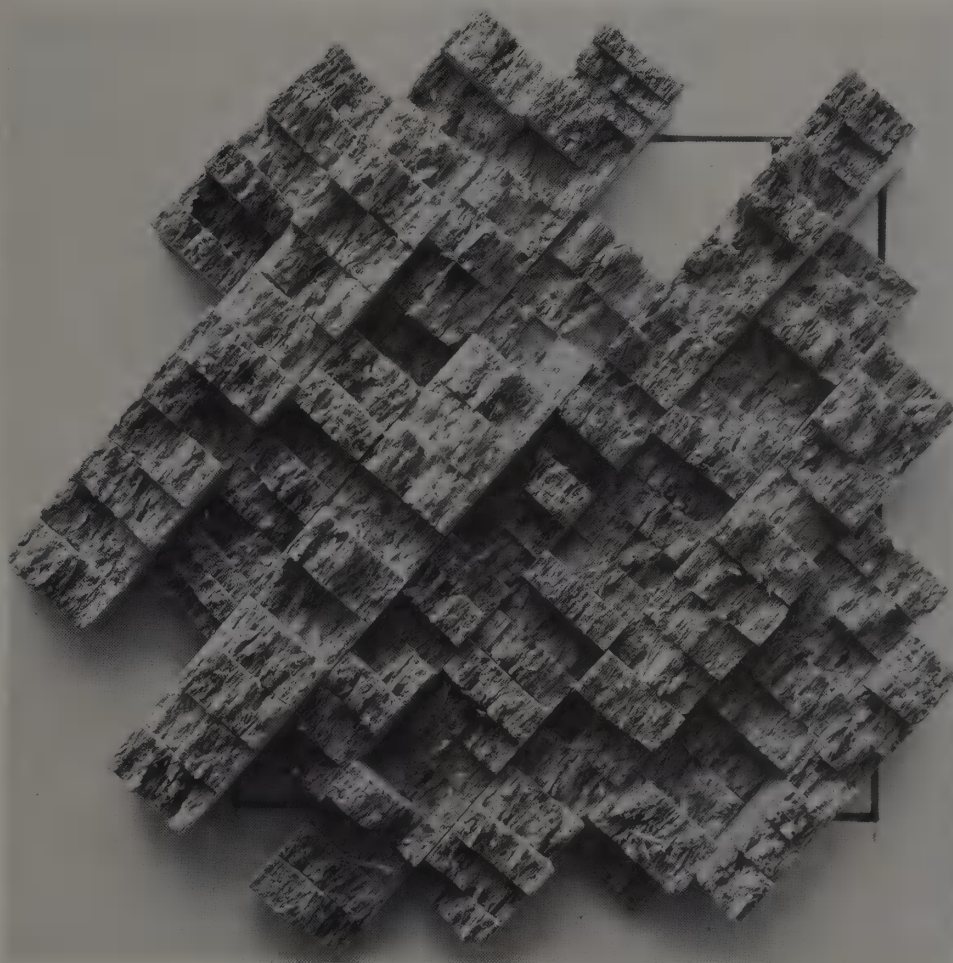




Wood offers abundant stimulation and can be manipulated into many different forms by planing, sawing, splitting, burning, and polishing.

In the above three examples a piece of wood is cut into uniform pieces, shifted, interchanged, and combined. The grain structure produces an interesting graphic rhythm.

The three examples show different effects achieved from simple working techniques with pieces of compression board.



Above, disposable veneered wood, with a natural defect, is laminated and mounted as a relief; center, split pieces of wood are diagonally mounted in a frame; below, decaying pieces of wood are worked into a compact composition.

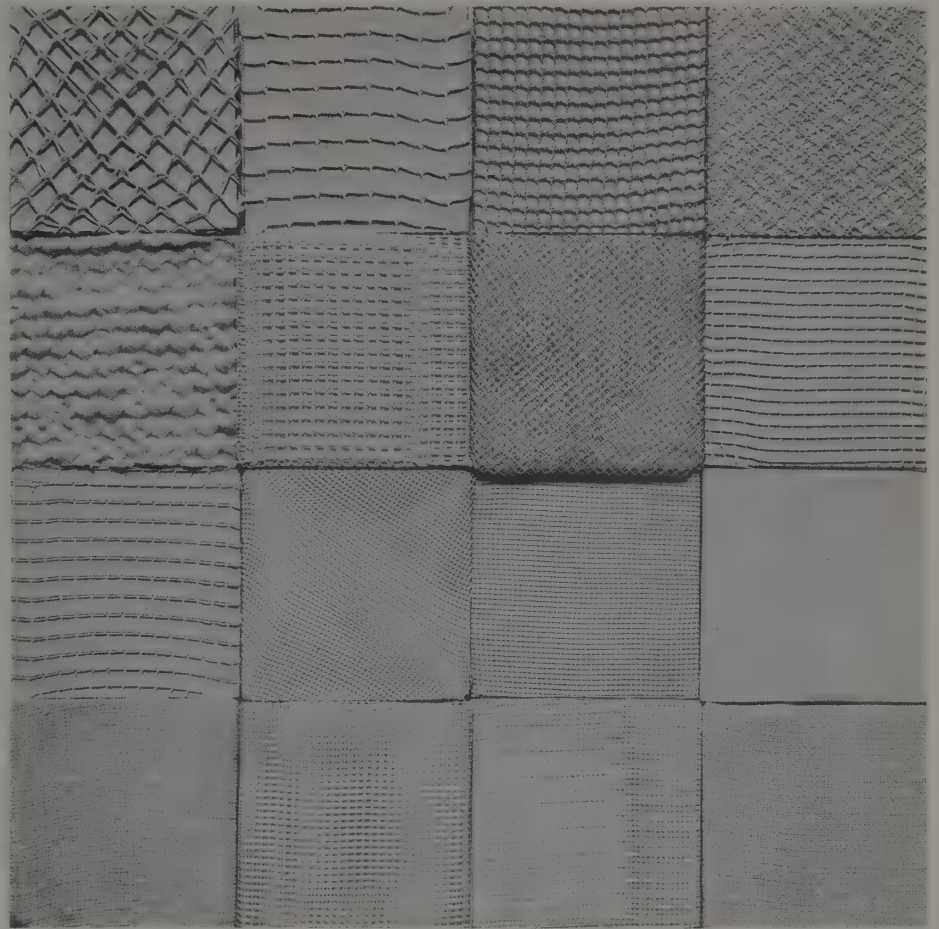


In exercises on the theme fluidity students must find the appropriate working means, raw materials, and compositions on different bases. Some choices are: water-color paper, textiles, colorless liquids, and watery, oily materials of all kinds. Controlling chance necessitates extremely alert and quick reactions.

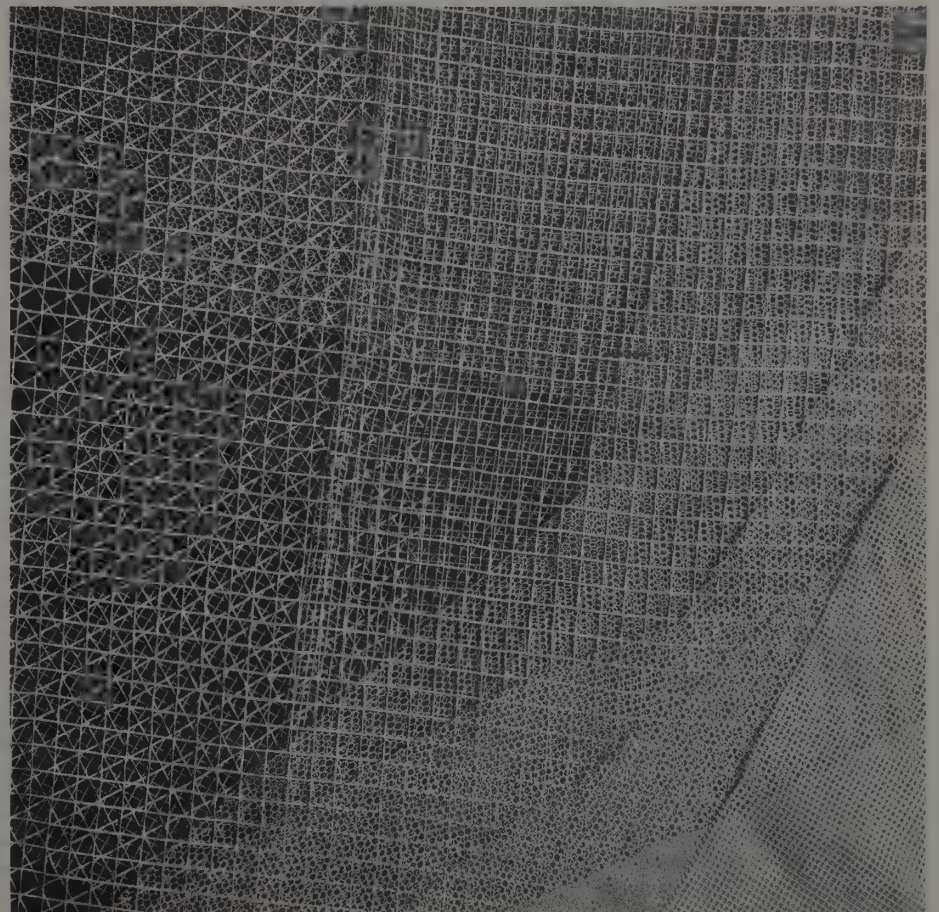
The working process is visible in the above example of flowing candle wax on an aluminum surface.

The knowledge of textiles acquired by the students in previous handicraft courses is minimal, usually limited to the reproduction of decorative objects in which the technique is used to define the object and not as a creative medium.

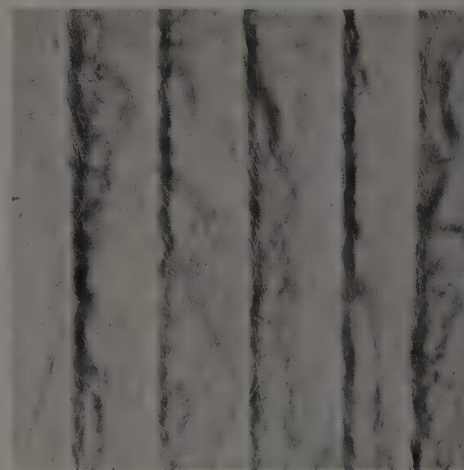
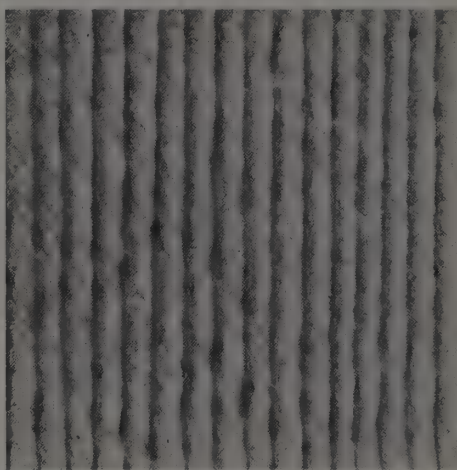
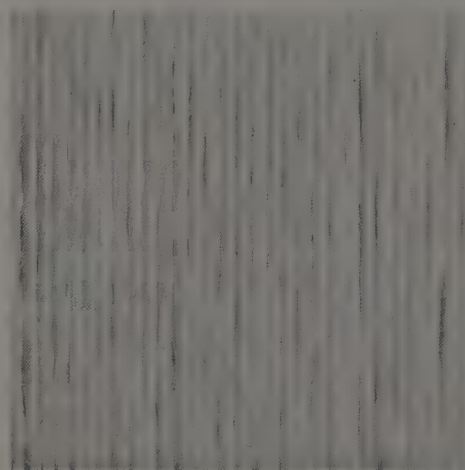
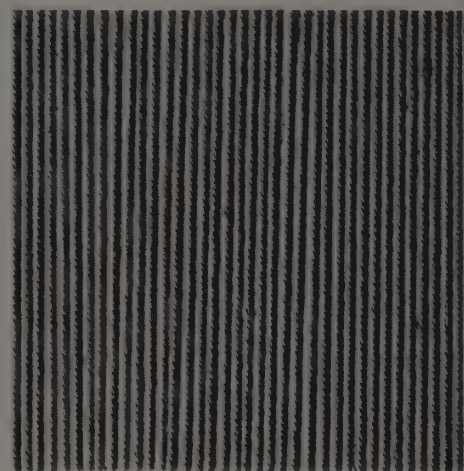
The aim of this course is to discover expressive rhythmical qualities of various textile materials; the interrelation of texture, color, and form; and the adequate techniques. Particular techniques (embroidery, weaving, knotting, macramè, looping, tie-dyeing, appliqué) are studied by working with the appropriate equipment: simple tools, wedged frames, and improvised dyebaths. The course is not structured towards a theoretical and systematic study of textile technology: techniques are used as practical media in the design process and as means of individual expression. Through spontaneous experimentation with simple instruments (needles, reamers, scissors, and knives) possibilities of manipulating materials and procedures are investigated to the point of distortion. The wide selection of materials includes more than a thousand colors and dozens of different qualities, from expensive silk to burlap and disposables. The abundance of raw materials, their characteristics, and design principles discovered in preliminary exercises, provide a basis for independent design decisions concerning choices of material and method. Possible solutions, based on the interrelationship of texture, color, form, and material, are also investigated. During each exercise material samples are done, and possible design variations are worked out. They are compared and evaluated, and the most successful variations are chosen for further development. The final results are also discussed and evaluated, and the understanding and experience gained through this working process further each student's manual ability, optical and tactile sensitivity, independent judgment on design principles, and facility in relating these principles to material and technique.



A feeling for different textile materials is developed at the beginning of the working process through simple comparative exercises in texture values. Cardboard elements (stripes and squares) are covered with collected fabrics, clothing, and decorator remnants. The different textures are optically and tactually explored through overlapping and combining different fabrics, and single elements are compared and structured into a composition. In these exercises monochrome materials are predominantly used so that the appearance of the textile is not confused with the color.



In the top example numerous identical cardboard squares are wrapped one or more in layers of different white fabrics. The composition is achieved by interchanging the square elements. The example below shows a free composition: contrasts and divisions of the surface are created with different layers of material, textures, and directions.



In the following exercises textures are produced by wrapping the cardboard elements with natural threads available in many qualities and colors. Various densities are achieved by parallel, diagonal, horizontal-vertical wrapping as well as criss-cross wrapping with two threads. Creative alternatives are developed by manipulating the materials, colors, combinations, quantities, rhythms, and working methods. Textural values appearances are examined in many single studies and applied to elementary compositions.

The pictures show studies in which textural values are created with different natural-colored threads and various dense and parallel wrappings.



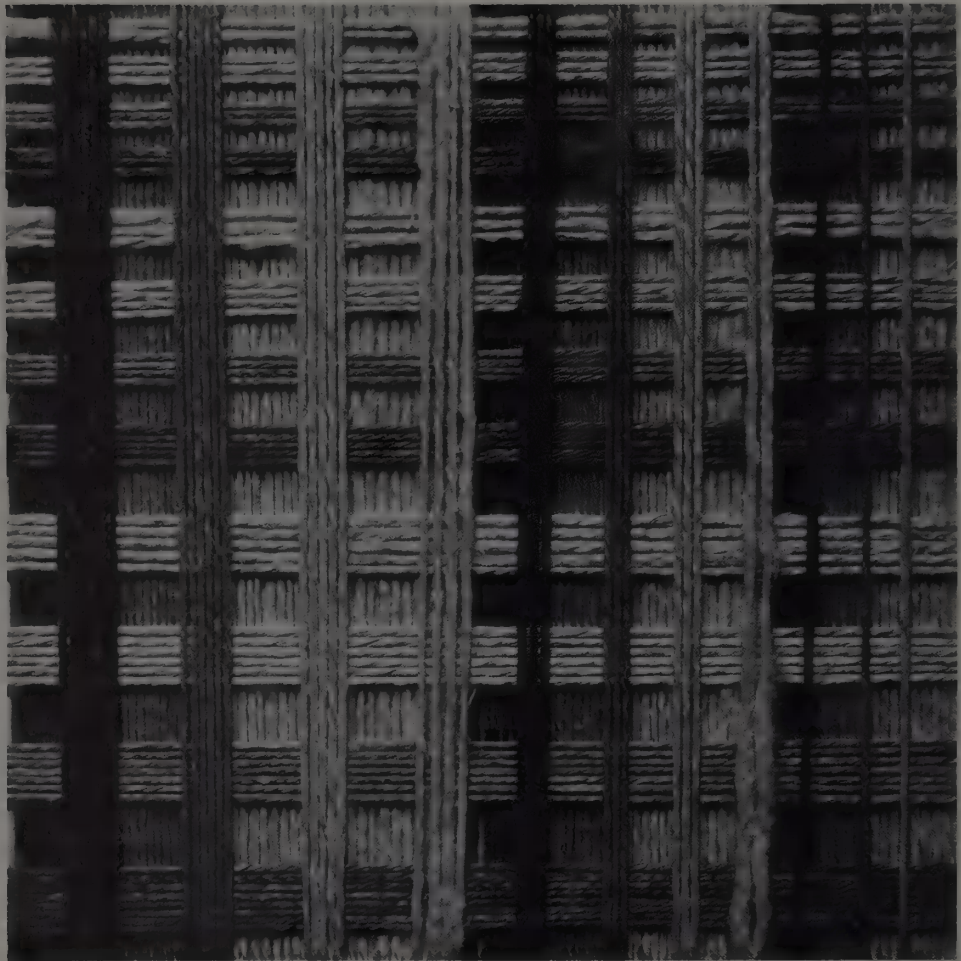
Through parallel wrapping of cardboard strips rhythmic, colorful textures are achieved and structured in the above composition.

The photographs show simultaneous parallel and crisscross wrapping with two threads from two directions.



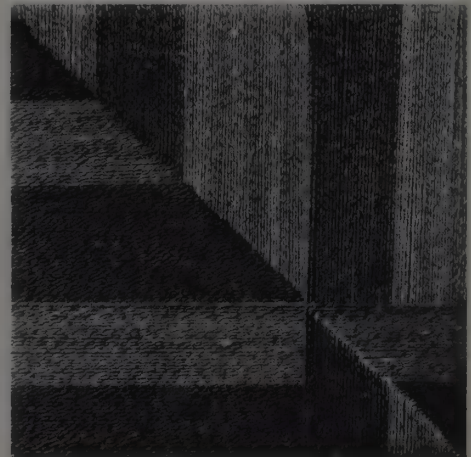
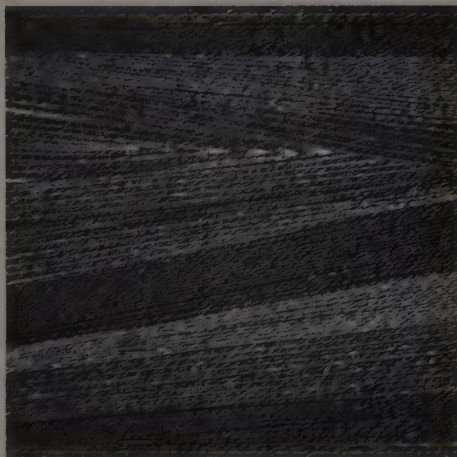
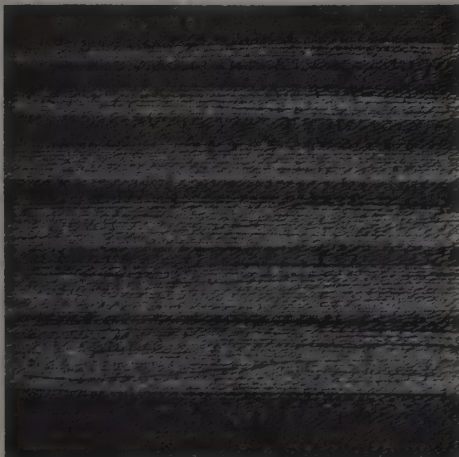


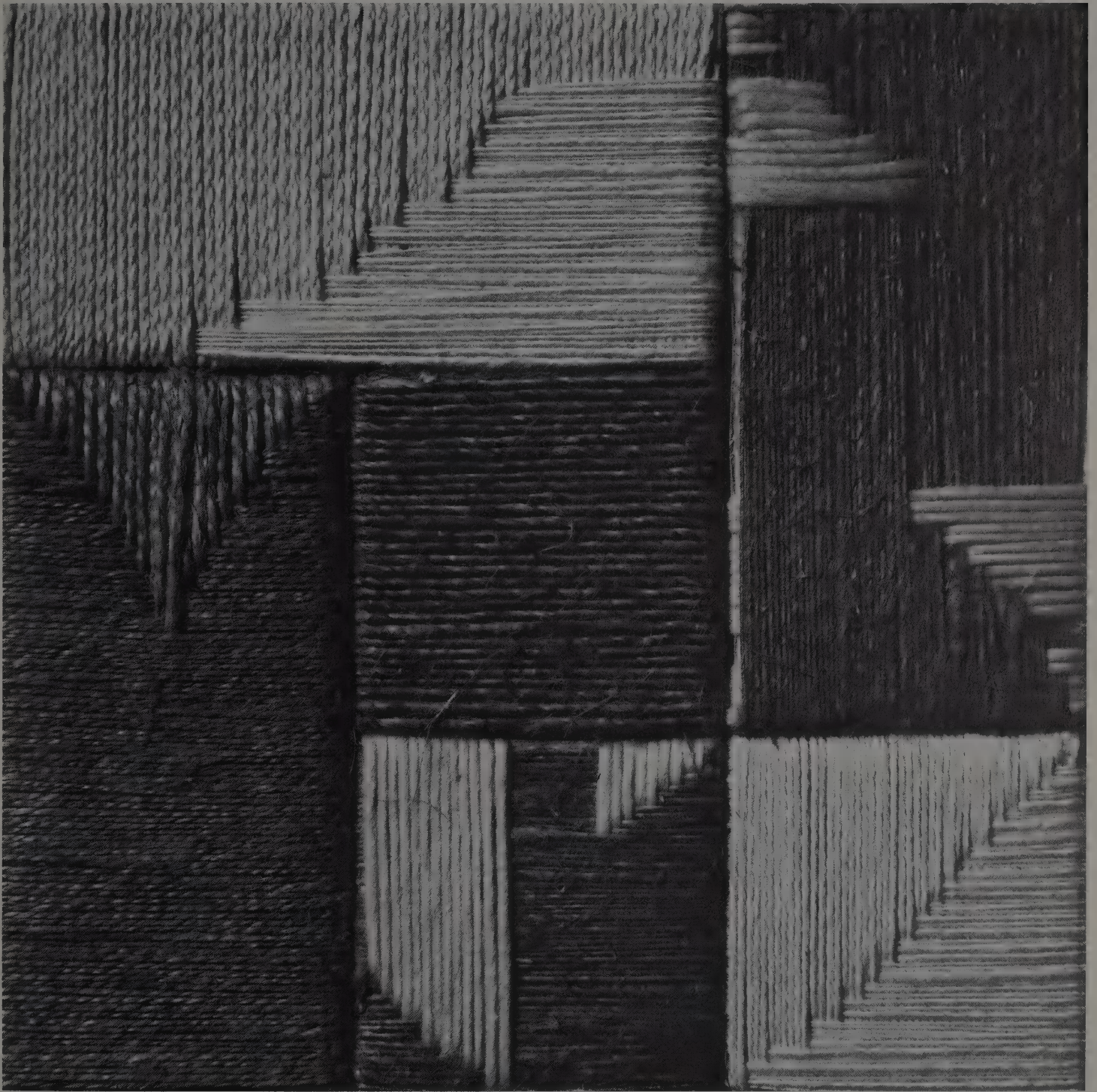
Students at work with an abundance of available material.



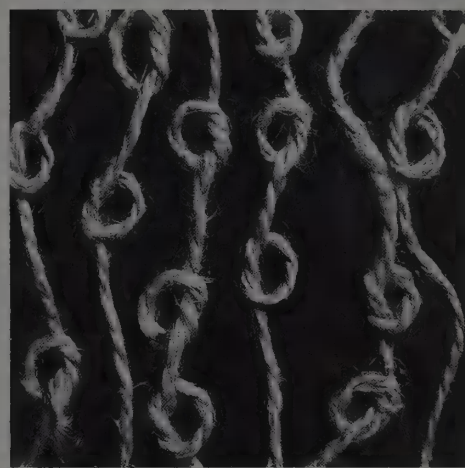
This progressively organized composition was achieved by layering different dark, natural-colored material through horizontal-vertical parallel-wrapping.

The three examples below exhibit parallel, diagonal, crossed, flat-relief, layered, and single-thread structures.





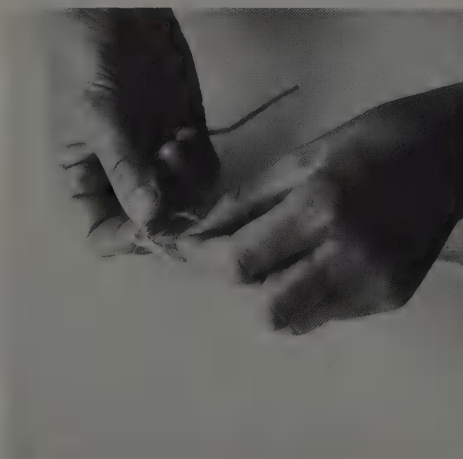
Many free, rhythmically organized, textured elements are assembled into a single composition by wrapping two threads in two directions. Different light-dark values and thicknesses of natural-colored thread are used.



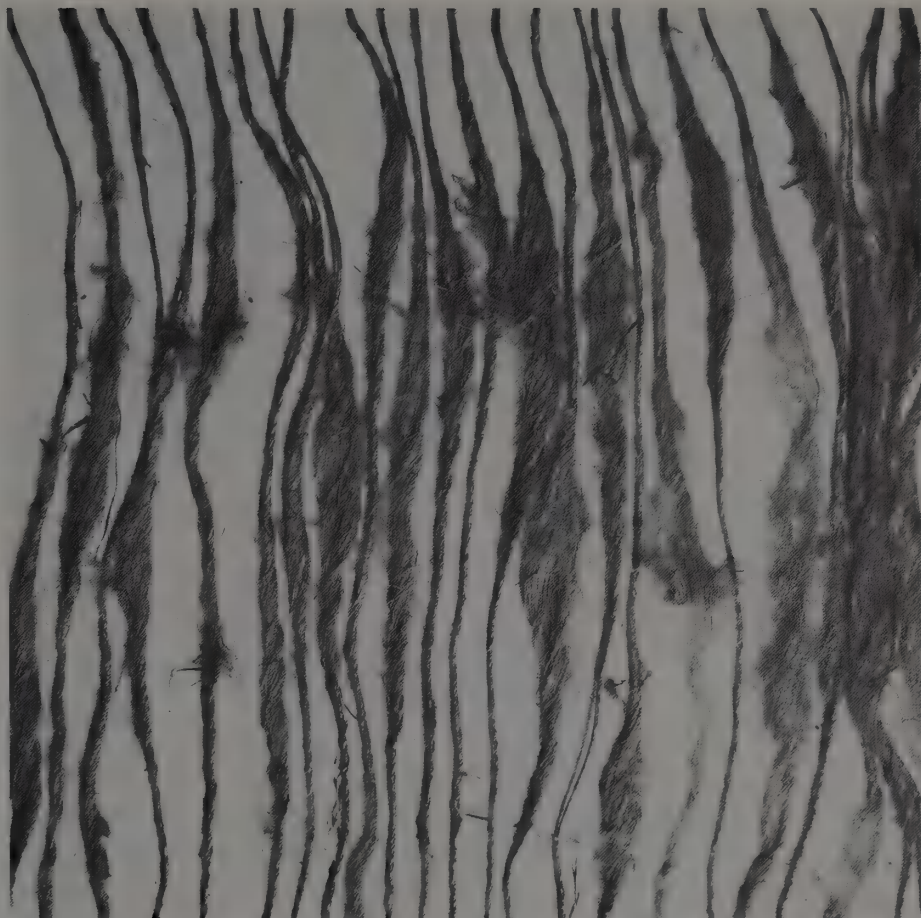
In contrast to the preceding exercises, in which the materials were used unchanged, here the structure of the thread is partially changed. In individual studies various techniques are discovered (tightening, untwisting, knotting, spinning, tearing, cutting, and unraveling). Needles, knives, scissors, and other simple tools are used. Organized compositions are structured with discovered formal elements and rhythmically textured surfaces. The examples here and on the following page show the results with natural-colored materials.

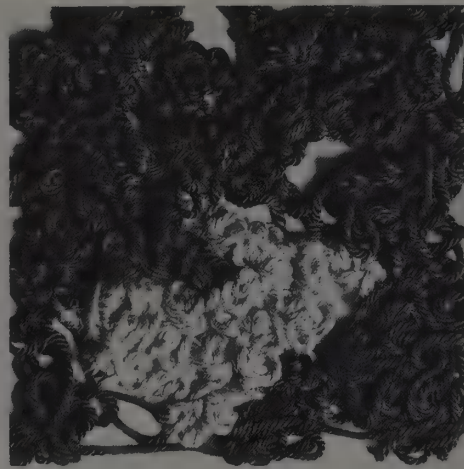
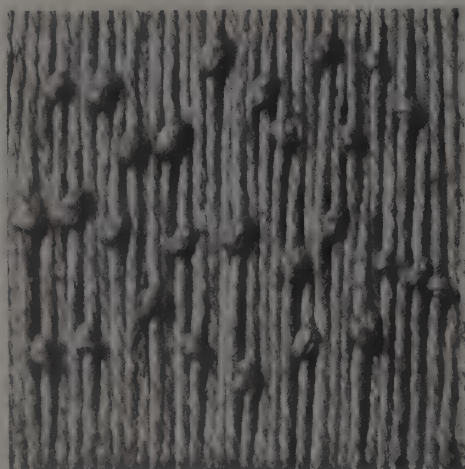
The above studies are produced with cutting-knotting, knotting, unraveling-free looping, partially untwisting, and various looping techniques.

From left to right, the three photographs document simple working techniques, such as knotting, untwisting, cutting and tearing.

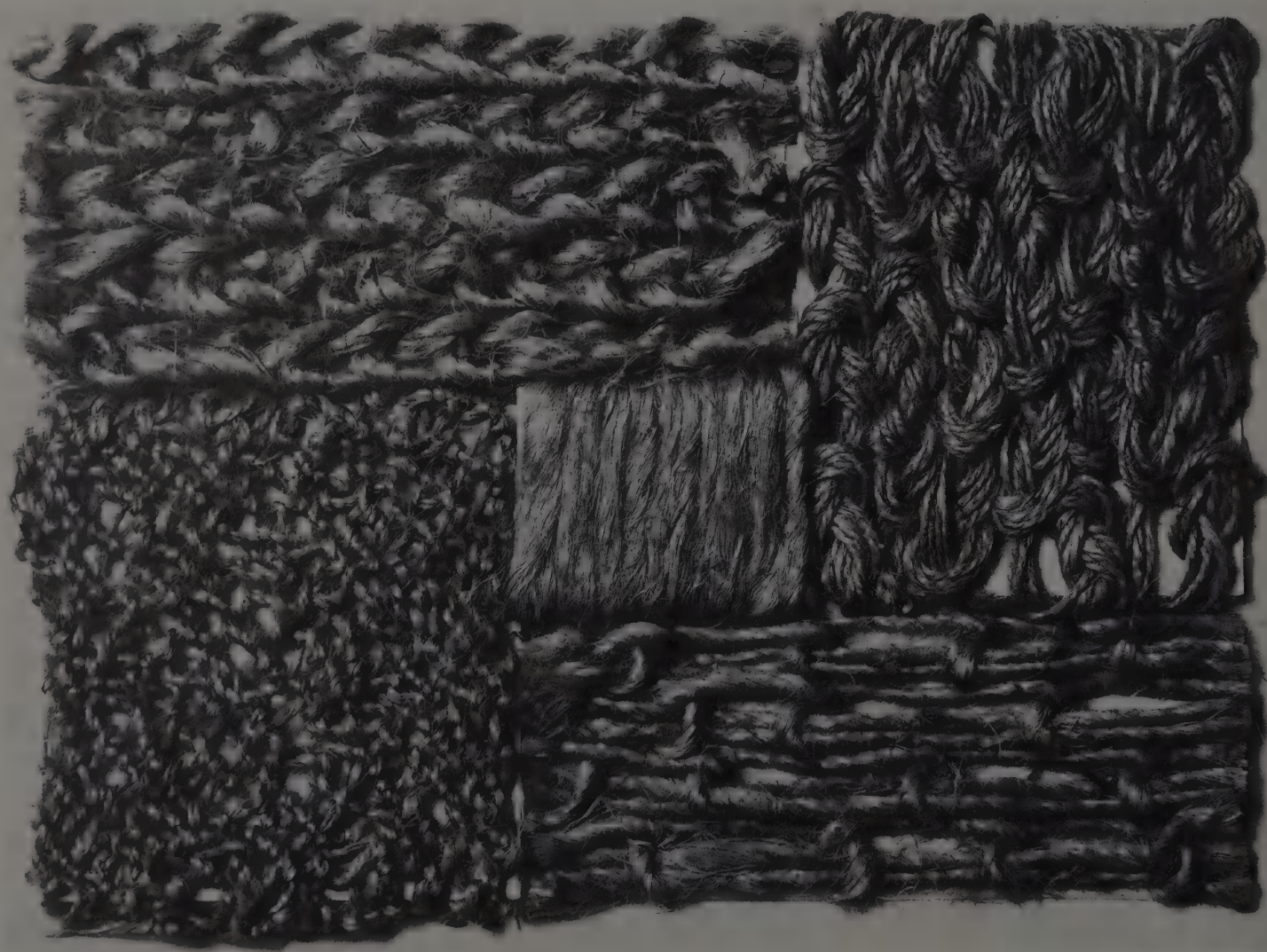


Above right, the thread is partially unraveled, untwisted and scraped with the needle; below, in contrast, the thread is joined into bundles with various knotting techniques. Single elements and empty spaces are worked into an interesting unity in both examples.





The above textures are produced by gluing worked threads to cardboard squares. They are preliminary studies for the composition, below, of different sizes, textured surfaces, and thread bindings.



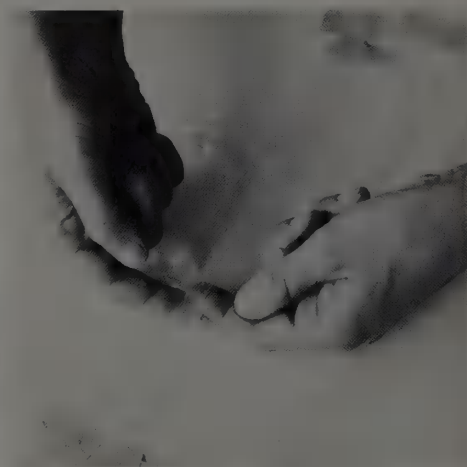


Different textiles and other materials are worked with simple braiding techniques; mostly, thread into bands and surfaces. These are organized into textured surfaces with and without open spaces or through incorporating open spaces and branching the bands or threads, crossing-uniting, and again braiding into surfaces. The color selection is limited to one or two areas. In advanced exercises the students work with techniques requiring two and three braiding directions.

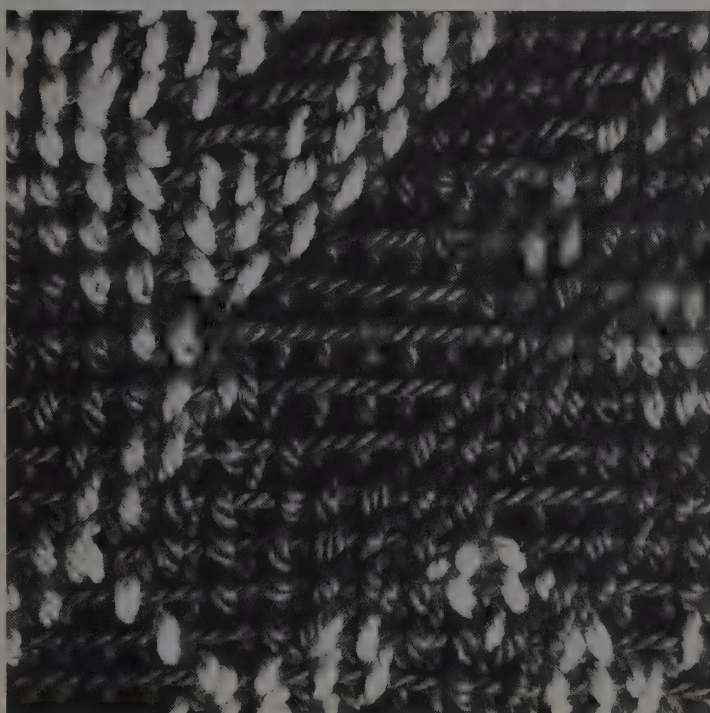
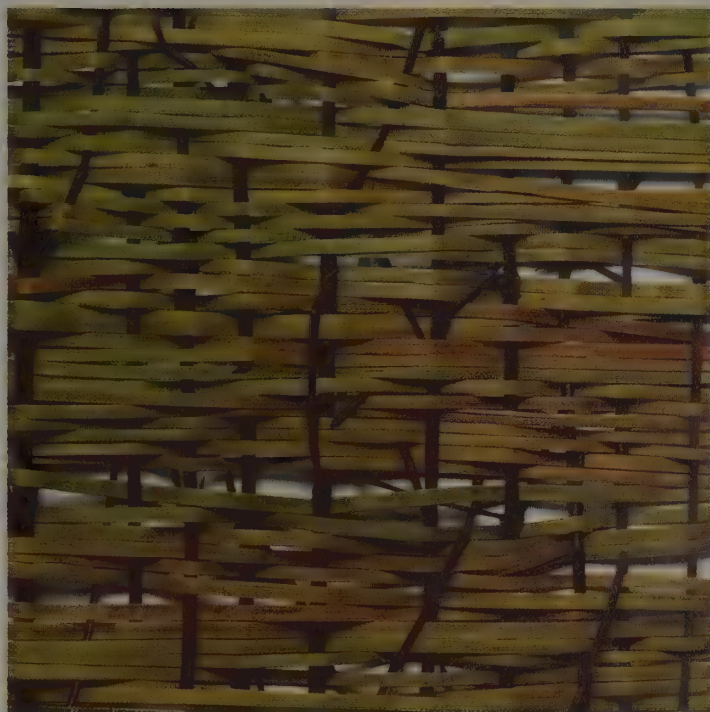
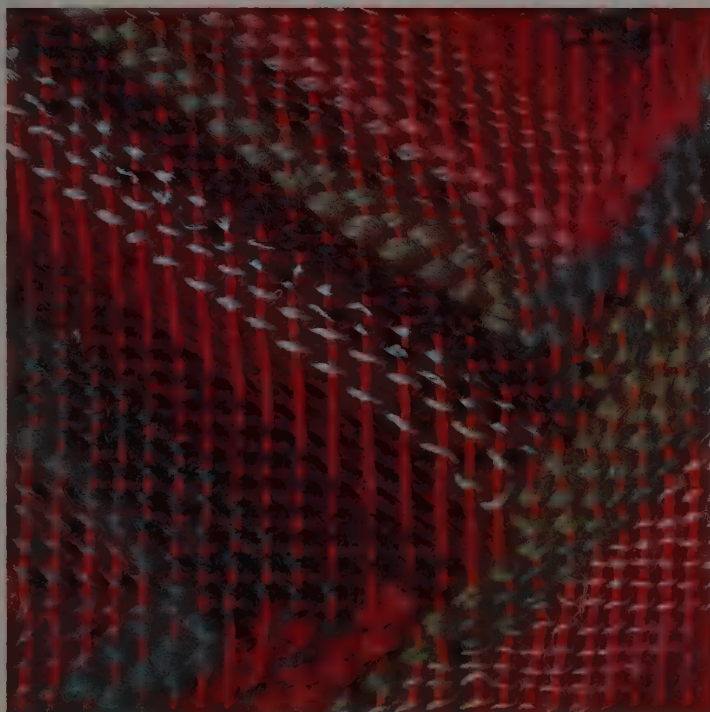
In the following two examples various types of threads are braided and formed into surfaces. Open spaces and branching bands allow crossing and penetration.



A broad, rhythmically composed texture is formed with open spaces by branching and rejoining the different band elements.

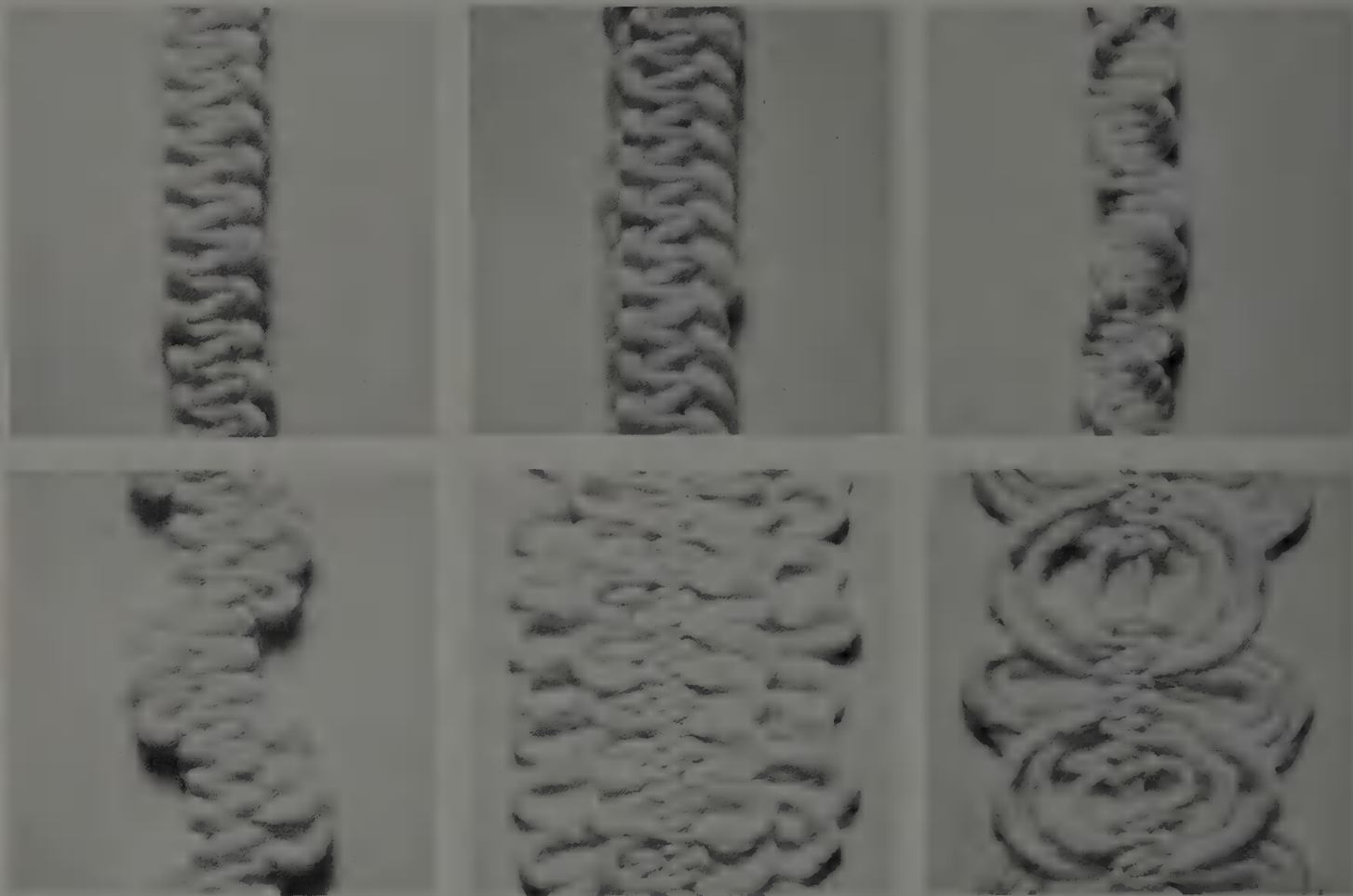


The photographs show, from top to bottom; band braiding with opened and rejoined parts; braiding from three directions at a changeable angle (90° and 45°); braiding bands and strips of plastic film with fixed and movable thread systems.



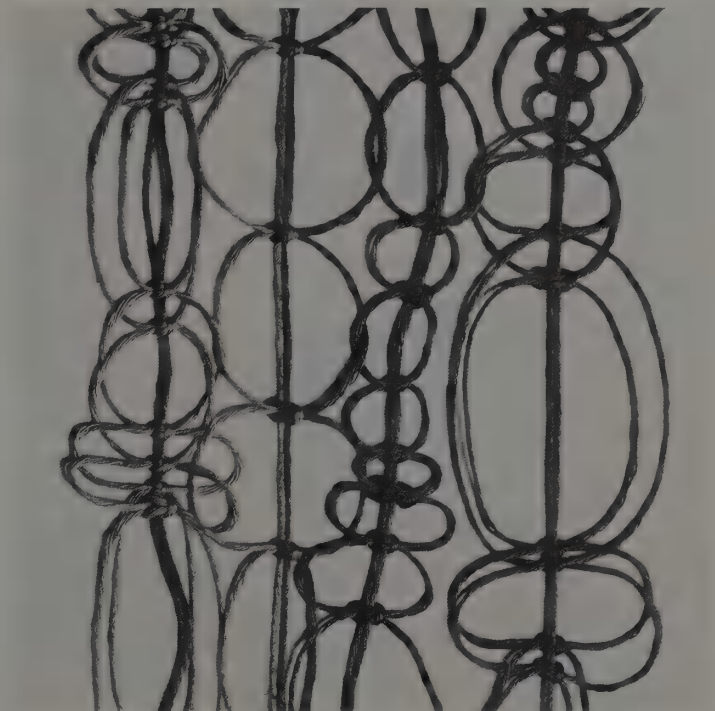
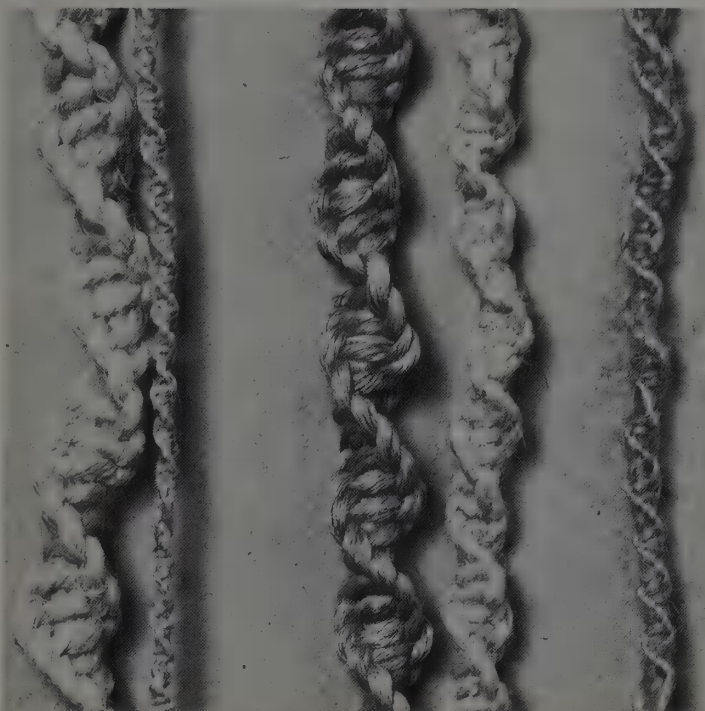
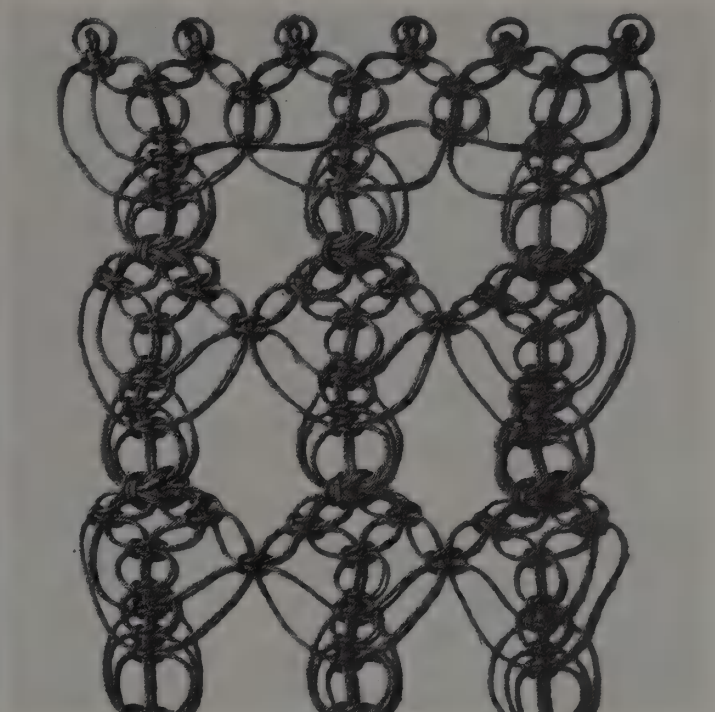
Braiding from three directions: a 45° angle, instead of 60° , allows registration in two directions.

Shown are two examples of braiding nontextile materials: above, plant elements; below, partially worked strips of plastic.



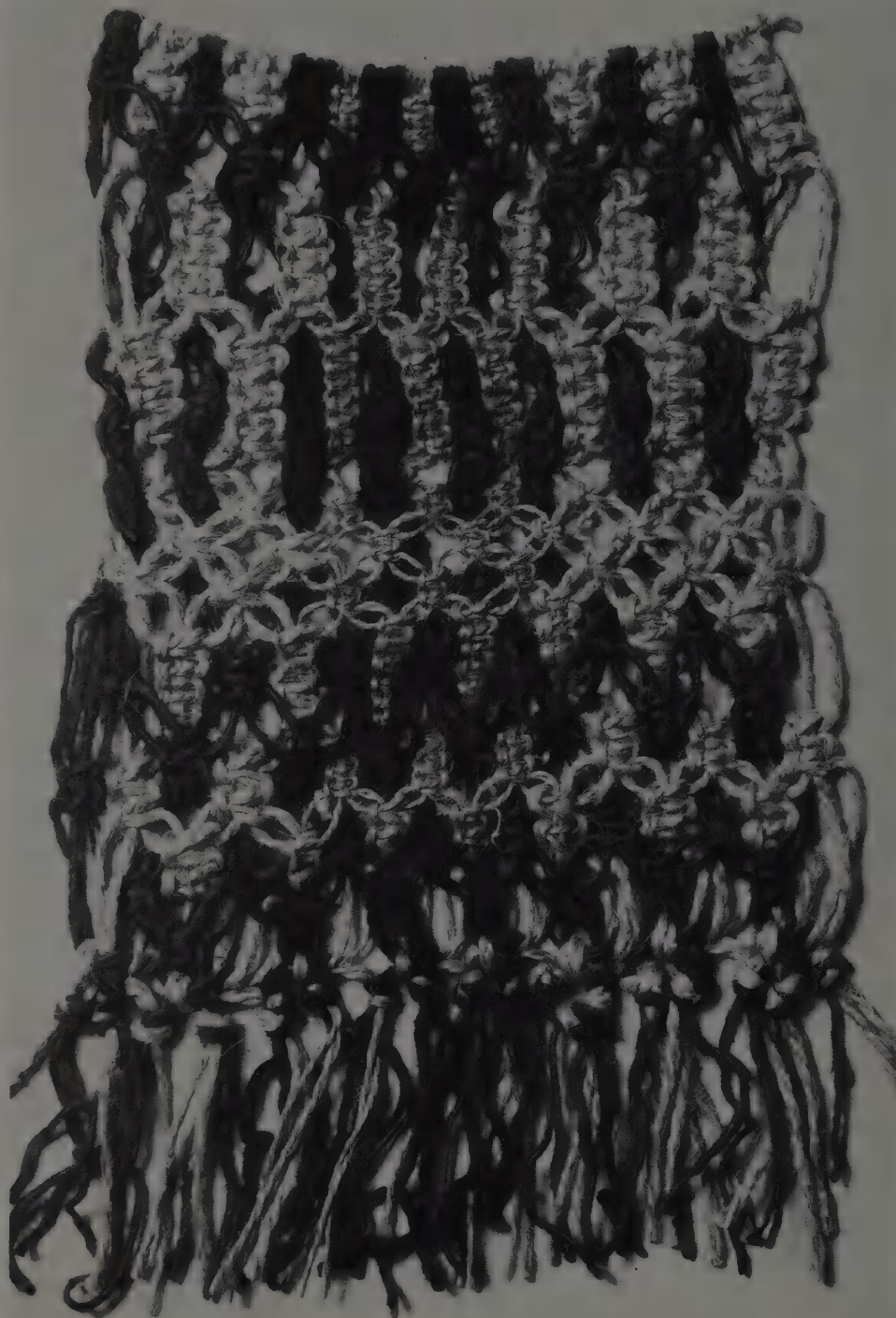
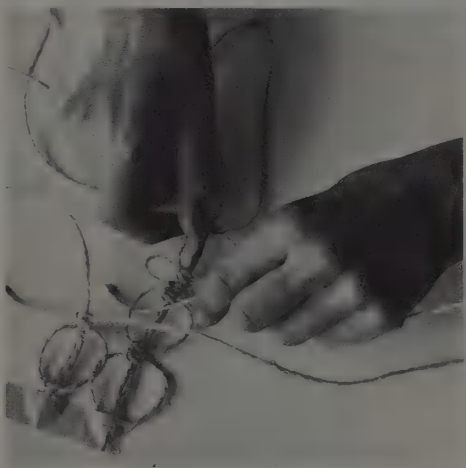
In the following exercises elementary knotting techniques are examined with various materials. They are independent from decorative, usable articles, especially in the well-known macrame technique. The subtle knotting formations develop manual dexterity. The resulting formal elements are organized into a composition or joined into a netlike surface.

The above studies show formal elements created with knotting techniques and partially worked with more than two thread pairs.



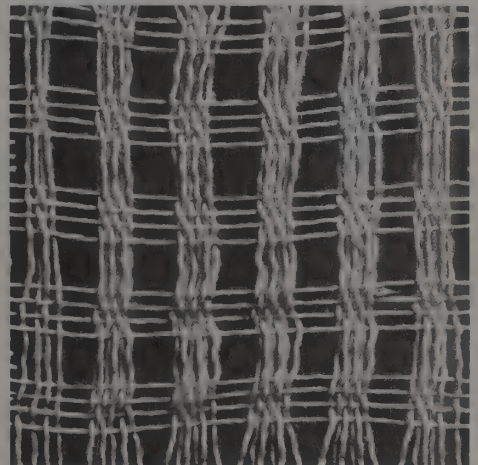
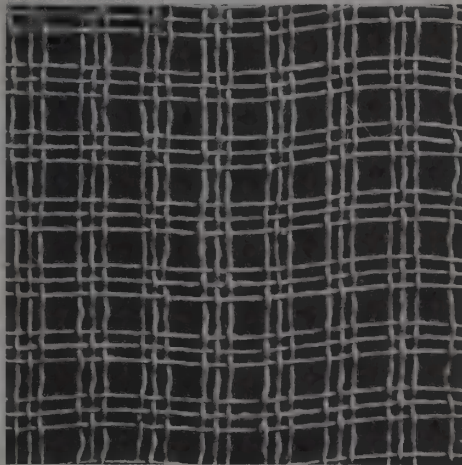
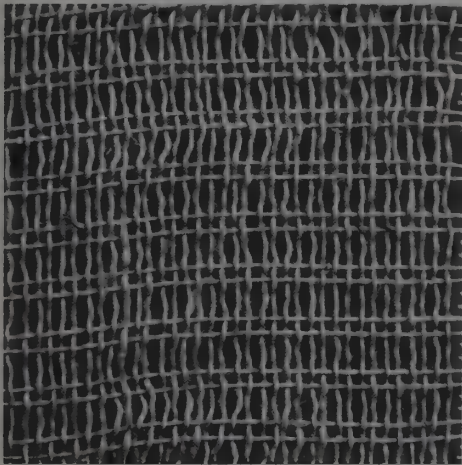
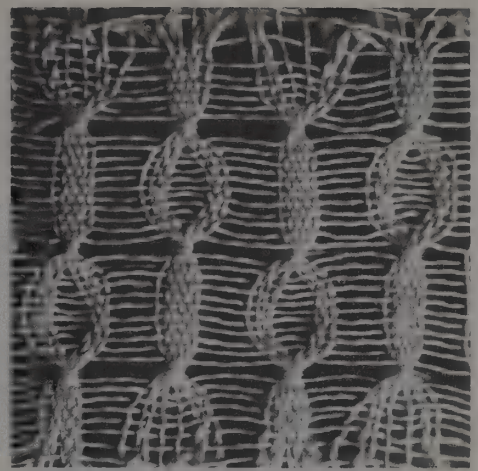
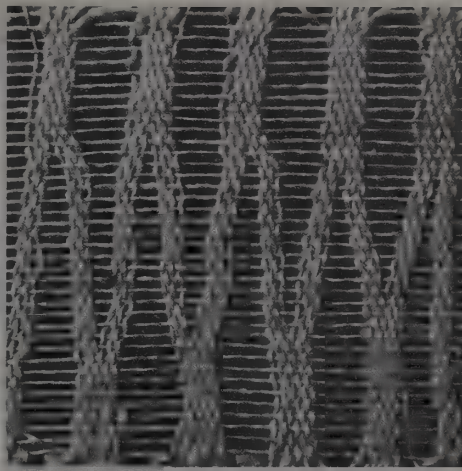
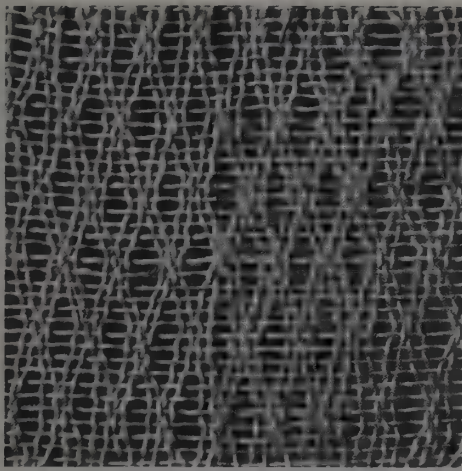
Two band compositions are shown here: various materials are worked with the same knotting technique.

Two examples of netlike surfaces are shown: above, standardized knotting; below, simple linking of irregular elements on thread supports.



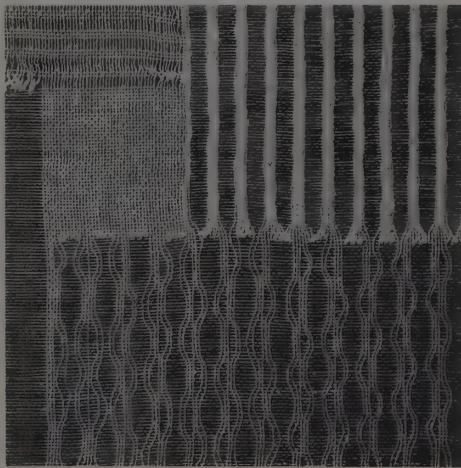
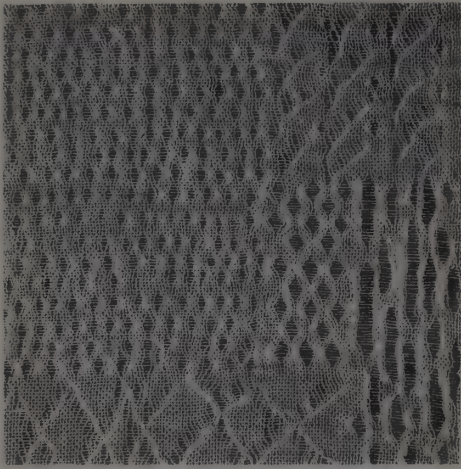
The three photographs show how knotted elements on thread supports are linked into a net technique.

Two penetrating knotted nets are made with contrasting light and dark materials.

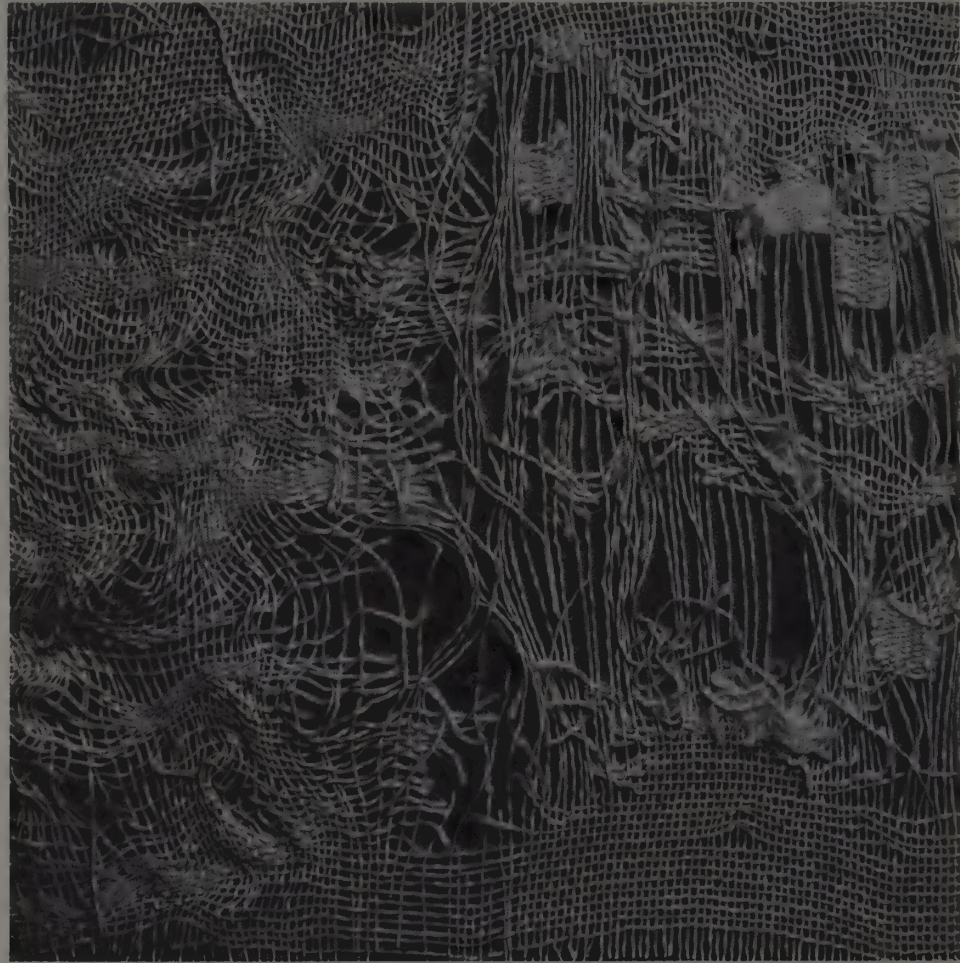


Elementary structure variations are discovered with existing textile fabrics (sackcloth or gauze) and simple tools (knives, scissors, and nails). Textures are modified through shifting, partial or complete removal of threads, reuse of the threads, tearing, cutting, folding, and drawing the woven surface together. Different combinations from these manipulations are investigated in many single studies and worked into compositions.

These studies show changes in the textile structure: top row, shifting the threads; bottom row, removing the threads and an extracting-shifting combination.

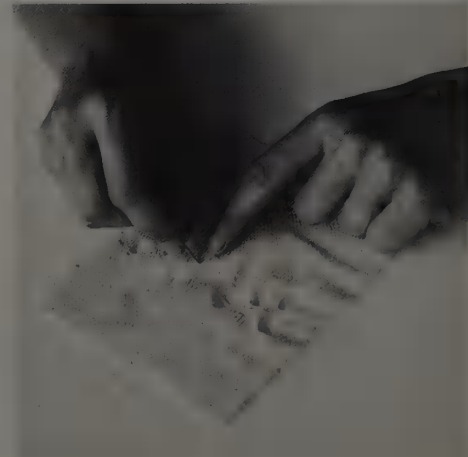
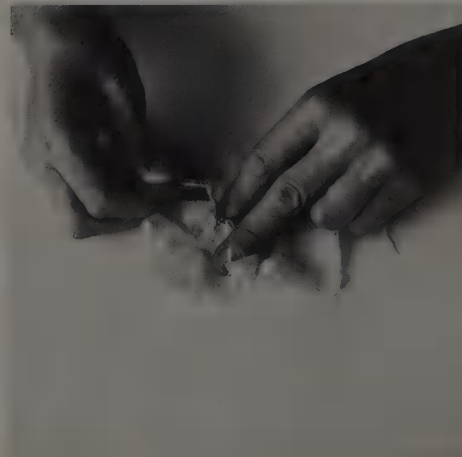


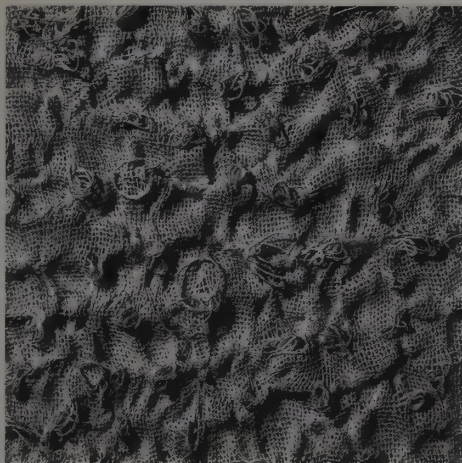
Two horizontal-vertical compositions are created by changing the texture of the original fabric.



In this organic composition, based on a rhythmically free technique, the structure of the fabric was partially fragmented.

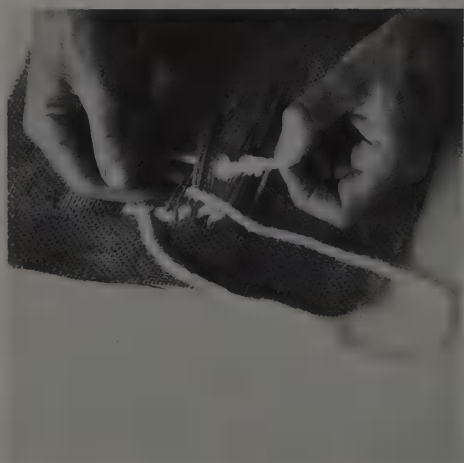
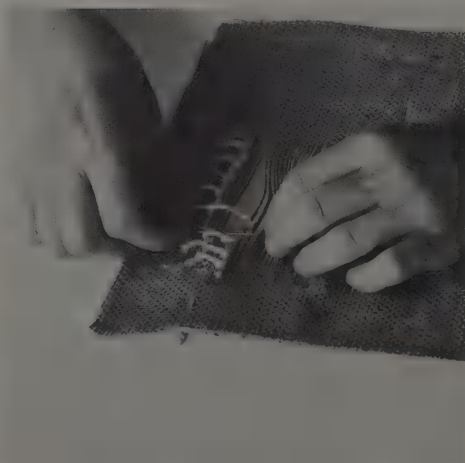
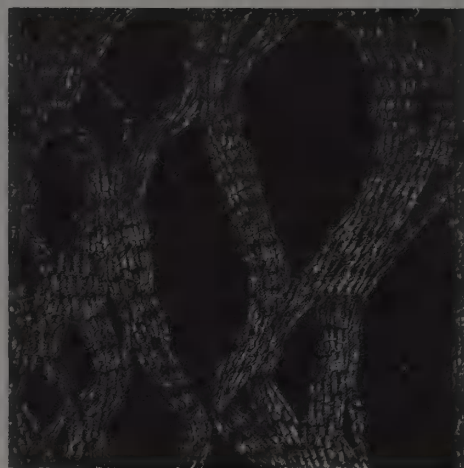
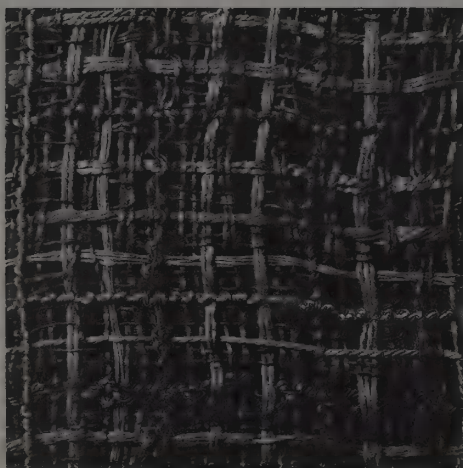
The photographs on these pages show how the structure of a material can be altered with simple tools.





In these three examples the original material is drawn together by partially extracting single threads into relieflike folds.

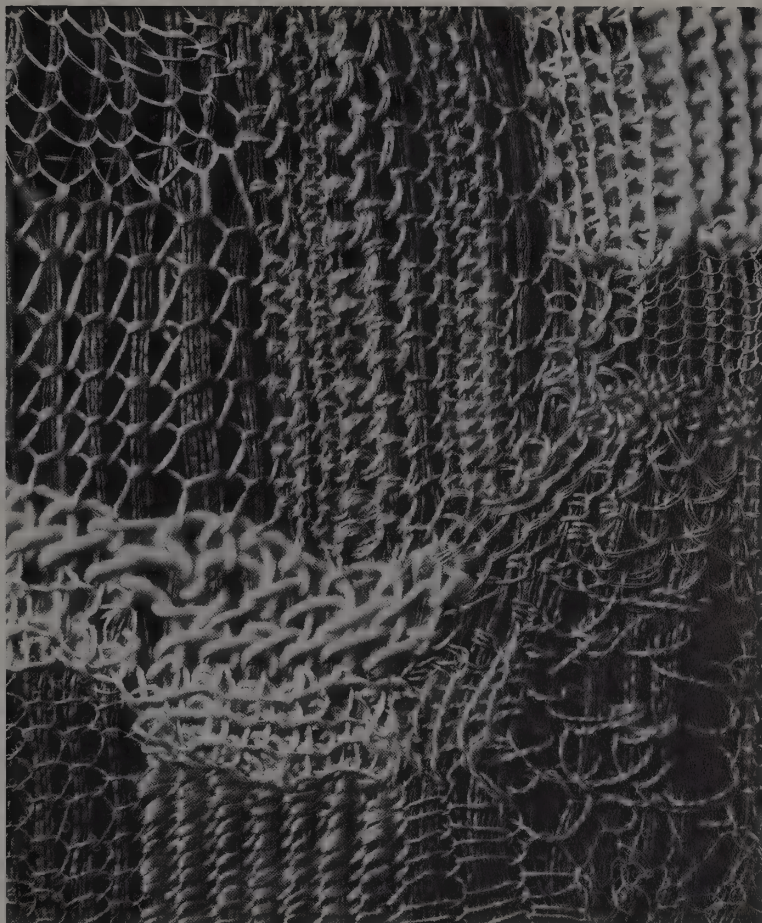




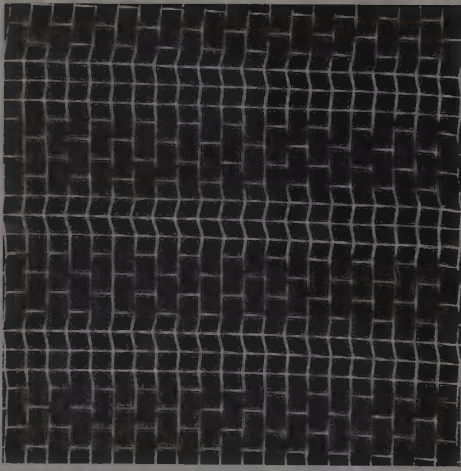
Manipulated structures are further changed by adding different threads in various techniques.

On the left-hand page different natural-colored materials and altered structures characterize an experimental piece with distinct additions through different registration techniques. This and the three studies are preliminary steps for the composition on this page.

In the example above the surface of the various natural-colored materials was created with different densities and quantities of looping. The example below shows sewn thread bundles originating from the burlap support underneath.



The three photographs on the left show different registration techniques: from left to right; loop stitches, weaving, and wrapping thread groups.



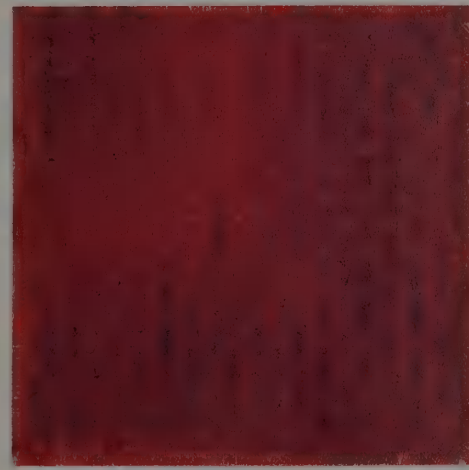
The creative possibilities of traditional embroidery techniques are examined in elementary exercises independent from decorative usable objects. Appropriate support materials are embroidered partially or completely with varying thread qualities and colors. The abundance of materials, colors, and techniques requires limitations in the initial exercises. Fundamentally, the resulting textured surfaces and forms are developed by interrelating elementary embroidery techniques and the actual characteristics of the materials.

The small illustrations show, above, altering a screen net with running stitches and black wool; below, a composition with running stitches and various natural-colored materials on burlap.

This free monochromatic composition exhibits loose backstitching in white wool on linen fabric.



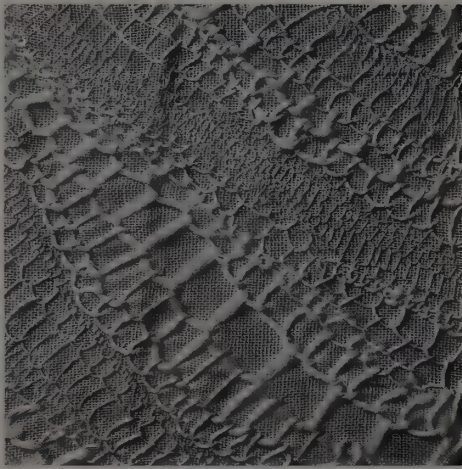
Horizontal-vertical composition in satin stitch in the same direction and various thread material of a selected color area.



The small satin-stitch examples show, above, a rhythmical composition structured in diagonals; below, a checkered structure layered in different densities.

The three photographs show, from left to right, different stitching techniques on net: running stitch, backstitch, and free stitching.



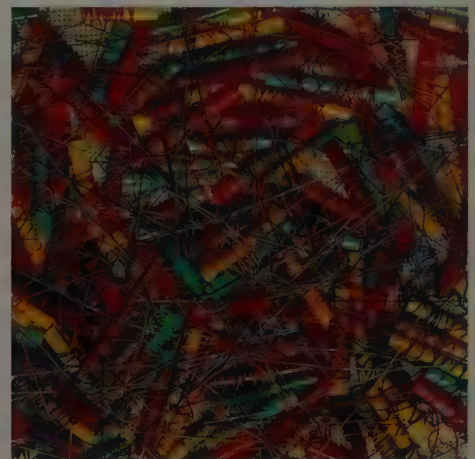
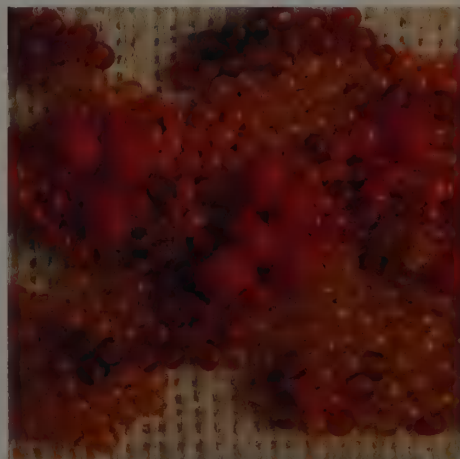


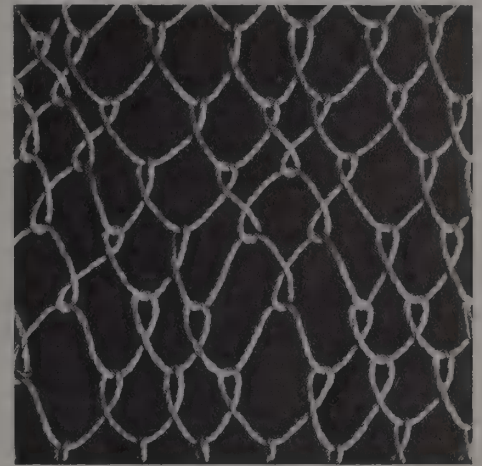
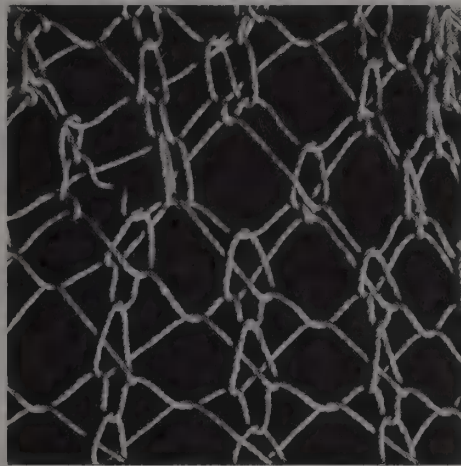
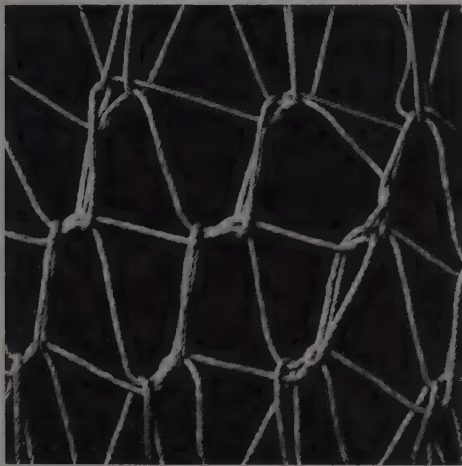
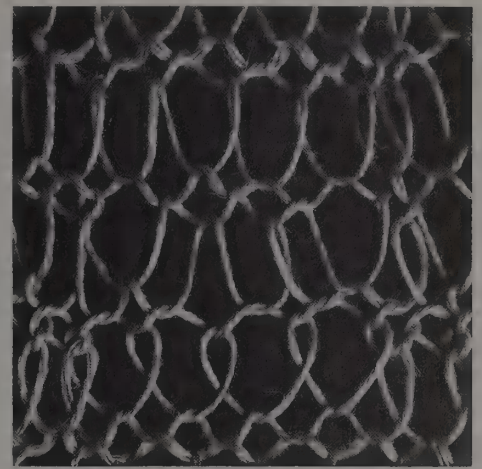
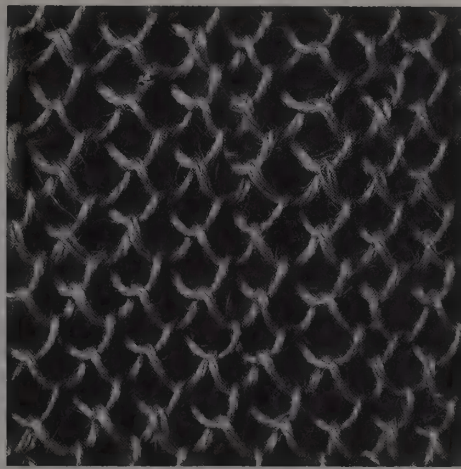
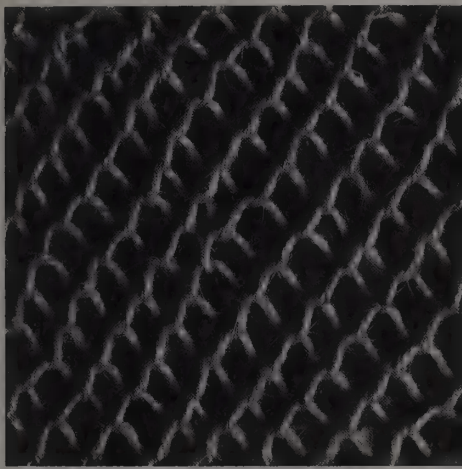
These examples of white embroidery show, above, a structured surface with looped rows of different materials; below, differentiated groupings of radiating satin stitches.



This composition contains many different surface densities, material qualities, and colorful embroidery stitches.

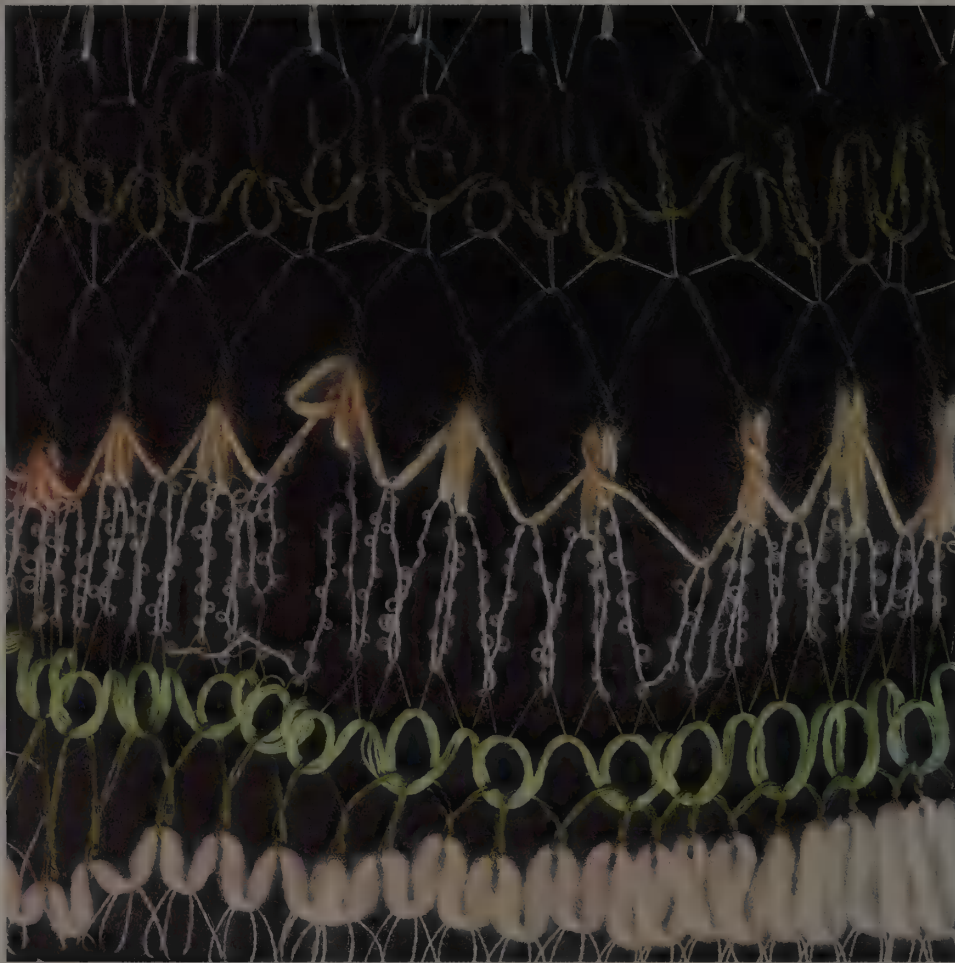
In the examples below nontextile materials (glass beads and plastic rods) are appliquéd over textile surfaces.



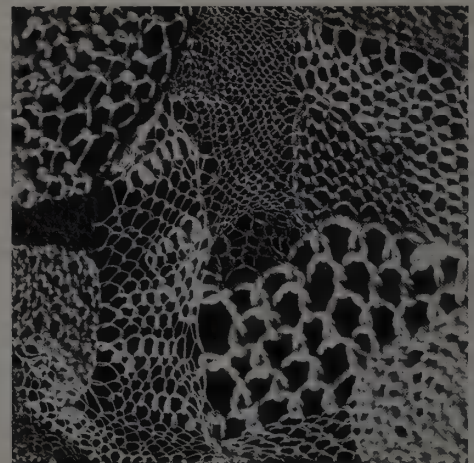
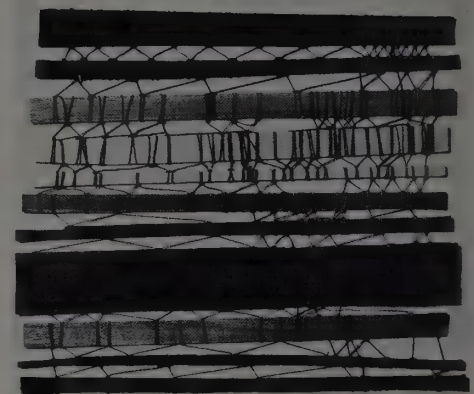
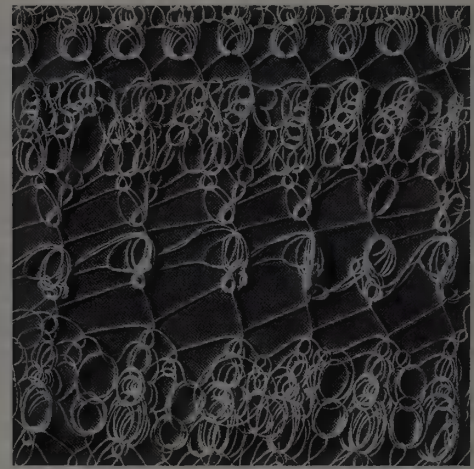


Textile structures can be developed by using linking and looping techniques on stretchable mesh fabrics. Many creative possibilities can be found by combining and interrelating techniques, materials, and colors, and by adding passive elements, such as paper strips, drinking straws, and threads.

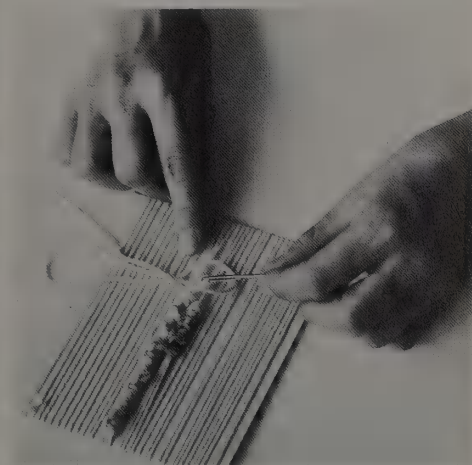
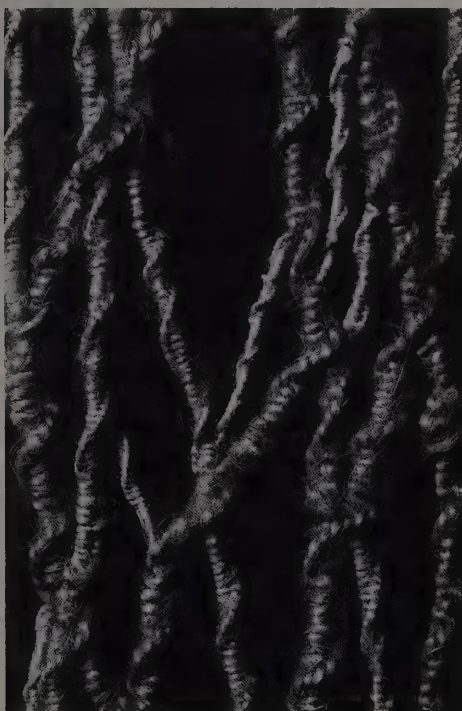
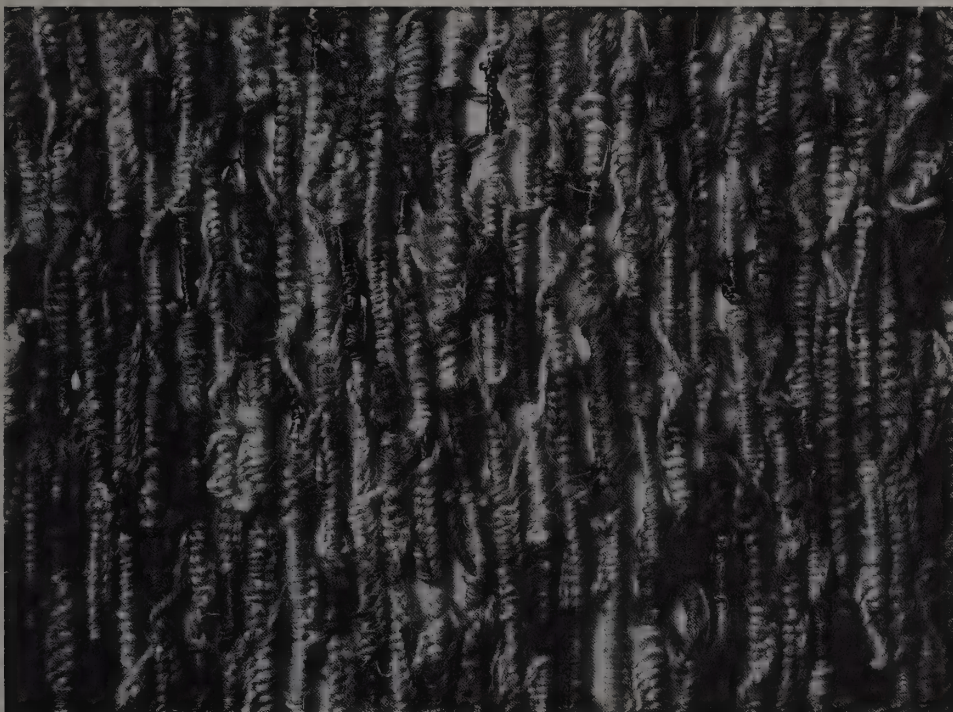
The single studies exhibit linking and looping techniques: above, the simple linking of equally spaced elements; on the right, unequally spaced elements; below, discovered variations on linking and looping.



This rhythmic, colorful composition consists of variations on linking and looping in different materials.



The three examples show different ways to organize compositions: above, many densities are formed by varying the looping technique with ■ single material; center, veneered strips act as a passive foundation element for looped threads; below, different textures are created by looping numerous materials.



These carefully composed examples were achieved by looping and wrapping different materials over a foundation.

Different techniques are shown: from top to bottom: linking and looping around passive support elements, free looping in rows, and wrapping warp threads.



In the following exercises simple fabrics are woven on wooden frames, using different weaving and weft-wrapping (soumak) techniques. The textures develop from the technique and the raw material. They are not woven from patterns.

These pieces were done in slit-tapestry weaving (kilim): above left, differentiated open spaces in a single material; below left, a horizontal-vertical composition in different materials and without open spaces; above right, a contrasting composition in many materials and structures and with few openings.

The photographs show the abundance of materials at the students' disposal.

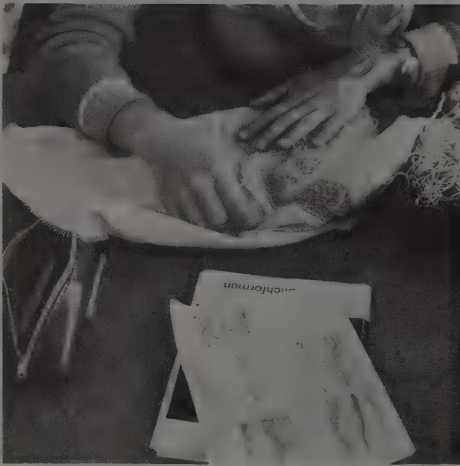


Gobelin tapestry weaving was used to create a rhythmically articulated composition of contrasting materials.



Both of the above examples show twill weave with different warp and weft colors; below is a multitextured, woven surface with a fringe technique.



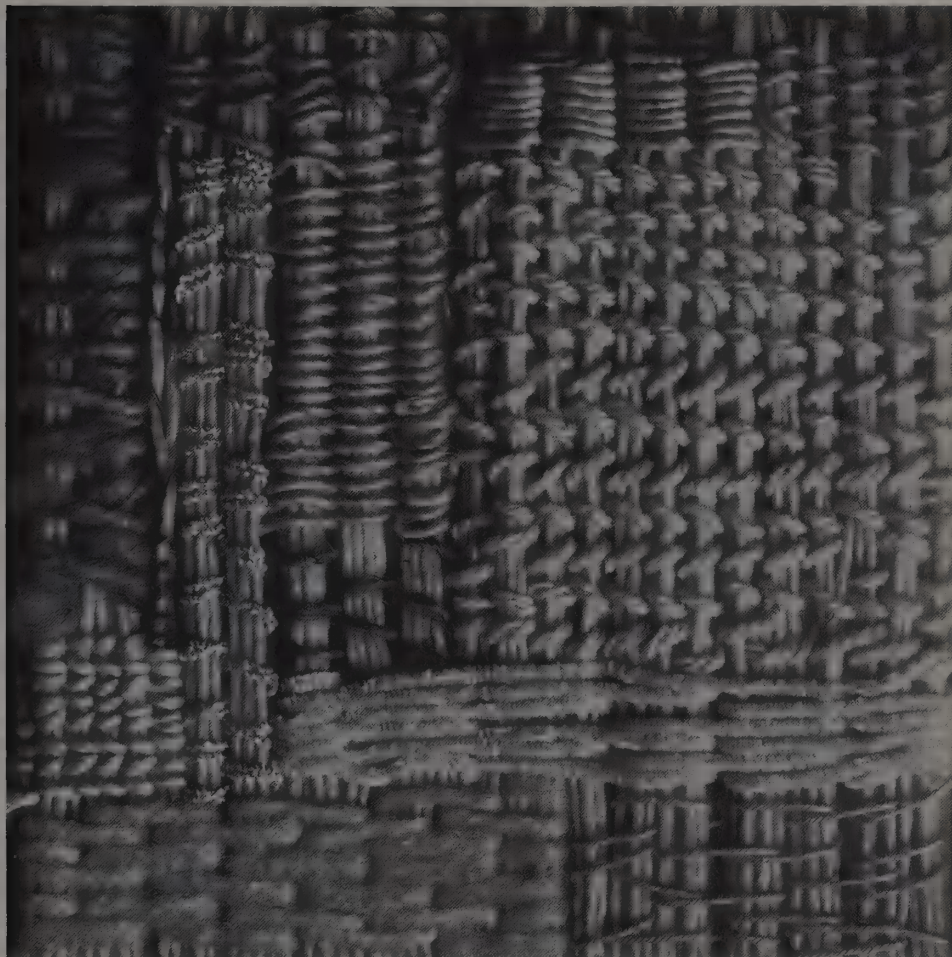


The three photographs show students selecting material and working.

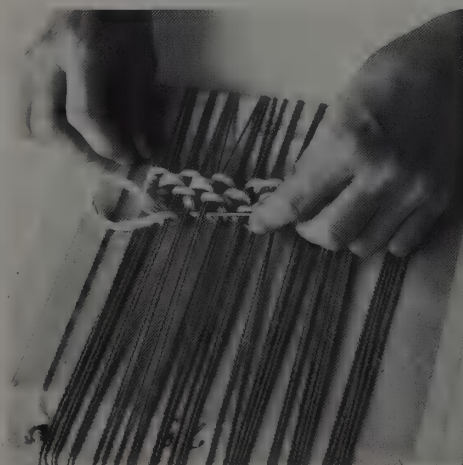


The example above shows a diamond twill woven in dark-light variations of a single color material without knowledge of weave drafting.

The following photographs show different soumak (weft-wrapping) techniques.



Three examples of soumak utilize different stitch lengths: above left, loosely spun wick yarn; below left, diverse materials; right, contrasting materials and a visible passive warp.





Free soumak is created by varying the weft-wrapping order, adding open spaces, and partially exposing the warp.

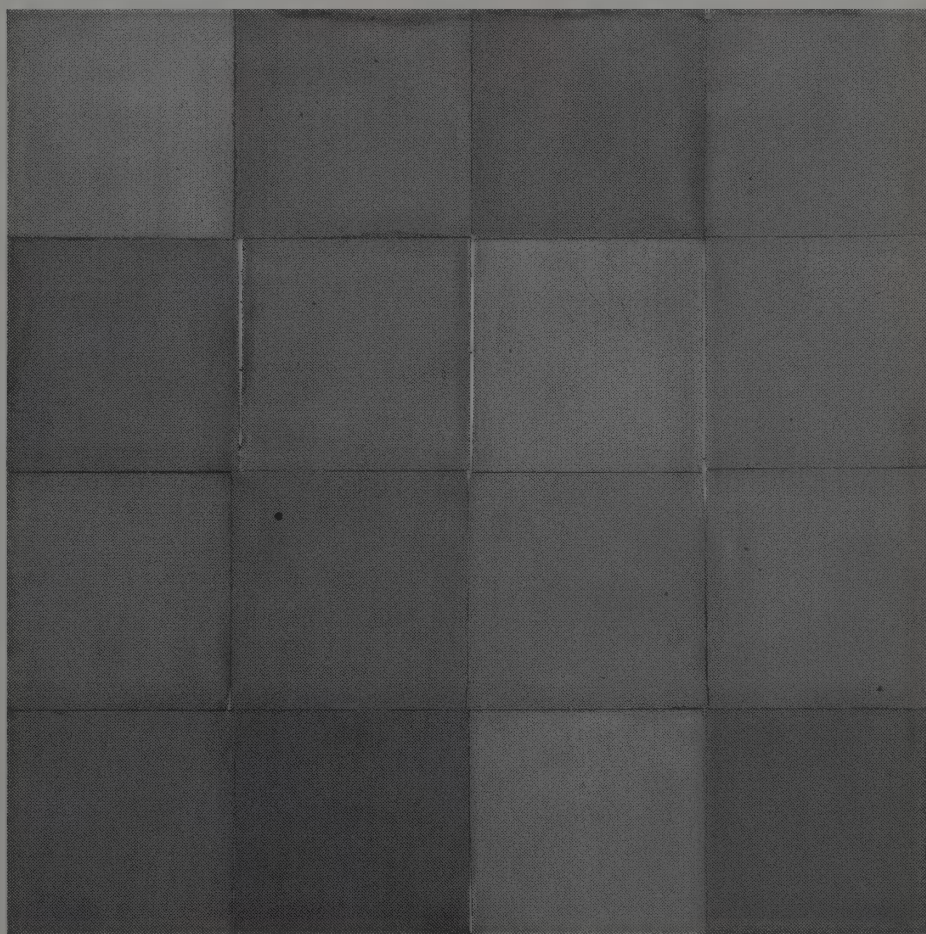
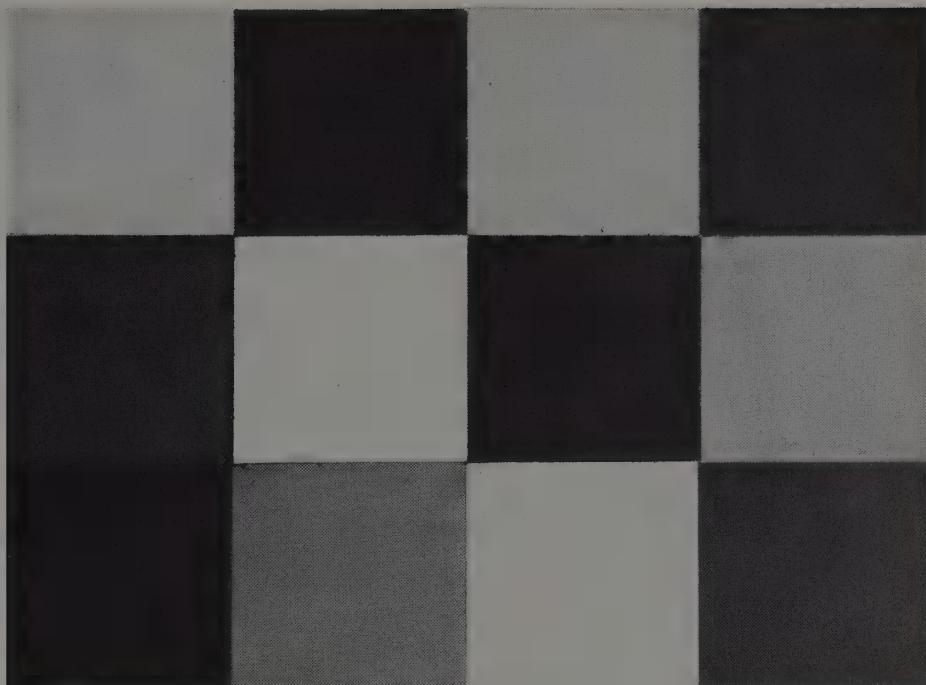
Color is a subjective, artistic means of expression, and its creative manipulation with simple tools is the basis of this course. The aptitude for color and its expression is stimulated and developed by technical knowledge of color as material: opaque paint (poster, gouache, tempera), aquarelle, and printed or colored paper (collage) applied directly to a prepared surface. In many nonobjective exercise possibilities of statement and formulation are discovered through unprejudiced, playful experimentation.

The course is structured with these concepts: color consistency (watery, dry, glossy, opaque, impasto), means of expression (brushes, treatments, painting surfaces), formal qualities (shape, line, point, texture), color qualities (bright, dull, warm, cool, tone), composition (many-few, large-small, long-short, light-dark), and combinations of the preceding sections.

In order to control the many variables, new limitations are set for each exercise by both teachers and students on the kind and number of colors, forms, techniques, compositions, themes, and statements that can be applied. Advanced students can set their own limitations. Evaluation of conscious, nonobjective, expressive, and intuitive solutions is based on comparing the many variations produced by the students. Independence and sensitivity to self-criticism are developed with intense, increasing involvement in the course.

In the first exercises opaque techniques are used with tempera (gouache or poster paint), and elementary creative possibilities are expressively worked. At the beginning students learn to apply the paint correctly to a ground divided into squares. Skillful application involves the following prerequisites: the relationship of the paint to the diluting agent (water) produces the opacity of the color; the constituents of mixed colors must be thoroughly stirred; before applying the paint the quantity must be measured properly; the ground surface must correspond to the nature of the paint; brushes must correspond in quality and size to the consistency of the paint and the prepared surface.

In the examples painted squares are cut out, grouped together, and glued into simple compositions. Above, light and dark colors are contrasted; below, colors of equal value are used.





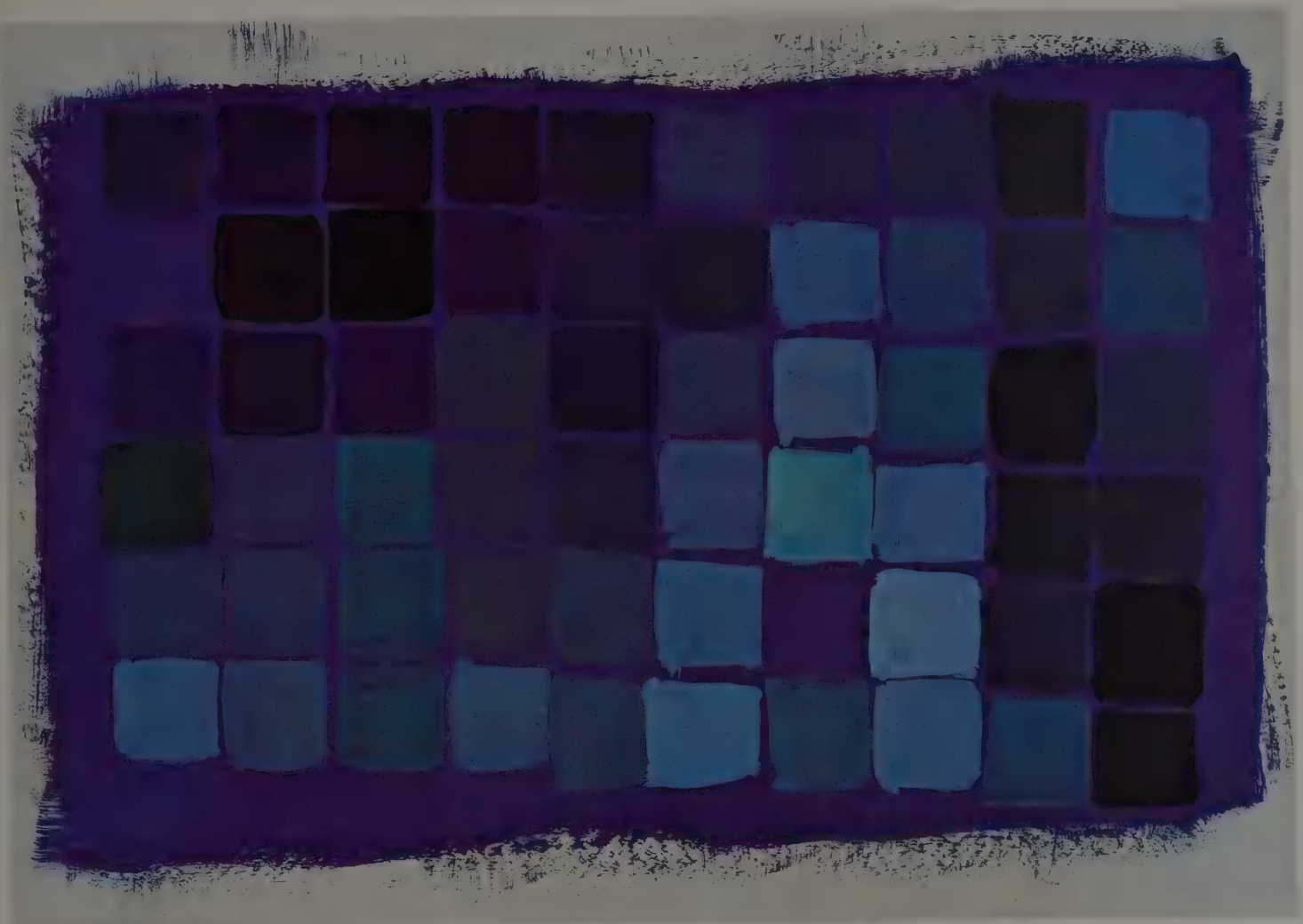
In this composition, composed of square elements, the applied color is diluted to different degrees, producing various opacities.

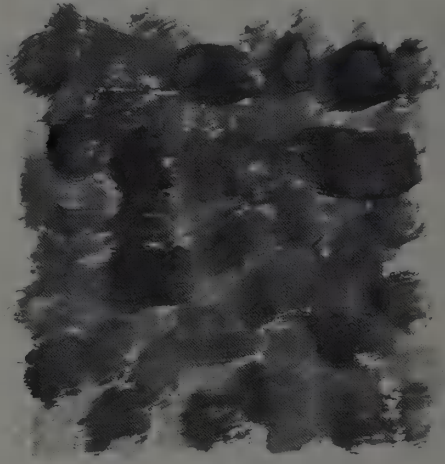
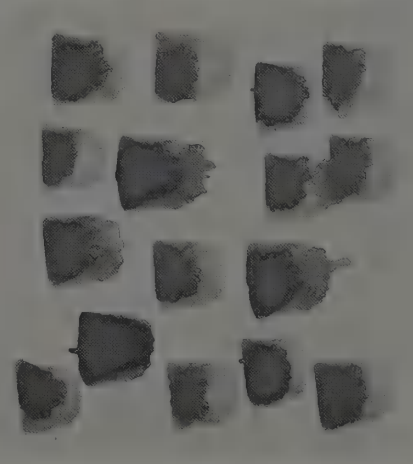
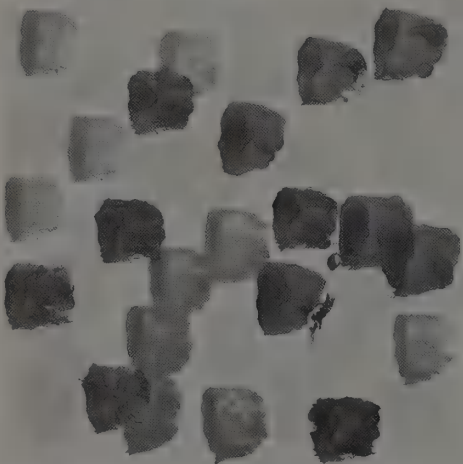
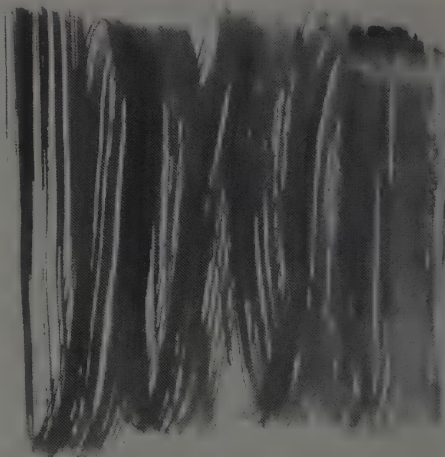




In further exercises differentiations within a single color area are investigated. Opacity is achieved by painting over previously colored areas.

The examples here and on the preceding page show: variations of opaque reds on two different aqueous grounds, differentiated color strokes on a flat, uniform yellow ground, variations on an opaque, flat blue ground.



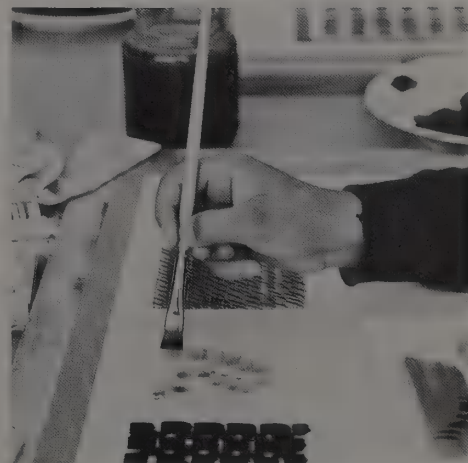
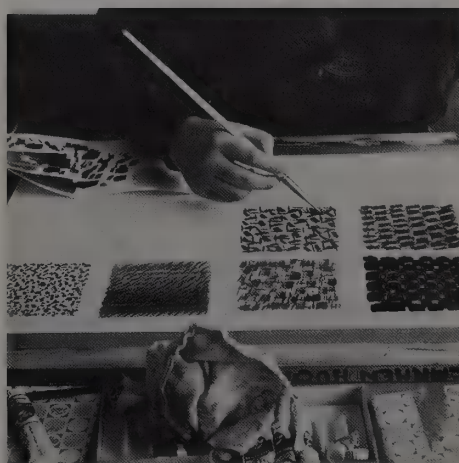
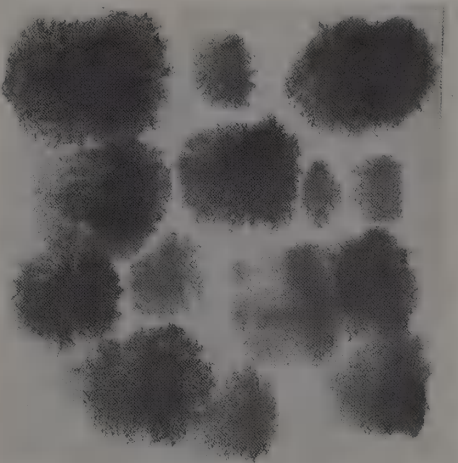
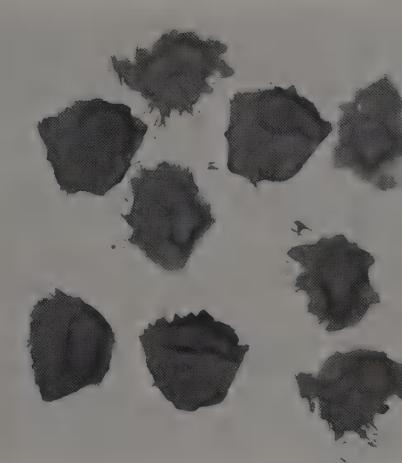
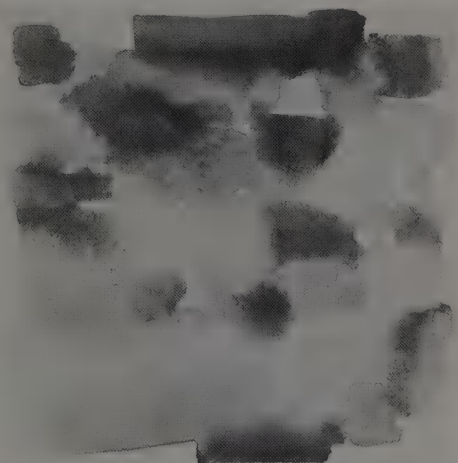
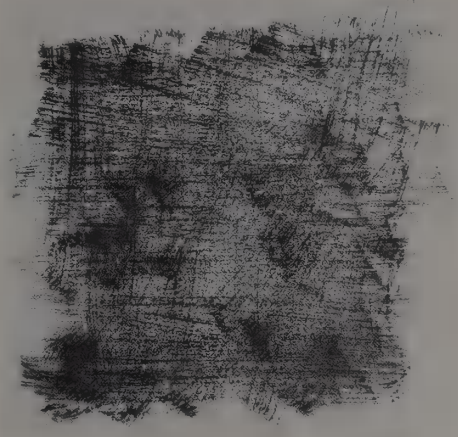


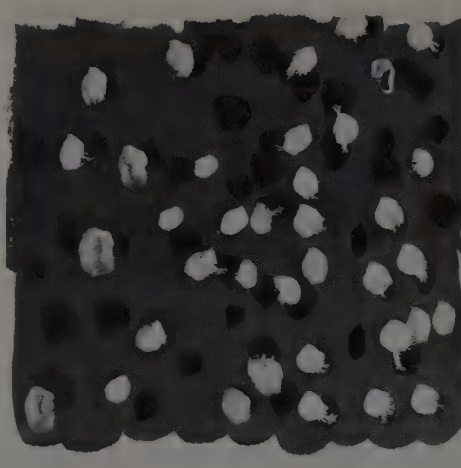
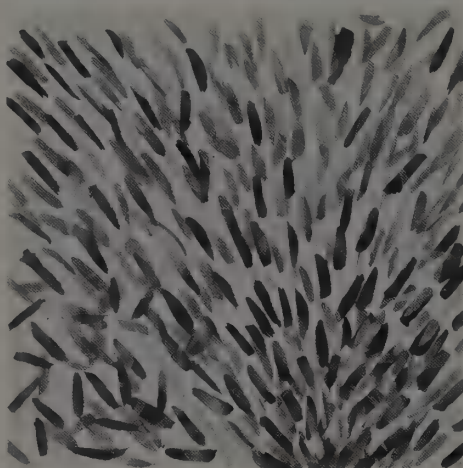
In the following exercises creative possibilities with tempera are investigated. The nature of the ground, color, brushes, and method of application are variable factors that can be playfully combined in numerous ways. The painting process is a sensual, tactile experience; if all the components are spontaneously harmonized, a clear statement results. Free, fluid brushwork is as essential as concentration, clear thinking, and technical control.

The above studies were produced with different brushstrokes, using a flat bristle brush and the respective paint consistency.



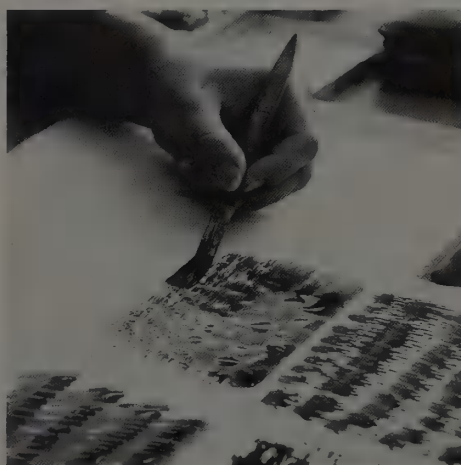
The following photographs show the teacher and students at work in the classroom.

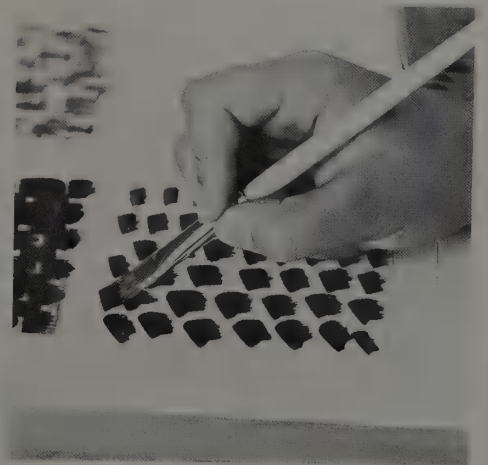
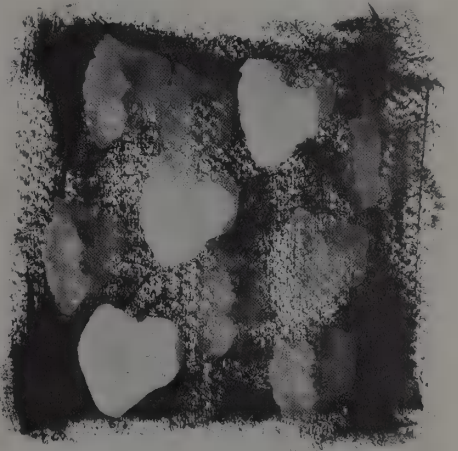
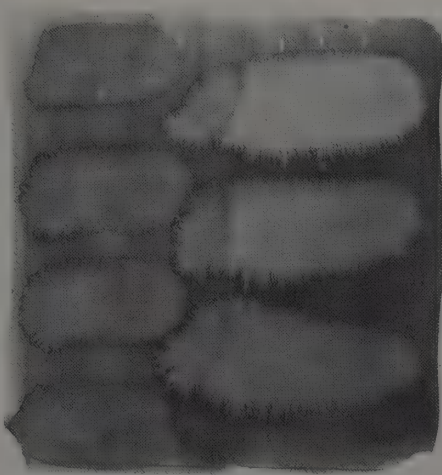




The above examples were done with different brushes and paint consistencies on differently structured ground surfaces. Overlapping textures and variations in color contrast were employed.

The photographs below show how spontaneous brushwork, material, and brush structure directly affect texture.









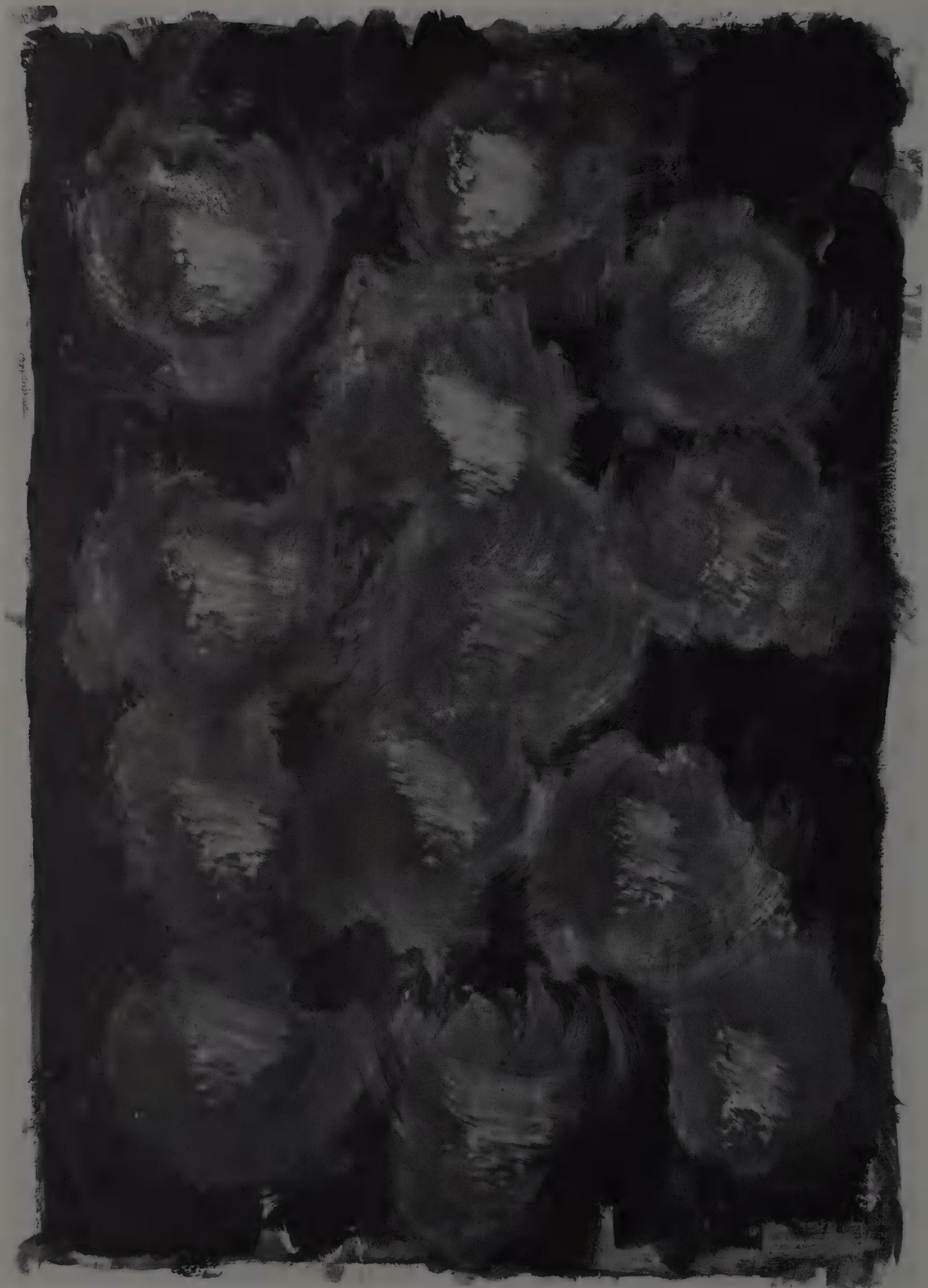
The above photographs show the working method for large-format compositions.



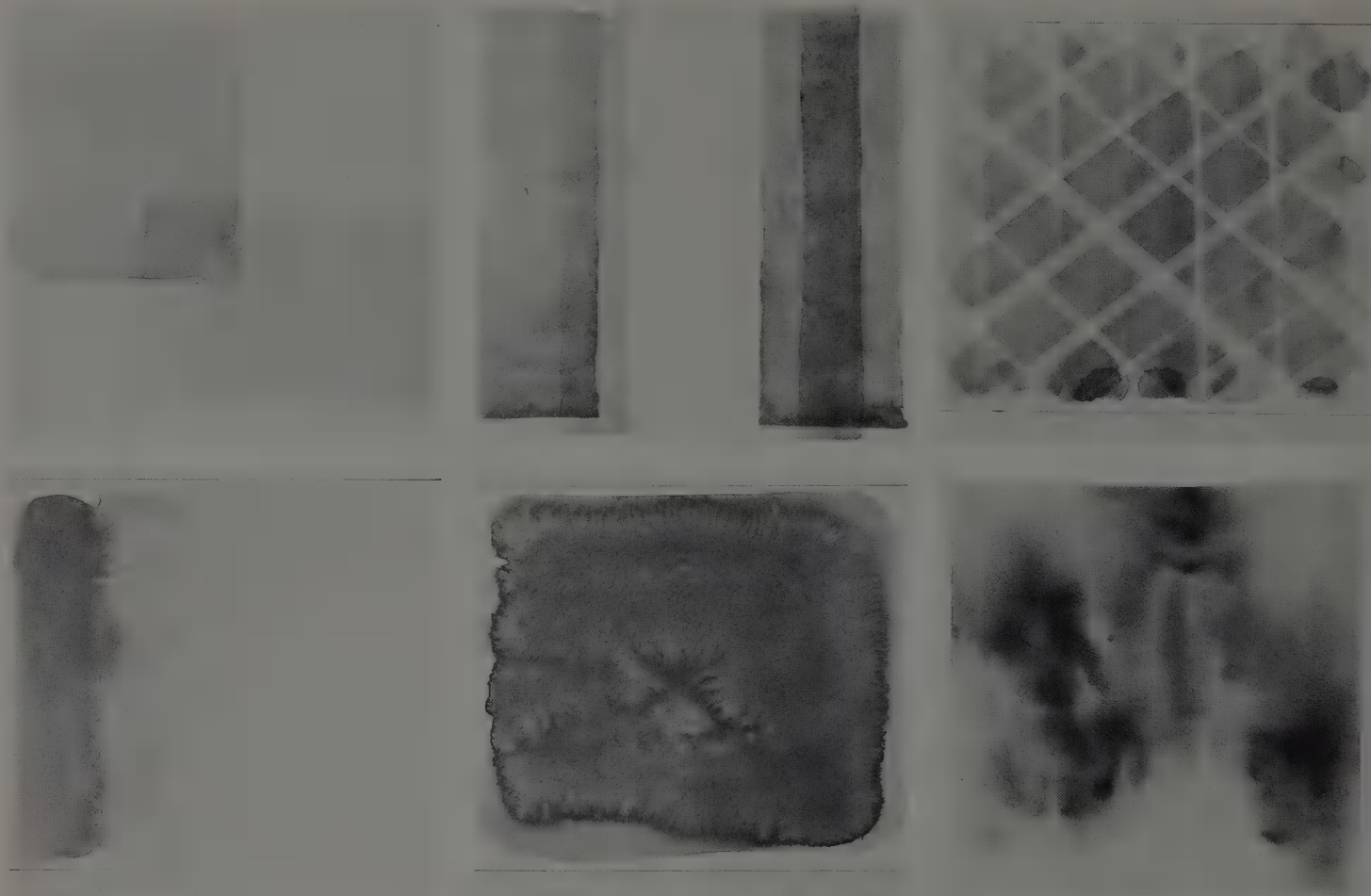
In the preceding exercises individual studies are worked into a large-format composition that makes a personal statement. During the painting process unexpected, surprising effects are produced that should be included in the compositions. A clear solution often requires the student to repaint an area several times or repeat the entire work.

Through experience the student develops control of the subjective, expressive medium. In further exercises thematic problem solving is directed towards a particular goal. Conceptual oppositions from the senses of touch, hearing, and taste (light-heavy, quiet-active, loud-soft, sweet-bitter) are interpreted in terms of color texture.

The examples here and on the following two pages show various compositions with differentiated structures and repainted overlapping textures.

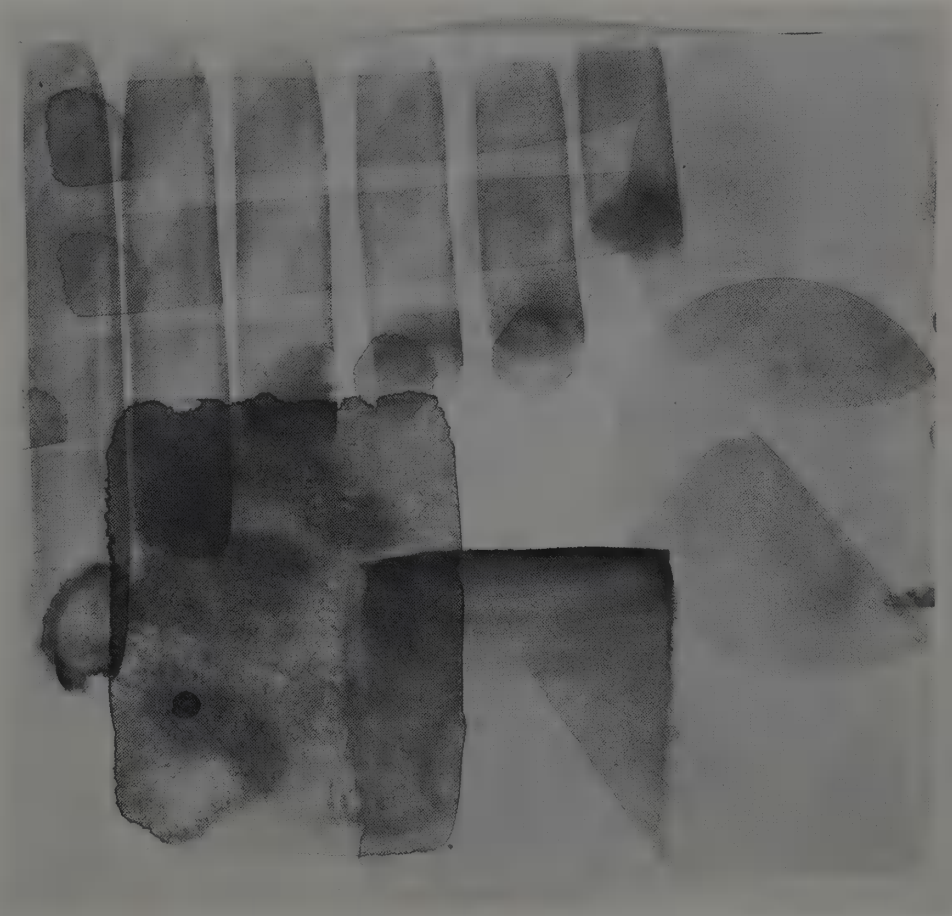
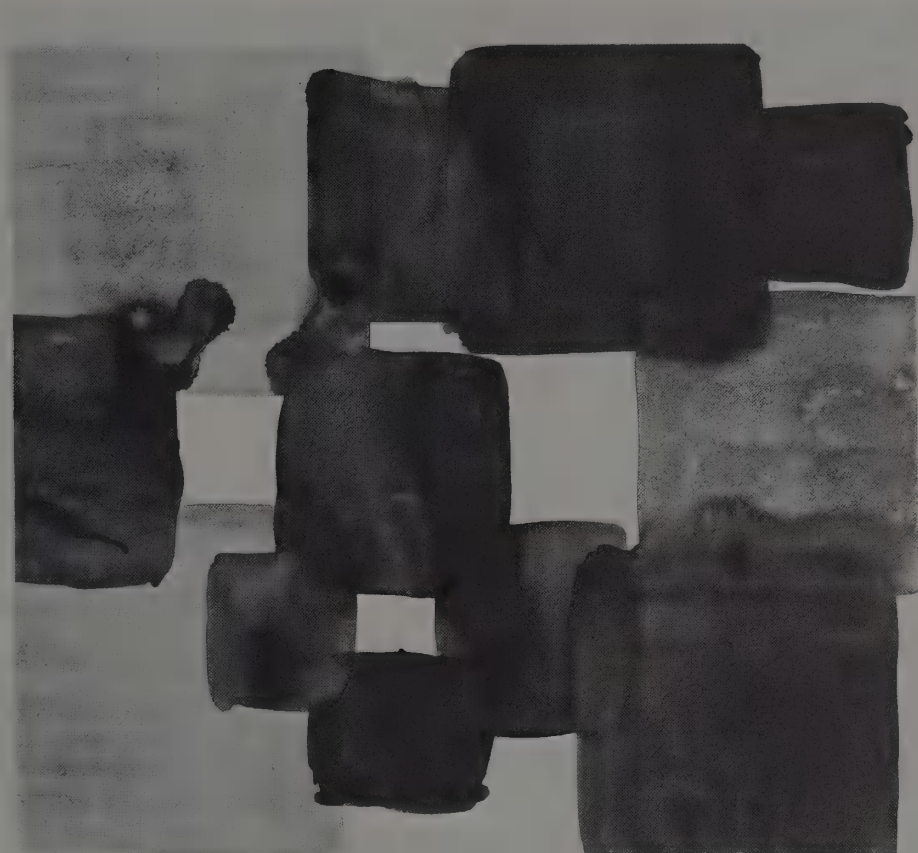
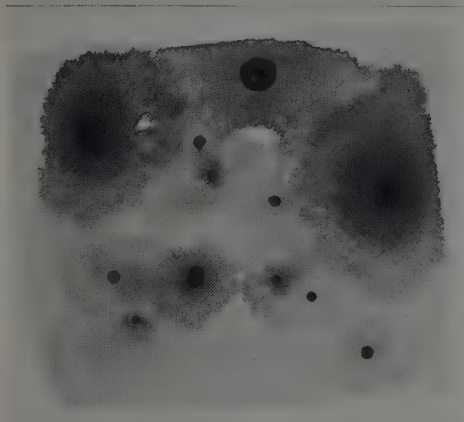
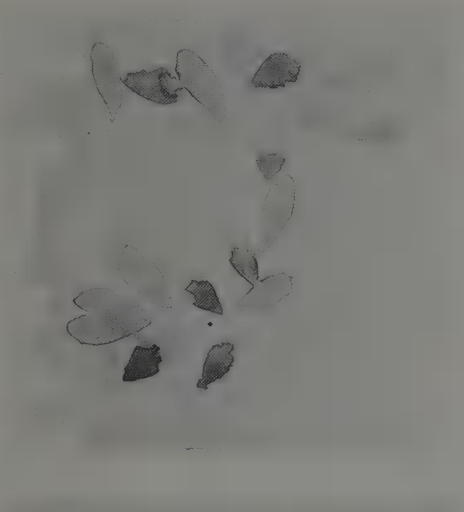






In contrast to heavy, opaque tempera color, the transparent glazes of aquarelle have a light, floating quality. In the following exercises the creative possibilities of aquarelle color and glazing techniques are examined. A transparent glaze of aquarelle color is spontaneously applied to the appropriate painting surface with a soft hair brush. Light tones are not mixed with white, but they become luminous as the translucent white of the paper shows through the diluted paint. In the glazing technique tones are formed in layers from light to dark. Light sections must be retained in the painting process. New color possibilities are produced by overlapping many glazed layers. Corrections are possible only by adding new glazes. In advanced exercises an aquarelle work is translated into the opaque tempera technique. This requires a specific, sensitive understanding of the possibilities and limitations of the two techniques.

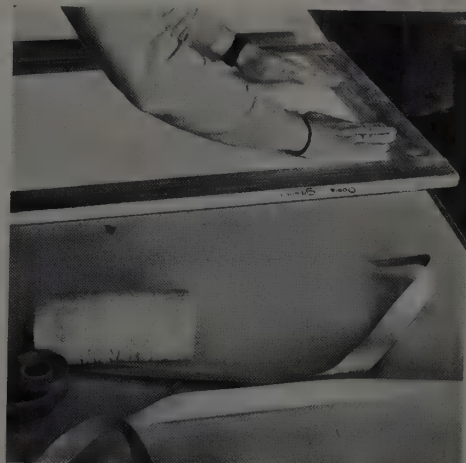
The eight studies above show different possibilities of the glazing technique: glazing on dry and wet grounds, overlapping a dried glaze with further glazes; painting over wet glazes so that the color surfaces flow into one another.

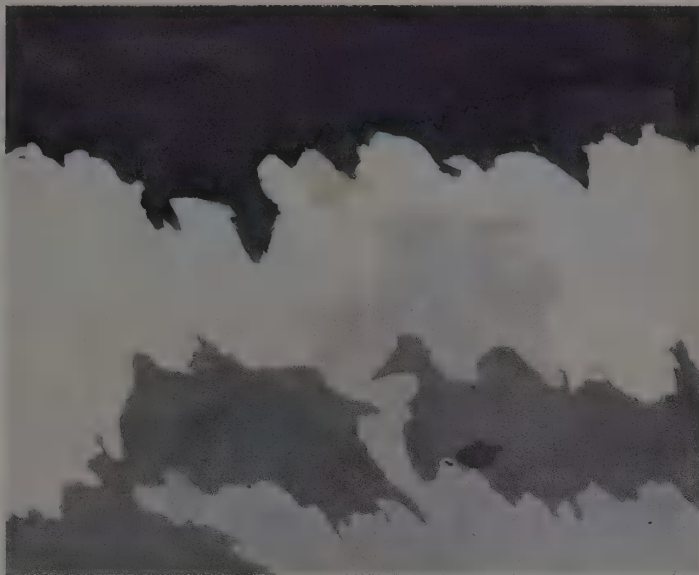
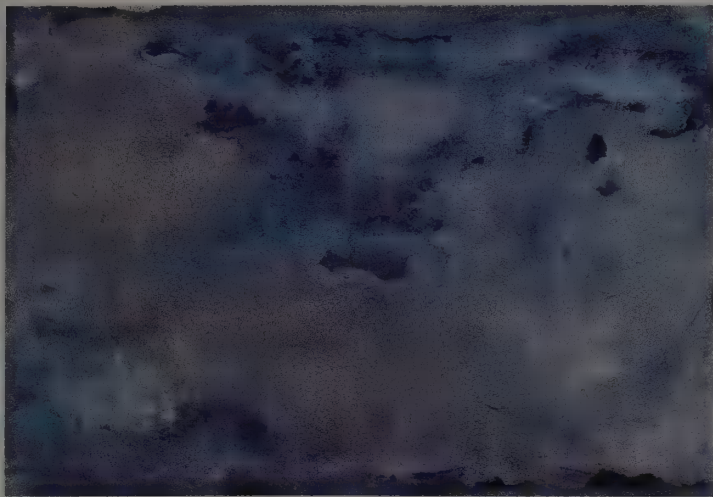


On the right and on following page are shown different large-format compositions with combined and expressive forms.



The photographs below show how to stretch the paper on the drawing board to prepare the painting surface.

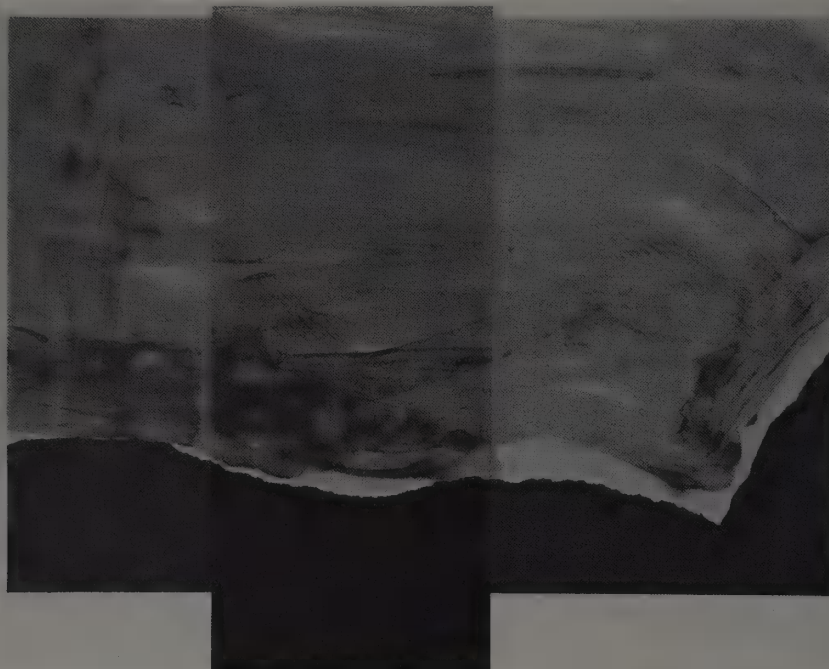




The three examples show the attempt to translate an aquarelle to tempera.



Collage differs from the preceding painting techniques in that predetermined form and color are applied simultaneously. The following exercises consist of controlled play with color and form from paper scraps. The paper can be rough, glossy, mat, transparent, colored, printed, painted, or patterned. Size and shape are changed by cutting and tearing. Because of the diversity of the material surface the tactile quality is incorporated into the optical-contrast qualities of color and form. Creative possibilities are tested in individual exercises with different limitations and expanded by adding painting techniques (tempera, aquarelle, color pencils) to the collage.



The surfaces of the two compositions contrast hard linear, cut angles with uneven, torn borders. The number of usable surfaces is limited. In the top example additional contrast is achieved with a transparent material.

The photographs on the following pages show different phases of the working process. The size and format of the composition are established, and the appropriate mount is cut from a piece of white cardboard. Within this frame the different formal elements are shifted, turned, overlapped, and exchanged.



This horizontal composition consists of layers of the same material in different colors torn into different shapes.



In contrast to the previous example, this composition of surfaces is structured in layers of strong, active, torn contours. A new formal element, an irregular white line, is produced by tearing the painted surfaces.



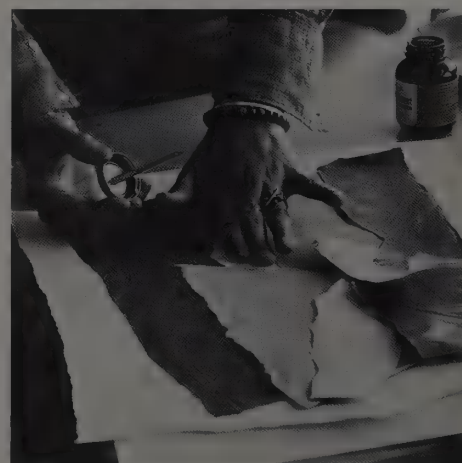
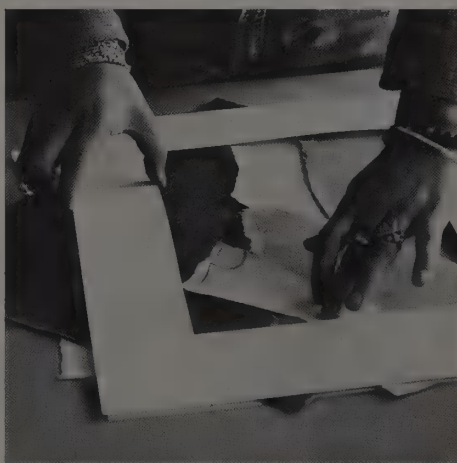
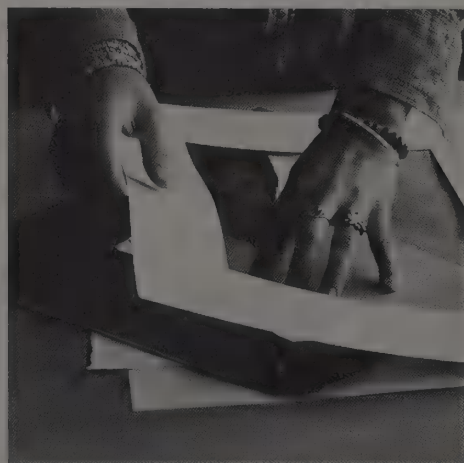


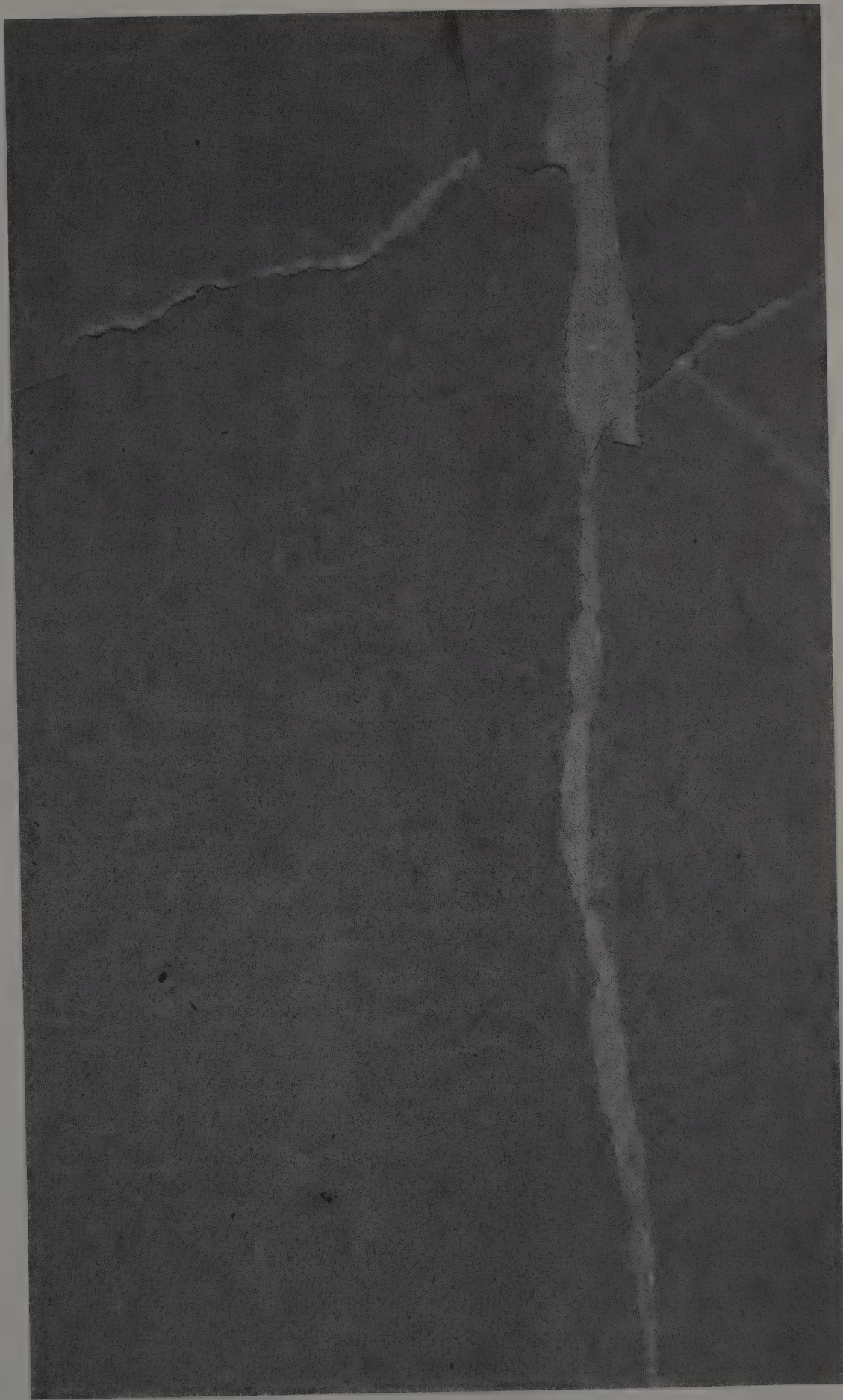
In the two examples on this double-page spread the material character of the paper rather than color or form is used as the creative means. They demonstrate one of many interrelated disciplines in this course and that on material studies, described in this volume.

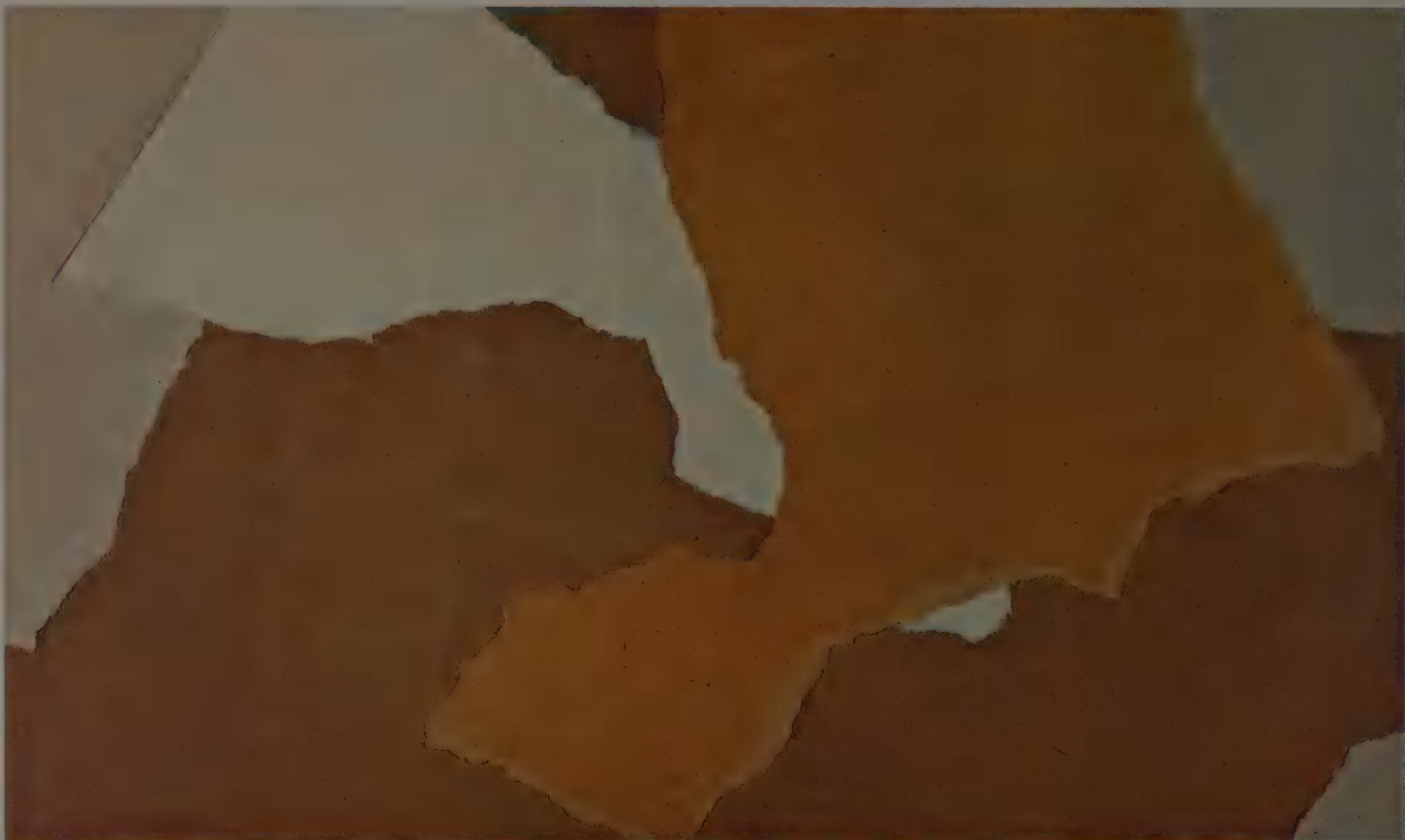
The above example utilizes wrapping paper and minimal color differences. The effect of the different paper structures and of the typical character of the material is heightened by tearing the borders of the surfaces.

In the following example only one kind of paper is used. An insignificant color difference is produced by tearing the contours. The formal structure is recognizable through this border effect.

Below, the completed composition is carefully mounted, a skillful task, since individual pieces often overlap many times and should not be shifted from their designated positions.







The two examples on this double-page spread show compositions reduced to a few elements: above, wrapping papers with different colors and structures; to the right, unpainted, painted, and textured papers with contrasted, torn, and cut surfaces and minimal color contrasts.

Below: weighted under a sheet of glass, the work can be observed without distracting, curling surfaces and shadows. Additional elements such as paints can be tested on the glass.

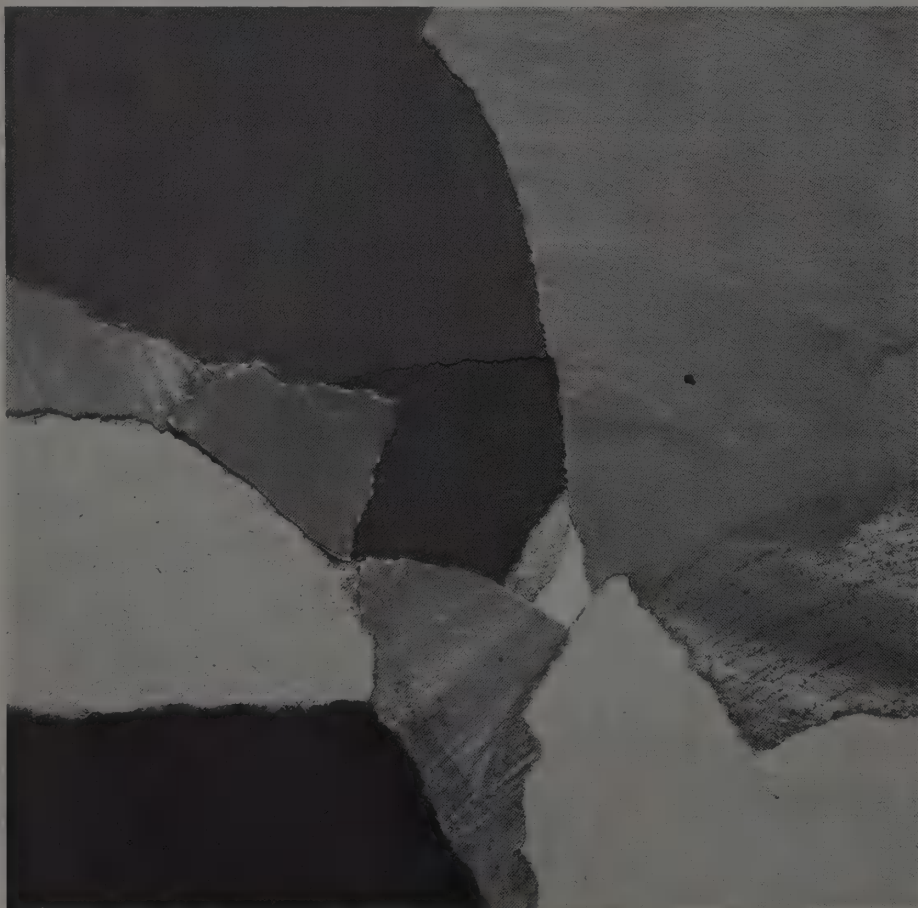






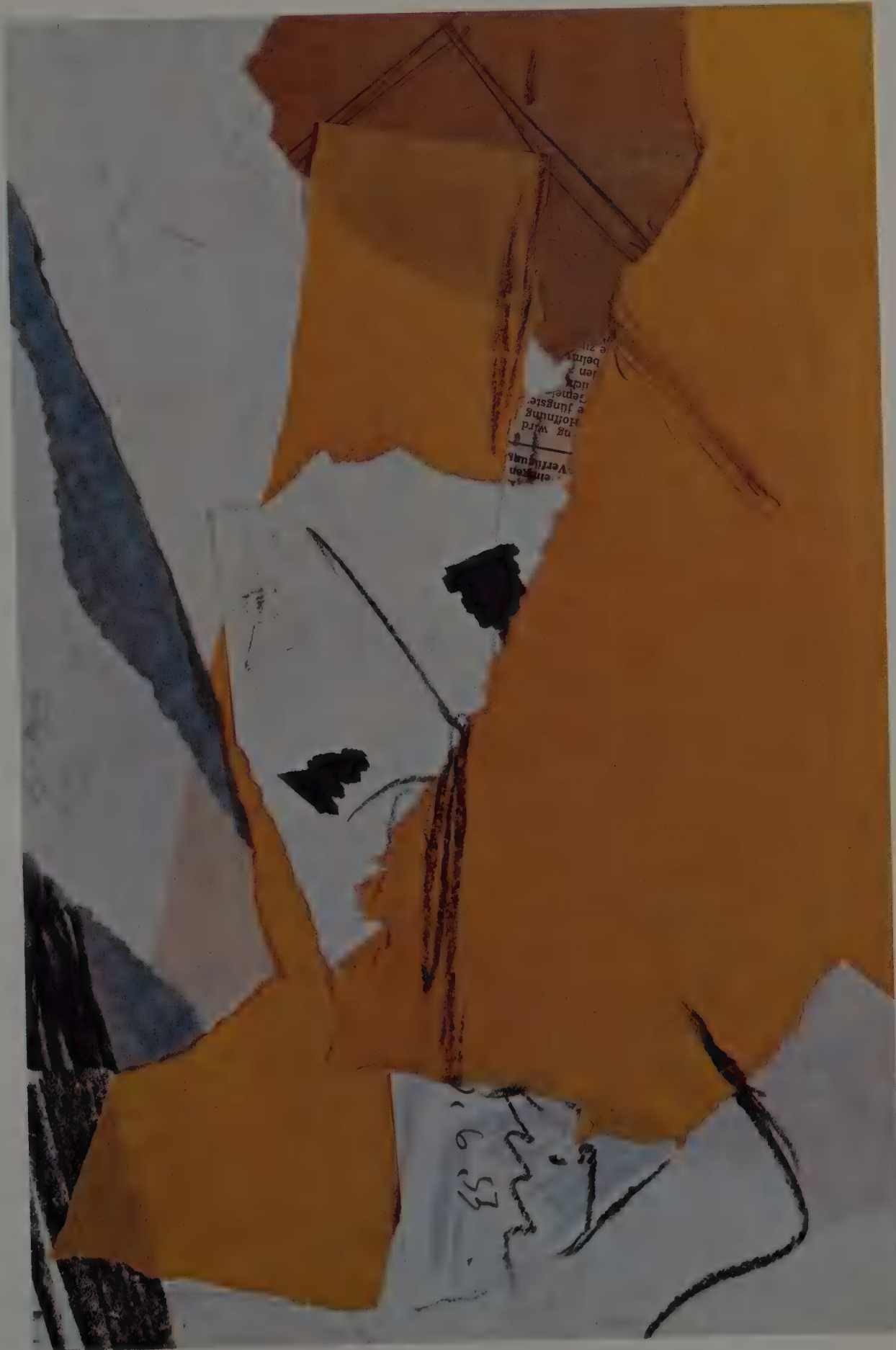
The two adjacent examples show compositions involving layering: above, transparent tissue paper; below, different qualities of paper.

The composition on the right includes different media: paper of different qualities, colors, and transparencies, fragments of newspaper, and handwriting. Parts of the composition are re-worked with pencil and brushstrokes.

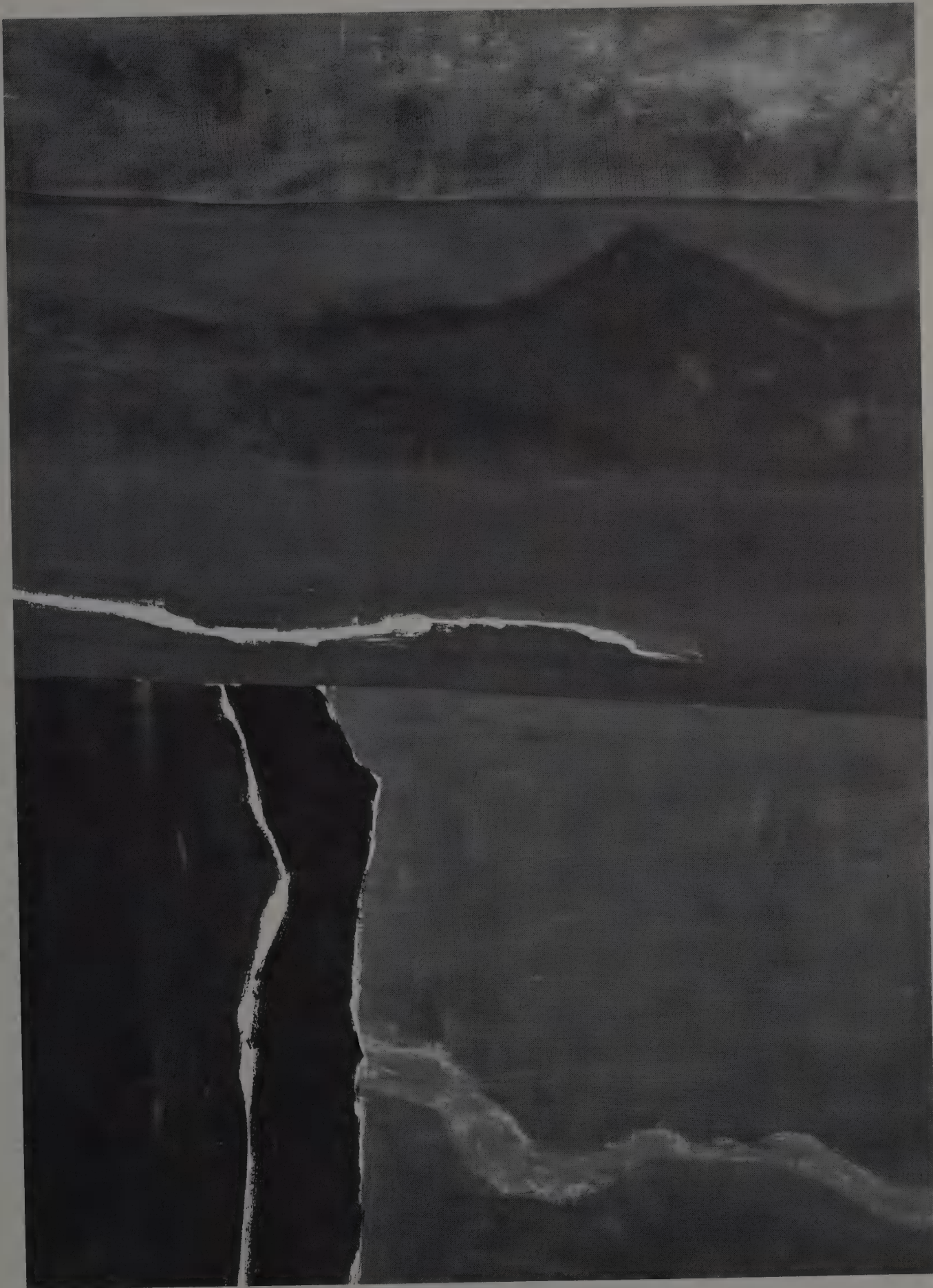


In the preceding exercises the painterly possibilities of collage are spontaneously translated into tempera and condensed into rhythmic compositions. The collages should not be rigidly copied, but their essential forms and colors reinterpreted. New size relationships create additional complications to the translation process.

The two following double-page spreads show the results of such translations. In the example on the last page many individual studies are worked into a single composition.













The Foundation Program at the School of Design in Basel, Switzerland is a fundamental education in art and design. It offers a number of interrelated, equally important courses. Subjects include drawing, color, three-dimensional studies, materials and tools, and exercises in form, aesthetics, and concepts, all of which are designed to promote optical and tactical sensitivity, formal perception, manual dexterity, and a clear understanding of creative processes and to clarify the students' individual talents. The program enables them to choose future professional training in graphic design, photography, typography, display design, goldsmithery, pottery, fine art, sculpture, and other related fields.

To be admitted into the program, students must be at least 15 years old, pass an entrance examination, and attend all the classes. The one-year program includes 42 classroom hours per week. All classes are conducted at the school and are limited to a maximum of 24 students.

Most of the faculty members are also professionals in their field, certified specialists who are active in visual, creative areas. Throughout the entire program, the teachers are available for individual or group consultation, which ensures that every student has an equal opportunity for a successful training. The teaching-learning process varies with each course. It can progress in several directions: linear, from simple to difficult principles; punctual, a collection of experiences derived from individual assignments; or complex, an analysis of variation sequences as an insight into the creative process.

The current standards of the program are outlined in this series, and the working procedure is explained clearly and understandably in chronological sequence. In order to clarify the interrelationships among the courses, they are categorized according to the teaching-learning process involved. The entire visual-creative program is presented in four volumes, each of which is a complete unit in itself and provides an introduction, course descriptions, and detailed illustrations.