A SOURCE BOOK FOR TEACHING

THREE UNITS IN DESIGN

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Director of Thesis: _Bill K. Booth_

As the title indicates, this thesis project is
intended to be a practical, supplementary aid for teachers
and students of design. Drawing from his experiences in
teaching the fundamentals of design for several semesters
at the college level, the author now shares the results of
that experience. The text for his teaching was Art Funda-
mentals by Ocvirk, Bone, Stinson, and Wigg, a widely-used,-
profusely-illustrated book of theory which includes studio
problems. The author's flexible and sometimes innovative
approach to teaching his classes resulted in research and
investigations that provide the content of this paper.

Because of the scope of the subject of design and the
limitations of time and depth of pursuit, only the three
elements of line, shape, and color were covered in one
semester's work.

In the course of his teaching, the author found it of value to the students' comprehension for them to have an overview of the subject under consideration. This he provided by using an outline introducing each of the three design elements. He found the studio problems provided in the text adequate, but in the interest of experimentation, creativity, clarification, or additional practice, he found it of value to supplement the students' experience with problems which were either adaptations of the problems in the text, original problems, or appropriate problems drawn from other sources. The supplementary problems are presented in the format of a lab manual. A statement of their purpose, the materials needed, and the procedures to be followed make the problems easily adaptable to individualized instruction or to students working with a minimum of teacher assistance. One of the values of this present paper is the inclusion of colored slides of student renderings of all the problems herein. The outline, supplementary problems, and slides for teaching the three design elements make up the first three chapters of this paper.

In the course of teaching and in searching for related visual materials, the author became thoroughly acquainted with the audio-visual materials related to art that are available in Morehead University's Johnson Camden

Library. Unfortunately, the materials were not being used
as extensively as they might have been because titles were
only available scattered throughout the numerous mimeo-
graphed pages of an accession catalog list. The author
compiled, therefore, a twelve-page listing of those audio-
visual materials related to art, which comprises the fourth
part of this paper. It might well be the most valuable
contribution of the author's efforts. Indeed, it should
be of special interest to students of art education at the
University. It will acquaint them with much that is
currently available in the area of supplementary teaching
aids and provide them with a list of readily available
materials with which to enrich their practice teaching.

The fifth and final section of this paper is an
annotated list of important references. Sixty-five books
on all aspects of design were carefully examined and
summarized in sufficient length to give the reader a
thorough acquaintance with each author's purpose, the
book's general contents, its particular appeal, and any
unique features. For this list of references, the author
restricted himself to those books available in the
Morehead University library, which seem to include most of
what is worthwhile in past and recent publication. The
University library call numbers have been provided for the
convenience of University students. The author hopes that

his annotation of this excellent collection will stimulate
students' curiosity to investigate valuable books that
might otherwise be ignored.

Accepted by:

_Bill K. Booth_____, Chairman

_Douglas Adams_____

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A SOURCE BOOK FOR TEACHING THREE UNITS IN DESIGN

by

John Herbert Kuhn

A Thesis

submitted in partial fulfillment

of the requirements for the degree of

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PREFACE

This thesis project as it was conceived in a discussion between Dr. Bill Booth and myself was to be the result of teaching a course in design fundamentals to first year college students. It was to be something of a combination of syllabus, lesson plans, lab manual, suggested references, and a list of helpful audio-visual materials related to the teaching of design. These directives were kept in mind, albeit in some loosely constructed fashion, as the teaching proceeded. But as so often happens, in the course of an activity as stimulating as teaching sometimes is and as creative as it always should be, there was a departure from the original plan. Some ideas were altered, unexpected research was undertaken, lengthy investigations were initiated, and new ideas were generated. The result is a product that might differ slightly from what was intended but does abide by the "spirit" of the original concept.

The syllabus of instruction began as an outline for introducing the elements of line, shape, and color. The scope of the subject matter and the limitations of time, coupled with a desire to pursue the study in some depth, explains why only three of the design elements were taught, leaving those of form, value, texture, and space

to some future project. Added to the outline were the
selected bibliography and list of visual aids. The widely-
used and very satisfactory text used in the course,
Design Fundamentals by Ocvirk, Bone, Stinson, and Wigg,
provided the basis for the introductory outline. It also
contained a number of adequate problems for each of the
three units. For various reasons I chose to supplement
these with additional problems. Sometimes I was dissatis-
fied with the presentation in the book and decided to
adapt a problem to a new presentation. Several times I
came up with what I thought was an original idea. At
other times I felt like experimenting, selecting material
intended for one purpose and applying it to another.
These supplementary problems are included here and might
be thought of as lesson plans or lab manual experiments.
Their format has been organized to present problems
clearly and logically and to permit students executing
them to have the freedom to investigate without the need
for close supervision.

As the studio work progressed during the semester, I
observed some interesting results and decided that perhaps
a series of colored slides might enhance the paper as a
record of achievement and a stimulating guide to the
creative possibilities that each problem contained. The
outline, problems, and ninety-two colored slides, then,

finally emerged as the syllabus of the original plan.

While looking for appropriate audio-visual materials to use with each unit, I investigated the materials available in the educational resource center of the Morehead State University library. This led to a part of the paper not anticipated. I found that periodically the library issues mimeographed lists of their recent audio-visual acquisitions, but that these materials were arranged in accession listings and one had to read through endless irrelevant titles to cull those related to art. This frustrating experience led to the compilation of a twelve-page listing of audio-visual materials related primarily to some aspect of art, a listing hitherto unavailable. In the process of preparing this list I added information that was not available even on the accessions list, providing what I believe is one of the major contributions of this thesis project.

In surveying the card catalog and the stacks in the process of compiling unit bibliographies, I was impressed with the vast number of books related either directly or indirectly to design that teachers or students ought to know about but which they might possibly overlook. In examining some of these books, it occurred to me that a description of their contents might provide enough of a thumbnail sketch to let the reader know if a particular book was

what he was looking for, something he could use, or something worth looking at more closely. Hence, the annotated list of important references became part of the paper. It is a section that was enjoyable to write and I hope will be interesting to read.

In surveying the completed work I find that all of the essential elements of the original outline are here, and that whatever modifications came about have improved upon the original plan.

Throughout the time of preparing this work I have been greatly assisted by several people who deserve to be acknowledged. To Dr. Bill R. Booth, head of the Morehead University Art Department, go my special thanks for directing this project, for his encouragement, and for the patience with which he has awaited its completion. Several members of the University library staff also merit a special word of appreciation: Mr. Albert Evans and his student workers who were of immeasurable help in assembling the list of audio-visual materials and who lightened my research burden by many hours, and Jean Wiggins, humanities librarian, whose many kindnesses greatly facilitated the preparation of the annotated bibliography. And finally to the members of my graduate committee go my thanks for their interest, their example as teachers, and the attention they gave to this thesis project.

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Accepted by the faculty of the School of Humanities,
Morehead State University, in partial fulfillment of the
requirements for the Master of Arts degree.

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Director of Thesis

Master's Committee: _____, Chairman

_____

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March 29, 1977
     (date)

CHAPTER I

THE DESIGN ELEMENT OF <u>LINE</u>

Line is the simplest and yet the most expressive and at times the most profound of man's markings. Its origin lies in that primeval place we call the cradle of civilization. As line has been throughout the ages of man's ascent, so it is today--his first and last efforts to assert himself. There is a bond between the free and happy crayon scrawls of a young child and the pinched, feeble, nervous scrawl of a dying man. Each speak its own personal, characteristic message.

A study of line, pure line, line not bounding any area to suggest some recognizable object, is fascinating in itself. So numerous are its expressive possibilities that some art schools devote an entire semester to the study of that single element. Some artists have made a whole reputation on their drawings, and the mere mention of men like Ben Shahn, Saul Steinberg, Al Hirshfield, and even Picasso calls immediately to the minds of those who know their work a certain kind of line that is as distinctive as their signature. It is probably the inscrutable oriental mind that has best come to appreciate linear beauty. It is found in their careful and free-flowing calligraphy, in the simple suggestiveness of their brush

drawings, and in the dignified elegance of a single precisely-placed flower stem.

These, then, are some reflections to consider at the outset of the study of the elements of design. The exploration of line should not be approached lightly or with the disdain that we sometimes have for the simple and the obvious. The spirit that should dominate the studio is one of "hanging loose," of expectation, freedom, and simple playfulness. The proper mental attitude should be that of the scientist on the verge of discovery or the explorer about to turn on an uncharted path. This is all very exciting, or so it can be, and certainly that is the way I would want it to be.

The format of these first three chapters is the same. The element being studied is introduced by an outline. There follows a series of studio problems meant to supplement those of the text. Finally there is a list of slides illustrating various students' approaches to the different problems. The slides referred to in this list are an important and integral part of the thesis project. For reasons of economy, convenience, and security, they have not been bound into this book. They are shelved in the Morehead University Art Department and may be viewed there upon request.

Outline for Introducing a Unit on Line

I. Line: the elementary means of visual communication

    A. Objective level: describes simple measurements and surface characteristics

    B. Subjective level: may be modified to suggest many emotional states and responses

        1. Man-made invention, an abstraction

        2. Developed for simplification of statements, of ideas

        3. Establish contours of mass

            a) Edge
            b) Meeting of areas
            c) Defines drawn shape
            d) Plastic: suggest space
            e) Calligraphic: enriches surface

II. Physical characteristics of lines

    A. Measure: length and breadth

    B. Type: creates the interest in itself

        1. Straight

        2. Angular

        3. Repetitious

        4. Rigid

        5. Brittle

        6. Curved, wavy, spiral

        7. Graceful

        8. Clumsy

        9. Unstable

      10. Undignified

11. Broken

C. Direction: controls the movement of the eyes. Brings about continuity of relationships among the various elements

1. Zigzag

2. Curved

3. Horizontal (connotes serenity and perfect stability)

4. Vertical (connotes poise and aspiration)

D. Location: placement can . . .

1. Unify

2. Divide

3. Balance

4. Unbalance

E. Character: related to the medium and the manipulation of the medium. Lines have emotional quality.

1. Expressive blurred, soft lines of chalk or wet watercolor

2. Precise firm lines of pen, ink, pencil

3. Distinctive qualities are evident in brush, burin, stick, fingers

III. Emotional or Expressive Properties of Line: requires feeling--receptive and perceptive and having a reservoir of experiences to draw on, to relate to attitudes such as

A. Happy

B. Somber

C. Tired

D. Energetic

E. Frail

F. Alive

G. Dominant

H. Submissive

IV. Line: as related to the other art elements

A. Line and Shape

1. Contour

2. Defines shape

B. Line and Value

1. Parallel

2. Cross-hatching

C. Line and Texture: the textured line

1. Caused by tool

2. Caused by manipulation

D. Line and Color: color affects the properties of line

V. Spatial characteristics of Line resulting from value contrast may cause lines to:

A. Advance or recede

B. Writhe and twist

VI. Line and representation: may create on two levels

A. Abstract

B. Realistic

VII. Related Audio-Visual Materials

F-2876 How to Use Your Eyes, Part I

F-2877 How to Use Your Eyes, Part II

F-2878   Lines

F-3550   The Graphic Works of Picasso: Part I:
            Etchings, Drypoints, and Aquatints

F-3551   The Graphic Works of Picasso: Part II:
            Lithographs and Linoleum

F-4294   Basic Design, Part I

F-4295   Basic Design, Part II

F-4299   Simple Design

F-4896   Drawing and Prints

S-126-
  127   The Evolving Creative Vision

S-130-
  131   Design in Our Environment

VIII.   Unit References

Beitler, Ethel Jane and Lockhart, Bill. Design
    for You.

Borsig, Tet. Designs in Nature.

Bothrod, Aaron. A Pottery Sketchbook.

Dair, Carl. Design with Type.

Feldsted, Carl J. Design Fundamentals.

Graves, Maitland E. The Art of Color and Design.

Guyler, Vivian Varney. Design in Nature.

Henrion, F. H. K. and Parkin, Alan. Design Coor-
    dination and Corporate Image.

Prohaska, Ray. A Basic Course in Design.

Line Problems

Problem 1

Experimentation with ink and water-based tempera.

Purpose

To explore the expressive qualities of lines made
with ink and paint, using a variety of tools manipulated in
traditional ways and any new ways you can think of.

Materials

    a) Good quality multi-purpose paper
    b) Black drawing ink
    c) Water-based tempera
    d) Metal-edge ruler
    e) Pen holder
    f) Variety of pen points, drawing and
          lettering
    g) Hard lead pencil

Procedure

    1. Prepare ten (10) 9" x 12" pieces of good
        quality, multi-purpose paper by drawing a
        1" pencil margin very lightly on the four
        sides of the paper.

    2. The experimentation. The medium is limited--
        black drawing ink and black water-based
        tempera. The tools and manipulative
        techniques are more varied. Consider those
        below:

Tool	Manipulation
Brush	Light or heavy touch
Pen	Wet or dry brush
Q-tip	Dripped
Finger	Dribbled

Tool (Cont'd)	Manipulative (Cont'd)
String	Cramped hand
Cardboard (edge or corner)	Loose, limp hand
	Controlled or uncontrolled
Sponge (edge or corner)	Relaxed or tense

Select the tool or tools

Experiment with different manipulative techniques.

Make five (5) plates using ink and five (5) using water-based tempera.

Your lines should not be representative of any object. Rather, let them go in a wide variety of directions. Refer to the explanation of the physical characteristics line contained in the outline on line (Section II). Your objective is to make as wide a sampling of lines as possible. Be prepared to tell how each line was made--the tool and the manipulative technique. Several different kinds of lines may be combined on a page to create an interesting non-objective arrangement.

Keep notes about the tool and technique on the back.

Time: Two hours

Problem 2

Further experimentation with media, tools, and manipulation.

Purpose

To continue the exploration of the expressive qualities of line, using new media and new manipulative

techniques. In this problem the medium is also the tool, but you might discover other tools to use with it.

Materials

    a) Good quality multi-purpose paper
    b) Pencils (hard, medium, very soft)
    c) Charcoal pencil
    d) Vine charcoal
    e) Black pastel
    f) Wax crayon
    g) Felt tip markers
    h) Felt tip pens

Procedure

1. Prepare ten (10) 9" x 12" pieces of good quality multi-purpose paper by drawing a 1" margin very lightly around the four sides of the paper.

2. The experimentation. Select your medium and consider the physical characteristics of lines and the wide variety of manipulative techniques possible. The ten plates should be representative of all the media and as many manipulative techniques as possible. For example: wax crayons can be held over a candle and dripped or dribbled. Try felt tip on wet paper. Rub some of the pastel or charcoal with your finger or a paper stump.

   As in the previous problem, do not use line to suggest representative objects. Rather, use them to create an interesting arrangement. Several media may be used on the same page. Keep notes on the back of each page as to the media and technique used. You should be able to duplicate these lines should you desire to do so. Your objective is to present a wide sampling of lines illustrating physical characteristics.

   Time: Two to three hours

Problem 3

Experimentation with various textured papers.

Purpose

The purpose of this problem is to experiment with different textured paper surfaces and to note how the surface or the quality of the paper itself affects the medium and the quality and character of the line. Paper can be hard or soft, rough or smooth, glossy or dull, with a wide range of texture between the two extremes.

Materials

All media mentioned in Problems 1 and 2 and a sampling of many kinds of paper. Those to be considered are:

        a) Very rough water color paper
        b) Medium rough water color paper
        c) Charcoal papers
        d) Enameled papers
        e) Bogus paper (grey color)
        f) Onion skin paper (typing paper)
        g) Oak tag
        h) Brown wrapping or magazine wrapper paper

Procedure

1. Prepare three (3) 9" x 12" plates of five (5) different types of paper. There should be a noticeable difference in the surface quality of the paper selected.

2. Using the media and tools listed in Problems 1 and 2, experiment on the various types of textured papers. As in the previous problems, your lines should not be of recognizable

objects. You should be interested only in
the characteristics of pure line and the
abstract arrangement of those lines.

Several media can be combined on each plate.
Use all ten media at least once on each of the
five different papers. Experiment with
different papers. Experiment with different
tools on the same medium. Include examples
of working on a wet or dam surface.

The objective of this problem is to observe
the difference textured paper can make on
the quality of your lines.

On the back of each plate keep notes of the
medium and tool used, and the manipulative
technique.

<u>Time</u>: Four hours

Problem 4

Observing lines in architecture.

Purpose

It is easy to observe that a skyscraper, being a

tall vertical structure, forms a vertical line in the eye.

A ground-hugging, rambling ranch house forms a horizontal

line. These are basic directional lines. But what about

lines within these structures? Rows of windows can form

lines. So can railings, overhanging roofs, decorative

stone and brick laying, stairs, and exposed beams,

girders, pipes, and sculptural elements. The purpose of

this problem is to make you aware of line in architecture.

Materials

 a)   Good quality multi-purpose drawing paper with a smooth surface
 b)   India black ink
 c)   Pen
 d)   Ink liner from a mechanical drawing set (useful but not necessary)
 e)   Hard lead drawing pencil
 f)   Tracing paper
 g)   A large (4" x 6"), sharp, clear photograph (preferably front view) of a public building (a good source might be in an architecture or engineering journal or other picture magazine)

Procedure

 1.   Study your picture. Put a piece of tracing paper over the picture and trace the basic lines. Do not trace the outline of the building, only the lines within the structure. On one tracing, draw only the vertical lines. On another, draw only the horizontal lines. If there are diagonal lines, make a separate tracing of those. Which lines predominate? Are there some lines that are thicker than others? Is there any kind of rhythmic pattern in the arrangement of the lines, the size, the length?

 2.   On good quality paper, make a separate analytical ink drawing of the vertical, horizontal, and diagonal lines you discovered through your tracing. If your original picture was large, a direct tracing is acceptable. Be sure to pay attention to the relative size of all the parts.

  Using tracing paper to transfer a drawing.
  A quick way to make several copies of the same drawing is with tracing paper. First place the paper over your original picture and copy the desired elements. Then turn this over and rub soft pencil lead over the

lines that show through.

Now place this side <u>down</u> on your good paper and retrace your original lines. The graphite will rub off on your good paper leaving an impression to retrace in pen or pencil.

Your ink rendering should be clean, accurate, and neat. (You may have to practice your ink drawing technique before submitting your final drawing.)

3. Mount your original picture and your analytical drawings on grey or black poster board or mat board.

   <u>Time</u>: Four hours

<u>Problem 5</u>

Lines make a difference.

<u>Purpose</u>

In Problems 1, 2, and 3 you learned how different media, tools, technical manipulation, and textured papers can affect the quality of a line. In this problem you will observe how line can change the appearance of a drawing even though the subject matter is the same.

<u>Materials</u>

a) Media used for Problems 1 and 2
b) A selection of textured papers
c) Tracing paper
d) Poster board or mat board for mounting

<u>Procedure</u>

1. Select a large picture (about 5" x 8") that illustrates one single, distinct, object.

Some objects to consider are: athletes (any sport), costumed characters, travel vehicles, historical buildings, animals (real or cartoon), musical instruments.

2. Make a contour drawing of the figure on tracing paper or redesign the figure to make an interesting contour design.

3. Transfer this drawing to six or more different sheets of paper approximately 7" x 9".

4. Select from your collection of interesting lines, those that are distinctive, interesting, unusual, and which could interpret your drawing.

5. Apply these lines to your tracings. Limit yourself to one type of line per tracing.

When you have finished you will have six or more interpretations of the same figure. Notice what a difference line can make. Analyze your drawings and be prepared to discuss the effect the quality of line used has on the subject matter. Some lines might lend themselves better to the subject matter than others. Some might change the tone or character of the subject matter.

6. For presentation, mount all of the drawings on a single sheet of grey or black poster board.

Time: Four hours

Problem 6

Line in natural objects.

Purpose

Line exists in abundance in natural forms. However, sometimes you have to get very close to the object to appreciate the line. You might even have to observe them

through a microscope. The purpose of this problem is to
have you take a close look at nature and see what lines
you can discover there.

Materials

a) Media used in Problems 1 and 2
b) Selection of papers used in Problem 3
c) Mounting board (black)
d) Rubber cement
e) Masking tape

Procedure

1. Look around for line patterns in natural
    objects. Some things to consider might be:
    bark on tree or bark on different trees,
    vein structure in decayed leaves of all kinds,
    vein structure in flower petals, sea shells of
    all kinds, insect scales or wings, branches
    and twigs, stems of plants, fruits and
    vegetables cut in half, corn growing on a cob,
    etc.

2. Prepare four plates 5" x 7" by drawing a 1/2"
    margin around all four sides of each sheet
    of paper. Select the kind of paper that will
    best help you to interpret the lines you are
    copying, i.e., smooth or rough surfaced.

    The line patterns you select should represent
    diversity in direction, shape, texture,
    thickness, and any other characteristic you
    note.

    Your selection should require you to utilize
    different tools and methods of technical
    manipulation.

    Remember, this is not to be a drawing of the
    object, but a recreation or interpretation of
    the observable line characteristics and
    patterns.

3. Note on the back of your drawing the object being observed, the medium used, and technical manipulation.

4. Mount or mat your finished drawings on black poster board.

    Time: Four hours

List of Slides Illustrating Line Problems

Problem 1

Ink, water tempera, smooth paper

Slide a) Ink and brush, free flowing, smooth line
      b) Ink and pen and stick
      c) Ink or paint and dry brush
      d) Ink or paint and brush

Problem 2

Pencil, pastel, charcoal, wax crayon

Slide a) Pencil
      b) Charcoal pencil
      c) Vine charcoal
      d) Black pastel
      e) Black pastel
      f) Black pastel
      g) Wax crayon

Problem 3

Textured papers, all media, wet and dry techniques

Slide a) Ink, brush, smooth wet paper
      b) Ink and pastel on wet rough paper
      c) Ink on wet rough paper
      d) Ink on wet and dry rough paper
      e) Pastel on rough dry paper
      f) Pastel on wet and dry rough paper

g) Ink on wet smooth paper
h) Ink on wet and dry smooth paper
i) Ink and brush on rough dry paper
j) Ink and brush on wet and dry smooth paper
k) Ink and crayon on dry rough paper

Problem 4

Lines in architecture

Slide a) Greek temple
b) Modern building

Problem 5

Lines makes a difference

Slide a) Pencil
b) Ink on damp paper
c) Ink on rough paper
d) Wax crayon on rough paper (wax resist technique)
e) Charcoal pencil
f) Ink on dry paper

CHAPTER II

THE DESIGN ELEMENT OF SHAPE

In the writings of the Chinese philosopher Lao Tse

we find the following poem:

          We put thirty spokes together and call it a wheel;
          But it is on the space where there is nothing that
            the utility of the wheel depends.
          We turn clay to make a vessel;
          But it is on the space where there is nothing that
            the utility of the vessel depends.
          We pierce doors and windows to make a house;
            and it is on these spaces where there is
            nothing that the utility of the house depends.
          Therefore, just as we take advantage of what is,
            we should recognize the utility of what is not.[1]

This is a poem about Notan, a Japanese word meaning

dark-light. It is appropriate to quote the poem here

because in the study of design it has a further meaning--

the interaction between positive and negative shape. The

concept of positive shape is easily understood. It is the

shape of some thing, some recognizable object. But so

often while giving our attention to subject matter,

particularly where the two-dimensional surface is

concerned, we tend to overlook the space around the

subject, the negative area, and the shape that results.

---

[1]Lao Tse, translated by Arthur Waley in The Way and
Its Power (Boston: Houghton Mifflin Co., 1935), quoted
and cited by Dorr Bothwell and Marlys Frey in Notan: The
Light-Dark Principle of Design (New York: Reinhold Book
Corporation, 1968), p. 6.

The negative element is very important nonetheless, but it
is difficult to get students to look at it and to accept
Lao Tse's teaching that what is not gives meaning to what
is.

Shape, like line, has its own special beauty. It
can be dull or exciting, and sometimes the difference is
only a thoughtful snip of the scissors or the right kind
of manipulation with a brush. Picture composition is all
shape--subject matter placed on a flat plane. Sometimes
the result is the illusion of space and realism, and
sometimes it is flat pattern. The difference between a
good composition and a poor one is the artist's sensitiv-
ity to space and shape and knowing what to do about it,
knowing how to create a pleasing relationship between the
figure and the ground.

In the study of shape, like line, the student has to
cast aside a lot of preconceived ideas about what art is,
over-concern with realistic subject matter, and learn to
think and see abstractly. A good picture must always be
a pleasing composition, and to achieve that the artist
must know where to put things, how to make the right
decisions, decisions based on knowing or feeling why
something is better one place than another.

All the great artists of the past have understood
this, but perhaps it is to the moderns that we should go

first, for they were the ones who showed us the essence of things--pure form, shape, arrangement. It might be good to begin by looking at the works of Gauguin and Seurat, Braque and Picasso, Léger and Charles Sheeler, Matisse and Stuart Davis. Shape meant much to them. They delighted in using it and enjoyed seeing the things that could be done with it. For some, it was the essence of their art.

The student must become "shape conscious,"--to see shape before he sees object; to see the object and at the same time the shape of the space around the object. It is to this end that the study of the next element, that of shape, is directed.

Outline for Introducing a Unit on Shape

I. Definition: an area of value, color, line, or all three, possessing more or less measurable dimensions. Variety ranges include symmetrical, asymmetrical, poised, awkward, static, dynamic, outgoing, retiring, etc.

II. Use of shape

A. Represent known objects

B. Personal expression of feeling rather than literal copying

C. A "starting point" for a transformation which develops shapes which are totally unlike those seen in nature. The final art form is achieved by applying the fundamental principles of composition combined with the elements of design.

The principles to be considered are:

1. The achievement of balance

2. The control of attention

   a) Direction: rhythmic movement from
      one area to another
   b) Duration or relative dominance:
      relief from optical monotony

3. Shape character

   a) Natural: derived from nature. Those
      molded and shaped by the forces of
      nature. Those derived from biology
      are rounded or curvilinear. The
      term biomorphic describes those
      curvilinear shapes.
   b) Rectilinear or straight line, geometric
      shapes, bearing the precisionistic
      imprint of man's invention

4. Shapes and space

   a) Pictorial depth: flat, shallow,
      illusionistically infinite
   b) Volumes and planes: three dimensional
      shapes
   c) Intuitive space: implied or "felt"
      space
   d) Linear perspective: a mechanical
      means of demonstrating the visual
      appearance of planes and volumes
      in space

5. Shape edges: the outlined area

6. Formal meaning of shape: symbolic, psycho-
   logical, emotional

7. Picture frame as a shape: harmony between
   frame and contents

III. Related Audio-Visual Materials

   F-114   There is Art in Cutting Paper

   F-128   Development of Space Concepts

   F-653   Working with Paper

F-1177   Georges Braque

F-1186   Paul Gauguin

F-2801   Textiles

F-2854   Textiles, Weaving, and Stitchery

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K-130   Observing and Describing Shape

K-240   Textiles

S-259   Design and Decorative Arts of the 20th Century, DC Series

S-261   Design and Decorative Arts of the 19th Century, DB Series

S-300   The Arts of the United States

S-302   Graphic Arts of the 20th Century

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Shape Problems

Problem 1

Free exploration of curvilinear shapes

Purpose

When he begins his work, every artist is confronted

with the problem of how to divide his picture frame (the

piece of paper or canvas he is working on). In this

problem you will divide your paper by free flowing lines

that will produce (almost by accident) interesting bio-
morphic shapes. The shapes and the composition they
produce can be pleasing in themselves. They do not have
to represent "things" in the real world. The purpose of
this problem is to create and appreciate pure shape.

Materials

a) Good quality multi-purpose paper
b) Tracing paper
c) Newsprint paper
d) Soft pencil
e) Wax crayons or water tempera

Procedure

1. Take several sheets of newsprint paper 18" x
   24" and draw a 1/2" margin around the edges.
   Then with your pencil draw a random, continu-
   ous, free-flowing line moving in any direction
   and overlapping at times. Work from edge to
   edge to fill the entire page. Make several
   of these. Which has the most interesting
   shapes? Turn the paper around. Look at it
   from all sides. Alter the shapes if you wish
   by erasing some of the lines.

2. Select the most interesting of your drawings
   and trace onto tracing paper. Feel free to
   alter the shapes if necessary to make a more
   pleasing or more interesting composition. Try
   to eliminate small areas and shapes that are
   too similar. Try to create interest, repeti-
   tion, variety.

3. Transfer your tracing to good quality paper by
   rubbing graphite (pencil lead) on the reverse
   side and then placing this on your good paper
   and retracing your original lines. (This
   method was explained in Line Problem 4.)

4. Now color in the shapes with wax crayon or
   tempera paint. If using crayon, press hard
   to obtain dark rich colors and eliminate as

much of the white paper as possible. If
using paint, mix a good quantity of each
color before you begin. This will assure you
of having enough paint to complete the
problem.

Color Harmony: restrict your colors to an
achromatic color scheme (no color), that is,
white, black, and several different greys.

Time: Two hours

5. Variations on this problem

   a) Use a straight line moving only vertically
      and horizontally
   b) Use straight lines only moving diagonally
   c) Combine straight and curved lines

Problem 2

Dividing the square into an interesting arrangement

of shapes

Reference

Röttger, Ernst. Creative Paper Design. New York:
    Reinhold Publishing Corporation, 3rd printing,
    1963.

Purpose

Again you are confronted with the problem of

dividing the picture plane into an interesting arrangement

of shapes. This problem will show you a rather simple way

of solving your problem. The use of cut construction

paper will provide freedom and flexibility in experi-

menting.

Materials

    a)   White, black, grey construction paper
    b)   Scissors
    c)   Rubber cement

Procedure

1. General Rules for Problems 2, 3, and 4. In these problems your task is to divide an area into several portions, and these are to be brought into a new rhythmically balanced relationship.

   How this is done is determined by the basic form you must divide, the number of cuts, the run of the cuts (straight or curved, horizontal, vertical, diagonal), the retention of the original form or its transformation. Certain limitations imposed in each problem will make good results all the more likely.

   There is one basic rule: nothing must be added or taken away.

2. For Problem 2 you will restrict yourself to using two contrasting values and cut in only one direction, using all straight or all curved cuts. You may not mix curved and straight.

3. Select two pieces of 9" x 12" construction paper. One will be your background. From the other cut a 6" square.

4. Now cut the square apart using straight or curved lines moving in one direction.

5. After you have made a number of cuts (any number is acceptable), experiment by moving the sections apart, up and down, right and left. Experiment with variations in the space between sections and variations in moving the split sections up and down. Study each arrangement. When you achieve one that you feel is interesting because of its movement of line and variety of spacing, paste it to your background paper.

Remember: it must be possible to recreate the original square by pulling all of the pieces together again.

Some arrangement possibilities to try:

a)   A balanced rhythm of equal parts
b)   A balanced rhythm of unequal parts
c)   A planned alternation of space and form
       into a determined pattern
d)   Movement, intensified towards the middle
e)   Movement in one direction

6.   Make two plates, one with straight cut shapes and a second with curved cuts.

Time: Two hours

Problem 3

Splitting the rectangle

Purpose

In this problem you will be concerned with further experimentation in dividing space and creating an interesting arrangement of shapes. The purpose of this problem is to focus your attention on the rectangle and the creation of new form relationships. The general rules given in Problem 2 still apply. For the basic shape you will use the rectangle. Specific directions should produce some new, exciting, and interesting results.

Materials

a)   Construction paper, assorted colors
b)   Scissors
c)   Rubber cement

Procedure

1. Select two pieces of 9" x 12" construction paper.

2. Select two other colors from which you are to cut two rectangles 6" x 10". The colors you select for these two shapes should contrast and harmonize with the two pieces of paper on which they will be mounted.

3. Now begin cutting up the shapes.

   You may cut in any direction with straight or curved lines and go in any direction-- vertical, horizontal, diagonal, or any combination of those directions.

   Some arrangement possibilities you might experiment with are:

   a) Introducing movement through broken lines
   b) Establishing a balanced relationship through curved lines on both sides
   c) Splitting through horizontal and vertical cuts
   d) Division through one horizontal and several diagonal cuts
   e) Exploding the form by cutting in different directions
   f) Division according to a rule demanding a build-up around three circular areas (the grain of wood, a whirlpool, etc.)
   g) Cutting into one side of the paper only and moving the resultant shapes out and bringing them into a harmonious relationship. A strong pictorial effect will result, in contrast to the other examples.

   Time: Two hours

Problem 4

Splitting the circle

Purpose

The purpose of this problem is the same as that for Problem 3. However, this time you will work with a circular or rounded shape, which is full of promise, and should produce some new and interesting results. The same general rules apply here. You may try to retain the shape or modify it. Good proportion is the guiding rule here. Variety is necessary for interest.

Materials

- a) Construction paper, assorted colors
- b) Scissors
- c) Rubber cement

Procedure

1. Select two pieces of 9" x 12" construction paper.

2. Select two other colors from which you are to cut two round or circular shapes approximately 6" to 8" in diameter. The colors you select for these two shapes should contrast and harmonize with the two pieces of paper on which they will be mounted.

3. Now begin cutting up the shapes. You may cut in any direction with straight or curved lines or any combination of these two.

   Some arrangement possibilities you might experiment with are those given in Problem 3.

   Time: Two hours

Problem 5

Splitting shapes by tearing the paper

Purpose

All too often we get in a rut by doing things in the traditional or accepted way. In this problem we will depart from cutting with scissors and experiment with tearing the paper instead. The purpose of this problem is to note the variety of interesting forms that result when the paper is torn rather than cut. The torn ragged edge itself is more interesting than the slick, clean, mechanical, cut edge. The overall design, too, will take on a different character. The line achieved by tearing is usually more suitable for natural forms than a straight cut.

Materials

    a) Construction paper, assorted colors
    b) Scissors
    c) Rubber cement

Procedure

1. Select four different 9" x 12" sheets of construction paper for your background.

2. Select four other colors from which to tear a basic shape. In selecting colors for this basic shape, think about strong contrast between the shape and the background and pleasing color harmony.

3. Draw the following basic shapes on your paper
    and then tear them out:

    a) Square: 6" - 7"
    b) Rectangle: 6" x 8"
    c) Circle: 6" diameter
    d) Oval or Free Form Rounded Shape

4. Begin dividing the shape. Tear instead of
    cutting. All other previous rules apply.
    There are no restrictions as to direction or
    combinations of possibilities.

5. Keep your design compact enough for the eye
    to comprehend how the parts could come back
    together and form the basic shape. Avoid
    too great a space between parts.

6. Experiment with arrangement possibilities
    before pasting the design down. Try different
    spacings between parts. Try moving parts up
    and down, in and out. Strive for interest
    through variety.

Problem 6

Positive-negative shapes: cutting out and folding

back

Purpose

A positive shape or form is one that is cut from a

piece of paper. The hole that remains is a negative

shape. There is nothing in it, but if you lay it down on

a flat surface, you will see the shape of the original

form that was cut out. The purpose of this problem is to

make you aware of positive and negative shapes and to

experiment with creating interesting compositions based on

this principle.

Materials

        a)   Construction paper, assorted colors
        b)   Scissors
        c)   Rubber cement

Procedure

This problem consists of a very simple procedure: cutting out a form from the edge of a given shape (rectangle, circle, triangle, free form) and folding the shape back.

There is one basic rule: nothing must be taken away or added. At the same time, your design will be successful to the extent that you can achieve harmony and variety. Harmony in this instance might mean using the same kind of line (cut or torn) or going in the same direction (vertical, horizontal, or both, or diagonal). Variety might be achieved in size, shape, arrangement, and balance of all the parts.

Although the possibilities for combinations are many, for the sake of beginning experimentation, a few restrictions will be imposed on you. Once you learn the principles and see the results, you can experiment in any direction you wish.

1.   Select four sheets of 9" x 12" construction paper to be your background.

2.   From four other sheets of paper cut a square, a rectangle, a circle, and a triangle. In selecting paper for this shape, use a color

that will harmonize and contrast with the color of the background. For size, the following dimensions are suggested:

a) Square: 5"
b) Rectangle: 5" x 8"
c) Triangle: 5" on the shortest side
d) Circle: 5" diameter

3. Using straight or curved lines, vertical or horizontal or diagonal directions, cut a shape or a number of shapes from one side or several sides of the basic form. Once the shape has been cut out, fold it out and lay it outside the figure adjacent to the edge. The rules of harmony and variety, balance, contrast, and patterns of movement (rhythm) should be observed.

The possibilities are endless. You might try similar shapes cut from opposite sides of a figure. Increase the number of shapes cut from each side. Strive for variety through difference in size. Harmony will be maintained if you use the same kind of line or retain the same general shape.

Remember: nothing must be added or taken away.

4. Further possibilities for experimentation

a) Combine splitting a form and then cutting a shape and folding it out.
b) Instead of cutting the positive-negative shapes, tear the shapes and fold them back.
c) Combine splitting by cutting and folding out by tearing, or vice-versa.
d) Create a rhythmic pattern by repeating the split-cut-fold pattern several times. A horizontal design might be 18" or 24" long.
e) Experiment with textured papers; rough against smooth, glossy against matte, striped against mottled, intense color against dull, etc.:
f) Instead of solid colors, select large colored magazine illustrations for your basic form and mount against a solid background.

Problem 7

Creating shapes by paper weaving

Reference

Mosley, Spencer; Johnson, Pauline; and Koenig,
Hazel. Crafts Design. Belmont, California:
Wadsworth Publishing Company, Inc., 1967.

Purpose

Shapes are not always bold and immediately percept-able. They might be subtle and not immediately percept-able because of insufficient contrast or the interpenetration of transparent shape. The purpose of this problem is to create subtle shapes and shapes within shapes through the technique of paper weaving.

Materials

    a) Construction paper, assorted colors
    b) Scissors or X-acto knife
    c) Ruler
    d) Pencil

Procedure

    1. Fold a 9" x 12" piece of construction paper in
        half vertically. With a pencil mark a 1/2"
        margin opposite the folded end. Now mark
        vertical parallel strips and cut on these
        lines up to the margin. In weaver's
        terminology this piece is known as the warp.

    2. Now cut strips of paper for weaving. This is
        the weft strip, and can be of various widths.
        To weave, take a weft strip and place it under
        the warp strip on the edge and over the next
        warp strip, continuing under and over across the
        warp. Weave the second weft strip in the
        opposite order, next to the first

one. As each strip is woven, push it into place tightly. In weaving, this is called beating. Repeat the process until the warp is filled in with strips.

3. Creating patterns and shapes. Patterns and shapes will emerge depending on how the warp piece is cut and the color and width of the weft strips.

    If the warp piece and weft pieces are cut the same width, then a checker board pattern will emerge. This is a basic pattern called a plain weave.

    To weave a twill pattern, weave the weft strip under one and over two warp strips. The diagonal is made by shifting the under shot one space on the right each time.

    A herringbone pattern is woven in the same manner as the twill, but the diagonal is interrupted and the steps repeated in reverse order.

    For the greatest possible variety in woven patterns, experiment with cutting the warp strips at angles, or in curved or wavy patterns. It is not necessary that the lines be parallel. Mix straight and curved lines. Even in cutting straight parallel lines, vary the width between the cuts. The possibilities for cutting are endless.

    The weft strips must be cut straight, but they do not have to be of the same width. Experiment with strips 1/4", 1/2" and 3/4" wide. Do not limit yourself to only one color. Try a scheme using closely related hues; one using black and white and color. Here again, the possibilities are endless.

4. Assignment

    a) Select four pieces of 9" x 12" construc-
        tion paper for the warp.

(1) Cut one with straight parallel
vertical lines.
(2) Cut one with a combination of
vertical and diagonal lines.
(3) Cut one with wavy lines in a
vertical direction.
(4) Cut one with a combination of
straight and curved lines.

b) For the weft, select harmonizing colors
and vary the width of the cut. Much
experimentation can be done here.
c) Mat the finished pieces.

Problem 8

Four designs using the wax crayon free form problem

Purpose

This problem is a variation of Problems 3 and 5 and
utilizes the wax crayon free form design you made in
Problem 1. The purpose is to experiment with making a
pleasing composition applying the positive-negative, cut-
fold back technique to a ready made design. As with all
problems, the benefit to the student comes from the
experimentation, noting the results, and evaluating the
success or failure of the technique or its application.

Materials

a) Wax crayon design created in Problem 1
b) Scissors
c) Rubber cement
d) Black or white construction paper

Procedure

1. Cut the wax crayon design into quarters.

2. With one quarter make a positive-negative design by cutting and folding back as in Problem 5.

3. With another quarter make an exploded rectangle design as in Problem 3.

4. With another quarter combine an exploded design with a positive-negative.

5. Leave the final quarter as it is.

6. Each of the designs is to be mounted with rubber cement on either black or white paper depending on which makes the most pleasing background. Contrast is an important consideration here.

List of Slides Illustrating Shape Problems

Problem 1

Free exploitation of curvilinear shapes

Slide a)   A completed drawing
      b)   A detail of Slide a
      c)   A detail of Slide a
      d)   A detail of Slide a

Problem 2

Dividing the square into an interesting arrangement of shapes

Slide a)   Curved vertical cuts
      b)   Straight vertical cuts

Problem 3

Splitting the rectangle

Slide a) Straight cuts, vertical and horizontal
b) Variation--shadow duplication
c) Curved cuts
d) Curved cuts
e) Curved cuts
f) Curved cuts
g) Curved cuts
h) Curved cuts

Problem 4

Splitting the circle

Slide a) Straight cuts only
b) Straight cuts only
c) Straight cuts only
d) Straight cuts only
e) Curved cuts only
f) Curved cuts only
g) Curved and straight cuts
h) Curved and straight cuts

Problem 5

Splitting shapes by tearing the paper

Slide a) Circular shape
b) Square shape
c) Circular shape

Problem 6

Positive-negative shapes: cutting out and
folding back

Slide a) Square shape, straight cuts
     b) Square shape, straight and curved cuts
     c) Rectangular shape, vertical and horizontal straight cuts
     d) Rectangular shape, diagonal straight cuts
     e) Rectangular shape, straight vertical, horizontal, and diagonal cuts
     f) Rectangular shape, straight vertical, horizontal, and diagonal cuts, split arrangement
     g) Rectangular shape, straight and curved cuts
     h) Triangular shape, curved cuts
     i) Circular shape, curved cuts
     j) Circular shape, divided, curved cuts

Problem 7

Creating shapes by weaving paper

Slide a) Straight, parallel, vertical cuts
     b) Straight, vertical and diagonal cuts
     c) Curved lines cut in a vertical direction
     d) Curved lines cut in a vertical direction
     e) Curved lines cut in a vertical direction
     f) Curved lines cut in a vertical direction
     g) Combination of straight and curved cuts
     h) Combination of straight and curved cuts

Problem 8

Four designs using the wax crayon free form problem

Slide a) One quarter of the free-form design of Problem 1
     b) One quarter of the free-form design of Problem 1
     c) Positive-negative shapes cut from a quarter of Problem 1
     d) Positive-negative shapes
     e) Split rectangular shape
     f) Split rectangular shape

Adaptations of Previous Problems

Slide a) Positive and negative shapes cut from a
basic amoeboid shape and then arranged
with superimposition
b) Exploded square, vertical and horizontal
cuts, with some sections cut out
c) Exploded square with sections removed and
superimposed
d) Positive and negative leaf shapes cut from
black paper and mounted on an orange
ground

d) Intermediate colors: a mixture of a primary with a neighboring secondary color

e) There is actually no limit to the number of intermediate colors because a change of proportion in the amount of primary and secondary will make a change in the resultant hue.

f) Color Wheel: a systematic placing of the primary, secondary, and intermediate colors on a wheel, with the primaries being placed at equal distances from each other (yellow at the top), the secondary colors in between, and the intermediate colors between the primary and the secondary

g) The closer together the colors appear on the color wheel, the closer their hue relationship.

h) Hues which appear directly opposite each other afford the greatest contrast and are known as complementary colors.

2. Value: the lightness or darkness of hues

a) It is possible to have many steps between the darkest and lightest appearance of any one hue.

b) Value indicates the quantity of light being reflected. A large amount of light is reflected from yellow; a small amount from violet.

c) At spectrum intensity each color has a normal value which indicates the amount of light it reflects.

d) Normal values can be darkened or lightened by the addition of white or black pigment.

e) The normal value range extends from the lightest hue (yellow) to the darkest (violet) with the other hues assigned a place in between as indicated below.

	WHITE	
	High Light	Yellow
Yellow-orange	Light	Y-Green
Orange	Low Light	Green
Red-orange	Medium	Blue-Green
Red	High Dark	Blue

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Red-violet        Dark          B-Violet
Violet            Low Dark
                  BLACK
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3. Intensity: the brightness or dullness of a color

   a) Indicates the <u>quality</u> of light being reflected
   b) Also called <u>saturation</u> or <u>chroma</u>
   c) The saturation point or the purest color is actually found in the spectrum produced by a beam of light passing through a prism
   d) Artist pigment which comes closest to resembling this color is said to be at spectrum intensity
   e) Four ways of changing the intensity of colors when mixing pigments

      (1) Adding white
      (2) Adding black
      (3) Adding grey (black and white)
      (4) Adding the complementary color. When intensity is changed by this method, the resulting colors have a certain liveliness of character not present when they are neutralized by a grey pigment

D. Color relationships

   1. The character of a single color may be changed when it is seen with other colors.

   2. Colors may be closely related or contrasted in varying degrees.

   3. The greatest contrast is between colors directly opposite on the color wheel.

   4. Triadic colors: three colors equidistant from each other on the color wheel

      a) Primary triad: primary colors
      b) Secondary triad: secondary colors a softer contrast than that of the primary triad

5. Analogous colors: neighboring colors; those which appear next to each other on the color wheel; the closest relationship between colors

6. Warm colors: those associated with sun or fire

7. Cool colors: those associated with sky, water, ice

8. Simultaneous contrast: the effect of one tone upon another

    a) When two different colors come into direct contact, the contrast will intensify the difference between them

    b) The contrast can be in the characteristics of intensity or value

        (1) A greyed blue will look brighter if placed against a grey background; it will look greyer or more neutralized against a bright blue background.

        (2) Any given color will look lighter and brighter against a black background and darker and duller against a white background.

        (3) When a warm tone is seen in simultaneous contrast to a cool tone, the warm tone is warmer and the cool tone cooler.

        (4) When a neutralized grey is placed next to a strong positive color, it tends to take on a hue character complementary to the positive color.

        (5) It is better to develop a color composition all at once rather than trying to finish one area completely before going on to another.

II. The uses of color

    A. To give spatial quality to the pictorial field

1. Supplement or even substitute for value differences in order to give plastic quality, to build a form from the advancing and receding characteristics of certain colors

2. Create interest through the counterbalance of backward and forward movement in pictorial space

   a) Warm colors seem to advance
   b) Cool colors seem to recede

B. To create mood, symbolize ideas, and serve as a vehicle for the expression of personal emotions and feelings

1. Light, bright colors make us feel happy; cool, dark, or sombre colors are generally depressing.

2. Different hues may have different emotional impacts. Red is happy and exciting; blue may be dignified, sad, or serene.

3. Values and intensities of the hues in a color tonality may have an effect on its feeling tone.

   a) A decided value range gives a color scheme vitality and directness.
   b) Closely related values and low intensities suggest subtlety, calmness, and repose.

4. Color may symbolize ideas or abstract qualities as virtue, loyalty, honesty, evil, cowardice through <u>traditional association</u>.

5. Color can reflect the artist's personal emotions. Most truly creative artists evolve a personal style of color tone which comes primarily not from the subject but from their own feelings about it.

   The emotional approach to color appealed particularly to the expressionistic painters who used it to create an entirely <u>subjective treatment</u> having nothing to do <u>with objective reality</u>.

C. To accomplish aesthetic appeal by a system of well-ordered color relationships

    1. Color balance: variety in unity. There must be relationships between the color tones, but these relationships must be made alive and interesting through variety

    2. Color combinations: basic types of organization

        a) Unified color patterns

            (1) Use of one hue only (monochromatic). Variety achieved by using contrasting values or intensities.

            (2) Keying a number of colors toward one hue. (A little is mixed with every color used in the combination.) Glazing over a vari-colored pattern with a single tone of color can become the key color.

            (3) All warm or all cool colors in combination. However, a small amount of a complementary or a contrasting neutral may be used for variety.

        b) Contrasting color patterns: hue combinations having strong contrast and variety of color. These have the greatest possibilities for expressive effect.

            (1) Where the basic unity of a color pattern has been established, use strong contrasts of color in small accents.

            (2) Separate all or part of the tones by a neutral line or area. Absolute black or white lines are the most effective neutrals for this purpose.

            (3) Use a large area of neutral grey or neutralized color as a background for clashing contrasts of color.

        c) Combinations of color frequently defy the exactness of any rules and are still satisfying to the eye. The artist uses

color to give a highly personalized
meaning to the subject matter of his
work.

III. Related audio-visual materials

FM-108   Orange and Blue

FM-276   Vincent Van Gogh

F -279   Light and Color

F -649   Working with Paints

F -832   Van Gogh

F -834   Expressionism

F -837   Fauvism and Early Expressionism

F-1976   The Purple Flower

F-1978   The Yellow Bird

F-1979   The Green Caterpillar

F-1980   The Blue Balloon

F-1981   The Red Car

F-1993   The Orange Pumpkin

F-2879   Color

F-4281   Colour

F-4549   Color in Your Clothes

K--129   Observing and Describing Color

S -143   Color and You

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    Decorative Arts.

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Prohaska, Ray. A Basic Course in Design.

Scott, Robert Gillam. Design Fundamentals.

Snelgrove, Isabel Pearl. The Practice and Apprec-
     tion of Design.

Color Problems

Problem 1

Experimentation with mixing tints and shades

Purpose

The best understanding of color comes from long
experience in using color, mixing, blending, studying the
relationship of one color to another. In this problem you
will have the experience of observing what happens to pure
color when it is mixed with white and black.

Materials

a) Water tempera paint
b) Good quality No. 12 brush
c) Illustration board or pebble mat board
d) Mixing tray with many compartments
     (white or clear plastic ice cube tray
     is ideal, or a tray similar in design)
e) Containers for water
d) Scraps of board for sample colors
e) Metal-edge rule
f) Small X-acto knife with No. 11 blade

Procedure

    In this problem you will make twelve (12) value
scales for tints of the primary, secondary, and inter-
mediate hues and twelve value scales for the shades of the
primary, secondary, and intermediate hues.

    A tint is any color that has been mixed with white.
A shade is any color that has been mixed with black. A
value scale is a series of tints or shades of varying
degrees.

1. Cut 24 strips of illustration board, bristol
   board, or pebble mat board 2" x 14".

2. Rule the strip in 2" squares.

3. To make a tint value scale take one of the
   strips and in the square at one end paint
   a pure hue (exactly as it comes from the
   bottle) of a color. At the other end paint
   white.

4. Paint the other squares now, adding a little
   of the pure color to the white for the
   square that comes after the white square.
   As you continue to paint the squares between
   the pure white one and the pure color one,
   the squares should progressively get darker,
   closer to the value of the pure color. The
   colors mixed with white are the tints.

   After you have completed one tint value
   scale, have it approved by the instructor.
   If you are proceeding correctly, continue
   to paint value scales for the other eleven
   tints.

5. A shade value scale is made by adding black
   to the pure color. At one end of a
   cardboard strip, paint a square of pure
   color and at the other end a square of pure
   black. Mix the intervening values by adding

a little black to the pure color. Have
your value scale approved by your instructor,
punch a hole in the white end or the black
end of each scale and assemble on a metal
ring or tie together with string.

Time: Approximately 24 hours. As the
student gains experience in mixing and
learns to control the values between the two
extremes, the mixing and painting goes much
faster.

Problem 2

Mixing complementary colors

Purpose

When colors opposite each other on the color wheel

are mixed they produce a neutral or "greyed" color.

Depending on the proportion of each color, the mixture

will tend to look more like one or the other. The best way

to understand what happens when complementary colors are

mixed is to carry out such an experiment. The purpose of

this problem is to help you to understand what happens

when complementary colors are mixed and to appreciate the

rich variety that can be produced in this way.

Materials

a) Water tempera paint
b) Good quality No. 12 brush
c) Illustration board or pebble mat board
d) Mixing tray
e) Containers for water
f) Scraps of board for sample colors
g) Metal-edge rule
h) Small X-acto knife with No. 11 blade

i) Black mat board for mounting your charts
j) Rubber cement

Procedure

In this problem you will make six (6) charts
illustrating the mixing of the complementary colors of red
and green, yellow and violet, blue and orange, red-orange
and blue-green, red-violet and yellow-green, and yellow-
orange and blue-violet.

1. Cut six (6) strips of illustration board,
   or mat board 2" x 18".

2. Rule the strip into 2" squares.

3. To make your first mixed-complement scale
   take one of the strips and in the square at
   one end paint a pure hue of one of the
   colors. At the opposite end paint a square
   of the complement. Now paint the squares in
   between, adding the darker color to the
   lighter. The square in the middle should be
   the most neutral, showing no resemblance to
   either of the complements. The colors to
   the right and left of this middle color will
   show progressively strong traces of the
   color at the end.

4. Before painting the other five complement
   charts, have your first one approved by the
   instructor to be certain that your color
   balance is correct.

5. After you have completed the six charts
   showing the mixture of color complements,
   mount them with rubber cement on black mat
   board. Allow for a 2" margin of black board
   at the top and the sides of your charts, 1"
   between each of the charts, and 3" at the
   bottom.

   Time: Six hours

Problem 3

Mixing tints and shades of mixed comlements

Purpose

In Problem 1 you mixed tints and shades of the
primary, secondary, and intermediate colors. In Problem 2
you saw what new colors resulted when you mixed comple-
mentary hues. In this problem you will see what happens
when you mix tints and shades of each of the colors in
your chart of mixed complements. You should be impressed
with the wide range of distinct colors that can be
produced by mixtures of two hues, white, and black.

Materials

a) Water tempera paint
b) Good quality No. 12 brush
c) Illustration board, bristol board,
   or pebble mat board
d) Mixing tray
e) Containers for water
f) Scraps of board for sample colors
g) Metal-edge rule
h) Small X-acto knife with No. 11 blade
i) Black mat board for mounting your charts
j) Rubber cement

Procedure

1. Prepare one strip of board 2" x 18" for a
   chart showing the mixture of two comple-
   mentary colors.

2. Prepare nine (9) strips of board 2" x 16".
   These will be for the four tints and four
   shades of each of the separate colors in
   your mixed complement chart.

3. Proceed to mix your two complements as you did for Problem 2. However, this time, mix enough of each color to make four tints and four shades. This will require about eight tablespoons of each color. Your experience will tell you if this is too little or too much.

4. After you have painted your mixed complement chart and reserved enough of each color of paint, begin painting four tints and four shades of the two pure colors and the seven mixtures. Once this work has been completed you are ready for step 5.

5. With your X-acto knife and metal-edge ruler, cut each of the squares in your mixed-complement chart apart and line them up vertically with the lighter color at the top.

   Next assemble the tints for each color in the vertical arrangement to the left and the shades to the right.

6. In arranging colors on the black mat board for pasting, provide for equal space at the top and sides and the same amount of space plus 1" at the bottom. The individual colors of the mixed complements should be placed 1/4" apart on a vertical line. The tints and shades should be placed 1/4" to the left and the right of the original color. The tint and shade charts will likewise be 1/4" from each other. The overall arrangement will have tints to the left and shades to the right and the lighter values at the top progressing down to the darker ones at the bottom.

   Time: This is a lengthy problem and requires much patient mixing and comparison of values. It is only an estimate that the problem will take from ten to fifteen hours to complete.

List of Slides Illustrating Color Problems

Problem 1

Experimentation with mixing tints and shades

Slide a)   Value scales for tints

Problem 2

Mixing complementary colors

Slide a)   Six value scales mixing complementary
colors

Problem 3

Mixing tints and shades of mixed complements

Slide a)   The finished project: tints and shades
of each of the values produced by
mixing a set of complementary colors

Problem 4

Stitchery project

Slide a)   Wall hanging: felt applique on burlap
with stitchery
b)   Another view of the wall hanging from
Slide a)
c)   Framed stitchery composition. Felt
applique on burlap with stitchery
d)   Hooked rug, analogous color scheme

CHAPTER IV

AUDIO-VISUAL RESOURCE MATERIAL

The following list represents those audio-visual
materials closely related to teaching art and available
from the materials center of Morehead State University's
Johnson Camden Library. The list is unique in that it
represents a first effort to classify materials by their
fields of study. Periodically, the materials center
publishes its recent acquisitions, but these are contained
in general accessions lists which are inconvenient to use
because all the titles have to be skimmed to discover
those related to a particular discipline. This present
list should prove a time saver to those art students who
use the materials center. It may also encourage more
students in art education to explore the abundance of
teaching aids available to them.

This present list still has to be perused for
materials relating to a particular teaching unit. The
titles have not been classified. Because of the numerous
ways a particular piece of material might be used, classi-
fication would have been a very time-consuming task
because of the necessity of cross-classification and might
not have been all that beneficial since classifications
are to some degree subjective. As the pages stand, they

are shorter and easier to read than the original list from which they were extracted. In most cases the title is descriptive of the contents.

The materials which art teachers will find most useful are 16mm sound films, silent film loops of three to four minutes duration, film strips, kits, slides, and transparencies. They are available to students as well as well as to faculty. Many students will find, however, that some of the materials are on permanent faculty or department loan. When this is the case, the materials center librarian can best advise the student on the procedure for borrowing the materials he needs. For example, many of the art history slides are on permanent loan to the art department, are catalogued there, and must be obtained from that department.

While checking all of the materials on this list, several problems arose of which the reader should be aware:

(1) This list is complete as of June, 1975 and all materials accounted for. Since that time new materials may have been purchased. Other materials may have been lost or withdrawn from circulation. Slide sets are particularly difficult to keep whole and intact. When a particular item cannot be located, the librarian should be consulted for an explanation. Students should also inquire regularly about new purchases.

(2) The distributors from which the audio-visual materials were originally purchased are listed. Some may no longer be in business or may have merged with another firm. The names and addresses of distributors are as correct as the 1975 catalog.

Finally, a word is ncessary to explain the numerous code symbols given in the listing. The letters and numbers in brackets refer to a distributor on the distributors' list. The key to the other abbreviations is given below:

CA	= Cassette tape	K	= Kit
CH	= Chart	MA	= Spirit masters
MP	= Film loop	R	= Phonograph record
F	= Film strip	S	= Slides
FM	= Sound film	T	= Reel-to-reel tape
G	= Teacher's guide	TR	= Transparencies
		n.d.	= No publication date given

Distributors of Audio-Visual

Educational Materials

[1] American Library Colored Slide Co.
305 East 45th St.
New York, NY   10017

[2] American Optometric Association
7000 Chippewa St.
St. Louis, MO   63119

[3] American Textile Manufacturers Institute
1501 Johnston Building
Charlotte, NC   28281

[4]   Bailey-Films Associates
      11559 Santa Monica Blvd.
      West Los Angeles, CA   90025

[5]   BFA Educational Media
      2211 Michigan Avenue
      Santa Monica, CA   90404

[6]   Brookwood & Company
      P.O. Box 3137
      Mount Royal Station
      Duluth, MN   55803

[7]   Budek Films & Slides Division
      AVID Corporation
      P.O. Box 4263
      10 Tripps Lane
      East Providence, RI   02914

[8]   California Design
      Pasadena Art Museum
      Pasadena, CA   91100

[9]   Center of the Study of Democratic Institutions
      136 East 57th St.
      New York, NY   10022

[10] Churchill Films
      662 North Robertson Blvd
      Los Angeles, CA   90069

[11] Classroom Material, Inc.
      93 Myrtle Drive
      Great Neck, NY   11021

[12] Comma
      Communication Material Exchange
      1535 Ivar Ave.
      Hollywood, CA   90028

[13] Common Ground, Ltd.
      44 Fulham Rd.
      London, SW 3, England

[14] Coronet Instructional Films
      65 E. South Water Street
      Coronet Building
      Chicago, ILL   60601

[15] Creative Concepts
      P.O. Box 649
      Carlsbad, CA 92088

[16] Creative Education Foundation
      1125 Pine Ave. 17D
      Redlands, CA 91405

[17] Curriculum Films, Inc.
      10 East 40th Street
      New York, NY 10016

[18] Denoyer-Geppert Co.
      5235 Ravenswood Ave.
      Chicago, ILL 60640

[19] A.B. Dick Co.
      5700 West Touhy Ave.
      Chicago, ILL 60648

[20] Douglas Grime
      Address unobtainable

[21] Educational Audio-Visual, Inc.
      29 Maple Ave.
      Pleasantville, NY 10580

[22] Educational Dimensions
      Francis Lewis Blvd.
      Flushing, NY 11358

[23] Prothmann Associates, Inc.
      650 Thomas Ave.
      Baldwin, NY 11510

[24] Educational Production
      Bradford Road, East Ardsley
      Wakefield, Yorkshire
      England

[25] Encyclopedia Britannica Educational Corp.
      425 North Michigan Ave.
      Chicago, IL 60611

[26] Eye Gate House, Inc.
      146-01 Archer Ave.
      Jamaica, NY 11435

[27]   Hester and Associates
       P.O. Box 20812
       11422 Harry Hines Blvd.
       Dallas, TX 75229

[28]   Imperial Film Company, Inc.
       321 South Florida Ave.
       Lakeland, FL 33803

[29]   Instructo Corporation
       1635 North 55th St.
       Paoli, PA 19301

[30]   International Film Bureau, Inc.
       332 South Michigan Ave.
       Chicago, IL 60604

[31]   McGraw-Hill Films
       330 West 42nd St.
       New York, NY 10036

[32]   McKnight and McKnight Publishing Co.
       Bloomington, IL 61701

[33]   Museum Extension Service
       80 West 40th St.
       New York, NY 10018

[34]   National Education Association
       1201 Sixteenth St., N.W.
       Washington, DC 20036

[35]   New York Times
       College and School Service
       229 West 43rd St.
       New York, NY 10036

[36]   Pictorial Films
       1501 Broadway
       New York, NY 10019

[37]   Project Seven Productions
       331 North Maple Dr.
       Beverly Hills, CA 90210

[38]   Sandak, Inc.
       4 East 48th St.
       New York, NY 10017

[39]   Warren-Schloat Productions, Inc.
       150 White Plains Road
       Tarrytown, NY   10591

[40]   Scholastic Magazines
       906 Sylvan Way
       Englewood Cliffs, NJ   07632

[41]   School of Visual Arts
       209 East 23rd St.
       New York, NY   10010

[42]   Scott Education Division
       104 Lower Westfield Rd.
       Holyoke, MA   01040

[43]   Society for Visual Education, Inc.
       1345 Diversey Parkway
       Chicago, IL   60614

[44]   3M Company
       Visual Products Division
       3M Center
       St. Paul, MN   55101

[45]   Time-Life Multimedia Education
       Time & Life Building
       Rockefeller Center
       1271 Avenue of the Americas
       New York, NY   10020

[46]   University of Wisconsin
       Bureau of A.V. Instruction
       Madison, WI   53706

[47]   Visuals for Teaching
       Division of Visuals in Science
       1137 North Cole Ave.
       Los Angeles, CA   90038

[48]   Visual Production
       London, England

[49]   Milady Publishing Corp.
       3839 White Plains Road
       New York, NY   10067

Morehead State University

Johnson Camden Library Materials Center

List of Audio-Visual Materials Related to Art

Films: Silent Film Loops
(3-6 minutes)

Self-explaining, usually with captions

MP-125   Crayon I: Etching [27] 1971
MP-126   Crayon II: Inlay [27] 1971
MP-127   Clay: Pinch Method [27] 1971
MP-128   Clay: Coil Method [27] 1971
MP-129   Clay: Slab Method [27] 1971
MP-130   Designing from Nature [27] 1971
MP-131   Fingerpainting [27] 1971
MP-132   Lettering [27] 1971
MP-133   Paper Mache [27] 1971
MP-134   Experimental Painting I [27] 1971
MP-135   Design in Tissue Paper [27] 1971
MP-136   Collage [27] 1971
MP-137   Making a Mobile [27] 1971
MP-138   Figure Drawing: Contour [27] 1971
MP-139   Figure Drawing: Shading [27] 1971
MP-140   Print Processes I: Gadget Prints [27] 1971
MP-141   Print Processes II: Relief and Brayer Printing
              [27] 1971

MP-142   Sand Casting [27] 1971
MP-143   Puppetry [27] 1971
MP-144   Sculpturing in Soap I: Design [27] 1971
MP-145   Stitchery I: Cardboard and Screen [27] 1971
MP-146   Stitchery III: Traditional Stitches [27] 1971
MP-147   Watercolor: Paper Preparation [27] 1971
MP-148   Weaving I: Simple Looms [27] 1971
MP-149   Wood Scrap Sculpture [27] 1971
MP-150   Sculpturing in Paper [27] 1971
MP-151   Sculpturing in Plaster-Vermiculite [27] 1971
MP-152   Poster Making [27] 1971
MP-153   Watercolor: the Wash [27] 1971
MP-154   Watercolor: Wet-into-Wet [27] 1971
MP-155   Design in Wire [27] 1971

Films: 16mm Sound

FM-26   Care of Art Materials. B/W, 11 min. [31] n.d.
FM-43   Paper and Pulp Making. Color, 11 min. [14] n.d.
FM-83   Arts and Crafts in West Africa. Color, 11 min.
    [4] 1969.
FM-85   African Craftsmen: The Ashanti. Color, 11 min.
    [4] 1969
FM-108   Orange and Blue. Color, 15 min. [31] 1962
FM-232   Leonardo da Vinci and His Art. Color, 13 min.
    [14] n.d.
FM-257   Art Appreciation. Color, 14 min. [14] 1972
FM-265   Michelangelo and His Art. Color, 16 min. [14]
    1963
FM-276   Vincent Van Gogh. Color, 21 min. [14] n.d.
FM-279   Jacques Lipchitz: Birth of a Bronze. Color,
    10 min. 1966
FM-288   The Renaissance. Color, 11 min. [14] 1950
FM-294   Rembrandt, Painter of Man. Color, 19 min. [14]
    1958

Filmstrips

F-114   There Is Art in Cutting Paper. [43] 1963
F-128   Development of Space Concepts. (G) [30] n.d.
F-130   Developmental Levels in Children's Art Expression.
    (G) [30] n.d.
F-279   Light and Color. [31] 1960
F-394   The Renaissance. [43] 1963
F-447   America's Cultural Revolution. (G) [35] 1966
F-546   Designing a Set. [4] 1951
F-568   Design in Wood. [31] 1952
F-571   Wood Finishing, Part I. [31] 1953
F-572   Wood Finishing, Part II. [31] 1953
F-643   We Work with Paper and Scissors. [25] 1953
F-644   We Work with Paper Mache. [25] 1953
F-645   We Work with Clay. [25] 1953
F-646   We Make Designs with Needle and Thread. [25] 1953
F-647   We Make Stick Puppets. [25] 1953
F-648   We Paint Designs and Pictures. [25] 1953.
F-649   Working with Paints. [25] 1955
F-650   Making and Using Stencils. [25] 1955
F-651   Working with Wax Crayons. [25] 1955
F-652   Making Marionettes & Puppets. [25] 1955
F-653   Working with Paper. [25] 1955
F-654   Experimenting with Sculpture. [25] 1955
F-667   Great Art Past to Present: Painting. (G, R) [11]
    n.d.

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F-1489   Cathedral of St. Mark.   [28] 1967
F-1490   Venice: The Doge's Palace.   [28] 1967
F-1491   Cathedral S. Ambrogio.   [28] 1967.
F-1492   Ravenna: Echoes of Empire.   [28] 1967
F-1522   Peking: The Forbidden City.   [45] 1952
F-1523   Heritage of the Maya.   (G) [45] 1952
F-1524   Athens.   [45] 1952
F-1814   Chief Roman Deities.   (R) [31] 1967
F-1834   Drawing.   [31] 1968
F-1835   Fingerpainting.   [31] 1968
F-1837   Watercoloring.   [31] 1968
F-1838   Painting.   [31] 1968
F-1839   Clay Modeling.   [31] 1968
F-1976   The Purple Flower.   (R) [14] 1968
F-1978   The Yellow Bird.   (R) [14] 1968
F-1979   The Green Caterpillar.   (R) [14] 1968
F-1980   The Blue Balloon.   (R) [14] 1968
F-1981   The Red Car.   (R) [14] 1968
F-1992   The Purple Flower.   (R) [14] 1968
F-1993   The Orange Pumpkin.   (R) [14] 1968
F-1994   The Yellow Bird.   (R) [14] 1968
F-1995   The Green Caterpillar.   (R) [14] 1968
F-1996   The Blue Balloon.   (R) [14] 1968
F-1997   The Red Car.   (R) [14] 1968
F-2145   Mother and Child in Modern Art.   [2] n.d.
F-2153   Early Art No. 1.   (R) [39] 1968
F-2154   Sculpture No. 2.   (R) [39] 1968
F-2155   Masks No. 3.   (R) [39] 1968
F-2246   Roman Architecture in Turkey.   [7] 1967
F-2247   Carthage.   [7] 1967
F-2248   Pompeii.   [7] 1967
F-2249   Roman Sculpture, Part III.   [7] 1967
F-2250   Roman Sculpture, Part II.   [7] 1967
F-2251   Roman Sculpture, Part I.   [7] 1967
F-2252   Herculaneum.   [7] 1967
F-2253   Roman Mosaics.   [7] 1967
F-2255   The Purple Flower.   (R) [14] 1969
F-2256   The Orange Pumpkin.   (R) [14] 1969
F-2257   The Yellow Bird.   (R) [14] 1969
F-2258   The Green Caterpillar.   (R) [14] 1969
F-2259   The Blue Baloon.   (R) [14] 1969
F-2414   Cathedral S. Ambrogio.   [28] 1967
F-2415   Along the Grand Canal.   [28] 1967
F-2416   The Doge's Palace.   [28] 1967
F-2417   Echoes of Empire.   [28] 1967
F-2418   Cathedral Duomo.   [28] 1967
F-2419   Venice: Cathedral of St. Mark.   [28] 1967
F-2446   The Odyssey, Part II.   (R) [28] 1967
F-2447   The Odyssey, Part I.   (R) [28] 1967
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F-2448   The Iliad.   (R) [28] 1967
F-2449   The Gods of Mt. Olympus.   (R) [28] 1967
F-2686   African Art and Culture: Early Art.   (R) [39] 1968
F-2687   African Art and Culture: Sculpture.   (R) [39] 1968
F-2688   African Art and Culture: Masks.   (R) [39] 1968
F-2750   Art Appreciation, Part I: 16th and 17th Centuries.
          (R) [47] 1969
F-2751   Art Appreciation, Part II: 17th and 18th Centuries.
          (R) [47] 1969
F-2752   Art Appreciation, Part III: 18th and 19th
          Centuries.   (R) [47] 1969
F-2753   Art Appreciation, Part IV: 20th Century European
          and American Art.   (R) [47] 1969
F-2769   Art, Architecture, and Religion.   (R) [26] 1968
F-2793   The Parthenon.   (R) [39] 1969
F-2794   The Bayeux Tapestry.   (R) [39] 1969
F-2795   Merode Altarpiece.   (R) [39] 1969
F-2796   The Third of May.   (R) [39] 1969
F-2797   Olympia.   (R) [39] 1969
F-2798   Guernica.   (R) [39] 1969
F-2799   Jewelry.   (R) [39] 1969
F-2800   Architecture.   (R) [39] 1969
F-2801   Textiles.   (R) [39] 1969
F-2854   Textiles, Weaving, and Stitchery.   [8] n.d.
F-2855   Ceramics.   [8] n.d.
F-2876   How to Use Your Eyes, Part I.   (R) [39] 1968
F-2877   How to Use Your Eyes, Part II.   (R) [39] 1968
F-2878   Lines.   (R) [39] 1968
F-2879   Color.   (R) [39] 1968
F-2880   Shapes.   (R) [39] 1968
F-2881   Space.   (R) [39] 1968
F-2961   The Forum in Rome.   (T, G) [21] 1965
F-3275   The Late 19th and Early 20th Century.   [28] n.d.
F-3276   The Dutch Renaissance.   [28] n.d.
F-3277   The 18th and the Early 19th Century.   [28] n.d.
F-3278   The Italian Renaissance.   [28] n.d.
F-3358   Appreciation of Furniture, Part I.   [48] n.d.
F-3359   Appreciation of Furniture, Part II.   [48] n.d.
F-3360   Appreciation of Furniture, Part III.   [48] n.d.
F-3361   Appreciation of Furniture, Part IV.   [48] n.d.
F-3362   Appreciation of Furniture, Part V.   [48] n.d.
F-3363   Appreciation of Furniture, Part VI.   [48] n.d.
F-3410   Emphasis: Art, Part I.   (G) [30] n.d.
F-3411   Emphasis: Art, Part II.   (G) [30] n.d.
F-3534   Offset Inks and Printing Papers.   (R) [19] 1967.
F-3535   Artwork Your Blueprint to Printing.   (R) [19] 1967
F-3540   Leonardo.   (R, G) [25] 1970
F-3541   Michelangelo.   (R, G) [25] 1970
F-3542   Raphael.   (R, G) [25] 1970

F-3543 Titian. (R. G) [25] 1970
F-3544 Van Eyck. (R. G) [25] 1970
F-3545 Durer. (R. G) [25] 1970
F-3550 The Graphic Works of Picasso: Part I: Etchings,
        Drypoints, and Aquatints. (R, G) [17] 1970
F-3551 The Graphic Works of Picasso: Part II: Litho-
        graphs and Linoleum. (R, G) [17] 1970
F-3569 Crafts. (R) [14] 1970
F-3630 Art Masterpieces. [47] 1969
F-4107 Pictures at an Art Exhibition. (R) [21] 1961
F-4108 Civilization: The Frozen World. (R, G) [45] 1971
F-4109 Civilization: The Great Thaw. (R, G) [45] 1971
F-4110 Civilization: The Romance and Reality. (R, G)
        [45] 1971
F-4111 Civilization: Man--the Measure of All Things.
        (R, G) [45] 1971
F-4112 Civilization: The Hero as Artist. (R, G) [45]
        1971
F-4113 Civilization: Protest and Communication. (R, G)
        [45] 1971
F-4114 Civilization: Grandeur and Obedience. (R, G)
        [45] 1971
F-4115 Civilization: The Pursuit of Happiness. (R, G)
        [45] 1971
F-4116 Civilization: The Light of Experience. (R, G)
        [45] 1971
F-4117 Civilization: The Smile of Reason. (R, G) [45]
        1971
F-4118 Civilization: The Worship of Nature. (R, G) [45]
        1971
F-4119 Civilization: The Fallacies of Hope. (R, G) [45]
        1971
F-4120 Civilization: Heroic Materialism. (R, G) [45]
        1971
F-4121 Civilization: Rising Expectations. (R, G) [45]
        1971
F-4122 Civilization: New Art Forms. (R, G) [45] 1971
F-4123 Civilization: Science or Technology: Madness or
        Miracle. (R, G) [45] 1971
F-4190 The Early Years: Native American Painting, Part I.
        (R, G) [39] 1971
F-4191 The Early Years: Native American Painting,
        Part II. (R, G) [39] 1971
F-4192 Colonial American Painting. (R, G) [39] 1971
F-4193 Ancient Greece: The Age and Its Art, Part I. (R,
        G) [39] 1970
F-4194 Ancient Greece: The Age and Its Arts, Part II.
        (R, G) [39] 1970

F-4195   Ancient Greece: The Age and Its Arts, Part III.
       (R, G) [34] 1970
F-4196   The Black Experience in the Arts. (R, G) [39]
       1971
F-4197   The Black Experience in the Arts. (R, G) [39]
       1971
F-4198   The Black Experience in the Arts. (R, G) [39]
       1971
F-4199   The Black Experience in the Arts. (R, G) [39]
       1971
F-4279   Scenery. (G) [13] n.d.
F-4281   Colour. (G) [13] n.d.
F-4294   Basic Design, Part I. [24] n.d.
F-4295   Basic Design, Part II. [24] n.d.
F-4296   Theatrical Costume, Part I. [24] 1946
F-4297   Theatrical Costume, Part II. [24] 1946
F-4298   Practical Application. [24] 1946
F-4299   Simple Design. (G) [24] n.d.
F-4300   Lettering in Design. (G) [24] n.d.
F-4301   Simple Principles. (G) [24] n.d.
F-4393   Pueblo Pottery. [24] n.d.
F-4404   Michelangelo and the Sistine Chapel. [45] 1950
F-4406   Athens. [45] 1952
F-4413   Mighty Rome. [36] n.d.
F-4443   Ancient Egypt. [2] n.d.
F-4454   Ancient Egypt. [45] 1951
F-4457   Art in Nature. [43] n.d.
F-4458   Art Has Many Uses. [43] n.d.
F-4514   The Epic of Man: Coming of Civilization. (G) [45]
       1957
F-4515   The Epic of Man: the Oldest Nation, Egypt. (G)
       [45] 1957
F-4516   The Epic of Man: Egypt's Eras of Splendor. (G)
       [45] 1957
F-4517   The Epic of Man: the First European Civilization:
       Crete. (G) [45] 1957
F-4518   The Epic of Man: the First European Civilization
       Crete. (G) [45] 1957
F-4519   The Epic of Man: the Great Age of Warriors:
       Homeric Greece. (G) [45] 1957
F-4520   The Epic of Man: Forebears of the West: the Celts.
       (G) [45] 1957
F-4549   Color in Your Clothes . [31] 1953
F-4758   How to Use Your Eyes, Part I. (R) [39] 1968
F-4759   How to Use Your Eyes, Part II. (R) [39] 1968
F-4760   Lines. (R) [39] 1968
F-4761   Colors. (R) [39] 1968
F-4762   Shapes. (R) [39] 1968
F-4763   Space. (R) [39] 1968

F-4769   Casting and Molding. (R) [32] n.d.
F-4785   Corporations and Their Trademarks. (R) [32] n.d.
F-4871   Africa: Artistic Heritage. (G) [25] 1969
F-4896   Drawing and Prints. (G) [40] 1970
F-4897   Painting. (G) [40] 1970
F-4898   Three Dimensional Art. (G) [40] 1970
F-4899   Art by Talented Teenages: Drawings and Prints.
           (G) [40] 1971
F-4900   Art by Talented Teenagers: Painting. (G) [40]
           1971
F-4901   Art by Talented Teenagers: Three Dimensional Art.
           (G) [40] 1971
F-4902   Art by Talented Teenagers, 1972: Drawings and
           Prints. (G) [40] 1972
F-4903   Art by Talented Teenagers, 1972: Painting. (G)
           [40] 1972
F-4904   Art by Talented Teenagers, 1972: Three Dimensional
           Art. (G) [40] 1972
F-4912   Bulletin Boards in Action. [5] 1966

Kits

(Two or more types of media usually
boxed or in portable container)

K-01   Macrame. (FL) [27] 1971
K-03   Understanding the Crafts: Macrame. (1F, 1R, 1G)
          [22] 1972
K-64   The Aztecs. (1F, LR, 1G) [25] 1972
K-80   Understanding Art. (6F, 3R, 1G) [22] 1969
K-92   Creativity: A Way of Learning. (1F, 1R, 1G) [34]
          1973
K-129   Observing and Describing Color. (2F, 1CA, 3TR, 1G)
          [25] n.d.
K-130   Observing and Describing Shape. (2F, 1CA, 1TR, 1G)
          [25] 1972
K-158   Ancient Civilizations: Egypt. (1F, 2TR, 20MA, 1G)
          [29] 1971
K-162   Ancient Civilizations: Rome. (1F, 2TR, 20MA, 1G)
          [29] 1971
K-163   Ancient Civilizations: Greece. (1F, 2TR, 20MA,
          1G) [29] 1971
K-164   World History--Three Great Eras of Mankind. (3F,
          3R, 1G) [16] 1970
K-165   Media and Meaning: Human Expression and Technology,
          Part I. (80S, 1CA, 1R, 1G) [10] 1973
K-166   Media and Meaning: Human Expression and Technology,
          Part II. (80S, 1CA, 1R, 1G) [10] 1973

K-167   Folklore and Legendary Heroes. (4FS, 2CA, 1G)
           [26] 1969
K-203   Greek Mythology. (6F, 3R, 1G) [14] 1968
K-206   Romanticism in Art and Music. (2F, 2CA, 1G) [21]
           1972
K-207   Impressionism in Art and Music. (2F, 2CA, 1G)
           [21] 1970
K-219   Teaching the Crafts: An Inservice Course. (1F,
           1R, 1G) [22] 1971
K-220   Afro-American Art, continued from K-224. (1F, 1R,
           1G) [22] 1968
K-221   Understanding the Crafts: Letters and Posters.
           (2F, 2R, 1G) [22] 1971
K-222   Careers in Illustration. (1F, 1R, 1G) [22] 1968
K-223   Careers in Fine Arts. (1F, 1R, 1G) [22] 1968
K-224   Afro-American Art. (1F, 1R, 1G) [22] 1968
K-240   Textiles. (4F, 4R, 4G, 1CH) [3] 1974
K-299   Understanding the Crafts: Pottery. (1F, 1CA, 1G)
           [22] 1970
K-355   Greek Mythology. (6F, 3R, 1G) [14] 1968

Slides

S-97   Medieval Architecture. (40S) [41] 1967
S-99   Modern Art. (100S) [41] 1967
S-100   Ancient Architecture. (14S) [41] 1967
S-101   Roman Architecture. (10S) [41] 1966
S-102   Classical Greek Architecture. (10S) [41] 1966
S-103   Early American Architecture. (10S) [41] 1966
S-104   Modern American Architecture. (10S) [41] 1966
S-105   Renaissance Architecture. (8S) [41] 1966
S-115   Pompeii. (38S) [7] 1966
S-116   Herculaneum. (39S) [7] 1966
S-117   Indian Art. (38S) [7] 1966
S-118   Wooden Architecture of Sweden. (40S) [7] 1966
S-119   Modern Architecture of Finland. (40S) [7] 1966
S-120   Russian Medieval Architecture. (40S) [7] 1966
S-121   Painting in the New Kingdom. (40S) [7] 1966
S-122   Sculpture (Egyptian Art). (40S) [7] 1966
S-123   Sculpture (Egyptian late period.) (40S) [7] 1966
S-124   The Ptolemaic Period. (40S) [7] 1966
S-125   Coptic Art. (40S) [7] 1966
S-126-   The Evolving Creative Vision. (40S in 2 boxes)
S-127   [23] n.d.
S-128-   Italian Children's Painting. (100S in 2 boxes)
S-129   [23] n.d.
S-130-   Design in Our Environment. (60S in 2 boxes) [23]
S-131   n.d.

S-132- Phases and Trends. (40S in 2 boxes) [23] n.d.
S-133
S-134- History of Crafts. (50S in 2 boxes) [23] n.d.
S-135
S-136- Mixed Media. (100S in 2 boxes) [23] n.d.
S-137
S-138- Growth through Art. (94S in 2 boxes) [23] n.d.
S-139
S-140- Art in Education Provides. (100S in 2 boxes) 23
S-141   n.d.
S-142   Design and Technique of Enameling. (25S) [23]
S-143   n.d.
S-144   Things against the Sky. (35S) [23] n.d.
S-145   Design and Creating Fine Jewelry. (25S) [23] n.d.
S-146   Seeing Is Believing. (35S) [23] n.d.
S-147   Art and the Adolescent. (36S) [23] n.d.
S-180   Architectural Styles. (61S) [7] 1967
S-182   History of Japanese Art: Prehistoric Era. (20S)
           [7] n.d.
S-183   History of Japanese Art: Formation of the National
           Gokken. (20S) [7] n.d.
S-207   Architectural Styles. (11S) [49] 1969
S-211   African Arts. (54S) [1] n.d.
S-219   Art and Social Revolution. (80S) [46] n.d.
S-247   Art through the Ages. (375S) [1] n.d.
S-256   Architecture of the 20th Century, AC Series.
           (452S) [38] 1972
S-257   Painting of the 20th Century, PC Series. (493S)
           [38] n.d.
S-258   Sculpture of the 20th Century, SC Series. (169S)
           [38] n.d.
S-259   Design and Decorative Arts of the 20th Century,
           DC Series. (129S) [38] n.d.
S-260   Architecture of the 20th Century, CPC Series.
           (52S) [38] n.d.
S-261   Design and Decorative Arts of the 19th Century,
           DB Series. (143S) [38] n.d.
S-271   Mosaics in the Tomb of Galla Placidia, Ravenna,
           Italy. (10S) [15] 1973
S-272   S. Appollinaire Nuovo, Ravenna. (5S) [15] 1973
S-273   Mosaics in S. Apollinaire Nuovo, Ravenna, Italy.
           (10S) [15] 1973
S-274   S. Vitale, Ravenna. (10S) [15] 1973
S-275   S. Appollinaire in Classe. (7S) [15] 1973
S-276   The Pantheon, Rome. (10S) [15] 1972
S-277   Maison Carée: A Temple. (10S) [15] 1972.
S-278   Apollo and Daphne by Bernini. (5S1) [15] 1972
S-279   David by Verrochio. (5S) [15] 1973
S-300   The Arts of the U.S. (194S) [38] n.d.

S-301   Photography, Code #F. (95S) [38] n.d.
S-302   Graphic Arts of the 20th Century. (160S) [38]   . .
          n.d.
S-303   Indian Arts and Artifacts. (273S) [38] n.d.

Transparencies

TR-374 Home Styles. [44] n.d.
TR-375 Period Design Furniture. [44] n.d.
TR-475 Psychology in Advertising. [6] n.d.

CHAPTER V

ANNOTATED LIST OF IMPORTANT REFERENCES

The purpose of any bibliography is to direct the
reader's attention to books which an author has found
helpful in writing his paper and which might also be of
value and interest to his readers. The following list of
references is considered important not because the refer-
ences have been quoted in the body of this work but
because they are related either directly or indirectly to
a knowledge of design, the teaching of which is the
concern of this work. These are books of theory, funda-
mentals, techniques, aesthetics, history, marketing, and
manufacturing, but all are concerned in some way with
design either as a fine or as a practical art. Many of
these books might easily be ignored or overlooked by art
students because the title or library card entry is too
brief, incomplete, or misleading. What I have attempted
to do is carefully examine all those books with which I
thought teachers and students of design ought to be
acquainted. Admittedly, any serious student could do this
for himself. I have saved him the time and provided a
tool which he should find useful.

The annotations, though somewhat longer than usual,
were intended to be of sufficient length to give the

reader a complete and accurate idea of an author's purpose, a book's contents, and any of its unique features; in short, to let the reader know as much as possible about a book without actually reading it, to provide him with sufficient information to decide whether a particular book contains what might be of interest to him.

All these books are available in the Morehead University library, but this list does not include all of the design books on the shelves. I have limited my selection to standard works, those of recent publication, and those that as a teacher and student I thought would be of special interest to other teachers and students. Because I have restricted myself to using the University library, the list may not contain all the pertinent books in print, but by comparison with several other libraries, the Morehead collection seems to be representative of all that is current and worthwhile. Finally, the University library call numbers are included for the convenience of those students on campus who might read this paper.

Alexander, Christopher. Notes on the Synthesis of Form.
    Cambridge: Harvard University Press, 1964.
    Pp. 216.
745.4   Notes about the process of design--the
A375n   process of inventing concrete objects which
        display physical order, organization, and form in
        response to function. A book of theory about
        solving design problems. Footnotes to every
        chapter.

Alexander, Mary Jean. Handbook of Decorative Design and
    Ornament. New York: Tudor Publishing Co., 1965.
    Pp. 128.
745.4   Basically a resource book of forms. In
A377h   Chapter I the author considers the general aspects
        of design as they relate to the creation of forms.
        In succeeding chapters, she explores basic geo-
        metric forms, forms derived from nature, miscel-
        laneous forms based on artificial or man-made
        forms, enclosed space (design surrounded by a
        border), bands and borders, all over and repeat
        patterns, and historic ornament. A slightly
        oversize book with large, clearly-drawn black and
        white illustrations. Of special value to the
        costume or stage set designer.

Anderson, Arthur D. A Designer's Notebook. Bloomington,
    Illinois: McKnight & McKnight Publishing Co.,
    1966.
    Pp. xi + 228.
745.2   A book written primarily for teaching the
A545d   principles of good design in an industrial arts
        curriculum. The twelve chapters of this book are
        arranged by areas of design, woodworking, plastics,
        drafting, and metalworking. The suggested problem,
        design information, and design techniques can be
        adapted to beginning as well as advanced problem-
        solving experiences. Each chapter presents the
        problem information in the order of: (1) Suggested
        problems--simple and complex; (2) Design informa-
        tion; (3) Process information; (4) Core problem;
        (5) Variations of the core problem; (6) Fabrica-
        tion of information; (7) Other solutions to the
        problem; (8) Experimentation. The layout is
        attractive and designed for easy reading. Illus-
        trated in black line drawings with color blocks
        added for emphasis and visual interest.

Ballinger, Louise Bowen and Raymond A. Sign, Symbol, and
Form. New York: Van Nostrand Reinhold Co., 1972.
Pp. 191.

659.134   An analysis of what makes a good sign is
B192s   extremely difficult, since one can find signs of
charm and elegance that were produced by craftsmen
working in the idiom of folk art and others that
were designed and constructed by the most sophis-
ticated technicians. Collected in this book are
signs, symbols, and designs of unusual interest
and merit, photographed by the authors as they
moved about the world. The collection is compre-
hensive enough to dispel the almost universal
feeling that all signs are tawdry and tasteless.

This volume will be useful to signmakers,
architects, town and traffic planners, graphic
designers, and those actually engaged in commerce
and industry who are seeking inspiration for signs
for their own organizations. The book should also
interest those non-artists who are, nonetheless,
appreciative of the place of art and design in
man's environment. An oversize book with large
black and white photographs. Eight pages of
colored plates. Bibliography.

Ballinger, Raymond A. Layout and Graphic Design. New
York: Van Nostrand Reinhold Co., 1970.
Pp. 96.

655.25   In beginning a work of art, the artist is
8192L   at once faced with the problem of composition.
When composition is applied to the format of a
beautifully printed page, it is known as layout,
the subject of this book. Written for the student
who is interested in the graphic arts, this book
provides basic knowledge and much inspiration
about layout. In each section of the book, the
author presents projects (which may easily be used
as assignments) in studying the various aspects of
the problem of layout.

Illustrations or examples of good layouts are
selected from material of older vintage as well as
contemporary successes. Another feature of the
book is the commentary on the tools and equipment
required by the layout designer and some of the
techniques of preparing a finished printed page.
Index.

Baranski, Matthew. Graphic Design--A Creative Approach.
Scranton, Pa.: International Textbook Co., 1960.
Pp. xxxi + 208.

760.7   The term graphic design as used by the author
B225g   refers to works of art which are produced and may
be reproduced by the process of printing. As the
result of experimentation with many students, the
author has been able to gather a vast number of
usual and unusual ways of creating designs by
utilizing surfaces which will "print" or reproduce
what has been carved, incised, or even scratched
upon them. These experiments should open new ways
of designing for many. The author has prepared a
sound instrument for the use of teachers and
pupils who can profit by experimentation as a way
toward broader adventures in creative achievement
in design. Bibliography and index.

Bates, Kenneth Francis. Basic Design: Principles and
Practice. Cleveland: World Publishing Co., 1960.
Pp. 172.

745.4   This book is no do-it-yourself guide. Rather
B329b   it is a why-do-it book. The author emphasizes
general rules which are the backbone of style in
all ages. But he never lays down hard and fast
precepts from which the designer cannot depart.
The author attacks "do-it-yourself" kits that
delude the would-be artist-craftsman into thinking
he is doing original creative work. What is more,
the product of his effort is often in very bad
taste. The hobbyist must choose outlets other
than art for his leisure hours or make up his mind
to get some basic training in design principles
which is what this book provides. Intended for
beginning students as well as professionals.
Methods of practice and types of problems are
suggested to utilize the theory. The application
of design principles to practical problems follows
the theory. There are excellent illustrated
examples for every chapter. Index and bibli-
ography.

Beitler, Ethel Jane and Lockhart, Bill. Design for You.
New York: Wiley, 1961. Pp. 206. 2nd ed.: 1969.
Pp. xxi + 247.

745.4   The elements of line, shape, space, and color
B423d   are considered in separate chapters. Studio
problems are included. This would be an excellent
text for a serious high school or introductory

college design course. The two editions of this
book are identical in chapter headings. Many
illustrations are the same. The second edition
has a more contemporary typographical look. The
book itself is an example of good design. Both
editions are clean, neat, and attractive in their
easy-to-read layout. Bibliography, glossary, and
index.

Bevlin, Marjorie Elliott. Design through Discovery. 2nd
ed. New York: Holt, Rinehart, and Winston, 1970.
Pp. ix + 382.

745.4   This is a book of theory with no studio
B571d   problems. The book's purpose is to reveal the
1970   links by which creative design processes maintain
a vital continuum with the fundamental creative
methods inherent in nature.

        The author-teacher-artist examines design in
nearly every facet of the arts. The first chapters
explore the general principles of design found in
nature, identify the elements, and assess their
significance. The concepts articulated here
are then applied to an examination, in subsequent
chapters, of design in some fifteen different
modes of expression. The illustrations (473 b/w
and 32 color) are well selected and contemporary.
Throughout the book the designer has established
a close visual relationship between the text and
the illustrations. The summary at the end of each
chapter is a unique feature of this book. Bibli-
ography, glossary, notes, and index.

Bill, Max. Forme: eine Bilanz über die Formentwicklung
um die Mitte des xx Jahrhunderts. A Balance Sheet
of Mid-Twentieth Century Trends in Design. Un
Bilau de l'Evolution de la Forme au Milieu du XXe
Siecle. Basel: K. Werner, 1952.
Pp. 168.

745.43   This is primarily a picture book. It illus-
B596f   trates a survey of the evolution of form towards
the middle of the Twentieth Century. In tri-lin-
gual text illustrated with large black and white
photographs, the author sets forth his philosophy
of the simple, straightforward ideal of good forms
and honest designing for everything man desires to
shape or reshape from plastic teacups to the
planning of better towns for the next generation

to live in. Pictured here are "forms in nature"
and "mechanical forms," everything from transpar-
ent crystals of fossil salt to a Copenhagen
landscape. Index of designers.

Blossfeldt, Karl. Art Forms in Nature: Examples from the
　　　Plant World. New York: E. Weyhe, 1929.
　　　Pp. xv + 120.

740
B656a
Over-
size
　　　　　　This is a book of 120 photograph plates of
flower and leaf forms in various stages of natural
growth enlarged frequently as many as 25 times.
By this enlargement of certain parts of a plant,
the relationship between art and nature is
revealed with startling clarity. By these
pictures, which have not been retouched or
artificially manipulated, this work demonstrates
the close connection between the forms produced by
man and those found in nature. There is unfolded
to the artist who approaches nature with the aid
of the camera's eye a world comprising all the
forms of past styles. The fickle delicacy of a
Rococo ornament, the heroic severity of a Renais-
sance chandelier, the mystically entangled
tendrils of the Gothic style--all these shapes and
forms trace their original design to the plant
world. This is an excellent source book for the
study of form. There is no text other than six
pages of introduction.

Borsig, Tet. Designs in Nature. New York: The Viking
　　　Press, 1961.
　　　Pp. 96.

779.34
V945d
　　　　　　Goethe once wrote, "I have observed that
nature systematically produces living forms as
patterns for all art forms." In this collection
of photographic illustrations, the author reveals
the world of forms which surround us everywhere in
nature and yet remain hidden to most of us. The
reader will discover here an inexhaustible
richness of patterns and forms. Isolating,
lighting, and enlarging natural subject matter
reveals abstract forms that transcend the realm of
art. Thus, the natural forms are presented in a
larger dimension where there is infinite variety.
Aided by the camera, we see models of art in
nature with greater clarity and keener perception.
The law of order and the variety within that order
display themselves in these natural forms just as
they do in a work of art. Similar in concept to

Art Forms in Nature, this volume adds to that rich collection of natural design.

Bothrod, Aaron. A Pottery Sketchbook. Madison: University of Wisconsin Press, 1967.
Pp. xi + 196.

738.15   The sketch has often been considered an
B677p   artist's revelation of what lies nearest his
         heart. An artist's sketchbook is his storehouse
         of ideas. Into its pages he pours his dreams, his
         stray and idle notions, his useful and useless
         doodles, his plans for further explorations. The
         fantasies, abstract devices, and diverting varia-
         tions on the promptings of nature which make up
         the sketches are especially suitable for the
         study of line as a decorative element. The
         examples shown here could easily be adapted to
         other industrial design products such as fabrics
         and wall coverings. There is no text beyond the
         preface. The author lets the sketches speak for
         themselves, and this they do with whimsical
         loquacity.

Bothwell, Dorr and Frey, Marlys. Notan: The Light-Dark Principle of Design. New York: Reinhold Book Corporation, 1968.
Pp. 79.

745.4   Notan is a Japanese word meaning dark-light.
B749n   The principle of Notan is the interaction between
         positive (light) and negative (dark) space and is
         the basis of all good design whether it is
         painting or photography, sculpture or mosaics,
         textiles or pottery, jewelry or printmaking,
         architecture or interior decoration. This
         book is concerned with the practical applications
         of Notan. Through a series of six controlled
         problems of increasing difficulty, the student
         is led progressively and inductively toward that
         experience. A good basic book for the art class-
         room library. Illustrations are in black and
         white.

Bradley, Charles B. Design in the Industrial Arts. Peoria, Illinois: C. A. Bennett Co., 1952.
Pp. 254.

745.43   Intended as a classroom text, this book was
B811d   written to teach an understanding of the
         importance of the art elements as well as the
         industrial phase in vocational arts classes. Part

I presents the basic factors and essential
principles of design in a concrete manner. In
Part II the practice of design is discussed, and
an attempt is made to apply the principles of
design to the various materials which may be used
in the industrial arts shop and to point out the
various design possibilities in connection with
the work. Black and white photographs and
drawings illustrate the topics under discussion.
The illustrations are of industrial designs of
the 1930s and 40s, but interesting for that very
reason. A bibliography is provided for Part I and
for every chapter of Part II. Index.

Brochmann, Odd (translated by Maurice Michael). Good or
Bad Design? London: Studio Vista; New York:
V. N. Reinhold, 1970.
Pp. 94.

745.4   "Scandanavia has produced more good design in
B863g   the last forty years than the rest of Europe and
America put together." (Publisher's Preface) In
this book the author, a distinguished Norwegian
architect, provides a guide to just what good (and
bad) design is all about. He discusses the
concepts of the ugly and the good-looking, what
makes some things attractive and others repulsive,
and to what extent our reactions are linked with,
and so limited by, period and circumstances, or
are of more enduring validity. Understanding
these things enables the architect or designer to
work with increased awareness towards creating a
stimulating environment; it endows the layman with
a capacity for genuine choice in shaping his
immediate private environment.

This is a basic text intended principally for
secondary school students. It is also for anyone
interested in his surroundings. This refreshing
book will provide many guidelines to what is not
good design. Illustrated with free style black
and white pen sketches.

Burris-Meyer, Elizabeth. Color and Design in Decorative
Arts. New York: Prentice-Hall, Inc., 1937.
Pp. xx + 572.

752   The author had three purposes in writing this
B951c   book: (1) To foster interest in color and design,
(2) To provide the reader with a thorough knowledge
of the history and uses of color and design, and

(3) To inspire and foster in the American merchant
an appreciation for color and design in merchan-
dising. Though somewhat dated in appearance, the
book still offers sound principles, and their
application today has probably gone beyond the
author's expectations. There are interesting
chapters like "Designing for Children," "Color and
Cosmetics," and "Color and Line in Dress for Men"
that are seldom covered in the standard text.
This is a book of principles and criticism (no
studio problems) and worth looking at to appreci-
ate the direction design has taken over the past
forty years. Bibliography and index.

Chatt, Orville. Design Is Where You Find It. Ames, Iowa:
Iowa State University Press, 1972.
Pp. 124.

739.27   It is the author's thesis that sources for
C495d   design exist everywhere if one will really observe
what he sees. Although there is a brief consider-
ation of the elements and principles of design,
the book primarily attempts to give the reader a
greater understanding of design by showing
finished jewelry and their idea sources. Through-
out the book large black and white illustrations
of finished pieces of jewelry are accompanied by a
picture of the organic or man-made material which
was the source of the design. Written text is
kept at a minimum, but a careful study of the
illustrations will help the student to understand
the design process. Bibliography.

Cheney, Sheldon and Cheney, Martha Chandler. Art and the
Machine; an Account of Industrial Design in 20th
Century America. New York: Whittlesey House,
McGraw-Hill, 1936.
Pp. xviii + 307.

745   Consumer dissatisfaction with the drab and
C518a   stereotyped appearance of useful commodities of
all kinds inspired the activities which yielded
industrial design. Today the consumer is
intensely conscious that there is a new machine-
age style, but he is often bewildered as to the
laws governing its expression. It is the purpose
of this book to create consumer awareness of what
industrial design values are. Written in 1936,
the book is extremely interesting historically and
still valuable as the primer of industrial art
principles. The illustrations, although

reminiscent of a particular era, nonetheless
illustrates that good design is timeless. Index
and annotated bibliography.

Croy, Peter. Graphic Design and Reproductive Techniques.
New York: Hastings House, Publishers, 1968.
Pp. 282.
760.028   This book attempts to give an answer to all
C954g   questions on the technical aspects and practical
problems of graphic design. A survey is given of
the work of art directors, graphic designers
commercial artists, illustrators, photographers,
typographers, editors, printers, compositors,
colour-analysts, and draughtsmen. This book will
be useful as a reference or student textbook for
would-be designers, draughtsmen, and photographers.
A careful study of this book should enable the
graphic designer to be better able to select the
right solution to his printing problem and commu-
nicate his ideas to those who take on the job.
Black and white illustrations and index.

Dair, Carl. Design with Type. Toronto: University of
Toronto Press, 1967.
Pp. vi + 162.
655.25   The use of written or printed symbols as a
D134d   basic element of design is not a discovery of our
era. It reaches back into the dawn of civiliza-
tion. The invention of movable type simply
provided the means, denied to the ancients, of
reproducing the original work and thereby widening
the public who would see and read it. With the
labor of writing eased by mechanical devices, it
is unfortunate that greater thought has not gone
into the design of printing. This, then, is a
book about typography or the study of the appear-
ance of type-set matter or how to create a
beautifully printed page. The contents cover such
topics as the nature of type, the character of
type face, its arrangement, contrast, style, use
of space, integration of design concept, and
mechanics of typography for publishing. The book
itself is a beautiful example of the application
of all the principles it discusses. Bibliography.

Doblin, Jay. One Hundred Great Product Designs. New York: Van Nostrand Reinhold Co., 1970.
Pp. 128.

745.2
D633o

Product design is the combination of engineering and styling, and good product design results when the utilitarian, social, and aesthetic factors of a product are all carefully managed. In this book members of the faculty of the Illinois Institute of Technology have selected 100 great product designs made between 1742 (the Franklin stove) and 1965 (Bell Trimline telephone). The products selected are all mass produced items designed, tooled, manufactured, and distributed in anticipation of sale. Each product is illustrated in a photograph that best displays the product's aesthetic qualities. The concise text accompanying each picture considers the historical background of the product and the factors that have made it a successful piece of industrial design. Index.

Downer, Marion. Discovering Design. New York: Lothrop, Lee, and Shepard Co., 1947.
Pp. 104.

745.4
D748d

In this thin, simple, easy-to-understand book the author teaches the principles of design through the discovery of design in nature. Large black-and-white photographs are accompanied by sparse text. The topics include: seeing design, symmetry, geometric design, balance, line, rhythm, all-over design, repeated design, functional design, abstract design, and design in painting. This is an excellent book for introducing design to students at any level but is especially recommended for the elementary grades.

Downer, Marion. The Story of Design. New York: Lothrop, Lee, and Shepard, 1963.
Pp. 216.

745.44
D748s

A brief history of design through the ages beginning in Egypt and Greece through the Orient, to Europe and America. The text is concise and the large black-and-white illustrations representative. This is a history of design that would be particularly useful to the secondary school teacher. Bibliography.

Dreyfuss, Henry. <u>Designing for People</u>. New York: Simon
     and Schuster, 1955.
     Pp. 240.

745.43   One of the country's foremost industrial
D778d designers writes about his craft. He tells how he
had approached and carried out his work assign-
ments and reveals what research he does, and what
he has discovered about public taste, and what he
has learned about the average American. An enter-
taining, easy-to-read "inside story" of the world
of industrial design.

Evans, Helen Maris. <u>Man the Designer</u>. New York: Macmil-
     lan, 1973.
     Pp. xii + 390.

745.4   This is an up-to-date book in every aspect--
E92m   clean, neat, layout, modern typographic design,
sharp illustrations, and well-written, interesting
text. The usual chapters on aesthetics, elements
of design, and principles are here, but in
addition are chapters on designing with organic
and inorganic materials, environmental design,
designs from other nations, and the creative
person. Lavishly filled with photographic illus-
trations exemplifying all that is discussed in
the text, it is a basic design reference book.
This is a book of theory; studio problems
are omitted. Bibliography, glossary,
and index.

Feldsted, Carl J. <u>Design Fundamentals</u>. 3rd ed. New York:
     Pitman Publishing Corporation, 1962.
     Pp. 164.

745.4   The purpose of this book is to lead the
F312d student by very simple steps to an understanding of
Ed 3   visual design whether it be pattern design,
advertising design, or pictorial design. Problems
are set forth in sequential order from simple to
complex with illustrations for every step to help
the student learn by doing. It is divided into
four main sections. The first gives an illus-
trated explanation of the fundamentals of design
and a series of three-hour lessons planned to
develop mastery of the principles of design. The
following three sections are concerned with
specialized areas and explain the important
features of each. The black-and-white and colored
illustrations in the lesson section are the work
of first-year college students. Index.

Ferebee, Ann. A History of Design from the Victorian Era
        to the Present. New York: Van Nostrand Reinhold
        Co., 1970.
        Pp. 128.
745.444   This book presents a visual record of the
F349h   artifacts of the first industrial society. It
        records the chief characteristics of Victorian
        design, Art Nouveau, and modern design. The
        author believes that with the death of Corbusier,
        Mies van der Rohe, and Wright, modern design as we
        have known it slipped into the past. With the
        introduction of new energy sources, satellite
        communication, and computer controlled information
        networks, we are now embarking on a second
        industrial age and the articulation of a new
        aesthetic. He feels that the designers of the
        emerging culture will be less concerned with
        objects per se and more concerned with process and
        values.

        In addition to presenting much that has not
        been systematically catalogued before, the main
        purpose of the book is to provide an historical
        framework for a more responsible design esthetic.
        Black-and-white illustrations are used throughout
        to provide examples of the subject matter of the
        text. Index.

Fowler, Herbert Atherton. Modern Creative Design and Its
        Application. Ann Arbor, Michigan: G. Wahr, 1933.
        Pp. xviii + 270.
745   An old book and probably out of print, but
F786m   one that still has some good things to offer,
        particularly the treatment of the principles of
        design, the theory of color, and the relationship
        of nature and design. The author best sums up the
        book in the foreward when he writes: "Based on
        experience gained by working with students of
        design and others interested in the appreciation
        of good design, this book seeks to stimulate the
        reader's mind by suggesting methods of creative
        thought. Set rules or 'recipes' are avoided or
        discouraged. The principles of design as set
        forth in these chapters are so all-embracing that
        they may be stressed and used in many different
        ways until the student finally succeeds in making
        them a part of his subconscious mind where they
        may be drawn upon when needed in the solution of
        any problem in design." Index.

Garland, Ken. Graphics Handbook. London: Studio Vista;
     New York: Reinhold Publishing Corporation, 1966.
     Pp. 96.
659.13   A small book but filled with basic information
G233g   for the graphic designer. An interesting, read-
         able text and imaginative layout provide maximum
         basic information within limited space. Contents
         include: useful concepts, organizing information,
         photography, printing, processing for print, the
         designer's tools, and general information.
         Bibliography.

Graves, Maitland E. The Art of Color and Design. 2nd ed.
     New York: McGraw-Hill, 1951.
     Pp. xvi + 439.
745   A basic textbook in design. Its purpose is
G776a   an orderly, clear, and simple analysis of the
1951   elements and principles upon which all visual art
         is built. The textual content is comprehensive
         and extremely readable. Many black-and-white
         illustrations are used to exemplify the problems
         under consideration. The book is divided into
         three sections: (1) Elements of Design, (2)
         Principles, and (3) Analysis of the Design
         Elements. Questions and exercises make this a
         useful reference for teachers. Interesting
         features include two diagnostic tests--a "Judgment
         Test" and "The Taste Test," which the student
         takes before study to test his innate sense of
         good design. Glossary and index.

Grillo, Paul Jacques. What Is Design? Chicago: P.
     Theobald, 1960. Pp. 238.
729   This book is addressed to the public, abused
G729w   day in and day out by all the bad design they have
         to put up with and suffer from, particularly from
         those who design their surroundings, not only
         homes, offices, and churches, but cars, refriger-
         ators and stoves, and even the cup, the spoon, and
         the hammer. The author presents some interesting
         and fresh ideas about the design of these common
         objects that ought to challenge the consumer to
         react against those who are all absorbed with form
         and have neglected to remember function.

Guyler, Vivian Varney. Design in Nature. Worcester,
     Mass.: Art Resource Publications, 1970.
     Pp. 124.
779.0924   Nature can play an important role in the
G986d   teaching of art and the preparation of young

artists. It can help them develop an awareness
of the visual properties of shape, line, color,
value, texture, and space. It is often through
nature that our earliest ideas and understanding
of these elements are acquired. This book has
been planned to serve as source material for both
teachers and students of art. A series of photo-
graphs has been selected to define and examine the
visual elements as they may be observed in nature.
A chapter has been devoted to each of the
elements: shape, line, texture, value, and space.
Each has been examined for its own inherent
qualities as well as for its relationship to the
other elements. The teacher will see many oppor-
tunities to expand upon certain aspects of design
which are illustrated in the photographs as he
plans activities and projects throughout the year.
A sparse text has been provided as a point of
departure, but the truly creative, poetic soul
will probably write his own text.

Hamilton, Edward A. Graphic Design for the Computer Age.
New York: Van Nostrand Reinhold Co., 1970.
Pp. 192.

760   Anyone who initiates or conceives design as
H217g visual communication should find this book useful.
It is particularly aimed at those who must think
or plan visually in their work: editors, writers,
art directors, architects, architects, TV produ-
cers, public relations executives, scientists,
technicians, business administrators, and students
in many fields of endeavor. While much of the
content is based on the author's experience in
directing design for the print media, its
principles can be applied to all media, including
computer graphics. This book should provide
guidelines for richer variety and higher standards
in the creation of visual materials. Glossary of
computer terminology and index.

Henrion, F. H. K. and Parkin, Alan. Design Coordination
and Corporate Image. New York: Reinhold
Publishing Corporation, 1967.
Pp. 208.

745.2   This is the first authoritative book on an
H519d important new subject. Design coordination is the
concerted and related planning of all activities
of the corporation which can be seen: buildings,
products, packaging, transport, stationery,

publications, signs, uniforms, and all kinds of promotions. The public image of a corporation-- whether industrial or commercial, government department, public service, national or international institution--depends to a considerable degree on the visual impact which it implants by its design items. Twenty-seven examples of successful design coordination are presented in this book. The designers represented all have international reputations... Profusely illustrated with crisp, clean, uncluttered page layouts. A minimum of copy provides the rationale behind each corporate design concept. Index of designers.

Jones, Owen. The Grammar of Ornament. New York: Van Nostrand Reinhold Co., 1972.
Pp. 157.

745.4   First published in 1856, this is a classic
j78g source book for the study of historical ornament
Over- design. The author has selected a few of the most
size prominent types in certain styles that are closely related to each other, and in which certain general laws appear to operate independently of the individual peculiarities of each. Brought into immediate juxtaposition are the many forms of beauty which every style of ornament presents. It has been the desire of the author to arrest the tendency to copy from the past those forms of beauty which have already been copied too frequently. Rather he attempts to help the reader to understand the underlying laws and ideas that lead to the development of new forms of ornamental art. The past is to be considered a guide to the future. Illustrated in color and black and white.

Justema, William. The Pleasures of Pattern. New York: Reinhold Book Corporation, 1968.
Pp. 240.

745.4   "The essence of a pattern is, quite obviously,
j96p repetition. In the minds of many people that is all there is to it. They see a spot, a line, a shape, or an image repeated over and over and assume the result is a pattern. Well, sometimes it is, and sometimes it is not. Quasi patterns abound, and we would do well to recognize them from the start. The special pleasures of pattern are not to be experienced in poor substitutes or loose approximations, attractive as some

of them are." Thus the author introduces the
reader to a book filled with pattern. The three
parts of the book treat of (1) Pattern in general
and in particular, (2) Pattern making, and (3) The
aspects of pattern. The book is profusely
illustrated with black and white photographs of
patterns too varied to enumerate. Annotated
bibliography, list of illustrations, and index.

Kamekura, Yusaku, ed. Paul Rand, His Work from 1946 to
1958. New York: Knopf, 1959.
Pp. 132.

741.6   Paul Rand is a graphic designer whose work is
R187k characterized by simple forms and fresh color. In
his introduction the editor tells us that "Through-
out the best of his work he (Rand) succeeds in
presenting an idea, a message, with a minimum of
pictorial elements and, characteristically, without
loss of charm. There are elegances, humor, and
inventiveness in his designs, but these qualities
he shares with many other artists. What makes him
a master is his thriftiness--a quality very
distinct from poverty and barrenness." Herein the
principles of design are presented as examples of
the designer's work: posters, billboards, news-
paper and magazine advertisements, package design,
book jacket designs, covers, and illustrations.
These are enjoyable to study first as art and only
secondly as a practical solution to an advertising
agency's problem. Biographical notes and bibli-
ography.

Kaufmann, Edgar, Jr. What Is Modern Design? New York:
Museum of Modern Art, 1950.
Pp. 32.

745.43   This is Monograph 3 in the Museum's "Intro-
N532w ductory Series to the Modern Arts." People have
pride and interest in the things they live with
and which, often as not, they have chosen
themselves. Modern designers have often created
their best designs for home furnishings, which
include a diversity of products from textiles to
cooking pots. Hence all of the illustrations are
taken from the field of home products. In five
pages of text, the precepts of good modern design
are succinctly outlined and are meant to be tested
against each object that follows in the twenty-two
pages of photographed illustrations. In this way
the ideas acquire more real meaning, and the

objects, so different from each other outwardly, all will be seen to belong to the tradition of modern design. Once the text and pictures are related, the reader will see to what extent modern design is a great achievement in our age. Bibliography.

Knapp, Harriet E. Design Approach to Crafts: A Philosophy of Appreciation. Springfield, Mass.: Holden Publishing Co., 1945.
Pp. 138.

745.4   Too often crafts are approached merely as
K67d   techniques. The assumption is that originality and quality will take care of themselves. Perhaps they should, but they seldom do. In much the same way design is frequently taught without regard for the crafts. It is this author's belief that designs and crafts are one. There can be no design except through expression in some kind of material. There can be no craft worth doing without design. This book was written to bridge the gap that might exist between the two. It is divided into two parts: (1) Fundamentals of Design Theory, and (2) Craft Experiences. Illustrations are photographs and drawings. Bibliography.

Lindbeck, John Robert. Designing: Today's Manufactured Products. 2nd ed. Bloomington, Illinois: McKnight & McKnight Publishing Co., 1972.
Pp. xiii + 400.

745.4   This book was written to contribute to the
L742d   preparation of designers and those who teach
1972   design. It moves from an overview of design history into a consideration of the methodology employed to design products. A treatment of related visual organization theory is followed by a consideration of design techniques and application to specific materials. A section on design research resources is expanded to include not only the usual bibliography but catalogs, periodicals (domestic and foreign), films, filmstrips, slides, loop films, and a list of design centers. Illustrated in black and white. Index.

McKim, Robert H. Experiences in Visual Thinking. Monterey, California: Brooks/Cole Publishing Co., 1972.
Pp. xi + 171.

153.42   Students' difficulty in art classes is often
M158e   due to underdeveloped powers of visual perception. Some may claim to have no imagination while others

reveal difficulty in departing from stereotyped ideas. Some are blocked in their generation of new ideas. Help in these difficulties lies in learning the art of visual thinking--learning to invigorate and direct the inner sensory imagery that is the active model for idea-sketching. As the title suggests, this book approaches the subject of visual thinking by the avenue of experience. They are the reader's experiences. He must test the experiences suggested in the book. Although the author believes that skill in visual thinking is available and vitally important to virtually everyone, only the reader can validate anything so fundamental to his being, so powerful in its capacity to change his world of ideas and things. The author provides an initial stimulus, the rest is up to the reader. Illustrated with photographs and sketches. Index.

Martin, Leslie C. _Design Graphics_. New York: Macmillan, 1962.
Pp. xi + 274.

744.422 Graphics, as the author uses the word, is the
M379d process of representation through which a designer's ideas are developed, explained to others, and finally translated into information from which the finished objects are produced. These ideas should be expressed as simply, clearly, and attractively as it is possible to present them. This requires that the designer and draftsman b.e able to: (1) choose the type of drawing best suited to the purpose, (2) do effective layout work, (3) make neat, clean-cut, expressive drawings, and (4) add tones, textures, colors, and values when these are appropriate to the use of the drawings. In order to do these things expertly, it is necessary for the designer and draftsman to acquire knowledge and skills in graphical representation. It is to this goal that this book is directed. Of particular value are the five final chapters that consider rendering techniques. Index.

Moseley, Spencer; Johnson, Pauline; and Koenig, Hazel. _Crafts Design_. Belmont, California: Wadsworth Publishing Co., 1962.
Pp. 438.

745.5 This book has been planned to give an appre-
M898c ciation of the crafts. Over 1,000 illustrations

with simplified and detailed, step-by-step
instructions show the reader the processes used
in decorated papers, paper sculpture, papier-
mache, bookbinding, weaving, decorative fabrics,
leather, pottery, mosaics, and enameling. Each
craft is introduced with detailed discussions of
color, line, shape, and texture. Knowledge of
these fundamentals of design will provide the
reader with new and dramatic artistic possibil-
ities for crafts design. An additional feature
is the inclusion of a large number of outstanding
historical examples of art from other cultures.
The authors, all accomplished and well-known
artists, are members of the Fine Arts Faculty of
the University of Washington. Bibliography.

Nelson, George. Problems of Design. New York: Whitney
    Publications, 1957.
    Pp. ix + 205.

745.43   This is not a book of studio design problem
N426p   but rather a book about the problems of good
    design--a collection of essays on a wide variety
    of topics, a book of aesthetic theory and criti-
    cism by one of America's leading industrial
    designers. The six main divisions of the book
    treat of: (1) Problems of Design, (2) Art, (3)
    Architecture, (4) Houses, (5) Planning, and (6)
    Interiors. Within this framework highly readable
    and entertaining text covers a plethora of
    interesting topics with such intriguing titles
    such as "Palaces are Amoral," "A Kleenex Culture,"
    "Down with Housekeeping," and "Why Cities Decay."
    Black-and-white illustrations are included as a
    point of reference for the theory.

Neumann, Eckhard. Functional Graphic Design in the 20's.
    New York: Reinhold Publishing Corporation, 1967.
    Pp. 96.

760.09   Advertisements in daily papers or magazines,
N492f   pamphlets, and posters are not works of art but
    designed communication media, even when they are
    designed by artists, as they were in the artistic
    revival of the 1920s. At that time the economic
    situation in Europe forced painters to handle the
    problems of advertising design. In Germany
    especially, various avant-garde artists had their
    own graphic studios or executed designs for
    industry and public institutions in addition to
    their independent work and teaching.

In the work of the twenties, many sources are
found for the visual language of the present. The
purpose of this book is to present the experi-
ments, inventions, and methods developed then as a
coherent whole and to show how the creative
impulses continue to live. It is also a tribute to
the pioneers who formulated within a short decade
a completely new visual language. Illustrations
in color and black and white.

Osburn, Burl Neff. <u>Constructive Design</u>. Milwaukee: Bruce
Publishing Co., 1948.
Pp. ix + 94.

745.4   This book was written for the teacher of
081c   industrial arts. It is intended to train the
student to apply intelligence to his work. It is
based on the assumption that making things is not
enough in itself, valuable as that may be. If the
craftsman is to get the fullest measure of satis-
faction and value from what he makes, he must also
be its designer. If his work is badly designed,
his work is in vain, regardless of the technical
skill employed in its making. From the teacher's
point of view, a very helpful section of the book
is the one giving problems in cast metal, wood,
ceramics, leather, textiles, graphic arts, and
plastics. Illustrated in black line drawings.
Bibliography.

Proctor, Richard M. <u>The Principles of Pattern for Crafts-</u>
<u>men and Designers</u>. New York: Van Nostrand
Reinhold, 1969.
Pp. 135.

745.4   A wealth of material has been written on
P964p   design, but little of it comes to grips with the
principles of pattern structure. Authors bend
over backwards to explain the design of beautiful
"units," but rarely do they explain the design
of beautiful "yardage"--the repetition of units,
the creation of pattern. This book sets forth to
provide such an explanation, using primarily
visual means to illustrate clearly the specific
principles of pattern construction, and presenting
historical and contemporary design resource
material.

The organization of the book is simple and
direct: the Introduction provides general informa-
tion and presents the basic networks on which

repeat patterns can be constructed. A brief
vocabulary follows, then each network is dealt
with in turn. In the concluding chapter, the
visual range of a single motif--the Romanesque
arch form--is explored. A selected bibliography
is provided for the reader who wishes to research
the subject of pattern further.

Prohaska, Ray. A Basic Course in Design. New York: Van
        Nostrand Reinhold Co., 1971.
        Pp. 95.

702.8   The authors present to the novice artist a
P966h   carefully planned "crash" course, designed to
Over-   arouse interest in seeing and feeling on the
size   practicing artist's level. Originally designed
        for a two-semester program, the author-teacher
        offers the student his experience of over fifty
        years of professional involvement in the practice
        painting, drawing, and illustration. Chapters are
        illustrated with drawings and paintings done by
        his students and with occasional works by noted
        painters, sculptors, and graphic artists. The
        book was designed for the purpose of establishing
        a rapport between the student and the professional
        and of further identifying the student's problems
        by means of examples of successful experiments.
        The teaching method presented here is the result
        of carefully planned exercises and procedures.
        Heavy emphasis is placed on the understanding of
        form, spatial concepts, and intuitive response to
        ideas. Glossary of art terms.

Rand, Paul. Thoughts on Design. Reflexions sur l'art
        graphique. Reflexiones sobre el art grafico.
        2nd ed. New York: Wittenborn, Schultz, 1951.
        Pp. 160.

659.1324   Paul Rand has for some few years been a
R187t   severe critic of the average level in advertising
Ed 2   presentation and design. He has proved the value
        of his convictions not by words or theories but by
        actual work and courage. He knows type, he knows
        the value of space, he is in communication with
        the public in ways that are basic. Like all good
        designers, his respect for the public is one of
        cooperation. These "reflections" of Mr. Rand
        reveal his thought, and the examples of his work,
        a practice that is a composite pattern. He does
        not say one thing and do another nor do one thing
        and say another. His philosophy, largely

influenced by John Dewey and Roger Fry, follows right through, whether it is a book, a cover, or an advertisement. His conceptions guide his feelings, and in turn his feelings humanize his conceptions.

This book attempts, then, to arrange in some logical order certain principles governing contemporary advertising design. The text is in English, French, and Spanish.

Randall, Reino and Haines, Edward C. Design in Three Dimensions. Worcester, Mass.: Davis Publications, 1965.
Pp. 66.

745.4
R189d
The purpose of this brief manual is to reawaken the interest of students at all levels in the world of three dimensions. One certain way to do this is to turn to the actual experience of creating with materials. This book purports to help in the search for ideas and understanding. It explains basic principles of design and then relates the principles to functional and artistic problems. The book may also be used as a design source book since it provides information on materials and tools. The illustrations from various artists and periods of history will be helpful for the ideas they suggest. An important feature of the book is a chart of suggestions for teachers outlining the aims, materials, and problems appropriate at the primary, elementary, junior high, and senior high school levels. Bibliography.

Read, Sir Herbert Edward. Art and Industry: The Principles of Industrial Design. 1st. Am. ed. New York: Horizon Press, 1954.
Pp. xvi + 239.

745.2
R283a
Out of the Industrial Revolution with its mass production of uniform objects, two questions arose: (1) whether objects of machine production can possess the essential qualities of art and (2) if so, what is to become of the artist who is displaced by the machine? Sir Herbert Read addresses himself to this problem of relating art to industry. In Part I he considers the problem in its historical and theoretical aspects. Part II treats of "the general aspect" and the "organic and inorganic material aspects." Part III is a

treatise on "Color and Ornament." Part IV brings us to the ultimate answer--"Art Education in the Industrial Age." This is a book of practical aesthetics for everyone concerned with the appearance of things man uses in his daily life. Well-chosen black and white photographs provide characteristic examples of the kind of product discussed in the text. Originally published in 1934 and repeatedly reprinted and revised, this is the third (revised) English edition. Index.

Röttger, Ernst. Creative Paper Design. New York: Reinhold Publishing Corporation, 1961. Pp. 95.

736.9
R851c
All too often adolescents and adults in art classes display a reluctance to exercise their natural creative urges, to explore materials, and discover their own relationship to those materials. They have seen too many examples of what art is supposed to be and set themselves too high a standard. To regain their primal creative faculties they must rid themselves of all established concepts and standards (as far as that is possible) and try to re-discover the delight in tools and materials, in discovery and inventiveness. This book, one in a series dedicated to "Creative Play," attempts to help teacher and student towards this end. It is the province of this particular volume to examine the origin and metamorphosis of the design element of shape while exploring the techniques of working with paper. The author believes that the natural urge to play can be an important factor in developing creativity when that play follows a pattern and is more concerned with discovering new forms of expression than in achieving utilitarian ends.

The creative problems proposed in these pages follow the format of: (1) defining the task, (2) explaining the rules, and (3) providing examples. Once the task is understood and the rules applied, creativity takes over and the result can be manifested in an almost infinite number of ways. Believing that pictures can tell far more than words, the book is profusely illustrated with black-and-white photographs and drawings. Words and explanations have been kept to the absolute minimum. However, the authors caution that the pictures are to be a source of inspiration and not limitation.

Scott, Robert Gillam. Design Fundamentals. New York:
McGraw-Hill, 1951.
Pp. ix + 199.

745.4   In his preface the author observes how the
S428d   word design has changed its meaning from its
aspect of pattern (noun) to an activity (verb)
that pervades every phase of contemporary life.
The rise of the profession of industrial designer
is an indication of the extent to which we have
all become design conscious. Design is not
recognized as a fundamental human discipline, a
basic technique of our civilization. The study of
design is basic to architecture, sculpture,
ceramics, and painting.

This book grew out of a basic design course
at Tulane University. It is primarily a workbook.
The thirteen chapters of text accompanied by
problems and reading lists provide the serious
student with an opportunity to practice designing
and in the process to find out things he needs to
know about visual organization. The problems are
interesting and challenging. The problems on
color are particularly comprehensive. The layout
is such that the illustrations are integrated with
the text. Taken with the section headings, they
provide a visual outline of the entire contents.
Bibliography at the end of each chapter and index.

Smith, Janet Katherine. A Manual of Design. New York:
Reinhold, 1950. Pp. 193.

745.4   The first section of the book concerns itself
S651m   with a general discussion about art, design, the
artist, craftsman and machine, and the essentials
of design theory. The next three sections--the
major part of the book--present studio problems
exploring the art elements, applying the art
principles, and practicing design application.
The problems are graded in difficulty and intro-.
duce a number of different mediums and tools to
the student. They begin with elementary concepts
and proceed towards the more complex. They are
organized to serve as a series of introductions to
the materials and ways of working which profes-
sional designers use or which are characteristic
of various industrial processes or techniques.
Excellent line drawings and photographs exemplify
the text. Bibliography, glossary, and index.

Snelgrove, Isabel Pearl. The Practice and Appreciation of
        Design. 2nd ed. rev. Minneapolis: Burgess
        Publishing Co., 1947.
        Pp. 150.

745.4   The 150 pages of this book contain the most
S671p   condensed statement possible of the principles of
        design and color, the analysis of repeated
        patterns, and design in lettering and fashion
        drawing. The basic principles of design are
        clearly defined and their application explained.
        Methods are given for selecting colors for 169
        color schemes or harmonies. The purpose of the
        book is twofold: (1) a guide in practice,
        assisting students to create designs intelligently
        and with freedom of expression and (2) an aid to
        appreciation. All illustrations are student work.
        Spiral bound. Bibliography.

Sutnar, Ladislav. Package Design: The Force of Visual
        Selling. New York: Arts, Inc., 1953.
        Pp. 123.

659.12   This book examines different aspects of
S967p   package design, both domestic and foreign, typical
Over-   of various groups of products. These range from a
size   common product wrapped in a transparent film bag
        identified by a simple label to a container
        designed for a luxury fragrance. From the usual
        to the unusual, it presents readers with examples
        of design intended for different sales objectives,
        aimed at various markets--some designed for old
        established methods of selling, others designed
        for the newer mass selling techniques of super-
        markets and for other inroads of self-service
        operations. Illustrated in black and white photo-
        graphs. Index to illustrations.

Teague, Walter Darwin. Design This Day: The Technique of
        Order in the Machine Age. New York: Harcourt,
        Brace and Company, 1940.
        Pp. xvii + 291.

745   What the author has done is outline with
T253d   reasonable clarity the technique that must be
        applied in the solving of any problem of design,
        whether it is a new automobile or a new city or
        new environment. If this technique is basically
        sound for one, it will be sound for the others.
        Like any technique, it does not guarantee results.
        The results depend on the skill of the men who use
        it. But years of struggle with practical design

problems of many kinds has convinced the author that these are the basic principles which must guide all constructive work.

This book is a discussion of the technique to be employed--the standards and methods to be used--in the physical process of rebuilding our world. It is a handbook of design discussed in terms of our machine age. Its remarkably lucid chapters on unity, simplicity, proportion, symmetry, style, and related aspects of design make it an invaluable work for those who value a sound critical basis for artistic judgment.

The author is a pioneer in the field of industrial design. As a consultant for many of America's leading industries, he has been respon- sible for the design of a tremendously varied group of products which we all see and use every day--National Cash Registers, Eastman Kodaks, Texaco Service Stations, Steuben crystal, and Westinghouse products. He is a profound student of modern construction and production methods, with special interest in the field of housing and community planning. Index.

Thompson, Samuel Winfield. Basic Layout Design: A Pattern for Understanding the Basic Motifs in Design and How to Apply Them to Graphic Art Problems. New York: Studio Publications in Association with Crowell, 1950.
Pp. 79.

655.25
T476b A thin book that wastes no words in setting down the fundamentals of layout. Its four chapters are titled "Basic Design Motifs," "The Layout Devices," "Typography," and "Pictures." This is a kind of primer for any job that requires the arrangement of several elements on a two- dimensional surface, particularly those related to the printing craft. Black-and-white illustrations.

Tucker, Allen. Design and the Idea. Washington: The American Federation of Arts, 1939.
Pp. 40.

740
T891d A small unpretentious book of essays. As described in the preface, this book purports to be the printed essence of the philosophy, the esthetic beliefs, the religion of a distinguished painter who for half a century was guided by the
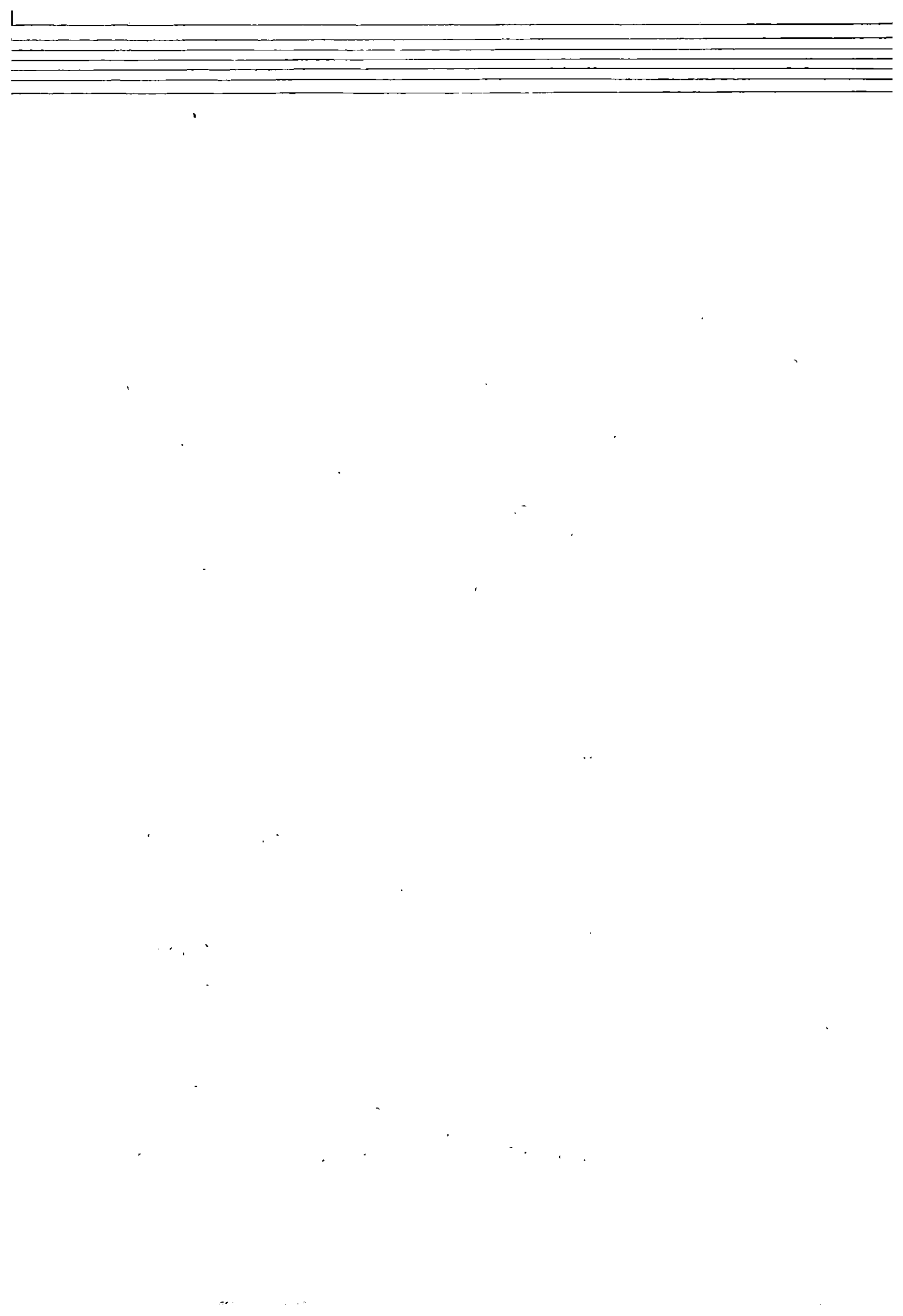
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