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ART

IN COLORADO

Secondary SCHOOLS



Department of Education
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DENVER

ART

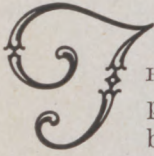
THE COLLEGE OF
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FOREWORD



THE STATE DEPARTMENT OF EDUCATION takes pleasure in presenting to the teachers of Colorado this curriculum bulletin on Art for Secondary Schools.

In every human being there lies, usually dormant, a desire for the creative. "The concern of the school is to surround the child with an environment that will draw out this creative power." Few children will become Beethovens or Rembrandts or Robert Brownings but every one will have, at some time in his life, a personal interest in architecture, in decorating or in designing. Churches and cottages, shops and sanitariums, factories and farm houses must be built and lived in and only creative and imaginative art can keep them from being dull and uninteresting. Thus, in every life there will come a chance for some form of artistic expression which must be cultivated to take living and working in an ordinary world out of the realm of the dull, drab, and the dreary.

It is hoped that art training will give our youth not only an outlet for creative expression, but it will help them to distinguish the gaudy and the flamboyant from the objects possessing true artistic quality. It should help them to see beauty in a mass of hollyhocks against an old stone wall, in a well arranged bouquet of nasturtiums on a polished table, in a reflection of tall poplars and fleecy cumulus clouds in the clear water of a lake. Undeniably, all these things will help them to live more pleasurably. "And who will deny that to live more richly is a worthy objective of education?"

And so, the State Department of Education and the State Art Committee offer this art manual to you with the hope that it will enable you to teach our youth to plan a better city, to build a more livable home and to make more harmonious surroundings for themselves in all of their living.

INEZ JOHNSON LEWIS,
State Superintendent of Public Instruction

ACKNOWLEDGMENTS

The State Department of Education gratefully acknowledges its indebtedness to the teaching profession of Colorado and to the many lay citizens who have directly and indirectly aided in the making of this state course of study. It is regretted that space will not permit the specific mention of all persons who have given of their time and energy in this undertaking.

In a venture of this kind, it is necessary to have individuals who will assume responsibilities under the guidance of the State Department of Education for working out plans and details. The State Directing Committee appointed for this purpose consisted of Mr. A. C. Cross, University of Colorado, Boulder; Dr. Alvin Schindler, University of Denver; Dr. William Wrinkle, Colorado State College of Education, Greeley; Dr. Earl Davies, Adams State Teachers' College, Alamosa, Chairman. At the death of Dr. Davies, August 25, 1938, Dr. Schindler was appointed chairman of the committee and assumed responsibility for the program.

The Directing Committee was ably assisted by faculty members of the institutions of higher learning in Colorado and in other states, by lay citizens, and by teachers in the public schools. The State Department, as it planned the development of the program, had the advice and counsel of directors of curriculum from many other state departments of education.

The State Department desires to recognize the very valuable service rendered by Miss Rowena K. Hampshire, former Deputy State Superintendent of Public Instruction, and Miss Evelyn Irely, former Deputy State Superintendent of Public Instruction, who gave valuable assistance to the production committees and cooperated with the Directing Committee in coordinating, assembling, and editing the material.

The State Department of Education feels greatly indebted to all who have in any way contributed by word or deed to this enterprise.

INEZ JOHNSON LEWIS,
State Superintendent of Public Instruction.

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PART I

INTRODUCTION

This is one of a series of bulletins published by the State Department of Education to help teachers improve the curriculum of secondary schools in Colorado. Similar bulletins have been or will be published in English, science, mathematics, social studies, health and physical education, music, and the commercial arts. In addition to these publications, the State Department of Education has issued and will continue to issue other aids to teachers as the need arises and as circumstances permit.

The General Plan of This Bulletin

This bulletin is composed of three major divisions or parts. Part I deals with the probable uses of the course of study, with the curriculum pattern in art in secondary schools, and with the philosophy of art education. Part II is concerned with some administrative and general problems in art education. Part III is by far the most extensive division of this course of study. It contains many practical suggestions on typical art activities.

The materials presented in this course of study are intended primarily for grades nine to twelve, but many of the suggestions are applicable to grades seven and eight. No attempt was made to allocate suggestions to particular grade levels or to particular classes. It is generally recognized that the curriculum in art must be very flexible if it is to accomplish valid purposes.

How to Use This Bulletin

A course of study may be defined as a teacher's handbook which provides suggestions pertaining to the development of the curriculum. This bulletin has been prepared from that point of view and it should be used accordingly. A course of study may indicate in a general way the nature of the curriculum, but it cannot specify in detail the activities for a given group of pupils. The pupils, the facilities of the school, and the nature of the community are factors which must be considered in determining the curriculum for a given situation.

The materials in this bulletin, although organized primarily for teachers of art classes, should prove to be valuable to teachers in other fields and to sponsors of clubs or other extra-curricular activities. At various places the outline suggests opportunities

and ways of correlating art with other areas of the curriculum. The responsibility for correlation should not rest entirely upon the teacher of art. Teachers in other subject matter fields should take the initiative in correlation whenever circumstances permit. If there are no advantages to be gained, correlation should not be attempted. However, since art is primarily a form of expression, correlation may be very valuable as other subjects provide content and purpose for expression. In many schools teacher-teacher planning in relation to art may do much to improve the entire curriculum of the school.

Some of the materials include suggestions pertaining to pupil activities. It should be emphasized that the activities are presented as suggestions and that teachers will need to select those which are appropriate.

If a high school does not have a definite course of study in art, this bulletin provides convenient and valuable suggestions which may be used in developing a local course of study. In most situations this should be the chief use of a state course of study.

The Objectives of Education in Secondary Schools

In this bulletin no attempt will be made to present a complete discussion of the objectives of education in secondary schools. For a discussion on objectives the reader may refer to page 5 of the bulletin on social studies in secondary schools.¹ The careful reading of the materials presented in the social studies bulletin would reveal that art has significant contributions to make to the development of secondary school pupils for better and more effective life. This is especially true if the emphasis in the art classes is more on consumer education than on producer education. Most of the secondary school pupils will not be artists in the formal sense; but they will all be consumers of art and will be creative in many lines of work where principles of art may apply. It is unfortunate that at the present time secondary school pupils are not developing the attitudes, understandings, and skills which they might apply in various situations as they make things which are useful in everyday life or as they purchase things which are used in various life situations.

¹Department of Education. *Course of Study for Secondary Schools Social Studies*, The State of Colorado, Denver, Colorado.

Reference Books

Textbooks or reference books, other than official publications of the government, are not listed herein. Through the courtesy of the publishers, many modern textbooks and reference books, for use both by teachers and pupils, have been made available to the various committees in preparing these bulletins. Many of these books are available for examination by superintendents and teachers at the Library Extension Division of the State Library.

A list of references appropriate for use with these bulletins has been prepared. It will be placed at the disposal of the Colorado Extension Library, and may be obtained by county superintendents who write to:

The Library Extension Division of the State Library,
Room 320, State Capitol,
Denver, Colorado.

The Curriculum Pattern in Art

It is very difficult to make recommendations in regard to the curriculum pattern in art or the classes which should be offered because a large number of variables should be considered. A few general recommendations which may be defended in most schools are presented below, but a definite sequence of courses is not outlined. The materials presented in Part III of this bulletin are not organized in terms of courses.

The size of the school is most certainly a factor which must be considered in determining the curriculum pattern in art. The large school system will find it possible and desirable to provide an art course for all pupils during at least one year of the junior high school. This course should be required because of its exploratory and general educational values. In this course, as in all required classes, knowledges and attitudes or appreciations which may function in everyday life should receive more attention than skills although the latter should be developed insofar as possible. In the senior high school several courses such as painting and drawing, commercial art, free-hand drawing, etc., may be offered as electives.

In the smaller schools it is highly desirable to have at least a semester of art at the junior high school level for exploratory purposes and to help pupils develop knowledges and attitudes

which are useful in the daily living of all individuals. The committee strongly recommends such a course not only during one semester but during a year or longer if possible. The smaller senior high schools should attempt to offer elective courses which meet the needs of individual students who have shown real interests and aptitudes in art work. If it is impossible to offer more than one elective course, such a course should be provided and the content should be relatively flexible so that the needs and interests of various pupils would be met. It should include much opportunity for individual projects or individualized work so that the pupils might attain for themselves advantages which exist in the larger high school offering a specialized course in drawing and painting, commercial art, etc. In some of the smaller high schools it may be necessary to take care of the needs and interests of the pupils through clubs or other extracurricular activities. But the art opportunities through such provisions will usually be inadequate if there is not a required course in the junior high school and an elective course in the senior high school.

The recommendations in the two preceding paragraphs provide for the minimum program. At the present time many of the smaller high schools do not provide for any courses in art. The pupils may get some art experiences through shop classes, home economics classes, or classes in the academic subjects; but many of the desirable experiences are never realized. The committee believes that this deficiency is not inevitable and that the minimum program recommended above can be developed in most high schools. The materials presented in this bulletin are not organized to indicate the content of the required courses at the junior high school level or of the elective course at the senior high school level. The content of the courses should be determined for each school.

In selecting content for the junior high school course the following criteria may be used:

- (1) The required art course in the junior high school should be concerned with needs which are common to all pupils. The content which is valuable in developing knowledges, skills, or attitudes, which all pupils should possess, should be selected. For example, the course should help pupils understand basic principles of design, develop good taste in the selection of clothing, etc. The needs of this type are numerous, and a good art course may be very valuable.

(2) The content and activities for the junior high school art course should provide the pupils a wide variety of experiences in order to test or discover their aptitudes and interests. The pupils in the junior high school art class should have some experiences in drawing, in painting, in modeling, in weaving, etc.

(3) The content and activities which are valuable for the consumers of art should be stressed more than the activities which are primarily for the producers of art.

At the senior high school level the following criteria may be used in selecting the content of the elective art courses:

(1) The interests of the pupils, whether recreational or vocational in nature, should be paramount in the selection of content. That is, the pupil who wants to paint because he finds painting an enticing recreational activity should have the opportunity to improve his abilities. On the other hand, the pupil who wants to develop abilities in painting or drawing for vocational reasons should have opportunities for such activities.

(2) The content and activities with vocational values should receive much attention although the values for general education should not be neglected. Furthermore, in some senior high school art classes values in general education may rightfully receive more emphasis than the vocational values.

(3) The content and activities in senior high school classes should permit a great deal of variation in the work of different pupils. To a large extent the learning activities should be individualized.

It has frequently been true that the teachers of art classes have been exceedingly concerned with outcomes expressed by tangible products such as pictures, articles of furniture, rings, leather cases, etc. The committee believes that many of the outcomes of greatest significance reside within the individual rather than in the products which he may produce. The outcomes exist as skills, consumer knowledges, and attitudes or appreciations which function in daily living. Certain exploratory values are also recognized. In other words, in recommending art classes the committee hopes to improve the development of pupils. The art materials are not the goals but the means of stimulating pupil growth and adjustment.

The number of art courses offered by a high school and the content of each one will necessarily depend upon the provisions

which the school has developed to further general education. Schools which have developed a core class or something comparable to it to insure attention to the general education which is important for all pupils will have less need for separate art classes than a school which is organized entirely on the basis of traditional subjects. Much of the content in Part III of this bulletin offers suggestions for the curriculum in general education or core classes. Since such classes are relatively new and found in only a few schools, the committee recognizes a great need for separate art courses.

There is a great deal of confusion in relation to art because a number of arts, for example, *fine arts*, *home arts*, *language arts*, *industrial arts*, *practical arts*, and *commercial arts*, have been recognized; and relations which naturally exist between them have not been established. The committee is not interested in the high walls which have sometimes been built around the various types of art work. It believes that it would be desirable to integrate much of the work which has usually been allocated to classes in fine arts, industrial arts, and home arts. The responsibility of art classes must extend beyond drawing and painting. Such a narrow concept of art can no longer be justified. There is great need for unification in the art program; but until such a program can be developed, the committee finds it necessary to recommend separate classes in art to satisfy needs which are neglected in other areas of the curriculum.

PART II

THE PHILOSOPHY OF ART EDUCATION

There is some danger in a brief treatment of educational philosophy; nevertheless, a course of study should contain a brief statement of fundamental principles which provide guidance in developing and administering a program of education. Such principles are stated below. Readers who desire elaborations on the brief statements found here may refer to books which are listed in the footnotes of this section.

Artists recognize the value of perspective in paintings and other artistic products. Perspective in a somewhat different sense is as important in curriculum making as in painting or drawing. For this reason, curriculum makers must clarify the general principles which reveal the framework from which details may be developed. Part II of this bulletin is also of value in this respect.

What Is Art?

To increase the certainty that our young people will have genuine art experiences, it is well to clarify the meaning of art. Many teachers still think of "drawing lessons" instead of the richer and broader experience of art. Others think of art as superficial appreciation, as a leisure time outlet when there is nothing else to do, or as a hobby. Unfortunately, many school officials have been misled by art teachers who have organized programs that promote drawing, painting, or other techniques as ends without pointing them toward the solution of daily art problems.

"Besides drawing, painting, modeling, and designing there are other important art activities; individuals are expressing themselves artistically when they dress well, arrange their homes attractively, contribute to the aesthetic phase of civic improvement, or appreciate the work of masters in design, painting, and sculpture."¹

In pointing out the universal application of art, Mursell has aptly stated that, "responsiveness to and desire for beauty is a basic impulse of human nature. Man has never been satisfied with an environment which is merely useful. Nor has he been satisfied to try merely to understand his environment. He has

¹Tannahill, Sallie B., *Fine Arts for Public School Administrators*. New York: Bureau of Publications, Teachers College, Columbia University. 1932. p. 1.

always sought to adorn it, to beautify it, to make it pleasing to his senses and sympathetic with his emotions."²

When one enhances and perpetuates mental images charged with emotion and makes these images visible to others, Dewey says that person is pursuing art.³ These mental images may range all the way from the "lightest fancy to the most profound thought,"⁴ or, as some contemporary artists believe, an art object may be only an arrangement of visual elements with no thought or idea of the usual kind connected with it. In any case the mental image, whatever its nature, is expressed in a personal manner. Making some event more interesting, demonstrating some fact or relationship, pointing out some distinctive characteristic of an individual, a plant, an object, or a scene, or making articles perform their function better are all appropriate subjects for artistic expression.

Educational Values in Art Experiences

The teacher must make art experiences educative. Pupils may do jewelry, sculpture, or stage design in what one could call a creative art classroom, and yet little more than artistic ends might be achieved. Hence, teachers must keep fundamental educational values in mind all the time and must point out these values to the pupils. One must generalize upon specific elements in art experience and see their wider implications in life. Since pupils frequently overlook these possibilities, teachers must supply the incentive or stimulus to gain the wider insight. These transfer values in art experience must be engineered by the teacher, and they must constitute the primary educational values of the enterprise.

Thus, if the aims of general education are professed to be personality development and ability to participate in group life, art experiences must be turned in that direction. The following is an attempt to list those aims of general education which art experience is well suited to meet.

Gaining a true notion of art. Art is a language of expression. It uses visual means, and it expresses man's interests and ideals in a personal manner. Art has always served man in this capacity.

Securing joy and emotional health. Creative activity flour-

²Mursell, James L., "The Education Integration of the Arts." *Teachers College Record*, Vol. 39, no. 2 (November, 1937), pp. 121-131.

³Dewey, John, "Art in Education." *Cyclopedia of Education*, Vol. 1, p. 224.

⁴De Garmo, Charles, *Aesthetic Education*. Syracuse: C. W. Bardeen, 1913 p. 25.

ishes when it is on the play level. Genuine enjoyment in a few vital things of life is essential to personality development. Without making art activities sheer amusement, lacking intellectual challenge, we should make them fill a definite life need.

Thinking and working creatively. Art experience is a thinking-doing activity. Relationships must be apprehended, and herein, as Dewey says, is one of the most exacting modes of thought.

Awareness of life and important things in life. Every child should learn to be aware of things about him, and to pick from the maze of his surroundings those elements that are significant to him and to his group. Seeing how artists have interpreted their surroundings helps one to develop this awareness, as well as to rearrange one's scale of values.

Liberating the adolescent. The adolescent imposes upon himself many limitations, caused either naturally or directly by school experiences. False standards easily arise when dictatorial practices are used. Young people are trying to "grow up": they are looking for ways to gain respect and to be like adults. Creativity is the same at all levels, and an adolescent may honestly feel like an artist, thereby gaining confidence and security. Extreme sensitiveness at this age sometimes is hidden behind timidity or in attempts to escape reality. This sensitivity may find outlets in art expression.

Self reliance. By creative practice a young person may come to realize that *he* amounts to something. He discovers that *he* can make something, and he is responsible for it. Inevitably others see his work; he must defend it and meet criticism in a way which will be helpful to him.

Recognition of worth or uniqueness of others. By evaluating the individual interpretations of one another, properly, a pupil may come to see and respect the contributions of his neighbors. He may learn how to give helpful criticism, as well as how to receive it. He begins to see how valuable group life might be—how the personal ideals of others expressed in a personal and distinctive manner may be of help to him in forming his notion of the world, and in responding to it.

Widening one's cultural background. Artistic records and monuments are avenues through which we gain more insight to other people, past and present.

Awareness of and control over visual means of expression. Art work presents facts obeying pictorial laws. These laws are subtle but nevertheless actual and forceful. Before one understands fully meanings presented pictorially he must know something about *how* meanings are so presented. Some attention to skills and design elements is given for two reasons: first, to illustrate what the skill or design element will do when handled superbly by an artist, and, second, to achieve better the pupil's own ends when they involve the skill or element under study. Thus art skills become tools of thinking and expression, and ways for understanding the expression of another. When one has tried to create and has succeeded only partially, he will look out on the world of creation in a more sympathetic manner.

Help build philosophy of life. By working with human values, by studying life directly and with balanced perception, and by exploring the aesthetic thoughts of sensitive people, a person is helped to evolve a system of ultimate values in life—a philosophy of life.

Rigorous self-discipline and integrity of self. Standards are evolved in good art procedures; pupils share in defining their own purposes, and they share in evaluating the results. Thus, if one achieves what he set out to do, he will have gained a standard of excellence based on sound footing, not on false competitive standards.

General attitudes and habits of work. Proper use and care of tools, sensitiveness to proper use of materials, attention to a project until it is completed satisfactorily, steps in sequence, orderly procedures, open-mindedness, awareness of problems, cooperation, and budgeting of time are all essential in art classes.

Changing one's environment. We continually remake our environment, and it in turn remakes us. We must learn to see what environmental factors need to be changed, how to proceed, and then how to make the changes. While education for improving taste and discrimination is usually cited as a primary aim of art education, its value really lies as a means for promoting emotional health and stability. One "feels" better in a well-designed room; one is happier in appropriate dress; and one works better with well-proportioned and functional tools and machines.

Opportunity for adventure. Art objects are invitations to widen one's thinking and understandings, similar in spirit to the radio, the movie, or the novel. While we wish many forms of adventure in other things, many of us fail to see possibilities or adventure in art objects and some of us even dodge the chance to see a *different* picture, a *different* textile, or a new poster.

Problems in community service. Schools are small communities, examples of democracy at work, places where pupils are living and not merely preparing to live. The art department, properly functioning, is an asset to every school. It cooperates with play production, the school paper, annuals, posters, general appearance of rooms, hanging of pictures, arrangement of flowers, decoration for school parties, and the like.

PART III

SUGGESTIONS ON GENERAL PROBLEMS IN ART EDUCATION

The suggestions in Part II pertain to general problems in art education. The first section is concerned with methods which may be used to enlarge or extend the opportunities for art experiences in secondary schools. Some of these suggestions are quite definite although the committee could not designate the plans which should be accepted in a given school.

The second section is concerned with the development of visual libraries. It sets forth goals which can be achieved through a period of years with a relatively small amount of money. The pupils may have a significant part in developing and collecting materials, and in those activities secure excellent training. A good visual library is a source of genuine motivation.

The remaining sections of Part II offer definite suggestions on evaluation and the teacher's function in an art workshop.

Extending Opportunities For Art in Secondary Schools

Art classes are not found in the programs of many secondary schools although the significance of art is generally recognized. The condition is largely a result of tradition. The desire for more art experiences in the curriculum exists, but techniques for overcoming tradition have not been generally successful. This section was prepared to suggest procedures which may be used to introduce or extend art instruction.

Integrating Art With Other Experiences

It may be impossible as well as impractical to organize art classes at a moment's notice, but the art opportunities which arise in various school experiences may, nevertheless, receive careful attention. If these possibilities are realized, interest in art and demand for special classes will arise. The new classes resulting from pupil interest and demand will be more successful than classes which arise primarily through the initiative of administrators or teachers.

Everyday opportunities for art may therefore be the point of departure in increasing art offerings in secondary schools. However, after special classes have been established, the im-

portance of the more informal art experiences and the applications of art in all classes should not be overlooked although nothing is to be gained by relating art activities to other activities when no real relationship exists. Attempts to relate should be made only when there are real advantages to be gained. Tannahill, a recognized leader in art education, has emphasized the merits and limitations of correlation. She maintains that, "Assembling children's pictures on a large piece of brown paper, or putting pictures, stories, and poems in a notebook, even though they have a certain social value, does not in itself constitute integration."¹ Hopkins², a most ardent critic of departmentalization of subject matter and activities writes as follows: "We should speak of an integrated whole, not an integration of parts . . . There is no such thing as synthesis. Synthesis is an atomistic attempt to derive a whole from pre-existing parts. If the parts existed first in the absence of any whole, which synthesis implies, the parts must by definition lack integration or inter-relatedness."

This method of introducing art implies that some of the teachers will have interest and training in the field, and this implication is quite correct. The influence of one or two teachers may go beyond their immediate classrooms through various school activities. Teachers may utilize every possible opportunity to develop interest in art although they may be employed as teachers of other subjects.

General Education or Core Classes

For a number of years educators have recognized that many experiences which are significant to the pupils are not included in the regular courses which have been offered in secondary schools. They have sought, therefore, to organize general education classes, core classes, or guidance classes which meet needs of pupils which are not met definitely in the more traditional classes. Wherever these classes are organized, art units should be given a significant place in them. The classes should stress the experiences which are significant for all of the pupils. Much attention should be given to activities which are valuable for the development of interests and initial skills. As rapidly as possible, secondary schools should offer elective art courses for the students who reveal unusual talent and special interests.

¹Sallie B. Tannahill, "The Fine Arts" in *Forward to the Fundamentals in Education*, Board of Education, Hartford, Conn. 1937. p. 233.

²Hopkins, L. Thomas, and Others, *Integration: Its Meaning and Application*, New York, D. Appleton-Century Company. 1937. p. 43.

The reactions of the pupils in the general education classes should be taken into consideration in counseling the students in regard to the advisability of registering for an elective course in art. The first art experience would be that which meets common needs, including guidance needs, while the elective class would take care of individual needs or differences.

A General Art Course

Some junior high schools provide a general art course in grades seven and eight. The course is required and may be considered as utilitarian as well as exploratory. The course gives pupils an excellent opportunity to learn of their abilities and interests in art and thus gives them a basis for choosing elective courses in subsequent years. The course also provides for the development of knowledges and skills which all individuals should possess.

Senior high schools may offer a general art course which is primarily concerned with general education and guidance values. If such a course is offered, an elective course should be offered to satisfy specialized needs and individual interests.

Elective Courses

Art may be introduced in the secondary school by setting up an elective course. This situation is not the most desirable without some exploratory experiences of the type mentioned above. It might be better to consider elective courses as divisions of an established art program and not as methods of introducing art into secondary schools.

Art Clubs and Free Activity Periods

If a school has a club program or a free activity period, either may be used as a means of introducing art work. The freedom and intrinsic motivation during these periods give an excellent impetus to art. They lack the formality which sometimes is characteristic of many organized classes. It is desirable to arrange some free time during each school day to enable pupils to work in art studios or rooms upon products of their choice. If these opportunities are present, under the guidance of enthusiastic teachers, much excellent work will be done without regular classes. It usually follows, however, that the pupils who have these experiences demand regular classes.

School Art Services

The normal needs of schools for costumes, posters, models, decorations and the like provide real situations to introduce and stimulate art activities. It is quite true that these needs of the school cannot be met very well without art classes as students must have an opportunity to develop significant ideas, understandings, and skills. However, they may be used effectively to reveal the values of art and to stimulate definite study.

Art Exhibits

The desire for art within a school may be stimulated by arranging art exhibits. Materials for such exhibits may be obtained from the State Art Association. If properly conducted, the exhibits may lead to the organization of clubs and eventually to the organization of classes. At all times an attempt should be made to create a desire for art instead of offering courses which are required. The exception of this may be found in the case of a general art course which is meant to be exploratory.

Visual Libraries in an Integrated Art Program

Concrete materials are great aids to learning. Art objects, although they grow from the events and ideas of people, are often more powerful motivators of human beings than the events and ideas out of which they grew. Because of the re-vivifying or re-vitalizing function of the arts, it is appropriate for art teachers to explore the educational possibilities of visual libraries.

It has been pointed out by students of politics that one reason the Fascist leaders have retained their power so long is that they have made effective use of the arts in their propaganda. Their national party rallies are as carefully designed as a first-rate dramatic production. Martial music, great masses of people moving in rhythm, spot lights, and flaming torches are some of the visual and auditory stimuli employed to focus attention on and to build up the prestige of the leader.

Few are impressed by historical accounts of the Dreyfus case, but, after seeing the film "Emile Zola," many are deeply moved because the artist transformed bare facts into deep meaningful truth and made very clear the meaning of justice and the importance of fair trials. Art form has power to transform human experiences as well as to document valuable social facts.

Since both art and social facts concern people, art, the physical embodiment of the activities and ideas of people, may furnish original source materials for study.

The Greeks contributed much in the way of the classical style of public buildings. With the exception of the Gothic interval and recent "modernism," Greek naturalism in drawing and modeling the human figures has dominated art for almost 2,000 years. There is a dearth of good illustrative material of Greek art in classrooms today. Seldom does one hear emphasized the idea that the Greeks developed their own architecture to fit their own life and country and way of thinking, and we would do well to emulate them in that respect rather than copy their buildings for our own use. What more vivid presentation of Greek life can be found than the vase paintings with women at work, children at play, banquet parties, athletes practicing, and varied occupational themes? The argument here is not to study Greek art for its own sake, but to point out that if history and social science teachers wish to study Greek life, they must include art because it was very vital in the lives of Greeks. An appropriate time and place to consider Greek art is in the history class when Greek civilization is being studied.

It should be noted that the same documentary value is present in the art of today as was present in that of Egypt, Rome and the Middle Ages, only today Diego Rivera, Thomas Benton, Stewart Curry, and others furnish the real insight into current problems. If, throughout the social studies program, the procedure of bringing in the best of the art of a given period where it belongs were followed consistently, the appreciation side of the art problem would be solved.

Angelo Patri gave excellent expression to this point of view in the statement that follows: "Words are an experience but unless they are backed by a real substantial concrete happening they are not very enlightening. To the groping human mind there is nothing so reassuring, so illuminating, as Things . . . Children love things. They make the mind so comfortable with their very bulk. Words and sounds are so thin to the intellect. No school that is a school can thrive without the help of a museum full of the Things that are behind its works."¹

Too often we depend upon the written word to form our children's concepts of what we wish them to learn. One of the most

¹Patri, Angelo—*Museum Work*. July, 1924.

unfortunate remnants of scholasticism is that so many people still consider books the most important of the teaching devices we now use. Libraries of words we feel we must have, but libraries of objects and pictures are not yet generally counted among the essentials of good educational equipment. Some schools, though still a small proportion, have libraries of films, slides, stereographs and the like with the equipment required to use them. Other schools have included photographs, fine color prints and actual objects such as toys, textiles, pottery, etc. Cleveland, Newark and St. Louis were the first to start collections of this kind. Now many of the larger cities have added departments of Visual Education. Some of the material is boxed and circulated in sets, other items are available for selection by individual teachers.

It is tremendously important that we select carefully the best material—first-rate films and photographs and fine color prints. Too often the visual education and the art departments are separate and one seldom consults the other. They should work together in a common understanding of the needs of children to obtain really fine things which will teach their lessons most effectively. The selection of material should be made to have available (1) examples of functionally used materials of the best possible design, (2) a body of the more important contributions to the world's art, and (3) a collection of originals.

An Industrial Art Collection

The first type of material would include fine examples of textiles, metalwork, ceramics, wood, glass and the like, both real and in the form of reproductions. The emphasis in selecting the actual examples should probably be upon contemporary forms, with photographs and other good reproductions of outstanding historic examples supplementing the modern. For practical comparative purposes there should be included in each group a few pieces of poor and unfunctional design.

The industrial part of the collection should be of greatest use to teachers of home, industrial and fine arts. The value lies in showing good uses that have been made of given materials. Let us suppose that a child wishes to design a pair of candlesticks. He selects sheet tin to make them because it is inexpensive. Perhaps he has never used this material before. He can proceed in one of two ways. He can experiment with the metal until he finds out what some of its possibilities are, or he can study things

made of tin and see how other artists or designers have used it, how certain things can be done with sheet tin that cannot be done with cast tin, and how its use differs from that of other metals. The first method is inclined to be wasteful of both time and materials; the second takes him a step or two along the way over his first difficulties. It should be emphasized that the child should not copy any of the objects. They should serve merely as stimulating examples to show what can be done with a material that is well used.

A large wall plaque containing a tooled picture of Buffalo Bill with a border of wild roses stamped and carved around its edges constitutes poor judgment in art. It demonstrates very well how *not* to use leather. The two essential characteristics of leather, toughness and pliability, were disregarded in selecting the material. There were at least four or five better materials on which to make a picture of Buffalo Bill. The four square feet of good leather so wasted could well have been used to make belts, covers, purses, containers, saddles, and other objects that would necessarily resist the wear and tear of daily handling. If the leather had been used to make belts for a collection, there would be variety. Each one of them might be different in design, and wide variety in the use of material would be evident. For the class having its first experience in handling leather such belts would serve as a practical demonstration of some of the things that can suitably be done with leather.

There are those who contend that examples of this type influence the child's expression, or even stultify it. Wherever this has happened, it was due to a wrong use of the illustrative material. Possibly if there were all the time in the world, some children would grow more through making all the mistakes that had ever been made in using a given material and so discovering the best way to use it for themselves. This recapitulative process, however, has been abandoned long since in other fields as being too costly of time and of creative energy.

It might be well to remind ourselves here that one of the most destructive fallacies of the extremists in education is the notion that children, or anybody, can create out of "thin air." The beautiful functional forms of the best Chinese and Greek bronze utensils were achieved finally after many creative designers added their own refinements to the first crude forms. And the last man was no less creative than the first one because he worked

upon a theme someone else had used before him. Every new form is always as much the product of the environment as of the mind of the "creator." Margaret Mead found evidence of this in the course of an experiment conducted on the island of Manus in New Guinea. The people there are traders and they have little of indigenous arts and crafts. Furthermore, goods of that nature are not retained long enough to exert any influence on their culture. When their children received drawing materials and were allowed to draw without direction, they produced nothing of any artistic merit. In other words, the child whose cultural background does not include art, is not "creative" in art.

A Fine Arts Collection

The second classification in a collection of art materials would include outstanding examples of the art of the great periods and of today. Photographs, models and fine color prints emphasizing the work of the moderns would predominate. Several hundred would not be too many. In classrooms they would meet a vital need.

In the elementary schools the units usually placed in the third grade center around the theme, "Children of Other Lands," and the children should express in the various art media the concepts they learn in the social studies. They should model figures, paint pictures illustrating some phase of daily life, or give a play, making scenery and costumes for it. These activities provide excellent training and experience in the arts. Too often their visual concepts of what a Dutch child looks like come from very inadequate sources. We should not be content to let our children think of Dutch boys and girls in terms of the flat, insipid, relatively stereotyped magazine and textbook illustrations. The great painters of all time have shown us lovingly and vividly the personalities of real children. Our pupils should meet Terborch's charming little Helena Van Schalke, and Ruben's little girl with the wispy hair and bright eyes, and Manet's charming tow-headed boy with the red cap, and Rembrandt's wistful son. Children enjoy these masterpieces, and they should be included in an art collection to stimulate learning in the social studies.

The value of art in social studies is not confined to units in the third grade. A good art collection may be used to vitalize the study of history at all levels. It may also stimulate appreciation in units which are concerned with modern civic and social prob-

lems. The elementary schools have made more and better use of art than high schools.

The art collection is very valuable in meeting the problems of "appreciation." It provides participation which is essential to real appreciation. Without participation of one kind or another, "appreciation" becomes sheer affectation.

The question may properly be raised here as to the relation of such a collection to the museum, would it supplement or detract from the latter selection? Both are needed because each performs a somewhat different function. No matter how accessible the museum is or how diversified its collections are, it can never meet all possible needs for visual materials any more than a public library can meet all demands for books. Some books must be more easily available than those in the public library; hence classroom and school libraries are maintained. Likewise, the school collection should supplement the local museum's collection, if such a collection exists, with such materials as the school needs, and may also include such reproductions of the major items of interest in the museum which may be used frequently in the school.

A Collection of Originals

Originals constitute the third type of materials which should be included in an art collection. Two kinds might well be included; namely, (1) some examples of the work of local contemporary artists and (2) some examples of the work of children at various levels.

The values of this type of material are so obvious that they hardly need mention. Local practicing artists are live people, children know them as neighbors or parents of their friends. They can sometimes be persuaded to come into the school to talk or demonstrate or work alongside the children. Their work acquires thereby prestige which adds to its usability. If funds do not permit the purchase of such originals, other means such as rental or borrowing can be employed.

The inclusion of children's work in such a collection is based upon the assumption that the child as a person has something to say and that other people, including children, want to pay attention to it. His work is to be looked at, as is any other artist's, for its integrity of purpose and sincerity of approach, and as consumers of art, children are quite as sensitive to these qualities as

are adults. Then, too, any school should have a body of records of children's achievement in this field. This is quite as important as having records of growth in mathematical ability, or just as necessary for educators to refer to and study as the intelligence or achievement tests which are so taken for granted as the *sine qua non* of documentary evidence.

The Management of an Art Collection

Whether all this material is to be housed in the art department, in the library, or in the museum (school or civic) is, of course, a matter to be determined by studying each individual situation. A collection is essentially a visual library, and should be planned and managed as a library of books. It is more difficult to manage an art collection than books because more kinds of damage can happen. The materials should be well protected from injurious heat or cold. Each item should be classified so that it may be located easily. Records should be kept to reveal usefulness of each article. A reaction as to usefulness should be secured from the borrower or user whenever possible. Whether the library, the art department or a special department of visual aids administers the collection, its *selection* should be a responsibility of the fine arts staff. They are the people who should have the discrimination needed to choose the best things to be had. The social studies, literature, and visual aid departments may make recommendations, but the *fine arts people* should pass upon them.

The physical sources of materials are as extensive as the searcher's ingenuity. Everything may be considered as a possible source. Every kind of print from the best of the color presses' finest output to the rotogravures and photogravures of the Sunday papers, or from the objects of dealers to materials from the five and ten cent stores. Neither one should be ruled out for bargains are to be found in both. A fifteen dollar item from Tiffany's may be exactly the thing needed to round out a collection of 150 ten-cent items from Woolworth's. If only fifteen dollars are available for a particular type of material, the circumstances must determine whether to go for quality or quantity. Magazines may be the source of some of the best material. The material gleaned from magazines and papers, being so easily available, should also be clipped and organized by individual teachers for classroom and school picture collections. Many

teachers maintain their own collections without outside stimulation. Others will need a little encouragement, especially at first. Low cost is no reason for leaving materials out of the central collection.

In the last analysis, the effectiveness of the collection depends upon its use. It can become as deadening to a vital art program as the old collections of casts which once cluttered studios and halls. On the other hand, it can become one of the most serviceable tools to the teachers of literature, the social sciences, music and drama as well as to teachers of art. It can be as effective and as valuable in carrying on the school program as the best library.

Evaluating the Art Program

The following statements suggest points which should be considered in evaluating an art program. They are not concerned with methods of analyzing the growth of pupils in art skills, knowledges and attitudes.

1. Does the teacher's approach tend to produce variety or standardized uniformity in the pupil's products, personalities, and tastes? Does the teacher's personality dominate the group? Are the pupils being made into replicas of the teacher?
2. Does the teacher encourage the pupil to be sensitive to *his* (pupil's) environment, see relationships *himself*, and express *his* understandings in a *personal* manner? Does the teacher disregard or respect the uniqueness of the self in each pupil?
3. Does the teacher help pupils build courage and confidence? Does she stimulate them to "put down what he sees in his own way?"
4. Does the teacher connect skills with creative work as an inevitable necessity, or are skills abstract and divorced from their use?
5. In setting up standards, does the teacher impose external ones such as competitive ratings of one pupil's work against another, copying, producing likenesses, following "recipes" and devices? Or do pupils help create inner standards due to rigorous self-discipline where one compares critically his achievement with this earlier one?

6. Is the teacher concerned with "people" or with things (art products, special styles and skills, the "accepted taste of the day")?
7. Are qualities of integrity, sensitivity, awareness, courage, brilliant or distinctive conception, creative power, imagination, fine colors, good technique (adequate technique), power to analyze, tolerance towards others' viewpoint, and independence of judgment being developed as indispensable characteristics of art expression?
8. Is attention being given to local art expressions found in school, home, community, Colorado, and the Rocky Mountain Region.
9. Does the teacher join in cooperative enterprises with other teachers so that the pupil may assimilate or integrate his experiences better? Is the teacher establishing a feeling of kinship with the social critic, architect, dancer, painter, sculptor, actor, musician, writer?
10. Do pupils engage in art activities voluntarily outside of school?

Evaluating Pupils in Art¹

It is still the tradition in most secondary schools to give pupils marks in all courses for which they are registered. This is rather unfortunate, especially in the field of art because mistakes in marking may nullify many elements in good teaching. It is difficult to mark in art because some of the outcomes are relatively intangible and many of the learnings reach maturity after the course in art has been completed. Also, art teachers feel that a letter grade cannot summarize adequately the diverse objectives found in art teaching. They feel that the qualitative report is a better index of pupil growth. The following list of desirable attitudes, knowledges, habits and skills may form the basis for such a report. Some art teachers at the beginning of the year ask pupils to write their strengths and weaknesses in art—honest and sincere expressions—and at the end of the

¹This section is taken from the following sources:

Sallie B. Tannahill, *Fine Arts for Public School Administrators*. New York: Bureau of Publications, Teachers College, Columbia University. 1932. pp. 18-19.
Committee on the Function of Art in General Education, Victor D'Amico, Chairman, *The Visual Arts in General Education*. New York: D. Appleton-Century Company. 1940. pp. 108-120.

Class lectures of Belle Boas, Teachers College, Columbia University.
Ray Faulkner, "Art in the General College: Statement of Objectives," *Department of Art Education Bulletin*. 1939. Chicago: Clara MacGowan, 1554 Howard Street. pp. 56-67.

year secure another. Another suggestion is to formulate a check list of qualities pertaining to a particular art activity.

Attitudes. Does the pupil:

1. Show an eagerness to participate in art that comes from individual enjoyment and satisfaction in art experience.
2. Show courage, confidence, and independence that results from self-revelation of powers of expression.
3. Demonstrate growth in art consciousness or awareness to art values seen in fine organizations of art elements.
4. Show sincerity and individuality which arise when an individual strives to say something of his own.
5. Show sympathy and tolerance towards the work of others.
6. Willingness to accept criticism.
7. Look at contemporary, experimental work with an open mind.
8. Re-evaluate historic art critically.
9. Withhold judgment until he possesses sufficient knowledge about the art product.
10. Recognize that a variety of solutions for each art problem may come into existence due to specific conditions.
11. Realize the scope of art and its wide applications to living.
12. Recognize the different types of satisfaction which an art object may give.
13. Recognize the value of the honest use of materials, tools, etc.

Knowledges. Does the pupil:

1. Know the meanings of ordinary art terms.
2. Know the creative method for solving art problems—analyzing the human need, contriving solutions, studying materials, evaluating results critically.
3. Know fundamental facts about art in several areas of life, as the home, community, commerce, industry, and religion.
4. Know the fundamental facts about design principles and art elements.

5. Know the possibilities and limitations of ordinary art materials.
6. Know the ordinary techniques and processes in the field of art.

Habits and Skills. Does the pupil :

1. Evaluate art products wisely.
2. Strive for unusual arrangements as against the commonplace.
3. Exercise imagination in creative work, giving a personal interpretation or new point of view about common things.
4. Select proper medium to express certain ideas.
5. Use proper terminology in discussing art.
6. Cooperate with the group.
7. Exercise care in using tools, and keeping art room in order.
8. Change behavior patterns because of art experience.

The Teacher's Function in the Art Workshop

Art classes should have access to a room which may be known as the art laboratory or workshop. The major functions of the teacher in the shop may be summarized as follows :

1. Assist the class in formulating "unifying themes" around which activities may be organized.
2. Suggest projects, activities, and procedures which the pupils might not discover readily without assistance.
3. Maintain morale and a cooperative attitude amongst the pupils.
4. Check students on their fulfillment of accepted obligations.
5. Assign tasks or projects to pupils in light of individual differences.

The art activities that do not require the teacher to talk more than ten per cent of the time should be encouraged.

6. Keep records of development which are not ordinarily handled by pupils themselves.
7. Provide examples of good art. They need not be produced by the teacher.

8. Manage equipment and materials so that there will be a minimum waste of time and materials.
9. Help pupils evaluate results, diagnose difficulties, and improve methods of work.

Some specialists in art education maintain that teachers should surround pupils with materials and then let them respond or create on their own initiative. They believe that teachers who offer suggestions frequently inhibit creativeness. According to Dewey¹ the proposal is stupid for it asks the impossible and overlooks the actual conditions of independent thinking. The theory literally applied would banish all materials, tools, and models. All outside influences cannot be excluded, and an outside influence may be less satisfactory than suggestions from teachers. "If the teacher, possessing knowledge and skills, really knows pupil needs and abilities, she may share in starting something that insures development of individual capacities . . . Originality and independence of thinking really appear in the intervening period rather than in the source of the initial suggestion."¹

Teachers who believe that skills must be developed before the pupils undertake significant projects should note the procedure in baseball. The coach does not have boys play "catch," or practice any other skill of baseball for four years before they are allowed to play the game. They play real baseball from the beginning although some skills are still at a relatively low state of perfection. They are a part of a going concern where skills are obviously necessary. If a deficiency appears, it is attacked for very apparent reasons. The boys are interested in the development of skills because their connection to an intrinsically worthwhile activity is realized. In like manner, art skills and knowledges, although exceedingly important, should be developed in relation to projects in which the ultimate objectives are realized.

Conducting Criticism in Art

Art products must be judged critically. Good points and weaknesses must be recognized. Knowledge of them enables the pupils to plan intelligently for improvements. Much evaluation and criticism must be individual, although group procedures may be valuable. The following statements present suggestions which may be observed to improve criticism in art.

¹Dewey, John, and Others, *Art and Education*.

General suggestions: Discover the pupil's trend of thought as a starting point. Rules of art should not be considered first before conducting criticism. When the child finishes, there are lingering some ideas in his mind which make the work dear to him. He is blind to defects, and sometimes resents reference to errors. Excessive analysis should be avoided especially in criticizing drawing prompted by feeling. Attention should be centered on a single issue, and three or four points should be emphasized over a period of time so that they will be mastered. It is much more important that the child has presented his theme in an interesting way than it is for him to draw perfectly. Some good points should be found in all drawings, possibly in the field of figures, feeling expressed, originality, space filling, color harmony, or emphasis.

Group criticism: Group criticisms conserve time, allow pupils to compare their work and give children practice in forming judgments in regard to each other's work as well as their own. Each individual may profit from each point brought out. Every pupil should be drawn into the discussion. The criticism should not be regarded as quizz, but rather as a method of exchanging opinions in a helpful manner. The pupil should offer criticism of his own work, stating his purposes and difficulties. Solutions may be offered by the class, the teacher reserving her suggestions until the last.

Teacher criticism of group work: If most of the class shows a weakness along a certain line, drawings representing both failure and success in regard to the point should be used in giving remedial instruction. A child's drawing should not always be found in the lowest group even though it is necessary to invent some reason for putting it into a good group. The psychology of the situation should always be considered more than the logical, especially in group criticism.

Teacher criticism of individual work: Pupil variation occurs in art work to a marked extent, and individual criticisms are necessary. Some students work rapidly and will not go back to improve their work. Criticism to this type of child must come early. He is not necessarily a good worker. The student who sees no reason why he should improve needs something to arouse new attitudes. Each period of criticism should help to develop a pupil's confidence. At the same time it should clearly reveal possibilities for further improvement. Previous success is an essential source of motivation for further effort and progress.

PART IV

TYPICAL ART ACTIVITIES AND WAYS TO EXPERIENCE ART

The sections which follow are quite different from the content of traditional courses of study because they present essential subject matter as well as suggestions in regard to pupil activities and teaching procedures. They are also different in form, making less use of the outline as a method of presenting content.

Since it was necessary to make the various sections relatively brief, they do not exhaust the information which is relevant to the various topics. Furthermore, it was impossible to organize the materials as teaching units or daily lesson plans. The sections are not intended as materials to be used without change, but as sources of information to be used by teachers.

The first section in Part III is very important because it is concerned with fundamentals of design. It includes a number of plates which illustrate different elements of design. The plates are accompanied by illustrations. They are intended for the teacher's use, but some pupils may profit by making direct reference to them and the related explanations.

Sections two to eight, inclusive, are concerned with related areas of subject matter and activities. The materials were presented in separate sections as a matter of convenience, but in many instances activities from different sections will be integrated in purposeful classroom experiences.

The ninth section is concerned with activities pertaining to pottery. Many of the suggestions in this section are relatively specific. Techniques receive a rather large amount of attention, but fundamental principles of design and opportunities to develop appreciations are not forgotten. Section ten on crafts should be emphasized because of its practical suggestions on creative activities with common materials.

Sections eleven to thirteen, inclusive, are concerned with art in Colorado. They are more concerned with information which teachers must have as a background of subject matter than with techniques of teaching or classroom activities. The committee is of the opinion that Colorado offers rich opportunities for art work and urges careful study of these sections and of similar materials not included in the bulletin. The section on Southwestern Indian art includes some excellent illustrations. Those illus

trations with the related explanations should be very valuable, not only to teachers, but also to pupils who are directed in their use.

The last three sections of Part III are relatively general. The section on American art was prepared to make reference to items which may be very valuable in developing art appreciation. The section on motion pictures may be used along with similar sections in other bulletins of the Colorado Course of Study for Secondary Schools. This section is probably more concerned with techniques than with aesthetic problems in relation to motion pictures, but the committee is mindful of the latter. The section on art expression in other times was included because the committee hopes that the pupils will learn to recognize not only the universality of art but its permanency through the ages.

The reader will soon recognize that the materials in Part III are not organized according to grade levels or classes. Furthermore, he will recognize that the order of the sections does not indicate the order of presentation or consideration in the classroom. Each school or teacher must select content and suggestions from the various sections according to the number of courses offered and the interests and needs of the pupils enrolled. It might be well to emphasize again that much of the content in the various sections which follow should be related or unified in teaching units.

Some of the sections in Part III are related to units which have been included in other bulletins of the Colorado Course of Study for Secondary Schools. Teachers in charge of art classes should refer to the other bulletins, and teachers in other fields will find the content of Part III especially valuable in relation to certain units in their classes. In many schools there are very few art classes, or none at all; and in those situations the teachers in other fields might greatly enrich the experiences of their pupils by making use of materials in the following sections.

DESIGN

Means order. Synchronizing a mass of unrelated detail so that an idea or feeling may be effectively projected into some observing mind. Harmonizing relationships of lines, spaces, volumes, textures, and colors to give form to the imaginative conception in an artist's mind.

—RALPH PEARSON, *Experiencing Pictures*.

Let every man who is here understand this well: design, which by another name is called drawing, and consists of it, is the fount and body

of painting and sculpture and architecture and every other kind of art, and the root of all sciences.

—MICHEL ANGELO, *Conversation with Francisco d'Allanda and Friends, Rome, 1538.*

Design may be defined as *order*. It takes elements and organizes them into harmonious relationships. It synchronizes a mass of what might be unrelated detail so that an idea or feeling may be effectively projected. Design is not an end in itself, but a means to an end. *Discrimination* between good and bad relationships may be intuitive or it may be developed by practice in analysis and in creative work. For example, a box of jackstraws are the elements to be used. If they are thrown out at random, the result lacks order and design. When they are organized, arranged design results, being either good or bad, depending upon whether or not the relationships between the elements are fine.

The Importance of Design

Perception of design and of color is essential to an understanding of visual arts and of the aesthetic elements in the world about us. Though everyone reacts naturally to these in some degree, training usually enhances perception and enjoyment because it enables the individual to add an intelligent reading of the language of a given art to the first intuitive reaction to it.

The language of the arts, which may be called *Design*, is not as many people believe, difficult to understand. There is nothing obscure or mystic about it, but, like any other language, it must be practiced to become usable. Its grammar may be superficially understood through definitions, but until the terms are applied to a specific work of art, the deeper meanings cannot be apprehended.

The *fundamentals* of the arts remain the same in all times and places. However, each civilization, because of its ideals and modes of living, gives to its art a flavor, a characteristic form usually referred to as *style*, which marks it as distinct from that of any other time or place. When we become sufficiently acquainted with them, we learn to distinguish between fifteenth century Italian art, fifth century Greek art, Roman art of the Augustan period, and other styles just as we learn to recognize individuals.

Elements of Visual Expression

The elements described herein exist in nature and in all visual art. They are to be sought and recognized in painting, architecture, the minor arts (no matter how small), plants, rock formations, earth and sky, and the universe itself. They may be found in combination with each other. Usually two or more elements appear together although sometimes all of them occur together. In nature they are unconsciously arranged and sometimes they are unrelated, but in art they are consciously arranged and should be harmoniously related. The elements of design are as follows:

Line. In pencil, paint, tubes, rods, mouldings, seams, edges, etc.

There are only two types of line, namely, straight and curved.

There are three main linear directions, namely, horizontal (repose), vertical (growth), diagonal (dynamic movement).

Area. Flat sections of material or paints with any type of outline; wall spaces, window spaces, fields, etc. (Two dimensional.)

Volume. Enclosure, forms, boxes, and all solids in nature. (Three dimensional.) There are four fundamental volumes in nature, of which all others are only combinations or variations, namely, cube, cone, cylinder and sphere.

Space. Enclosures created by volumes or space between volumes or in which volumes exist.

Value. The quantity of dark or light in or on an object; that is, its lightness or darkness.

Color. The hues of natural objects, materials, paints, etc.

Texture. The qualities through which we perceive most materials; that is, the surfaces of wool, silk, wood, cement, trees, etc.

Principles of Design

Above all, a work of art must have unity. All elements must be drawn together to give one dominant impression. This is achieved through the three design principles of harmony, rhythm, and balance, each of which is to be looked for and analyzed separately.

Balance. (Unity achieved through opposition of forces.) It is developed by counterbalancing either like or complementary qualities across a center of balance so that an equilibrium is achieved. Balance may be either symmetrical, both sides alike, or asymmetrical, unequal sides.

Rhythm. (Unity achieved through concerted action.) It is obtained by combining accented elements in such order that the eye moves progressively through these elements of the picture, building, etc.

Harmony. (Unity achieved through likeness or consistency.) It results from any repetition of line, area, color, or suitable combinations of various elements.

The above principles must also be related so that they achieve emphasis, variety, and proportion. *Emphasis* results from dominance of one color, volume, etc., over subordinate units. *Variety* is obtained by avoiding obviousness of structure and monotony.

It is felt that the above principles, in an abstract sense, are fundamentally those of the order, life, and movement in the universe. When coupled with philosophy and interpretation (either individual or universal), they give to a work of art its basic appeal, its universality, and its timelessness.

It is not necessarily implied that art must be analyzed in the manner here outlined in order to be enjoyed. However, to provide any basis for judgment, such an analysis must be understood. Two approaches to the enjoyment of art may be recognized. The intuitive approach senses by feeling, without specific analysis, and gives quality and expression to a work. The trained approach goes further. It includes a process of learning to read the particular art under consideration so that no element of its meaning is withheld. Training is required for intelligent analysis, and analysis is quite essential to the most complete enjoyment of art.

Problems in Design

The following problems are grouped because of natural relations and somewhat in order of increasing difficulty. Each problem is to be considered as a whole in itself. The objective in each attempt is to create within a rectangle a pleasing arrangement, taking into account the restrictions one places upon himself. The first group of problems involve only one or two elements, for example, vertical and horizontal lines, angular lines, etc. Other groups have more complexity and variety. An increase in the number of elements does not automatically make a better design; it simply adds new possibilities. It takes a fine designer to place properly a few elements.

Pupils are aided in learning about the properties of a single element by isolating it and exploiting its possibilities. Additional

properties are discovered or revealed as newer combinations are made, and newer elements added.

The following plates are self-explanatory to anyone with elementary art training. There are qualities to be looked for and worked for, not easily explained in words, or in the short space of this course of study. For adventure and real progress in understanding these art forms, one should practice organizing elements with the rectangle. If teachers do not understand some phases of this section, they probably need additional training in art. They should feel free to consult with members of the art departments in colleges and universities.

Practice in design should extend over a long period of time. Large sheets of paper, at least 9x12 inches, should be used. Manilla, newsprint, or light drawing paper and charcoal are good media. The entire class may make designs of a certain type and display them on the bulletin board for teacher and group criticism. Strong and weak points may be pointed out and applications may be made occasionally to good works of art until the pupils are ready to proceed to the next type of design. When rug designs are attempted, as well as most of the subsequent ones, large sheets of paper, 18x24 inches, or charcoal paper, is desirable.

"As one builds compositions with rectangles, perceiving new complexities among the pictorial elements, it should be noted that one does not gain most if he perceives the single segregated elements. He should observe the total effect."¹ The total effect, as Richards² points out, "is not a summation of all the single ones; it is an entity in itself. Whole influences on the nervous system cannot be explained in the light of present psychological knowledge. All we can say is 'that this total effect of a work of art is the most complex and the most sensitive thing of which we know.'"

It may be well to use pattern in the beginning stages, noting relations of value areas (two-dimensional design), and reserve to later work the organization of elements in space (three-dimensional design). Several good books outlining these two kinds of designs are available and teachers may use them to extend their knowledge of this basic approach to art.

The reader will note that explanations have been supplied with each of the following plates.

¹Ralph Pearson, *Experiencing Pictures*, New York: Brewer, Warren and Putnam, 1932. p. 54.

²I. A. Richards, *Principles of Literary Criticism*, New York: Harcourt, Brace and Co. 1926. p. 171.

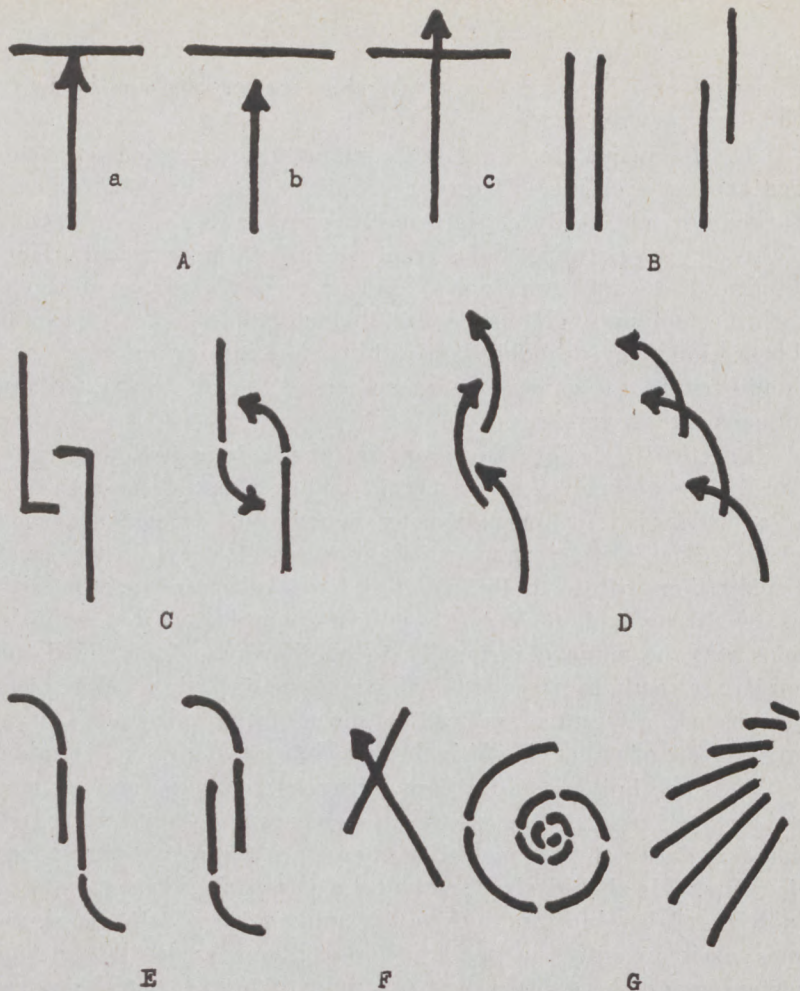
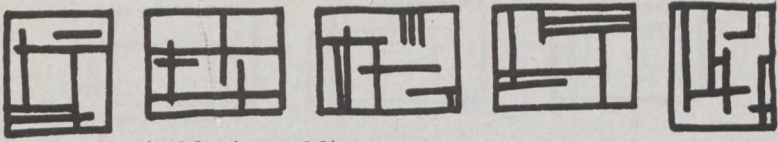


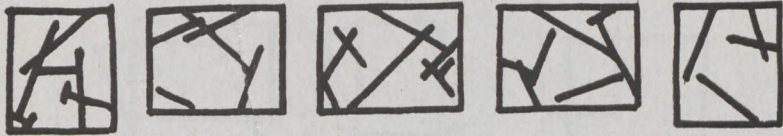
PLATE I. *Line Relationships*. (From C. J. Martin, "Some Design Problems in Mural Decoration," ART EDUCATION TO-DAY. New York: Bureau of Publications, Teachers College, Columbia University. 1939. p. 9.)

"The simple act of placing two lines in relationship to each other involves choice on the part of the designer, and constitutes the first stage of creative expression. Lines placed in different relationships with each other arouse different and varying emotional responses in the observer. . . . A. Opposition (three kinds): (a) arrested movement of forces, (b) uncompleted movement of forces, (c) penetration and continuation after impact. B. Parallelism. C. Interlocking forces. D. Continuation of one movement into another. E. Alternation. F. Intersection. G. Increasing and decreasing speed."¹

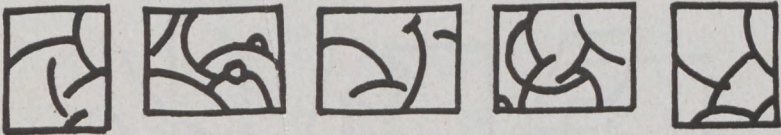
¹C. J. Martin. *Ibid.* p. 12.



A. Vertical-horizontal lines.



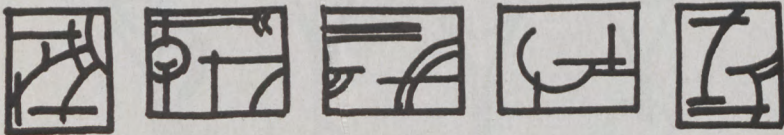
B. Angular lines.



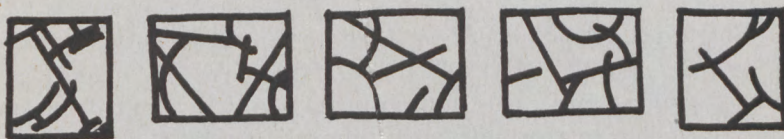
C. Circular lines.



D. Vertical-horizontal and angular lines.



E. Vertical-horizontal and circular lines.



F. Angular and circular lines.



G. All kinds of lines.

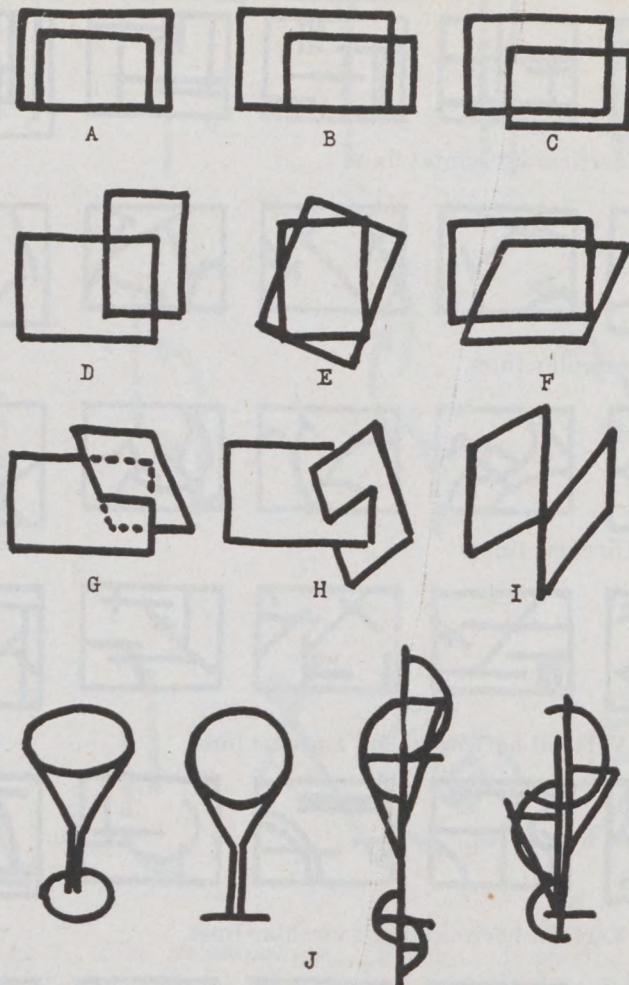
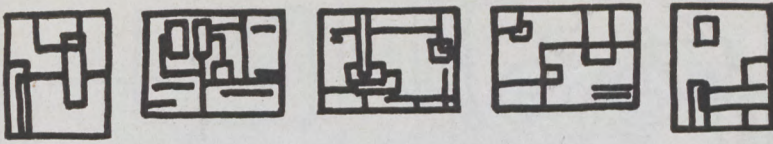
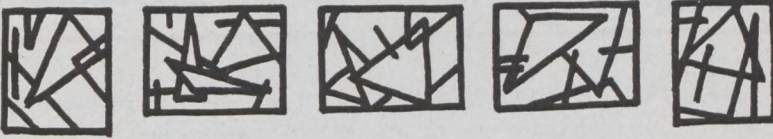


PLATE III. *Area and Plane Relationships*. (From C. J. Martin, in *ART EDUCATION TODAY*. 1939. p. 10.) Arrangement of planes (two cards superimposed) in a sequence from an uninteresting to increasingly more interesting relationships.

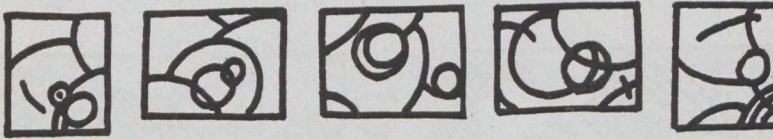
A. Areas parallel. B. Overlapping, slipped planes. C. Overlapping in two directions (slipped planes). D. Overlapping in two directions (slipped planes) axes at right angles. E. Overlapping with axes tilted. F. Intersection of oblique with vertical planes. G, and H. Intersection or penetration of two oblique planes. I. Tangent planes. J. Progression from the representation of an object as seen by the eye to the presentation of the total mental concept of the object.



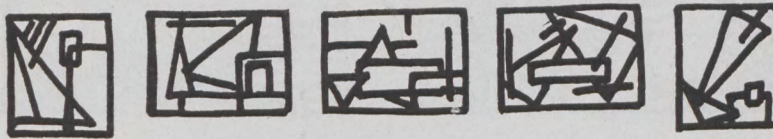
A. Rectangles.



B. Triangles.



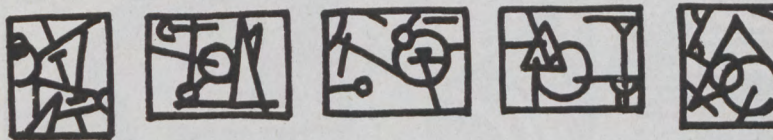
C. Circles.



D. Rectangles and Triangles.



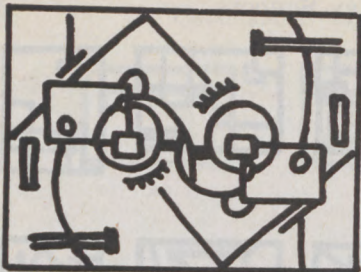
E. Rectangles and Circles.



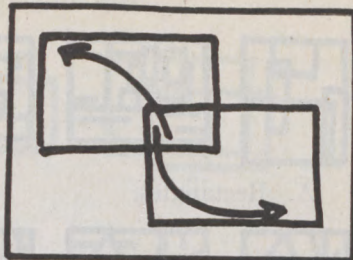
F. Circles and Triangles.



G. All Kinds of Areas.



A



B

Take the small 9x12 designs made in the study of line and area relationships, and trace one in upper left-hand corner as in "B"; then turn it around into position in lower right-hand corner, and trace. Counter-balance then may be utilized as a tool in design.



C



D

Using the procedures of "A" and "B", a design may be made involving areas and tones. Each form should be clear and distinct, yet related to the whole.



E



F

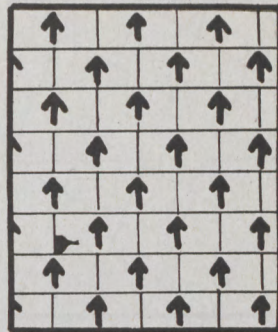
Two designs planned without counter-balance.

PLATE IV. *Rug Designs.*

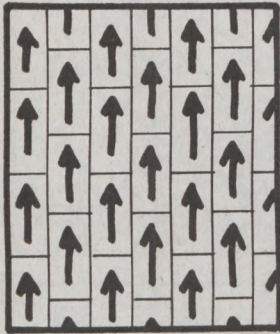
All of the designs on this page are direct outgrowths of earlier design experiences and should be done in a large manner with bold strokes and a feeling for pleasing shapes and arrangements. Charcoal paper 18x24, or newsprint, and soft charcoal are good. Experiment with colored chalks, and finally finish problem in tempera or oil.



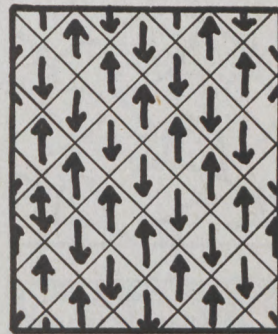
A. Checker-board.



B. Half-over.



C. Half-drop.

D. Half-over
and
half-drop.

E. Ogee.

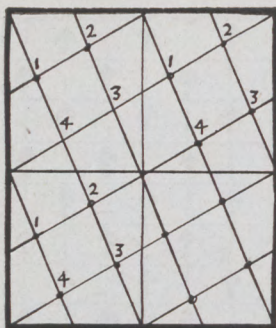


F. Scale.

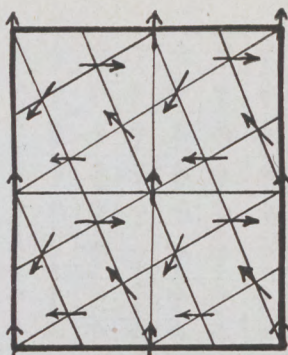
PLATE VI. *Types of All-Over Patterns.*

(Continued on next page.)

Note the uninteresting passages in the checkerboard repeat, while the half-drop offers rich possibilities.



A and B. Analyses of French Repeat. Locate positions 1, 2, 3, 4. Rotate motif on its axis to secure variations at right.



C and D. Analyses of Half-Drop Repeat. Layout structural lines (light ones). Cut across these lines with elemental forms.



E. Half-drop.

F. French Repeat.

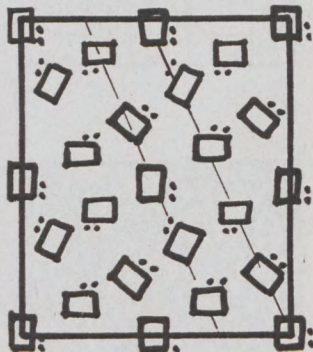


PLATE VII. *Types of All-Over Patterns.* (Continued.)

One should work all over the sheet as a whole—not complete a small unit as on a linoleum block and repeat it. Instead of the design being a collection of small, independent units it should be tied together; the original structural lines should be destroyed (they served only for spacing purposes); there should not be a dominant direction, but a balance of all forces. The abstract elemental forms may be changed in a few details to suggest natural forms. In the French Repeat the same motif may be used for the number “1” positions, another for the “2”, etc., so as to secure more variety.



A. Plan of Color Areas.



B. Simplified Linear Design.

PLATE VIII. *Geometric Design or Semi-Abstraction.* (Detail of Teachers College Mural. Made by Advanced Students under C. J. Martin. Reproduced in ART EDUCATION TODAY. 1939. p. 12.)

This plate analyzes the structural design of a section of a mural that has been developed according to the fundamentals of geometric design explained in the plates on lines and areas. The linear design should not be thought of as being superimposed on the color areas but as an integral part of the design unifying and explaining the whole.¹

¹C. J. Martin, "Some Design Problems in Mural Decoration," ART EDUCATION TODAY. 1939. New York: Bureau of Publications, Teachers College, Columbia University. p. 13.

PLATE IX. *Abstraction.*

R.S.M. PRICE

Abstraction based on conventional still life. All parts of drawing pulled toward three central objects by lines either slanting or diagonal toward center of interest. Movement is given to center of interest (three central objects) by white spaces moving circularly.

POSTER DESIGN

Pictorial expression was one of the earliest arts. Egypt carved her laws and notices in stone. The Babylonians, known to history as enterprising advertisers, employed the barker. Today the poster is an exponent of the machine age. It typifies outstanding characteristics of modern times. America has much to gain from it since we are in many respects a nation of picture-minded realists. Activities in poster design are therefore stimulating and a source of real enjoyment and growth in art.

General Suggestions Pertaining to Treatment, Execution, and Materials

1. The subject and purpose should dictate choice of treatment.
2. The maker of a poster should be thoroughly familiar with the subject before venturing with the design.
3. The designer should know whether it is to be a two or three-dimensional design.
4. Good examples of posters should be available. Travel posters may be obtained from travel companies. Foreign posters may be obtained by writing to the foreign consul in the state.
5. The pupil should experiment with a limited number of colors on paper, studying the feeling of design, the carrying power, and the relationship of value to color. A limited number of colors should be used.
6. A number of sketches in color should be made before making any definite decision.
7. There should be a definite aim. A poster must arrest attention, then deliver a swift message that is convincing.¹ It must arouse curiosity.
8. It is well to make a sketch in black and white in order to relate the color value and to obtain carrying power.
9. Good examples of posters and lettering should be collected and discussed so that the pupils may learn of treatment, carrying power, the psychological reaction of the public, and the fitness of the treatment to the subject matter.

¹Cooper, Austin, *Making a Poster*, Studio Publications, New York.

10. The size of a poster is largely determined by its placement. If it is to be shown in a shop window it must not be too large. Vertical posters can be placed to a better advantage, but horizontal designs should be a part of the study.
11. A slogan is sometimes necessary.
12. The idea should be enlarged upon by a number of rough sketches, in color, approximately 5 by 7 inches. The sketches should be made directly in color with showcard colors or crayons, or a medium suggestive of a poster. The use of color is essential. Many students develop at too early an age a line quality and not the spot relation to color. The use of color produces results which are far more spontaneous and delightful to the observer than any labored effect in line.
13. A good idea is the essential part of a poster.
14. In executing the finished design, many attractive colors in inexpensive showcard board may be used. Using such cards eliminates the time which is necessary to put on a background and helps plan a definite color scheme.
15. If a white board is to be used, the design may be drawn with a hard pencil. Light lines are sufficient. In putting on the colors the lightest colors should be thin and transparent, and they should be placed first on the board. When this is done, the light color may run over the pencil line and it may be entirely covered with the darker value later. When applying the darker values, especially if one of them is a background, a back and forth motion, known as scrubbing, should be used. An ample amount of color should be mixed.
16. Interesting effects can be obtained by using a rubber sponge cut into inch and half squares. Dip the sponge into the poster paint and apply to the allotted space. A mask must be cut to fit around the part to be painted.
17. Parts of the design that are not to be painted should be masked out with heavy paper and held down with rubber cement. An inexpensive flit gun and diluted showcard colors may be used. An old toothbrush can also be used for spattering.

18. Another interesting and ingenious technique in poster designing is known as construction. Bits of materials may be brought from home by the students, and applied with rubber cement or vegetable glue to the poster board. Materials of different textures, such as wool, rayon, cotton, cellophane, pipe stems, theatrical hair, yarn, sponges, and colored sand papers may be used.
19. If a flat three-fourths inch brush is used interesting effects result from the use of a dry brush. Again a mask should be used, and the color applied in long strokes, lifting the brush at the desired moment. This should be practiced before applying to the finished work.

Developing the Layout of a Poster

The layout is a general plan of the poster—where certain things will be placed and whether one part is dark or light or colored. A good simple design is highly desirable and sketches of students often will need to be simplified greatly. Exaggeration of scale is useful in bringing about a simple, forceful design. For instance, in making travel posters, pupils often put in one poster the several modes of travel (auto, train, airplane, ship) when a characteristic element of one can be selected and enlarged, as the propeller of the plane, the wheel of the train, or the funnel of the ship.

Designing the Lettering in Posters

Letters well designed and executed on a background may be as important as any visual picture poster. Letters must first be legible and true to type. Only the simplest forms should be used. Spacing should be practiced with a half-inch lettering brush. All spacing must be judged by the eye. As many as three styles of lettering may be placed and grouped on a poster, or the lettering may be of different values, the most important being extreme contrast to the background. Accurate drawing of the letters does not insure a good design. Lettering is a fine art and the imagination needs to be stimulated in order to produce work that is vital and interesting. In too many cases the student has become weary over a very painstaking performance. Lettering should involve a study of line, proportion, tone rhythm and color. The pupils should copy good examples of modern and ancient lettering, noting the space arrangement of the letters as well as the

background spacing. They should also study manuscripts and printing to note the beautiful freedom of line and naturally developed skill. These, as well as design and color, are necessary to good art.

A reasonable amount of time should be spent on the mechanical drawing of a letter. A problem can be presented with far more interest to the pupil if he can see one letter placed alongside of another and developed into a pleasing background arrangement. Simple and standard letters should be used.

After learning to use the lettering brush skillfully, the pupil should try a speed ball pen. The pen naturally gives a smaller scale to the lettering than the brush. Each particular method has its own appropriate use. Lettering in monograms, trademarks, cartographs, menus, posters for plays, games and festivals, humorous posters, street signs, country road signs, end pages, title pages and bookplates.

Making Color Function in the Poster

A poster must be visible for some distance. The carrying power is determined largely by the color and its relation to black. Bright colors such as red and green, placed alongside one another, do not carry far because their value or hue is about the same. The colors in a poster should be limited to four, and two or three of these colors should be greyed. The others should be brilliant. The color is selected after a decision in regard to the background has been made. If a dark color, such as black, blue, maroon, brown, or green is to be used for background, the lettering that is to be outstanding should be light in tone. The illustration may be a value of a middle hue. A knowledge of color theory is valuable to the maker of posters. Posters carry the same fine examples of good design, color, and line as any good picture.

Examples and Layouts of Posters and Lettering

Examples showing the style and technique of posters are presented on the following pages. They were originally produced by leading artists of Europe and the United States. The posters are simple in design and they carry a simple and direct statement that the eye may catch at a glance.



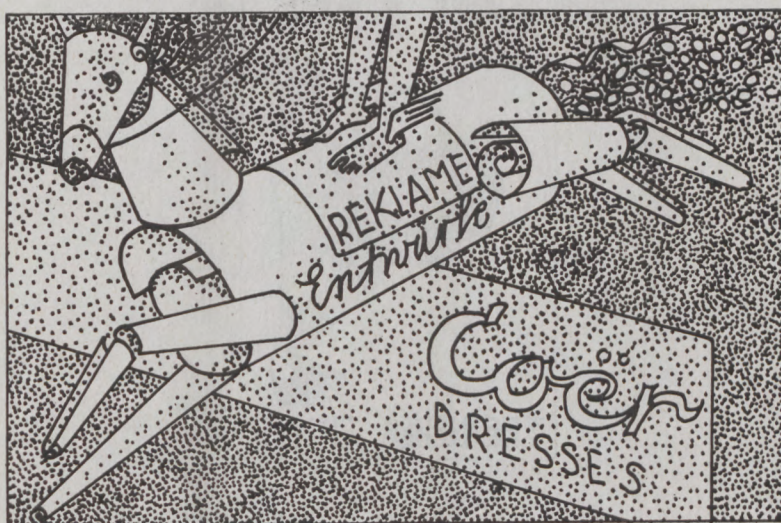
COULON

1



COULON

2



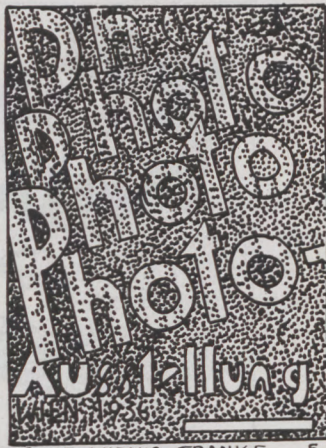
UNKNOWN

3



JOSEPH BINDER

4



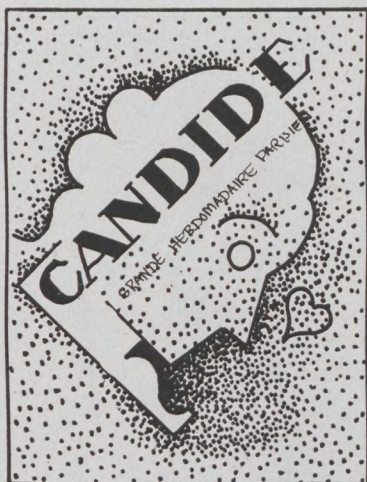
ERNST LUDWIG FRANKE

5



GUSTAF AXEL BERGMANN

6



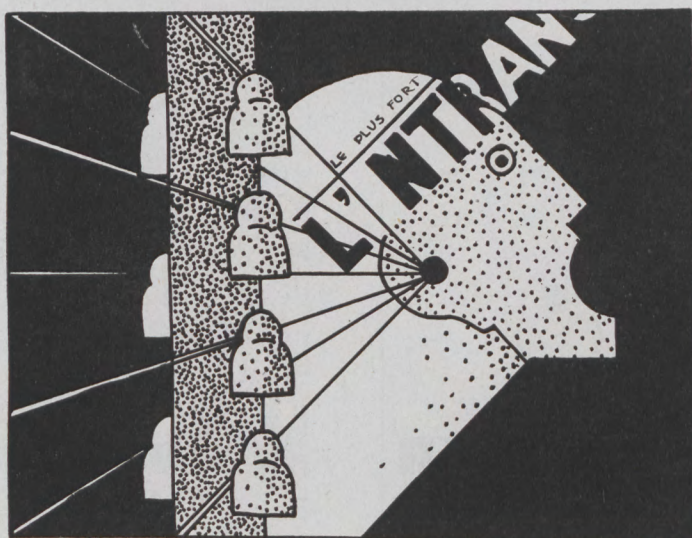
A.M. CASSANDRE

15



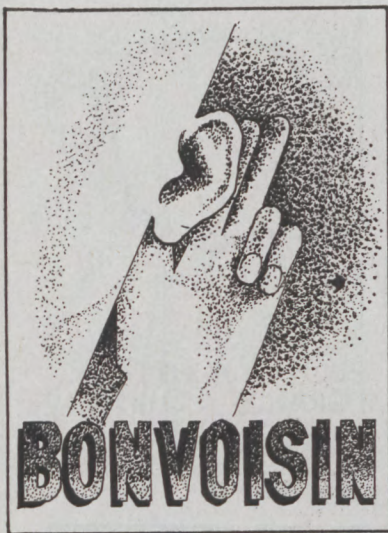
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16

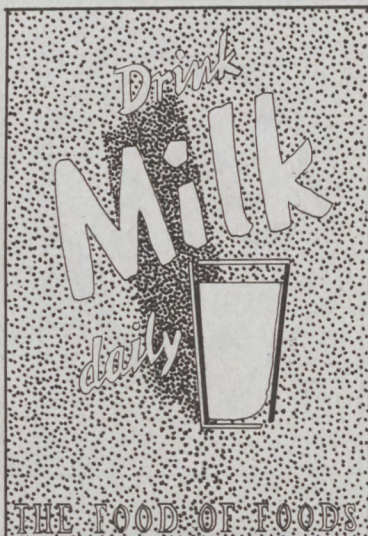


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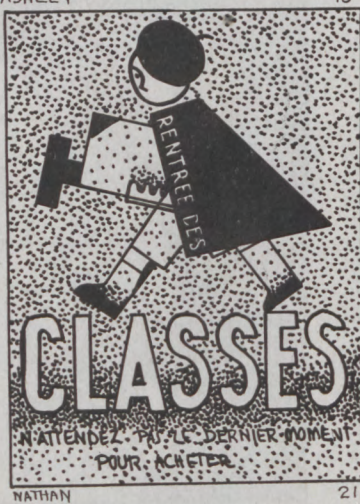
ASHLEY

19



LOUPOT

20



NATHAN

21

HOUSE DESIGN AND GARDENS

"The appearance of the home is the most critical art problem that a family has to solve,"¹ because "taste is molded by the things which surround one."² The satisfaction which a family derives from a home is determined in part by the appearance, and the effort put forth to maintain it is often conditioned by the initial and potential beauty of the house. Unfortunately, many people do not understand the factors that determine appearance, and they assume that size and evidences of costliness are synonymous with beauty. They forget that a small, relatively inexpensive house on a small site may be more attractive than a large expensive structure. Similar mistakes are made in evaluating interior furnishings.

The art work in house design and gardens should help pupils discard false standards and develop understandings which are sound as well as sensible. The following questions typify the problems of home makers. How can I plan a house which is both attractive and adapted to the needs of the family? How can I build and furnish a house in good taste with my limited funds? What landscaping is desirable on this site and with this house? Such questions provide a challenge to teachers of art. As they are considered it must be remembered that most people have limited funds and that many of them must buy or rent old homes. The problem of improving an old home is a very important one. The work in art should not cause pupils to develop false hopes which are impractical and sources of disappointment.

Each house or garden constitutes a unique art problem, and pupils must learn that attractiveness is not attained by applying a set of rules mechanically. However, certain fundamental principles exist, and these should be developed so thoroughly that they may be applied or recognized in vastly different situations.

Whenever possible the teachers of art and home economics should plan together and correlate units of work.

Activities Relating to House Design

The following list of activities is not complete. It is intended to suggest the types of problems and activities which should be included in the art curriculum. Additional problems and related

¹Rutt, Anna H., *Home Furnishing*, p. 1, John Willy and Sons, Inc.

²Jackway, Bernard, *Principles of Interior Decoration*, p. 8.

activities may be developed by considering the art needs of people in furnishing and planning homes.

1. Find a picture which suggests a house which you would like. Why do you like it? Are the reasons for your choice good and acceptable?
2. Find a picture of an old house and decide how the surroundings might be landscaped to improve the attractiveness. Decide on changes which might be made in the appearance of the house. The suggested solutions should be made on the assumption that only a small expenditure for improvements is justified. If possible, it would be better to use a nearby house instead of a picture.
3. Consider how the attractiveness of the interior of an old house might be improved with small outlay of money.
4. Plan a garden or a yard for your own home; draw the situation as it is and as you want it to be.
5. Make a survey of a given vicinity to become aware of beauty spots and to become conscious of color lines and other factors that form beauty spots.
6. Study types of plants, shrubs, and trees in nursery catalogues to determine their dark, light, and color effect. Consider them in relation to types of houses in particular settings.
7. Sketch attractive groupings of plants.
8. Sketch groupings of perennials, painted to show color harmonies.
9. Search magazines or books to find garden and landscape plans. Make a scrap book of plans and plants.
10. Design a plan for your own situation. Consider possibilities of rock garden, pool, outdoor living room, perennial, border, flowering shrubs, evergreens and herb gardens.

DRESS DESIGN

The success of individuals in being socially acceptable depends to a great extent upon the degree to which their costumes accent attractive personal features and minimize less desirable ones. This means that people must know their own characteristics, and that each individual must experiment with colors, lines, textures, and accessories to discover harmony and fitness. The idea of analyzing one's self, and of choosing or creating appropriate costumes does not fit the common notion demanding almost absolute conformity to prevailing styles. If red is "the" color for a certain season, or if a cone-shaped hat is a popular innovation, it does not follow that red or the particular hat form fit every wearer. The opportunity to express our standards of beauty as well as of fitness and comfort is within the reach of people who are willing to study problems in the area of dress design.

Challenging Questions

Questions such as the following arise inevitably in the minds of adolescent boys and girls. The secondary school should provide for their consideration under the direction of teachers who are qualified to give information and practical suggestions.

1. How may I establish individual criteria for better dress selection?
 - a. How may I keep my skin from looking yellow?
 - b. What shall I do with a moon face? A pointed or square one?
 - c. Is a V-shaped collar or neckline suitable for me?
 - d. Is a silk tie the best texture for my suit?
 - e. What collars are the most appropriate for me?
 - f. What are the appropriate color combinations?
2. Is it possible to build a vital understanding of art and an awareness of art by exercising better choices in costume?
3. Can creative thinking and adventure be used in adapting to needs those things close at hand?
4. In the field of dress may one search for new materials and for new ways of using old ones?
5. Do costumes of the past influence our dress today?

6. Can one approach or illustrate the inter-relationships of social, economic, aesthetic, and technological life of the community by becoming familiar with some textile industry in the state or community?

Problems and Activities in the Study of Dress

"How may the study of art as applied to dress help me to improve my appearance?" is a fundamental question in an art class which is concerned with dress design. In considering this problem pupils should use principles and procedures which are presented below. The brevity of the outline may imply that the study of dress may be completed quickly, but an attempt to use all the suggestions will prove that several days or even weeks may be used profitably. In listing the suggestions, the writers assumed that the readers of this section would be familiar with the ideas, relationships, or principles which are expressed by words which have definite meanings to the expert in dress design.

- I. Factors to be considered first in improving appearance.
 - A. The elements that are used to produce pleasing or grotesque effects in dress for either boys or girls.
 1. Colors or hues.
 - a. Values.
 - b. Intensities.
 - c. Combinations.
 2. Absence of colors. Dark and light neutral values.
 3. Lines.
 - a. Vigorous or weak.
 - b. Graceful or awkward.
 - c. Meaningful or meaningless.
 4. Textures of fabrics.
 - a. Brittle—repellent.
 - b. Coarse or harsh.
 - c. Soft—clinging.
 - d. Flattering.
 - B. Principles that apply to these elements.
 1. Opposition.
 2. Transition.
 3. Repetition.
 4. Dominance or subordination.
 5. Symmetry.
 6. Emphasis

C. Study of the individual.

1. Tall and slender.
2. Tall and stout.
3. Short and slender.
4. Short and stout.
5. Medium.
6. Dainty and petit.
7. Awkward and ungainly or graceful.
8. Straight or stooped.
9. Blonde or brunette.
10. Fair or dark skinned.
11. Florid or pale.

II. Experimentation with and evaluation of colors, lines, texture, and accessories to see what they will do to us and for us.

A. Colors.

1. With the light in one's face, hold each tint, shade and full intensity of a color under the chin and above the forehead, and note in a mirror what the impression or effect is. Does it compliment the hair, the eyes, the complexion or the reverse. Select several of the most flattering colors and ask the opinion of friends or the teacher. Keep records of color, texture, and value. If you prefer some color that seems unbecoming, try it in combination with other colors or with white or egg-shell or oyster white next the face. Study the color systems found in your library and see what colors do toward modifying each other.
2. Our ideas have affected color to such a great extent that we need to know whether they convey a sense of gladness or the reverse. Certain colors are suited to certain uses. Other colors convey impressions of warmth or coolness, etc. Have on hand colors of suits and ties to try on boys.

B. Lines.

1. Determine by experiment the effect of varying kinds and combinations of lines on the face and figure of the individual.

2. Examples:

- a. The collar that forms a square, a round, a V, or a boat neck.
- b. A straight skirt, a circular skirt, a ruffled skirt for girls. These may be borrowed from the students or made of inexpensive fabrics.
- c. Coats of different lines and hats of prevailing lines may be tried on both boys and girls.

C. Fabrics.

- 1. Fibers in use.
- 2. Texture and its effects.
 - a. Soft and flowing.
 - b. Stiff and flouncing.
 - c. Coarse and bunglesome.
 - d. Crisp, shiny, and formal.
 - e. Sleazy and shoddy.

Note: Each should be shown in folds or plaits for girls.

Each should be shown in fabrics for boys.

3. Designs.

- a. By weaves.
- b. By printing.
- c. By sizes, tension, twist and color of yarns.
- d. Moireeing.
- e. Brocades and block prints.

Note: Show each with appropriate patterns and uses for girls.

Show suitable fabrics and pictures for boys.

D. Accessories.

While hats and shoes, as well as hose, are all parts of dress they are often classed with other accessories such as scarfs, furs, gloves, veils, handkerchiefs, bags, jewelry. All types should be shown and related to correct types of dress for girls. Proper types of gloves, handkerchiefs, and scarfs for boys should be considered.

III. The meaning of proper grooming.

- A. Care of body, hair, hands, feet, complexion, teeth, etc.
- B. Care of clothes in storing, cleaning, pressing, mending.
- C. Putting one's clothes on with care.
- D. Wearing clothes with conviction after proper grooming.
- E. Avoidance of extremes in hair dress, fads.

IV. Appropriate clothes.

- A. For street, for school, for church, for afternoon and for parties.
- B. Illustrate by examples among class and by pictures.

Other Activities

The following statements suggest activities which may prove valuable in the study of dress.

1. Manipulate dress materials and fabrics freely to "feel" beauty and expressiveness of materials. Study what colors, lines, and textures do for individuals who wear them. With the light in one's face, hold each tint, shade and full intensity of a color under the chin and above the forehead, noting in the mirror what the impression or effect is. Does the color complement the hair, eyes, and complexion, or does it contrast too strongly. If you prefer some color that appears unbecoming, try it in combination with other colors, or with white or egg-shell or oyster white next to the face.
2. Plan a personality scale using members of the group and considering individual traits as build, coloring, walk, voice, expression, laugh, and manner. Experiment with pieces of material so as to discover those colors, textures, and lines that seem to express these traits on different individuals.
3. Create designs for costumes and accessories, using fabrics, paint, paper, crayon, chalk, cork, and other materials.
4. Design costumes for plays, marionette shows, and festivals.
5. Design woven fabrics for articles to be set up on a loom. Weave the fabric on a loom.
6. Assemble an exhibit of material on textiles and finished costumes.
7. Make trips to shops, museums, and laboratories having to do with textiles.
8. Invite experts to talk to the class.

STAGE DESIGN

Stage design as a fine art is a recent development, not older than twenty-five years, but today the theater possess great power to educate the public to an appreciation of beauty, for we find in the theater a unity of light, sound, movement, and color, making an entirely new world of theater art, which we need to understand to fully enjoy.¹

There is no better laboratory for the study of the art of the theater than the school plays and simple auditorium programs which form a part of every school plan. They constitute a complete life situation—every part of which is definitely within the control of the students, if they are properly directed.²

When we go to the theater or the movies and the curtain rises or the film flashes on, we are looking at a product in which the art of the stage designer has played an important part, for the play is revealed to the audience not only through its action but also through its decoration.³

The art teacher who is fortunate enough to be in charge of dramatics will find himself working with an enthusiastic group of pupils who have many ideas and plans. However, they need guidance and encouragement. Few of the pupils will become professional stage designers or even actors, but much can be done to help them all gain a feeling of freedom, self-confidence, and genuine enjoyment. At the same time they may be encouraged to grow in awareness of and sensitiveness to the fundamental values of art. Much can be learned about interior decoration, costume design and practical applications of electricity and color. Since stage settings are three-dimensional compositions, they offer an excellent chance to experiment with all design and color principles. Perspective and drawing to scale are needed to construct floor plans and elevation of scenes. Scenery construction demands a knowledge of woodworking. Settings and costumes cannot be made without a knowledge of the history, the modes, and the manners of the time. In fact there is no limit to the number of opportunities for art experience in solving stage problems.

Procedures For Making Stage Design a Valuable Art Experience

No two directors or art teachers will approach the problem of setting a play in exactly the same manner, but the following outline of method has proven to be helpful in many instances.

¹Whitford, William G., "Introduction" to Victor D'Amico *Theater Art*. Peoria, Ill.: The Manual Arts Press. 1931. p. 7.
of Study in Art. p. 71.

²Board of Education, City of New York. *Art Appreciation: High School Course*.

³Collins, M. R., and Riley, C. C., *Art Appreciation*. N. Y., Harcourt, Brace & Co. 1933. p. 70.

1. Read the play to determine its
 - a. Period—historic, modern, or fantastic.
 - b. Mood—comic, tragic, subtle, obvious.
2. Decide style in which play is to be given
 - a. Realistically, stylistically, expressionistically.
 - b. Authentically, if historic.
 - c. Interpretatively, if historic.
3. Consider such physical limitations as
 - a. Size of stage.
 - b. Size of auditorium.
 - c. Scenery available.
 - d. Lighting equipment available.
4. Begin to visualize setting for scene or scenes.
 - a. Keep style of staging constant throughout play.
 - b. Consider possibility of a skeleton set or a unit set if several scenes are included in the play.
 - c. Begin to visualize scenes in terms of dark and light masses or areas.
 - d. Begin to visualize scenes in terms of psychological color (color symbolism).
5. Begin to visualize characters
 - a. As to type and interpretation of the part.
 - b. As to costume suitable to the character and the play.
6. Plan definite settings
 - a. Draw floor plans to scale.
 - b. Draw elevations to sets.
 - c. Augment diagrams with written description of details, colors, textures, etc.
 - d. Make list of properties demanded by the play.
7. Plan or plot the stage patterns of the actors as they move about the stage. Do this in collaboration with the director if you as art teacher are only creating the visual effects.
8. Determine light plot of entire production (in collaboration with director).
 - a. To foresee how changes in amount of light and hue of light will affect settings and costumes.
 - b. To determine the mood which the light will produce to augment the idea of each scene or part of scene.
 - c. Make a "Q" sheet for use by person in charge of lights.

- d. Hold "light rehearsal" (prior to dress rehearsal) to test lighting plot, effects produced, and effects of lighting on costumes.
9. At dress rehearsal
 - a. Make notes on necessary changes in details of color, scale, and position of setting in light of costumes.
 - b. In making pictures note grouping in light of design principles. These are especially noticeable in pictures.
 - c. Press costumes before rehearsal and pictures are taken. Hang them up properly to avoid additional pressing.
10. Attend the performance and enjoy the stage picture you have helped to create.

Understandings Which Grow Out of Experience in Stage Design

While stage design and its allied arts furnish practical application of many of the fundamental principles of design only the specific applications of these principles and elements will be described here. Design principles, as outlined elsewhere in the course of study, pertain to everything which goes to make up a play-color, a setting, the costuming, and the lighting. The following suggestions have been found practical in producing all types of plays in school theaters.

A. Color for the Stage.

1. The use of color for the stage does not vary fundamentally from any other use of color except as it is affected by colored light from gelatine slides.
2. Texture of the material determines how it will react to color as much as color itself. Rough textures absorb much color instead of reflecting it, and even materials of similar appearance may 'take' color quite differently. Hence the value of a "light rehearsal."
3. Since plays are built about "leading characters" and the supporting cast, it is wise in costuming any play to make the leading characters contrast against the rest of the players. This may be done by any of the following methods:
 - a. Costuming the principal actors in strong colors.

- b. The supporting cast in neutrals with touch of the strong color for harmonizing accents.
 - c. Costuming principal actors in patterned material, others in plain colors.
 - d. Costuming principal actors in large "scale" or patterned material, and others in small patterns or plain colors.
 - e. Costuming principal actors in white or black and others in colors.
4. In general all colors may be used together successfully if the following suggestions are used:
- a. Similarity of value produces harmony.
 - b. Similarity of hue produces harmony, but may be monotonous.
 - c. All hues may be used if combined with sufficient black and white accents in each costume.
 - d. Neutral colors will harmonize because of their common quality of neutrality.
 - e. "Keying" all colors to some one color used in the group may make colors go together well.
 - f. Harmonizing by texture—all rough or all shiny.
 - g. Harmonizing by using accents of gold or silver.

B. Stage Lighting.

In many stages the lighting equipment consists of three "borders" containing four circuits of lights, including white, amber, red, and blue. When all lights are used together the result is called "floodlight." The following has been found true:

- 1. Red and blue lights used alone are dark, and although often beautiful for a momentary effect are unsuited in amount of luminosity to an entire production.
- 2. Amber kills most colors to some extent. Therefore, make color of costumes that are to be used under amber light stronger and more intense than you really want to appear from the audience. This is especially true of yellows, blues, and violets.
- 3. Greater beauty and "depth" of effect are obtained by using the red, amber, and blue circuits together without the white lights. Floodlight seems to flatten the stage picture.

4. Two different colored gelatines, one used in bunch lights on each side of the stage, give interesting colored shadows and model figures and folds of garments effectively.
5. If amber light is needed and many colored costumes are to be used, the gelatine color called "straw" (a light soil yellow) kills the least color in costume of all the yellows.
6. An even better gelatine color for all uses—one that is pleasing to make-up and complexion, and one that does not kill any color—is "surprise pink" or DuBarry and does not even take the green quality from green.
7. Green light is good for moonlight but is trying for faces and in general kills colors.
8. A variation of lighting throughout a scene lends pleasing variety and if well done will be accepted by the audience without their having realized that any change has been made.
9. Since settings are for the most part more neutral in character than costumes, the foregoing suggestions apply especially to costumes, for the setting to a large extent takes care of itself as background color that can "take" any light.

C. Stage Settings.

The simplest settings are always the best. The following types of settings are applicable to many kinds of plays and stages, especially small stages in schools where there is no equipped theater.

1. Cyclorama (several sections of curtains which hang to the floor) permit entrance from several places. The curtain may be made of satin, heavy outing-flannel (dyed), monks cloth velour, or similar heavy and rough textured materials which are opaque.
2. Screens (upright panels of various sizes and heights, covered with canvas or wallboard and painted a slight neutral grey or cool tan) are useful for all sorts of plays and may be varied by their arrangement on the stage.
3. Flats, archways, window and door flats, painted a neutral light grey, may be set up to form interiors, or exteriors, they may be used also in combination with sections of cyclorams as integral parts of the setting.

4. Several low platforms and two or three sets of three steps in various combinations can afford great variety of setting and give different "levels" which are always desirable features in planning a stage composition.
5. From time to time small or special units may have to be made for a special play. Wallboard is easily sawed to any shape, and can be braced with light lumber. It can be painted any color and can be used again and again by remaking and repainting the units.
6. Furniture and "properties" are frequently borrowed from stores or individuals in the community. Draperies may also be borrowed.
7. "The playwright has made an impression upon us by the story he has set forth through thought and action, his medium being people and words. We must seek to make the same impression through form, color, and light. These we assemble into a structure called a setting, scene, or background . . . The problem at the outset is one of composition . . . he must bring out the things that he wants to stress."¹

D. Costumes.

1. Materials most adaptable for stage costumes are:
 cheesecloth—takes light well
 tarlatan—any color may be obtained by using a layer of one color over a layer of another.
 unbleached muslin
 cambric
 satin
 rayon
 outing flannel—dyes well and if dyed brown or grey looks like cloth and like fur
 crepe paper—do not use where the rattle of paper will distract
 oilcloth—sew by hand, so that seams may not "cut" actor.
 rubber sheeting.
 buckram—for headdresses.
 crinoline—for ruffs.
 cardboard—for headdress, wings, and accessories.

¹D'Amico, *Theater Art*. pp. 47-65.

silver and gold paper—for trimmings, pasted or sewed to costumes

2. Any color may be obtained by dyeing and often streaky dyeing gives greater "depth" of effect than evenly dyed cloth. Cotton materials dye less colorfully than silk ones.
3. It is difficult to find patterned goods in cheap materials that may be used for "period" costumes. It is better to buy plain material and paint or stencil it with a typical design of the period desired. Painting material stiffens when such paints as gold, silver, aluminum, showcard, or kalsomine are used. Material painted with dye will not stiffen.
4. Costumes must be made well enough to survive the performance and stand several strenuous rehearsals. It is well to have the costumes worn often enough in rehearsals that the actors feel at ease in them and get over self-consciousness. Effect is more important than fine sewing, and often crude effects "carry" better than detailed ornamentation.
5. Everything must be exaggerated slightly so as to "carry" to the audience. Therefore larger buttons, ribbons, coarser patterned lace, or trimming, and even larger stitches are permissible. Even safety pins will not show from the audience if the stage is a large one and if the auditorium is large.
6. The scale of design for both scenery and costume is governed by the size of the stage and the auditorium. A small intimate stage where the audience sits close to the players demands better workmanship and smaller patterns in the costumes. A large stage in a large auditorium will call for simpler costumes of plain colors—one color to an individual. On a large stage, non-fraying materials need not even be hemmed.
7. If the designer of costumes and settings has a knowledge of architecture, furniture, and costume of the country or period, then he may *interpret* and make the materials he uses express the mood of the play and the characteristics of the specific actors. Nothing is more deadly than an authentically correct play with no interpretation or

- imagination in the color, costumes, or scenery. Interpretation may be even incorrect (not authentic) and yet interesting and suit better the mood of the play.
8. To interpret the mood or theme of a play.
 - a. Know authenticity first.
 - b. Exaggerate salient points.
 - c. Choose colors suitable for the temperament and character of the actor in his part.
 - d. Choose actor who in size is convincing for the part.
 - e. Use a sense of humor.
 - f. Use imagination and daring.
 - g. Silhouette is important—it reflects date of costume.
 9. All clothes fall under three categories; namely, modern, historic, and fantastic. Modern clothes demand as much interpretation as period ones for they must be right for the person and his part; they must not be too new or too richly trimmed.
 10. "A costume may stand out from its setting in value by being lighter or darker; in form by being a little more intricate than its setting; and in color and pattern by being richer in both."¹
 11. While the setting of a play may be definite and static, the costumes are moving bits of color and "form one of the most important factors in determining the physical size and arrangement and color of stage scenery."² The grouping of costumes on a stage may help to balance the picture and to form a flow of color and rhythm in the set.

Activities and Projects in Stage Design

The types of projects planned for school participation in stage work are naturally varied and depend largely upon the size of the school. It is vastly desirable to let the activity be a co-operative enterprise involving many teachers and pupils, rather than for it to be confined to a class in stage design where projects are carried out only on paper or in model stage construction.

The following list of ideas for pupil activity in stage design is taken from the New York City art course of study and is suggestive of many other problems that all inventive teachers can devise.

¹Victor D'Amico, *op. cit.*

²Helvensten.

1. Discussion Topics

The part played by art in current stage productions
The stage as a design problem
The necessity for a stage setting
Distinct styles of stage setting
Psychology of color as applied to stage setting
Theatrical costumes—their design, color, and texture
Modern expression in the theater
The puppet or marionette stage
Historic development of the theater
Steps in the development of the school play
The pantomime as an art production
The architecture of the modern movie theater
The development of composition and art qualities in the modern motion picture

2. Typical Creative Problems

Make a stage design emphasizing good spacing
Design in line, value, or color, a simple back drop that expresses a definite emotion
Plan a back drop in a suitable color scheme for a play studied in the English department
Design backdrops to suit assigned themes, which may be correlated with history
Design costumes for plays studied in the modern or classical language department
Design and construct masks for different characters
Make puppets for a small theater
Select different themes for school plays; sketch properties and costumes appropriate for each play
Design an entrance to a modern movie theater

3. Voluntary research and supplementary problems

Collect clippings of modern stage settings illustrating simplicity and good proportion
Plan different color schemes for the same play
Obtain illustrations that may be adapted to different types of stage settings
Note changes in high lights and cast shadows produced by a spotlight
Write a review of a movie or play in which the properties, costumes and setting have been properly chosen
Write a review of the best movie production from the standpoint of composition

Differentiation of Work for Junior and Senior High Schools

The quality and scope of the staging rather than the method is what varies in stage work in the two levels of the secondary school. At both levels the work is free and creative, and while formality may be appropriate in other art activities, a minimum of formality is found in stage activities.

Projects in stage design have a place in the school program primarily because of their educational value. They may have specific vocational values or they may help to discover talent, but these outcomes are of secondary importance.

A Teacher's Summary of Procedures in a Stage Project

At the first rehearsal the members of the cast develop a general idea of the probable appearance of the stage. Then the director has a conference with the pupil who serves as stage manager and the electrician, also a student, to make definite plans and to decide on the materials which will be needed. School conditions make it necessary to postpone construction of the stage until the week before the play, but all materials are assembled before construction begins. The school possesses a unit set of flats which is used for the framework of the stage. They are fourteen feet tall and vary in width with appropriate doors and windows.

A committee of pupils is appointed to gather and care for properties. The committee, under the leadership of the director, develops a color scheme and selects furniture accordingly. The committee locates, gathers, and cares for the furniture. It also copes with the drapery problem. It informs the stage manager of the color scheme, and he obtains the necessary kalsomine or wall paper. At present the latter is used to cover the set since it is more effective and less expensive than the kalsomine.

The stage is constructed by the stage manager and such helpers as he may select, but minor elements of color and arrangement are considered by all pupils interested in the production. The electrician develops the lighting arrangements which are determined in terms of the individuals, the story, and the stage.

The members of the cast are responsible for the construction and care of their costumes. Exceptions to this practice occur only when it is absolutely necessary to import articles. We know that we can call on the home economics teacher or art teacher

whenever their pupils cannot cope with the problems. In so far as possible the pupils participate in all the planning and then assume responsibility for the work since all teachers, including the director, have a full teaching schedule.

The school has had three very highly praised sets recently—one, a Spanish rancho, had a high stair and balcony, adobe brown walls, black rejas, green, orange and black drapes, and rude furniture—another, depicted a fashionable beach hotel patio in California. For this stage setting the stage manager cut black construction paper to make “iron” grille work for stairs and landing and the telephone girl’s room. Mexican serapes, Spanish colors, and garden furniture were used. The last play was set in the room of a fashionable Fifth Avenue home. A stairway with two landings on one side were balanced by a large window. On the other side there was constructed with crepe paper a leaded pane window. The window filled the entire side of the stage. The room was planned to show two of its sides meeting in a corner. The corner was placed directly in the center of the stage. The draperies for this last set were made by painting with stencils fifty-four yards of blue material.

DRAWING AND PAINTING

Activities in drawing and painting help to keep the creative spirit alive and enable pupils to learn what can be done with two-dimensional surfaces. They provide experiences with oil, chalk, crayon, and other fascinating media. They constitute bases for finding one's self, for creating, and for constructive thought. Dewey has stated the case with unusual clarity.

"The painter has to see each particular connection of doing and undergoing in relation to the whole that he desires to produce. To apprehend such relations is to think and is one of the most exacting modes of thought. To think effectively in terms of relations of qualities is as severe a demand on thought as to think in terms of symbols—verbal and mathematical."

If one draws forms constructively and integrates his drawings into well organized compositions, he is expressing himself creatively.

Some Psychological Considerations

The teacher of drawing and painting must be especially sensitive to the tendencies and characteristics of the boys and girls in her classes. Learning in these areas cannot be forced. The activities must appeal to the pupils. In considering the problem of motivation, the drives and tendencies of children must be at the center of attention. Some characteristics of the junior high school pupil—the early adolescent—which are especially significant to the teacher may be listed as follows:

1. A tendency toward contradictory contrasts. There may be a sense of insecurity, a feeling of being misunderstood, and a craving for sympathy, but at the same time an assumption of independence and a resentment of authority and advice.
2. Swiftly changing interests.
3. A tendency to act quickly and to think afterwards.
4. More ability to gather information than to sense philosophical implications.
5. Significant interests in experiences which provide activity. For example, children of this age like shop and craft classes or other situations which provide opportunities to make, examine, or manipulate concrete materials.
6. Interest in personal adornment. There is interest in

making things for personal adornment or for the adornment of homes or rooms in homes.

7. A tendency to imitate adults, but to scorn any implications of being "old."

In many respects senior high school pupils are similar to junior high school pupils. However, there are some differences which are significant to teachers of art. Some significant characteristics may be listed as follows:

1. An increasing interest in personal and social problems. The tendency to think of others in a variety of situations is usually in evidence.
2. More capacity to reflect upon his own work and that of others.
3. More capacity to work with the abstract. Art values in an abstract sense may be compared with realistic pictures.
4. Desire to have accomplishments recognized on a larger scale and according to fundamental values.
5. Desire for identification with the adult world.
6. Desire to master really difficult problems.
7. Interest in the human figure, and in human interest motifs.
8. Desire for work on a large scale.

The preceding lists of characteristics are very incomplete, but they refer to tendencies which teachers must consider at all times. These characteristics and others which might be listed have the following implications for teachers of drawing and painting:

1. Several short periods of concentrated effort are better than a few prolonged periods.
2. There should be frequent changes in activity, especially at the junior high school level.
3. Problems should be within the student's capacity, but not childish.
4. A variety of approaches in several media should be allowed.
5. A change of media should not be confused with allowance for individual interpretations and presentations.

6. Real life interest should be a major basis for motivation of art work.
7. Students should be encouraged to initiate and plan their activities.
8. Modern concepts of art should be introduced.
9. Constructive thinking should be encouraged.
10. Good work should be exhibited.
11. Subject matter involving self-portraits, portraits of classmates, and contemporary social issues should be used.
12. Work should be conducted on a large scale.

Many art teachers have a deep interest in materials, and they take great pride in the products of creative activity. They like to produce, and they like to study great pieces of art. For these reasons art teachers may be more inclined to forget the individual than teachers in other areas. They become engrossed with externals instead of with the individual to be educated. Although the foregoing analysis of adolescent tendencies is very brief, it clearly reveals the importance of attention to individuals.

Important Abilities and Understandings

When the aim is primarily that of developing ability to express a message or to convey an idea, the really effective learning activity is that of expressing messages, with emphasis always focused on the message or idea. The desired abilities result from purposeful progressive practice. Understandings are essential, but the ability to paint artistically involves more than understandings, just as the ability to express messages in writing involves more than an understanding of the grammar of the English language. In drawing and painting understandings are usually means to ends, not ends in themselves.

Some of the major abilities and understandings to be sought through painting and drawing are as follows:

1. First-hand understanding of the creative approach to problems.
2. Comprehension of the role of design in art.
3. Ability to interpret the artistic expression of others.
4. Growth in self-confidence, cooperations with others, respect for others.

5. Growth in power to think through a situation constructively.
6. Realization that creative activities are worthwhile.
7. How to discover in building pictorial designs basic relationships and organizations such as the following:
 - a. Placing of drawing with reference to size and shape of paper.
 - b. Focalization and focal plane.
 - c. Height, breadth, and depth relations.
 - d. Inner plane relations rather than contour edges.
 - e. Rhythms built with interlocking and overlapping forms.
 - f. Meaning of four fundamental directions of line.
 - g. Dominance and subordination as agents for building compositions.
 - h. Comparison of two-dimensional with three-dimensional rhythm.

Activities and Projects in Drawing and Painting

Compositions involving pen and ink, pencil, lithograph, etching, wood block, oil, watercolor, tempera, chalk, and crayon should all have a place in the drawing painting classes. Boys generally like to do perspective drawing, using as their objects such machines as automobiles, tractors, buildings, printing presses, and airplanes. Girls generally like to do drawings and paintings of costumes, accessories to wear, beautiful pieces of furniture, and other objects used for adornment. Group projects, such as staging a play, are very desirable, the girls making the costumes, and the boys making the scenery. Other projects include murals for schools, designing tiles for fountains, animals, portraiture, figures, and landscapes.

Some Suggestions on Figure Drawing

If figure drawing is to have the quality of inner character instead of merely outer characteristics, nothing will take the place of an underlying organic construction of the figure more clearly than others, the posing of the figure is of the utmost importance.

The pose should be such that the major and minor rhythms are clearly defined by the focalization. There should be no

parts, such as arms and legs, which do not lock into the main rhythms of the whole. The whole figure should be compact. It should stand structurally or sit structurally. The vertical of the standing figure should meet the horizontal of the floor strongly. The horizontal of the seated figure where it rests on the chair should be clearly felt.

Preliminary to the model's taking the pose the students are to draw, it is well to ask the model to assume several positions from which may be explained a number of important principles: for example, the meaning of the four fundamental directions of lines, the use of the focal point, the meaning of the placement and displacement of masses, and the difference between two-dimensional and three-dimensional rhythm. Explanations of these elements follow.

The four fundamental directions of line are the horizontal, the vertical, the oblique, and the curve. The horizontal gives stability and repose, and is static; the vertical also gives stability where it meets the horizontal, yet it has the added quality of dignity and growth or reaching upward at the upper end; the oblique and the curve are both dynamic, the former gives forceful action, the latter grace with action; and curves combined with straight lines give great beauty, and curves used without straight lines in a composition tend to give weakness.

Experiments are made with various poses to find the focal point. This is explained as a point to which the eye goes in the middle of the composition as regards right and left, but which may be at above, or below the middle as regards up and down, according to where it best functions to equilibrate the masses which reveal the major and minor rhythms of the drawing.

Two-dimensional rhythm, or movement, is explained to the students as movement up and down and across a surface, and three-dimensional rhythm, as movement forward and backward, as well as laterally, so that depth is added to height and breadth.

As the model moves about, the students are led to observe how parts of the body that are bumps in one pose give place to hollows in opposing positions. It is watching and understanding these placements and displacements of mass that keep the drawing plastic.

When the pose has been chosen which the students are to draw, they adapt the shape of the paper to the pose, determine the focalization, and then look for the axis through the most

important mass, putting it on the paper in its proper relation to the focal point. They then find the next important axis which opposes the first, and then the third important one, and so on, putting each one down frankly, so that lines extend beyond as axes cross.

Thus these axes perform two important functions: They first determine several structural points which give key to the entire organization, and, secondly, they function in turning planes in the volumes which equilibrate around them.

As the students now begin to draw in the figure their attention is next called to the importance of impinging planes, that is, the relative position of planes in front of or back of others. Attention to these planes keeps the drawing three-dimensional, the lines defining disappearing planes being the ones which indicate the planes around on the reverse side of the figure.

The difference between a line drawing and an outline drawing is here considered, the former considers impinging planes which encloses form, while the latter does not consider the impinging planes, it merely encloses shapes, or pattern.

Students should think in terms of three dimensions from the first experiments in drawing and painting.

Flat planes should be as carefully considered as full masses if the drawing is not to look stuffed and lumpy.

Varied experience may be gained by students in having them draw in sizes ranging from small sketches to life-size and over. It is well to have the figure placed at different eye-levels for the same reason. It is good practice for students to make a small construction of the pose first, if they are later going to make a large drawing, then stick to the placing in the small absolutely as they make the larger drawing. Care must be taken that exactly similar oblongs are used for both drawings.

The construction proper of the drawing is not established. It remains to consider the manner in which the drawing is to be completed. This may be done in accented line, line with a little tone, or in full value. As soon as any tone is used on the figure, the surrounding values of the background must become a part of the drawing, else the organization is not kept.

This order of working on sequentially important parts keep the drawing always equilibrated, and saves it from getting

"all-overish," and the parts "frozen." In other words, it is kept alive, plastic, and interesting by this method of working.

Drawing and Painting for the School Annual

The school annual offers excellent opportunities for purposeful drawing and painting. The statements which follow may be sources of suggestions.

1. The art editor, in conference with other officers of the annual and school select a technique to be used—zinc plate, wood-block, lithograph, etching, Ben Day, etc.
2. If the wood block is chosen the materials needed will be hard wood and grain blocks of convenient size, perhaps 5"x7"; different sizes of "tint" and "Scorper" tools; tracing paper; paper to print on such as Tamarahace Japanese paper; printer's ink; sheet of glass or marble to spread ink on; brayer.
3. Better students are assigned the full page illustrations, while those of less ability may do the head and tail pieces.
4. General theme or motif for whole annual is chosen.
5. Preliminary sketches are made in pencil, charcoal, lithograph and other techniques, as interpretations of the general motif.
6. Careful drawings are finally made in pen and ink, or brush and ink for tracing on the blocks. Best made on tracing paper so drawing may be reversed.
7. Trace on block in reverse.
8. Show students how to use tint tool to line in design and scorper to lower surface. Soon an art-wise student will take entire charge of the technique of cutting.
9. "Prove" blocks and get a clean cut print. Make any changes necessary in the dark and light.
10. Submit finished block. The group has planned its work cooperatively, technical experience in drawing and composition is had, and a new technique is added to the student's repertoire.

Christmas Cards

Christmas cards, similar to the work in the school annual, may offer further application of the wood-block technique, or the other techniques adapted to reproduction.

Mural Problems

The major steps of a mural project may be stated as follows:

1. Clarify the values.
2. Choose subject suitable to place and purpose, preferably from any experiences of pupils.
3. Analyze major subject into smaller units or parts leading more capable pupils to work on the most important parts.
4. Choose a technique suitable for wall surface and adapted to pupils who may learn it easily so there will be no break where one young artist leaves off and another begins.
5. Make small drawings to scale representing each one participating.
6. Join these and integrate them into a whole. Utilize group judgments, make changes freely. Consider architectural setting.
7. Choose color scheme.
8. Enlarge to full scale, perforate, and pounce design on wall.
9. Paint.

The preceding steps are illustrated in a project executed by Rocky Ford High School Pupils. In the first place, a wall or room which is suitable for mural decoration was selected. The next step was the selection of a suitable theme or subject, considering the space with which the class had to work. The pupils chose "The Student at Rocky Ford High School" as the theme. Old and modern mural were studied in order to see the possibilities present in such work, and to free thinking. Likewise, the subject was discussed in the same manner. Every pupil was given the opportunity to sketch and present *his* interest or grasp of student life. Pupils visited the department of phase of student life which interested them, made sketches, and brought

them back to class where the group discussed possibilities of composing them into pleasing arrangements, in light of the space to be covered. Smaller groups of pupils enlarged the sketches chosen on large sheets of wrapping paper. These sketches were composed and related, and transferred directly to the wall. Wax crayon was chosen as a medium and used in a flat manner in order to afford a more free and direct style. In choosing the color scheme, consideration was given to hue and intensity which the room would allow, and to the achievement of balance. Values derived from the project depended upon the distinctive ideas in the subject matter, the simplicity of composition, choice of color, application of color, medium chosen, participation by every pupil, socialization of class work, and pride in completing a successful piece of work.

Picture Map of Colorado

A group of pupils may raise money by selling picture maps. A class may gain much art experience by designing and duplicating the maps, utilizing design as needed.

CITY PLANNING

Artists have assisted in planning efficient and beautiful cities. Their interests overlap those of workers in other fields, and teachers in several departments should therefore join in a study of city planning. Interest in community planning is revealed by state laws pertaining to city planning commissions. A need exists, the laws in many communities are appropriate and helpful, and much material is available for study. The remaining factor is to lead pupils to study desirable features in cities and to work out ways of establishing them.

Challenging Questions

1. Is the checker board plan for city blocks good in residential areas?
2. Is a circular plan for streets suitable for my home town?
3. What building materials and community designs are suitable in this locality?
4. Is it possible to experience art by exercising better choices in city planning?
5. Can creative thinking and adventure be used in studying and in meeting the needs of local communities?
6. In the field of community planning how may one search for new layouts and new ways of using old ones?
7. How do plans of ancient or distant cities influence our cities today?
8. Can one approach or illustrate the inter-relationships of social, economic, aesthetic, and technological life of the community by becoming familiar with some of the plans of the better cities of the nation?

Activities

1. Make maps of the local town, including main highways, railroads, schools, churches, public buildings, points of interest, and parks. Show major lines of growth, or "flow" of people, so as to better anticipate future growth. These maps may be designed or pictorial in nature.
2. Collect city plans of a number of American cities. Denver's city plan attracted wide attention several years ago. City

plans may be obtained from old atlases or by writing to the Chambers of Commerce.

3. Study various ways cities have overcome natural hindrances to their growth. Also the natural advantages cities have utilized.
4. Study the geographical reasons, or other ones, for locating your town where it is.
5. Draw an ideal plan for your own community, or for some other real or imaginary place.
6. Work out a plan for conducting Clean-Up Week. Make posters for it.
7. Work out an ideal system for naming and numbering streets. Design markers for them.
8. Work out a plan for the improvement and care of the school campus.
9. Make cartoons or posters illustrating attractive communities or districts.
10. Collect and study types of architecture suited to the local climate.
11. Consider the following concepts in city planning:
 - a. Laying out streets so as to make communications convenient.
 - b. Constructing streets so as to handle traffic efficiently.
 - c. Planning residential areas so as to meet their purposes better.
 - d. Avoiding in street furnishing anything that disfigures or mars.
 - e. Assigning suitable zones for various activities of the community.
 - f. Depending upon each citizen to accept responsibility.
12. Write to the State Planning Commission for information on city planning in Colorado.

ARCHITECTURE

Shelter is one of the greatest human needs. Some buildings are beautiful and worthy of being called architecture because in them function and construction have been harmoniously related through the elements and principles of art so that they express fine design.

We can learn to distinguish between what is worthwhile in buildings and what is not by continual practice in judging buildings of our own neighborhood and our own community.¹

In looking at a building with the mind as well as the eye, we think first of suitability of its purpose, then of the way the materials are put together—its construction. If the building is to be good the plan and construction must be worked out together in terms of design.²

Look at the myriad buildings of man the world over and ask these questions: How many of these buildings really interest you? How many delight you? How many gives you a sense of efficiency only, while others satisfy and thrill you? How did architecture come to be? How did the people live that they produced this architecture?³

Activities and Projects Which Reveal How to Know Good Buildings

To begin the study of buildings questions similar to the following may be raised: How can the house in which I live be improved so as to serve the family better? What can be done to make our home more beautiful? Is the house beautiful in its relationship of parts and in honest use of materials? Is the style of the house individual, or is it an imitation of a period style? How does my home differ from the Early Colonial houses? From the Spanish and Pueblo style? From other styles?

In the study of room arrangement questions similar to the following are pertinent: Are the rooms in the floor plan adapted to use in size and position? Do the windows provide sufficient light? Are they right in size and position? Are the furnishings adequate for comfortable living? Are they harmonious in design and color? Are the walls and wood-work right in color and texture to make a harmonious background for the furnishings? Are the plumbing arrangements satisfactory? How could they be improved? Does the position of the house within the yard give the most beautiful results? How does a beautiful house affect citizens of the community?

¹Collins and Riley, *Art Appreciation*, New York: Harcourt, Brace & Co. 1933. p. 107.

²*Ibid.*, p. 107.

³Gardner, Helen. *Understanding the Arts*. New York: Harcourt, Brace & Co. 1932. p. ...

The exterior of a house should be studied for proportion, spacing, line, rhythm, balance and color. Make an improved plan of a house you would like to have for your home. Select two or three of the most beautiful houses in the community. Analyze them as to proportion, design, rhythm, and balance. Discuss the setting and yard beautification. Try to discover why the buildings you have selected are more satisfying than some of the others in the community.

Consider ground plans, front elevation, and proportion of each building as a whole. Sometimes the pupils should draw plans showing possible improvement in arrangement and proportion. Interpret the line, dark-light, and spacing in terms of simple principles of design.¹ What different things help to secure dominance? What is the main direction or movement in the lines? How has this affected the feeling of the building? Try to discover the rhythms in arrangement of dark and light masses. Draw improved plans of window and door spacing whenever there is an opportunity. What kinds of materials have been chosen? Were they chosen wisely? Were they used honestly? "The architect considers climate and construction when he selects materials for a building."² What styles from other periods do you find reflected in these buildings? Which ones, if any, seem to have been designed wholly from the standpoint of fitness to purpose, and to locality? "In which buildings do you find the function and the design—the shape and proportion of mass, the materials of construction, the manner in which the lights and shadows combine, the relation of the organized mass to its setting—all these elements fitting together harmoniously."³

It is satisfying to have a method of looking at a building and a standard for judging its quality. Select from buildings revealed in pictures the few great styles which represent the good architecture of the world. Select a few styles which seem to have added nothing to sound construction and to the beauty of the world's buildings. Interpret the sound architecture as to its origin in the life of the people who formed or developed it. The following abilities and understandings should be sought:

1. To sense the mass of a building in terms of space and volume.

¹Gardner, Helen, *Understanding the Arts*. pp. 16.

²Collins and Riley, *op. cit.* pp. 108-109.

³Gardner, Helen, *Art Through the Ages*. pp. 9-25.

2. To interpret these in terms of art elements and principles.
3. To criticise a building in terms of its purpose, use of materials, and its general effect in the environment.
4. To interpret the style in terms of influences of other styles and periods.
5. To make plans for an appropriate style to fit the purpose of any building under consideration.
6. To choose and organize the setting and surroundings.

An interesting and valuable experience may be realized by collecting from the shops blocks of various sizes and proportions and in using them to set up buildings of different kinds which show good mass relationships of volumes in light. Window and door spacing may be indicated by drawing or by pasting on paper areas to complete the design effects of the buildings. Dowels and planes may be added for surface enrichments. Shell volumes may be constructed from thin wood or heavy cardboard showing openings for windows and doors and added surface variations. Individual buildings and grouping continuous interest in architecture.

After realizing the need for a well planned house, satisfying interiors must be planned. The important problem is that of determining the interior needs of a house for efficient interior living. Everything in a house should enhance its usefulness or beauty. Study good interiors and reproductions of interiors found in books and magazines on modern house planning. In most libraries are available illustrative materials which contribute to interest in and understanding of good interior decoration. Develop a critical attitude toward color, design, arrangement and fitness to purpose of furnishings. Furniture stores are glad to have school groups visit them and to give demonstrations of arrangements using actual furnishings. Room plans made from colored paper and fabric specimens may be valuable in stimulating interest and developing sensitivity to color and spacing.

Questions similar to the following provide an approach to community planning. If you were planning anew the homes of this community, what major changes would you make? Would you change the type or kinds of buildings? The zoning and positions with respect to street or road? The materials used?

The color? Landscaping? Do you think better buildings could have been made with about the same cost?

Study the homes of people in other communities in order to discover trends in design and materials. See if they and your community have been sensitive to changes in modes of living, occupational trends, new materials, new machines, transportation facilities and functional design.

The school building provides a real situation for a study of architecture. Study its plan including room arrangement, room size and proportion, lighting, plumbing, and furnishings. Study the exterior including design of the whole in terms of art principles used, spacing of doors and windows, color, materials used. Determine in so far as possible what kind of buildings are best adapted to school use. Make plans for a building and its surroundings which would best fit the needs of your school. Study school architecture in other communities. Collect pictures and photographs of plans and buildings and analyze them, pointing out good and bad aspects.

In the study of a building attention should be given to its purpose, volume, reflection of light, materials, location, and setting.

EXPERIENCING ART THROUGH THE MAKING OF POTTERY

Pottery is one of the oldest of the crafts, so old that there is no record of its origin. However, "Tradition holds that earthenware was first made in 2098 B. C."¹ in China. Nearly all primitive people fashioned objects from clay which were fired or baked in an open fire or later in ovens. These pots were in the beginning very crude, but with the rise of civilization the potters craft developed.

"Ceramics are generally classified in four main groups: Earthenware, China, Stoneware, and Porcelain."²

Earthenware is the largest and most common class of pottery. It is fired at the lowest temperature of the four groups and includes tiles, teapots, coarse table ware and pottery.

The use to which an object is put must serve as the basis of design which governs its construction. A decorative pot must, in both construction and design, differ greatly from one made for kitchen use. A pitcher, for example, must be convenient to use. The lip must pour, and the handle must be easy to hold and substantial enough to withstand serviceable use.

Good design results from a simple, direct, and honest use of the materials. Attempts to simulate other materials are contrary to the principles of good design.

The beauty of a pot may best be expressed in terms of fitness to purpose, intelligent use of material, good technique and artistic contour, shape, proportion, rhythmic unity, color and texture in the finished article.

The artists or craftsmen who work with pottery use specialized terms which pupils should learn. The following vocabulary list was prepared to clarify meanings and to insure correct interpretation of explanations presented in this section.

Wet Box. A metal lined cupboard in which pottery is placed in order to keep it plastic while it is being made.

Wet Cloth. Any cloth which is dampened and wrapped around pottery to keep the clay plastic.

Bat. A piece of plaster or wood on which pottery is placed while it is being built in order that it may be moved about easily.

¹Cox, George, *Pottery*. p. 51.

²Forsyth, Gordon, *Twentieth Century Ceramics*. p. 16.

Template. A pattern cut from tin, galvanized iron, or thin wood used in shaping clay. It is used to scrape the sides to develop greater accuracy in contour.

Slip. Clay in a liquid state, usually about the consistency of thick cream. It is used for mending cracks, in joining slabs of clay, for casting in a plaster mold, and for decorating.

Green Ware. Clay ware that has not been fired.

Leather Dry. Clay ware that is almost dry, that is not longer plastic enough to be shaped except by scraping.

Biscuit Ware. Clay ware that has been fired once.

Turning. Process of smoothing ware after it is leather hard or dry.

Wedging. Breaking clay into parts and throwing with force upon a large slab of plaster. The procedure is continued until the clay is in good condition. Clay is wedged to make it uniform and smooth in texture, and to remove excess moisture and air pockets.

The Condition of Clay. Clay is in the right condition for use if it is plastic enough to be bent around one's finger without cracking and is dry enough that it leaves one's hands clean.

Kiln. Oven or furnace in which clay is fired.

Seger Cones. Pyrometric cones made of especially adjusted clay which melts at a specific temperature. A cone is used as a heat indicator in the kiln. These are purchased ready for use, and are used once only.

Vitreous Ware. Clay whose texture is hard, glass-like, and non-absorbent when fired.

Methods of Building Pottery

Coil. The clay is rolled into thin round strips about 3/18 inch in thickness and these are placed one above the other to make the side walls of a vase. These coils are smoothed together, both inside and out, with great care to insure an even surface and also a strong wall which will not crack when dried and fired. Small quantities of air should not be caught and sealed in small crevices.

Slab. The sides of a piece are cut from slabs of clay rolled to a thickness of 1/4 inch. After the corners are mitered and care-

fully fitted together, slip is applied to join the pieces securely and the edges are carefully welted over. Pottery made by this method is generally of flat planes.

Throwing on a Potter's Wheel. The clay must be slightly more damp or flexible than in the other methods for building with clay. In centering the clay, a ball of well-wedged clay is thrown on the wheel into a cone shape. When it has been centered, the point of the cone is pushed down and the top flattened. As the wheel rotates with thumbs inserted into the center of the clay to form the hollow, the sides are gradually formed by cupping the hands around the cone. The clay is gradually pulled up and out to form the shape desired. Great care must be used in turning the sides of the pot to insure uniform thickness. When the form is slightly dry it may be smoothed by holding against the sides, while it rotates, a leather strip.

Casting. This is the most common of commercial practices. After the model piece is made, a plaster of Paris cast is made of it. These casts or molds may be in one or more pieces. When the mold is dry, clay in the form of slip is poured into it. The plaster absorbs the water from the slip, thus leaving a deposit of clay on its sides. This absorption may necessitate the addition of slip from time to time. When the deposit next the plaster is of the desired thickness, the remaining slip is *poured out* and the deposit which adheres to the mold is left to dry and shrink to free itself from the mold.

Decorating Processes Common to Clay Products

Incising and Pressing. Designs are either scratched or pressed into soft clay with bluntly pointed tools or stamps of wood or metal.

Inlaid Decorations. The surface of the clay is incised or carved and the depressions are filled with contrasting colored clays until the surface is even and smooth.

Slip Decoration. While the clay is still moist or semi-plastic, a thread-like design is applied with slip which is ejected from a tracing tube or through the use of a small brush. The raised decoration on fancy cakes are made in a similar fashion.

Scruffito. A thin layer of a contrasting colored slip is applied to the surface of the ware. Then by scratching through this, designs are executed in two values or colors.

Underglaze. The design is either painted or stamped on the clay either before it is fired or in the biscuit state. When it is fired and fused with the clay it is covered with a transparent glaze and re-fired.

Piercing. Patterns are cut entirely through the wall of the clay. Often these are small enough to be filled with glaze, which when fired makes the pattern transparent as in the Chinese Rice Ware.

Glazing. Glazes may be applied by dipping, stippling, splattering, or spraying. Usually the glaze is applied after the ware has been fired once and then it is re-fired. Several of the many possibilities in glazing are:

- a. Applying more than one color to secure a blended or mottled effect.
- b. Applying the glaze with a brush to achieve a pattern.
- c. After a surface is glazed additional color is laid on by painting with other colors of glaze.
- d. The use of stencils affords quite interesting and modern effects.

Pottery Firing

The chief difficulty that a course in pottery presents in a small community is the trouble and expense of firing the air dried articles that must be sent away to a kiln. This obstacle may be overcome by firing the green ware in somewhat the same manner that the Pueblo Indians use. This method, briefly described in the following paragraphs is extremely simple, but rather extravagant in the amount of wood that must be used for fuel.

In any type of outdoor kiln, certain conditions are essential. The location should be protected from the wind. The ground must be absolutely dry. If there is any doubt, a preliminary fire should be used to dry the ground. Steam from damp ground cracks the pottery. In stacking the pieces for firing, the larger pieces should be on the bottom so that they will not crush the smaller ones. The pottery should be heated gradually and the fired ware should be cooled slowly.

For the actual firing process the pupils should dig a circular hole about three feet in diameter and about one foot deep, slightly lower in the center than at the sides. The bottom and sides should be lined with flat stones. Sand should be used to fill the holes around the edges so that it may be heated by the fire.

The pupils should lay a fire in the shallow pit and arrange the pottery around the edges so that it may heat slowly. The fire should be set and it should burn until the stones are thoroughly heated. This usually requires from thirty minutes to an hour. The coals should be removed and the pieces of pottery should be inserted over the heated stones. The pottery should be covered with the hot sand and then another large fire should be built on top. This fire should burn brightly for at least three hours. When all smoke has disappeared, the fire should be covered with dirt and left in this condition over night so that the sand and pottery may cool gradually before the kiln is opened.

If a black finish like that of the San Ildefonso Pueblo pottery is desired, another type of kiln is preferable. This type of kiln is also very good for ordinary firing. A method of constructing it may be summarized as follows. A garbage can which is large enough to hold the quantity of pottery desired and has a good tight lid is placed on its side on a fireplace of brick or stone. An earthen bank is built on two sides as a wind break. The pottery is arranged in the can and lid is fastened securely. Fuel is laid under and all around the can. The fire is built gradually, fuel being added as necessary, and then the fire is maintained steadily for three hours. After the fire is reduced to hot coals, the entire fire and can is covered with dirt and allowed to cool over night before opening. To obtain the black finish, sawdust is placed in and over the pieces of pottery in the garbage can. The sawdust smolders during the firing. The pieces come out a dull black that develops a shiny surface when rubbed with a soft cloth.

CRAFTS WITH COMMON MATERIALS

Colorado affords unusual opportunities for art experiences with common materials which may be secured with little or no cost and transformed into useful as well as attractive articles. In some sections of the state much has been done to revive activities with these materials, not only as a profitable use of leisure time but also as a source of income. Sometimes it is possible to visit shops in which common materials are used to make commercial articles or to invite to classes adults who may share rich experiences with pupils.

Pupils do not always realize the presence of useful materials in their communities or the potentialities of materials which are considered as commonplace and mediocre. Alabaster, cedar wood, gem stones, and various types of rock with potential art values are within reach of many high school pupils, and they may be used to great advantage. Some suggestions on the use of these materials are presented in this section.

Carving Alabaster

Alabaster is usually a compact variety of gypsum, white and translucent. Occasionally it contains calcite and is beautifully banded with red veins. This mineral can be carved easily by hand, and is a material worthy of an artist.

Before work is begun, the piece of alabaster to be used should be soaked in water for fifteen minutes in order to get an idea of the color, to detect cracks in the material, and to let it get softer for carving. Using coarse and fine files, screw drivers or chisels, hand saw, and coping saw, begin to carve away the undesired parts of the material in much the same way as any kind of stone is carved. The conception should be designed as any other sculptural work, noting penetration of planes, relationships of masses, pattern of darks and lights, unity of the whole, and textural treatments. Alabaster is easy to work, but one should try for effects too quickly gained. The article may be sanded down with fine sand paper or wet and dry emery cloth. In the final stages of treatment, let the article dry thoroughly, paint with white shellac, let shellac coat dry twenty-four hours, rub with fine steel wool, and then polish with wax.

Collecting Gem Stones

Collecting gem stones is a fascinating way to begin a study of art. After ordinary specimens are picked up and polished a new avenue for finding beauty is revealed; some may want to mount the stones in rings, and this leads to other art activities. The student should take short trips at first, beginning in the back yard where he most surely will find different rocks that will take or more to classify. Do not scorn everything that appears to have no value for many semi-precious and attractive specimens will be overlooked. This often happens when one starts looking for arrowheads and passes up gem materials.

The larger specimens, about 3x4 inches by 1 inch thick (except crystals), are more typical, especially of the common rocks. When a good specimen of granite is found, keep on looking for better or more true to type ones, for all rocks are relative and grade from one type to another depending principally upon their formation.

Classify the specimens, note the sources if possible, and record the history of each piece. Include different kinds of matrix if possible. Good sources for material are among rocks in exposed places where frost action is great, and around quarries, along the cut banks of roads, and in stream beds. It is suggested that good specimens in one vicinity be exchanged for those from other locations.

Cutting and Polishing Semi-Precious Stones

Stone polishing is a craft that is suited to the high school pupil, rather than to one that is younger, because of the rather tedious nature of the early stages of the work. However, as the polishing progresses, the results yield genuine satisfaction, and the craft becomes one of permanent interest. The object of polishing is to enhance the natural beauty of the stone by adding a surface luster which brings out the color. When one surface of the stone has been polished, the natural formation suggests the manner in which it should be shaped and mounted. The pupil must use his own creative ability in following this suggestion, for no two stones are alike and no set pattern is suitable for many. This craft has great possibilities because stones with good color and suitable texture are found in every part of the state.

The cutting and polishing of gem stones is one of the oldest arts and is not as expensive or as difficult as most people believe.

With very little equipment one may take many common stones and work them so that they will be suitable for mounting into jewelry. The equipment includes a stone fastened to the end of a small stick with sealing wax, three stove lids, two boards about 10x12 inches covered on one side with felt, woolen cloth, or velvet, three grades of abrasives (carborundum 120, FF, and FFF), tripoli or pumice, tin oxide or zinc oxide or whiting.

Select a stone that is somewhat smooth and free of flaws or fractures. Test for polish by wetting them, for the way they look when wet is the way they will look when polished. Test for hardness to see if they may be scratched with a fingernail (if it may be scratched, it has a rating of $2\frac{1}{2}$); a penny (rates 3); knife blade (5.5); glass (6). Any stone testing 6 or less may be easily polished by hand. Stones testing over 6, such as the agate and quartz groups, may be polished by hand but the time and work required is considerable, and it is best to use power equipment on them. Among the stones testing less than 6 are turquoise, jet, malachite, obsidians, pearlstone, and opalite.

Mix carborundum 120 with water on the first stove lid and rub stone on it until it is smooth. Be careful not to mix the abrasives. Wash stone thoroughly. Go through the same process with carborundum FF and finally FFF. Saturate the covering of the first board with water and rub Tripoli into the pores of the cloth. Rub stone on briskly until it has all the polish it will take. Similarly, saturate the covering of the second board with water and tin oxide (or zinc oxide, or whiting), and proceed as before. A magnifying glass is helpful at this stage of the process to locate scratches which may be polished off.

Power equipment may be set up for cutting the hard stones and turning disks for polishing. It is suggested that one observe this process in a lapidary shop or art department in a college, before attempting to do it in the school room.

Metal Tooling

Copper and aluminum tooling offers an opportunity to do new things with metal. Both metals come in paper-thin sheets and make attractive decorations for plaques, nameplates, book-ends, lamp shades, notebook covers, etc. The equipment for metal tool-

ing includes an orange-wood stick, a bone tool or bone crochet hook, small wooden mallet, old scissors, hammer, felt or blotter, small linoleum nails, wood for mounting, fine steel wool, gummed tape, plastic wood (or sawdust and glue) and clear shellac or lacquer.

Draw the design on thin paper and fasten it on the back of the metal with small pieces of gummed tape. Place metal face down on felt or blotter and trace the design with sharp bone tool. Remove paper design and with the orange-wood stick press the design into the metal from the wrong side. Keep the raised part uniform for raising the design too much gives a bumpy appearance. In order to raise the design more, use extra thicknesses of felt or blotter. Turn the metal to the right side, and, if necessary, trace around the design again with a sharp tool. Smooth the edges with wooden mallet. Fill the hollow places in back with plastic wood, or mixture of sawdust and glue. Mount on board with nails or glue. Polish with fine steel wool, and paint with lacquer or shellac.

Hammering Metal into a Form

Copper, brass, aluminum, pewter, and silver may be shaped into articles as a means for introducing pupils to an entirely new type of art experience. In this instance, as in working with other art media, one should clearly define his purpose in fabricating the metal, study the possibilities and unique qualities of the medium, and plan to gain the properties and purposes in an efficient manner. Metal may be used for things that would be inappropriate for clay, or cork, or paper, or wood.

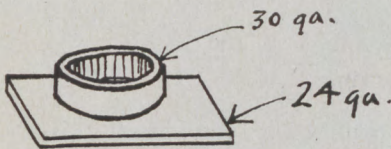
The usual beginning project is to hammer or "raise" a small bowl, using a wooden forming block which has a depression in it incorporating the shape one wants. Then with a round-headed hammer strike the metal lightly as it is placed over the opening in the wood. After successive blows the metal will take the shape of the forming block. It may be necessary to heat the harder metals until they are almost red hot so that they will be softer to work. This heating is called annealing. Some articles call for two or three pieces to be fashioned and soldered. To solder, clean both pieces with steel wool, taking care to remove all grease and foreign

matter. Take a soldering iron and place a small quantity of soft (acid core) solder on it, rub the spot on both pieces where they will contact so that a very thin layer of solder sticks to the metal. This is called "tinning" the metal. Then place both pieces in contact firmly, and let new solder flow from iron into the joint, allowing also for the metals to be heated to some extent.

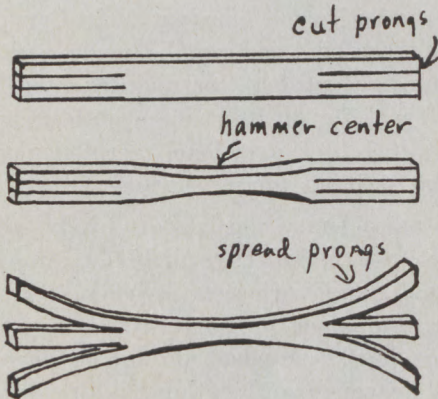
Additional controls over metal may be had with coping saws, wooden mallets (in articles that are to be shaped and not show hammer marks), tin snips, files, scratch awls, blow torches, sulphuric acid (or vinegar and salt), and varieties of anvils and wooden forming blocks.

Jewelry Making

A controlling purpose in ring making is to fashion a mounting for the set (stone) that will be appropriate to the stone and display it to advantage. For beginners the so-called Indian type ring is comparatively easy to gain satisfactory results, and leads to the development of both further individual efforts and appreciative study of all ring forms.



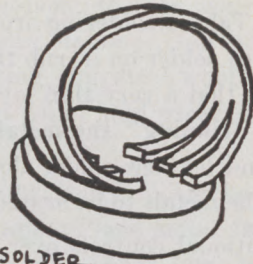
The first step is to build a box for the stone out of thin metal (sheet silver #30 ga. for the band or bezel encircling the stone and #24 ga. for the back plate). The band should be measured and soldered to fit the stone loosely; hardly a snug fit for the stone may be chipped when it is finally put into place.



For the shank cut a strip of metal $\frac{1}{4}$ inch wide and about 2 inches long from #16 ga. sheet silver. Mark places for cutting the prongs at the two ends of the strip, carefully cut prongs with shears or with jeweler's saw. Hammer cen-

ter part of the strip on its edge to thicken it. Spread the prongs, taking care to round the outer ones. Hammer ends of prongs on anvil to make them thin, cut straight across with shears, curve the prongs outward, and shape the strip on a round rod or ring mandrel. Set shank on back of stone bezel and solder (the stone is left out of bezel during all soldering and heating). File ring shank until smooth and rounded on outside. Put a layer of paper in bottom of bezel, place stone in position, and crimp bezel over stone. All stones should have a slight bevel on their sides so that it may be caught under the metal band.

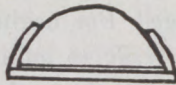
Polish metal with a cloth buffer and Tripoli, and finally with jeweler's rouge and a soft buffer.



SOLDER
SHANK TO BACK OF BEZEL



CROSS-SECTION VIEW



BEZEL CRIMPED OVER
EDGE OF STONE.

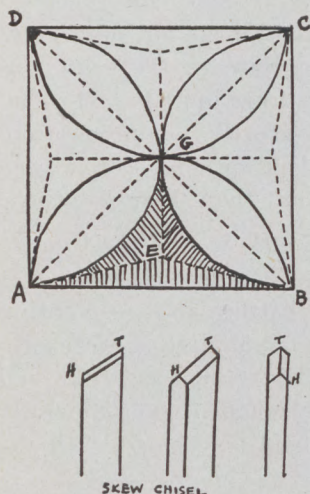
Wood Carving

An exact history of carving cannot be found, but it is believed that the earliest men used carvings to convey messages to one another. These early carvings were on stone or traced out on the sands. Today carvings are used to decorate or to beautify those things which are placed in homes and offices.

In this outline, one method of wood carving, Chip Carving, will be presented. A plain piece of wood can be made a thing of beauty if properly stained, varnished, or painted—but its beauty can be added to by breaking up its surface with a series of carvings, providing that it is not overdone. Proficiency is gained only through constant striving for improvement.

The equipment for this art activity consists of chisels (skew and straight), wooden mallet, pocket knife, razor blade, an oil or slip stone for sharpening tools, and varieties of woods. Chisels may be made from old files, but since files are brittle they will not stand a blow that is too hard. A wood should be selected which is close grained, well seasoned and without figure if pos-

sible. Sugar pine, red gumwood, and mahogany are suggested for beginners because of their softness and quality of not splintering easily. Harder woods include black walnut, ash, oak, hickory, cherry, orange, and magnolia. The latter group has more lasting qualities and will produce a finer finish. Woods to be avoided are white pine, yellow pine, fir, and cedar because they splinter easily.



Consider the design of the article as it is to be when finished and keep in mind the limitations of wood techniques as well as their possibilities. The first step, after the design is traced on the wood, is to score all lines to a uniform depth. The scoring prevents splintering of the high points of the design, and should be done with a skew chisel. Scoring is done by placing the heel (H) at the point A on design and rock it forward toward the toe (T) until point (B) has been reached. Repeat this process until all the lines are scored.

Let the lines AE, BE, and GE go to a greater depth with point E deeper than the rest of the design.

A chisel, knife, or razor blade, is tilted toward the inverted apex E and the wood is chipped out (shaded area). After the pyramid shaped chip has been roughly removed, smooth the surfaces of the planes with a chisel, leaving the lines AB, AE, BE, and GE as sharp as possible. The curved line of the petals between points AG and GB should also be sharpened. The remainder of the scoring and chipping is a repetition of this procedure.

Finish by sanding with fine sand paper or emery cloth wrapped around a small stick. Be careful not to destroy the lines defined in the design.

FACTORS WHICH HAVE INFLUENCED ART IN COLORADO

In some states most of the art was imported, but in Colorado there is a great body of unexcelled art which is native to the state. Factors which have influenced art in Colorado should not be disregarded.

The Indian Tradition

The cliff dwellers were the finest architects of our state; the spirit of their building is as appropriate to the region as Gothic is to western Europe. Their cities were built in almost inaccessible places which have contributed greatly to preservation. Other features of the cliff dweller's civilization which have been unearthed are important, but less important than their dwellings.

Two divisions of the Ute tribe, the Southern and the Uncompahgre, roamed what is now Colorado. Their leather work was superior. Their paintings on rocks of battles and of hunting scenes and their paintings on skins of tribal dances were also extraordinary accomplishments. Their basketry was crude and poor. Their pottery was rough, poorly shaped and generally undecorated. Until white men came, the Utes traded with the Pueblos and the Jicarilla for pottery.

The Pueblo Indians barely penetrated Colorado. In the southeastern part of the state there were a few outposts of the large Taos colony, but before the coming of the Spaniards and their mission farms the Pueblos were not found in Colorado. The Pueblos are nevertheless a rich heritage for Colorado art.

The largest aggregation of Indians in this state were known as Plains Indians. The Cheyennes made great contributions to the dance, principally the sun and ghost dances. The Arapahoes did some painting on skins and made some ceremonial robes utilizing dyed horsehair, porcupine quills, and horse teeth. The Pawnees are known for basketry, pottery and weaving. Their designs were based on tribal symbols, heralds, and poetic fancy. The Kiowas did symbolic designs on their tents and shields. The Comanches were nomads and as their mark on Colorado's history they left burned settlements and dead settlers.

The Jicarilla (little basket) were named for their excellent and numerous baskets. They were not as primitive as some other Indians even though they developed pottery at a late date.

Pottery is not an early art among primitive peoples. The Jicarilla contributed some of the most colorful dances of the Southwest.

Soon after the Spanish conquest of Mexico in 1521, the intrepid conquerors pushed on into this country. Most of their activities near Colorado were centered in New Mexico, but there was a definite penetration into southern Colorado of Spanish painting, crafts, and architecture. This influence has lasted more than three hundred years and is today an active motivation in the lives of the descendants of the early Spanish settlers. It has, of course, been adapted to fit the needs of a changing world.

Influence of Pioneers and Settlers

A great influx of traders, settlers, and explorers from various regions followed the Spaniards. Each group brought customs and traditions including the arts of the East and Europe. Necessity forced adaptations, but it was a grudging adaptation that looked upon the Indian and Spanish ways as outlandishly foreign. This has been true in all parts of the state. The Slavs in the northern part of the state have held to their European ways. The sheep and cattle men have tried to keep it a state of the open range. The coal men have fostered an industrial art which is somewhat inappropriate for this region. Only two regions, those noted for hard-rock mining and the Spanish heritage, have developed in Colorado something that would belong nowhere else.

The influences of miners on Colorado art can be seen to some extent in their Victorian mansions. However, their industrial buildings constitute unique art contributions. Although constructed for utility, they are as well fitted to the landscape as those of the cliff dwellers. Miners also brought art to the frontier by building opera houses and by attracting outstanding actors, painters, writers, and poets to enrich their lives.

Contemporary Forces That Help Shape Art in Colorado

Agriculture has now taken a dominant place in Colorado. The farmer has worked on a vast scale. His Galatea was the Colorado cowboy, related to the Texas or Wyoming cowboy but different in that he rode a horse or a plow equally well.

Today there is no frontier in Colorado. There is no great difference in the teaching of art here and in other American schools. Other schools have been influenced by the teaching in

the Mexican open-air schools and the European and American progressive schools. But today there is a revival of the arts and crafts peculiar to Colorado. The W. P. A. is partly responsible through its program of adult education and its revival of weaving, pottery, and metal work. This program is influencing the schools, and many schools are now using art units based upon a history of Colorado or on their particular regions. As the crafts are revived as means of art experience for children, the history of our state and its people offers a rich field for the art teacher.

Additional suggestions that may be of value to art teachers may be secured from the State Art Association through its publications of brochures on Colorado artists, new art techniques, and other matters pertaining to art programs. Information may be obtained by writing to Miss Muriel Sibell at the University of Colorado.

UTILIZING NATIVE ART RESOURCES IN COLORADO

In school art programs nothing is more fitting for use than the materials which are native to the vicinity or the community. Fortunately, various sections of Colorado are rich in materials which may be used in art work. In southwestern Colorado there are herbs, flowers, lichens, willow twigs which may be used for dyeing wool, and abundant deposits of clay. Many flocks of sheep are found in this section of the state, and Spanish-American spinners and weavers use wool to produce artistic materials. In many sections of Colorado cactus, soap weed, and corn shucks are found. The northwestern section offers opportunity for lapidary work. In river lowlands rushes are plentiful. One person in western Colorado made distinctive stones for jewelry from dinosaur gizzard stones.

The following paragraphs present assumptions which are basic to good craft work, and a few practical suggestions about separate materials or techniques as they have been developed in some places.

Guiding Principles in Craft Work

A study of arts and crafts in the different sections of America reveals that they developed in response to the felt needs and opportunities of the people. Art helps to interpret past civilization because it reveals the needs people were sensitive to, the ideals which they possessed, and their ingenuity in creative activity.

Craftsmen do not try to make things that are old, unusual, and different. They have more fundamental reasons for designing, and shaping materials, that is, purposes that are vital. Purposes range in kind from the utilitarian to those involving appearance only, and combinations of both. However, they are always meaningful and significant to the artist because he sees in them values for his group. Workers in the crafts should therefore clarify their own ideas as to why articles are being made and see if the enterprise is worth the effort.

Craftsmen must be masters of techniques so as to realize their purposes. They continually seek new and better ways for working, and new materials. It is important therefore that art students gain gradually in mastery of techniques. Each new solution becomes an agency and a drive to solve the next problem.

These steps should be taken in sequence, all pointing toward the general solution.

Native Materials for Craft

The cat-tail is found in nearly every marshy region of Colorado. Rushes may be used with any group of junior or senior high school pupils. For the beginner, the easier forms of basketry and braided or woven mats are suitable. Chair seating with rope made of the twisted strands is difficult and is for the more advanced students.

To use the rushes, the leaves must be gathered after they are full grown and before they begin to dry. They should be cut as long as possible, tied together at the butt end in bunches of ten or twelve, and hung to dry in a warm, dry place. The rushes will rot if tied in large bunches or placed in a damp place to cure. After they have been cured and are ready to use, they should be dampened lightly before commencing to work with them so that they will not break. If they are soaked, they have a tendency to spoil.

Rushes have been used successfully in braided form and by being twisted into a rope. Braided rushes work quickly into mats that may be sewn together or woven. These, however, are not as durable as those made of twisted strands. Braided articles may be made either by using single strands or by combining several in each of the three strands. To make the twisted rope, the cured rushes should be dampened lightly, and twisted with the right hand, holding the butt ends in the left hand. As the rushes taper away, the tip end of each should be folded inside the large end of the next one, constantly twisting. When a rope of three or four feet has been twisted, the craftsman should begin to wind it into a coil. The winding should be continued as the rope is made.

The twisted ropes make excellent baskets. Another way to use them to advantage is to weave them with colored cotton warp into porch mats. They may be used very advantageously in making seats for chairs. The method of doing this may be found in free pamphlets issued by the American Reedcraft Corporation.

The corn shuck may be used to make strong and lasting articles. The aesthetic value of these articles depends entirely, as in any other craft, on the judgment with which they are used. Any craft may be degraded by placing too much emphasis on the skills and

techniques required to work in that medium and too little emphasis on the purpose for which the object is to be used.

There are several different ways to use shucks. They may be braided, and the braids may be sewed together. They may be folded into little pointed pieces and sewed down on buckram or some other foundation to make hats or baskets. They may be rolled into a continuous strand and bound with raffia into mats, rugs, and trays. They may be woven into table mats and strips for bags and small rugs. Shredded strips may be bound to a handle to make hearth brooms and mops.

The shucks of field corn have the best color and are strongest; those of sweet corn are paler and less durable. Shucks may be used at any time except when they are green. The outer coarse leaves should be discarded and the fine fibered inside ones should be used as they are more pliable and take dyes better. The thick end should be cut off with scissors, leaving the shuck from five to nine inches long. A bushel of shucks make a fair sized rug. The shucks must be soaked about ten minutes in warm water before they are used.

For a wide braid the shucks should be cut into strips an inch wide, and the strips should be folded double lengthwise. An ordinary three strand braid made of this width shuck will be about an inch wide. For a narrow braid the strips should be cut an inch wide before folding. To join braids a new piece may be folded under the one being used. These braids may be sewed continuously as for a rag rug. A rug may be made of natural colored shucks and finished by stenciling, by using a border woven of dyed shucks, or by using colored raffia or thread for the stitching which holds the braids together. Table mats, pads for garden chairs, pads to use while gardening, bags to carry gardening tools, or sewing bags may also be made from braided shucks.

Shuck points make effective hats, baskets, or bags and work up more quickly than braided articles. Each point is made of a piece of shuck cut three inches long and about two inches wide. The strips are folded double lengthwise. At the center of the length of the strip, the top is folded down at a right angle to itself, and then the top of the other half is folded down to touch the first strip. Sew across this "point" just above the lower edge. The points are sewed in succession, right side up, on a buckram foundation, each point overlapping the preceding one slightly.

The second row of points comes half an inch below and toward the inside of the first row, and the points come in between those of the first row. Hand sewing may be used, but it is not as durable as machine stitching. Sew the points on row by row, until the entire surface is covered.

Rolled shucks make smooth, strong articles that resemble rush. Before the shucks are rolled they should be soaked in warm water for at least ten minutes, and then the rough edges are trimmed from the better shaped ones which are to be used for the outside of the roll. Two leaves are rolled inside of a third. Piecing must be done constantly to keep the roll uniform. The inside pieces of the roll need not be perfect as they are covered by the outer. In laying the inside pieces the points should be slipped in first because they taper gradually. The piecing of the outer shuck is hidden by sewing, which is done with raffia or twine of the same color as the shucks. If a fancy stitch is used, however, a different colored raffia may be used effectively, but the stitch must be large and showy to give the decorative effect. The strongest raffia is obtainable from nurseries or florists. In finishing off the last row, the roll should be tapered gradually to a point while it is wet and then sewed down neatly. If a border of another color is used, it should also taper down to a point. Some of the useful and effective things that may be made from rolled shucks are heavy durable rugs, small rugs to be used as door mats, sewing baskets may be made of reed covered with shucks or raffia.

Narrow runners, rugs, and strips for bags that resemble grass matting may be woven on a loom. The thick ends of the shucks are trimmed off before soaking in water. The water is drained off and the shucks are laid in a towel as they are used. Each leaf is torn into strips one-half inch wide. These strips should be torn off evenly so that they taper uniformly. When the war shed is made, these strips are laid into the shed, laying the point of each on top of the wider end of the adjacent one. This piecing is easy to do and shows very little. Keep on weaving from row to row, piecing the strips continuously. The weaving is the same as for cloth. It is equally effective on either side. On the commercial rug-loom sold so cheaply nowadays, regular grass matting may be woven either with grasses or corn shucks. The dyed shucks make beautiful bright borders. The cotton warp should be tied into fringes.

Deep arm bags may be made by weaving two feet of shucks on a warp ten inches wide, then folding double, sewing up the sides, hemming the top, and putting on a braided corn shuck handle. If borders are woven at either end of the strip, they will come to the top of the folded bag and make a good finish. Runners for tables may be made like narrow rugs. Mats for tables may be made by weaving short pieces and the affixing either hemmed or fringed.

INTRODUCTION TO SOUTHWESTERN INDIAN ART

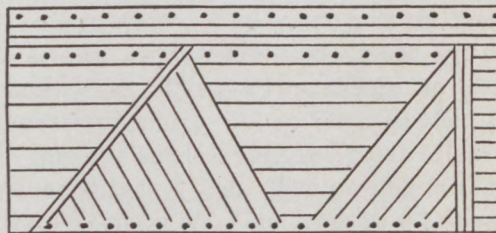
American art, its background, development, and present status, has been recently occupying a good share of public interest. Curiously, however, the only truly native art, that of the American Indian, has been almost entirely ignored. And yet, most of the artistic products of various tribes are good, and some of them are superlatively fine by any standards.

A comprehensive survey of American Indian art will show that America north of Mexico may be divided into a number of areas of artistic development. Each of these areas is marked by the presence of a design style peculiar to it, of which the elements are designs common, in varying degrees, to all the tribes in that area. The rather indefinite boundaries of these areas often cut through those of tribal and even culture areas. Where the influences of two or more areas meet are usually to be found designs showing combinations of these influences.

Main Indian Design Areas—Prehistoric

In the study of Indian art, it should be understood that the term "prehistoric" applies to the period previous to the coming of the white man. The terms "historic" and "modern" apply to the period from approximately the beginning of the sixteenth century to the present day. The more important prehistoric design areas were: Iroquois, Southeastern, Ohio Mound Builders, and Southwestern. The Southwestern area will be discussed in the body of this chapter. The others will be sketched briefly.

The Iroquois area centered in New York state, and reached up into southeastern Canada and south into states adjoining New York. The design style, which is preserved on



Prehistoric Iroquois pottery.

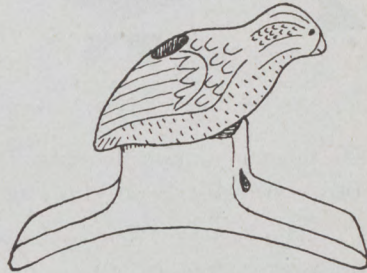
pottery vessels, consisted of angular combinations of parallel straight lines. The Iroquois also modelled clay pipes in human and animal forms. These pipes illustrate the greatest development among Indians of the modelled type of sculpture.



Southeastern pottery design.

The characteristic element is the curving scroll in many forms from the tight spiral to bands of parallel, irregularly flowing lines. The scroll designs are full of gentle movement, and display a mastery of the problems of execution, and an artistic expression of the highest order.

Ohio was the center of the Mound Builders' culture, which spread to adjoining states. Animal sculptures, executed in stone, were the finest products of this area. The best of these pieces, which were in the form of tobacco pipes, rank very high in the list of great sculpture.



Mound Builder stone pipe.

Main Indian Design Areas—Modern

Modern design areas are: Northwest Coast, California, Southwest, Plains, and Eastern Woodlands.



Northwest Coast wood carving.

The special characteristic of Northwest Coast design is the easily curving line, not moving in regular geometric forms, but in subtle, irregular curves.

The designs picture real or mythical animals in natural or abstract forms. Wood carving, both in relief and in the round, is the great art of this region, the greatest development of Indian sculpture being found here.

In the California area, basketry is the art which has been most developed. Designs are varied, but a great proportion of them are based on the triangle in various combinations. Curves are unusual.



California basket design.

Fine featherwork is also produced in this area, some tribes using bright feathers to cover the entire exterior surfaces of baskets.



Plains beadwork design.

The Plains area covers the region from the Rockies to the Mississippi and from Texas to well over the Canadian border. Geometric designs are outstanding, with the triangle

the most common element. These designs are shown in bead and quill embroidery on clothing, horse trappings, etc.

The Eastern Woodlands area reaches from the Great Lakes to the Atlantic Coast, and up into eastern Canada. Here are found two types of design, one based on the other. The first is the double curve



Eastern Woodlands double curve.

formed of two incomplete curving spirals. This pattern is found in many variations. The second style is a combination of the double curve with a floral style brought from France in the seventeenth and eighteenth centuries.

Symbolism

It is a mistake to believe that all Indian designs have symbolic meaning. A great number of the patterns are purely decorative, and are merely the expression of the artist's desire for beauty. Some of these designs may have had a meaning for the maker, but the symbol was an individual and not a tribal one. However, such articles as were used in religious ceremonies do

bear definite symbols with meanings comprehensible to the tribe which uses them.

The Prehistoric Southwest

The Southwest is the area which covers all of New Mexico and Arizona, the western part of Texas, and the southern parts of Colorado and Utah. This region is peculiarly rich in prehistoric material, for it was occupied continuously for many centuries before the Spanish invasion, and the prehistoric peoples have left their traces throughout the area,—low mounds on the desert flats, which once were buildings, ruined dwellings in caves in the canyons, and fragments of broken pottery scattered over the surface of the ground everywhere. Exploring these remains of a vanished life, the archeologists have been able to build up a fairly clear picture of the past. They have worked out a sequence of the various cultures, and through the method of charting the tree rings in the wood found in the ruins, they have been able to date the time and duration of each culture phase. Traces have also been found of very early inhabitants who made projectile points beautifully worked in typical shapes. These points, classified as "Folsom" and "Yuma," have been found in association with extinct bison and camels, so their makers must have come into the country in very early times. But no remains of the men themselves have been found, and so far, no one has been able to ascertain accurately the date of their coming. The Lindenmeier Folsom site in Colorado has been tentatively dated at about 15,000 years ago.

In the northern part of the Southwest, centering around the San Juan River in northern New Mexico, the prehistoric culture is called Basket Maker-Pueblo. The earlier people, the Basket Makers, came into the region in unknown times as nomads, and began to settle down to live a more sedentary life, building crude dwellings, and cultivating maize. These people made beautiful, intricately woven baskets and sandals decorated with geometric designs in red, black and yellow. But about 700 A.D. a new group began to filter into the area. These newcomers gradually routed or absorbed the earlier inhabitants, and took over the region for themselves. These were the Pueblo people. When they arrived the Basket Makers were just beginning to make pottery, and in the centuries following, the Pueblos developed the art to a very high level. At first, the designs were strongly influenced by the patterns on baskets, but eventually the potters learned the greater freedom of expression afforded them by the smooth sur-

faces of the pots. The finest pottery was produced during the Pueblo III period, the period which also produced the spectacular big buildings of Mesa Verde, Pueblo Bonito, and Kayenta. Each section of the region produced different and characteristic designs and shapes. Designs were, for the most part, in a free geometric style, and, though black-on-red, black-on-buff, and polychrome pottery were frequent in some areas, the majority of the pottery was black-on-white.



Mesa Verde



Kayenta



Chaco

Prehistoric Pueblo Pottery

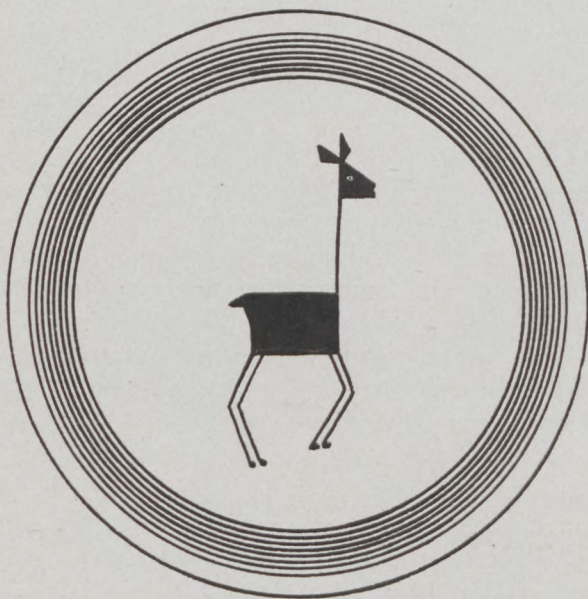
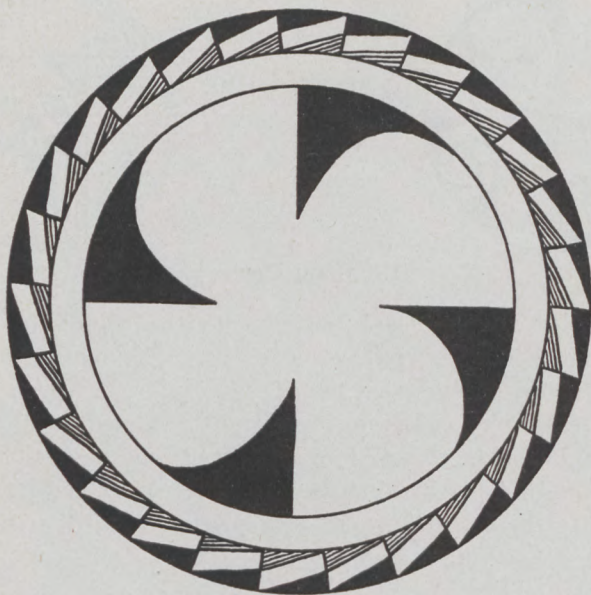
Loom weaving was known in this region, the Indians spinning and weaving the native cotton into fine textiles with elaborate patterns in black on white, plain white, and some with other colors. As time went by, however, the arts declined. By the time the Spanish entered the Southwest, the products of the Pueblos were less fine, and the high level of the Golden Age, Pueblo III, has never been reattained.

Chart of Basket Maker-Pueblo culture phases:

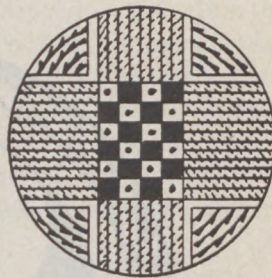
Pueblo V.....	1700-1900
Pueblo IV.....	1300-1700
Pueblo III.....	1100-1300
Pueblo II.....	900-1100
Pueblo I.....	700-900
Basket Maker III.....	? -700

In southern Arizona have been found the remains of another group called the Hohokam. Wissler says of them: "The current theory is that Hohokam is older than Basket Maker III and the carrier of agriculture and ceramics to the San Juan area; this awaits . . . demonstration."¹ These people had a design style quite distinct from that in the north. Life forms were common, elements were smaller, and more curves were used. All-over patterns were more common than in the Pueblo area. Red-on-buff pottery prevailed.

¹Wissler, Clark, *The American Indian*. 3rd edition, 1938.



CLASSIC MIMBRES BLACK ON WHITE POTTERY BOWLS



Hohokam Pottery

A similar group, closely allied with the Hohokam, were the Mogollon in southwestern New Mexico. The most outstanding pottery of these people was that of the Mimbres. This group had an absolute mastery of the problem of filling a circle with a design, and their execution was as fine as their design sense. Fine lines combined with beautifully balanced masses of black and white characterize their design style. They used many life forms, and in these displayed much humor.

Chart of Hohokam chronology :

Modern	1700-1900
Recent	1500-1700
Classic	1200-1500
Sedentary	900-1200
Colonial	? -900

Not very long before the Spanish invasion, new groups began to wander into the Southwest from the north. These were fierce nomadic tribes, raiders and fighters, quite unlike the peaceful civilized people of the country they had invaded. When the Spanish came, they called these folk the "Apaches de Navaju", and they were the ancestors of the present day Navaho and Apache. For centuries, these tribes were a terror to the countryside, and were only subdued by the most drastic military measures after the United States acquired the territory.

It would be impossible, in so short a summary of the Southwest, to give an account of the Spanish invasion and the gradual conquering of this vast region. They had many troubles with the tribes, which were climaxed by the great Pueblo Rebellion in 1680, when, for the only time in their history, the Pueblos joined together and drove out the foreigners. They were reconquered in 1692 by General DeVargas, and the Spanish came back to stay.

The Modern Southwest—Pueblo

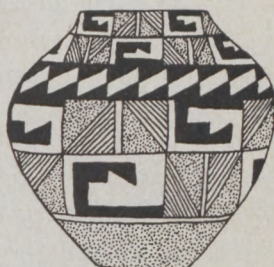
The meaning of the Spanish word Pueblo is town. The name was given to these tribes because they lived in permanent villages. Today, they still live much as they did when the Spanish discovered them. Although to the casual visitor they seem to be alike in appearance and mode of living, they are actually separate tribes, with distinct characteristics and languages. The design style of each pueblo, particularly as shown on pottery, is distinctive.



Hopi



Zuni



Acoma



Tsia



Cochiti



San Ildefonso

Santo Domingo



MODERN PUEBLO POTTERY TYPES

The Hopi towns in Arizona have a distinctive design style based on the designs from prehistoric Hopi wares. The patterns are highly formalized with abstract birds and feathers. The pottery is a creamy mottled yellow, but occasionally red or white wares are made. At Zuni Pueblo, in western New Mexico, the pottery is quite heavy, with red, and brown-black designs on a clear white background. These designs are strong, and rather heavy, and are a combination of straight line geometric figures with deer, birds, rosettes, and curve designs. The workmanship is apt to be a trifle crude.

At Acoma, east of Zuni, the pottery is very fine and thin, with very elaborate decoration. The decorative field generally covers the entire pot, with the exception of the base, and is filled with a profusion of angular and curved forms, done with fine and accurate craftsmanship. The pottery of Laguna pueblo, nearby, is quite similar in design, but the pieces are heavier and thicker.

There are many pueblos scattered along the Rio Grande from Isleta, thirteen miles south of Albuquerque, to Taos, about sixty-five miles northeast of Santa Fe. Only the most outstanding need be mentioned here.

At Santo Domingo, the design style is boldly geometric, with strong black designs on a cream background. The basic style is rather simple, being formed of squares or rectangles with the corners cut off and filled with black. This style is capable of endless variation. Across and up the river from Santo Domingo is Cochiti, the only pueblo where symbolic designs are used on everyday pottery. These patterns are mainly symbols of fertility, rain clouds, lightning, corn, birds, and leaves, done in black on a cream background.

Tsia pueblo, northwest of Albuquerque, produces a heavy pottery with elaborate decoration with many curved lines. Undulating double bands of red encircling a jar are characteristic, as are broad pointed leaves, and large-bodied, small-headed birds. Several warm colors are used.

North of Santa Fe are San Ildefonso and Santa Clara. Both produce polished black pottery, but the types are distinct. At Santa Clara the pottery is slightly rough, and has no painted design. At San Ildefonso, however, the pottery is highly smoothed and polished, and patterns in dull black paint are applied to the shiny surface. This ware was invented by Maria and Julian Martinez, who are today the most famous Pueblo potters.

A close comparative study of Pueblo Indian pottery is a fascinating topic, and well worth the effort of collecting either actual pieces or pictures of designs.

Weaving has long been one of the crafts of the Pueblos. As was mentioned earlier, the prehistoric peoples wove in cotton. After the coming of the Spanish, who brought sheep, among other things, these tribes began to use wool for their weaving. Designs in wool weaving have remained simple, being combinations of stripes running the width of the blanket. Weaving in cotton is still done to some extent. Ceremonial shawls, kilts and sashes are woven by the men, and embroidered by men or women with fine designs done in wool.

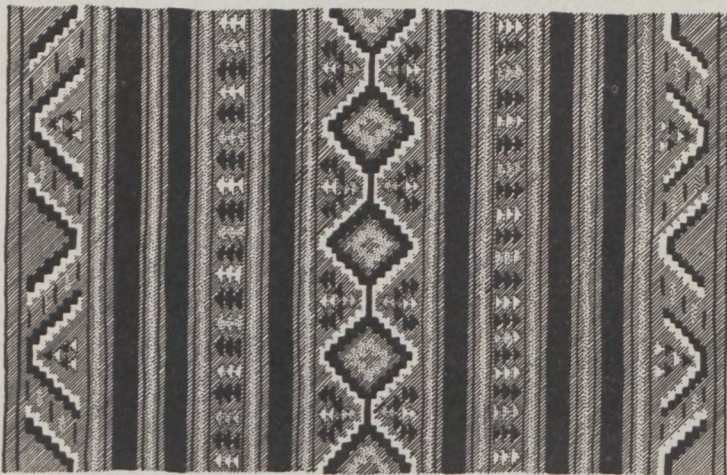
The Navaho

The Navaho Indians are a large semi-nomadic tribe living in northwestern New Mexico, and northeastern Arizona. Their homes are huts built of logs and earth. They have many flocks of sheep, and move from place to place, wherever grazing is good on the reservation. The outstanding crafts of this tribe are weaving and silversmithing. Neither of the arts is native to the tribe, but the Navaho is quick to learn, and adept at improving on what he has learned. From the Pueblos they learned to weave, and today the Navaho blanket is one of the best known products of Indian craftsmanship. The finest blankets, those with the best designs and the most careful spinning and weaving, were produced in the years from about 1850 to 1875. Earlier, the design was still one of stripes running the width of the blanket, but terraced patterns were added, and more colors. This was the period of the fine "bayeta" blankets, when yarn ravelled from red flannel procured from the white man was used to add bright color to the weaving. As time went on the designs became more and more elaborate, and less well integrated. About 1880 aniline dyes and commercial Germantown yarns in gay colors became available, and the weavers went on a spree with brilliant colors and wild designs. Wearing blankets were seldom made, and floor rugs with bordered patterns became common. This phase has lasted from 1880 to the present day, but of late years there has been some revival of the old stripe patterns, and soft native colors.¹

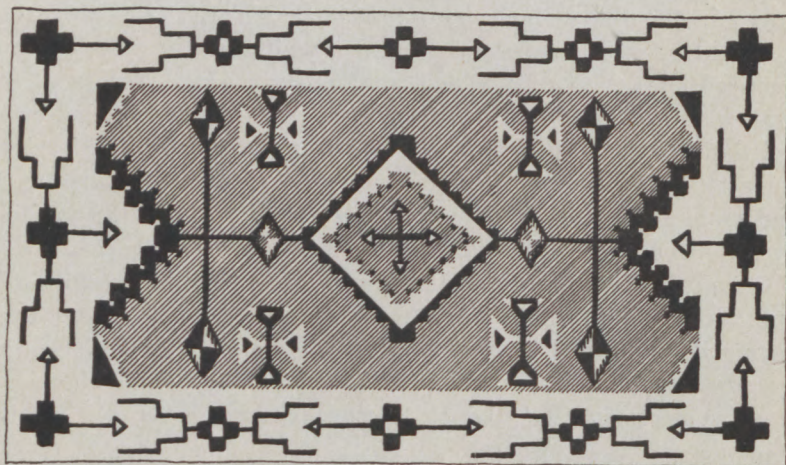
Silversmithing is another art imported into the Navaho tribe. The craft was acquired about 1850. It was learned from the

¹Amsden, Charles, *Navaho Weaving*.

Mexicans, but patterns were influenced by pieces from eastern tribes, as well as by the Spanish on the west.² Earlier pieces were simple and rather crude, bracelets, belts, earrings and buttons being the main products. Later, more elaborate pieces were made, necklaces, bridles, and finger rings, and about 1900 turquoise began to be used for settings. Designs were well executed, and had a simplicity and dignity which is lacking in most modern



CLASSIC STYLE BAYETA BLANKET



MODERN BORDERED FLOOR RUG—NAVAHO WEAVING

²Woodward, Arthur, *A Brief History of Navaho Silversmithing*. Museum of Northern Arizona, Bulletin 14.

pieces. In the last 25 years white men have been turning out a mass of cheap machine-made imitations, light in weight, and very bad in design. To some extent, these imitations have forced the Indians to cheapen their own products, and as a result the art has deteriorated. Left to himself, the Navaho will turn out very fine silverwork, massive and dignified in design, and fine in execution.

Sand-painting is one of the Navaho fine arts. These highly symbolic designs are made of various colored earths sprinkled in lines and figures on a flat surface of the ground. They are used for religious ceremonies. These sandpaintings are strongly conventional and show an excellent sense of design and color. Although other tribes made them, the Navahos usually excel in this art.

Other Tribes

There are many other tribes scattered throughout the vast area of the Southwest. Each has a distinctive tribal design style. One of these tribes is the Maricopa, of southern Arizona, who make a very shiny red pottery with free open designs in black. The Pima, also in southern Arizona, make beautiful baskets with lively swirling patterns. These people have a perfect mastery of the problem of filling a circular field with design, and the patterns of their basket bowls could not be bettered by the most sophisticated artist. The western Apache tribes also make fine baskets, using geometrical designs combined with amusing human and animal figures.



Pima Basket Designs

This discourse is only a very brief sketch of the outstanding arts of the Southwest, prehistoric and modern. Many books have been written about each of the arts described here, and any one of them could occupy the student's entire time. A more intensive study of the subject should prove interesting and well worth while to any student of design.

AMERICAN ART

"In the past it has been our habit to neglect the arts. We have not been art conscious people. In our amazing industrialization the major creations have not been in the arts. Posterity will remember us for our plumbing rather than for our painting. We have always found it more convenient to reproduce or import the arts of Europe and the Orient than to create our own.

"We have linked art with prosperity and leisure. We have not understood it as the bright companion of work or the ever-flowing fountain where the tired and despairing may refresh themselves. We have filed art away with the things to be done when there is time.

"The arts have been practiced in America for three hundred years, but it is hardly half a century since there has been any truly American art."¹

Many people feel that art is something apart, something for the few and for the rich, whereas art is for all, and we are surrounded with it if we only look for it. In awakening interest in American art in our classes, let us look at our own communities first.

What Have We About Us?

In every community there are manifestations of art in quilts, hooked rugs, fine furniture (family heirloom), antique jewelry, old costumes, weaving, embroidery, silver, linen, etc. The pupils may study these things for their beauty.

Who Made These Things?

This we can learn from the parents or relatives of the children. Often interesting stories accompany the articles loaned for display or study. In communities where the population is foreign-born, much peasant art work and fine craft work may be found and a sense of pride developed in children who too often have been considered "hunkies" or "wops." In Colorado examples of pioneer art or art objects brought across the plains to beautify new communities may be forthcoming.

When Were These Things Made?

From such inquiries about material which have been assembled, a history or social science unit may be developed as well as a unit in art appreciation. Different periods, customs, etc., have governed the development of the art objects.

¹Chill and Barr, Jr., *Art in America in Modern Times*. p. 3.

What Else Was Made at This Time?

The preceding considerations naturally lead to a discussion of Indian and Spanish arts of the United States. Colorado is so near to its own pioneer age and is so closely linked with New Mexico and Arizona that a natural starting point is found in the native arts and crafts of the region. The Denver Art Museum has a splendid collection of Indian art, and some of it may be loaned to schools. In this connection a section in this course of study on Southwestern Indian Art should be consulted.

American Indian art lends itself to the integrated study of design, color, architecture and most of the crafts. Since the materials used are of native origin, an appreciation for workmanship may be developed even though the student studies fragments of old pot shards, a finely woven blanket, or silver bridle mountings.

Spanish colonial art is even closer to our experiences because it was made from native materials and fitted decorative elements to the utilitarian objects. Since the craftsman uses commonplace materials, such as wool and wood, a study of the arts of these people inspires pupils to make similar objects from native materials.

The early settlers made not only essential articles but beautiful objects, and "as the colonists became more securely rooted on the prados and mesas of Nuevo Mexico, certain men developed greater proficiency as carvers and painters. They were called *santeros*, 'the saint makers,' " and today a study of Santos reveals a purely native art which may soon be lost. Other craftsmen became proficient workers in tin. The women wove and embroidered "*colchas*" or bedspreads, and even the carpenters planned ornamental corbels and porches for the flat adobe and brick buildings.

Going further afield a study may be made of peasant arts in Europe or any other related material suggested by the objects which have been wrought by the students themselves. Never since the Renaissance has art touched the lives of so many people as it does today. We find it in utilitarian furnishings for our homes, in modern architecture and interior decoration, in streamlined trains, etc. We can escape it only if we refuse to see it.

What Is Done Today in Industrial Art?

Art has become an inclusive term and the so-called "major" arts and the "minor" arts of the last century are on an equal basis.

"What is required as a preliminary to any solution of the division existing between art and industry is a clear understanding not only of the processes of modern production, but also of the nature of art. Not until we have reduced the work of art to its essentials, stripped it of all the irrelevancies imposed on it by a particular culture or civilization, can we see any solution of the problem."¹

Pupils should become conscious of the line and contour beauty to be found in such common objects as a toilet bottle, an ink container, or an automobile. They should learn that the beauty is innate and not "applied" after the object is finished. They should recognize the likeness of design and beauty in a cross-section of a cactus stalk and a ball bearing. They should feel for textures and appropriate combinations of materials so that they may make surroundings attractive.

"We have kept the student also in mind. As we have talked with young people studying in the routine courses of engineering at architectural colleges or in art schools, we have found a lively conviction that industrial design is to be the most vital expression in terms of the arts of a new age.

"Further evidences of this student interest are given by some of the most prominent industrial designers who report receiving a half dozen letters a day from young people all over the country asking how to prepare themselves for the profession. Young men—some young women—see the promise of the long-lost unity of art and practical life about to be restored."²

What Is Done Today in Modern Art and Crafts?

Pupils learn that craftsmanship has beauty although all craft work may not be fine art, the difference between a hand-made wooden tray from New Mexico and a burnt wood tray with hand-carved roses as a motif. They should experiment with materials to see what they will do, and learn to use simple things, simply made and decorated. "Creative Design," "House and Garden," and "Arts and Decoration" are all magazines which show what may be done in the crafts and their use in homes of all sorts.

In both of these fields, especially at the high school level, it is better to introduce the pupils to contemporary art first, for its subject matter and expression is more comprehensible to them

¹Herbert Read, *Art and Industry*. p. 1.

²Cheney, Sheldon and Cheney, Marth, *Art and the Machine*.

and will hold more interest for them than period art which appeals by its literary or historic subject matter primarily. "Living American Art, Inc." Cahill and Barr, and Associated American Artists presents analyses and reproductions of modern American art in all of its forms.¹

Exhibitions of paintings and occasionally small sculpture can be obtained from artists or from museums and these stimulate an interest as they represent the work of living men and women. After an introduction in these fields, the pupil should learn about the work of the best artists of the country. The following painters are suggested as worthy of study:

Winslow Homer. Painter of the ocean and homely "genre".

Thomas Eskins. Painter of athletes and sports.

James McNeill Whistler. Painter of atmosphere effects and subtle color studies and also master of etching.

Gilbert Stuart. Painter of landscapes.

Albert Ryder. Painter of the sea in mystic and poetic forms.

Mary Cassatt. Painter of mother and children.

The sculptors listed below are also worthy of study as sources of information and inspiration.

Augustus St. Gaudens. First great American sculptor.

Daniel Chester French. Sculptor of "Lincoln"—Lincoln Memorial.

George Grey Barbard. Sculptor and founder of "The Cloisters."

Malvinal Hoffman. Sculptor of "Hall of Man"—Field Museum.

Paul Manship. Sculptor of modern stylization.

Lee Lawrie. Architectural sculptor. (Nebraska State Capitol).

What Is Done Today in Architecture?

"Pueblo communal buildings and the modern skyscrapers are the only original ideas which America has contributed to world architecture,"² and both types of buildings may be seen today. "We sometimes wonder why our dwelling places couldn't have been conceived and built as cleanly, as efficiently, and as beautifully as our automobile. That has just the combination of mechanical efficiency and comfort, of cleanliness and pleasureable brightness, of mechanically perfect shelter and of beauty out of proportioning and structure, that we should relish in a house. But we never liked to embarrass the architects by asking."³

It is not necessary to study the history of architecture to evaluate and understand it enough to select structural facades and to recognize good proportion, spacing, massing of dark and

¹Cahill and Barr, Jr., *Art in America in Modern Times*.

²Ruth L. Baker, *Caballeros*, p. 120.

³Sheldon Cheney, *The New World Architecture*, p. 8.

light in buildings. Suitability of material and the combination of materials in buildings may be emphasized. If the buildings of a community and adjoining communities are studied first for their form, proportion, color, texture, etc., a further study of other types of architecture may supplement this first hand of the community.

Who Are the Artists?

Engineers. Industrial art calls for both the creative designer and the engineer who knows the functional limitations of materials. Most of the leading industrial designers of the day are engineers who have had some art training.

Craftsmen. These artists know their material and its possibilities or limitations and create in terms of the materials which they use.

New Mexicans. These native craftworkers are especially proficient in wood carving, tin-work, weaving and embroidery.

Indians. Indians are craftworkers in silver, woodcarving, pottery making and weaving.

All of Us. Everyone has some ability to create. Experimentation in various materials at hand and an experimental approach in discovering design principles and color relations will make creative efforts of each individual more satisfactory, functional, and pleasing.

MOTION PICTURES

This section is primarily concerned with techniques of producing motion picture films. Several schools in Colorado have attempted projects involving film production and have found them to be valuable, not only in relation to art but also in relation to a realistic study of community resources or problems. Although this section does not treat motion picture appreciation, the art responsibilities and opportunities in relation to that aim are recognized. Certain sections in the English and social science bulletins of the Colorado Course of Study for Secondary Schools offer many suggestions on the study of motion pictures to develop appreciations and discrimination in consumers. In the process of developing a film, the pupils will develop understandings and skills which will result in genuine appreciations, especially if art problems are given adequate consideration.

The first reaction to the possibility of making films in art classes is that the project is much too difficult, too expensive, and too far removed from the objectives of art teaching. These objections are not insurmountable. Films have been produced for \$25, and the cost has been met by showing these pictures to pupils or adults who are willing to pay a small admission fee. Likewise, no great difficulty is encountered in operating the modern 16 mm. hand motion picture cameras. Lighting problems related to indoor photography are not beyond the abilities of high school pupils. The objectives of art teaching take care of themselves. It is impossible to make a fine film without an appreciation of fine design in the rectangular frame, unless the photographer understands the art principles of dominance, balance, rhythm, harmony, and unless there is a working knowledge of rhythm in time, rhythm on the surface of the area, and the interrelation of art elements of line, dark and light pattern, and color in conveying a mood and in communicating the desired effects.

Problems of Equipment and Cost

The movie camera may be either the 16 mm. or the 8 mm. size. The former makes a picture which can be projected in any room. Pictures from the latter can be shown only in a small room. However, the major difference is in the cost of film and equipment, which is at least twice as much for 16 mm. film as for 8 mm. work. For most amateur work, 16 mm. film is preferred.

A tripod is needed to keep the camera steady at all times. The tripod should have some swivel top arrangement so that the camera can be swung into different positions. A photometer or light meter should be employed for each shot to avoid spoiling film merely because of errors in judging the amount of light.

Motion picture film in the 16 mm. size comes in 50-foot and 100-foot rolls. The 100-foot rolls run for four minutes and cost from \$3.00 to \$7.00, depending on the type of film desired for the purpose. For indoor work it is usually necessary to use artificial lighting. Six special brilliance bulbs cost about a dollar, and they last about two hours. When the film is finished, titles may be needed. These can be secured from professional title makers at about 25c to 50c per title, depending on the length.

“What to Say”

In making a movie, it is necessary first to have the equipment, but it is equally important to have something to say. This “something to say” cannot be easily explained. The motion picture is essentially a medium for communicating ideas and emotions pictorially. An amateur film may be a simple tale, a travelog, an instructional device, or an exciting drama. In either case the idea and theme should be carefully considered. The theme depends entirely on the individual or group making the movie. High school students might like to make a film dramatizing an incident in the cultural development of an immigrant family. An art teacher might want to make a film showing how moods in the theatre are created and influenced through fine use of line, dark and light pattern, and color. A college cinema club might want to make a documentary film showing life on the campus.

After the basic theme is selected, it is broken up into sections, equivalent to the chapters of a book. Each section is in turn made up of a series of “shots,” or what may be equivalent to paragraphs, which are in turn composed of smaller units, the individual “shots.” This is the basic unit in the motion picture film, and will receive brief consideration at this point.

A “shot” may be a “close up,” a view taken at close range. It may be a “long shot,” a view taken from some distance. It may be also a “middle shot” when the material to be photographed is in the foreground, but not too close to the camera. A shot may be taken from a low angle, from above, or from eye

level. It may be taken from a stationary position, or it may be a panoramic view (commonly called "pan") in which the camera rotates on its axis. It may be short or long. It may fade in, fade out, or dissolve from one scene into the next.

Since shots *can* be varied, it is obvious that great care should be taken with each one. The situation is exactly the same as in writing a book. The individual sentences must be well conceived and integrated to produce a fine novel. Some persons find it helpful to actually make a thumbnail sketch of the composition of each shot. Certainly when a shot is planned it should be considered from the point of view of design in line, dark and light, and texture. It should conform to the principles of design in dominance, rhythm, and harmony. It should contribute significantly to the development of the theme of the film.

Photography

Many have manfully struggled with a camera trying to make the picture "fit" into the view finder, hoping against hope that luck would give something worthwhile. The process of photographing a movie is very much the same, with many additional disturbing factors. The high cost of the film, the length of each shot, the movement of the camera, and the amount of light available must be considered.

Elementary principles of operating a movie camera must be applied. Most amateur photographers are under the impression that the various adjustments of the motion picture camera are very complicated and difficult to handle. As a matter of fact, it is easier to operate a movie camera than a still camera. In setting the lens aperture and in setting the correct distance adjustment, the adjustments for still and movie cameras are identical. However, on the still camera it is necessary to adjust the lens for different periods of exposure. For example, the still camera on "time exposure" may be set for $1/25$ of a second, etc., according to light conditions. On the movie camera, the exposure is *fixed*, usually at $1/25$ of a second. Finally, the setting for the still and the motion picture camera is identical as far as distance from the object is concerned. According to these facts, it is almost impossible to ruin a film with a movie camera if the *distance* of the object from lens and the amount of *light* on the scene are both determined in order to adjust the lens correctly.

In determining distance from the object, various methods are available, including the good old-fashioned tape measure, as well as mechanical range-finders. From the technical point of view the most important factor to be considered is the amount of light falling on the subject to be filmed. As in still photography, motion picture film is a strip of film coated with a sensitive emulsion. This sensitized film is exposed to the scene being photographed. If there is too much light, the film will be overexposed, and when it is shown it will appear too light. If there is too little light, the film will appear too dark when projected. The films of careless photographers are uneven with sequences overexposed and underexposed.

Design

It is difficult to explain in words what is meant by fine design and poor design in a motion picture shot. For those who are familiar only with American films, reference can be made to John Ford's "The Informer." In this film every shot seems to have been conceived by an artist who was deeply conscious of the psychological effect of lines, shadows, and "camera angle," and who carefully utilized the principles of design, such as rhythm and harmony, to communicate most effectively his theme of the betrayal of one friend by another for a thirty-pound reward. Another example of good design in each shot is the current film, "Angels with Dirty Faces." It is a story of two friends, one of whom becomes a priest and the other a gangster. When viewed from the design aspect alone, this film is indeed outstanding because each shot was carefully composed to give its message, and at the same time the message was stated in terms of fine relationships of line, dark and light, and textures.

While it is almost impossible to discuss the design of a shot in abstract terms, it is possible to regard the fundamental principles of design and to apply them in photography. For example, every finely designed shot must have a dominant center of interest to which other portions of the scene must be related. There must be rhythm of the forms within the screen's area and in the relationship of shots one to another in the film.

It is important to give careful thought to the length of a shot. A movie shot should be long enough to give a clear idea of what it is intended to show, neither more nor less. In addi-

tion, it should always be considered with relation to the shots which immediately precede and follow.

This advice may seem unnecessary, but most glaring instances of not heeding it are to be found in almost every amateur movie film. Too often the scene which should be short is long, and vice versa. Sometimes the producer is loathe to remove a portion of a film because it has some material which is of some personal interest to him. A scene may be so short that no one, excepting the producer, can grasp its significance. In a 16 mm. film the shot should be, except in unusual cases for special effects, 5 seconds, or about 2 feet of 16 mm. A good length shot is about 5 to 10 feet in length or about 15 to 30 seconds. A shot should be carefully considered if it is more than 15 feet long because it is monotonous, unless it is full of action and interest.

While the camera is in use, it is advisable to use a tripod to prevent unnecessary and undesirable movement. However steady the hand may be, the movement of the shutter or the unwinding of the spring mechanism will have a tendency to jiggle the camera when it is held in the hand. All tripods can be equipped with a swivel top so that it may be moved from side to side, up or down.

Editing

This is the final stage in the production of a film. In the process of editing a film the various shots must be organized effectively. The uninteresting, objectionable, or unnecessary material must be eliminated. The actual process of editing is made easy by using a film "splicer," a device for cutting and cleaning the ends of each strip of film and for cementing the ends together so that the film will not break when it is run through the projector. Anyone can learn to operate a splicer.

The first stage of editing consists of putting in order those scenes which go together. This is done by cementing or "splicing" the strips of film together in their rough order. The pictures on the film should be projected and observed by the editor until he is familiar with the material in it. The next stage is the most exciting and thrilling, because it involves experimentation with the various relationships of scenes. It is necessary to consider the effect of a certain scene, if instead of using one long shot of the whole scene, the view is changed from a long shot to a close up or to a middle shot, thus breaking up the whole scene and making it more interesting and more pointed. It is

necessary to consider the possibilities in contrasting a series of short staccato shots with long drawn-out shots. Likewise, thought must be given to the effect obtained by alternating a violent tempo with a slow speed. Very often the merit of a film may be decided in terms of the ability of the film editor to consider these points adequately.

Editing is the most important phase in the production of a film as poor editing may ruin the results of fine photography and skillful editing may improve defects of poor photography. Some of Griffith's films, for example, "Birth of a Nation" and "Intolerance," are still gripping and powerful. These films may be inferior from the point of view of modern photographic technique, but their rhythm and movement are still stirring. Indeed, Griffith's films have set the standards for fine editing, standards which have deeply influenced the development of the art of motion pictures in America and Europe. Anyone who is concerned with film making from the art point of view should take great pains in editing. A good splicer should be used. The film cement should be changed frequently to insure freshness. The film should be handled with great care to avoid scratches, whenever possible a duplicate should be used for experimentation.

It is especially important to remember that the film is art material, like paint or clay. It is a material which can be manipulated to secure different effects. Editing is the process of designing this medium, and the basic principles of design must be applied. In so far as possible develop *rhythm* in the relationships of time sequences, *dominance* in the building up of climaxes, and *harmony* in the organization of relationships of sequences to form a unified whole.

Conclusion

The points which have been developed in this section may be summarized as follows: First, the cost of making a movie is not prohibitive. All costs can be met by showing it at a school assembly at which a small admission charge is made. Secondly, the producers must have something to say. This something to say should be an idea or story which is considered worthy of being produced and shown to audiences. Having chosen a theme, it is necessary to photograph it, making certain that it is carefully worked out in advance and that the correct technical conditions have been met. Finally, the sequences are edited. No attempt was made to discuss the whole matter of acting, set

designing, costuming, etc. These are matters for each individual group to consider in relation to its film. The major purpose has been to make clear the art implications of motion picture making. From beginning to end, motion picture production should be concerned with the principles of design, rhythm, dominance, and harmony, and with the application of these principles to the organization of lines, dark and light, color, and textures in the film. In this sense, movie making can be integrated into the art curriculum as a creative activity of equal value with other art experiences.

ART EXPRESSION IN OTHER TIMES

This section has been prepared to reveal the development of art in Western Culture. It also reveals that artistic tendencies are to be found amongst all people. The summary is brief, and it should be regarded as an outline to be elaborated by pupils and teachers. In this area art teachers should correlate activities in their classes with those in history classes. There should be the development of appreciations, and purposeless memorization of meaningless facts should be avoided.

About 15,000 years ago tribes living in and around the Spanish-French Pyrenees produced strongly designed and beautifully painted cave drawings. It is believed that these caves were used only for ceremonial or religious purposes; but our knowledge of this period is still very slight, and we have only the painted record of a civilization to guide us.

The Egyptian era began about 5,000 B. C. and continued as a high civilization for almost 4,000 years. Egypt rose and declined time after time, but always recovered sufficiently to carry on an epoch based largely on tradition. Egyptian art soon became highly stylized and stiff, and probably this accounts for the final downfall. Both the painting and the sculpture of the Egyptians were massive, impressive and monumental. They were intended to glorify the gods and pharaohs. An art based exclusively on "what was good enough for my grandfather is good enough for me" is dead.

In Asia during the same period there developed a tempestuous civilization in Sumeria and Chaldea. Babylon and Assyria emerged during a later period. All four are inextricably bound with each other and we find an Assyrian arch surmounting a Chaldean bas-relief with a Sumerian inscription. The civilizations were based on cruelty, war, and bloodshed. They left us bas-relief wall decoration of human and animal sacrifice and of hunting and battle scenes that are vigorous and alive in their drawing, execution and realism. Their greatest contribution to history is the arch, although neither the Egyptians nor the Greeks were interested in the architectural wonder which the Phoenicians brought them from their Mesopotamian neighbors.

The next rising era was that of the Minoans in the Aegean Sea. They borrowed heavily from the East and laid the cornerstone for the great Greek period. The Minoans provided the

transition from the traditional stylization of the East to the creativeness of the Greeks. They disappeared almost as rapidly and completely as they had risen, probably because they thought it more important to live well than to fight well.

Greece followed the Minoans, and high art came to Europe. There are three important Hellenistic periods: namely, the early, the middle and the high or Periclean. The Periclean Age, approximately 500 to 300 B. C., contributed many of our ideas and ideals. Its influence has not been completely dispelled in our own age. The high period gave us the greatest idealized, as well as realistic sculpture that the world has ever known. The Greeks probably produced paintings, but very little evidence of that work has yet been found.

The Romans conquered Greece and carried Greek art in a somewhat clumsy and ostentatious imitation to every outpost in Africa and Asia. The Romans were not inclined to develop an art of their own. They copied both closely and copiously. After the fall of Rome, art and civilization fled to Byzantium.

Byzantium provided a haven for civilization for a thousand years, but in the eastern tradition the type of work that was to be done was prescribed. The idealized and distorted figure with flattened and conventionalized background dominated painting until Giotto was prominent. The tradition was evident in Russia to 1918. In the west, during the Dark Ages, only Ravenna in Italy outwitted the barbarians. The Romanesque of Ravenna was heavily dependent on Byzantine art and architecture. The Romanesque, characterized by few and tiny windows, lack of towers, massiveness, and a general horizontal feeling, spread from Ravenna as quickly as it could be carried by the new conquerors.

The Gothic, characterized by many large windows, very high towers, a light and airy spirit, and a general vertical feeling developed in France as a natural outgrowth in a country which was neither bright nor warm enough for the dark, heavy Romanesque. The great height and relatively small area of Gothic cathedrals was due to the limited space within the town walls of feudal France. The Gothic spread to England and was greatly used, to Italy where it was looked upon as rather frivolous, and to Germany where its lightness was incongruous with the stolid Teutonic race. Gothic was more than a cathedral style; it was the beginning of the awakening of Europe from the Dark Ages. It was the spirit of burning, flamboyant beauty in an ugly age.

Soon after the fourteenth century a young man in Florence began painting in a manner that was in direct defiance to the Byzantine tradition. He, Giotto, painted backgrounds and realistic figures based on what he saw rather than what he had read in a book of rules. The Renaissance, a movement that was to revolutionize painting, living, and thinking, had been born. In quick succession after Giotto came many superior talents who contributed greatly to art knowledge. They were Fra Angelico, Fra Lippo Lippi, Duccio, Martini, Donatello, Massaccio, Ghirlandajo, Verrocchio, and Botticelli. They built the foundation for two of the great geni of the west, Leonardo da Vinci and Michaelangelo. About 1400, the Van Eyck brothers of Flanders developed a type of painting, including oil as an agglutinant, which revolutionized painting and gave the Renaissance in Italy a fresh impetus which produced Titian, Tintoretto, the Venetian School, Raphael, and the School of Rome.

The Renaissance spread to the rest of Europe under Hals, Rembrandt, the Breughel brothers, Rubens, Veermer, Van Dyck, Under Le Nain, Fouquet, Clouet in France, and in Germany under Dürer and Holbein; under El Greco in Spain. In the spirit of the era, almost all of these men moved from country to country. Holbein and Van Dyck moved to England, Rubens moved to France and Spain, and many Flemish moved to France.

Baroque was born in fanatical Spain and rapidly spread to a restless world struggling with the Reformation. Spain had established a degree of order, and was demonstrating to the world her high degree of civilization by the Inquisition and the ostentatiousness of Baroque. Rubens was Baroque, in his large sensual figures and in his feeling of lush heaviness.

Rococo was the revolt from the ostentation of Baroque. Rococo was the expression of a people who interested themselves in dainty trivialities and lived for the pleasure of living. The epitome of Rococo was France during the periods of Louis XIV, XV, and XVI. Rococo in painting reached its heights under Watteau, Boucher, and Fragonard. As in Gothic, Rococo was not style, but an age. It was followed by the French Revolution and the Classical Revival which lasted until the Victorian period and produced Empire in France with David, Ingres, Gericault, Delacroix; Regency in England with Reynolds, Lawrence, Gainsborough, Romney; Greek Classical in America with West, Stuart, Copley; and Biedermier in Germany. Goya, the great Spanish rebel, lived

during this period, but was a law unto himself as a painter. He lived late enough to be a direct and great influence on the French impressionists, especially Manet.

The early Victorian movement was a rather charming and dainty period, and a relief from the Classical. However, it became a Frankensteinian Monster before it died in our own century. Near the middle of the Victorian age, there came the Revolt which conceived our modern art. The Revolt was fostered in Paris by a group, including Corot, Hillet, Courbet, Daumier, and Couture, who rebelled against the dictates of the Academy and took themselves off to Barbizon to paint as they wished and believed. Out of the beliefs of the Barbizon group, who seem very academic and mild to us today, came the Rebels, who again revolutionized painting as had Giotto and the Van Dycks. The leaders in these groups, known as les Fauves, Impressionists, or Post-Impressionists, were Monet, Manet, and the great figure of modern painting, Paul Cezanne. Quickly following came many men who gave impetus to the new painting; namely, Van Gogh, Pissaro, Fantin-Latuor, Toulouse-Lautrec, Sisley, Rehoir, Degas, Rousseau, Gauguin, Forain, Seurat, Signac.

Since the beginning of this century, painting and sculpture have been experimental fields. Hundreds of theories and isms have been developed and tested. Among these are futurism, cubism, colourism, neo-impressionism, divisionism, pointillism, Tatlinism, shnehronism, absolutism, orphism. Among the experimenters are Miro, Dali, Chirico, Braque, Laurencin, Leger, Picabia, Brosz, Klee, Kandinsky, Kokoschka, Modigliani, Chagnall, Utvillo, and Derain. Among these experimenters Henri Matisse and Pablo Picasso are probably the greatest.

Within the last few years totalitarian schools of art have developed in Italy, Germany, and Russia. They are producing what they call a "sane art." It is based on what their leaders demand. It stresses reverence for leaders, devotion for country, and impetus for breeding. They are cultures in retrogression and they may be suspicioned since no great art movement has either risen or developed during periods of strife and tension nor under mandatory rules. Art is a growth, not an egg produced from the empty sleeve of a charlatan.

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