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INSTRUCTION IN ART IN THE UNITED STATES

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INSTRUCTION IN ART IN THE UNITED STATES.

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CONTENTS.—Introductory—Art instruction in elementary schools—Art instruction in high schools—Art instruction in universities—Art museums and art schools.

The term "art education" is used somewhat loosely in connection with a wide range of school activities. Any discussion of the subject must therefore define somewhat arbitrarily the aspects with which it will deal.

This chapter includes the following:

1. Drawing, painting, and constructive and decorative design, whether used to record facts of form and structure in connection with industrial and scientific work, or to interpret forms and appearances pictorially or decoratively.

2. The advancement of artistic appreciation, whether gained by technical practice or by acquaintance with good art through some approach other than that of actual production, or by a combination of these methods. In the discussion of the advancement of artistic appreciation without technical production, the whole field of fine and industrial art is included. In the discussion of technical work, only the graphic arts just defined are taken into direct consideration.

The material here presented is based upon the replies to inquiries regarding recent changes in aims and methods of art instruction, sent to State commissioners of education, and to the superintendents of schools in the three largest cities of each State, to the art departments of State and other leading universities, and upon an examination of a wide range of courses of study and of reports of art associations and educational meetings where art was a subject of discussion. A survey of this material shows a number of significant changes, which may be broadly grouped as follows:

1. The changes due to the normal development to be expected along lines where progress has long been continuous. Prominent among these are—

   (a) A clearer understanding, which has come through experiments and longer experience, regarding what art instruction should accomplish as a part of general education, and the consequent revision
and improvement of methods of teaching. Those have been especially evident in elementary and secondary schools and in colleges.

(b) A better knowledge of the social and industrial values of advanced art training for those with special aptitude, and the consequent modification of advanced art education to meet these needs. These modifications are noticeable in the programs of vocational schools and professional art schools, of art departments in colleges, in the broader range of educational activities carried on by art museums, in the associations recently formed for bringing art instruction into closer relation with social and industrial needs, and in new art schools intimately related to community interests.

2. Changes due to the present abnormal conditions of war. Among these are—

(a) A revaluation of the effects of art in shaping public opinion and in stimulating patriotic activities, and in reenforcing those attitudes of mind which we include under the term "morale."

(b) A revision of methods of drawing in connection with constructive work, because of the shortcomings of methods which have been in fairly common use; shortcomings which attempts to train enlisted men in constructive work have made evident. These attempts have emphasized the fact that ability to read working drawings accurately and to make dimensioned sketches, mechanical or topographical, with facility, is not common, even among those who have had high-school courses in drawing. It is an ability which the present crisis imperatively demands.

(c) A realization of the probability that in the commercial revival which is certain to follow the war, and because of the consequent need of highly skilled designers in the industries, the United States must depend more than heretofore upon those trained in its own schools, and must therefore begin even among pupils of secondary school age to conserve and direct special talent when it is discovered.

These changes are considered in detail under the separate divisions which follow.

ART INSTRUCTION IN ELEMENTARY SCHOOLS.

Art instruction in elementary grades has been quite general throughout the country for some years. Recent changes have been mainly along the line of normal development. Among the important directions in which progress is apparent are the following:

The tendency emphasized above all others in the returns received from superintendents of schools and from supervisors of art instruction is in the direction of bringing art instruction into more direct and intimate connection with school and home and community interests. The specific points of contact most emphasized are the following:
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1. More use of drawing to illustrate other school subjects. This indicates a tendency to go to the other school interests for themes for drawing, instead of selecting themes arbitrarily for the purpose of developing a logical but detached course in drawing. In this way the correlation with other subjects becomes the first business of the art supervisor, and is not left to chance.

2. An especially close correlation with the manual arts. This means that much of the drawing and design is directly concerned with problems in industrial work and in the household arts. In many places this correlation is being promoted in an administrative way by uniting the departments of drawing and of the industrial arts under one supervisor.

3. More definite attention to developing appreciation of good pictorial art and of excellent constructive and decorative design. The majority of returns indicate that the sort of appreciation desired is that which will increase the range and quality of one's enjoyment in his surroundings, and especially will enable one to exercise good taste in home planning and furnishing, in promoting community projects, and in producing material for the market.

These purposes are not new in elementary art instruction. Published courses have long stated them more or less definitely as aims, but an analysis of recently formulated courses shows an essential difference in method, namely, a tendency to abandon a detached course of instruction planned mainly from the point of view of logical progression in the subject in the hope that the principles and practice gained thereby will be carried over and put to use in fields where they are needed. This somewhat formal work is being displaced by courses in which principles and practice are concerned mainly with problems selected from the field of immediate needs. This procedure appeals to the instant interests of a far greater number of children, and its direct result is to make drawing a general rather than a special school subject.

The history of drawing in public education has been such as to create a tradition that it is a special subject in the sense that it is possible of attainment only for those who have special talent, and that it has value mainly for those who may later have occasion as artists to use it. This tradition has tended to take the vitality out of the instruction given by grade teachers because they felt that drawing was neither possible nor worth while for the majority. It has also tended to some extent at least, to concentrate the enthusiasm of the special teacher with art-school training upon the few pupils who displayed unusual artistic aptitudes.

The last two years have contributed considerably toward making drawing a general school subject as regards its availability and value for the majority of children. This contribution has been made
partly through psychological study of special talent and partly through results obtained by applying general pedagogical principles to the teaching of drawing. Observation shows that the mere sight of nature’s appearances awakens in certain children a peculiar type of experience and of interest, one characteristic of which is a strong desire to represent graphically what they have seen. In the case of these children the simple presentation of objects arouses this peculiar interest, together with a corresponding desire to express it by reproducing the appearances in drawing or painting. They are the children who have what is termed “special talent.” When analyzed, this talent appears to be essentially a special type of interest in appearances of things and not a special manual ability or skill. The skill in drawing which these children display seems to be a natural outgrowth of the practice which this peculiar interest in appearances and the consequent desire to draw them promotes.

This view is supported by the fact that if an interest of another sort, but equally strong can be awakened in connection with the appearance of objects, for example an interest in their construction, which can be expressed best by drawing, as in the frequent cases of children greatly interested in engines, bridges, boats, etc., the drawing will be equally good, although different in type. Experiments indicate that if we can awaken an equal, although different, interest on the part of children without so-called “talent” for drawing, they will develop equal skill, provided the interest is of a sort that can be most adequately expressed by drawing. Frequently children who show under ordinary circumstances no indications of talent, when the appeal to their particular interest is found, equal or surpass in skill those who appeared at first to be gifted artistically. Elementary school courses in all subjects are appealing to interests many of which demand drawing of some sort for their expression and practical realization. In geography and history, shapes of countries, types of mountains, means of transportation and numberless other topics need for their description drawing as well as language. School and home gardens are planned by diagrams. It has become the common language of the school shop and of the household art department.

Drawing as a means of expression for this widening range of interests is rapidly supplanting the drawing of a few years ago, when frequently the only interest appealed to was that of representing appearances for their own sake. Lack of special talent in drawing, as an excuse for low grades in that subject, is coming to be regarded in the same light as is lack of special talent in mathematics and in language when elementary school attainments in these subjects are under consideration.
A survey of recent discussions regarding the purposes of drawing in elementary schools indicates that the familiar statement that drawing is a language is now being taken in its full significance. Educators are pointing out that any new medium of expression furnishes a fresh kind of experience with things studied, and starts a type of thinking that a medium of expression different in character does not stimulate. The kind of thinking exercised when a pupil describes a subject by drawing does not duplicate to any great degree that involved in description by writing. The first appears rather to supplement the second. Each lays hold of aspects which the other neglects and fails to grasp. The terms used in drawing are essentially different from those used in writing and describe things in a different way. Each has its own psychology and compels its own characteristic type of analysis and synthesis.

As an outcome of these discussions one finds that art instructors are stating with increasing clearness the function of drawing as an important and unique means of approach to subjects; a means of dealing with topics in a way which supplements that furnished by verbal language and consequently gives a kind of experience with them that is otherwise unobtainable.

The changed attitude regarding drawing and design may be broadly summarized in the following statements:

1. That the tendency is less toward trying to interest children in drawing as a subject, and more toward using drawing as an efficient and unique means of expressing and promoting whatever interests school and home and community life have awakened.

2. That instruction in design deals less with formal exercises, in arrangement, and more with problems directly and practically concerned with school and home surroundings and with industrial life. The methods of instruction are coming to include, in addition to practice in producing designs, much experience in choosing as one must choose when he makes actual purchases.

Although an examination of recent courses and of the reports of conferences on the subject of art instruction gives abundant evidence that courses are being reorganized upon the same basis as other subjects, and are being graded so that there is definite progress from year to year and that the expected results are within the attainment of the majority of children, and also that the psychology of drawing and of art appreciation is being investigated by educators, nevertheless such a survey of courses and of reports of conferences discovers little in the way of attempts to state what standards of attainment may reasonably be expected in each grade and at the end of elementary school work. Indeed, expressions suggestive of hostility toward attempts to establish tests and scales of measurement...
of achievement in drawing are frequently evident. These objections appear to result from misunderstanding a desire to secure some system in presenting the language of art expression, as being a wish to mechanize the thought and feeling expressed thereby. Fortunately, however, there is a growing recognition of the fact that systematic mastery of a means of expression means increased freedom in communicating thought and feeling.

Prof. Edward L. Thorndike called attention to the desirability of some scale for estimating attainment in drawing, in an article published in the Teachers College Record in November, 1913, entitled "The Measurement of Achievement in Drawing." He says:

Each person uses a scale of his own. Consequently, although we give in verbal statements and on report cards many millions of measurements of achievement in drawing every year, almost no use is made of or can be made of them. A child may learn that his drawings are, in his teacher's estimation, better than those of other children in the same class who get lower "marks," but he does not know how much better they are. He may be told that his drawings are better than those of last week, but not how much better they are. As to learning from all these millions of measurements how much better drawings are obtained from 100 minutes of training per week than from 50, or how much better drawings are obtained by one city's system of instruction than by another's, or how much better drawings are obtained in the same city now than were obtained a decade ago, it is impossible.

Prof. Thorndike then explains a scale which he worked out, describes and illustrates some of its uses, recounts the principles of its derivation, and makes clear its limitations. Further careful work in the same field is being carried on by other investigators, and additional contributions will doubtless be available soon.

The effect of the war, which has greatly influenced industrial work in elementary schools, is also evident in art instruction. Many of the problems for design have included the making of posters for food conservation, war-savings and thrift stamps, liberty loans, gardening, Red Cross and Y. M. C. A. work, etc. Other design projects have included covers for scrapbooks for soldiers, designs and decorations for toys for refugee children, and the patterns and ornamentation of various objects to be sold for war funds.

**ART INSTRUCTION IN HIGH SCHOOLS.**

High-school courses of the past two years indicate some significant and a few radical changes. Two influences among others have been particularly strong in bringing about these developments. One is the widespread organization of junior high-schools, which has resulted in a closer articulation of elementary and secondary schools. The other is the rapid progress of vocational education.

The organization of junior high-schools has brought into prominence many psychological as well as administrative questions. Edu-
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...tutors especially interested in these questions have contributed, among other things, important considerations regarding some of the differences in the attitude of high-school students toward school work as compared with that of elementary school children.

One difference appears to consist in greater need on the part of pupils for some practical or intellectual justification for the work undertaken. The fact that certain studies appear in the accepted curriculum no longer appeals to the majority of the pupils as being a sufficient reason for undertaking these studies with enthusiasm. In addition the significance of the course to them and to their prospects must be understood if it is to engage their whole-hearted endeavor. New social and vocational interests are awake and must be ministered to.

Another interest which influences art instruction directly and which appears to be much stronger in high-school pupils than in those of elementary school age is the interest in the theories and principles of the subjects of study and in the historical development of things and of events. Accompanying this interest is an increased capacity for developing some genuine appreciation of artistic styles and of the different possibilities of various mediums of expression.

The progress of vocational education is recognized in the recent tendencies of art instruction in high-schools as noted by school superintendents and by instructors in art. Almost without exception the changes reported are toward a more direct and concrete application of art. The following quotations, entirely typical of the expressions found in a wide range of returns, are merely statements in different terms of this tendency:

- The primary purpose of our art is to relate it to the entire life of the child both in home and in their occupations.
- An effort to adapt instruction to the requirements of local industries.
- Tends more and more toward industrial work.
- Vocational art courses, art related to printing, courses in homemaking.
- Have started such work as art in window dressing with practical application in stores.
- * * * art in dress.
- * * * dress appropriate to occasions.
- Collection and study of good illustrations of furniture.
- More emphasis recently given to having designs worked out in material.
- * * * Advanced courses are highly differentiated with high technical standards demanded.

In addition to this concrete tendency, there is on the other hand an increasing recognition of what are commonly called the cultural values of art study, its importance as historical material, and its significance, in common with music and literature, as an embodiment of the aesthetic experiences of the race.

The following extracts from a report by Dr. James P. Haney, director of art in the high schools of New York City, put in clear terms some of these tendencies.
This training in what may be called "practical aesthetics" has thus become a subject of keen interest on the part of many who are engaged in the business of creating materials for home or personal adornment. Both "the public" and "the trade" understand more clearly with every passing year the need of this training; the public that life itself may be made more pleasurable; the trade that its standards may be raised in every respect wherein art teachers industry. The milliner, the dressmaker, and jeweler are interested on the one hand; the furniture manufacturer, the wall-paper dealer, and the textile merchant on the other. Many additional trades are concerned. Now, as never before, these merchants and dealers more are asking, "What are the schools doing to make their art teaching practical?"

The older barriers which separated the school studio from the industrial art studio outside the school have been breached and in some cases quite torn down. Art teachers in numbers have visited "the trade" and have brought back a course of practical suggestions to the classroom. Counter visits have been paid by merchants and manufacturers to the schools, and many have sent their trade designers to see their needs and to give to the teachers and pupils the industrial point of view. Practical problems have been worked out in material, and a few competitions have been instituted by trade representatives that pupils might see how immediately useful in business is the information gained in the school. Every one must recognize the industrial artist, for all must have chairs and tables, dishes to eat from, and clothes to wear, and emphasis has been placed on the professional nature of the work of the school that the student might be made keener to scrutinize the professional hand which he sees about him at every turn.

Many thousands of pupils are thus reached every year and are encouraged to visit the museum frequently to color not only the pictures and sculpture, but the splendid carvings, beautiful containers, the glowing porcelains and the priceless imprints. Thus, they are given what may be called "museum habit." They are taught not only where to look but how to look and are given something at least of the satisfaction of "the knowing one," the connoisseur whose affection is drawn by insight into the beauty of the craft which are displayed in jeweled cap or damascened armor. This enlightenment of the museum to the school pupil, this revelation of what pleasure may be had in the scrutiny is held to be one of the functions of the art department of the city school system.

It can little profit a city to have within its borders priceless collections, if these for whom the collections are shown are not to enjoy not only the pictures and sculpture, but the splendid carvings, beautiful containers, the glowing porcelains and the priceless imprints. Thus, they are given what may be called "museum habit." They are taught not only where to look but how to look and are given something at least of the satisfaction of "the knowing one," the connoisseur whose affection is drawn by insight into the beauty of the craft which are displayed in jeweled cap or damascened armor. This enlightenment of the museum to the school pupil, this revelation of what pleasure may be had in the scrutiny is held to be one of the functions of the art department of the city school system.

This training is manifest, is not to be given by talking about it, but rather by continually offering to the learner problems in which choice must be expressed in terms of immediate need. Shall one, for example, in designing a flower bowl, turn the curve thus, or shall it be so? The decision as to which line best expresses the quality of the clay and the purpose for which the bowl is shaped is the decision which makes for taste. Taste in other words is a discriminative judgment born of many opportunities for choice. Some grow in taste rapidly, some slowly, but the process is always the same. One must learn to choose and to choose by virtue of the knowledge of what makes for better line or color or pattern. Taste is thus not a thing of definite standards. It is rather an intellectual quality. It is a habit or mind which seeks always to compare the better with the poorer and which strives continually to sharpen its critical perceptions so that it may judge more truly. It has a critical function, and a constructive one which aims not only to see that the thing is better but also to know why it is better.
The merchant who is a bad designer will soon be cured by admonition. The only way to cure him is to catch him while he is still a lad at school. But granted, on the other hand, that such practical teaching can be given—and it surely can—it must be plain that there resides in the teaching of the schools enormous force to affect the art ideas of the public for the better. This force undoubtedly is at work. No one who knew the American home and its decorations as it stood in the early seventies and now sees the home of the persons of equal social standing will doubt for a moment that great progress has been made. It is a change which has taken place all over the country, but most significantly where the art teaching of the schools has been active. Something of this kind that everyone is an artist in his own right has dawned upon thousands of men and women.

But with the development of that which we have called the modern art teaching there has been a great change in the attitude of the school toward talented pupils—that little group which we have called “the few.” It has been plainly seen that it is to the advantage of the school to hold those gifted boys and girls within the character-shaping boundaries of its walls. On the other hand, it has been seen that it is to the pupils’ interest to stay rather than to leave half trained in all that makes for general culture and to plunge at too early an age into the ceaseless grind of business life. For these reasons the modern high school seeks to retain the talented pupil through its entire course. Instead of fitting the pupil to the course, it now devises special courses to fit the pupil. It recognizes that talent is precious, and when it finds it, does all it can to cultivate the gifted and to school them to high technical experience.

Certain difficulties are evident in the organization of high-school courses in art, especially in the case of small schools.

1. There are seldom any accepted standards of attainment in art instruction in elementary schools which can serve as a dependable basis upon which high-school courses may be planned.

2. A large number of high-school instructors have been accustomed only to art school ways of teaching drawing and design. These studio methods are generally adapted only to those who possess special aptitudes for drawing. This difficulty is being remedied because cities and towns in increasing numbers are requiring that the instructor in art shall have some normal training, including general principles of education and practice teaching under skilled supervision.

3. Except in the larger high schools, where a number of classes exist, it is difficult to arrange a course which offers progress from year to year, because frequently pupils from each year in high school may register in a given class. For example, an introductory class in drawing may be made up of pupils from the first, second, third, and fourth year groups. Under these circumstances difficulty is found in relating art instruction to other school interests and to varying degrees of maturity with any sort of definiteness. This condition tends to encourage the treatment of art as a special subject. The increased amount and better organization of vocational and industrial courses is improving this situation rapidly and definitely.
4. In the past the amount of credit allowed in art toward graduation and for entrance to higher institutions was often small. Consequently, registration for art instruction was likely to be limited to those who had very strong natural desires in that direction and those who had leisure for extra courses. This hindrance is rapidly disappearing. High schools are tending to give the same credit toward graduation for art subjects as for any others in the curriculum. To a corresponding degree, higher-institutions have become liberal in the number of units in the arts allowed for entrance requirements.

In addition to these obstacles, which are largely administrative in character, courses planned to realize the aesthetic values of what are commonly termed the fine arts encounter another difficulty which lies in the nature of the subject. In 1915 Dr. C. H. Judd pointed this out clearly. The following extracts are the first and the last paragraphs of his discussion:

"The fine arts, like the manual and industrial arts, have stood apart from the conventional academic subjects and have been given only a half-hearted recognition in the organization of school programs. From one point of view this is difficult to understand, for civilized nations have always regarded training in music and drawing as highly desirable accomplishments. We in America have been subjected to criticism by foreign visitors and we have freely criticized ourselves for our meager cultivation of the fine arts in our schools. While thus recognizing the arts as desirable, we have found it a very difficult problem to make them available for school purposes. How can one formulate a course in these subjects? They seem to be highly individualistic and vague in their results. There seems to be so large an element of chance in the outcome that we turn by preference to those courses of instruction which seem to be more definite and example of impersonal formulation. Whatever the method of instruction, art teachers must give up the practice of indulging in rhapsodies over art and its value, and must learn to define the types of appreciation which they wish to cultivate. They must show that they know when they have produced one of these approved types of appreciation. Finally, they must by practical demonstration convince the world that there is no fundamental opposition between the habits of mind and action cultivated in the arts and those cultivated in the scientific courses given in the schools. The present-day conditions are a challenge to art teachers and to all of us. Vaguely we all believe in art; practically we are not able to bring it forcibly into the course without hoisting the objections raised will be unfortunate. To omit it altogether to deprive the student of one important aspect of civilization. The challenge to deal with this situation intelligently is peremptory.

The much closer relation which has recently been established between art courses and industrial and vocational education has gone far toward defining the type of appreciation and of technical ability which art courses thus related aim to develop. This result has not only determined the aims and justified for both pupils and instructors..."
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the place of these art courses which accompany industrial work, but it has also led to a scrutiny of the aims of courses not so related. In consequence, these courses, in revised form, have received new justification.

The revision of these so-called fine-arts courses has been mainly in the line of a better presentation of the unique historical material which the field of art possesses, of a development of appreciation of the fine arts as a source of aesthetic enjoyment, and of the discovery and conservation of special artistic talent as a social asset.

Under present conditions high-school art courses may be broadly classified as follows:

1. Courses in drawing and design which are organically related to industrial and constructive work, including household art.

2. General art courses, which correspond somewhat to traditional art-school courses and which appeal particularly to pupils with special art interests.

3. Courses consisting of illustrated lectures, readings, and class recitations which present a survey of art.

The character of these three types of courses is indicated more in detail as follows:

1. High-school courses in drawing and design are coming to be more and more closely correlated with industrial and constructive work. Formerly this correlation was expected to result from a presentation in the art classes of general principles of drawing and design and an application of these later to the specific problems of shopwork, printing, household art, etc.

The relation is rapidly becoming more organic. The problems of the drawing and design classes are now largely the actual current problems of the industrial and vocational classes. In many cases the pupils spend alternate periods in the shop and the art classroom, dealing with the same problems in both classes. Sometimes the industrial departments take over much of the art instruction dealing with their projects. Working drawing, appearance drawing, and design have become intimately related.

A common use of drawing closely related to home planning and interior decoration is illustrated by this extract from the course in art and industrial training of the Binghamton (N. Y.) schools:

1. Building site: Location, exposure, drainage, water supply, fertility of soil, etc. 2. Building materials: Wood, brick, cement, etc. 3. Freehand sketch of plan of home kitchen, for class discussion of conveniences and necessities in wall openings and furniture. 4. Study of mounted illustrations of plans of kitchen, pantry, and dining room, to scale. 5. Drawing to scale, with customary conventions, of kitchen, pantry, and dining room, showing plan and elevation. 6. Freehand or instrumental sketch showing the possible remodeling of.
the home kitchen to secure greater convenience or better lighting and ventilation. 7. Study various styles of door and window openings, from the viewpoint of convenience, beauty, and expense. 8. Floor coverings: Material, color, and wood finish. 9. Wall finish: Paint, paper, and color scheme. 10. Necessary and convenient furniture for kitchen.

The present tendency to articulate the teaching of design with shopwork is described in this extract from the course of study of the West Hoboken (N. J.) schools:

We must deal with design, whether we will or not. Every hour calls for us to settle some problem in design, some arrangement of form, some disposition of lines and masses, some choice and disposition of colors. Man's whole life is a series of designs. The relation is wide, the laws are widespread.

Pure or abstract design is not a science. It has one decided lack, it fails to give the constructive view of design. There must first be a problem of construction, and second one of decoration wherein we consider balance, rhythm, harmony, etc.

The function of applied design is to add interest to construction. Therefore applied design is conditioned first by structure, second by use or purpose of the thing decorated, third by the convention required, fourth by the symbolic element that may be introduced, and fifth by the personality of the draftsman.

In this course of instruction we endeavor to plan the work so that the conditions set forth in the preceding paragraphs govern the subject matter.

The following recommendations regarding the general scope of high-school industrial drawing in connection with shopwork has received the approval of the faculty of the soldier training department of the University of Chicago, and also of that section of the committee of the high-school conference of the University of Illinois which has in charge the revision of high-school courses in drawing.

HIGII-SCHôOIL INDUSTRIAL DRAWING AND DESIGN.

1. Freehand drawing of appearances to describe construction.

1. Sketches directly from objects to show the appearance in perspective.

2. Sketches for the purpose of experimenting with and perfecting ideas of construction and design.

To do this two things are required:

(a) Ability to judge proportions and angles rapidly and with fair accuracy.

(b) Mastery of a few basic constructive forms so that these can be drawn in any specified position or modification or combination from imagination.

Since a rectangular, a cylindrical, and a hemispherical solid are basic to most forms of construction, the drawing of these from imagination according to specifications should be thoroughly mastered.

Tests indicate that theories of perspective, including principles of convergence, and foreshortening are not the best way of introducing the study of these forms. The most rapid and effective progress appeared to depend upon developing the pupil's ability to judge as to whether the drawings appear geometrically, consistent or distorted (that is, as to whether they look right or not), rather than upon the knowl-
edge of formulated principles of perspective. It should be noted that this method differs radically from the old-time teaching of geometrical type forms by principles of perspective.

(e) Knowledge of an effective method of procedure in drawing constructed objects, i.e., what lines are the basis of the form and determine the length and direction of the others. For example, in a rectangular solid standing on a horizontal plane, to draw one vertical edge, preferably the nearest, determines the scale of the drawing. To draw one main edge extending to the right and one to the left, so as to show their apparent slants and lengths, determines the proportions and apparent position of the whole object. These are the key lines and, by them are determined the direction and proportion of most of the other lines, even if the form is considerably complicated.

II. Drawing of plans and patterns to describe construction.
1. Freehand sketches of patterns and orthographic projections directly from objects to record constructive data.
2. Freehand sketches of patterns and orthographic projections for the purpose of experimenting with and perfecting ideas of construction and of design.

To do these requires two things:
(a) Ability to read orthographic projections rapidly and to translate facts of appearance and structure into the shop conventions of working drawings, with complete dimensioning according to shop practices. In other words, given an actual piece of construction, to make sketches in orthographic projection which shall include all data necessary for constructing the object.

For all practical purposes it is necessary to understand projection only in the third angle. An introductory discussion of all four angles is generally confusing.

(b) Ability to put one's own ideas of a piece of construction first into freehand working drawings with complete specifications, and then into accurate instrumental drawings.

Most copying of instrumental work should be eliminated. Only a very limited amount is valuable to give standards of technique.

Much detailed instrumental drawing should be avoided. Freehand working drawings and appearance sketching are the chief channels of constructive thinking. The finished instrumental drawings hold somewhat the same relation to these that the stenographer's copy does to the author's manuscript. Much instrumental drawing tends to substitute manual dexterity for constructive thinking.

(c) Ability to sketch the appearance of an object from the working drawing. This is particularly valuable in enabling pupils completely to visualize and understand structures when only the working drawing is given. It requires much of the same sort of constructive thinking that is employed when objects are actually constructed from working drawings.

In both appearance sketching and orthographic drawing, speed as well as accuracy should be cultivated.
III. Constructive and decorative design.

1. Choice of materials and processes best suited to meet the specifications.
2. Choice of styles of construction and decoration most appropriate to the piece of work in hand.

These require:

(a) Acquaintance with a reasonable range of materials and processes, and some knowledge of the history of industries more or less closely related to the immediate project. This calls for class discussions, visits to industrial plants or other places where constructive work of the sort under consideration is going on, and assigned reading planned to open up an industrial and historical outlook.

(b) Study of artistic styles of construction and decoration and the adaptation of these to the problem in hand. In any particular instance, as for example in furniture, this involves some study of the history and development of styles and a knowledge from books and museums of the best that the past has produced and also a practical acquaintance with modern products and current fashions as displayed in trade literature and advertisements and in stores.

Appreciation and discrimination are developed by selecting and by classifying examples according to various styles and also according to degrees of excellence in things of the same general styles. Notebook collections of sketches and illustrations from advertisements, trade journals, etc., are practical helps. After the characteristics of a style have been given it is helpful to select, classify, and discuss examples accordingly.

(c) Supplementary practice in making good space arrangements and in drawing with facility a few typical curves; for example, arcs of circles, ellipses, and spirals of varying degrees of curvature.

Pupils should be trained to self-reliance in analyzing a problem so as to outline effective methods of going to work, and to decide along what lines investigation or reference material will be helpful.

2. General art courses. These courses are usually planned to train ability in representation along two lines. One of these is descriptive drawing, to enable pupils to meet readily the ordinary demands for illustration in connection with any school or home interest not reached by drawing in connection with the industrial arts. Sketches and drawings in connection with history, geography, literature, and the natural sciences are examples of this sort of drawing.

The use of drawing as a means of illustration of other high-school subjects has recently received careful attention. It has been found that pupils can be taught methods of procedure in illustrating a theme, which will make their drawing a genuine piece of study in selecting the particular aspects essential to the points to be described, in choosing the medium, hard or soft pencil, pen and ink, water color, or colored crayon, or whatever other medium is best fitted to give the characteristic effect, in consulting sources of reference mate-
rial, and in gradually elaborating sketches which are at first usually crude and inaccurate, but which are gradually perfected through many experiments and the accumulation of skill and of data.

By working up pictorial themes in this way, pupils gain by experience some appreciation of the manner in which pictures develop. They learn that a work of art, however spontaneous in appearance, is usually the culmination of a long series of sketches, observations, and experiments. This experience contributes to the understanding of art, something comparable to what the production of themes in English is expected to add to one's appreciation of literary methods.

It has been shown that certain methods of drawing may promote keen observation and analysis, while other methods may actually hinder these mental processes. In a study of drawing in relation to its use in science laboratories, Prof. F. C. Ayer, of the University of the State of Washington, says:

Representative drawing does not insure a consideration of the scientific aspects, or an analytical study of an object. The preconceived purpose of reproducing a visual copy narrows the scope of observation; and the attention, at best, is directed to items of form and color. There is nothing to call up associations which have to do with scientific ends. The attention is, in fact, kept away from the associations that have to do with science as such. Even in the province of form, sustained attention is not necessary. The pupil's drawing is always subject to direct comparison with the object at hand, so that extended study and reflection over its proportions are not necessary. It is a waste of time for the interests of scientific thinking to require pupils to spend extended periods of time at representative drawing. In fact, it is worse than a waste of time, for it encourages bad habits of analytical study, which are opposed to interests of scientific thinking and constructive research. It is no wonder that so few of our picture-laden notebooks give evidence of scientific grasp or initiative. The excessive use of representative drawing is a serious pedagogical formalism which produces copyists instead of scientists and which creates distaste instead of enthusiasm for science.

After analyzing descriptive drawing in a similar fashion, Prof. Ayer says of analytical drawing:

The preconceived purpose of analytical drawing supplies the direction of attention which is lacking in spontaneous description. The attention is directed to the particular characteristics of the object which are of immediate scientific concern. The successful type, schematic, or diagrammatic drawing cannot be made without analytical study. The student who attempts to make a diagrammatic drawing has before him a definite problem in analysis which necessitates sustained mental effort to the end of the process of representation.

A second purpose of these general art courses is to meet the need of pupils with special art interests. This group of pupils includes those to whom the practice of art is a continual source of pleasure. They may never make art a profession, but it will
always & always to them a means of discovering new interests and enjoyments. It includes also those talented few who will make art in some form their life work. For these pupils the courses are vocational in character and help to discover and guide their ability into the lines for which they are best adapted. These are the pupils who become industrial designers, painters, sculptors, illustrators, architects, etc.

3. The courses in the history and appreciation of art. Courses of this sort are becoming fairly common in high schools. They give acquaintance with the salient characteristics of styles of architecture, painting, sculpture, and industrial design, of the chief historic periods of art. They also bring to the attention of pupils the more important masterpieces of these periods. In such general surveys it is of course impossible to make an exhaustive study of any one topic. Nevertheless, the general features of the arts of different times which express most intimately the life and artistic ideals of the peoples can be shown. The pupils become acquainted with many of the greatest masterpieces in a way which gives new meanings to history, literature, and current events. Modern art gains added significance when viewed in the light of a knowledge of past art, and modern life is interpreted from another point of view when the arts of the present are recognized as being its inevitable expression.

The effect of war conditions upon high-school art has been evident, especially in its influence upon the subjects chosen for design. For instance, war posters have been produced all over the country. Another and more general effect has been the quality of directness and concentration that has come into work connected with the war. There is in it all an element of emergency which tends to eliminate steps of doubtful value and to produce desired effects with the greatest economy of time and means. For example, in the drawing connected with constructive work in classes of enlisted men, it has been found possible to give in a much shorter time than has previously been considered necessary, a working knowledge of the subject. A considerable part of the teaching in these classes is being done by high-school instructors, and the facts brought to light will inevitably affect their regular teaching. The Instruction Manuals issued by the War Department committee on education and special training contain many stimulating suggestions which will doubtless influence all the teaching of the instructors who use them. The following sentences from Instruction Manual No. 1 indicate the spirit of directness which dominates them:

Methods of instruction must be used which in the time available will best train men to do these jobs. In order to provide for the development of originality, initiative, and real thinking power and also to prevent a rule-of-thumb method, the teaching should
be almost entirely through jobs, questions, problems, and guided discussion about the work.

The accomplishment of a job is both the end to be attained and the means for instruction.

Another incidental effect of the war upon high-school instruction has been the widespread discussion of art values that has been occasioned by the destruction of so much of fine art that can not be replaced.

**ART INSTRUCTION IN UNIVERSITIES.**

Courses in art instruction in colleges and universities may be broadly classified as follows:

1. Courses in history of art.
2. Courses involving studio work related as laboratory work to academic courses, and dependent for credit upon association with these courses.
3. Studio work credited independently.

The trend of recent development in these groups of courses has been as follows:

1. Courses in history of art. Historical and archeological researches have steadily increased the range and value of the material for these courses, especially in the fields of Egyptian, Cretan, Chinese, and primitive American art. Very large additions to the number of original examples of art available for study in this country have been made during the past 10 years. There is pretty general recognition now of the fact that art supplements literary documents in a special way, because it not only furnishes material in additional quantity, but its records are peculiarly different in kind. The arts of form with their vocabulary of visible shapes and colors can embody and preserve certain significant human interests which literature, from the nature of the indirect terms which it uses, can not express in quite the same way. These records of art are intimate and illuminating in a unique sense, because in many cases the student has before him the actual forms and surfaces which the artists and craftsmen produced. For this reason original art material is peculiarly confidential in transmitting, in addition to the actual subject matter, an element akin to what inflections and gesture add to words.

In addition to a wider range of historical material, the courses offered show an increase in the time devoted to modern art. The historical value of the records which art has left has always been recognized. The fact that the art of to-day is an equally illuminating factor in interpreting certain important aspects of the present has not been as generally evident. Moreover, the aesthetic standards of historic art have been comparatively well established, so that in-
structors can feel fairly safe in expressing their appreciation without hesitation. On the other hand, the higher type of critical judgment and aesthetic appreciation required to discern the tendencies toward significant expression and the germs of future perfection in the art of to-day have frequently made instructors diffident about dealing with this complex subject. An increased willingness to attempt it is, however, observable.

The following comments on the study of modern art are extracts from a paper by Prof. George B. Zug, of Dartmouth College:

A professor of Greek once said to me that he thought most people are really interested only in contemporary literature. I am inclined to think that with most people an interest in art begins with an interest in contemporary art. Accordingly, in some of my smaller exhibitions I have interested the boys in the art of Daumier, by means of drawings of Boardman Robinson. From Daumier they were easily led to Daumier, and the latter prepared for a study of Michael Angelo. In the same way, drawings of the cartoonist Cosmopolitan have been the means of opening up the subject of pictorial satire, and this has led to Hogarth. Students are interested in the mechanics of art. They enjoy seeing the tools and studying the processes used in the making of etchings, engravings, lithographs, and other prints. Colleges could attract more students to the subject of art by means of exhibitions of the materials and tools and stages in production of various kinds of prints, such as those in the New York Public Library on "How Etchings Are Made," "How Lithographs Are Made," "How Mezzotints Are Made," "The Making of a Wood Engraving," or "The Making of a Japanese Wood Block Print." Few professors would want all of these exhibitions, and perhaps none of us could secure material and prints for such complete displays as Mr. Weitenkampf has arranged.

But modest exhibitions on one or two of these lines would arouse a new interest among the students and would cost a comparatively small sum. At least one such exhibition should be part of a permanent collection of every college art department.

Regarding an exhibition of paintings, etchings, and illustrations, he says:

The latter were chosen not in order to represent any special illustrators, but to present selected examples of high quality of work in black and white, of oil in full color, water color, charcoal, pen and ink, pencil, and etching. Considerable interest was aroused in the class by assigning a paper which should compare and contrast the use of illustration in Harper's, Scribner's, and the Century, and the use of illustration in the cheaper magazines, such as the Cosmopolitan and the Metropolitan. The best of the essays on this subject, which showed decided originality, was entitled "The Big Three and the Proletariat." The advantage of this theme was that it lent a vital interest to the subject in that it had to do with the interpretation of contemporary life and especially that the work was based on the observation of originals and of the relation of their reproductions to the text. It was a subject, therefore, which could not be cribbed from books or articles.

Some of the best essays by undergraduates were published in the Boston Transcript and the Springfield Republican. The chief aim of a course in fine arts is not to furnish copy for metropolitan newspapers. It is to enhance the
appreciation of art. The point is not only that these undergraduate essays were good enough to be accepted by newspaper editors, but also that they were the result of personal appreciation, of first-hand observation.

In regard to the uses to which college exhibitions are turned, I wish to speak first of what the instructor can give the students by means of lectures, personal explanations, and gallery tours; and second, what the student can himself gain from such exhibitions.

The teacher has an opportunity to show such qualities and characteristics as do not appear adequately in any reproduction. For painting he can explain and actually show such things as tone, brushwork, harmony of color, and other qualities for different periods, and different groups within the same period. For instance, the handling of color and tone of Impressionist pictures, of Romantic pictures, and post-Impressionist pictures. For sculpture, of course, there are qualities of color, modeling, and patina which can be appreciated only in originals.

The direct appeal of originals is one explanation of the success of well-selected art shows among undergraduates. Moreover, exhibitions make the student body feel as they never have the importance of the study of fine arts. The feeling of proprietorship of personal interest is encouraged by having the undergraduates perform actual work, which brings its own reward in experience and appreciation. Students get valuable experience in the kind of manual labor done in museums; they unpack, hang, and repack paintings and sculpture; they make pedestals for sculpture; design labels and posters; they gain some knowledge of the problems of framing, hanging, and installation. A few also learn something of the business side of exhibitions, where and how to borrow pictures, selection of works of art for exhibition purposes, and matters of insurance.

Undergraduate correspondents have reported the exhibitions for city papers and for college publications. They have also shown competitive interest in writing essays for small money prizes. But perhaps one of the most happy results of the exhibitions has been their use by other departments. The professors of psychology and of English composition have required themes based on direct observation of the originals. Accordingly, over 500 students in three departments had required exercises based on the works of art in one exhibition.

2. Courses involving actual practice in drawing, painting, modeling, and designing and directly related, as laboratory work to academic courses. The character of these courses is naturally determined by the particular departments to which they minister. Prominent among the departments under whose auspices courses of this type are organized are those of history of art, education, architecture, and engineering.

The following quotations from a paper by Miss Edith R. Abbott, of the Metropolitan Art Museum of New York, indicate the character of many of these courses, organized in connection with courses in history of art:

In discussing this question, I have assumed that the term non-technical laboratory work may properly be applied to laboratory drawing in which the object has been to develop the power of observation, not to achieve technical proficiency. Prof. Moore, of Mount Holyoke, says, "The term 'laboratory work' borrowed from the sciences, is not a misnomer here. In science the laboratory forms the basis of theory; facts are observed, and by inductive and deductive
reasoning general principles are from them affirmed. In a study of historical art, too, laboratory work is used as a method of close analysis. Such work should not merely be an accompaniment, but an organic part of the study of the history of art. Our purpose in its use is to enable the student to devote his attention for a time to one or another feature of a picture: the student tries, by drawing or modelling, to copy or suggest these points, and in so trying he is obliged to analyze them with a peculiar concentration that he could hardly attain by any other method.

The study of this form of expression, I believe, should not differ essentially from that of music or literature. The work itself must speak directly to the observer without any intermediary. The art student should be encouraged to make his own investigations and to draw his independent conclusions from analysis of the masterpiece itself. He may examine the structure of the picture in the same way that he would examine the structure of a symphony: he may look for the idioms of the painter or draftsman and learn to recognize them as he would recognize the terms of speech which characterize the style of a great writer.

In any such analysis, I believe the use of drawing to be invaluable. With the student and beginner, drawing has the important advantage of holding the attention focused upon the object for an appreciable time.

Let us consider the advantage of laboratory drawing in the study of composition. Compositions might be called the study of the interrelation of the parts. Baldwin Brown says, "The temptation to consider the parts in themselves rather than the effect of the parts in their relation to the whole is to most people irresistible." The untrained eye finds the plan of composition difficult to decipher, and yet the artist has based his arrangement upon a carefully constructed scheme. Mr. Cox thought it worth while in his analysis of Veronese to draw a diagram in order to demonstrate the severe laws of balance upon which Veronese relied for his effects. It seems beyond question that the picture has a greater interest when this fundamental structure is understood, since it gives the clue to the whole scheme.

A similar analysis may be made a class exercise, the students being required to sketch from lantern slides the structure lines of simple compositions. A time limit of 5 or 10 minutes may be set, or the student may be left in uncertainty when the light will be extinguished. By this means they learn to think logically and to build up the "anatomy" of the picture in an organic fashion. Whatever may be the results on paper, the exercise necessitates concentration upon structure and upon logical development. College teachers of English have told me that the close analysis shown in these drawings was exactly what they were trying to get in their work in English composition. Laboratory drawing holds the attention concentrated upon form rather than upon any extraneous interest or associated idea. It facilitates the understanding of compositional problems with all the delicate adjustment of forms to space which they involve. A more intimate acquaintance is gained with the expressive language of art, and the foundation is laid for the appreciation of "quality" so that in the final analysis one should be able not only to distinguish the line of this or that painter, but also la ligne claire which characterizes great art. Laboratory work is essentially a means to an end. For the student with artistic ability it can never become a substitute for real studio practice. But once initiated into this new world in which the senses play so large a part, the student experiences keen enjoyment.

In studio courses not planned primarily as laboratory work for academic courses,
There is an evident tendency to credit work in art which is more or less independent of an organic relation to academic courses, but which is nevertheless considered as an appropriate part of a major in art. In some cases these courses are carried on in an accredited art school. The affiliation between Brown University and the Rhode Island School of Design is an instance of this type of arrangement. Many colleges and universities have their own department of fine art. The steadily increasing amount of recognition accorded to well-organized studio courses in art as appropriate for academic credit is partly the result of a realization that art expression is more than a matter of manual dexterity in making a record of what one sees. It involves in addition, the translation of one's impressions into terms of expression which have been slowly evolved by the race, and which demand careful analysis and selection, and the knowledge of a body of principles and recorded experience. In the same sense that the test of excellence of themes in English is not their exactness as dictographic records of actual conversations nor as literal statistics of observations, so the test of college art work is not its correctness as a record of forms and colors, but its reconstruction of the raw material of visual sensation into artistic expression.

The recent steady increase in the number and size of departments of fine art in universities is destined to exercise an important influence upon American art in two directions; namely, by giving to the future citizens who will be the patrons of art and the promoters of the standards of civic beauty an early acquaintance with artistic interests and ideals of excellence, and also by offering to those who later will be professional artists an opportunity to continue through college the contact with art which in many cases was begun in high school.

Notwithstanding the high degree of skill in handling materials which drawing, painting, modeling, and designing involve, they are in their higher forms allied to the arts of expression more closely than to the arts of construction. In universities where art may be selected as a major subject, the student who plans to use art as his form of expression has the same opportunity as the student who intends to enter the profession of literature, to begin his work under conditions which will give him a broad intellectual background and stimulating contact with other vigorous interests.

The artistically gifted student in a college or university which has no art department generally finds, early in his course, that he must choose, in a manner that the student who plans to make science or literature his profession is not called upon to do, between a college course and a highly specialized art course. Too early technical facility, unaccompanied by constantly enlarging intellectual outlook...
is as bad for the art student as too late a knowledge of the use of his means of expression.

The organization of college art courses is steadily improving. The work of the College Art Association of America is contributing effectively to this end.

ART MUSEUMS AND ART SCHOOLS.

Art museums have always been a most important factor in art education in America, and their influence is extending rapidly. This development is due in part to the increase in number of museums and in the size and quality of their collections, and in part to improved means of making their collections available. Most modern museums have established close relations with the communities in which they exist, and have put forth every effort to make their collections of use as a stimulus and guide to the art student and industrial worker and as a means of artistic pleasure and inspiration to the general public.

The older museums have existed long enough to be able to weed out much ordinary, but space-filling and mind-confusing, material. The newer museums learned by the experience of older institutions to protect themselves tactfully from mediocre but generously offered material, so that a satisfyingly large proportion of the works exhibited in the permanent collections of the museums of to-day have a genuine artistic significance.

Where means are limited, it is generally considered more important, in extending the list of permanent acquisitions, to have a small collection of a high degree of excellence than one which is large but only fairly good. It has become customary to regard a sum of money as more wisely expended in the purchase of one or two excellent examples of a given style or period of art than in procuring many ordinary illustrations of a wider range of styles. Photographs, and in some cases casts, are generally regarded as better substitutes for unobtainable fine things than original productions of indifferent merit. In consequence of this policy, the number of commonplace productions on permanent exhibition in American museums is relatively small.

Besides the regular displays of collections owned by the institution, nearly every museum has a succession of exhibitions of works of special interest, including current productions of pictorial and industrial art. Societies now exist for the promotion of American art, and their patronage in the form of prizes and purchases is an added influence in bringing to these exhibitions much of the best in modern American painting, sculpture, and design. While the collections accumulated from current exhibitions by these associations doubtless contain many things that will not stand the test of time, nevertheless
after a hundred years the really excellent material they contain promises more than to justify the policy, without taking into account the encouragement that has been given to American art during that time.

Besides making art productions of the past and present available, museums are organizing further educational activities with increasing effectiveness. In the galleries, docents and guides are available; literature, lantern slides, photographs, and color prints of good quality are provided; and lecture courses and classes are organized. Many museums have their collections of lantern slides selected and arranged so as to be of use in the community, especially in the schools. Carefully prepared lectures in manuscript form, together with appropriate slides, are frequently available for the use of schools. A few museums have collections of slides which, for a small rental fee to cover packing, will be sent to various parts of the country. The Metropolitan Museum of New York and the Art Institute of Chicago are notable among the institutions which offer this wide opportunity. The bulletins published periodically by many museums have become important art documents. By them the acquisitions and opportunities of these institutions are made known to the public.

The educational activities of museums and special art schools differ considerably, because each is experimenting with methods of meeting the needs of its locality. Reference can be made here to only a few, but the following are fairly typical of the various lines of effort.

Some of the lectures and classes announced in the bulletin of the Metropolitan Museum of Art in New York City, September, 1917, are the following:

For the public. Sunday afternoon lectures, illustrated and followed by visits to the galleries through the winter season.

Story hours for children and adults, illustrated and followed by visits to the galleries.

Artistic problems in Greek sculpture: five illustrated lectures.

For students of sculpture and painting in the art schools of New York. Four informal talks by painters and sculptors with illustrations.

For teachers in the public schools of New York City. Gallery talks by the museum instructors.

For elementary and high school pupils. Four lectures in cooperation with the American Museum of Natural History. Textile Industries of the United States. The garment makers of primitive times. Historic fabrics and costumes.

For sales people, buyers, and designers, three seminars.

For the deaf. Four illustrated lectures for those who can read the lips.

For the blind. Three talks for children, illustrated with objects from the collection which may be handled.
The Art Museum of Worcester, Mass., has set an admirable example in the activities of its children's department, the informal work in drawing, the Saturday story hour, and the gallery visiting.

Inevitably, the most important results of this work can not be measured in figures; they are observed by those who know the children as individuals, in the increased capacity for spontaneous enjoyment of beauty wherever seen, and the deeper interest in the museum, leading even to a certain sense of part ownership in the collections which, through intimate association, have come to mean much to these "younger citizens."

A large number of museums carry on systematic work in direct connection with the public schools and offer to teachers and pupils free admission to the galleries. The plans followed by the Museum of Fine Arts in Boston, the John Herron Art Institute in Indianapolis, the Carnegie Institute at Pittsburgh, and the Cincinnati Museum Association are typical of these activities.

The Museum of Fine Arts in Boston, among numerous other opportunities which it furnishes, has established in another section of the city a Children's Art Center. Here children may see loan exhibitions and be helped in the study of them and guided in their own efforts to draw.

Some 18,000 persons annually take advantage of the opportunity for free admission offered to school children and teachers by the John Herron Art Institute, of Indianapolis. It maintains a series of illustrated talks for grade-school children on popular subjects closely allied to art study. For high-school students a two-year lecture course is given on the history of art (one term each covering painting, architecture, sculpture, and the decorative arts), a full high-school credit being awarded to each student attending through the two years. A course in "museum study," planned to develop a fuller knowledge of museum material and a better understanding of how to make use of it, is a required part of the Indianapolis Normal School curriculum. In addition to these regular courses, all given at the museum, numerous classes come for special study or for a general museum visit, and frequent lectures are given in the various school buildings on the practical application of art in the home, the city, the community, and along similar directly helpful lines. In the art school which it maintains for professional training in drawing, painting, and the decorative arts, classes are conducted for teachers at special low prices and free classes for elementary and high-school pupils. In addition it offers scholarships for advanced work in art to pupils who show special ability. Recently, the free scholarship has been extended to cover the whole State of Indiana and a scholarship offered for each of the 92 counties in the State.

The Cincinnati Museum announced its plan in its report for 1909 as follows:
The question of education on a large scale—that is, of bringing the general public into intelligent and agreeable acquaintance with objects of art—is a matter which is occupying the attention of every museum at the present time. It is being variously dealt with. There is, of course, no difficulty in answering the needs of an individual or of a small group who come with a definite question or a common want. It is a pleasant and profitable task, for example, to talk over the Greek sculptures with a group of children who know their mythology. But it is doubtful whether the needs of large visiting classes of school children can ever be adequately met by instruction inside a museum. Certainly to attempt locally the systematic instruction of large numbers would be an impossible tax on a small and busy staff. There are times when the request for guidance must be reluctantly refused. Volunteer service of the right sort would be a great boon and would hardly run the risk of becoming stereotyped, a real danger to any employing the function too frequently. By far the best results, however, are to be gained by the school-teacher who possesses sufficient knowledge to use the collections. She can reinforce her own work by drawing on an inexhaustible fund for illustration, and by reason of her knowledge of the child's degree of preparation she need waste nothing. If she possesses, in addition, a love of beauty, either native or acquired, the conditions for success could hardly be improved upon.

The museum, then, is putting its main strength along this line into its work for teachers.

Another not uncommon affiliation is illustrated by the opportunity offered at Cincinnati, where high-school students may elect an art course which is arranged to allow five afternoons of work each week in the museum academy. Each afternoon's program includes three hours of drawing and painting. Instruction in the history of art is given to these students at the museum. The museum circulates through the schools certain sets of lantern slides with a synopsis. The subjects for 1918 are: "A Review of the Museum," "The History of Painting with Special Reference to the Characteristics of the Great Periods," "Metal Work," "Design as Studied and Practiced To-day." A lecturer from the museum is sent to the schools occasionally.

The way in which the Carnegie Institute comes into touch with the school children is described as follows:

The problem presented to us by visits to our galleries of groups of children from the public schools, and the way in which we have undertaken to solve it, may be briefly stated.

Through the interested cooperation of the superintendent of schools in Pittsburgh, and the director of art instruction, and the exceptional liberality of the board of education, the students of the entire eighth grade of the public schools, numbering 6,000, and ranging in age from about 14 to 18 years, come three times during the school year, with their teachers, as part of their regular work, to visit the halls and galleries of the department of fine arts at Carnegie Institute. Each visit is limited in time to an hour and a half, and the three subjects, painting, architecture, and sculpture, are studied, but each period is devoted to the study of one subject and of only a few works of art. These works are used for the purpose of illustrating some of the fundamental qualities defined.
As a result of many years of observation the problem presents itself to me in this way. We have, on the one side, groups of interested and intelligent children, eager to see and hear and understand. They come to us from 5,000 homes scattered throughout the entire city, and the majority of them have had no opportunity to learn anything about art, or even to see works of art. They have had nothing beyond the elemental art training offered by the public schools, and their sole means of observation has been practically limited to illustrations published in books and magazines telling stories or illustrating incidents. This side of art is, of course, so obvious that it may be readily understood by a child.

On the other side of the problem, we have the entire realm of art with which to deal. In three sessions of an hour and a half each; the history of art, of painting, of architecture and sculpture; the wide field of biography of painters, of architects and sculptors; the technical side of art, the peculiar or special methods adopted, especially by painters, in the production of their work; and the various elements or qualities which enter into a work of art. The problem might be approached from any of these angles.

It will be seen at once how futile it would be to attempt to give the young people any idea of the history of the art of painting in the space of an hour and a half. It might be possible to deal briefly with the life of a single artist within the time, but the impossibility of dealing adequately with the wide field of biography within the hour and a half is apparent. And while the technique of art is an interesting field of inquiry and study, the peculiar manner of doing a thing is unimportant. Supreme examples of art have been produced by various technical methods. Technical methods are of little more importance than the handwriting of the author. Moreover, these students do not come seeking technical knowledge. They simply want to know why this or that work is good, to the end that they may better understand and enjoy art. The folly of attempting to teach these young people the history, biography, or technique of any art in an hour and a half is evident.

Therefore, it will be readily seen that if we are to give these students anything worth bringing them to the Institute for, we must select for them with discriminating judgment and concentrate their attention upon some important quality or qualities of the subject. Our chief purpose, then, is to give the student a point of view from which to examine and study, not one work of art, but all works of art.

The scholarship plan of the Cleveland School of Art illustrates some of the types of scholarships which art schools offer to talented public-school pupils. This school offers working scholarships and a few money scholarships. Last year the "Mutual service fund" was inaugurated. This is made up at present of eight purses of $350 each. A talented pupil can have the benefit of one of these purses on condition that as soon as his earnings begin, the money be returned without interest, in installments to be paid either by the individual or by his employer—a certain percentage of his earnings monthly—until the whole is returned for another to use. The purses are given by individuals or organizations who come into personal touch with the beneficiary. The pupils whose abilities are recognized by the award of these scholarships are usually discovered in the high schools. Application is made through some special teacher of drawing who knows the facts about the pupil and his work.
The Cleveland Museum, in addition to its regular gallery displays, has exhibitions of selected works of art in a place of honor and under special illumination, each for two weeks only. Illustrated leaflets are issued interpreting these selected works and giving references to helpful literature about them and the artists who produced them.

In connection with the difficult matter of appropriate gallery talks a much better understanding is evident regarding the ways in which genuinely artistic appreciation is promoted. Some fundamental considerations on this complex problem are set forth with admirable clearness in the bulletin of the Art Institute of Chicago for February, 1918, from which the following paragraphs are extracts:

There is no form of art lecture capable of greater value to the interested public than that delivered in the presence of the works under discussion. Here qualities are seen and pointed out rather than described, and here the emphasis can be laid on a statement of the principle governing the manipulation of those qualities—the essential processes of art.

And yet there is no situation in which the lecturer can more easily be tempted from the straight and narrow path of scientific truth than in the gallery talk where the acquiescent pictures seem so ready to corroborate any word he may utter. The exercise of individual taste and the play of individual fancy have a right to play their part in the appreciation of works of art, and something very like these often stimulates the amateur critic into strange vehemence of statement—either of denunciation or of praise—in channels of purely personal thought whose value for his audience is certainly nothing and may be less.

Now this leads to the single deadly sin of the picture talker—the creation of prejudice. It is precisely the function of the gallery talker to help us to find the artist’s angle of vision. The greatest gift he can offer us is to make us sympathetic with the conceptions which are new to us. His best means of accomplishing this is to help us to rid ourselves of the films of prejudice through which we all are obliged to some extent to peer.

For we can not receive our aesthetic experience second hand. With the open-minded attitude which is ready to accept a “message” from any work, however old or however new, there must be combined an insistence upon receiving that message at first hand and for ourselves. The gallery lecturer who in any way attempts to come between us and the imperativeness of growing into the love of a work of art through our growing acquaintance with it, shows us at the start his (or her) failure to grasp the first essential of leadership in art appreciation.

Practically all modern museums carry on one or more of the kinds of educational activity here mentioned. The foregoing examples have been cited only to illustrate types of work, all the specific instances of which are fortunately much too numerous to allow of individual mention.

Art education related to industries has been prominent in America for many years. It is receiving a fresh impetus at present from the prospect that, after the war, the United States will have to depend upon its own resources more than in the past, not only for designers but also for styles of design. A kind of originality must be developed.
that can produce things which are not only new but fine in quality. With this necessity in mind, older schools have been improving their facilities, while new schools intimately related to local industries have arisen. The Grand Rapids School of Art and Industry, in Michigan, and the Federal School of Commercial Designing, in Minneapolis, are types of these newer schools. Most of the schools of industrial art offer special opportunities for school pupils whose vocational interests in this field have become evident. The scheme of affiliation worked out by the School of Industrial Art in Trenton, N. J., is typical of this sort of arrangement. Here pupils from the city schools may take courses for which the fees are merely nominal. Technical art courses are provided for pupils who have completed the junior high school, and an art teachers' course is offered for students in the normal school.

American students of textile design have only recently discovered the value to their work of the extensive collections of primitive art which are gathered in the anthropological museums of this country. These students are recognizing the fact that primitive art is often very good art and that it offers a vast source of suggestion and inspiration for designs that are original, in the sense that they are unlike those to which we have become accustomed. In an article entitled "Museum Documents and Modern Costume," in the American Museum Journal for April, 1918, Mr. M. D. C. Crawford writes:

Above and beyond the artistic merit of these costumes, however, they illustrate in a definite manner a very important feature of the educational possibilities and public usefulness of the American Museum. Every single garment in the collection was founded on a specimen in the collection of this museum. In certain instances, the inspiration is perhaps difficult to trace, but in others it is quite obvious. These garments represent the first fruits of what I may term "creative research" by the American costume industry. The documents in the museum were studied with the view of applying ideas, either in decoration or in line, to modern costumes. Instead of the usual method of importing modern foreign costumes (themselves based, generally, on foreign museum collections), our designers, familiar with the practical needs of to-day, have gone direct to original documents for their inspiration. The work, therefore, marks one of the most important movements in the development of a truly American type of industrial art.

It is not difficult to understand how important a part our great museums and libraries must play in the proper industrial expression of art. They are for the artist inexhaustible mines of suggestion. The art of each people and age is an evolution from some former type. The artist, especially the decorative artist, is concerned not alone with purely original creation, but with the inspired selection of certain ideas and motives of ancient origin that may have a fresh significance for his own time and people.

The national need for industrial design is strongly influencing the art departments in high schools and art schools. In the past, many students have entered art work because of their strong liking for that work, but in only a few institutions has the training been directed...
and vitalized by any definite knowledge of the actual demands for the product. Consequently, many art students with marked abilities in design but not in pictorial art have received only formal training in design or have given their time to painting pictures, thinking that overcrowded field to be the only place for art expression. Many with valuable talent have turned to work other than art, because they had no knowledge of the opportunities offered. Prominent among the agencies which are remedying this condition is the Art Alliance of America. This association was organized in New York City in 1914, with headquarters at 10 East Forty-seventh Street. One purpose of this association is to promote working relations between art producers and the industries. It brings artists and art students into personal touch with industries which need art products. The New York division of this association was organized in New York City in 1914. Galleries are maintained in the heart of New York's shopping district, where exhibitions, organized in close cooperation with artists and with the trades, are held every month. Positions are secured, work sold, and advice given by artists and educators. Hours are assigned daily for personal interviews and examination of work. The Central States division was organized in the fall of 1918 in Chicago, and maintains an office in the Art Institute. At each monthly luncheon the artistic possibilities of some industry are discussed. The movement has the friendly cooperation of the Illinois Manufacturers' Association, and plans for a comprehensive exposition in the fall of 1919 which will illustrate the necessity of art in industry are under way. Additional divisions are being organized in other centers in the country, so that the alliance is likely to exert a strong and direct influence upon the methods of teaching of design, and upon the vocational guidance of students of marked artistic abilities.