

**THE DEVELOPMENT OF AN INTEGRATED
ART ACTIVITIES PROGRAM IN LACY
CONSOLIDATED HIGH SCHOOL,
CHRISTIAN COUNTY, KENTUCKY**

OMER L. GOSNELL

ACKNOWLEDGMENT

The writer wishes to express his appreciation to Dr. Clinton O. McKee, major advisor, to Dr. Haskell C. Phillips, Dr. Harold S. Pryor, and to Dean Felix G. Woodward for their motivation and guidance in the preparation of this thesis.

F. Woodward
Director of Graduate Study

Clinton O. McKee
Major Professor

Haskell Phillips
Major Professor

Harold S. Pryor
Major Professor

To the Graduate Council:

We are submitting herewith a thesis written by Omer L. Gosnell entitled "The Development of an Integrated Art Activities Program In Lacy Consolidated High School, Christian County, Kentucky." We recommend that it be accepted for six quarter hours' credit in partial fulfillment of the requirements for the degree of Master of Arts with a major in education.

J. G. Woodward
Director of Graduate Study

Clinton O. McKee
Major Professor

Harrell Phillips
Minor Professor

Harold S. Poyer
Committee Member

THE DEVELOPMENT OF AN INTEGRATED ART ACTIVITIES
PROGRAM IN LACY CONSOLIDATED HIGH SCHOOL, CHRISTIAN
COUNTY, KENTUCKY

A thesis submitted to
The Graduate Council of Austin Peay State College
in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS in Education

1956⁷

by

Omer L. Gosnell

B. S., Western Kentucky State College, 1950
Ringling School of Art, 1950-1952

AUSTIN PEAY
STATE COLLEGE

TABLE OF CONTENTS

CHAPTER	PAGE
I. STATEMENT OF THE PROBLEM.	1
Introduction.	1
Purpose of the Study.	2
Basic Assumptions	3
Importance of the Study	4
Related Studies	5
Scope of the Study.	7
Sources of Data and Methods of Procedure.	7
Reporting of the Study.	9
II. BACKGROUND OF THE STUDY.	10
Introduction	10
Personality of Its People.	12
Geographic Environment	14
Social Inheritance	17
Summary.	20
III. PHILOSOPHY OF ART EDUCATION.	21
Introduction	21
Definition of Art.	22
Language of Vision	24
Students' Needs for Creative Expression.	25
Theory of Art Education.	26
Perceptual Knowing	30
The Purpose of the School.	33

DRAWING

PAGE

21.	A Study in Perspective	80
22.	A Study in Pen and Ink Rendering in Perspective.	82
23.	Revolving Mobiles	84
24.	Geometric Mobiles	85
25.	Science Comes to Life in Art	86
26.	Sculpture	88
27.	Preserving Biological Specimens	89
28.	Ocean Life Preserved in Plastics	91
29.	Construction of a Flower	94
30.	Use of Coloring Pencils	95
31.	Solar Spectrum	100
32.	Poster Designs	104
33.	Dioramas	106
34.	Diorama of Sea Life	107
35.	The Art of Enameling on Metal	108
36.	Social Studies Enriched through Art	109
37.	Empress Theodora and Attendants	111
38.	Knighthood in Full Power	113
39.	Kinds of Presses for Blockprinting	115
40.	Set up for Printing	115
41.	Crayon Etching	117
42.	Totem Pole Construction	119
43.	The Lighthouse	120

CHAPTER

PAGE

Honesty in Art. 36

The Nature of Art Activities and the Student. . . 37

Summary 39

IV. OBJECTIVES AND ACTIVITIES IN ART ACTIVITIES

PROGRAMS. 40

Introduction. 40

Activities. 42

Vitalizing the English Program Through Art. . . . 46

Cartooning. 47

Use of Crayons. 48

Illustrations 49

Ways with Watercolor. 51

Book Cover Design 53

Shakespearean Theater 54

Puppetry. 57

Castle. 63

Construction Paper Put to Use in the English
Class 69

Finding Art in Mathematics. 73

Geometric Circles 74

Art in the Geometry Class 76

Perspective Drawing in the Mathematics Class. . 79

Mobiles 83

Science Comes to Life in Art. 86

Sculpture 87

Preserving Biological Specimens.	89
Construction of a Flower	92
Use of Coloring Pencils.	95
Origin of Color.	96
Lettering.	101
Poster Design.	102
Dioramas	105
The Art of Enameling on Metal.	108
Social Studies Enriched Through Art.	109
Cut Paper Mosaics.	110
Murals	112
Block Printing	114
Procedure in Block Printing.	114
Crayon Etching	117
Totem Pole Construction.	118
Montage and Collages	120
Studying the <u>Book of Kells</u> from the Stand- point of Art	121
Charts and Diagrams for Art Activities	123
Cartooning in Social Studies	128
Poster Display	130
Silhouette Drawing	131

CHAPTER

PAGE

V. IMPLEMENTING THE ART PROGRAM IN LACY CONSOLIDATED SCHOOL. 132

Introduction. 132

The Teaching of Art 134

Suggestions for the Teacher 135

Suggested Beginnings. 138

Suggested Art Experiences for the Four Upper Grades. 141

General Summary 143

BIBLIOGRAPHY. 144

APPENDIX. 151

64

65

66

67-68

71

72

73

74

75

76

LIST OF ILLUSTRATIONS

DRAWING	PAGE
1. Vitalizing the English Program through Art . . .	46
2. Cartooning	47
3. Use of Crayons	48
4. "Our Cottage in the Country"	49
5. "Birches"	50
6. Ways with Watercolor	51-52
7. Book Cover Design	53
8. Shakespearean Theater	55-56
9. Construction of the Puppet	60
10. Castle on a Card Table	64
11. Catapult or Stone Thrower	65
12. Thatched Roof Cottages	66
13. Pipe Cleaner Warriors	67-68
14. Basic Procedure in Making Construction	
Paper Frames	71-72
15. Construction Paper Frame	72
16. Finding Art in Mathematics	73
17. Geometric Circles	74
18. A Study in Design by El Lissitzky	75
19. Finding Art in the Geometry Class	77
20. Isosceles and Brother Hypotenuse Playing with	
Mr. Quaint	78

DRAWING

PAGE

44.	Studying the <u>Book of Kells</u> from the Standpoint of Art	122
45.	The Eleven Federal Judicial Circuits	125
46.	Shift of Workers from Agriculture to Other Occupations in United States	126
47.	Frequency or Progress Charts	127
48.	"The Struggle--Republican versus Democrat!"	128
49.	1942: America's Critical Year in the Arming for Victory.	129
50.	Poster Display	130
51.	Silhouette Drawing	131

CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

One of the greatest incentives of a student, whether young or old, is the desire to express himself by means of some sort of art work. Art has long been recognized as one important method of transmitting ideas. It is often possible to portray much more feeling and meaning by a picture, sketch, or handcraft than words could convey. Confucius, the ancient Chinese philosopher, declared that one picture was worth more than a thousand words. It is claimed that the experience involved in the process of artistic creation is in itself an educative one, and that art is therefore an essential instrument in any complete system of education.¹

A seemingly great problem facing the schools of today is the development of adequate programs in the regular courses of study in the high school curriculums whereby students will develop a continuing interest in the subject matter. To enrich the school program is the desire of every conscientious teacher.

In many elementary schools the arts are a part of the regular curriculum although not enjoying the same status as

¹Edwin Ziegfield, Education and Art, (U N E S C O Publications Center, New York, 1953), p. 25.

the academic subjects. To a much lesser degree, this is also true in the high school. For the past two years, Lacy Consolidated School has provided an art program for the elementary students; however, the high school students have not had the opportunity to develop their artistic abilities through special courses in art.

Since general education in high school is primarily concerned with developing the student's potential for a rich and satisfying life both as an individual and as a member of a democratic society, it is necessary to provide for him as much material for learning as is possible. A means of providing him with such material is through art activities in the regular classroom. Art activities will promote a language of feeling as distinct from the language of thought, and will certainly enrich his cultural background; also, adequate creative projects will help stimulate his desire for participation.

Purpose of the Study

The general purpose of this study was to develop in the Lacy Consolidated School, Christian County, Kentucky, an art activities program in grades nine through twelve, that will furnish basic material for guidance to the teacher. To accomplish this purpose, it was necessary to introduce the following specific purposes:

1. To determine appropriate methods and procedures to use in the courses of study in English, science, mathematics, and social studies in grades nine through twelve.

2. To determine the background of the study.

3. To establish and set forth a point of view or a philosophy of art education.

4. To determine and set forth objectives to be achieved through the programs in art activities.

5. To determine the content of the art activities programs.

6. To determine appropriate methods and procedures for art activities in the fields of science, English, mathematics, and social studies in grades nine through twelve.

7. To suggest other activities that may be carried out by the students.

8. To determine the possible uses to which the programs will be put.

Basic Assumptions

The basic assumptions in this study were as follows:

1. There is a general agreement that art education in public schools can make a valuable contribution toward the cultural development of individuals.

2. Basic to the educational philosophy of art of our day

is the assumption that the aesthetic principle is deeply imbedded in man and that its presence contributes to his well-being.²

3. It is assumed that more consideration will be given to the general use pupils will make of the art that they are learning.

4. It is assumed that the high school student entering the ninth grade will already possess some of the fundamental desires for self-expression and appreciation in the arts.

5. The present urgent need is a program of art education which will provide for the needs of all the students of all the people including those with little or no special aptitude in the arts as well as the most gifted.

6. It is assumed that special attention should be given to self-expression and life needs.

7. Art education can provide encouragement for the student to do independent work, develop critical judgement, provide understanding guidance and assistance in self-evaluations, and responsibility.³

Importance of the Study

It is felt that this was an important study because all

² Arthur R. Young, (ed.), This is Art Education (Year-book, National Art Education Association, State Teachers College, Kutztown, Pennsylvania, 1951), p. 8.

³ Walter S. Monroe, (ed.), Encyclopedia of Educational Research (New York: The MacMillan Company, 1950), p. 66.

students will participate in the courses covered and should profit by an enriched program in those areas. It is hoped that the study may be of practical value to other schools. The study may also be beneficial to curriculum builders in the fields of English, literature, mathematics, science, and social studies in high schools that do not have special art classes.

Related Studies

After carefully surveying the literature available in the field of art education it has been found that much research has been done in connection with the recognition of the importance of the arts in the elementary grades, but for the high school teacher there is a very limited amount of information available. Current magazines on art activities, such as "School Arts" and "Arts and Activities," contain some material on the secondary level. From these two magazine publications some of the content in this study has been obtained, such as: "Finding Art in the Geometry Classroom," by Alice Scannell and Madeline Fridrich.⁴

In this article, Miss Scannell and Miss Fridrich illustrated the principles of developing much interest in the geometry class. The presence

⁴Alice Scannell and Madeline Fridrich, "Finding Art in The Geometry Classroom," School Arts, IV (March, 1956), p. 33.

of mobiles in the classroom, principally geometrical in shape, and the availability of "sticks for laying" furnished the students with the idea of making "Stick People." They first made some relatively simple people. "Stick Mobiles" hanging in the classroom served a decorative purpose and also assisted the student in becoming better acquainted with mathematics.

An article by Ruth M. Beck, Art Instructor, Westport High School, Kansas City, Missouri, was very helpful in developing a program for social studies. The article appeared in the April, 1956 issue of Arts and Activities and was entitled "Fun for All and All for Fun." A series of cartoons had been drawn

by her students. Miss Beck stated in her article that "Cartooning is just like writing. It's not just how you say it but whay you say!"⁵

"An approach to sculpture" by Rosa Dooley, Supervisor of Art in the Chicago Public Schools, offered material for the science class. The students made anatomical structures out of plaster of Paris. This article appeared in the 1956 May issue of Arts and Activities.⁶

"Creating with Plastics" by Joseph Bragdon demonstrated new techniques in the use of plastics. High school students

⁵Ruth M. Beck, "Fun for All and All for Fun," Arts and Activities, XXXIX (April, 1956), p. 16.

⁶Rosa Dooley, "An Approach to Sculpture," Arts and Activities, XXXIX (May, 1956), p. 6.

from Stockton, California, showed some of its many possibilities. This article appeared in the October, 1955 issue of School Arts.⁷

Of material studied in planning this thesis, the above listed sources have been particularly helpful.

Scope of the Study

This study was designed for use in the Lacy Consolidated School, Christian County, Kentucky, in grades nine through twelve. It included art activity programs in the fields of science, English, mathematics, and social studies.

Sources of Data and Methods of Procedure

After the overall problem had been determined, the methods of gathering and handling the data were considered. Careful reading was done in books on research as to the gathering of data and proper procedures as to its use. Many theses were

Materials were obtained through the reading of books on art which were on file in the library of Austin Peay State College, Clarksville, Tennessee for further understanding of the proper procedure in writing a thesis. After surveying the list of materials and research available, it was found that

there appeared to be very little research done in the field of art education being integrated into the regular courses of study, except in creative art as a special course. Therefore, the only available source to follow was the general

⁷Joseph Bragdon, "Creating With Plastics," School Arts, LW (October, 1955), p. 15.

procedures set forth for research workers.

Interviews were arranged with the teachers of Lacy Consolidated School about the possibilities of implementing the art activities programs in the various subjects, and the plan was enthusiastically accepted by them.

Further preparation for this study was the enrolling in courses of educational research, curriculum laboratory, and multi-sensory aids, in the Education Department of Austin Peay State College. Combined with this was previous art training obtained at Ringling School of Art, Sarasota, Florida. To add to this preparation was the experience of three and one half years of high school teaching which had suggested the problem to the writer in the first place.

After collection of data of art activities, many textbooks of the various fields of study in high school were examined to determine where the material could best be included and the best procedure for its inclusion.

Materials were obtained through the reading of books on art in the library of Austin Peay State College, from the author's own library, from art journals, and from those instructors who had been correlating art with their subjects in the county system.

After this preparation, it was determined that the organization of the material could best be facilitated through the divisions into programs and come under the heads of (1) Vital-

izing the English Program through Art; (2) Social Studies Enriched through Art; (3) Finding Art in Mathematics; and (4) Science Comes to Life in Art.

Reporting of the Study

The study is presented as follows: Chapter II, Background of the Study; Chapter III, Philosophy of Art Education; Chapter IV, Art Programs in the Grades Nine through Twelve; and Chapter V, Implementing the Art Program in Lacy Consolidated School.

CHAPTER II

BACKGROUND OF THE STUDY

Introduction

Three important factors are woven into the life of every community; the personality of its people, the geographic environment which nature has provided, and the social inheritance which people have invented or borrowed.¹

These are broad classifications of the myriad of specifics that constitute a given people in a specified place. The personality of the people, for one's use, must now be viewed as the citizenry as a whole with its varying facets, for it is from the differences that the personality evolves. Many influences enter into forming this generalized "community personality." Some of them can be favorably influenced by education. It appears that others may be stubbornly immutable. Many parts of this factor are influenced by the other two, the environment and the social inheritance. These factors need to be considered in giving the background of the Lacy Community and that part of Christian County, Kentucky. A community which is fortunate enough to have each factor to a high degree is almost certain of outstanding success.

¹Joseph Irvin Arnold, Challenge to American Youth (New York: Row, Peterson and Company, 1950), p. 31.

Although each of the three factors is basic, each one of the factors may be modified, especially personality and grasp of social inheritance. In fact, two of the main ends of living together are to build desirable types of personality and understanding of the social inheritance.

An educator must try to discover what constitutes a wholesome and contributing personality on an individual basis. Upon this knowledge, a procedure must result that nurtures and maybe even plants affirmative personality traits.

The development of high type thought can assure high calibre actions. The search for truth and other beauty is well to initiate in any youth of any locale.

The student could develop high ideals, appreciation of soul-stirring music and acknowledgment of the loveliness of pure thoughts. They must be inspired to dream of better things than poverty. They need vision and well defined steps toward realization of visions.

The Lacy District is not outstanding in each of the aforementioned three factors; it does possess the eagerness to improve and adopt ideas that will help the community to progress.

Calmness of spirit and mind may well be part of our wholesome personality. A calm person has control over his own being and a recognition of the relations of things and an understanding of others. This attribute, too, might well be

one that our educational procedures could strengthen. All these attributes grow in a curriculum which includes a continuing and well planned art program. Lacy District could adopt such a plan.

Personality of Its People

Personality is molded by environment. Just as stroke by stroke the statue takes form under the mallet of the sculptor, so day by day personality is molded by the influences which play upon it.² The home, the school, the church, the neighborhood, the radio, the press and countless other forces play upon the people and bend them in one direction or another, making them the kind of citizens they are.

Most of the inhabitants of the Lacy Community are small land owners and tenant farmers. Very few of the families enjoy the luxuries of the modern day such as running water in their homes, and there are still a number of farms that do not have electricity.

The community is made up of many small communities; Apex, Fearsville, Dogwood, Frog Hop, Bluff Springs, Pilot Rock, Antioch, Carl, Wild Cat Hollow, McKinney, Gum Grove, Fruit Hill, Cannon, Walker, Haddock, Ovil, New Idea, Shiloh, West, Poplar Grove, Concord and Ball Knob. Lacy Consolidated

²Ibid.

school provides educational facilities for these small communities. The school plays an important part as a center of activities for the many small communities surrounding it. Lacy is located in the heart of these communities, in Fearsville. The only activities for the population are those that are provided for by the school. The community supports the school and the people take an active part in such organizations as the Parent Teachers' Association and many Homemaker clubs. Basketball and baseball are the two major sports in the school and community. The school facilitates the meetings of the various community organizations and acts as the community center.

As a whole, the Lacy district is made up of God fearing people. This community abounds in church organizations. The Baptists were the pioneers of religion in northern Christian County, and are still the strongest, numerically. At the present time there are four Methodist, eight Baptist, two Church of Christ, and one Mormon Church in the northern section of Christian County serving this district.

As a means of communication, the community owns a private telephone exchange that is in operation during the daytime only. This exchange is located just across the highway from Lacy Consolidated School. This limited communication helps to explain the backwardness of the people of the community.

Three general stores thrive in the neighborhood. These stores handle merchandise all the way from shoes to groceries. Farmers gather at these "general" stores and chat about the farm and community problems as people did many years ago.

All the roads winding through the area are dirt or gravel with the exception of the highway from Hopkinsville to Greenville, Kentucky, which is a paved highway.

Most of the families are large and there are many early marriages in the community. The community does not place emphasis on luxury which would cause its members to limit the size of the family. It is a society which approves of the simple life and makes much of family ties, creating an atmosphere conducive to large families.

Geographic Environment

To the trained eye of the geologist, the soil and its underlying rocks forecast unerringly the character of the people who will in coming time occupy it. This law is plain and fixed.³ It has become the maxim in geology that a new country may have its outlines of history written when looked upon for the first time.⁴ The geological structure of a country partially fixes the pursuits of its inhabitants, and

³William Henry Perrin, (ed.), Counties of Christian and Trigg (Louisville, Kentucky: F. A. Battey Publishing Company, 1884), p. 23.

⁴Ibid.

country partially fixes the pursuits of its inhabitants, and shapes the genius of its civilization. Where the soil and subjacent rocks are profuse in the bestowal of wealth, man is indolent and effeminate; where effort is required to live, he becomes enlightened and virtuous.⁵ From the above statement it may be determined that two subjects of supreme importance in the Lacy School area are those of soil and climate.

In this area the land rises about 578 feet above sea level. The school is located on route number 107, Hopkinsville, Kentucky, approximately eleven miles north on the Greenville, Kentucky road.

Christian County lies in what is termed, geologically, the "Fifth Formation," and is underlaid mostly by the cavernous limestone.⁶ The barrens of Kentucky are located on this formation; so called, not because the soil is unfertile, but because of the former absence of timber and numerous sinks. This region, which, when Christian County was settled, was said to be an open prairie, is now covered with forests and trees, of medium growth, which have since sprung up. Its land is found to be fairly productive. The northern part of the county is hilly and broken, and abounds in the finest of timber,

⁵Ibid., p. 20.

⁶Ibid.

coal and iron ores. Recently, oil wells have sprung up over the northernmost part of the county and it is said that it will probably be the richest oil producing section in Kentucky.

On the road from Hopkinsville to Greenville, one and one-half miles to two miles northeast of the former place, the carboniferous formation is quite plainly visible just before reaching the banks of Little River. The coal beds of Northern Christian are practically inexhaustible, while the iron, either limonite, or brown hematite or pot ores exist in large quantities. The soil in the northern part of the county is poor on the hills and ridges, often quite rocky, but exceedingly fertile in the bottoms. The hills are well adapted to the growth of the fine quality tobacco and all kinds of fruit. Here orchards and vineyards rarely fail of producing good crops. Other farm crops are corn, hay, pasture, and strawberries. This section is still heavily timbered, and, though much of it has been cut away, there still remains sufficient for all practical purposes. The timber of the barrens consists of red oak, hickory, white oak, and other such kinds of hard woods as have grown up since the fires have been kept off by the settlement of the white race. These barrens were originally devoid of timber, and when first seen by the whites, presented all the "barrenness" without the monotony--which is broken by their rolling surface--of the prairies of the West. Along the

streams grow forests of the very best quality of timber.

Natural resources play an important part in education and other community activities. This is due in part to the fact that favorable surroundings such as level ground for athletics, bodies of water for water sports, forest for recreation, and mineral deposits for study during field trips provide a favorable environment for school activities. Furthermore, natural resources provide wealth to support education and other community undertakings. The Lacy Community is beginning to realize the value of its natural resources in its recent oil production. In sections without natural resources, people are likely to be too poor to finance many important community programs. This was the case up to this particular time with the Lacy Community. In sections where natural resources abound people are likely to be in a position to spend much for community projects. Northern Christian County is fast becoming a wealthy district through its discovered natural resources.

Social Inheritance

No question is of such vital importance to the people as that of education. Nothing for which the state pays money yields so large a dividend upon the cost as the revenue expended upon the schools. Social inheritance can best be developed to higher standards through adequate and proper

educational facilities.

In the early development of Christian County there were many obstacles in the way of general education. The settlements were sparse, and money or other means of remunerating teachers, and housing facilities were scarce.

Prior to 1939 there were eighteen one and two-room schools in the northern district which now makes up the Lacy Consolidated School. Lacy School was first opened in September, 1939, and employed only six teachers; there were still five one-room school buildings occupied. At the present time there are only two one-room schools left in this area.

A mass consolidation program was put into effect in 1939, and Lacy School now stands upon the land formerly used for farm land. The land was purchased in 1937 from Lee Rogers, a native of Northern Christian County. There were fifteen acres bought in the amount of \$300.00. It was purchased by means of community donations.

On Sunday morning, January 7, 1945, Lacy School burned and the students were left "homeless" for the rest of the year. Churches, barns and homes were used as improvised classrooms until the new school building was completed. In the fall of 1946 the doors of the new school building were opened to an enrollment of approximately 330 pupils. In 1956,

the school had an enrollment of 538 students. In the past four years the enrollment has been relatively stable.

This school provides for various academic subjects; chemistry, history, agriculture, English, science, biology, geography, mathematics, algebra, trigonometry, geometry, chorus, home economics, commerce, literature, dramatics, and speech. In 1956 drivers training was added to the curriculum. The courses are still very limited, and many students get disinterested at an early age. Approximately forty per cent drop out of school before they graduate from high school.

Too many parents in the school district still feel that their children only need an eighth grade education and will not

Summary

enforce their attendance. Most of those students that drop out of school either marry at an early age or start full-time work on the farm. In so doing, three major topics were

chosen: personality of the Lacy community people, the geographic environment of the community, and the social inheritance of the community. The percentage of drop-outs makes it even more imperative that the grade school include as much of our American heritage as is possible.

An educator wants both to help a student become attuned to his local environment and to open new horizons for him. An art program can, through vision and planning, make vivid the beauties of both present surroundings and our past heritage.

It can make the locale more meaningful in light of the

past. It can open the imagination into creative work that causes an inner joy in a people who might otherwise find too much drabness in life.

As social inheritance embraces all that the human race has achieved during its long stay on the earth. Each generation owes a debt to those that have gone before and has an obligation to those that are to follow. In the Lacy School district the challenge lies in recognizing the vast inheritance of social experience, and in adapting it to the needs of the present day so that the lives of the children will be enriched.

Summary

The purpose of this chapter was to establish the background of the study. In so doing, three major topics were chosen: personality of the Lacy community people, the geographic environment of the community, and the social inheritance of the community.

CHAPTER III

PHILOSOPHY OF ART EDUCATION

Introduction

There is present in each person a compelling urge to express, in drawing or art of some kind, what he sees, what he hears and what he thinks. The caveman had this urge and left his art scrawled or chiseled on the walls of the cavern which he called his home. Down through the ages others have had this same compelling urge, and each era has left its record in picture, sculpture, or architecture.

Nearly all of the great philosophers, from Plato and Aristotle on, have devoted attention to the function and value of art and the analysis of the art experience.¹ Two problems in particular have occupied those who have sought philosophical understanding of art: The determination of the nature of the impulse to art creation and enjoyment, with a view to distinguishing artistic activity from other spheres of human interest; and the determination of artistic standards of value and bases of criticism, especially the determination of the significance and proper application of such terms as "beauty," "ugliness," "sublimity," and "grace-

¹William T. Couch, (ed.), Collier's Encyclopedia (New York: Crowell-Collier Publishing Company, 1953), II, 286.

fulness."²

Theory is closely interwoven with practice. Methods, media, and techniques are employed as means not only of enriching the student's personality, but also of developing some concept of art in the student. They are never considered as ends in themselves. Sculpture, for instance, is used to develop an understanding of form; and etching, a feeling for line.

Definition of Art

The word "Art" as it is used today has so many different meanings that it is almost impossible to arrive at any adequate definition. If one were to ask the question, "What is art?" of various groups of people within his circle of friends and acquaintances, he would probably receive as many different definitions as the number of people asked, and probably most of them would identify it with certain "skills" and "techniques," or certain kinds of products.

Thomas Munro has stated that the only correct short answer to the question is that art is many different things, a name applied to many different kinds of human products and activities.³ In his study of the meanings of art, through

² Ibid., p. 286.

³ Thomas Munro, The Arts and Their Interrelations (New York: The Liberal Arts Press, 1949), p. 107.

the examination of dictionary definitions and the definitions of individual writers, he distinguishes twenty-two different meanings of "art."

Many writers attempting to define "art" choose to consider it in its broadest form as a way of living. Art is behavior--art is a way of doing. To make art the possession of all people it must be thought of as movement, or as behavior. Calling art a way of doing places it in the category of behavior.

Many educators prefer to take a narrower consideration of the definition of "art" and relate it directly to its function in education.

Leon L. Winslow states in his book Art in Elementary Education:

"Art" as a school subject may be defined briefly as an organized body of educational experiences dealing with the meeting of human needs as efficiently as possible through the use of materials. Yet the subject of art is much more than a curriculum area dealing with materials and processes, for it embraces experiences with information and with feelings as well as with activity."⁴

Still others think of "art" as creative expression.

Kenneth F. Perry, in An Experiment with Diversified Art Program, makes the following statement:

⁴ Leon L. Winslow, Art in Elementary Education (New York: McGraw-Hill Book Company, Incorporated, 1942), p. 4.

"Art, as the term has been used in this study, is creative expression which may take the form in any suitable material. In this sense art is a process, and though an object or "thing" may result, the original process is subjective."⁵

It is assumed, therefore, that art and art activities may be an organized body of educational experiences and also a process by which creative expression is developed in the student whereby he may release his emotions as well as gain practical knowledge in the use of art to his daily living.

Language of Vision

The language of vision, optical communication, is one of the strongest potential means both to reunite man and his knowledge and to re-form man into an integrated being.⁶ The visual language is capable of disseminating knowledge more effectively than almost any other vehicle of communication. With it, man can express and relay his experiences in objective form. Visual communication is universal and international; it knows no limits of tongue, vocabulary, or grammar, and it can be perceived by the illiterate as well as by the literate. Visual language can convey facts and ideas in a wider and deeper range than almost any other means of communication.⁷

⁵Kenneth F. Perry, An Experiment with Diversified Art Program (New York: Bureau of Publication, Teachers College, Columbia University, 1943), p. 21.

⁶"Philosophy of Art," Collier's Encyclopedia (New York: Crowell-Collier Publishing Company, 1953), II, p. 286.

⁷Gyorgy Kepes, Language of Vision (Chicago, Paul Theobald, 1944), p. 13.

It can reinforce the static verbal concept with the sensory vitality of dynamic imagery.

The language of vision has a more subtle and, to a certain extent, an even more important contemporary task. To perceive a visual image implies the beholder's participation in a process of organization. The experience of an image is thus a creative act of integration. Its essential characteristic is that by plastic power an experience is formed into an organic whole. Here is a basic discipline of forming, that is, thinking in terms of structure, a discipline of utmost importance in the chaos of our formless world. Plastic arts, the optimum forms of the language of vision, are, therefore, an invaluable educational medium.⁸

Students' Needs for Creative Expression

Students have a great need for creative experiences. They need to be encouraged to express themselves and to the uttermost fulfill their potentialities. When worried sometimes about students who have limitations either from inheritance or otherwise, it can be said that no one has ever fulfilled his potentialities--and that, therefore, there is a tremendous amount of hope.

⁸"Philosophy of Art," Collier's Encyclopedia (New York: Crowell-Collier Publishing Company, 1953), II, p. 286.

Methods of teaching the arts should be adapted to the changing needs, capacities, and interests of the growing student. It is important, therefore, to trace the creative development of the student in relation to each of the arts, and to suggest methods best suited to each age level.

There is reason to believe that art expression is important as a release for students' tensions and repressed desires. Properly controlled, such activities as working with the hands or painting provides the teacher with the opportunity to study the emotional conflicts, personality, and motor patterns of the students. Although most of the investigation has been centered around the maladjusted and the handicapped students, it is possible that such studies may furnish valuable insights into the use of art in the education of all children.⁹

Theory of Art Education

Thousands of articles and hundreds of books have been written on the values to be achieved through art education. Even though they vary in emphasis, they may be reduced to something like the following proposition: Education, in a democracy, must help each child develop as fully as possible

⁹ Elise Reid Boylston, Creative Expression with Crayons (Worcester, Massachusetts: The Davis Press, Inc., 1953), p. 39.

the perspectives, understandings, attitudes, and skills that will enable him to live a satisfying life and at the same time to contribute effectively to his social groups locally, regionally, nationally, and even internationally. Each student is as important as any other student; therefore, all students must be given equal opportunities at the learning experiences.

Art education in public schools where it has been used has made a valuable contribution toward the cultural development of individuals. Consideration must be given to the general use pupils will make of the art they are learning.¹⁰ It appears that more consideration should be given creative development for all pupils and that special attention be given to self-expression.

The program of art education should be carefully planned so that each individual may progress according to his abilities, potentialities, and needs. It should attempt to develop the student mentally, socially, and emotionally to help him become an active and contributing member of his social group.¹¹

¹⁰Victor D'Amico, "Leaders in Art Education," Arts and Activities XXXIX (March, 1956), p. 18.

¹¹Elise Reid Boylston, Creative Expression with Crayons (Worcester, Massachusetts: The Davis Press, Inc., 1953), p. 39.

A progressive art program should provide challenging opportunities by which the student may learn through choice and decision in solving his own problems.

The art program should develop individual differences in personality by encouraging the student to act constructively in initiating a large portion of the subject matter presented to him and that he uses for motivation. The program should broaden experiences and develop many new interests and ideas. Incidents which make excellent motivation for aesthetic expression are often occurring in class and should be used as springboards for drawing and activity projects.¹²

Creative art is thinking art. The teacher looks for the student's own interpretation, idea, emotional feeling, and rendition of the subject; through stimulation and guidance, understanding is achieved. It is important that the real purpose of art education be kept constantly in mind by the teacher--not to produce artists or to make finished products or articles for show, but to develop the student to his fullest potentialities.¹³

It is an important factor that the student should learn

¹²Ibid., p. 46.

¹³Ibid., p. 75.

a thing in a realistic setting and in terms of an actual performance.¹⁴

Dewey has pointed out that "to grasp the meaning of a thing, an event, or a situation, is to see it in its relations to other things; to note how it operates or functions, what consequences follow upon it, what causes it, what uses it can be put to."¹⁵ Implicit in the data on the influence of form and of whole methods in learning is the generally accepted principle that meaningful material is more easily learned and longer remembered than relatively meaningless content. Meaning involves structure; it inheres in relationships for which he is wholly or partly unprepared. He ships.

One of the most important developments in modern education is the substitution of organized learning for the mere acquisition of highly specific and discrete items of information. Sound educational procedures do not disregard information; rather, they emphasize the learning of facts for definite purposes and in meaningful relations.¹⁶ It is important, therefore, that the student be given every opportunity to

¹⁴ Arthur I. Gates, and others, Educational Psychology (New York: The MacMillan Company, 1949), p. 375.

¹⁵ John Dewey, How We Think (New York: D. C. Heath and Company, 1933), p. 137.

¹⁶ Arthur I. Gates, and others, Educational Psychology (New York: The MacMillan Company, 1949), p. 375.

develop an understanding of realism and organization of information presented to him by his instructor. He should be developing his potentialities in seeing things as they are; and he should be able to express himself by creating objects as he thinks and works, being stimulated and guided by his teachers.

Art has long been considered by many administrators and taxpayers as a frill; and the requirements for teacher-training have not stressed, in many institutions, equal preparation in art education as for other subjects. The result has been to throw the inexperienced teacher into situations for which he is wholly or partly unprepared. He needs immediate and definite assistance. Art activities are helpful in the development of the student. More and more emphasis seems to be placed on visual aids, and every visual aid to teaching employs a great deal of artistic talent and creative ability. It must portray an idea and must definitely be understood; therefore, it is a quick and easy method. Students, with the proper guidance in art activities, are able to create their own visual aids and thus be participants to the learning process.

Perceptual Knowing

It is a function of art to translate conceptual ideas into perceptual forms. Art transforms things "known about"

into visual forms that can be experienced directly, and known directly, through perception. Conceptualizations about anything are mental abstractions from it, mental images from given perceptual data.¹⁷

It is assumed that students in high school have already become somewhat conscious of what constitutes good design. No formal lessons are really necessary, but attention should be directed to it when used in expressing vital experiences or in making craft articles. A feeling for the meaning and use of different types of lines, and the understanding of overlapping objects to give a feeling of depth, and the difference in representation and emotion as expressed through pictures to achieve consistent emotional effects should be understood. As skill and mentality develop, and awareness of good design will evolve.

John Dewey states:

"For the impact of value or values is created within the individual's own experience... to perceive, a beholder must create his own experience."¹⁸

Students have photographic minds; and if they can be activated to develop this image-forming power, they visualize

¹⁷Edward W. Rannells, "Art as Perceptual Knowing," Kentucky School Journal XXXIV (February, 1956), p. 14.

¹⁸John Dewey, Art as Experience (New York: Minton, Balch and Company, 1934), p. 54.

more clearly and express more accurately. The student stores in memory the particular characteristics of the object and reproduces it surprisingly well.¹⁹

To perceive an image is to participate in a forming process; it is a creative act. From the simplest form of orientation to the most embracing plastic unity of a work of art, there is a common significant basis; the following up of the sensory qualities of the visual field and the organization of them.

Art activities is one of the best educative means there is for insuring a continuance of perceptual experiences in the learning process. Even conceptual knowing, as in science, has its roots in perception. When they are separated and perception is left to one side, something is lost that is organic and essential to knowing.

It seems that perceptual learning comes to an almost complete stop at the junior high school level; but this is where the conceptual approach to learning should begin to dominate the educative process; this is partly due to the fact that its educative function from this level on is not sufficiently understood and valued.

Allowing for the lack of practice, a person draws about what he sees, and the drawing of almost any adult shows that

¹⁹Gyorgy Kepes, Language of Vision (Chicago, Paul Theobald, 1944), p. 15.

he still sees as a child. This is not because he lacks skill in drawing. One can see well enough what it is that he is "trying to draw," and this is all the evidence one needs to see that, in some real sense, the development of visual perception seemed to have stopped for him when adolescence began; because education stopped making any proper use of perceptual processes in learning in his high school days.

Dr. Rannells, Professor of Art at the University of Kentucky, explains how education would do well to keep in touch with perceptual knowing in the following quotation from the Kentucky School Journal:

"Perceptual knowing is of value in education. I think it follows that art as a perceptual discipline has a special value in education as perceptual knowing. It is perhaps the most effective means of insuring the continuance of this way of knowing and learning, which I feel is worth preserving and using in the educative process--especially during the critical years of adolescence. For it is here that education seems most apt to falter. In my view, art, as perceptual knowing, is most needed here to round out the process and make it more nearly whole."²⁰

Art is not an isolated subject in human affairs, but is an integral part of such broad areas of life as the home, the community, commerce, and industry.

The Purpose of the School

A criticism often directed at the teacher while conduct-

²⁰Edward W. Rannells, "Art as Perceptual Knowing," Kentucky School Journal XXXIV (February, 1956), p. 16.

ing an art program is the failure to "keep order" while the students are having art experiences. Proper classroom order differs form the "perfect picture of everything and everyone in place and a pin-drop quiet" to "children should recognize no restraints whatsoever." To clear up such misconceptions, several questions offering clues as to the kind of "order" appropriate to the classroom are brought to mind. What is the nature of the art program or process? What is the purpose of the school? What is the student's developmental level relative to self-control and assuming responsibility? As an extension of society the school's goal is to preserve and enhance these values subscribed to by that society. School art education is one which concerns how individuals feel about and care for one another and how to provide situations that stimulate students to think critically and to develop discriminating values. It should be the concern of all teachers to involve them in taking responsibility for planning and developing on-going class activities, aspects of these being, time usage, space allotments, care and use of available equipment. Vital also is their participation in evaluations of their own and group progress toward goals which students have helped to determine.

If art is a way of knowing and discovering, the student must have, even at the beginning, some opportunity to select, to explore, to experiment, and to try himself out. Above all,

he must see a purpose in his own art work; it must have some real meaning for him. He should be encouraged to share his own art experience with others and to respond constructively to that of others. He must be guided, again in terms of his readiness level, to reflect upon the meanings he has incorporated in his art work and those which others have put into theirs. Thus, the arts, by their very nature, can serve to develop the inner-discipline or self-control which is vital to overall learning. Self-control is learned and students must be helped to realize by their teacher that freedom bears a close relationship to self-control and is something to be achieved rather than given. One of the most important things to remember is that the student should be kept away from inhibitions and be kept happy. Victor D'Amico says:

"When I began teaching professionally I set up a kind of barometer for myself based on my early experience--that creative teaching should have the basis of friendship which acts like a catalyst in bringing people together. If this is absent, then creativity is either at a low ebb or non-existent. I discovered that when I used the formal methods I had learned, I met with a certain passive resistance, a docility and a coolness. The work was turned out all right but it lacked any spark of individuality. As a result I rejected the teaching devices and methods which I had acquired with hours of painstaking effort. I decided to meet the students face to face and friend to friend. I tried to find out what they thought about or wished for. Upon this I based all my teaching. My being interested in them as people made them interested in their work, and their work became a part of them. I found that nothing really creative resulted unless it was saturated with their personality, their ideas, their dreams. 21

²¹Victor D'Amico, "Leaders in Art Education," Arts and Activities XXXIX (March, 1956), p. 19.

Honesty in Art

Genuine art, or honesty in art, is something too many teachers overlook when considering an art activities program. The greatest beauty in the teaching of art and the forming of artistic judgements is the fostering of moral judgements in the pupils. A lack of this "right judgement" and honesty in art have been only too manifest, such as copying from other pictures, using patterns, the "keep them busy way" when the student has time on his hands. Easy things are done and then they are "doctored" to make them look genuine on the surface. This disregard for honesty could be an outgrowth of man's perverse tendency to deceive, and a weakness to pretend carried over from childhood. It could be evidence of the lack of appreciation of genuineness. The teacher's own actions and attitudes do not escape the students, and they speak louder than words.

Being creative and being honest are almost the same thing. It seems that a teacher would not tolerate, let alone encourage, the copying of a theme, a book report, or a solution to a mathematical problem. The effect of one's moral judgement is obvious in such a manner of working and teaching, a willingness to accept pretense for the genuine. From their own experiences they appreciate the fundamental wrongness of such tendencies; but is the vicious circle created by surround-

ing themselves and the pupils with false art activities realized? Are they conscious that these falsities about their students and themselves dull and sensitiveness to truth in other matters, and they pass them on to the children they teach? Let them think honestly and conscientiously, and consider what effect it would have on the character of the students to be surrounded only by genuine art activities.

The Nature of Art Activities and the Student

Art is a point of view--an attitude--toward phenomena that assumes natural causes for all things that can be detected by the senses. This attitude is so dominant in the mind of the investigator as he studies the problems in his field, and it is so pervasive in all fields investigating natural phenomena, that it can be dignified by calling it a philosophy--even a major faith.

Art activities is a general method of investigation.

Precisely what is done through the method of creativity varies considerably with the field under investigation. Does the student actually need the faith of naturalism to add to what other faiths he has in order to be at peace with himself and to be capable as a social being? He wants nothing more than he wants knowledge that he can depend upon and increasing order and an ability to see in perspective that which is

chaotic and dimly seen. His approach is exploratory and developmental. The student sees chiefly the particulars

that grow out of particular experiences. The student's "explicit" wants and interests are relatively immediate.

The teacher must utilize these explicit wants and needs toward goals that are "implicit" in the potential of the student and the society with which he interacts and is a part.

To do this fostering of experiences for students that will meet their interests in specific questions and their urge for activity while helping them at the same time toward greater maturity requires both a willingness to provide a school situation where "doing" can be done and an understanding of how these activities may be used to sound educational advantage.

A formal, passive, too orderly classroom in which reading and other abstract activities predominate to the virtual exclusion of experimental activities is contrary both to the nature of the student and to the learning process itself.

Gans, Almy, and Stendler have stated the situation very accurately when they assert: "The student is seldom concerned with the abstract. His interests lie rather in the specific and concrete. He does learn to generalize but only through the

gradual putting together of his experiences."22

OBJECTIVES AND ACTIVITIES Summary ART ACTIVITIES PROGRAMS

Every book that is written with care expresses a point of view. The point of view underlying this thesis is made explicit in this chapter. As such, it is guided by the purposes that underlie the program. In determining these principles and values common to all the creative arts, must take into consideration the basic ideals or values which Furthermore, three and one half years of active classroom and lecture experience has convinced the author that practice not enlightened by a knowledge of principles is on the fringe of the trial and error method or even complete neglect. This chapter has presented the author's point of view and the philosophies of others in the field of art education, as well as practical values will be derived by students, the trial and error is uneconomical of money, time and effort, following objectives have been carefully chosen: and, all too often, never transcends error. For this reason

1. The student should be made aware of the "actual" some basic principles will be presented throughout this thesis, rather than the "abstract" concepts of space, area, scope, as well as their practical application. and being of the object to be developed. In other words, through making the object, these concepts would become real to the student.

2. There should be a general review of the six basic elements of art: Color, line, texture, form, tone, and space.

Since these are essential principles, emphasis should be

22

Roma Gans, Millie Almy, and Celia Burns Stendler, Young Children: Their Education in Home, School and Community (New York: World Book Company, 1952), p. 38.

in previous training.

OBJECTIVES AND ACTIVITIES IN ART ACTIVITIES PROGRAMS

Introduction

Basic to the success of any program are the aims and purposes that underlie the program. In determining these one must take into consideration the basic ideals or values which the student will derive from them and let such ideals and values be the factor which governs the objectives. That the objectives must be carefully chosen is recognized, for it is from the objectives that the suggested activities and techniques of the evaluation will come. Believing that aesthetic as well as practical values will be derived by students, the following objectives have been carefully chosen:

1. The student should be made aware of the "actual" rather than the "abstract" concepts of space, area, scope, and being of the object to be developed. In other words, through making the object, these concepts would become real to the student.

2. There should be a general review of the six basic elements of art: Color, line, texture, form, tone, and space. Since these are essential principles, emphasis should be placed on them in case they have been forgotten or overlooked in previous training.

3. There should be continual exercises which will lead to coordination of the manipulation of hand and mind. This would tend to develop dexterity and skill in the finished product.

4. There should be ample opportunities for the student to express his creative qualities, and develop his initiative toward a goal of working on his own.

5. There should be opportunity for the student to be subjected to as many different mediums and materials suitable for his developmental level as would be practical. The student should be instructed in the use, care, and possible development of such materials, especially in combining colors in hues, intensities, and values.

6. There should be an aim to create within the student a continuing appreciation of art in all of the forms to which the student will be exposed.

7. Enrichment of each subject pursued by the student through the correlation of art with the subject should be a continual concern.

8. Another aim should be to develop through the study of the arts of other people, both old and new, an understanding of the work of others and something of his cultural heritage.

9. The teacher should develop in the student the ability to work independently and in groups, and thus acquire a better

social adjustment to the society of which he is a member.

The student should be led to become a discriminating consumer or a design conscious producer.

Activities

Through many activities, results will develop in that subjects being taught will be enriched and made more interesting. The student will receive art training, and also the activities may bring about a closer relationship between the teacher and students through teacher-student planning of the activities. Enthusiasm is catching and students love to tell what they are going to draw or create before they start. There is no reason why students should discontinue their initiative. Working together in groups on activities creates better social adjustment in the individual which is one of the prime requisites of the public school. It has been recognized that activities presented in any subject culminate in the end product of learning. Specific activities and specific instructions will be found in this chapter under the subject heads.

The activities for the classroom are presented according to the subject fields. They are: Vitalizing the English Program through Art; Finding Art in Mathematics; Science Comes to Life in Art; and Social Studies Enriched through Art.

Students cannot create out of a vacuum. They must have something to say and be motivated to say it. More time spent in experiencing what they are going to do will bear fruit in

faster outpouring of student's work when he gets started. The teacher's responsibility is not at the desk while the students jump at the chance to draw or create something they want to create. The teacher will find that most of the students don't want to create anything very much and those who do seem to want to hash over a picture they made in some former class at an earlier time. Each group will have its own interests. It is important to build up enthusiasm on the part of the students before they actually begin their art activities. Enthusiasm is catching and students love to tell what they are going to draw or create before they start.

There is no reason why students should discontinue the use of big brushes and poster paints as they enter the upper grades. It is desirable to have a variety of materials available so that students may experiment. Poster paints have a place, watercolor performs a special task, crayon is desirable for some types of work, and large colored chalks provide a medium for some students to express themselves most frequently and freely. Often the students derive a great deal of pleasure from mixing media. Crayon with a watercolor wash, wet chalk, tempera and watercolor are all part of the student's equipment for expressing ideas. Evaluating the students' art work is of vital importance.

Space filling, use of color, proper handling of brushes are important. The students are to be taught, in art activities, as well as the other academic subjects. Their growth is being measured as they compete with themselves, not in competition against a group. When they can evaluate their own work objectively they are being taught.

It is possible that the students in the upper grade levels get discouraged and lose interest in drawing and painting because they can't capture the high degree of realism they want. Some teachers may take an extreme view. They require students to learn the laws of perspective and use this as a basis for many art activity projects during the year; or they take for granted that the students at this level won't enjoy activities that involve drawing and the art program is therefore limited to three-dimensional activities.

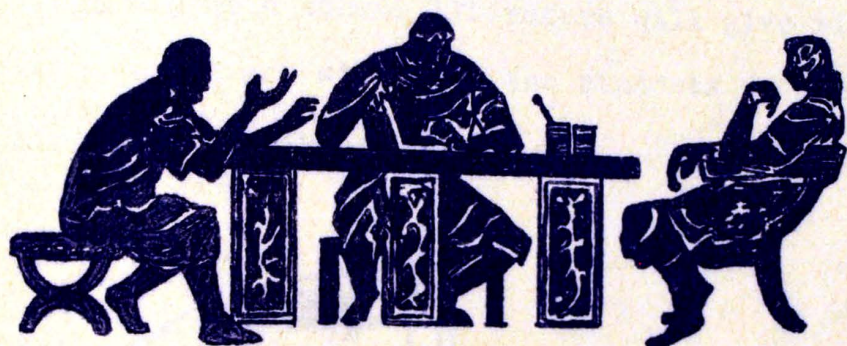
Boys and girls can and will enjoy a certain amount of drawing and painting at the upper grade levels if they have not been conditioned by teachers and parents to believe that realism is the major objective in art expression. Some time spent studying great works of art from the ancient world will prove a good investment. The arts of Egypt, for instance, reveal a great, productive people who had no desire to reproduce what the eyes saw. Yet they were responsible for creating

magnificent paintings in which color and design were carefully considered.

This is the time, especially in literature and social studies, when a collection of good colored reproductions of great paintings--ancient and modern--plays an important role. It can provide art appreciation experiences as well as inspiration for creative expression. The development of a collection of fine quality reproductions is within the budget of almost any school. If only three or four carefully chosen reproductions are purchased each year, a fine collection can be developed within a reasonably short time.

Boys and girls should be encouraged to look at the works of such late 19th and 20th Century painters as Paul Cezanne, Pablo Picasso, Raoul Dufy, Paul Klee, Amadeo Modigliani, and Jose Orozco. As they begin to develop an understanding of art that does not depend on visual realism only, but also on color design and emotional content, they will become more interested in their own creative expressions.

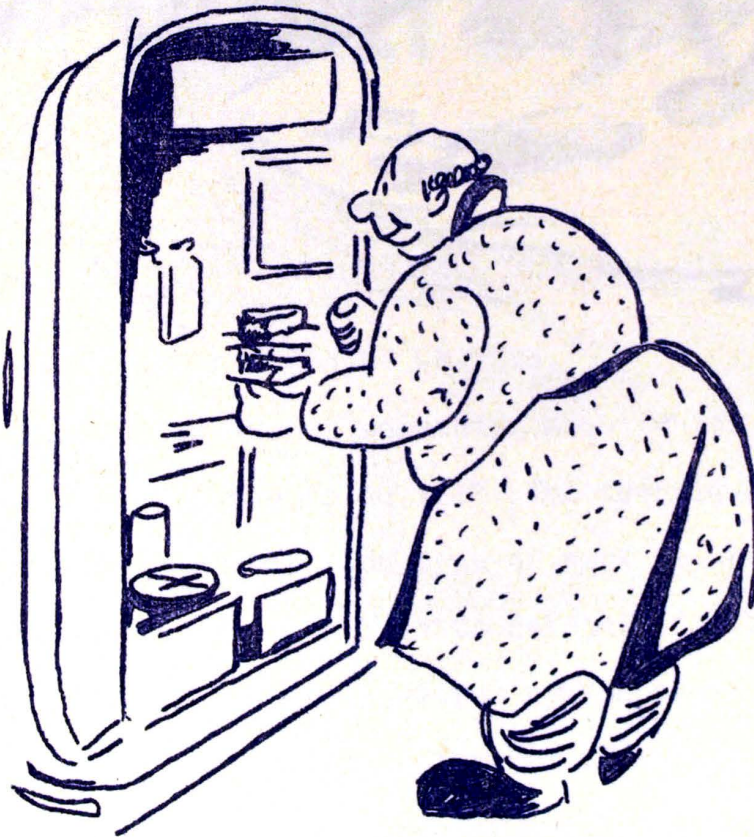
The following ideas and illustrations are furnished as a basis to determine appropriate methods and procedures to use in the courses of study in the high school.



VITALIZING THE ENGLISH PROGRAM THROUGH ART

CARTOONING

Students have a natural desire in high school to characterize on paper happenings of the day or of their own experiences. Offering excellent opportunity for such a project are the adages of Benjamin Franklin. An example is given below on how this natural desire can be put to constructive use in the literature or English class. Excerpts from Poor Richard's Almanac found in high school literature will give rise to many ideas for cartoons and will help the students to remember them by creating on paper their meaning.



"Eat not to dullness; drink not to elevation."

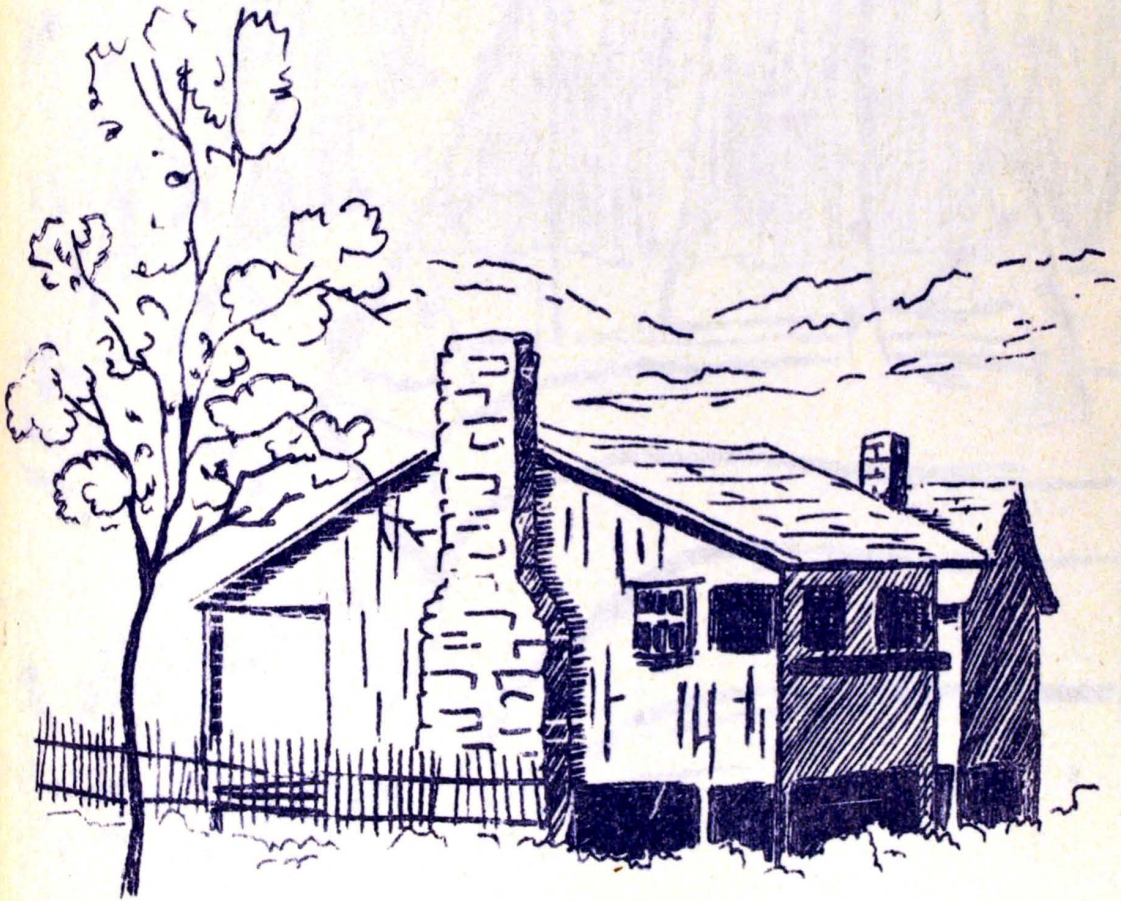


USE OF CRAYONS

Crayon technique is not something about which a person can say, "This is the way to do it." The technique varies with each student and with each type of work he undertakes. What can be done for the pupil is to help him discover as many possible techniques and uses for crayon as he can. The student can employ crayons for all types of work; such as illustrating poetry, history, literature, not to mention "art".

ILLUSTRATIONS

An interesting art activities project in the literature class may consist of the development of a drawing or painting by the student, and from this drawing or painting depict a short story or poem. The following drawings show some of the possibilities of the above suggested project:



"Our Cottage in the Country"

AMERICAN
BOOK CONCERN
NEW YORK



"Birches"

Poem by Robert Frost

Eleventh Grade Literature

WAYS WITH WATERCOLOR



Painting creditably in watercolor is not beyond the reach of the average ambitious student or amateur. If he has a little competence in drawing, the ability to see colors correctly, and willingness to work, he can learn enough to develop a style and technique all his own, and express himself well in this medium. Knowing colors is of primary importance in the use of watercolor. Most public schools teach the rudiments of mixing colors to produce others, so it is assumed that the student already knows the rules in pigment mixing. One of the best sources of information on how to use watercolor is Ways with Watercolor, by Ted Kautzky, which will help beginners by giving them enough elementary knowledge to

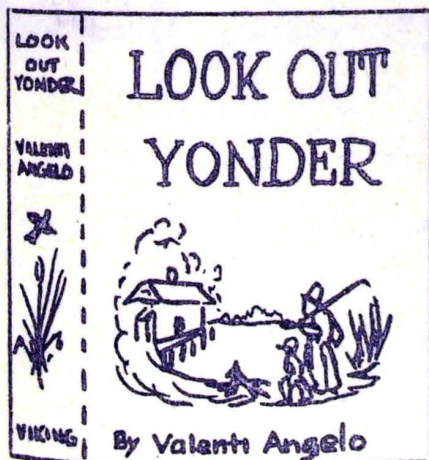
get started, plus the stimulation and encouragement they can get from seeing a number of good examples, many of them in full color.¹ He has provided a graduated series of exercises in the making of complete landscape pictures; at first with a limited palette of two, three, or four pigments--then with as many as may be required by more elaborate subjects. This would be an excellent reference book for the school library, and the teacher could refer the students to it as a teaching aid.



¹Ted Kautzky, Ways with Watercolor (New York: Reinhold Publishing Corporation, 1949).

BOOK COVER DESIGN

Authors are people who have something to tell others through printed words. They differ in their reasons for writing, but they all hope that what they have to say will be of real interest to the thousands who read newspapers or books or magazines. Along with the hope that the authors present good reading material, they hope that the particular book or story will reach the many readers. This is helped along by presenting the book in an attractive binding or "dust jacket." Today, attractively designed "dust jackets" instead of bindings distinguish modern books from one another. After assigning a book report, the teacher may ask for an attractive book binding or dust jacket to be designed by the students. This is an interesting project, and the students will get wonderful ideas from the story that they have read. This will involve color, design, and composition, important in an art assignment. Examples are given below:



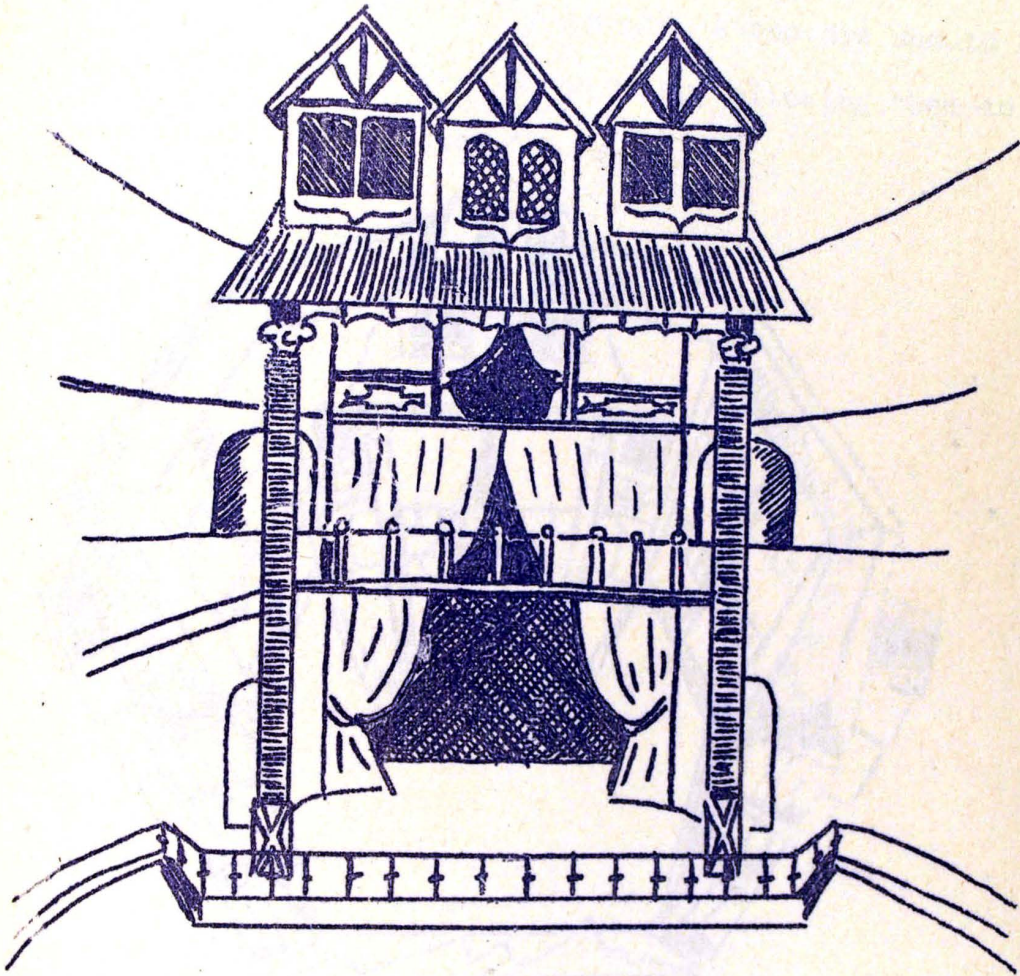
One of the most intriguing projects that may be conducted by students in the literature class is the designing of a Shakespearean theater. With guidance the pupils can create a miniature theater that was the type used for the Shakespearean plays.

In the days of Shakespeare's boyhood, wandering bands of actors existed all over England. There were no theaters, so the actors put on their plays in the courtyards of inns. The crude stage was made by placing a floor upon a wagon body. The people sitting around the upper stories of the courtyard paid more than did the people standing down in the courtyard.

The first real theaters were built in the suburbs of London, and they were modeled somewhat after the old inn courtyards. The roof was still open to the sky; the "groundlings" still stood around the stage, which jutted forward from one side of the octagonal building. Some of the earlier theaters were circular in shape. The richer patrons were seated in the roofed galleries lining the other sides. Some of the patrons often sat on the stage itself. The crowd felt free to shout comments to the actors, dispensing gibes of derision as well as shouts of approval.

Part of the stage was covered by a wooden awning to keep off the rain. Dressing rooms were located in the back of the theater stage. The doors were on either side of the backstage

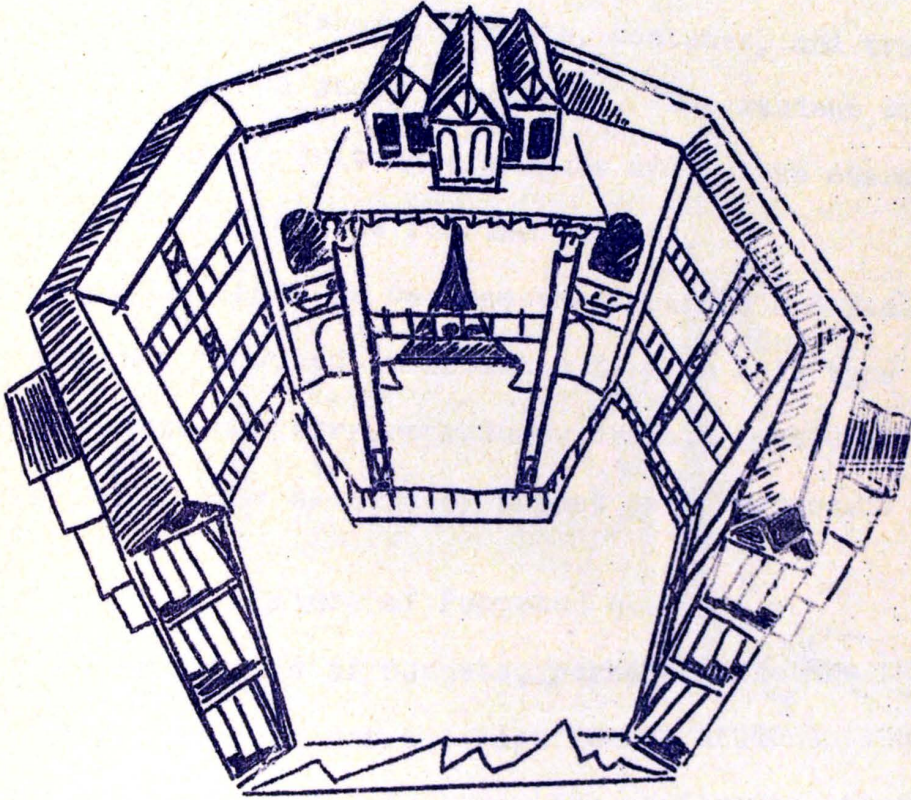
SHAKESPEAREAN THEATER



and in the center was a curtain that was thrown back when exterior scenes were needed for bedrooms, caves, or tombs.² Over the rear stage was a gallery used to represent such places as city walls, upper windows, or any high place. Above the roof over the inner stage was a turret. When a play was about to

²W. J. Glover, (ed.), Wedding Revels, Short Plays from Shakespear, (London: George Philip and Son Limited, 1948), p. 3.

begin, a flag was raised on the turret. Plays were given only in the afternoons. The sketches shown give the general layout of the theater plans; most of the general structure should be left up to the students, working together, allowing them to develop their creative abilities.³



Materials to be used in the construction of the theater are:

1. Four sheets white poster board.
2. Four sheets brown poster board.
3. Paste.
4. Scissors.
5. Four sheets green poster board.
6. Cheap, colored thin cloth for the curtain material.

³W. J. Glover, (ed.), The Conspirators, Short Plays from Shakespeare (London: George Philip and Son Limited, 1950), p. 5.

The class which undertakes a puppet performance as a project lesson will find in it many sources of profit. As a by-product, literature and history may be vivified, for an effective performance will require the student to acquaint himself with the literature, customs, costumes, and traditions involved in the story dramatized. The student will also be given training in writing dialogues and in the characterizations which he declaims for the puppets.

High school students can see the thoughts and feelings of human beings produced in artistic form in this type of performance because puppetry reproduces drama. Emotional effects of drama may also be secured by puppet performances.

Kinds of Puppets

Of the many kinds of puppets, perhaps there are three types that are easiest for the high school student to construct. These are the Punch and Judy type, the marionettes operated from below, and the marionettes operated by strings from above.

The Punch and Judy type of puppets are usually empty and flexible figures, manipulated by the thumb and two fingers of the performer, who exhibits them by holding both hands above the head. These are the true puppets.

Another distinct class are the marionettes operated from below, and by means of rods, or by the legs of the dolls them-

selves.

The third type is the "true marionette." These are manipulated from above by means of wires, or strings, which give life and motion to the figures. They are handled by an operator, or puppeteer. All modern puppets belong to this class.

Constructing the Puppet

There is a delight in store for the student in carving, molding, gluing, and painting the little puppets. The construction of the figure is not expensive and does not require any special talent or materials that are not found in the average classroom.

First of all decide on the character wanted and the size necessary to agree with the stage and properties. For the purpose of instruction, divide the construction of the figure into two parts; namely, the body and the head. If it is remembered that the human figure is approximately eight heads tall, it will be no trouble getting the correct proportions to the figure.

The first step is to draw the complete figure, actual size, on a piece of paper. The figure should be about twelve inches tall.

For the body, the materials and tools required are as follows: (1) Bits of wood from a packing box or its equivalent; (2) A piece of sheet lead, 1" X 1"; (3) Miscellaneous small

nails and tacks; (4) A sharp jackknife; (5) A sheet of fine sandpaper. A saw is helpful but not necessary.

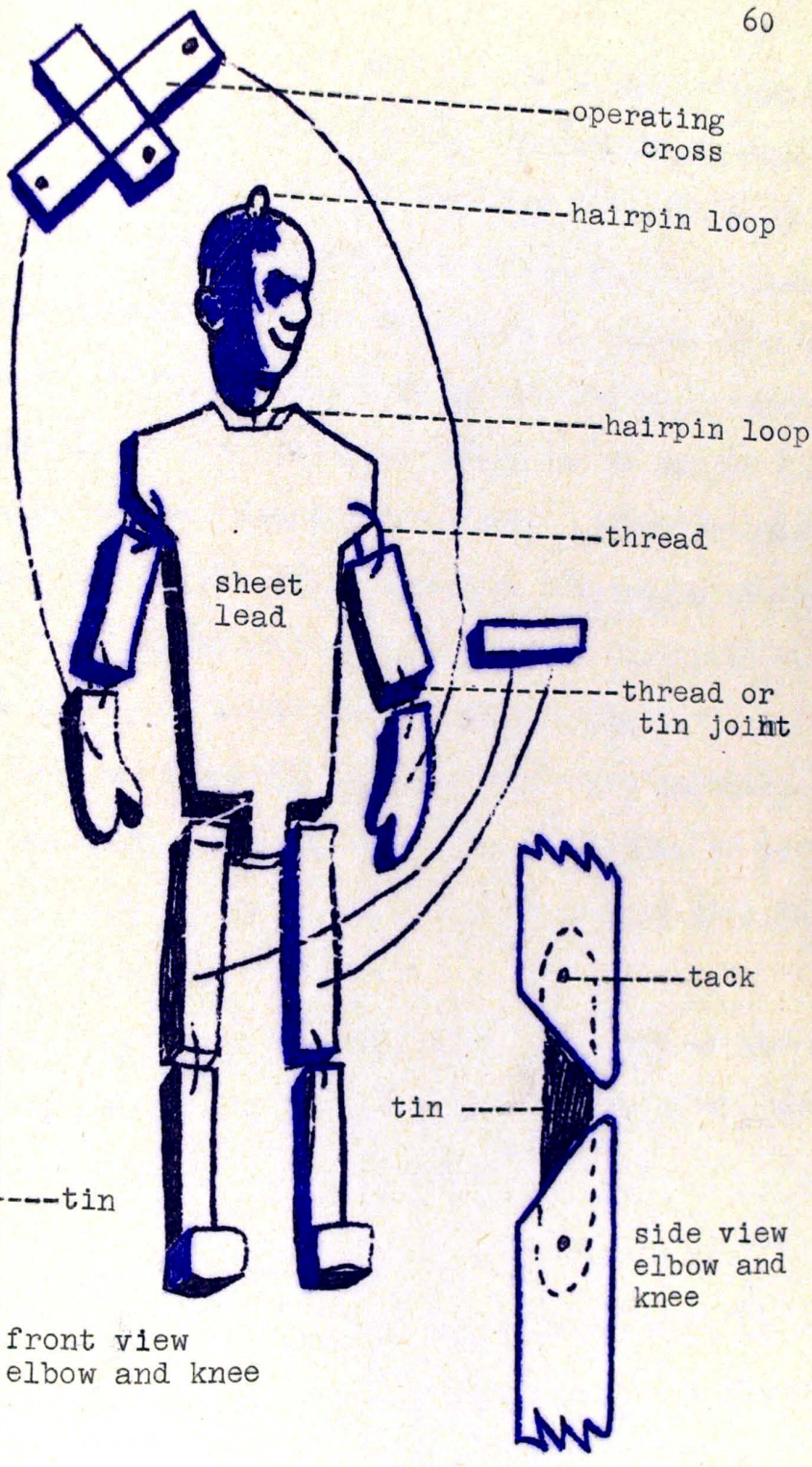
The body proper (see drawing) is made of 1-inch wood; the arms and legs are made of wood approximately 1/2 inch thick. As the whole body is covered by the costume, with the exception of the hands and feet, they are the only portions that require finishing.⁴

The joint between the shoulder and arm is simply a loop of thread or fine wire run through holes drilled in the shoulder and arm. The joint between the upper arm and forearm (or elbow) is made in the same way.

There are many ways to make the heads of marionettes. They may be carved out of wood, molded in papier-mâché, and molded of plaster of Paris; but heads made of plastic wood are by far the most successful for the amateur.⁵ The wood is a putty-like substance that hardens quickly, and when hardened it can be sawed, filed, planed, sand-papered, and carved like wood. Merely mold and model the head and neck from this substance as quickly as possible. It will be found that the features have to be exaggerated to be noticeable. Remember that the figures are small and will be viewed from a distance.

⁴ Marjorie Batchelder, The Puppet Theatre (New York: Harper and Brothers Publishers, 1947), p. 55.

⁵ Ibid.



CONSTRUCTION OF THE PUPPET⁶

⁶Ibid., pp. 66-111.

For a place to tie the thread that holds up the marionette, stick a small hairpin in the tip of the head so that the loop is open from the front to the back and projects upward about $1/8$ inch. A layer of cotton tacked on the front and back of the body gives it proper thickness and shape without having to resort to any tedious carving operations. After the head has hardened, take a knife and sandpaper to smooth the figure, and then add the finishing touches. Next the head, feet, and hands may be painted. Artists' oil colors are best, but ordinary brushing lacquer will do. While the paint is drying, make the operating cross and "walking stick."

For the hair an old doll wig will serve the purpose. Use raveled wool knitting yarn for fairytale characters as it is possible to get this in many more different shades than is possible with doll wigs.

In making four-legged animals, make both legs on the same side of the body operate at the same time. This arrangement simplifies the operation of the figures.⁷

December Night, by The Stage

The marionette stage is easily constructed. The top of a table may serve as a floor for the stage, with the framework of the stage built upon it. The puppet stage is just a minia-

⁷ Ibid.

ture stage, and the size of the puppets should determine its size. The stage should have a gridiron and adjustable backdrops. The stage curtain should be on rings, and tiny electric lights should be used in order to produce light effects. The lights may be arranged so that they go on three circuits.⁸

The puppet should be fastened to a control board (two crossed boards) which is held in the puppeteer's hand. The main board of the control should hold the strings that are fastened to the puppet's head; those just above the ears; those to its hands; and those to the center of its back. The hand strings should be loose and the other strings should be more firm. The legs are operated from another control, the "walking stick."⁹

Some Suggested Plays

Students may construct puppets and work out regular performances for the following:

Ichabod Crane, by Washington Irving

Uncle Tom's Cabin, by Harriet Beecher Stowe

December Night, by D. S. Fairchild

⁸Arthur Richmond, (ed.), Remo Bufano's Book of Puppetry (New York: The MacMillan Company, 1950), pp. 36-40.

⁹Marjorie Batchelder, The Puppet Theatre (New York: Harper and Brothers Publishers, 1947), p. 60.

CASTLE

The castle can be made primarily of walls and towers. Corrugated cardboard may be used entirely, also salt boxes may be used for the large tower (living quarters or donjon), paper towel rolls for the small lookout towers, and biscuit cartons for the entrance towers. Add a parapet at the top of the towers, and paint windows and lookouts.

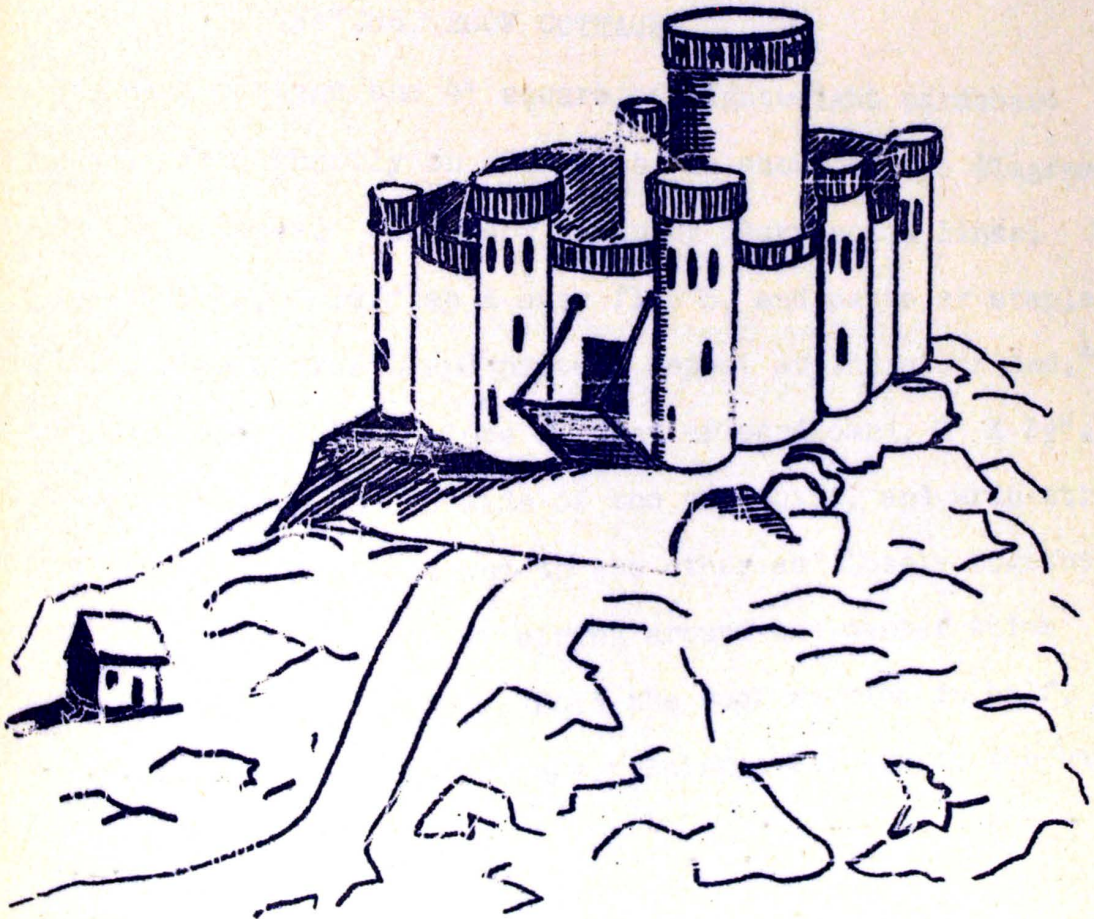
Make a wall of corrugated cardboard so that it reaches almost to the parapets of the lookout towers; to assemble, slit the towers to the height of the wall, and fit the towers over the wall. Slit the entrance towers on just one side, and slip the ends of the wall into these slits. Make a base of cardboard for the moat. Leave a space between the entrance towers for a gate, and build a drawbridge (of cardboard). Tie strings from the towers or gate to the drawbridge, and leave it in a drawn position. Set the donjon at the back of the castle wall. An inner wall and little buildings in the courtyard may be added.¹⁰

For mountains, use crumpled newspaper, covered with a clay like paste made from detergent and liquid starch: four cups detergent to one cup liquid starch coloring.

¹⁰ Edna N. and John M. Clapper, (eds.), The Scrapcraft Magazine, Volume 4, (February, 1955), p. 9.

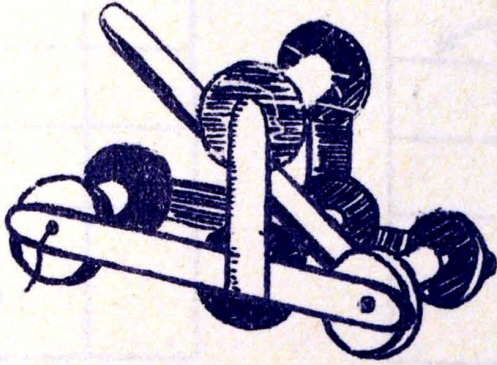
Mix the detergent and starch with a spoon until it possesses the consistency of a cake frosting. If it is too dry, add a little water. Color with vegetable dyes or poster paints.

To make the mountains, rumple up several newspapers, and shape them to roughly look like hills. Sprinkle the surface with just enough water to soften the newspaper slightly. With the back of a spoon spread the paste on the newspapers. When completely covered, sprinkle a little granulated soap or sand around to add texture and change the color.



CASTLE ON A CARD TABLE

A catapult may be made out of tongue depressors and large spools, glued together as shown below. Add a crank handle, and some strings to make it more realistic.¹¹



THATCHED ROOF COTTAGES

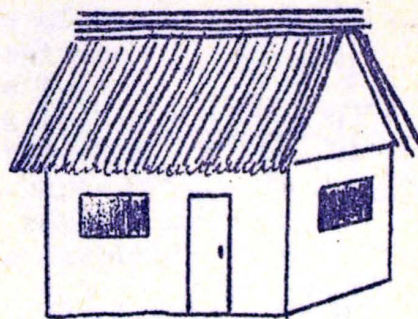
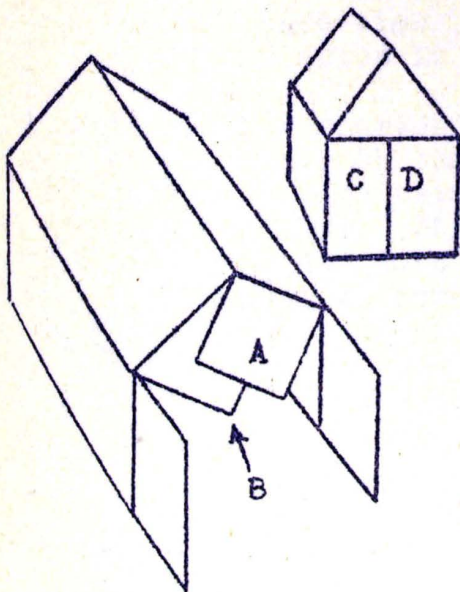
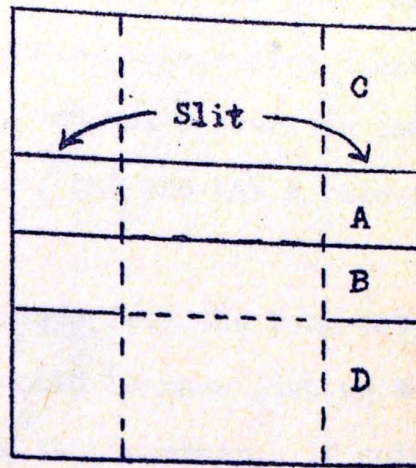
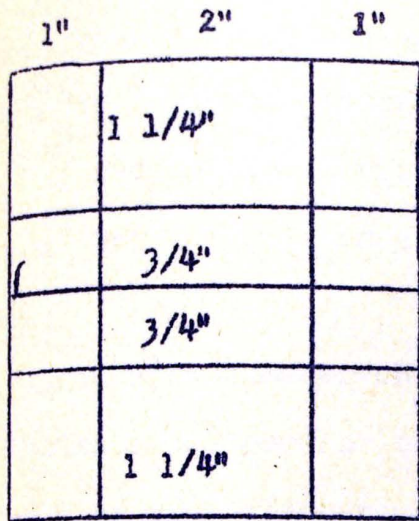
For each cottage one 4" square of lightweight cardboard is needed. Fold sharply on all lines, as shown in the diagram, to make the creases. Cut where shown by heavy solid lines.

To assemble, fold flap A over flap B, and paste or staple. Then bring flap C over D and paste. Repeat at the other end.¹²

For the roof, use a piece of heavier cardboard, 2" X 2½". Put a coat of paste on one side of the cardboard, and wrap string or cord around it from one end to the other as closely together as possible. Wrap a piece of string around the center which becomes the peak of the roof. Fold the roof section in half, and place it on top of the cottage. Paint a village at the base of the castle.

¹¹Ibid., p. 10.

¹²Ibid., p. 12.



THATCHED ROOF COTTAGES

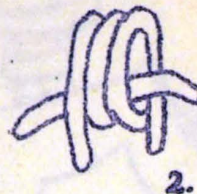
PIPE CLEANER WARRIORS

The basic structure for these warriors can be used for any pipe cleaner characters. Change the extras so that the character fits the setting. For example, make a pipe cleaner doll of red and white pipe cleaners, and put a heart in the hands. Set the doll on a lacy doilie, and one has a valentine doll.

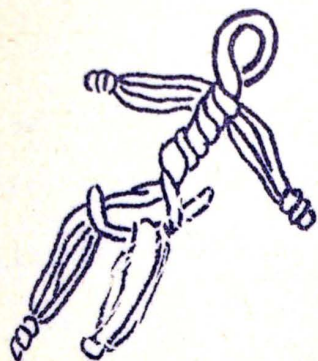
This pipe cleaner character is made from the long colored pipe cleaner so popular today, but could be made just as well of regular pipe cleaners by twisting two together. If color is desired, dip them in rit dye, and let them dry before making the characters.

Steps in making the pipe cleaner characters are as follows:¹³

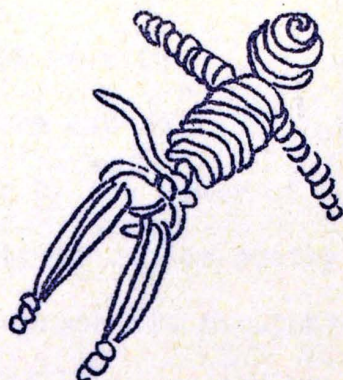
1. Wrap a pipe cleaner around the finger three times. Slip it off and flatten it out.
2. Slip another shorter piece of pipe cleaner through the loops just made, and twist the four ends together. This makes the arm, and the short twisted ends can be bent to form the hands. make another arm in the same manner. Then two more a little longer for the legs.



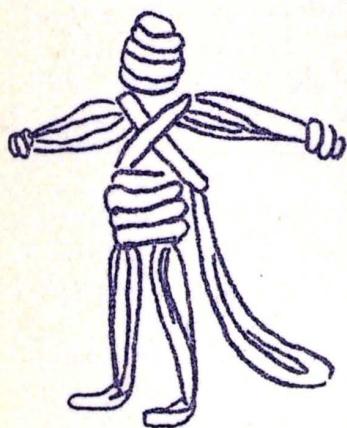
¹³Ibid., p. 14.



3. For the head and body use another long pipe cleaner. Make a small loop at the top for the head, then put one end through each arm and twist to hold in place. Slip the ends through the legs and bend them back up around the body.



4. Wind pipe cleaners around and around the body and head until they are built up as much as desired.



5. If it is difficult to make the character stand, add a brace out behind. Fold the pipe cleaner in half, and twist the ends around the body of the doll.

6. Add a sword from a pipe cleaner in one hand, and tape a paper shield in the other to finish the warrior.



CONSTRUCTION PAPER PUT TO USE IN THE ENGLISH CLASS

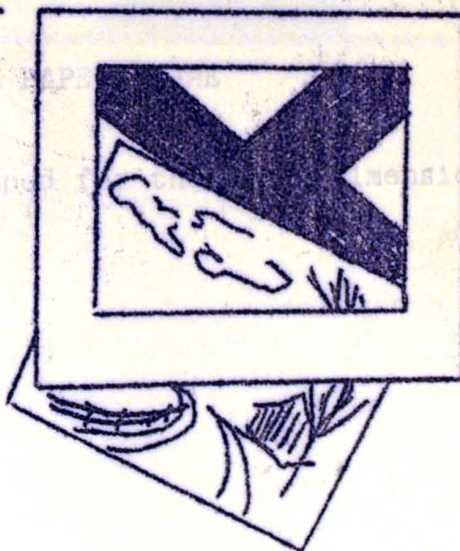
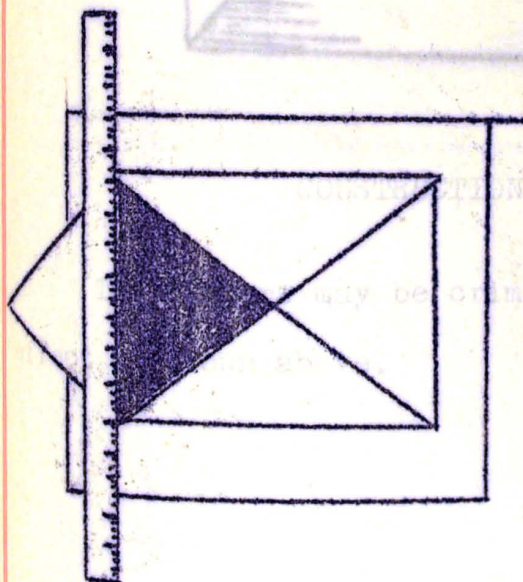
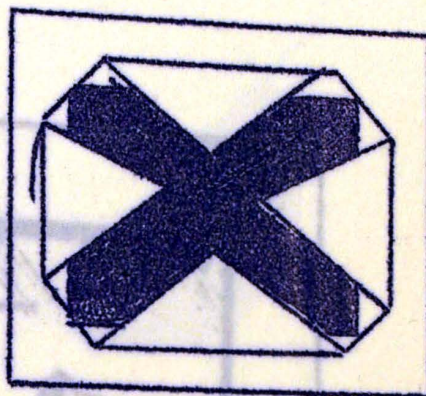
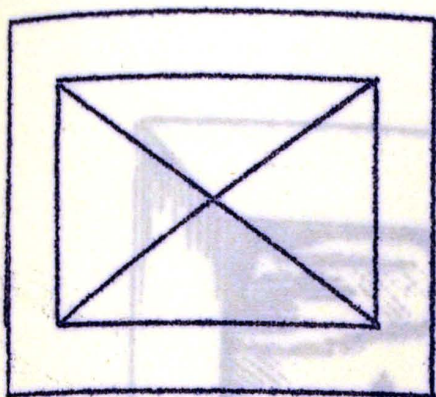
So many times it has been stated that the child has a great desire to create. This desire can be fulfilled through the ingenuity of the teacher by the power of suggestion. As the student has the ability to create poetry or prose, he has the same ability to express his thoughts on paper illustrating his writings. After having the student compose a poem or write a short story, why not have him illustrate some particular scene depicting his writing? After this project has been carried out, an important thing to consider is the displaying of such illustrations or paintings. Most teachers have felt the need of an attractive frame for displaying the students' work--a frame that is inexpensive, reusable, and easily made. As teachers soon discover, impressive bulletin board displays can be time-consuming and expensive. The idea of a simply made paper frame may help in preparing the attractive displays, either on walls or bulletin boards.

Lacy School, like many other schools, does not have the ready supplies needed for matting or elaborately framing pictures; however, the materials used in making construction paper frames are easily obtained and very inexpensive. Colored construction paper does wonders for the classroom and the beauty of a picture is often enhanced if the color chosen is one which is predominant in the picture itself.

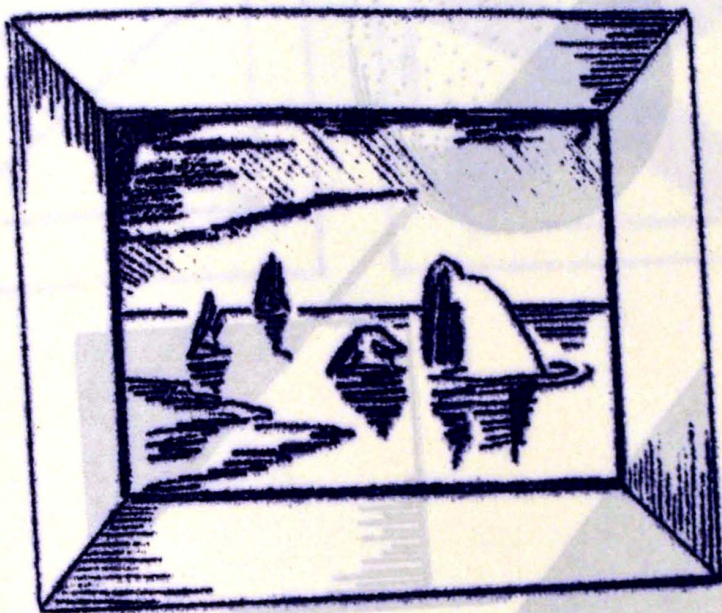
students can make their own frames and take them home with their work. Tagboard or any stiff paper may be used instead of construction paper if desired. The only materials necessary to make this type frame are a ruler, a pencil and scissors. The simple procedure used in making these frames is illustrated below.

The first step is to draw guide lines for the opening by measuring in from the edges of the paper. The opening is made about one inch less in each overlap on each side. Then draw diagonal lines, from corner to corner, in the inside rectangle. Next, cut the diagonal lines to each corner and fold back the triangle-shaped flaps on the opening lines. With the front side of the frame down, place the ruler with one edge along the folded side of the triangular piece as illustrated. Fold the triangle back over the ruler toward the center of the frame. Then crease the folds as shown in the upper right, so the flaps will remain in position. The frame is fastened where desired and picture inserted through the open flap.¹⁴

¹⁴ Ray Frykholm, "Making Frames from Construction Paper," Arts and Crafts LXV (March, 1956), p. 35.

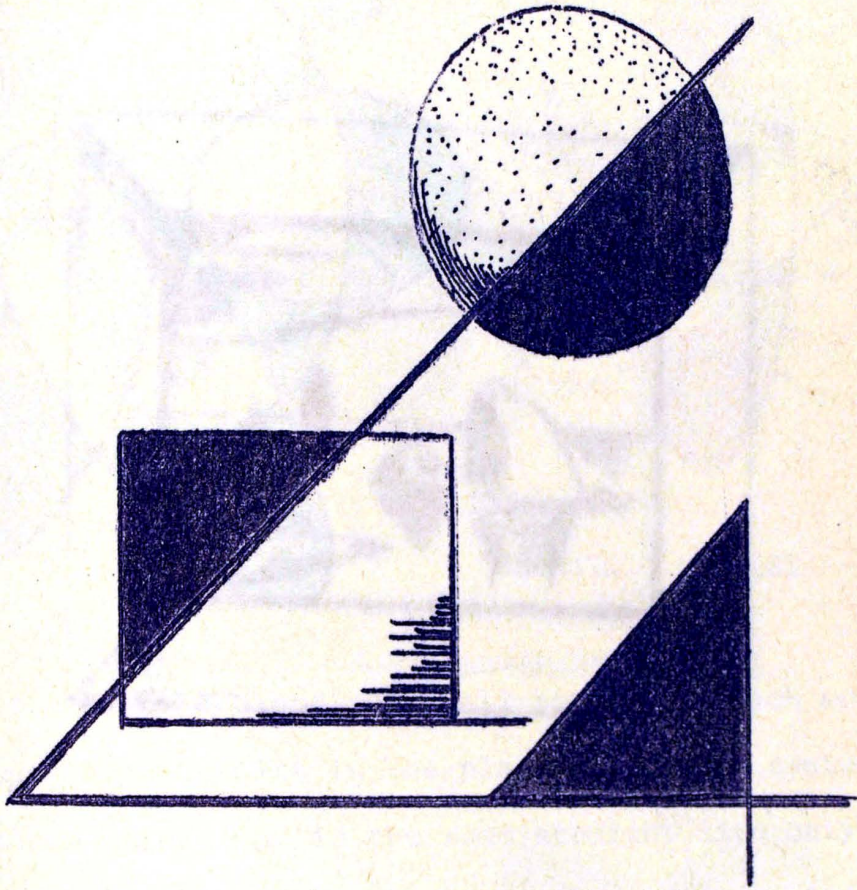


Basic procedure in making construction paper frames.

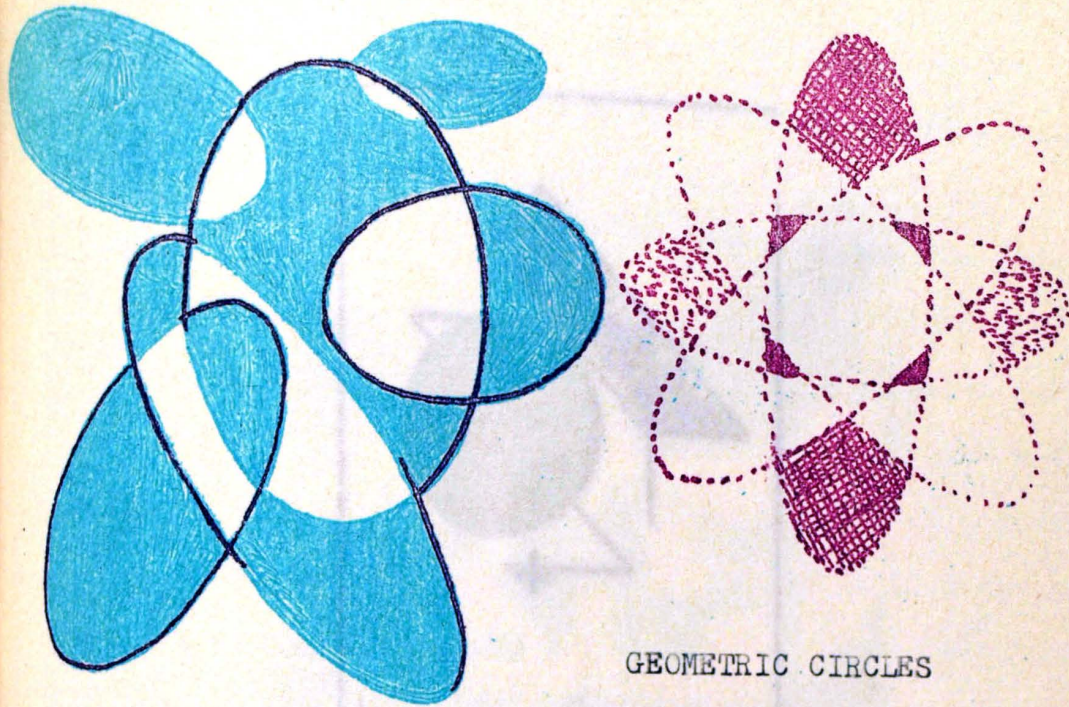


CONSTRUCTION PAPER FRAME

The corners may be crimped for the three-dimensional effect as shown above.

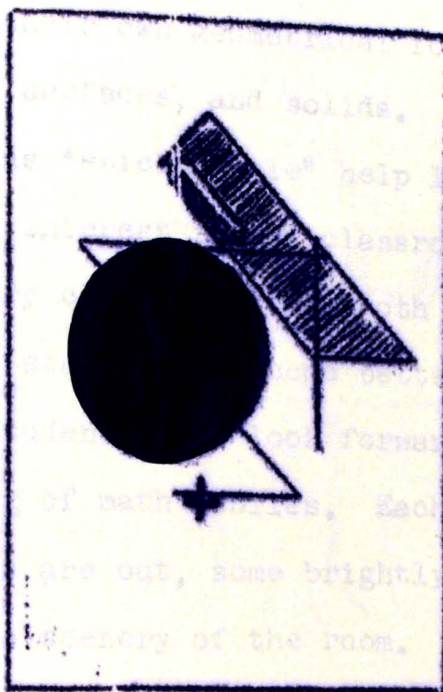


FINDING ART IN MATHEMATICS



GEOMETRIC CIRCLES

The circle is a plane curve all points of which are equi-distant from a point in the plane called the center. Through three points not in the same straight line only one circle may be drawn. The word circle is sometimes used to mean that portion of the plane enclosed by the curve. Various interesting designs can be derived from the use of the circle. Students should establish a visual image of the various elements of geometry and a means for establishing this image is the construction of various shapes; lines, angles, triangles, quadrilaterals, polygons, and circles, to provide all the forms needed for a study in design.



The above drawing was copied from a study in design by El Lissitzky.

Three illustrations are given above to show how various degrees of ellipses were used in developing designs. The above painting illustrates how geometric forms were successfully used in composition.¹⁵

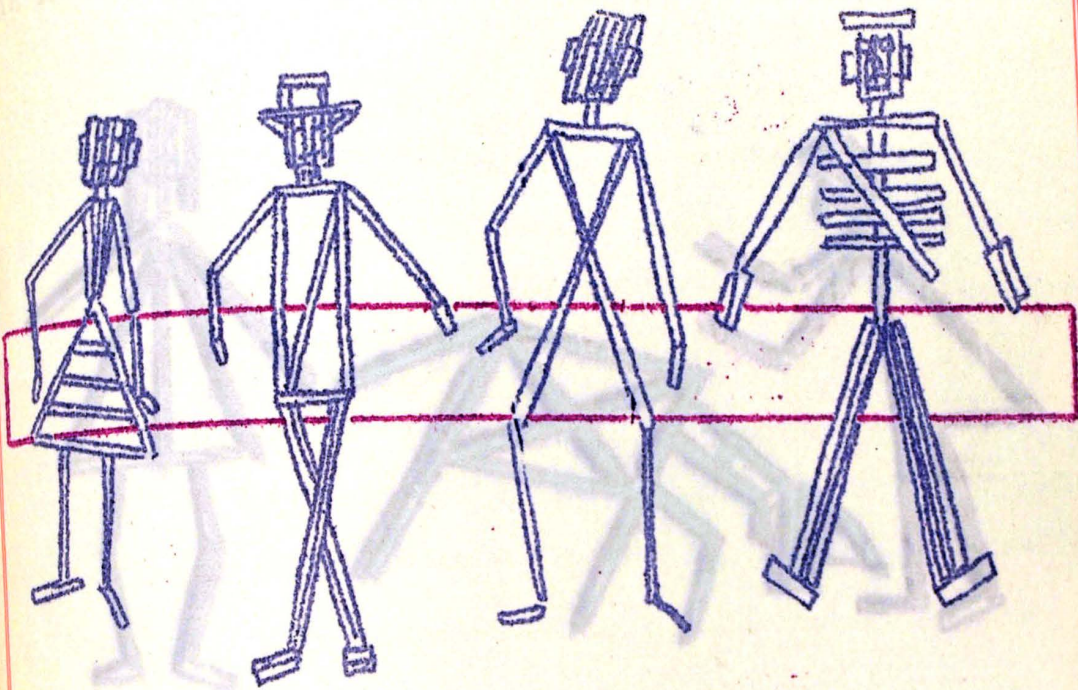
¹⁵Gyorgy Kepes, Language of Vision (Chicago, Paul Theobald, 1944), p. 41.

One fascinating project for students in the geometry class is designing their own geometrical forms of magnitudes in space; as lines, surfaces, and solids.

Such projects as "stick people" help liven up the study of geometry and add interest to any classroom. "Stick mobiles" hanging in a geometry classroom serve both a decorative purpose and assist the student to become better acquainted with mathematics.¹⁶ The students will look forward to that day set aside for the making of math mobiles. Each time that the glue, scissors, and sticks are out, some brightly colored creation will be added to the scenery of the room. Eventually there will appear certain geometric shapes representing some theorems of geometry in the designing of their mobiles. Then can come the idea of constructing stick people and animals to represent theorems, rather than plain abstracts. The bodies of these stick figures will contain such shapes as intersecting circles, parallel lines, right angles, et cetera. This will give the classroom an attractive and somewhat unique appearance, and it will prove easy for the students to remember the theorems. With colored sticks, scissors, and wood

¹⁶Alice Scannell and Madeline Fridrich, "Finding Art in the Geometry Classroom," School Arts LX (March, 1956), pp. 33-34.

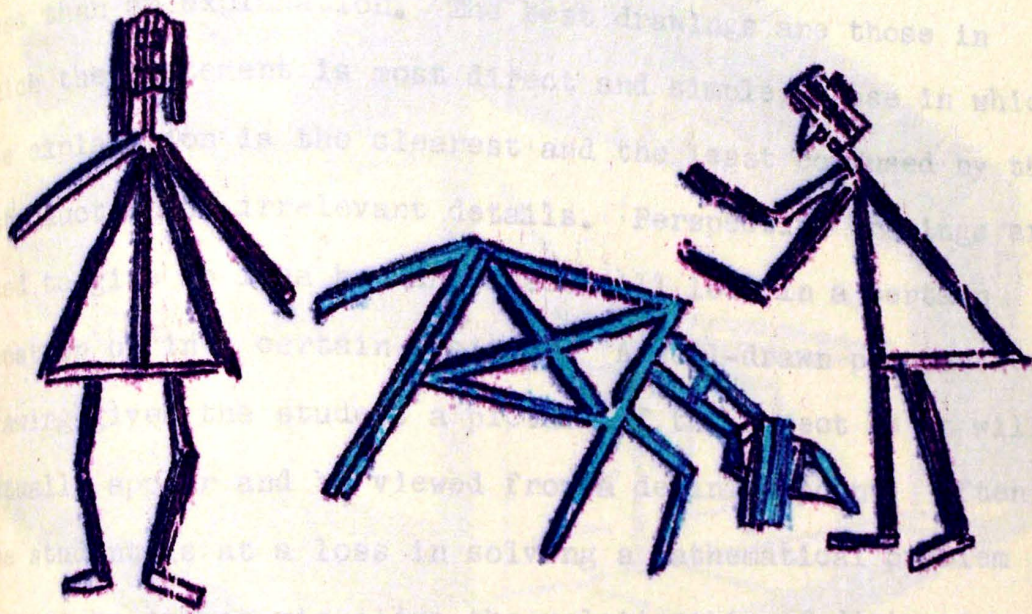
ment, such figures as stick dogs, clowns, grandpas, uncles,



fathers, mothers and little children in various geometrical shapes can be designed.

In constructing these figures, start with the heads first: These are more effective if made by gluing several sticks side by side. After they dry, trim the edges to the desired shape; oval, square, triangular or oblong. By cutting off little pieces from various colored sticks the facial features are produced. Detailed items like pipes, dog collars, hats, and eyes make the constructions more original and interesting. After the heads are made continue with the bodies using triangles, rectangles, or other geometric shapes as the main part of the body, connecting the limbs to them. To hang

the finished stick people and animals, make a hole using a pin in the soft wood and draw the thread through with a needle.



ISOSCELES AND BROTHER HYPOTENUSE PLAYING WITH MR. QUAIN.

These colored sticks produce beautiful results. The mobiles may tell a story such as illustrated above.

The creation of the "stick people" illustrates the type of development which takes place when an individual is able to build upon the environment in which he finds himself.

Materials needed for such a project are as follows:¹⁷

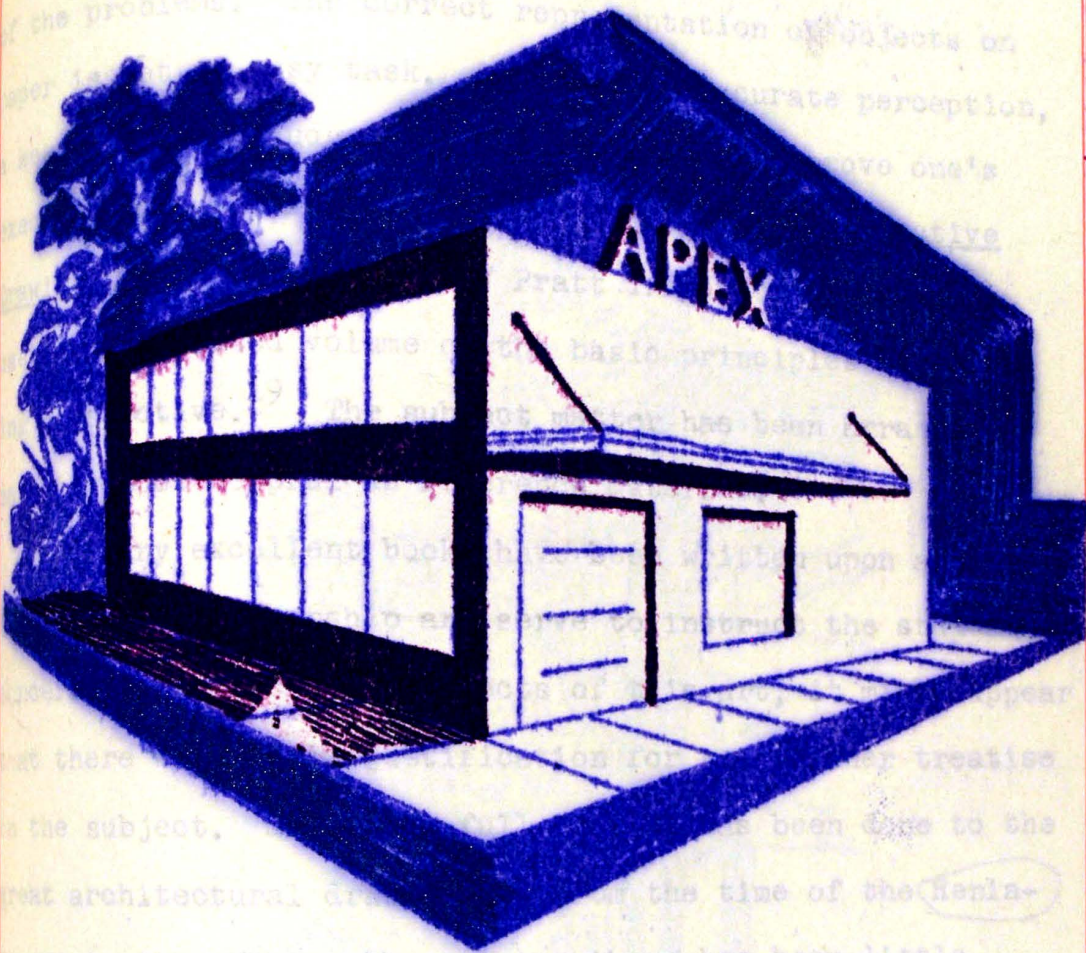
- (1) Colored sticks--tooth picks or match sticks; (2) Scissors; and (3) Wood cement for gluing the sticks together.

¹⁷ Ibid., p. 34.

A drawing is a statement of certain facts or truths by means of lines and possibly tones. It is nothing more or less than an explanation. The best drawings are those in which the statement is most direct and simple; those in which the explanation is the clearest and the least confused by the introduction of irrelevant details. Perspective drawings are used to give an idea how an object will look in a certain location or in a certain position. A well-drawn perspective drawing gives the student a picture of the object as it will actually appear and be viewed from a definite point. Often the student is at a loss in solving a mathematical problem because he cannot visualize the relationship of distance.

If the observer stands directly opposite one corner of a building, the building will be seen in perspective, and it will be noticed that all the lines, corners, or edges of the building which travel in the same direction appear to converge or meet at some definite distance from the observer. The point where these lines seem to meet is termed the vanishing point. The lines, corners, or edges of the building which travel toward the right will have their vanishing point at the right of the observer. The lines, corners, or edges of the building which travel to the left will have their vanishing point to the left of the observer. The lines, corners,

A STUDY IN PERSPECTIVE



or edges which travel upward will vanish at some infinite distance above the observer.

If one stands between the rails of a railroad track, the rails seem to come closer and closer together as they get farther and farther away and finally meet at a point on the horizon, which is termed the plane of the horizon.¹⁸

It is necessary for the student in mathematics to have

¹⁸L. A. Doust, A Manual on Simple Perspective (New York: Frederick Warne and Company, Limited, 1949), p. 40.

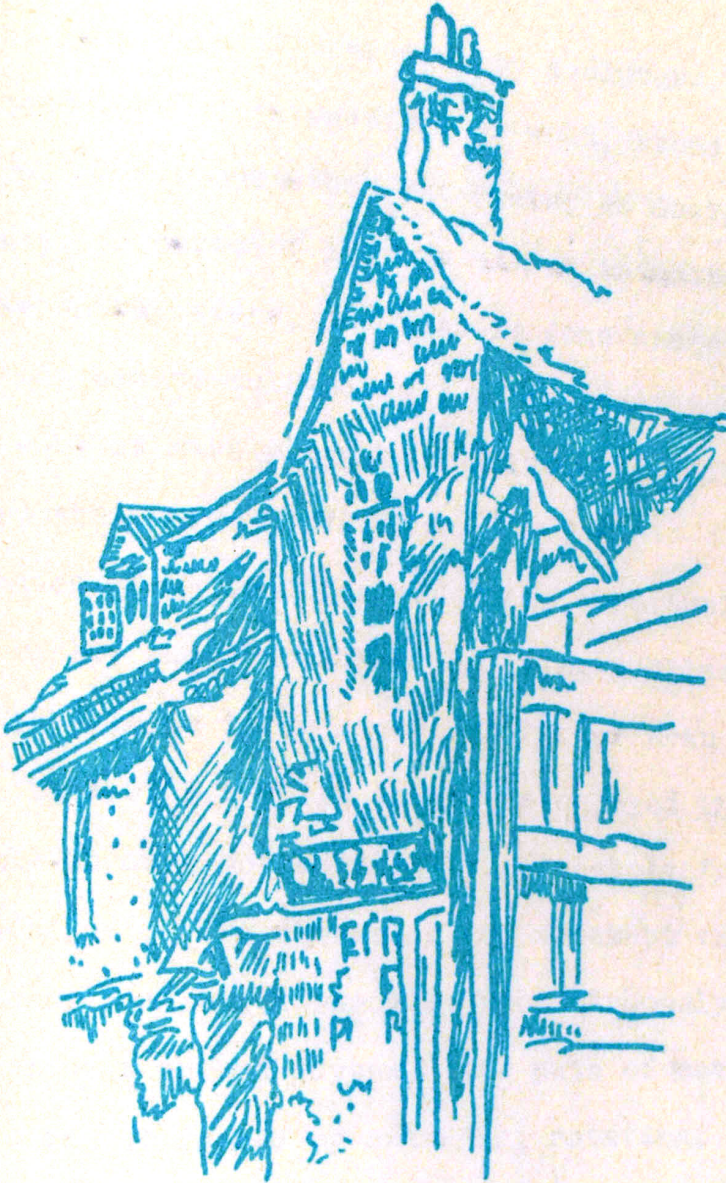
some basic knowledge of perspective in order to solve many of the problems. The correct representation of objects on paper is not an easy task. It requires accurate perception, a keen eye, good judgement, and the will to improve one's execution of details. In his book, Practical Perspective Drawing, Philip J. Lawson, of Pratt Institute, presents a useful illustrated volume on the basic principles of teaching perspective.¹⁹ The subject matter has been arranged to make the book helpful as reference material.

As many excellent books have been written upon architectural draughtsmanship and serve to instruct the student concerning the technical aspects of this art, it might appear that there was little justification for yet another treatise on the subject. But while full justice has been done to the great architectural draughtsmen from the time of the Renaissance to the eighteenth century, there has been little attempt to appraise the cultural value of such examples of architectural draughtsmanship as our own age has produced.²⁰

When the student becomes fully aware of perspective, it will open new avenues in art for him to pursue.

¹⁹Philip J. Lawson, Practical Perspective Drawing (New York: McGraw-Hill Book Company, Incorporated, 1943).

²⁰Cyril A. Farey and A. Trystan Edwards, Architectural Drawing, Perspective and Rendering (New York: B. T. Batsford Limited, 1949). p. 8.



A STUDY IN PEN AND INK RENDERING IN PERSPECTIVE

Shown above is an illustration of the possibilities of accomplishment a student might achieve after being initiated into the field of perspective drawing.

MOBILES

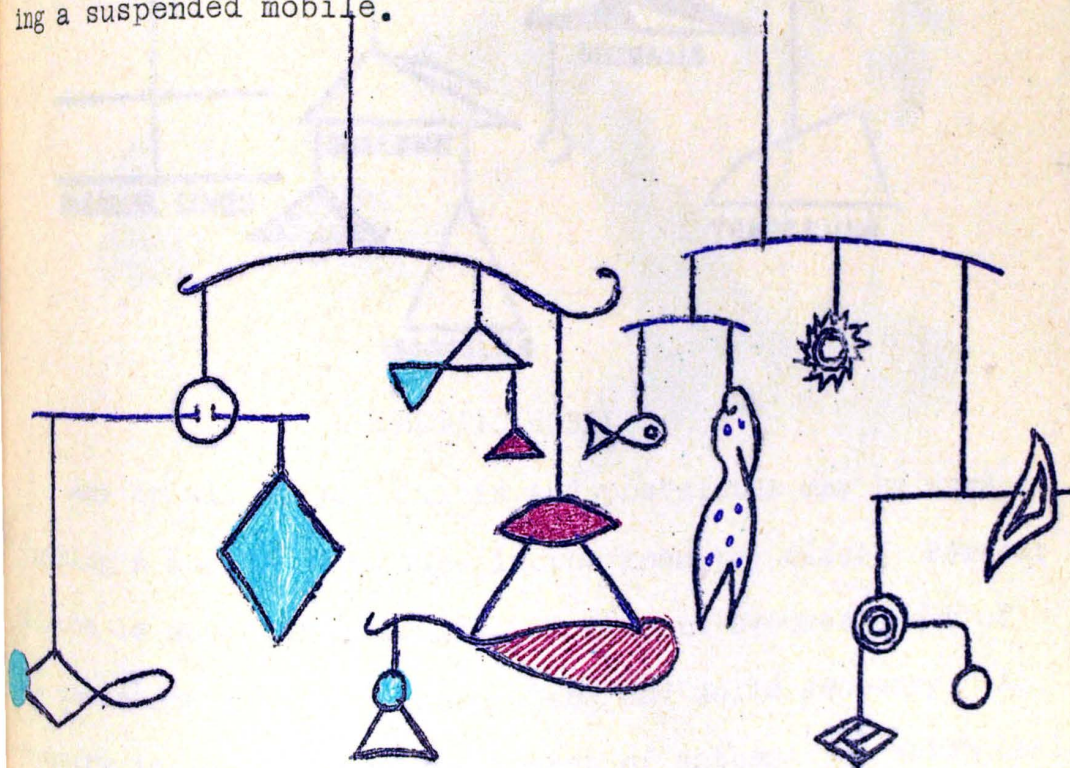
A mobile is a type of contemporary sculpture. Mobiles are three-dimensional constructions of wood, stone, metal, plastic, wire, or various other materials, so designed that the total mass, or parts of it, can be put in motion by either manual or mechanical means, and that in some stage of their motion they may become self-moving. Like traditional sculpture, their subject matter may be realistic, symbolic, or abstract, and their size is variable.

Many phases of mathematics offer the opportunity for students to employ the practice of building mobiles. The movement of the mobile is an essential rather than a secondary part of its design. While it may be enjoyed in a static position, only through motion does it completely fulfill the aim of its designer. The nature of its movement varies. It may be simple or complex; spasmodic or continuously flowing; staccato or without marked rhythm. Its path of movement or motion may be formed by swinging, rotating, or gyrating movement and counter-movement. The rhythms resulting from the planned movements of the mobile form a large part of the aesthetic satisfaction felt by the observer. The most notable phenomenon of the mobile is that when it is in motion both the total mass of the construction and each of its component parts appear to expand and to extend into an area greater than

it actually occupies in space, so that in motion it becomes a dynamic and challenging force.²¹

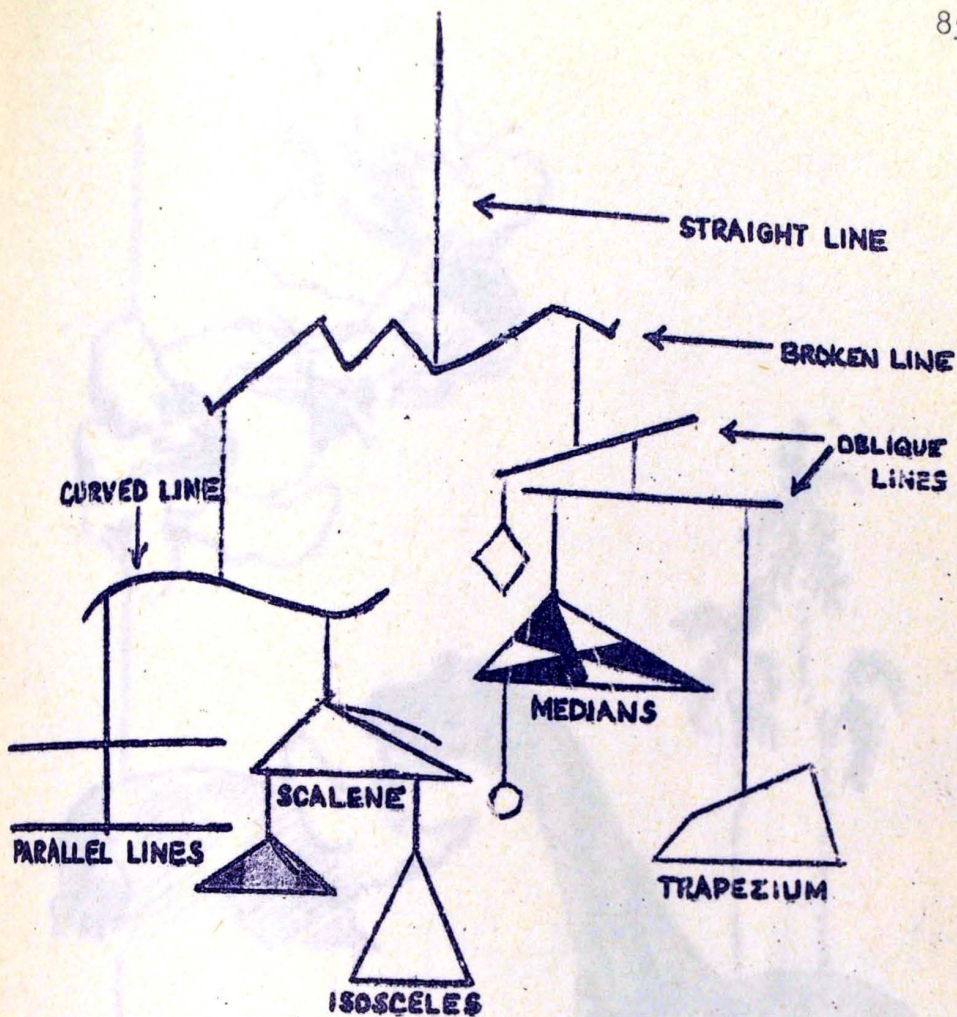
In addition to the three-dimensional elements which create the moving or kinetic piece of sculpture, a fourth element, time, is added and is directly correlated with both the speed and the duration of the mobile's motion.

Comparable weights are most important in the building of mobiles. The laws of the lever are employed, for it is necessary to have perfect balance, especially in constructing a suspended mobile.



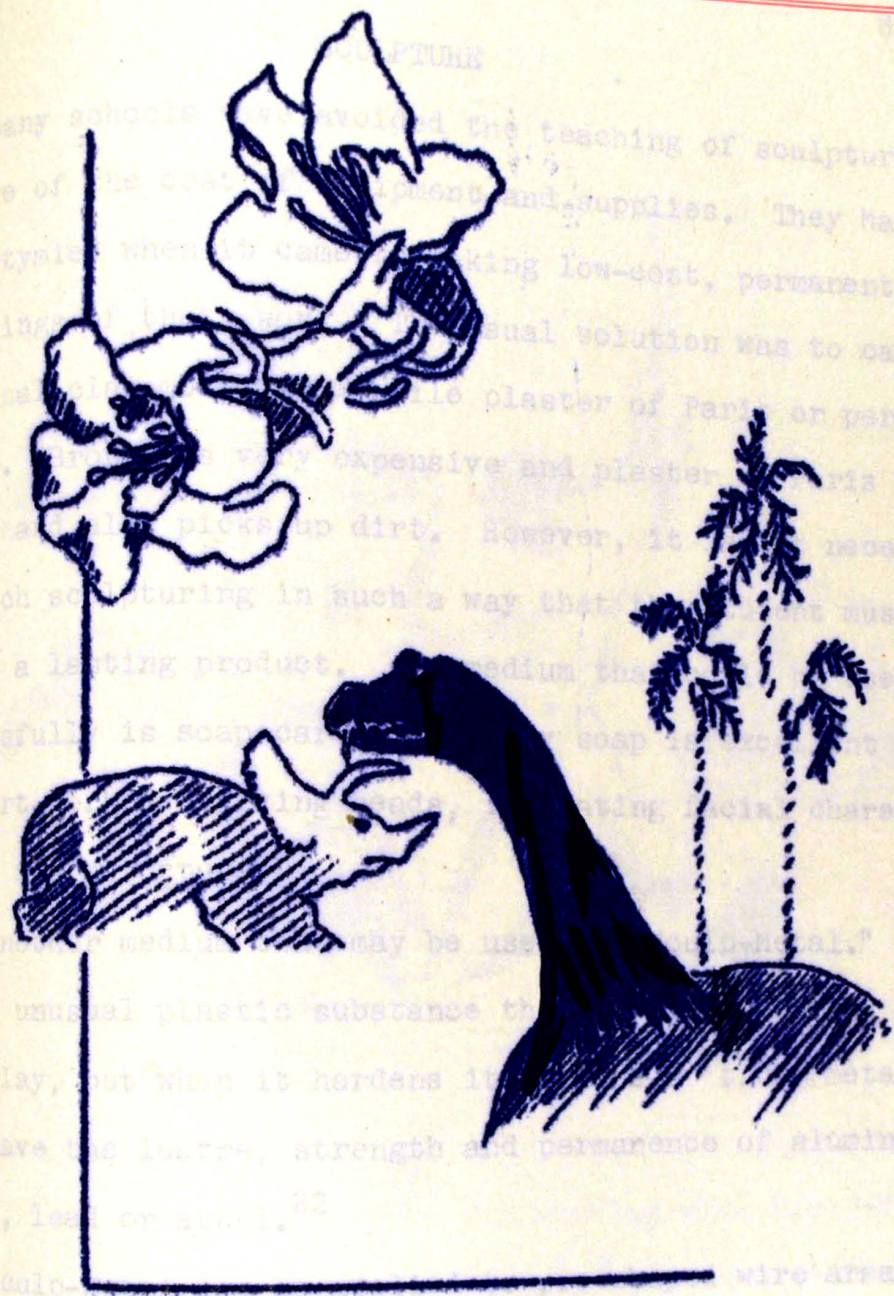
REVOLVING MOBILES

²¹William T. Couch, (ed.), Collier's Encyclopedia (New York: Crowell-Collier Publishing Company, 1953) XIV, p. 45.



GEOMETRIC MOBILE

Any or all of the axioms and postulates may be used in planning a mobile structure in the geometry class. Perfect balance is achieved and also the student becomes aware of the geometric shapes in both plane and solid geometry. As geometry is defined as that branch of mathematics which deals with the properties, measurements, and relations of points, lines, angles, surfaces, and solids, the art activity program should prove successful in establishing visual concepts of the various geometric terms.



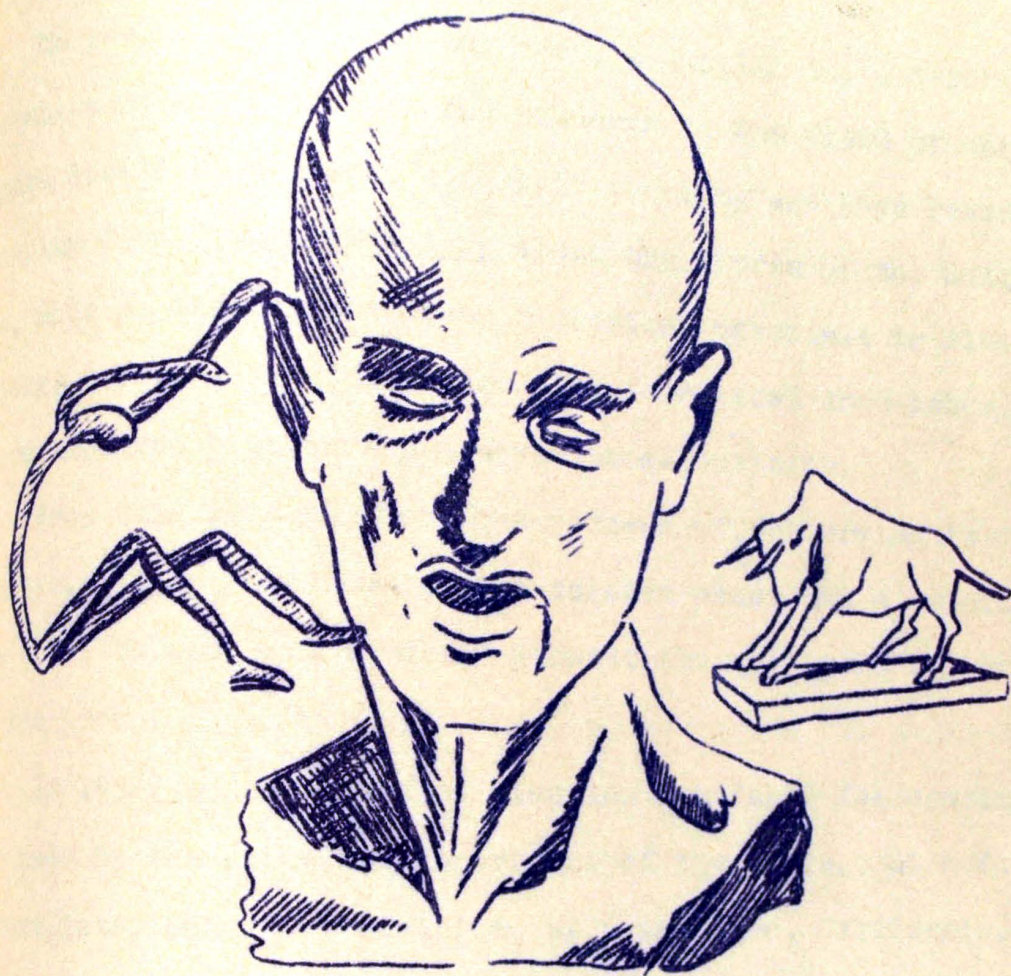
SCIENCE COMES TO LIFE IN ART

Many schools have avoided the teaching of sculpturing because of the cost of equipment and supplies. They have been stymied when it came to making low-cost, permanent renderings of their work. The usual solution was to cast the final clay model in fragile plaster of Paris or permanent bronze. Bronze is very expensive and plaster of Paris chips easily and also picks up dirt. However, it is not necessary to teach sculpturing in such a way that the student must create a lasting product. One medium that could be used successfully is soap carving. Ivory soap is excellent for such art work as carving heads, indicating facial characteristics and structure.

Another medium that may be used is "Sculp-Metal." It is a most unusual plastic substance that looks, feels and models like clay, but when it hardens it becomes a "true" metal that will have the lustre, strength and permanence of aluminum, bronze, lead or steel.²²

Sculp-Metal can be applied to pre-shaped wire armatures or mesh screen shapes with a palette knife, then modeled as desired. Allowing it to stand in the air for awhile, it turns metal hard, after which it can be carved, incised, filed, sanded or otherwise modeled. Finally, it is buffed and burnished

²² Alan Turner, "Sculp-Metal," Design (September, October, 1955), p. 17.



to a rich patina.²³

The tools one would need for working with Sculp-Metal are few: Tin shears, cutting pliers, twisted wire or mesh screen, rasp, steel wool, and sandpaper. This medium can be used very effectively in the anatomy class, making models for study. It gives the students an opportunity also to try their hand at sculpture which is often overlooked completely in the high school curriculum.

²³ Ibid.

PRESERVING BIOLOGICAL SPECIMENS

To gather and to keep has been, and still is, a driving incentive of most teachers and students in the field of science. Nature itself established a goal in the long ago when resin, dripping from Pinus succinifer along the shores of the Baltic Sea, encased insects and other biological materials in clear, sticky, golden-yellow substance that fossilized into amber. These captives have been preserved until (out) time.

From this idea has come the process of preserving in plastic. It is possible for the science class, at a relatively low cost, to preserve in clear plastic the specimens collected by the group.

In 1952, a new survey of plastics available for casting was made by the Pathology department of the College of Medical Evangelists, School of Medicine, at Loma Linda, California. The goal was to find a resin that would give consistently satisfactory results when embedding anatomical specimens in clear plastic blocks. A formula was finally discovered that met every casting need. It was called C. M. E. - D6.²⁴

This formula has many advantages over any other formula, and it can be used with equipment found in any school. A wide

²⁴ Randolph Specht, "Preservation of Color and Shape of Flowers," College of Engineering Bulletin (University of Florida, Gainesville, Florida, 1955), p. 10.

range of specimens can be preserved in this brilliant, transparent plastic at room temperature and without the use of special ovens, hot water baths, or other special curing or hardening equipment.

Drying and preserving the green color of plants and the beauty of autumn leaves may be done by bedding them with a mixture of equal parts of dried table salt and activated silica gel, preserving both color and shape. These qualities are retained when embedded in the new plastic. For best results bury all green specimens with a covering of at least one inch of the silica gel and salt mixture.²⁵

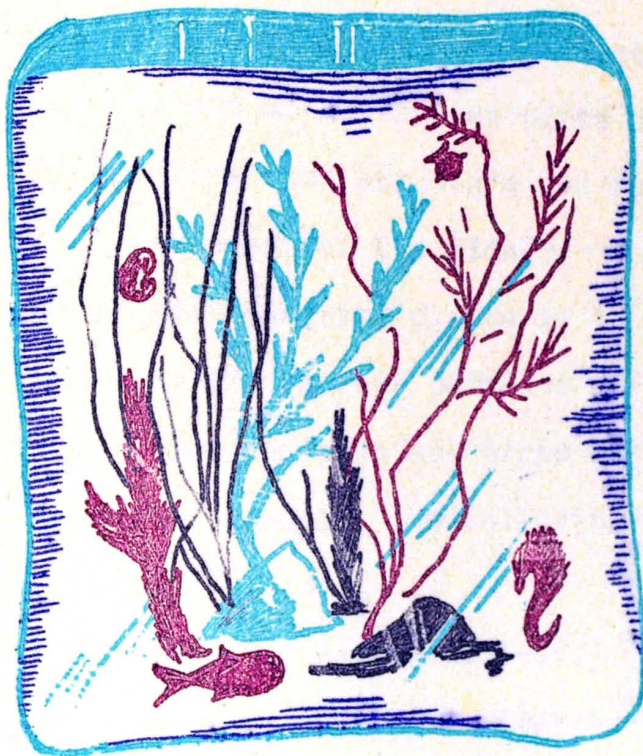
Possibly nothing can be more satisfying to the student and collector than to arrange a group of related specimens, or create a simulated garden in sizable blocks of clear plastic.



Artistic designs will be introduced such as the arrange-

²⁵ Stephen Bass, Plastics and You (New York: Eastwood-Steli Company, 1947), p. 91.

ment shown in the drawing below of the ocean life. A simulated sea floor of sand, rocks, shells, barnacles, and a starfish was laid down. Rising above this are many varieties of coral. Many shells appear to be floating in the water near the top. This block measures 6" X 6½" X 3". A thin layer of green-tinted plastic on the back of this block gives a realistic sea-green effect without in any way detracting from



OCEAN LIFE PRESERVED IN PLASTIC

the beautiful color of the embedded materials.

An ever lengthening list of biological objects can be permanently preserved. This resin may suggest new uses in every branch of natural science and manual training.

CONSTRUCTION OF A FLOWER

The flowering plants, Angiosperms, are characterized by the specialized reproductive structures which compose the flower. The fields and orchards of man, as well as his gardens and parks, are devoted mainly to the growing of flowering plants.

To study the habits, structure, pollination, fertilization, germination and growth, classification and evolution, it is necessary to see the flowering plants in actual construction. To understand the various parts of the flower the student must visualize each structure and realize its importance in the development of the flower. One way of teaching the structure of the flowering plants is to draw them. Another way of learning the various parts of the flower is to construct them out of construction and crepe paper. To take the Oriental Poppy as an example, the following diagrams and instructions are given:²⁶

Step 1. Make patterns of petal and leaf.

Step 2. Prepare center, petals and leaves--crush and roll a square of green crepe paper into a ball $5/8$ " in diameter. Stretch a $2\ 3/4$ " square of green crepe over the ball and

²⁶Dennison Crepe Paper Manual, Number 547 (Farmington, Massachusetts, Dennison Manufacturing Company, 1947), p. 7.

pinch together tightly underneath, figure A. Around this, arrange about 1/4 bunch of ready-made poppy stamens and fasten with spool wire, figure B. Instead of using green paper one may use black crepe paper. Cut the strip of black paper 1 3/4" wide, instruction 1 and 2. Cut into 6" lengths. Stretch a strip fully, double twice for convenience and cut along one edge into a very fine fringe 1" deep, figure C. Rub fringe between thumb and forefinger to make finer and give a twisted look to the tips. Curl the tips very lightly. Gather the uncut edge around base of the ball, arranging so that the ends curl toward the ball. Fasten tightly with a 6" piece of spool wire. Cut off surplus paper below fastening and, if necessary, clip fringed ends to make them even.

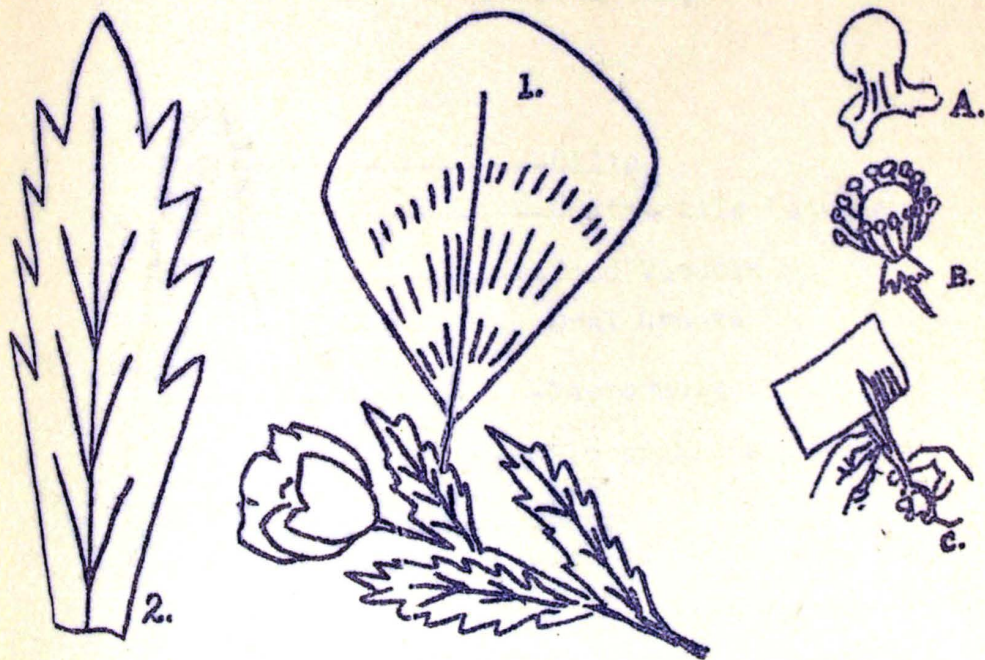
Cut 6 petals for each flower. Shade each petal with black crayon from center to base as indicated on the pattern, using a bit of cotton to rub the color in and making it heavier toward the base. Paste a 3" piece of spool wire to the unshaded side of the petal in the position shown on the pattern. Flute each petal deeply 3 or 4 times along the top edge, cutting slightly near the base.

Leaves are made by cutting 4 or 5 leaves for each flower. Mark veins with steel knitting needle. Curl tips of leaves slightly outward, while holding the light side inward.

To assemble, place 3 petals, shaded side in, evenly spaced

around the center with the fluted tops about $1\frac{1}{2}$ " above tips of the center. A bit of paste on the base of each petal will hold them in place. Arrange the other 3 petals in the second row just between those of the first row. Fasten with a double thickness of spool wire. Wrap the stem of the flower with a 1" wide strip of green crepe. $1\frac{1}{2}$ " below the flower add a 12" piece of number 7 wire to lengthen the stem; wrap stem a second time to make a thickness of a small pencil adding leaves on the opposite sides of the stem, the first 3" below the flower and the others 2" apart. Place right side of the leaf toward the stem.

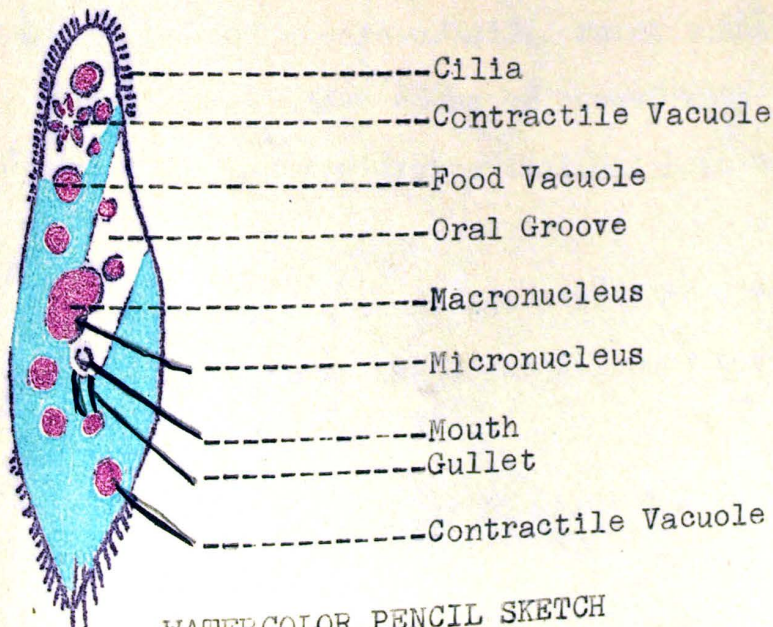
CONSTRUCTION OF A FLOWER



The project of preparing a biology notebook is a compulsory assignment in most high schools. It is necessary, then, to encourage the students as much as possible to develop drawings as accurately and as meaningful as is possible. These drawings are often done in pencil with no color whatsoever introduced.

There is no limit to striking color effects a student may get by using coloring pencils. For bold, brilliant lines--dip the coloring pencils in water. For wash, use damp brush, wet brush, stump or cotton--working over color already applied.

It is easier to develop a distinctive, original technique with coloring pencils than with any other medium. They are versatile and come in a varied palette of brilliant colors whereby any shade or tint may be produced.



WATERCOLOR PENCIL SKETCH

ORIGIN OF COLOR

Light and color are essentially one. Color, therefore, can plainly be seen to have had its origin in that stupendous cosmic command, "Let there be light."²⁷

Exploration of the records of the dim ages before written history began has revealed that cave dwellers, feeling an inner urge for self-expression, yielded to the strong creative desire to depict in some way their experiences and surroundings. In spite of their struggle to live and many perils, they took time to paint pictures of the animals that they hunted. The actual existence of those peculiar-looking creatures has since been proved by means of scattered remains and fossils found in recent times, here and there, especially in southwestern Europe.²⁸ The outlines of figures in the illustrations and murals left by the cave men were often carved into the rock and then filled in with yellow, red, and black pigments mixed with melted grease or oil. Paint containers were made out of hollow reindeer horns or bones, while crude brushes were constructed of fine twigs that had been pounded at the ends with stones.

As the years passed, from Stone Age period of circa 20,000 years ago to the Chinese Era of the Great Wall and the time of

²⁷J. H. Bustanoby, Principles of Color and Color Mixing (New York: McGraw-Hill Book Company, Incorporated, 1947), p. 1.

²⁸Ibid., p. 2.

the Egyptian Pyramids, circa 3000 B. C., few colors were in use--not more than four or five. Remains of papyrus have been found that are illuminated with red, green, yellow, and white. In their painting the Egyptians depicted men and animals in characteristic but conventionalized attitudes. Many phases of the life of that day were graphically represented on the walls of tombs.²⁹ The ancient Greeks overlaid vases with decorations in rich designs. The early Christians employed color in religious symbols and pictured martyrs and saints on the dark walls of their underground abodes, or catacombs.³⁰ Though they were constantly persecuted, religious inspiration and fervor stimulated them to use color in trying to express their strong faith. Later on, when allowed to worship openly, they became prolific painters, creating colorful murals and mosaics.

The era of the Renaissance recorded the golden age of the old masters, during the fifteenth and sixteenth centuries, where appeared the names of such famous men as Michelangelo, Botticelli, Corregio, Durer, Raphael, Holbein, Titian, Perugino, Leonardo da Vinci, Paul Veronese, and others, who gave intense

²⁹Ibid., p. 3.

³⁰Ibid.

study to art and to the application of color.

When America was discovered it was found that most of the Indian tribes of this continent used both pigments and dyes from organic and inorganic material for painting their bodies, coloring their rugs, baskets, and skins of animals. Such dyes as red and black were made from the bark of trees; yellow, from lichens and grapes; purple, from huckleberries; white, from certain grass stems; pale yellow, from the peeled rods of rushes; and brown, from root bark. Some tribes used less permanent color matter; ~~from~~ pokeberries and bark of trees were employed to dye the hair.³¹

The totem poles of the Northwest, as well as carved wood and ceremonial altars, were done with colored earths or pigments derived mostly from iron-bearing minerals, such as ochre and other ores. White was derived from kaolin, gypsum, limestone; black, from graphite and powdered coal; blue and green, from copper ores. The Indians mixed ground-up earths with grease and fat. Water and saliva also were used.³²

It is evident that man has used color in one form or another since ancient times. In the course of his development,

³¹ Ibid.

³² Ibid.

he often admired the beautiful rainbow and eventually became curious, wondering what caused its vibrant display of color. The ancients called this phenomenon "the messenger of the gods;" but apparently (on) one found a scientific explanation for it until 1670, when Sir Isaac Newton showed that color evolves from light.³³

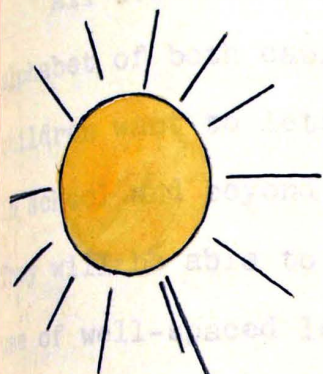
The solar spectrum may be produced in the classroom by obtaining a glass prism and, in a darkened room, allow a ray of sunlight to enter through a slit in a window shade and pass through the prism. The ray of light, bent or refracted by passing through the prism, produces the beautiful band of rainbow colors that is called the solar spectrum.

The reproduction of a color circle or solar spectrum is a very worthy project for students in science. From this color circle the students will gain practical information on the application and utility of these color data, value of color, important notes on color mixing, and evidence of the tremendous influence of color on our daily lives.

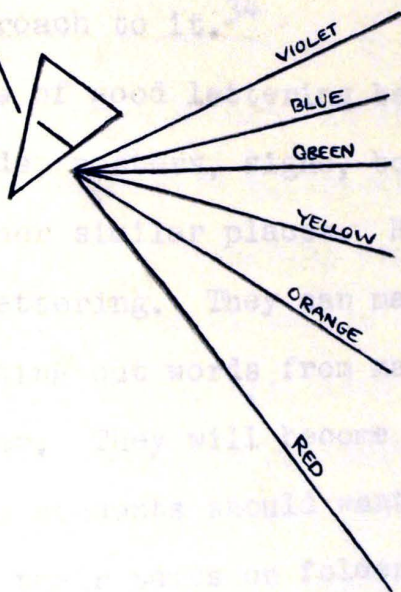
The following illustration shows a ray of light from the sun, which is pictured at the upper left, passing through the prism. The ray of light is bent as it passes through the

³³Ibid.

prism, afterward forming the spectral band of red, orange, yellow, green, blue and violet. This simple experiment is easy. A band of vibrant colors will immediately project upon some surface in the room.



SOLAR SPECTRUM



There is good taste in lettering as there is in all other forms of art. Many types of letters are of historical origin and can be used to fit into any desired scheme.

All students should be acquainted with at least one full alphabet of both capitals and lower-case letters. Usually, children want to letter well. They have many opportunities in school and beyond school to use their ability to letter. They will be able to make materials more presentable by the use of well-spaced letters. Lettering, if taught as a formal technique, can be a rather uninteresting subject, but there is a suitable approach to it.³⁴

Keep examples of good lettering before the students on the bulletin boards, posters, signs, book jackets, and blackboards, and in other similar places. Have them bring in samples of good lettering. They can make signs for the bulletin board by cutting out words from magazines and pasting them on other paper. They will become aware of good form in letters. Soon the students should want to make their own monograms, or put their names on folders, maps, notebooks, and pictures. Encourage this urge. When the students want to learn more about letters, that is the time to help them out.

³⁴ Harold Gregg, Art for the Schools of America (Scranton, Pennsylvania: International Textbook Company, 1950), p. 85.

poster making and use have become a part of the school curriculum more than any other art activity. It looms large among the activities which are begun in the primary grades and continued through high school. In every field of study there is opportunity for students to express their ideas through poster making.

Lettering is one of the most difficult parts of poster making. Freehand lettering is attractive but difficult for students who have had a limited degree of art training. It is important, therefore, that the teacher stress the importance of correct spacing and proper types of lettering for a particular poster. Poor letters can spoil an otherwise splendid piece of work. Expensive equipment is not necessary in making attractive posters; wrapping paper, wall paper, or any other inexpensive material may be used. Balance in design and a right feeling for brilliant colors in strong contrast cannot be purchased with expensive equipment.

Poster design correlates with all school activities, and it is an effective instrument in the school's public relations program. As in a mural, the poster must tell a story at a glance. It cannot be verbose. The slogan must be concise and apt. A series of posters in a social studies or science class, for example, may reveal the development of an event or thing,

such as communication, transportation, shelter, tools, modes of travel, or inventions.

Successful posters have one center of interest; they never show improper balance. Effectiveness at a distance is obtained by using plain lettering, attention-getting slogans, and color contrasts.

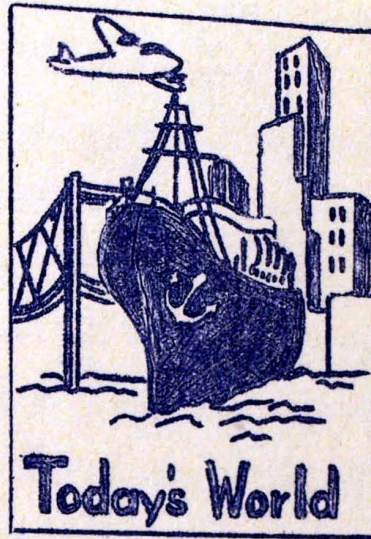
The scientific use of color is very important in poster design. Color has been called the "music of light," because it has tone, harmony, and a registered scale.

Posters are not read at close range ordinarily; hence, the visibility of colors is important if they are to be used intelligently. The following are the associations usually credited to certain colors:³⁵

- Red. excites nerves, arouses feelings and motor impulses.
- Orange is heating, soon excites irritation.
- Orange-yellow . . . is warm, lively, glowing.
- Yellow arouses joy and gaiety.
- Yellow-green . . . is cheerful, smiling.
- Green is restful, soothing, neither warm nor cool but neutralizing.
- Blue is cooling, quieting, expresses serenity, spirituality.
- Blue-green is sedate and somber.

³⁵James S. Kinder, Audio-Visual Materials and Techniques (New York: American Book Company, 1950), p. 149.

POSTER DESIGNS



Lavender is tranquil.

Violet-blue is stern, hard, unyielding.

Purple suggests stateliness, solemnity,
richness, royalty.

White suggests purity, spiritual super-
iority, or physical immaculate-
ness.

Black indicates spiritual darkness, gloom
and death.

It is best in good poster design to confine the choice of colors to not more than four. Visibility of colors is also important in choosing particular colors. Purple is the least visible color, and it is used as a standard of comparison. Yellow has twelve times the visibility of purple; orange, nine times; green, seven times; red, five times; blue, three times.

This term comes from the Greek word meaning "to see through." The Dictionary of Education defines a diorama as "a three-dimensional representation composed of various symbolic and real materials such as pictures and specimens, and frequently utilizing both transmitted and reflected light to produce a natural scenic effect."³⁶

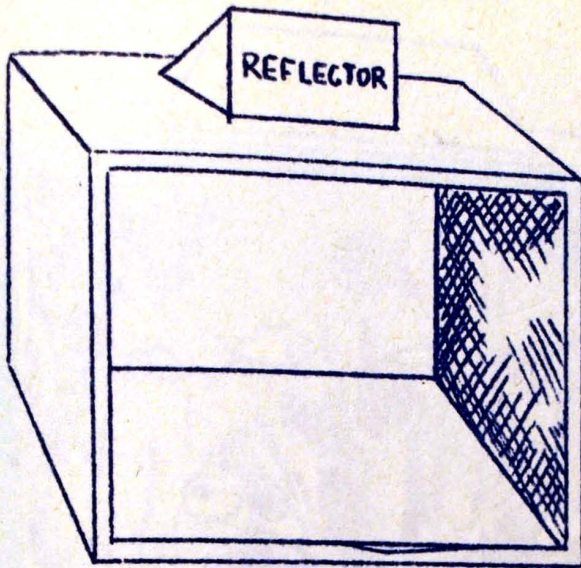
Any scene, landscape, historical event, ceremony, story, group of people, fictional incident, or scientific specimens is good content material. The figures are placed in a realistic setting, and the entire grouping is usually placed in a box-like case whose top, ends, and front are made of glass or left partially or completely open. See illustrations below.

In terms of interest for students, young and old, the dioramas rank high. It is undoubtedly safe to say that they, like all other audio-visual materials, are useful aids, and their use in learning units must be planned. It is conceivable that interesting and meaningful units of work can be organized around the diorama.³⁷

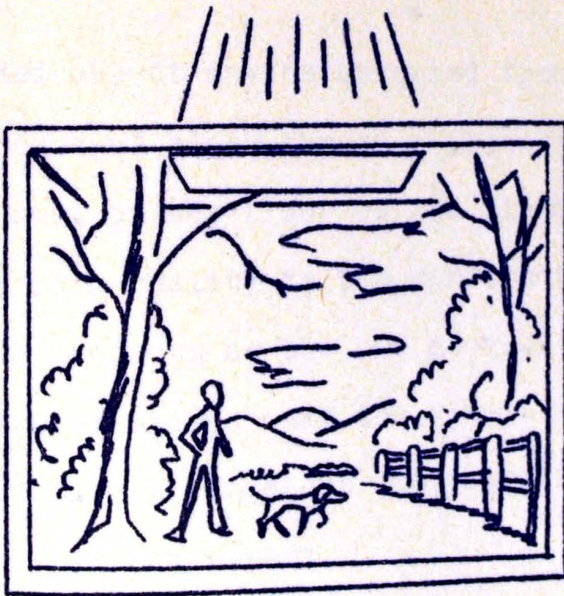
Pictures or specimens are placed in appropriate settings, and the settings are built up along habitat lines.

³⁶James S. Kinder, Audio-Visual Materials and Techniques (New York: American Book Company, 1950), p. 342.

³⁷Ibid., p. 343.

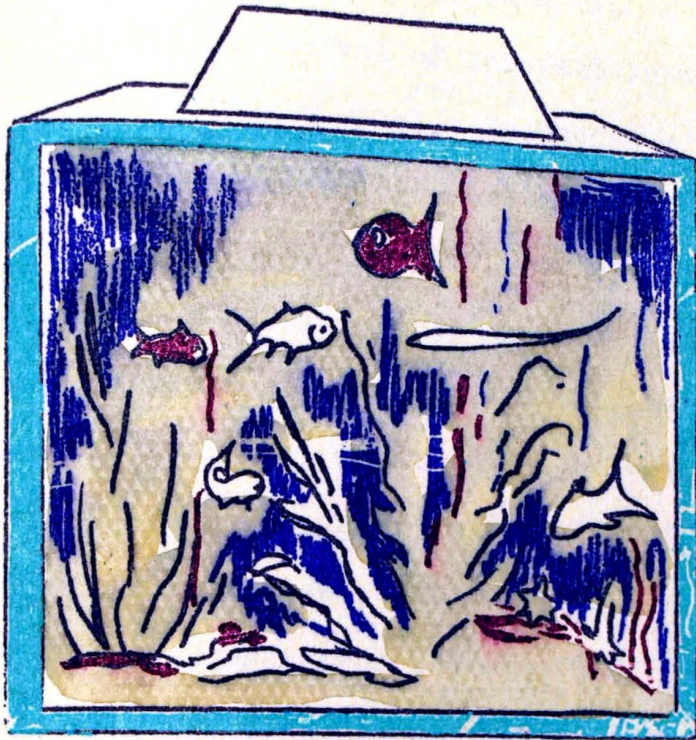


The box is easy to construct; an ordinary cardboard box may be used. Typical size of the box is approximately 10 by 10 by 18 inches. Such a case is easily handled. The reflector is lined with luminous paper to project light into the box.³⁸



The figures of the diorama are usually carefully wrought, and give a distinct illusion of reality.

³⁸S. Palestrant, Practical Papercraft (New York: Home-crafts, 1950), p. 47.

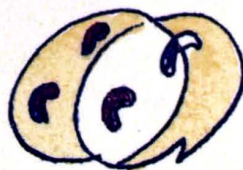


Any suspended object may be attached from the ceiling of the diorama by means of black thread. Objects growing on the "sea floor" may rest on the floor of the diorama. An aqua blue background gives more reality to the construction. Color is important in such projects as the one above. Actual colors of the various living organisms make the visual aid more meaningful. The appportionate arrangement and proportionate sizes of the organisms are also important.

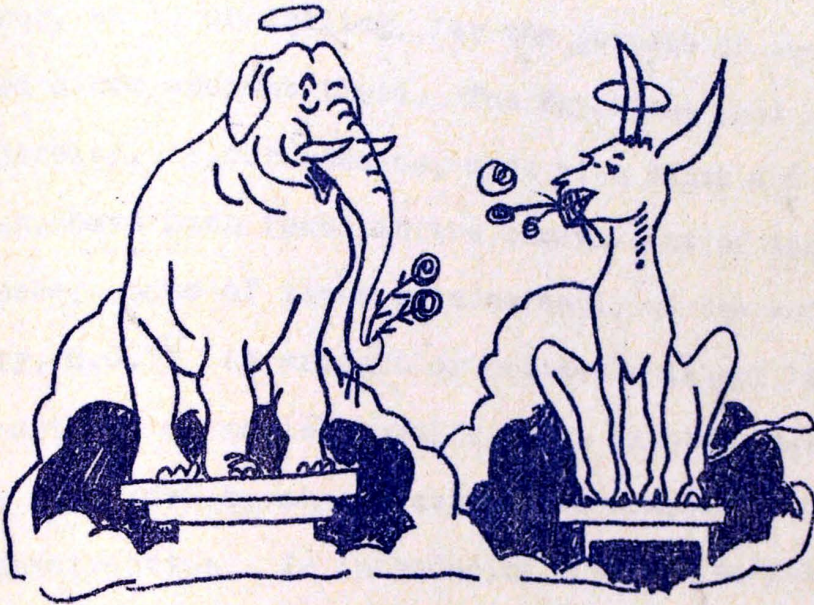
The box may be used over and over again using new subject matter and various other mediums.

Currently, there is a revival of interest in the centuries old art of enameling on metal. Inexpensive equipment, ready-to-use enamels and well-written textbooks are stimuli to the development of this craft. Jewelry, bowls, trays, murals, mobiles, tiles and other metal enameled pieces created by students will show remarkable spontaneity and originality. Working with brilliant, jewel-like metal enamel colors is an enjoyable experience. Because copper is ductile and inexpensive, this metal is most commonly used, but gold, silver, sheet steel, stainless steel and even cast iron are sometimes enameled.

Little working area is needed and metal enameling correlates favorably with other metal working projects. Scrap metals can be utilized and simple enameled pieces are completed so quickly--three to fifteen minutes--that there is no problem of sustained interest. Pieces can be reworked until satisfactory results are obtained. The American Art Clay Company, Indianapolis, Indiana, furnishes handbooks on enameling which have proved helpful in preparing units on "enameling on metal."³⁹



³⁹Amaco Metal Enameling, Booklet Number 7 (Indianapolis, Indiana, The American Art Clay Company, 1954).



SOCIAL STUDIES ENRICHED THROUGH ART

Mosaic, the method, or the result of the method, of affixing small cubes, or tesserae, or marble, pebbles, tile, enamel, glass, or other similar material to a smooth prepared surface, floor, wall, or ceiling, for the purpose of decoration, has been used since ancient times. The Egyptians used glass mosaic for jewelry. Floor mosaics, made with black and white beach pebbles, have been found in the excavations of various sites in Greece. Some of these date as early as the end of the fifth century, B.C.⁴⁰ As ancient or medieval history is being taught, the methods of making mosaics is an interesting subject and could be expounded by an art activities project in inexpensive mosaic construction. In introducing the work discussions of the large wall murals and floor designs made long ago with colored stones and glass will stimulate the students to learn more about "tesserae." They may be stimulated by being shown the decorative background designs used in the murals, along with the birds, buildings, people, and animals, all made with colored stones or glass. Designs may be started by cutting strips of paper, fairly even in width, using the paper cutter, and then cut the squares the desired size. Black or brown paper makes

⁴⁰"Mosaics," Collier's Encyclopedia (1st ed.), XIV, 176.

the tesserae show up very well. This type of experience gives the students an opportunity to study the way colors affect each other, and they learn how to make important elements stand out through contrast with adjoining colors and values. It has an advantage over painting, for this purpose, because every arrangement is tentative and colors may be easily moved about until the desired solution is reached. While it is not projected as a substitute for the use of glass, stone, or ceramic pieces, it does give students an experience that approximates the same design problem. An example of a famous mosaic is presented below: A detail of the sixth-century mosaic which forms the choir wall of the apse of Saint Vitale, in Ravenna, Italy.⁴¹



EMPRESS THEODORA AND ATTENDANTS

⁴¹Ibid.

High school students may attempt many projects in murals. "Mural" comes from the Latin word "muralis," meaning of, or pertaining to, walls, therefore a wall painting. Combinations of art and social-studies offer much opportunity in the drawing or painting of murals. These murals may be done on paper or cloth and then attached to the walls for temporary use. Sometimes they are done on the blackboard in crayons. Themes concerned with local history, national development, growth and development of inventions, or school life and activities are common art projects. Murals with their overlapping and superimposition give a posteresque effect. Successful murals follow definite principles. Simplicity is very important, and the ideas the drawings portray must be understood at a glance.

Drawings made on the walls of caves and caverns were probably the first murals. They portray a panoramic story of the period for which they are intended. From murals one gets an idea of how the people dress, their activities, their beliefs, their crafts, and how the people in the past have helped to make the present. They present a pictorial history that helps the students to understand the people of all ages and times.

Murals in the classroom may be done on white wrapping paper, using tempera, chalk or crayons. *Picture History of*



KNIGHTHOOD IN FULL POWER

The above drawing illustrates how a mural may tell a story about the life of the people of a particular period.⁴²

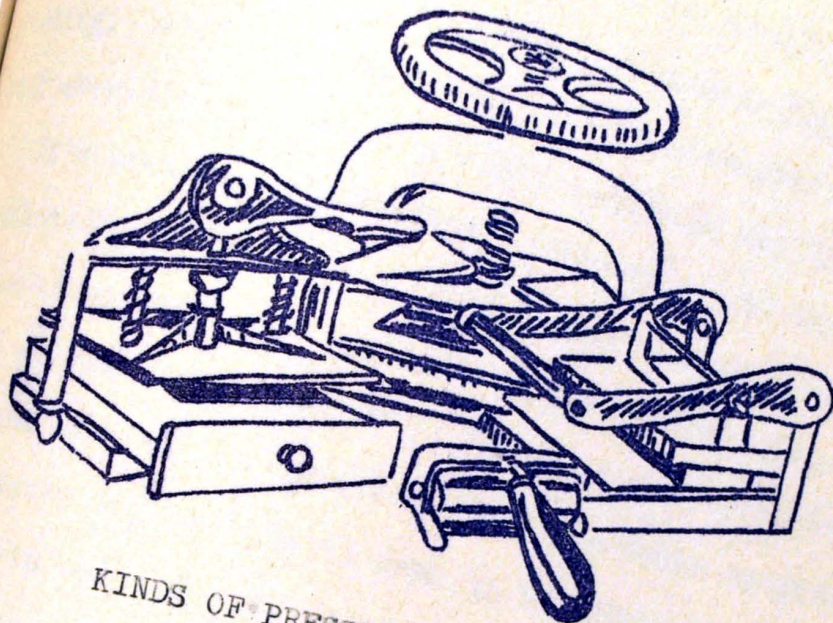
⁴² Henry R. Luce, (ed.), Life's Picture History of Western Man (New York: Time Incorporated, 1951), p. 42.

Block Printing is a worthwhile project for the students in social science for it includes two fields of study; one is the practice of carving on linoleum in an artistic manner, and the other is the visual perception of seeing an improvised "printing press" in action. The block printing method is the type that was used many, many years ago by such famous persons in history as Benjamin Franklin, who began his career in America as a printer's apprentice. This method is definitely a crude process of printing, but with ingenuity on the part of the student and teacher many interesting outcomes may be derived from the process.

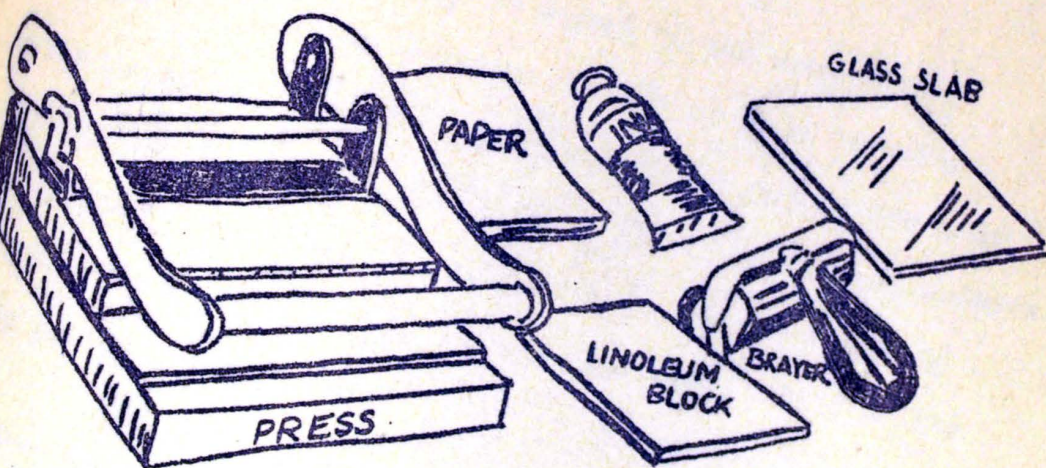
Procedure in Block Printing

Secure a strong table and arrange materials as shown in the illustration below. Squeeze a small amount of ink on the ink slab, spread evenly with brayer until the ink covers the entire roller, then apply to the block, rolling from side to side and from top to bottom to insure even distribution over the entire surface. Be moderate in the use of the ink. Too much is as bad as too little. Place paper on the bed of the press; then the inked block on the paper. Apply pressure and remove the print. The block must be re-inked for each succeeding print.

In multi-color printing, ink and print first lightest



KINDS OF PRESSES FOR BLOCKPRINTING



SET UP FOR PRINTING

color block. Remove the block allowing the print to remain in the press; repeat for each color, printing master or key block last. It is not necessary to allow drying time for each printing. When the final color has been applied, the finished print should be placed on a flat surface to dry thoroughly.

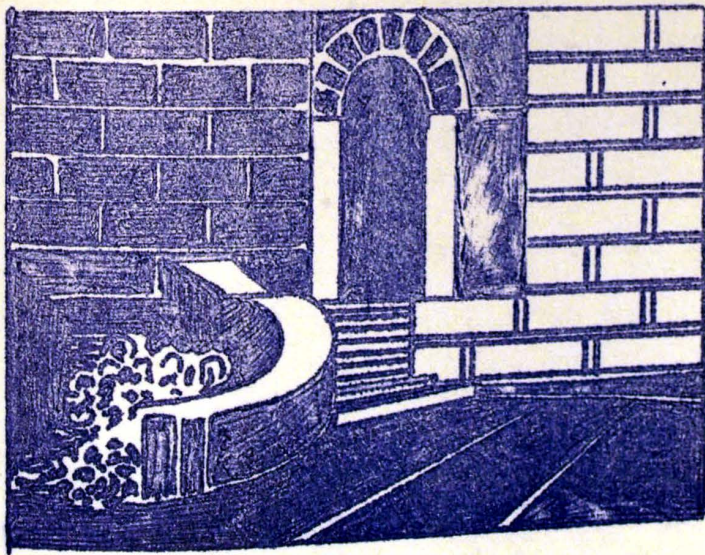
If a press is not available, prints may be made by using an adapted clothes wringer, covering the print paper with newspaper backing. In the same way, a rolling pin, brayer, mallet or hammer may be used. One may print by rubbing directly on the back of the print paper with a spoon or glass door knob. Water soluble ink is used in schools and in any case where it is not necessary to have permanency. It is easily cleaned with water. Reducers are available.⁴³

Block printing inks may be mixed in the same way as water-colors. The water soluble ink may be used as water-color for painting. In multi-color work new colors are made by printing one color over the other. This, of course, entails the knowledge of color mixing. Many wondrous and exciting art experiences can come from the use and application of the printing press.

⁴³Henry Frankenfield, Block Printing with Linoleum (Camden, New Jersey: C. Howard Hunt Pen Company, 1953), p. 9.

The more mediums the student tries the more adept he will become in expressing himself in the field of art. There is no greater satisfaction to a person than to feel that he has accomplished something. Crayon etching offers that satisfaction. It is a simple, inexpensive, quick method of producing an etching that students should be taught.

Cover a piece of paper completely with a light-colored crayon. Then completely cover this with a layer of black. With a toothpick, scratch a design or picture on the paper.⁴⁴ This will scratch away the black, allowing the light color to show through. Several colors may be used for the undercoat.



⁴⁴ Harold Gregg, Art for the Schools of America (Scranton, Pennsylvania: International Textbook Company, 1950), p. 94.

TOTEM POLE CONSTRUCTION

Totem means an animal used as a symbol or name of an Indian tribe or clan. In the study of our country and the history of the American Indian, a Totem Pole project could develop through proper guidance by the teacher. Each carving and design on the original totem poles were symbols of the beliefs of the Indians. Considerable research could go into this project, determining construction of the pole. One procedure is suggested below:

The totem pole may be made by covering large cans with paper mâché, adding ears, eyes, nose and other details of cardboard, and painting with airplane dope and liquid ox blood shoe polish. Each student may make an individual section for the totem pole. The first layer of paper mâché is put on the can without a layer of paste on the can so that the head can be removed from the cans. Also each of the heads except one at the top should be left open top and bottom. The top can is covered over the top. The cans are covered with about one inch of paper mâché at one sitting and left to dry until the next class meeting.

The still damp heads are removed from the cans, and now weird shapes may be made for the eyes, ears, nose, et cetera, by cutting out two pieces of cardboard to shape, stuffing with newspaper, and sealing the edges with gummed tape. These

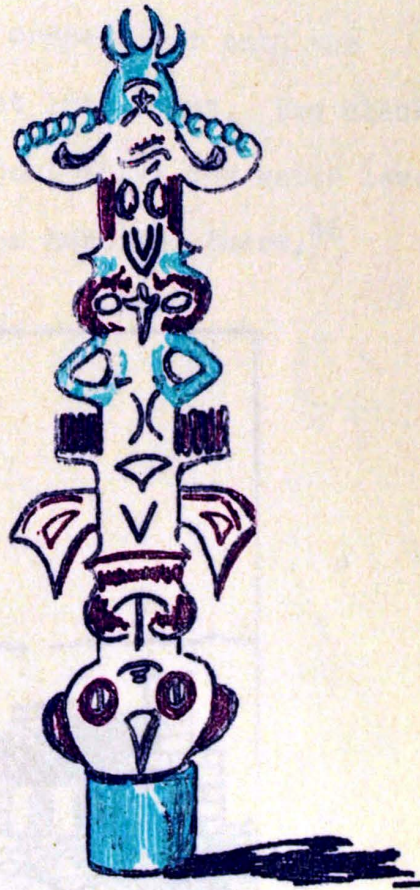
pieces are then padded and shaped with paper mâché, always adding more and smoothing out to fill the awkward gaps.

These pieces are then attached to the main head with gummed paper tape, and then painted and decorated when dry.⁴⁵

A base and standard for the totem pole may be constructed out of heavy cardboard roll (such as linoleum comes in), placed in a large can, and filled around the roll with sand or stones. Then each head is slipped over the cardboard roll, saving the one with a top until last.

This offers an excellent opportunity for the students' imaginations to run "wild."

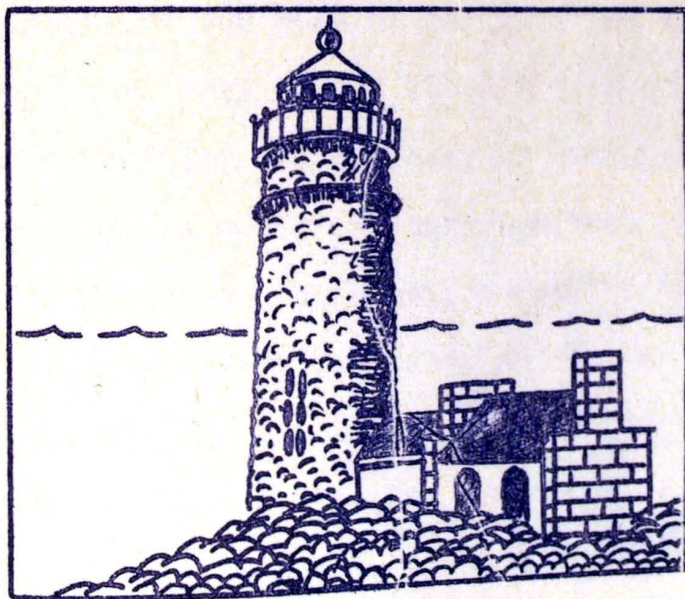
A simple drawing of a finished totem pole is shown below:



⁴⁵ Edna N. and John M. Clapper, (eds.), The Scrapcraft Magazine, Volume 4, (January, 1955), p. 24.

Draw a picture of a desired scene; using airplane glue, glue small pieces of glass or tin foil on for such objects as windows of the buildings. With the same glue, put small pebbles on the the building, and larger pebbles for such objects as cliffs. The drawing will be put on cardboard.

The background is made up of crepe paper sculpturing. Take narrow strips of crepe paper and apply paste to about 4" or 5" at a time. Push the pasted crepe paper onto the cardboard with a stylus or other blunt instrument. Use black for roofs, blue for the sky, yellow just above the water level, aqua for the sea, and a few white caps here and there.⁴⁶



THE LIGHTHOUSE

⁴⁶ Edna N. and John M. Clapper, (eds.), The Scrapcraft Magazine, Volume 4, (February, 1955), p. 25.

The Book of Kells is an illuminated manuscript, one volume, containing the four Gospels in Latin. Its date has yet to be precisely determined; some writers have placed it as early as the Sixth Century, others as late as the end of the Ninth Century. The Book of Kells has been in the possession of Trinity College, Dublin, since the year 1661. Its text has been classed as Vulgate by some experts, but it differs so widely from the accepted Vulgate that perhaps it shall be viewed rather as an Irish Variant of the "Mixed" or "Old Latin" text. Some of the variant readings are of peculiar interest.⁴⁷

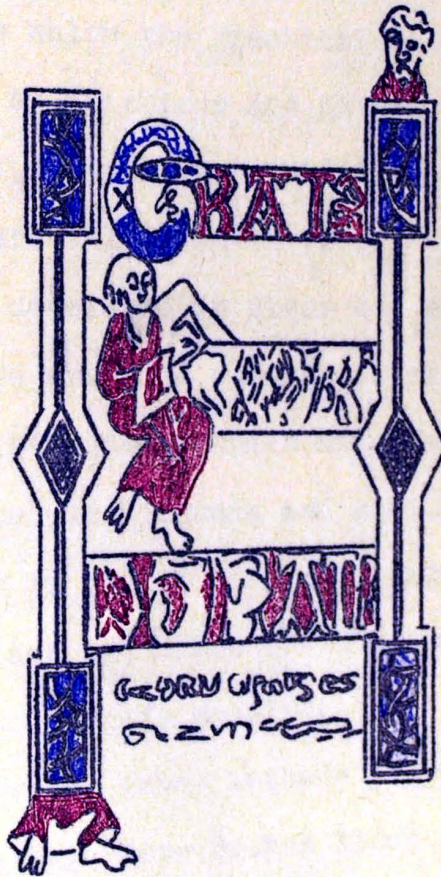
The text is, however, a matter of relatively small importance. The glory of the Book of Kells is the amazing beauty and infinite variety of its illumination and ornament. For grandeur of conception and delicacy of execution several of its illuminated pages merit the term sublime. Taken as a whole the Book of Kells is a supremely beautiful document, surpassing all other works of its kind, and by far the finest example of early Christian Art in Ireland. During the Middle Ages the Book was well known upon the continent of Europe, and it has been a widespread influence upon European ornamentation.

As the pages are turned beauty and mystery compete for

⁴⁷ The Book of Kells, Volume I, Reproduction of Folios 1-182, Volume II, Reproduction of Folios 183-339, (Printed in Switzerland, 1951, Urs Graf-Verlag Bern.

attention. Spirals interlaces with a precision and sublety,
 almost it would seem, beyond the power of pen to trace or eye
 to see, lines of color interwoven like threads of gossamer--
 how were they done? Some of the grotesque animal forms seem
 to have strayed in from prehistory. In the figures of the
 Evangelists or of the enthroned Virgin and Child, the human
 body is represented at such a remove from nature that the
 reader finds himself in a Celtic twilight on the threshold of
 history. In the pages of the manu-

script Northern styles of
 art appear side by side,
 Christian and pre-Christ-
 ian, mingled with Celtic,
 Coptic and Romanesque. For
 the history of European art,
 the manuscript is a mine
 not yet fully explored and
 it is a labyrinth of beauty,
 to which perhaps the clue
 has not yet been found. ⁴⁸



⁴⁸ Ibid.

Charts are defined as information in lists, pictures, tables, or diagrams; also, a map may be considered as a chart in the navigational sense of charting a course. Graphs are lines, diagrams, or pictures arranged to show quantity, development, function, or relationships of factors. Graphs are constructed upon definite mathematical principles; charts are not. Diagrams are extremely helpful in showing relationships and connections. The same is true of Charts. The conventional sentence diagram, in which the graphical form is used as a means to an end, is an ingenious and helpful teaching device. Shades of meaning, modifiers, assisting words, actions, and other elements, are all shown in proper relationship. By and large, diagrams developed in class are more pertinent and beneficial than those prepared outside of class. It should be remarked also that individual pupils and class committees should be encouraged to use diagrams and sketches in connection with their work, as in oral reporting or written summaries. Whether done in black and white or in color, the diagram's function is always to clarify meaning.

In making charts and diagrams, three methods are presented: The first method is stick drawing. Here broken lines represent bodies and limbs. With a little attention to preparation of the figures and student can sketch. These sketches have

the added advantage that they can portray action and motion.

The second method is developing a chart or diagram in the same proportion and size from another printed diagram and then projecting them on a screen with an opaque or slide projector. Thus the sketch can be enlarged to any size simply by moving the projector near or away from the screen.

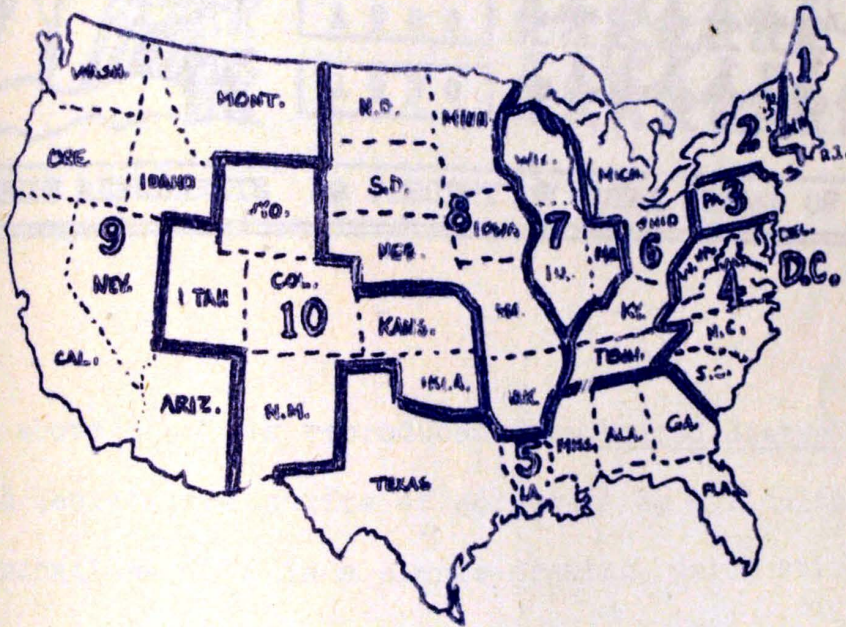
The third method is to enlarge by proportional squares. This is not frowned upon by art teachers but is encouraged. It is a quick and easy way of enlarging the drawings. Divide the small sketch into small squares by drawing light lines with a ruler. Next divide the blackboard or cardboard space into the same number of squares. This may be done with a yardstick or by using twine. Rub a light-colored chalk on the twine, draw taut, and snap the twine against the blackboard or paper. Finally, transfer the features from the small sketch to the larger surface square by square.

49

Miniature charts are presented on the following pages representing some of the basic types of diagrams and charts. They are illustrated and briefly explained in the accompanying figures.

The Segmented Chart

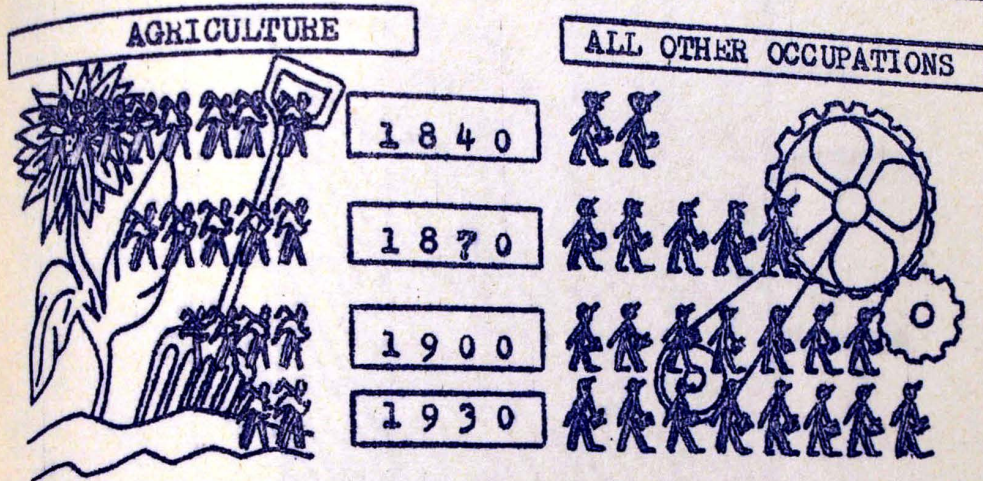
⁴⁹James S. Kinder, Audio-Visual Materials and Techniques (New York: American Book Company, 1950), p. 120.



THE ELEVEN FEDERAL JUDICIAL CIRCUITS

The Segmented Chart

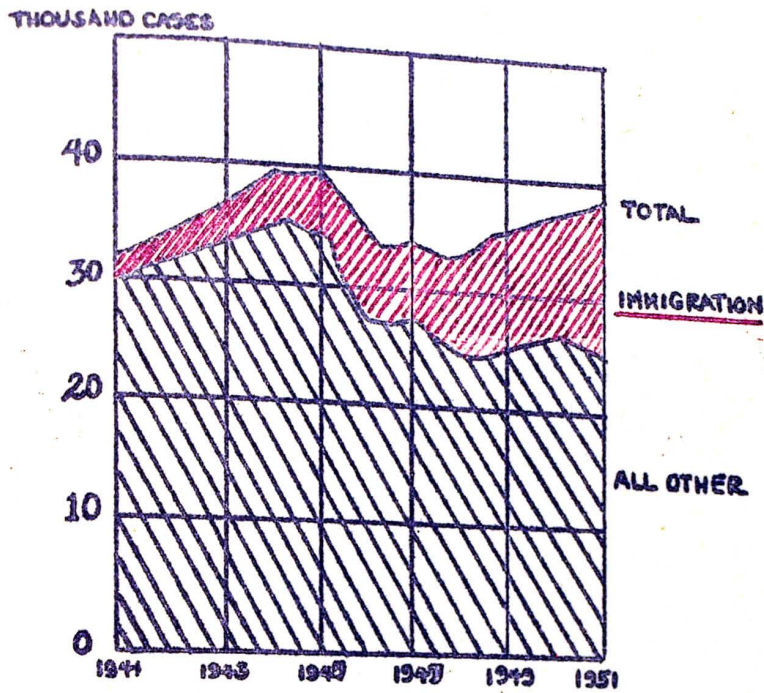
SHIFT OF WORKERS FROM AGRICULTURE TO OTHER OCCUPATIONS IN U.S.



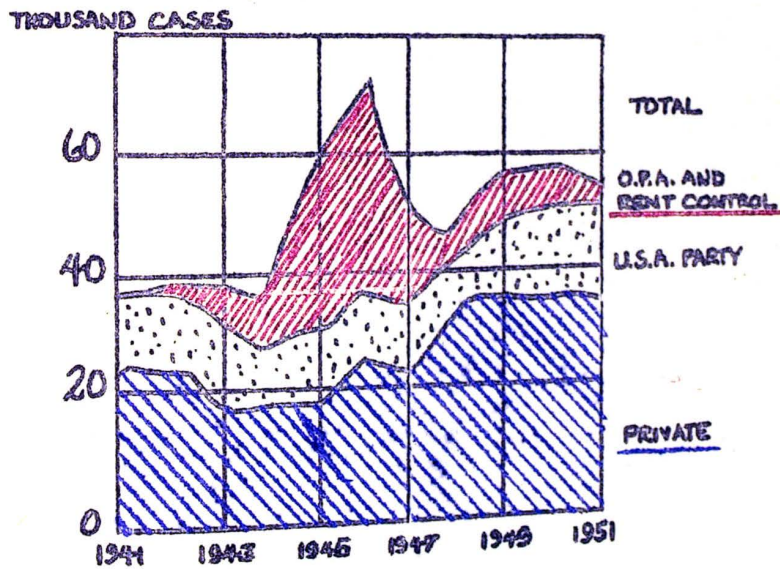
EACH UNIT REPRESENTS 10 PERCENT OF TOTAL NUMBER OF WORKERS

The above chart is reproduced from United States History, and depicts the shifts of workers from agriculture to other occupations.⁵⁰ It is a simple drawing, using stick figures to represent the percentage of groups. This is a combination chart and diagram illustration.

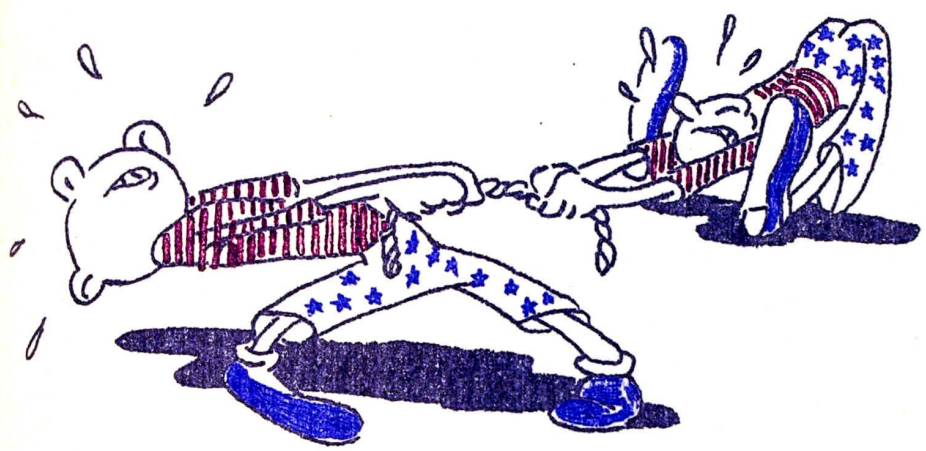
⁵⁰Fremont P. Wirth, United States History (New York: American Book Company, 1945), p. 294.



District Courts--Criminal Cases Commenced



District Courts--Civil Cases Commenced



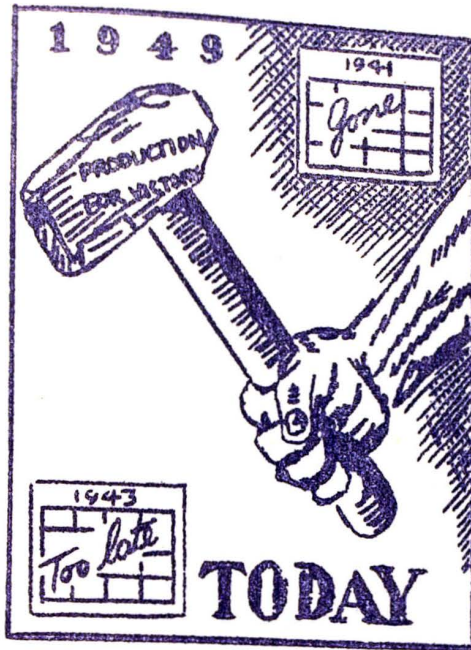
"The struggle--Republican versus Democrat!"

Newspapers abound in cartoons pertaining to the government and its practices and policies. From the beginning of the American Democracy, publications have portrayed actions, threats, promises, party controversies, and pro and cons in all phases of our civil government.⁵¹ They can express many times the thoughts more clearly than can words. It takes only a few seconds to study a cartoon and understand it, for it is so vivid it speaks for itself. An excellent example of a "story in cartoon" is found in Government for Americans, which is the text for senior high students in social science.⁵²

⁵¹ Ibid.

⁵² Rollin Bennett Posey and Albert George Huegli, Government for Americans (New York: Row, Peterson and Company, 1955), pp. 234-35.

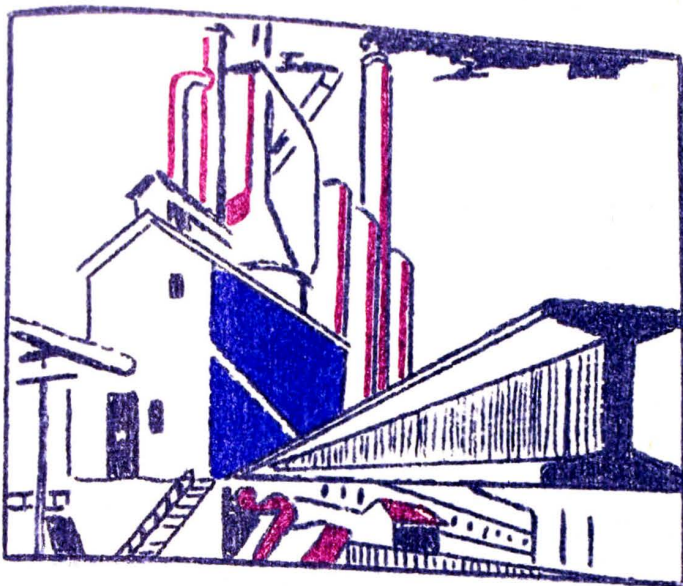
1942: AMERICA'S CRITICAL YEAR IN ARMING FOR VICTORY



Herblock, "N E A Service"⁵³

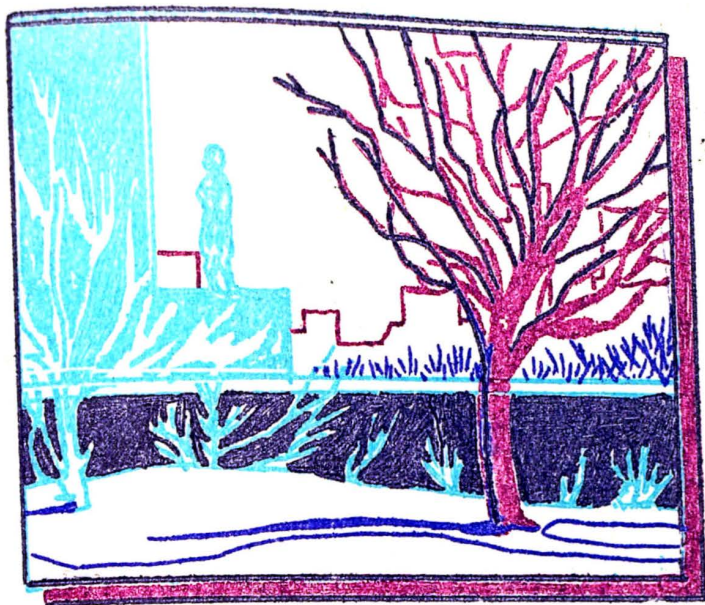
Students enjoy this type of cartooning as much as any that may be introduced in the course of study. Here they may express themselves in a completely different technique. It may be by stick figures, abstraction, or by realism. Here they will get a chance to use the pen and ink technique to its fullest degree, as most cartoons are done in pen and ink. To stimulate this project it is suggested that clippings from newspapers and magazines of cartoons related to social studies be brought to the classroom and displayed on the bulletin board.

⁵³ Eugene C. Barker and Henry Steele Commager, Our Nation (New York: Row, Peterson and Company, 1947), p. 947.



The Machine Age in social science offers many challenges to the student of art. Organized labor in this age lends itself admirably to a poster display. The posters should be skillfully balanced. The student should attempt to get across the feeling of the Machine Age in his poster; at the same time, he can observe shading, composition, and line formation.

These posters may be mechanically drawn or freehand sketches. The unit may be introduced in three series: (1) the railroad history, (2) the automobile history, (3) the aviation history. In teaching transportation in the Machine Age posters drawn might illustrate some of the following contrasts: The first railroad engine and the modern diesel engine; the first Pullman car and a modern "Sleeper;" the first railroad terminal and a modern terminal; and an early railroad trip and a modern interurban tour.



Any phase of our "American Heritage" may be portrayed in silhouette drawing. Contrast of values is very important in such a drawing. Many varieties of silhouette drawing may be introduced. In social science, perhaps such men as Andrew Jackson, Henry Clay, John C. Calhoun, Daniel Webster, William Henry Harrison, John Tyler, and others may be represented on the bulletin board in silhouettes done by the students. If complex silhouettes are attempted as shown above, assist the students in choosing the correct values of contrasting light and dark if they need help; however, it would be better if the students used their own imaginations and ingenuity in values, costumes, and choice of colors used. Much can be done with this project in developing awareness of composition and form.

IMPLEMENTING THE ART PROGRAM IN LACY CONSOLIDATED
SCHOOL

Introduction

The period of adolescence, when the child develops from childhood to adulthood, is generally thought to occur from between the ages of thirteen and seventeen. This period of maturation, however, varies, for all children do not mature at the same rate, nor in exactly the same way. Some children may begin to mature before the age of thirteen, and some children may not reach full maturation until after the age of seventeen.

From the ages of eleven on, children are found in various stages of development towards maturity, and as has been stated before, it is important to begin at this time to prepare the child for the trying adolescent years. Skillful guidance in the creative activity of the younger child will help him continue his creative art work without becoming too disturbed about his own creative art limitations. It has been observed that his approach to creative activity begins to change from the unconscious to the conscious, and that his imaginative activity becomes controlled. As his critical awareness of himself and his abilities increase, he seems to be more interested in the final product in creative activity, rather than in

It has also been observed that the beginning of two distinct types of sensory reactions to creative experiences have evolved. One is the visual, and the other is the haptic, or non-visual. The visual type person draws and paints people and objects as he sees them with his physical eye. He represents objects realistically, paying attention to proportions, color, space, perspective, and places them in their proper environments.

The haptic, or non-visual type of person, is more concerned with himself and his feelings about creative experience. His reactions towards an art experience are emotional. He may be influenced in part by what he sees, but to what he sees he adds his own feelings. He becomes a part of the experience, rather than a spectator as the visual type does. He uses only that part of the environment that he feels is necessary and important. He is more interested in details or parts of the whole, rather than the whole.

Because of the critical attitude that the student has towards his own activities, it is important to guide him carefully in all areas. The creative art activities can be very helpful to the student at this time, since they are a part of his natural creative expression. Careful guidance in creative art experiences during the eighth and ninth grades will help him to reach creative maturity which will develop within him

acceptance of his own critical attitude towards his creative efforts; it will help him to maintain a confidence in himself; and it will act as a healthy outlet for his troublesome emotions.

The Teaching of Art

Many classroom teachers seem to be faced with the following problems:

1. Teachers do not feel secure when confronted with the possibility of teaching a curriculum area for which they are ill prepared. Sometimes they seem to attempt to hide their insecurity and yet defend themselves as responsible teachers by holding such opinions as: "I don't know anything about art;" "I can't draw a straight line;" or "Art is too messy." They sincerely believe that such opinions relieve them of all responsibility of teaching art to their students.

2. To many classroom teachers, the idea of teaching art seems too formidable, and they are reluctant to teach it. This reluctance may be due to a feeling of dislike for art generally, or a feeling of inadequacy as a performer.

3. They had no art training in their teacher-training background.

There are, however, teachers who do have a keen sense of responsibility towards the development of their children. They realize that, while they may not know how to teach art, they

ould be giving art experiences to their students. They would like to begin, but they seem timid. What can be done, then, to help teachers overcome their reluctance or timidity in regard to teaching art?

Suggestions for the Teacher

Learning about art--Basic understanding.

A. First of all, teachers need to realize that all persons are born with the ability to do creative art. The potential talent varies with each individual just as it does for any other talent. The degree of success each person has depends upon potential talent and on the amount of participation and training each student is subjected to. Educators have recognized that art experiences make valuable contributions to the development of students.¹ Art is important, too, as a curriculum area in the educational program, because it can contribute so much to the general curriculum.

People of all ages enroll in art craft classes, eager to develop their own creativeness, and to learn to participate in pleasant and profitable hobbies. Many of these people never develop their talent until they

¹Arthur I. Gates, and others, Educational Psychology (New York: The MacMillan Company, 1949), p. 375.

reach a high professional level.

136

B. Teachers need to be assured that learning to teach art is not impossible. Art is not a mysterious area where only the talented are privileged to learn. It is simply a particular kind of knowledge and can be learned by all. Again, the amount of success will depend upon the potential talent, plus the amount of participation and training each person has. There are, however, certain attributes which must be present: (1) a desire to learn; (2) a desire to experiment; (3) a willingness to spend time; and (4) a determination to achieve a high quality of craftsmanship.

C. Teachers need to have certain understandings about art as a curriculum area. They are as follows:

1. Art, as any other area in the curriculum, must be meaningful if it is to have any value. It must not be given as mere "busy work," nor must it be an earned privilege. It should be a well-planned learning experience, given regularly to all students.
2. Students' art expressions must be their own original expressions, if they are to have value.
3. Art expression is a natural expression for all students. They will enter into an art experience with ease and pleasure.
4. Art experiences contribute much to students' general

Teachers should have certain basic concepts about teaching art. They are as follows:

- A. Extensive knowledge about art experiences and using art materials is not absolutely necessary; although, of course, it is desirable. Some basic knowledge, plus teacher-experimentation, is all that is necessary with which to begin.
- B. Presenting art experiences to students is done in much the same manner as experiences in other curriculum areas are presented. There must be good organization in the following:
 1. Arrangement of school furniture to provide adequate working space and good traffic.
 2. Orderly discipline.
 3. Convenient storage space for materials.
 4. Convenient arrangement of materials when in use.
 5. Orderly work habits in using and caring for materials.
 6. Orderly clean-up procedure.
 7. There must be careful planning. Each art activity program well-planned as to presentation or motivation should consist of:
 - a) Procedure.
 - b) Desired outcomes.

c) Time allotments.

138

d) Evaluation.

8. The materials should be planned beforehand.

Suggested Beginnings

Obtaining information is undoubtedly the first concern of teachers. There are a number of sources available which the teachers may consult. They are as follows:

A. Good art education books at libraries. (See the accompanying bibliography).

B. Art education publications, such as:

1. School Arts.

2. Junior Art Activities.

3. The Instructor.

4. Design.

5. Scrapcraft.

6. Arts and Activities.

C. Art guides should prove helpful, such as:

1. Education Department, State.

2. Public Library.

3. Curriculum Library.

D. Art Supervisor or Consultant.

E. In-service training courses offered to teachers by the school district present valuable information, and actual experience in using materials. Usually, however, this is at the lower grade level--but may be

139
applied to the upper grades as well. Art education courses at the colleges and universities also give valuable information.

How to actually begin teaching art is probably the next concern of teachers. Much can be learned when teachers begin the experiment. Here are some suggestions:

- A. Try out different ways of working with the students; the size of the group, the physical situation, may determine whether the experience will be presented to the whole group or whether it will be presented to smaller groups.
- B. Choose simple materials to begin with. For example, 12" X 18" paper, crayons.
- C. Plan a suggested experience which the students will be familiar with. The choice will depend upon the age group.
- D. Plan a simple presentation or motivation.
- E. Distribute the materials.
- F. Encourage orderly work habits.
- G. Do not give any suggestions to the student about how he is drawing objects. Remember he has his own way of drawing. If a student does ask for help, guide him in thinking out the problem.
- H. It is a good idea to keep the students' work for a

short time, displaying a group of them. Display all students' drawings.

I. Try several experiences similar to the first one.

Choose ideas which the students are interested in.

J. Try another kind of art material. For example, tempera paints; 12" X 18", or 18" X 24" paper, large brushes, long-handled bristle or camel hair.

K. Plan a simple painting experience based on the interests of the students.

L. Observe the students as they paint.

M. Always encourage students to share their art experiences with the group.

N. Try to go over the paintings and drawings alone to see what can be learned about how the students paint.

O. Such experimentation plus added teacher knowledge will help the teachers become familiar with all the aspects of presenting art experiences to the students. As art programs become a regular part of the curriculum, teachers and students should gain confidence. The experience will be pleasant and satisfying. Teachers will probably realize soon that teaching art is not an impossible task, but a real pleasure. As they gain more knowledge, they can learn how to use art experiences to enrich the curriculum areas.

Suggested Art Experiences for the Four Upper Grades

Materials

Experiences

Painting

Large paper:
12" X 18" white
18" X 24" white
Tempera
Watercolors
Brushes (camel hair)

Free choice paintings as well as those done from suggested ideas.

Drawing

Sketching pencils
(soft lead)
Charcoal
Large paper:
12" X 18" white
9" X 12" white

Experimenting with pencil as a drawing tool. Developing shading techniques, use of texture.

Experimenting with charcoal as a drawing tool. Developing a shading technique, use of texture.

Clay Modeling

Powdered Clay
Wet, prepared clay
Plaster bats
Cloths
Colored slips
Clear glaze
Rolling pin
Simple modeling tools
old orange wood sticks
meat skewers
 $\frac{1}{2}$ " paint brushes

Free experimentation with the materials. Modeling simple, suggested forms, animals, people, and groups.

Simple shapes, some treatment of texture. Learning to use slips and glazes. Firing those pieces that will take firing, if a kiln is available.

Decorating Design

Tempera paints
Brushes
Textile paints
Stencil paper
Stencil cutters
Stencil brushes
Linoleum cutting tools

Free experimentation with various ways of designing for a specific purpose.

Painting designs on paper.

Materials

Experiences

Decorating Design (continued)

Linoleum blocks
 Printing Inks
 Old sheets of unbleached
 muslin.

Stenciling designs on paper or
 cloth.

Block Printing designs on paper
 or cloth.

Making designs for wrapping
 paper, book covers, or wall
 hangings.

Paper Sculpture

White, colored paper
 Scissors
 Paste

Experimenting with paper to
 form interesting three-dimen-
 sional designs, animals, people.

Plaster Carving

Plaster of Paris
 Cardboard boxes
 Paring knives
 Sand paper

Experimenting with plaster of
 Paris. Block to carve designs
 or sculpture animals, people,
 and forms.

Wood Carving

1" thick block of wood
 Wood carving tools
 Balsawood
 X-acto knives or
 paring knives
 Sand paper

Learning to carve designs on
 objects in relief.

Learning to carve designs on
 objects in complete three-dim-
 ensional form.

Lettering, Poster Making

Lettering pens
 Black, white, colored
 inks.
 White paper
 Colored paper
 Tempera paints
 Brushes

Learning to letter; good letter
 forms to use in making designs,
 signs, and posters.

Learning to design good posters.

Simple Construction

Cardboard; scrap wood
Hammers, nails, saws
Tempera paints
Enamel
Shellac, or varnish
Brushes

Experimenting with cardboard and wood to make simple three-dimensional objects; building fences, trees, people, other forms.

Useful in carrying out projects related to units in other curriculum areas.

General Summary

The problem of learning to teach art effectively in the high school is serious today in many systems where there is no special art program. Teachers need much help in learning to understand art education and how to teach it.

An effort has been made to present a general view of the field of art education as it applies to the classroom teacher who is responsible for teaching his own art. It is believed that the material contained in this paper will help classroom teachers to: (1) Have a better understanding of art education; (2) Overcome their awe of teaching art; (3) Obtain enough knowledge to begin teaching art. It has been recognized that while this information may help teachers in the beginning, the responsibility for acquiring further knowledge rests with the individual teacher.

BIBLIOGRAPHY

A. BOOKS

- Alberty, Harold. Reorganizing the High-School Curriculum. New York: The MacMillan Company, 1949. 458 pp.
- Arnold, Joseph Irvin. Challenges to American Youth. New York: Row, Peterson and Company, 1940. 696 pp.
- Barker, Eugene C., and Henry S. Commager. Our Nation. New York: Row, Peterson and Company, 1947. 1027 pp.
- Bass, Stephen. Plastics and You. New York: Eastwood-Steli Company, 1947. 190 pp.
- Batchelder, Marjorie. The Puppet Theatre Handbook. New York: Harper and Brothers Publisher, 1947. 319 pp.
- Book of Kells. 2 Volumes. Switzerland, 1951 Re-print. Urs Graf-Verlog Bern, 339 pp.
- Boylston, Elise Reid. Creative Expression with Crayons. Worcester, Massachusetts: The Davis Press, Incorporated, 1953. 98 pp.
- Burnett, R. Will. Teaching Science in the Elementary School. New York: Rinehart and Company, Incorporated, 1953. 541 pp.
- Bustanoby, J. H. Principles of Color and Color Mixing. New York: McGraw-Hill Book Company, Incorporated, 1947. 131 pp.
- Dewey, John. Art as Experience. New York: Milton Balch and Company, 1934. 362 pp.
- _____. How We Think. New York: D. C. Heath and Company, 1933. 240 pp.
- Doust, L. A. A Manual on Simple Perspective. New York: Frederick Warne and Company, Limited, 1949. 97 pp.
- Eberhart, Wilfred, et al. Reading-Literature. New York: Row, Peterson, and Company, 1950. 622 pp.

- Parey, Cyril A., and A. Trystan Edwards. Architectural Drawing-Perspective and Rendering. New York: B. T. Batsford Limited, 1949. 109 pp.
- Paulkner, Ray, et al. Art Today. New York: Henry Holt and Company, 1941. 519 pp.
- Powler, George W., et al. Our Surroundings. New York: The Iraquois Publishing Company, 1948. 757 pp.
- Frankenfield, E. Block Printing with Linoleum. Camden, New Jersey: C. Howard Hunt Pen Company, 1953. 48 pp.
- Gans, Roma, et al. Young Children: Their Education in Home, School and Community. New York: World Book Company, 1952. 424 pp.
- Gates, Arthur I., et al. Educational Psychology. New York: The MacMillan Company, 1949. 818 pp.
- Glover, W. J., (ed.). Wedding Revels, Short Plays from Shakespeare. London: George Philip and Son, Limited, 1948. 58 pp.
- _____, (ed.). The Conspirators, Short Plays from Shakespeare. London: George Philip and Son, Limited, 1950. 65 pp.
- Goldstein, Harriet, and Vetta Goldstein. Art in Everyday Life. New York: The MacMillan Company, 1954. 550 pp.
- Gregg, Harold. Art for the Schools of America. Scranton, Pennsylvania: International Textbook Company, 1950. 221 pp.
- Hatcher, Orie Latham. A Book for Shakespeare Plays and Pageants. New York: E. P. Dutton and Company, 1916. 349 pp.
- Hedde, Wilhelmina G., and William N. Brigrance. American Speech. New York: J. B. Lippencott Company, 1946. 596 pp.
- Hughes, R. O. The Making of Today's World. New York: Allyn and Bacon, 1947. 838 pp.
- Kautzky, Ted. Ways with Watercolor. New York: Reinhold Publishing Company, 1949. 107 pp.

- Kepes, Gyorgy. Language of Vision. Chicago: Paul Theobald, 1944. 228 pp.
- Kinder, James S. Audio-Visual Materials and Techniques. New York: The American Book Company, 1950. 635 pp.
- Lawson, Philip J. Practical Perspective Drawing. New York: McGraw-Hill Book Company, Incorporated, 1943. 224 pp.
- Loomis, Andrew. Figure Drawing for All It's Worth. New York: The Viking Press, 1949. 204 pp.
- Lowenfeld, Viktor. Creative and Mental Growth. New York: The Macmillan Company, 1949. 408 pp.
- Luce, Henry E., (ed.). Life's Picture History of Western Man. New York: Time Incorporated, 1951. 88 pp.
- Munro, Thomas. The Arts and Their Interrelations. New York: The Liberal Art Press, 1949. 559 pp.
- Palestrant, S. Practical Papercraft. New York: Homecrafts, 1950. 120 pp.
- Perrin, William Henry, (ed.). Counties of Christian and Trigg. Chicago: F. A. Battey Publishing Company, 1884. 319 pp.
- Posey, Rollin Bennett, and Albert G. Huegli. Government for Americans. New York: Row, Peterson and Company, 1955. 451 pp.
- Read, Herbert. Education Through Art. New York: Pantheon Books, 1945. 343 pp.
- Richmond, (ed.). Remo Bufano's Book of Puppetry. New York: The MacMillan Company, 1950. 770 pp.
- Tolstoi, Count Lyof. What Is Art? Maude Translation. New York: Thomas Y. Crowell and Company, 1899. Complete Works, 22 Vols. pp. 135-353. I.
- Whitney, Frederick L. The Elements of Research. New York: Prentice-Hall, Incorporated, 1950. 539 pp.

- Winslow, Leon L. Art in Elementary Education. New York: McGraw-Hill Book Company, Incorporated, 1942. 308 pp.
- Wirth, Fremont P. United States History. New York: American Book Company, 1945. 770 pp.

B. BOOKS: PARTS OF SERIES

- Amaco Metal Enameling, Booklet Number 7. Indianapolis, Indiana: American Art Clay Company, 1954. 23 pp.
- Dennison Crepe Paper Manual, Booklet Number 547. Framingham, Massachusetts; Dennison Manufacturing Company, 1947. 24 pp.
- Simple Puppets. Modern Recreation Series. Burnham Park, Chicago, Illinois: Chicago Park District, 1938. 48 pp.

C. PUBLICATIONS OF LEARNED SOCIETIES AND OTHER ORGANIZATIONS

- Bramall, Eric, (ed.). Puppetry Year Book, 1955. Official Publication of the British Puppet and Model Theatre Guild. Wallington, England: Carwal Limited, Visual Aids Specialists. 80 pp.
- Ege, Otto F. "Some Problems of Aim and Method for Training Art Teachers," Forty-fifth Yearbook of the National Society for the Study of Education, pp. 721-26. Bloomington, Illinois: Public School Publishing Company, 1941.
- Hopkins, L. Thomas. A Point of View in Art Education: Art Education Today. New York: Bureau of Publications, Teachers College, Columbia University, 1935. 487 pp.
- Horn, Ernest, B. "Inequalities in Opportunities for Art Development," Fortieth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Company, 1941.
- Perry, Kenneth F. An Experience with Diversified Art Program. New York: Bureau of Publication, Teachers College, Columbia University, 1943.

Specht, Randolph, "Preservation of Color and Shape of Flowers," College of Engineering Bulletin. University of Florida, Gainesville, Florida, 1955. 10.

Suggested Course of Study for Art Education, Grades 7 through 12. Published for the Saginaw School System, Saginaw, Michigan: Public Schools, August, 1939.

Young, Arthur R., (ed.). This is Art Education. National Art Education Association. Kutztown, Pennsylvania: State Teachers College, 1951.

Ziegfeld, Edwin. Education and Art. (U N E S C O, Publications Center, New York: 1953. 129 pp.

D. ENCYCLOPEDIA ARTICLES

"Philosophy of Art," Collier's Encyclopedia (1st ed.), II, 285-86.

"Art Education," Encyclopedia of Educational Research (New York: The MacMillan Company, 1950), 66.

E. PERIODICALS

Beck, Ruth M. "Fun for All and All for Fun," Arts and Activities. XXXIX (October, 1955), 16-17.

Bragdon, Joseph. "Creating with Plastics," School Arts. LX, (October, 1955), 19.

Clapper, Edna N., and John M., "Castle on a Card Table," Scrapcraft Magazine. IV (February, 1955), 9-14.

_____, and John M. "Totem Pole," Scrapcraft Magazine. IV (January, 1955), 24.

D'Amico, Victor. "Leaders in Art Education," Arts and Activities. Volume XXXIX (March, 1956), 18.

Dooley, Rosa, "An Approach to Sculpture," Arts and Activities. XXXIX, (May, 1956), 21.

Frykholm, Ray, "Making Frames from Construction Paper," Arts and Crafts. LXV, Number 6 (February, 1956), 35-37.

Bannells, Edward W., "Art as Perceptual Knowing," Kentucky School Journal. XXXIV, (February, 1956), 14-15.

Scannell, Alice, and Madeline Fridrich, "Finding Art in the Geometry Classroom," School Arts. LV, Number 7 (March, 1956), 33-34.

Turner, Alan, "Sculp Metal," Design. (September, October, 1955), 17-19.

APPENDIX

SELECTED BIBLIOGRAPHY FOR THE CLASSROOM TEACHER

Alschuler, Rose H., and Laberts W. Hattwick. Painting and Personality. Vols. 1 and 2. Chicago: University of Chicago Press, 1947.

A detailed study of students and how they paint. The relations of their paintings and personality development.

Helpman, Harry C. Fundamentals of Woodworking. New York: M. S. R. Publishers, Incorporated, 1945.

Excellent information, presented pictorially, about tools and simple woodwork, makes this a handy book.

Ickles, Marguerite. Handcrafts and Hobbies. New York: The Graystone Press, 1948.

This book has a variety of crafts and hobbies which give many suggestions for use with upper grade students.

Keiler, Mandred L. Art in the Schoolroom. Lincoln, Nebraska: University of Nebraska Press, 1951.

This is an interesting new book. Besides a discussion on art education, it has descriptions of many kinds of drawing and painting experiences which stimulate creative art.

Knapp, Harriet E. Design Approach to Crafts. Sandusky, Ohio: Prang Publishing Company, 1954.

This book gives fundamental information in art, design, and on developing ideas on finger painting, modeling of paper mâché, stenciling, and the value of the crafts.

Lemos, Peder de. Creative Art Crafts. Book I. Worcester. Massachusetts: The Davis Press, Incorporated, 1944.

A host of good suggestions for working in wood, metal and paper crafts, are contained in this book.

Munro, Thomas. The Psychological Approach to Art and Art Education. National Society for the Study of Education. Fortieth Yearbook. Bloomington, Illinois: Public School Publishing Company, 1951.

A very excellent discussion of art and art education. Good information for teachers to have.

Buffini, Elise E., and Harriet E. Knapp. New Art Education Series. Sandusky, Ohio: The American Crayon Company, 1944.

A series of books designed for teacher use. Each book illustrates good ideas for art and simple craft experiences. There is a teacher's manual for each book, giving information and instructions for the teacher's use. These books should be used only by the teacher, and only as a guide.

Tanrhill, Sarah B. P's and Q's, A Book on the Art of Letter Arrangement. Garden City, New York: Doubleday and Company, Incorporated, 1949.

This book contains good information about letters and lettering, and also demonstrates the use of letters in design.

Weybuck, Emmy. Hands at Work. Sandusky, Ohio: Prang Company, Publishers, 1946. Second Stencil Book, 1940.

This thin book contains many delightful ideas for working out stencil designs to be used on paper and cloth. All books are beautifully illustrated.