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THREE DIMENSIONS OF EXPERIENCE: A
CURRICULUM MODEL FOR ART EDUCATION,

The Ohio State University, Ph.D., 1969
Education, theory and practice

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1970
THREE DIMENSIONS OF EXPERIENCE: A CURRICULUM
MODEL FOR ART EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

Evan James Kern, B.S., M.A.

* * * * * *

The Ohio State University
1969

Approved by

[Signature]
Adviser
Division of Art Education
This dissertation has been developed as a textbook for curriculum design in art education. The impetus for such a book grows out of the author's classroom experiences both as a teacher and as a supervisor of student teachers. These experiences have led to the conclusion that many prospective and beginning teachers of art do not have either an adequate conception of curriculum or the training needed for designing curriculum.

The realities of such inadequacies may not be apparent during the first weeks of student teaching or teaching. A few favorite lessons remembered and borrowed from a former teacher or some projects from art education books or magazines may see the novice through the first trying days. There comes a time, however, when such a hit-or-miss approach, the lack of guidelines for selecting instructional materials, and the rapid vanishing of that ideal vision of art education lead to the conclusion that some logical means for structuring educational experiences is needed, that is, a curriculum for art education.

Curricula for art education are not nearly so abundant as might at first seem apparent. Most of the guides published by various city, county, and state school systems are not curriculum guides as their titles would imply. Instead, they are either courses of study,
instructional materials, or teacher's how-to-do-it manuals. To the author's knowledge there is but one major study directed toward the development of curriculum design for art education, the Guidelines for Art Instruction Through Television for the Elementary Schools, by Barkan and Chapman. It would appear that the field is ready for further serious work in curriculum development. The present study is offered as a contribution in that direction.

The value of the book is seen to be three-fold. First, it demonstrates how a particular point of view or educational emphasis (in this case, aesthetic) may be transformed into a curriculum model which is generalizable to a variety of educational situations. Secondly, it outlines the process by which the curriculum model may be converted into a working model for a particular educational situation. Finally, it provides, by its very structure, a method for approaching the task of curriculum design in art education regardless of the specific educational emphasis or point of view.

Certain broad assumptions have been made about the nature of the intended audience. First, it is assumed that the prospective teacher will lack the time needed for the complete curriculum design task. Secondly, it is assumed that such an audience will also lack a sufficiently detailed knowledge of theories about curriculum, learning, aesthetics, and art.

As a consequence of the first assumption, it is the responsibility of a text such as this to explicate the curriculum design
task. In this way particular curricula for particular educational situations may be developed with maximum control on the part of the teacher. Because of the second assumption, the book provides the theoretical underpinnings when these are needed. In such cases the use of highly technical language is avoided insofar as possible. This has been done to allow the reader to more readily understand the necessary concepts.

To the extent that this book proves valuable in the development of more adequate curricula in art education, to that degree it will have fulfilled its purpose and function.
## VITA

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<tr>
<td>September 13, 1925</td>
<td>Born—Chicago, Illinois</td>
</tr>
<tr>
<td>1951</td>
<td>B.S. <em>cum laude</em>, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1951--1952</td>
<td>Art Consultant, Steubenville, Ohio, Public Schools</td>
</tr>
<tr>
<td>1952--1953</td>
<td>Graduate Assistant, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1953</td>
<td>M.A., The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1953--1954</td>
<td>High School Art Teacher, Cheyenne, Wyoming, Public Schools</td>
</tr>
<tr>
<td>1954--1955</td>
<td>Art Director, Campus School, Murray State Teachers College, Murray, Kentucky</td>
</tr>
<tr>
<td>1955--1957</td>
<td>Art Teacher, Ferndale, Michigan, Public Schools</td>
</tr>
<tr>
<td>1957--1964</td>
<td>Assistant Professor, State University College, Plattsburgh, New York</td>
</tr>
<tr>
<td>1964--1966</td>
<td>Assistant Professor, State University College, Buffalo, New York</td>
</tr>
<tr>
<td>1966--1968</td>
<td>Teaching and Research Assistant, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1968--1969</td>
<td>Research Associate, The Ohio State University, Columbus, Ohio</td>
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### PUBLICATIONS

FIELDS OF STUDY

Major Field: Art Education

Studies in Art Education. Professors Manuel Barkan and Laura H. Chapman

Studies in Curriculum Theory. Professor Paul R. Klohr

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INTRODUCTION

Perhaps one of the outstanding characteristics of the contemporary art teacher is his vigorous defense of the right to determine the content of instruction in his classroom. Art education practice has long maintained that each teacher is responsible for designing his own curriculum. Such a position is certainly commendable in principle because it implies that each art education student is adequately educated and sufficiently skilled to assume such a responsibility. The position, however, is open to question because most art teachers are not competent nor can an undergraduate education provide the competencies for designing art education curriculum. Specialized knowledge and experience is necessary to accomplish this task.

This book rests on the assumption that specialized curricula for particular educational situations are needed, that is, curricula developed for differing student/teacher needs and competencies. A second assumption is that most art teachers are inadequately prepared for the task of developing a logical, comprehensive, coherent, and justifiable curriculum for art education. As a consequence, they need the assistance of curriculum specialists.

At present, it is not the practice of school systems to hire curriculum specialists in each subject matter area. Since this is the case, there is a need to provide the classroom art teacher with
the curriculum design assistance he requires without at the same time infringing upon his responsibility to develop his own curriculum. The concept of a curriculum model is one way in which this need for assistance may be filled.

A curriculum model is a plan or design which may serve as a pattern for the development of "working" curricula, i.e., curricula that are used to guide instruction in particular educational situations. In this sense, a curriculum model resembles a blueprint for a house. Many houses may be constructed using the same blueprint. One house may appear to be identical to another yet each house may differ in certain important respects--different materials may be used, modifications in room size and location may be made, and certain structural changes may be needed to accommodate the differences between lots upon which the houses are built. In a similar fashion, a curriculum constructed employing a curriculum model may differ considerably from other curricula, these differences being a consequence of the specialized needs of the particular educational situation.

A curriculum model is prescriptive to the extent that it specifies educational objectives and means for their attainment. Thus, a curriculum model will specify what will be taught to whom, and when as long as the "whats," "whoms," and "whens" are fundamental to the achievement of its educational objectives. When the "whats," "whoms," and "whens" are a matter of appropriateness and timing, then such decisions may be made in developing the working curriculum or in the actual classroom situation. For example, a
curriculum model might specify the teaching of a method of aesthetic
description at the lower elementary level. However, in a particular
school, it might be appropriate to delay the introduction of such
material to the middle elementary level.

A curriculum model is usually designed for a specific educa-
tional population, e.g., general, vocational, college, etc. Because
of this, a curriculum model designed for general education would
be of limited use in designing a working curriculum for professional
art students. While a general education curriculum model may be
adequate for certain aspects of a professional curriculum it would
be necessary to develop additional curriculum plans to account for
other aspects involved in training artists.

In summary, it can be stated that a curriculum model needs to
answer to the question of what to teach to whom, in what order, and
toward what ends. This means that the model must specify (1) the
student population for which it is intended, (2) the educational
objectives toward which it is directed, (3) the types of student
activities necessary for achieving those objectives, and (4) the
sequence in which such activities should occur. These are the
tasks established for this study.

Chapter I, A Proper Function for Art Education, through an
exploration of current conditions and speculation on the apparent
needs and future directions of art education, identifies the student
population and educational directions for which the curriculum model
will be developed. In addition, the chapter identifies three major
content areas--aesthetic, cognitive, and expressive--and a definition
of curriculum is provided which serves in the development of educational activities in the three subsequent chapters. Finally, a method for determining specific content in each of the three areas is discussed.

Chapter II, *The Aesthetic Dimension*, describes a phenomenological theory of aesthetics coupled with a descriptive method for analyzing works of art and other aesthetic objects. Three typical descriptions are provided which illustrate the application of the method. Following an explanation of the aesthetic categories of surface, depth, and function, the chapter concludes with three units of instruction developed around these categories.

In Chapter III, *The Cognitive Dimension*, no formal theory of knowledge is developed. Instead, knowledge is defined as consisting simply of concepts and facts. From this definition it is possible to identify and describe the cognitive categories of medium, structure, and context, as well as several important subdivisions of each. Three units of instruction using the cognitive categories end the chapter.

Chapter IV, *The Expressive Dimension*, explicates a theory of artistic problem solving. Artistic problem solving is seen to be composed of four describable acts—identification, selection, organization, and experimentation—which are the four expressive categories. Two interesting aspects of the expressive categories emerge. First, experimentation is found to be non-sequential in nature, that is, it may precede or be integral with, any of the other categories. Secondly, the dependence of the expressive on the aesthetic and
cognitive dimensions becomes apparent. As a consequence, primary learning activities in this dimension are seen to be skill activities. Three instructional units are provided. The first two are skill oriented while the third concentrates on the total expressive act.

The final chapter, *Curriculum Models for Art Education*, returns to the question of what to teach to whom, in what order and toward what ends. Two curriculum models for art education are provided, the second being an abbreviated version of the first. Attention is given to sequence and emphasis in curriculum design and to the problem of developing working curriculum. A section on curriculum evaluation completes the theoretical portion of the study. The chapter concludes by pointing out the implications such an education as the one herein described might have for art, art education, and the youth of our nation.
CHAPTER 1

A PROPER FUNCTION FOR ART EDUCATION

During the past one-hundred years art education in the United States has undergone several radical shifts in emphasis serving first one function and then another as social, economic, or educational demands have changed. Consequently, art education has sought at one time or another to develop industrial designers, skilled craftsmen, aesthetes, home-makers, well-adjusted children, and creative people for science and industry. It would seem that art education programs can be developed to serve many different purposes. However, two general patterns seem to be distinguishable in present art education practices. In the first, art serves as the focus for the educational program, that is, students learn how to make and look at art for expressive and aesthetic purposes. In the second, art is used as a means to non-art ends. In this latter role, making or looking at art may provide a therapeutic outlet, promote social skills, or provide opportunities for learning about history, cultures, and customs. Probably most general art programs in public schools exhibit qualities of both. The question for the curriculum designer as well as for the teacher, administrator, and layman is: what is the proper function for art education in this
latter half of the twentieth century?

Before answering this question it is necessary to determine for whom such an art education would be intended. Clearly, there could be some important differences between a program for the general student and one for the vocationally oriented student. Similarly, factors relating to grade (first, second, third, etc.), school level (elementary, middle, or high), and kind of school (public, parochial, or private) would be of some moment in determining the objectives of an art program.

For the purposes of this study the student population is defined as general education students in the public schools. Further, it is intended that this group include students from kindergarten through grade twelve. This selection is based upon the fact that this represents the largest student population group in the United States and upon the assumption that a program designed for such a group could be adapted to more unique student populations. With such a decision it is possible to redirect attention to the question of the proper function for art education.

Toward an answer to this question it may be noted that in recent years several well known art educators have spoken of the need for developing programs of "aesthetic education" or for emphasizing "visual aesthetic experience" in art education. One of the earliest was Vincent Lanier who in 1963 wrote:

I am suggesting that we recognize in art education that the experience of art--whatever its other merits--is in itself a human good; some would say the greatest good. If we are to have art in our schools, let it first under-
take to expose the child to the intrinsic value of art experience, to an awareness that the looking at or making of art is a desirable mode of human behavior.¹

Such an apparently obvious suggestion serves to document the fact that art education programs have not been oriented toward the "experience" of art as an end in itself, but have, instead, been directed toward other objectives.

At a seminar in art education held at Pennsylvania State University in 1965, Joshua Taylor "insists" that"

General education in art [should] be neither that of artist or historian. It should draw upon the insights of the artist and the range of experiences afforded by modern history, but should have as its goal the development of skills, awareness, and knowledge that will provide the non-professional with a meaningful and deeply rewarding experience of art.²

Taylor is underscoring Lanier's concern for the "intrinsic value of art experiences." And, from a somewhat different position Manuel Barkan expresses similar concerns. Speaking at the same seminar he notes:

To the detriment of art education . . . we have anchored curriculum almost entirely in relation to the artist . . . Art curriculum is faltering, not because of


efforts to attend to art history, but rather, because we have not learned to use the aestheteician and critic, nor do we properly use the historian.

Such statements serve to demonstrate a trend toward emphasis on the aesthetic qualities of art experiences in education.

In the 1966 Autumn issue of *Studies in Art Education* (devoted almost entirely to aesthetic education), David Ecker writes:

Anyone attuned to current developments in what might roughly be called arts and humanities instruction in the public schools is well aware of the widespread enthusiasm over "aesthetic education." In the field of art education the phrase looms large in seminars, conferences, and institutes, as well as in reports of various efforts to improve the visual arts curriculum.

It would appear that aesthetic education in art, or at least an emphasis on aesthetic qualities of experience in art may dominate the future art education scene. If such is the case, it would represent a considerable shift from contemporary classroom practice with its emphasis on the making of works of art and the study of art history. Is such a radical change in art education warranted? Should more attention be given to the aesthetic qualities of experience? A partial response to these questions may be found through the briefest reference to human experience.

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Three major aspects of human experience can be identified; they may be classified as physical, intellectual, and emotional. The physical aspect encompasses man's need for food and shelter—the basic essentials of life. The intellectual aspect accounts for man's everpresent curiosity, his need to know and understand the significance of human existence. The emotional aspect is concerned with the development and maintenance of a wholesome and satisfying relationship between man and his environment.

There are several facts to the emotional aspect, one of which is aesthetic experience. Aesthetic experience in this context can be defined as an emotional response to the perceptual and intellectual qualities of experience. In this sense aesthetic experience is a basic human response. In fact there is some evidence that other primates and other animals also respond to aesthetic qualities in the environment.5

While the sources of aesthetic experience are many and varied, according to Phenix:

It is through the arts that esthetic understanding is most directly and deliberately cultivated... Actually, of course, nature provides far more extensive resources for esthetic experience, and the many artifacts constructed for other than esthetic purposes (in the "practical" arts and crafts) exercise a much more pervasive influence on the esthetic consciousness of mankind than do the fine arts. Nevertheless, the study of meanings... because they provide the

basis for the analysis of distinctive unambiguous forms and because they are an excellent foundation for the explicit pursuit of esthetic meanings through education.\textsuperscript{6}

Though many everyday experiences such as rainbows, dramatic sunsets, and birdsongs possess aesthetic qualities, these qualities are accidental and generally of low intensity whereas art, especially of the twentieth century, is formed expressly for the purpose of generating intense aesthetic experience.

While it may be said that art in the twentieth century functions for aesthetic ends it cannot be said with the same degree of certainty that this is how art is perceived. There are enough jokes about "modern" art, ample observations of people at museums and galleries, and sufficient conversations with friends, colleagues, and students to indicate that many people may not in fact experience the aesthetic qualities in a work of art. It would appear that contemporary man may have "lost" the ability to respond aesthetically.

Such a phenomenon may be explained, in part, by Aldrich's concept of "categorial aspection."\textsuperscript{7} Imagine, for example, a common rock encountered during a walk. The rock may be:

(1) An obstacle barely noted as an impediment in our path.
(2) An object we observe as having various strata (possibly slate or shale) laid


\textsuperscript{7} Virgil C. Aldrich, Philosophy of Art (Englewood Cliffs, New Jersey, 1963), p. 21ff.
down by the process of sedimentation.

(3) An object which by its color, texture, and form reminds us of a bird.

Each of these ways of attending to the rock is clearly different from the others. In the first instance the rock is seen as a material thing; this is our "everyday" or ordinary mode of perception. In the second case the rock is viewed as a physical object; this is the "analytic" or scientific mode of perception. Finally, the rock is seen as a bird, an aesthetic object through the "aesthetic" mode of perception. The striking thing here is that in no instance does the rock change its aspects. Rather, we change our way of attending to the rock.

Aldrich's concept helps to explain how we come to see things in different ways and through different aspects according to our way of attending to the object. However, Aldrich does not explain why we have seemingly lost our ability to "see" aesthetically. Some reasons are suggested by a brief examination of the history of man and his art.

The history of man prior to the development of writing is to be found in his artifacts which provide a fragmentary record of his experiences. The earliest of these artifacts, as Dr. Leaky and others have demonstrated, were simply "tools" found within the environment of the individual or, more simply, stones shaped by natural forces which suggested possibilities for use in pounding, cutting, or

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drilling. These and similar forms remained "seen" as tools until man, at some later stage in his development, discovered he could shape his own tools if the appropriate ones were not to be found. Thus was begun the technological revolution, a revolution which is still in progress today producing such exotic devices as lunar probes, laser welding, and artificial hearts.

Closely following this technological revolution came the second, the aesthetic. This revolution sought not to extend technological progress but rather to alter the human environment for aesthetic purposes. This revolution meant going beyond basic needs: "clothing becomes adornment; buildings, architecture; and words, poetry. The strictly human environment is forced upon man, but at the same time man projects new values into that environment and changes it to fit other desires." This revolution, like the first, is still in process, but unlike the technological with its gradual and cumulative progress from one level of sophistication to another, the aesthetic revolution seems to have developed in an expanding but non-cumulative fashion. The artifacts of the twentieth century do not appear to be "aesthetically" more advanced than those of the cave painters of Altamira. Additionally, the aesthetic revolution has undergone a significant shift in direction. Whereas in pre-industrial times aesthetics served to make the products of technology (tools, pots, textiles, dwellings, etc.) more meaningful and significant, it has

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since become largely separated from everyday human affairs. Aesthetics now stand in many people's minds as the fine arts--dance, literature, music, poetry, theatre, and the visual arts--isolated in the concert hall and gallery, an uncommon rather than common mode of experiencing.

Directly upon the heels of, or parallel to, the aesthetic revolution, there arose a third and perhaps final major revolution: the analytic. While the first revolution sought to extend man's capacity for deriving an existence through technology from his environment, and the second to enrich that existence, the third revolution has been a search for meaning in human life and has resulted in the development of the humanities and science. This revolution developed cumulatively providing a continuous growth in the quantity of knowledge as demonstrated by the proliferation of the sciences, and non-cumulatively as an expansion in the range and depth of concerns. For instance, today's modern physicist has discovered the alchemists' long sought for touchstone: base metals can actually be converted into gold. And, recently a chemist made a silk (artificial) purse out of a sow's ear. On the other hand, questions raised by Plato and Aristotle are still asked today, and the search for God and human values continues.

With the onset of the Industrial Age the separation between science and technology has consistently narrowed to the point where it is difficult to determine where science ends and technology begins. As a result of this merging of science and technology and the tendency of the aesthetic to become increasingly identified as an individual's
private search for meaning, an important but almost unnoticed shift has occurred. Instead of the original three cultural revolutions there are now but two: the quantitative consisting of science and technology as well as economics and politics; and the qualitative composed of aesthetics, ethics, theology, and philosophy.

This turn of affairs has had a considerable impact upon the lives of men. The quantitative domain has been able to demonstrate quite dramatically its value to human life: the development of medicine, aeronautics, cybernetics, and, especially, consumer products are seen as immediate "goods." Yesterday's luxuries are today's necessities, so much so that the average western man lives in far greater comfort than did the richest of kings prior to the industrial age. On the other hand, value questions and the qualitative domain have been increasingly relinquished by the individual to committees, the government, business, industry, and the press. These latter, understandably, have sought the resolution of these value questions in a quantitative fashion. Polls, surveys, and computers have become the basic mechanisms for decision shaping.

Somewhere in the process of transition from a life in which judgments were qualitatively derived to one in which decisions are grounded in science and technology, western man has lost sight of the aesthetic dimension of experience. Today a work of art is more often treasured for its monetary worth on the art market than its value to human experience. People, literally, do not know how to make decisions as to the significance of the work of art being experienced.
If the foregoing description is correct then it would seem that a proper education in art should alleviate this general situation and concern itself with the aesthetic dimension of experience. Such an education should lead students to become able to make qualitative decisions about visual aesthetic experience.

There is, however, another aspect to the question of the proper function of art education, this being the nature of the student or, more specifically, what it is that art education hopes to achieve in the education of the student. It is all well and good to pronounce that art education should lead the student to make qualitative decisions about visual experience, but to what end? Art education in the past has had, as mentioned earlier, many different models: the craftsman, aesthete, and for the past thirty years or so, the artist. Manuel Barkan lately has suggested that:

The professional scholars in art—the artists, the critics, the historians—would [should] be the models for inquiry because of the kind of human meaning questions they ask about art and life, and their particular ways of conceiving and acting on these questions are the kinds of questions and ways of acting that art instruction would [should] be seeking to teach students to ask and act upon. ¹⁰

Harry Broudy, on the other hand, suggests that on the secondary level the connoisseur should be the model, "that formal schooling can make a difference in the quality of aesthetic experience, and that

introduction into connoisseurship—perhaps only into the vestibule—is possible." It should be noted that for Broudy, aesthetic experience and therefore art education should not deal with the popular arts but should remain closely tied to the "serious" arts of painting, sculpture, drawing, printmaking, and architecture. "If there is no serious art, or if it can't be taken seriously, then there is no case for art as general education." Broudy also limits art experiences to those generally characterized as being non-studio oriented. "Although knowledge of art can be part of the general education at the secondary level, development of skill beyond a basic minimum level cannot be."

Both Barkan's and Broudy's conception of art education emphasize a scholarly and critical approach to the study of art, Barkan proposing the artist, critic, and historian as models, and Broudy the connoisseur. The strength of each proposal lies in the recognition of a need for systematic treatment of art in education. The weakness of the two approaches, if it can be called a weakness, is to place the student in an unrealistic role. Few students will become artists, critics, or historians, or even connoisseurs in the context suggested by Broudy. Most students in general education will have quite limited


12Ibid.

13Ibid.
contact with the visual arts on completion of formal education. These same students, however, will be in continuous contact with potential sources of visual aesthetic experience. As pointed out earlier in this chapter:

Actually . . . nature provides far more extensive resources for esthetic experience, and the many artifacts constructed for other than esthetic purposes . . . exercise a much more pervasive influence on the aesthetic consciousness of mankind than do the fine arts.\textsuperscript{14}

An education aimed at preparing students to deal with both the art and non-art sources of aesthetic experience would appear to be more desirable than one which is limited to the visual arts. With this broadened perspective of aesthetic experience, "serious" art, as Broudy describes it, would be seen as a primary but not exclusive vehicle for education. Similarly, artistic, critical, and historical practices might provide means for achieving the model but, again, would not be the primary educational goal.

A more appropriate education is seen to be advanced through the idea of the student as a connoisseur-gourmet-collector of visual aesthetic experience. He is connoisseur in that he is able to make reasoned judgments about the aesthetic qualities of experience; gourmet in that he avidly seeks out and savors the aesthetic qualities of experience; and collector to the degree that he endeavors to surround himself with sources for aesthetic experience. A closer

\textsuperscript{14}Phenix, \textit{Realms of Meaning}, . . ., p. 144.
analysis of this three-part model is necessary for shaping the direction of the curriculum.

What does it mean to be a connoisseur and what kind of educational situation does it require? A connoisseur is, by definition, a person capable of making refined and reasoned judgments—refined in the sense of being precise, reasoned in that judgments are based upon evidence admitted in light of certain specified criteria. A connoisseur is an expert, a critic who does not require or allow others to make judgments for him, in short, a person competent in making critical judgments about aesthetic matters.

Education in connoisseurship requires: (1) a method for making critical judgments about the significance of an aesthetic object or event, (2) knowledge for informing those judgments, and (3) opportunities to practice judgment making. Method, knowledge, and skill are the cornerstones for education in connoisseurship.

A first distinguishing characteristic of the gourmet is the ability to make fine discriminations about the relative qualities of experience. This is an ability he shares with the connoisseur. A second distinguishing characteristic of the gourmet is one of attitude. A gourmet actively seeks experiences which are high in aesthetic quality and consciously avoids those which are not.

An education aimed at the development of students who are gourmets for visual aesthetic experience would need to provide for developing connoisseurship and engendering an attitude about the significance of aesthetic experience to human existence. Such an attitude can only be developed in an atmosphere where significant
aesthetic experiences do, in fact, occur. This implies that the sources of aesthetic experience must be tailored to the specific needs of the situation and to the individual student. The so-called "serious" art will prove inadequate in some instances and must be considered as only an aspect of the larger field of visual aesthetic objects and events. This has the corollary of requiring that any critical method employed be applicable to the entire gamut of visual aesthetic experiences.

Being a collector is an extension of the previous two categories. In an affluent society such as ours the capacity for collecting is enormous and the classes of objects to be collected are diverse. All man's possessions constitute a collection: his house, his car, his clothes, and his furnishings. All of the objects which constitute his collection are possible candidates for aesthetic experience. Indeed, so much so, that within a wider context, this aesthetic collection can be seen to encompass the whole world--parks, playgrounds, public buildings, highways, etc. But just as there exist inner-city ghettos in which people are deprived of the basic essentials for existence, so can there be cultural or aesthetic ghettos--row housing, suburbia--in which people are deprived of sources for significant aesthetic involvement. Being a collector takes on social overtones, that is, a responsibility or commitment to the development and maintenance of an aesthetic environment.

It could be argued that the development of such social responsibilities within the framework of art education is a chancy affair. When viewed from the vantage point of the individual some
of this ambiguous quality can be considerably reduced. If an effective education in art succeeds in developing connoisseurs and gourmets, the individual student's commitment to the aesthetic dimension will be so great that threats to the aesthetic environment will not be viewed as a social problem but as a serious personal one.

It is now possible to restate the "proper" function of art education. A proper function for art education in this latter half of the twentieth century would be to develop students with the capacity to critically judge, and the desire to actively seek out significant aesthetic experiences, that is, an education which strives to increase each student's capacity for visual aesthetic experience.

Three Dimensions of Experience

It is relevant at this point to question the specific function of the visual arts in such a curriculum. Three quite explicit roles seem to emerge. The first role would be as a paradigm or model for all visual aesthetic experience. As Phenix noted "the fine arts are particularly suited for the study of meanings and for special attention of educators because they provide the basis for the analysis of distinctive unambiguous forms and because they are excellent foundations for the explicit pursuit of esthetic meanings through education."15 Works of art in this context provide easily

15Ibid.
available and potent sources for aesthetic experience upon which the student can concentrate in the development of his skills in critical judgment-making.

The second role of the visual arts is as a discipline or body of knowledge. Art in this sense includes the entire domain of objects, facts, events, and activities which, when taken together, comprise the field of art. It is at this juncture that the relationships between the notion of the student as connoisseur-gourmet-collector and Barkan's model of the student as artist, critic, and historian\(^\text{16}\) becomes apparent. To be a connoisseur requires knowledge of the discipline and mode of inquiry of the art historian, critic, and to a lesser extent, the artist, that is, "the kind of human meaning questions they ask about art and their particular ways of conceiving and action on these questions."\(^\text{17}\) Similarly, the student as a gourmet requires knowledge of the critic and, sometimes, the artist and historian. Finally, to be a collector requires knowledge, in varying degrees, of all three. These relationships are illustrated in the following diagram (Figure 1). The solid line indicates a direct dependence, the dotted line an indirect dependence. It is in this sense that art provides the cognitive (knowledge) structure for art education. Appropriate to such a structure would be activities in studio, historical, and critical inquiry.

\(^{16}\) Barkan, "Curriculum Problems . . . ," p. 246.

\(^{17}\) Ibid.
Fig. 1 Relationships between two student models

The third role of the visual arts in an art education curriculum is to provide a mode of expression—the production of works of art—for two distinct but related reasons. First, expression in the visual arts affords an intimate and first-hand vehicle for aesthetic experience. Secondly, art expression provides unique insights into the aesthetic dimension of experience, a kind of knowledge of materials, technics, and aesthetic qualities unobtainable from experiences that are non-expressive.

Another way of describing the relationships between the aesthetic, cognitive, and expressive dimensions of experiences is through the use of a Venn diagram (Figure 2). It can be seen that the work of art, the central portion of the diagram is dependent upon all three dimensions for its existence, that is, the artist who produces a work of art must have certain expressive skills; knowledge of technical processes, the world about him, and himself; and the ability to make aesthetic judgments as the work proceeds.
It can also be seen from the diagram that the work of art, once it has been produced, may serve as a source for aesthetic experience—the viewer may respond to its aesthetic qualities. The work of art may serve as a source of knowledge—the viewer may learn something about the work of art and the life and times of the artist. Finally, the work of art can serve as a source of inspiration for the viewer—the work may trigger the desire to make a work of art either related to it (as when an artist adopts a certain style, e.g., Expressionistic) or suggested by it (as when an artist develops a new style from an
older one, e.g., Abstract Expressionism from Expressionism).

In the context of this book, with the emphasis on the general education student acting more as a consumer than a producer of art, the aesthetic dimension serves as the primary focus of art education. The cognitive dimension is required to inform experience and to assist the student in making justified aesthetic judgments, whereas the expressive dimension places the student in a situation where he has to identify, select, and organize aesthetic qualities in the solution of artistic problems. It should be emphasized that both the cognitive and expressive dimensions serve as support to the aesthetic dimension. The relationships between the three dimensions of experience will become clearer in the next three chapters which treat each dimension separately.

A Definition of Curriculum

In the opening pages of the Introduction a distinction was made between a "curriculum model" and a "working curriculum," but the term "curriculum" was left undefined. Attention is now turned toward such a definition.

A curriculum is a total program in education for an identified educational situation—a class, an art program, a school, or a school system. Curricula are usually divided into parts—courses of study, classes, lessons, etc. For present purposes, however, a curriculum is seen to be comprised of three subdivisions: (1) content of units, (2) units of instruction, and (3) curriculum units.
Some confusion may arise over the two concepts "content" and "content unit." In educational circles content has traditionally stood for that body of knowledge or group of concepts composing a discipline. This is the way Taba uses the term. "Each subject or content area needs to be organized and used in a different way." Gagne, sensing the difficulty of specifying content for curriculum from such a position goes about resolving the difficulty by asking, "What is meant by content? Is it something that has its existence on a printed page or text, in chapter headings, in the oral instruction of a teacher, or in the student's head?" Noting that each of these possibilities has certain obvious difficulties he suggests that:

A more satisfactory conception of content is as related to the goals of instruction, rather than its effects. When so conceived, content must reflect goals that are independent of the media of instruction, whether these are the communication of a teacher, a textbook, or a television set. . . . These considerations lead to the idea that content needs to be stated as objectives, and that these objectives mean things that the student is able to accomplish. More specifically, content may be defined as descriptions of the expected capabilities of students in

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specified domains of human activity.\textsuperscript{20}

Within this context, a content unit is defined by Gagne as "a capability to be acquired under a single set of learning conditions, among these conditions being certain specified prerequisite capabilities."\textsuperscript{21} A content unit may be specified in terms of an objective, what it is you wish the student to learn; in terms of the activity itself, what it is the student is doing; or in terms of an educational outcome, what the student has in fact accomplished. A content unit specified as an objective could be identified by such a statement as this: "The student should be able to do a simple tabby weave on a box-frame loom." A content unit specified as an ongoing activity could be described by a sentence such as this: "The student is doing a simple tabby weave on a box-frame loom." As an educational outcome, a content unit could be stated as: "The student is able to do a simple tabby weave on a box-frame loom." There is a fourth and equally effective activity statement that can serve to identify a particular content unit: "The student weaves a simple tabby weave on a box-frame loom." This sentence represents, to the curriculum designer, a simpler form than the other three, yet is easily transformed into the other sentence structures when there is need for such transformation. In this book this simpler form will generally be used to identify and describe a content unit.

\textsuperscript{20}Ibid.

\textsuperscript{21}Ibid., p. 22.
A content unit should be described precisely enough to indicate the exact nature of the student activity but only to that degree of precision which has educational utility. To say "The student is painting" lacks such precision since it does not specify what kind of paints, what kind of process, and to what end. The statement, "The student is painting a portrait in encaustics using encaustic wax, oil pigments, palette knife, and a heat source," is an example of over-specificity. Since content units are developed by the curriculum designer or teacher, one has to assume that the teacher, the ultimate user of the curriculum, has at his disposal the skills and knowledge necessary for developing such student activities as encaustic painting. A sentence with the desired precision, in such a case, might be "The student is painting a portrait in encaustics using a palette knife." The degree of specificity may vary within the same activity according to the competencies of the student involved. The content unit, "The student warps a box-frame loom," may be adequate for describing the activities of a student experienced in weaving but might require subdivision into several smaller content units for the less experienced student.

A content unit, insofar as is practicable, should be stated as an observable activity: "The student is discussing the cultural milieu of 19th Century France," rather than, "The student is thinking about ways of solving an artistic problem." The reason for such a constraint lies in the fact that statements which are observable are also verifiable. This allows the teacher to determine whether or not the student is engaged in the described activity and to evaluate
the degree of involvement. The teacher cannot be certain that a student is thinking, but he can determine whether or not the student is discussing. Thus a content unit can serve as an evaluative tool. When the teacher, or anyone else, observes that the student is, in fact, discussing the cultural milieu of 19th Century France, then it is obvious that the content unit has been achieved.

Directly related to writing content units in terms of observable student activity is the possibility of transforming the content unit statement into a problem statement: "Discuss the cultural milieu of 19th Century France." This provides the frame of reference for the content unit as well as the point of entry for the student into the activity of the content unit.

A final comment about content units. In curriculum design, content units should be organically and logically related to the larger unit of instruction. Unless a content unit can be demonstrated as having relevance to the larger context of art education, its inclusion within the curriculum cannot be justified.

A unit of instruction provides a second level in curriculum design. A unit of instruction may be defined as a cluster, series, or sequence of related content units. Whether the unit of instruction is conceived as a cluster of related activities, as a series of related activities, or as a sequence of related activities depends on the objective of the particular unit of instruction. For example, in the fourth chapter, the instructional unit concerned with the skill of silver soldering, by the very nature of the process, requires a rather specific sequence of content units. On the other hand, the
unit of instruction given in the second chapter on the description of a non-objective work of art could be considered as a cluster of activities due to the fact that descriptive statements need not follow any prescribed pattern. A series may be defined as combinations of sequences and clusters, i.e., activities which logically and technically require sequencing but still allow for the distribution of such sequences in various patterns. The term "related" in the definition means a structural or logical interdependence of the various content units.

A unit of instruction consists of a specific educational objective (sometimes stated as a problem or goal) and a series of content units designed to facilitate the achievement of the objective. Units of instruction may be short or long. The length of a unit depends on the amount of educational materials to be covered, the capabilities of the student, the complexity of the instructional problem, and the varieties of activities entailed. The length of a unit of instruction in terms of time, may not always be ascertainable. This is especially true in the expressive dimension where solutions to artistic problems may come early or late in the process.

A unit of instruction may be concerned with a single work of art; a concept, or artistic problem; with several works of art, a complex of concepts, or a cluster of artistic problems; or with any combination of such items.

A unit of instruction may be developed within a single dimension—esthetic, cognitive, or expressive; within a pairing of any of the three dimensions—esthetic and cognitive, cognitive and
expressive, expressive and aesthetic; or a grouping of all three
dimensions.

A unit of instruction may stress breadth of experience within
a particular dimension or across two or more of the dimensions.

A unit of instruction may stress depth of experience within a
single dimension, expressive, a single art form within that dimension,
painting, and a single mode of that art form, encaustic painting.

Finally, it needs to be emphasized that each unit of instruc-
tion needs to be both structurally and logically related to the
curriculum unit of which it is a part. Each unit of instruction
must be capable of demonstrating how it furthers the larger educa-
tional objectives of the curriculum unit. Inability to do so, re-
gardless of the interesting aspects such a unit might possess, dis-
qualifies it for inclusion within the curriculum.

A curriculum unit may be defined as a cluster, series, or
sequence of related units of instruction. As with the units of
instruction, whether the curriculum unit is conceived of as a
cluster, series, or sequence of units of instruction depends upon
the curriculum designer's concept of education as well as any
logical needs a curriculum unit may have to serve in furthering the
educational objectives of the curriculum.

Curriculum units are similar in structure to units of instruc-
tion. The main difference lies in the fact that they are larger and
consist of curricular plans designed to fit specific periods of time
(a month, six weeks, a semester, a year), or to provide an extended
exposure to a specific broad category of experience (oil painting,
theory of design, critical analysis, etc.).

A curriculum unit consists of an educational problem, usually stated in the form of an objective, and a series of units of instruction selected to achieve this objective. The educational objectives of curriculum units are specified in more general terms than are those of the instructional units. Taken as a group, these educational objectives should delimit the entire range of concerns and considerations for the over-all curriculum and whatever broad objectives the curriculum holds.

The diagram which follows (Figure 3) illustrates the structural relationships that exist between content units, units of instruction, and curriculum units.

Fig. 3. The structure of curriculum units

Curriculum Objectives

Curriculum defined as a cluster, series, or sequence of related objectives has considerable power as a concept for curriculum design. To better understand the concept it is necessary to examine and define the notion of an objective. According to Mager, "An objective is
an intent communicated by a statement describing a proposed change in a learner—a statement of what the learner is to be like when he has successfully completed a learning experience.\textsuperscript{22} He gives the following sentence as an example: "To be able to explain the principles for developing reading readiness in the primary grades."\textsuperscript{23}

Objectives may be very narrowly defined: "The student should be able to identify a painting as being by Mondrian," or quite broadly defined: "The student should develop increased capacity for analyzing non-objective art." The advantage of the narrowly defined objective is that its attainment is more easily ascertained. Additionally, it allows greater specificity in determining student activities. The broadly defined objective offers the advantage of encompassing a greater range of content and provides a view of the general educational program not seen from the standpoint of the more narrowly defined objective. This suggests a hierarchy of objectives reaching all the way from an objective for a single content unit to objectives for the total curriculum. Thus, any specific educational objective should be directly related to the next higher educational objective under which it is located.

The task of the curriculum designer is primarily one of translating the broad curricular objectives into student activities and structuring these activities to allow for the attainment of the

\begin{footnotesize}
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\item[\textsuperscript{22}] Robert F. Mager, \textit{Preparing Instructional Objectives} (Palo Alto, California, 1962), p. 3.
\item[\textsuperscript{23}] Ibid., p. 6.
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objectives. To accomplish this, the curriculum designer needs some means by which he can determine what content should be included in the curriculum as well as what should be excluded. The following section explores this general area and suggests a method for content selection.

A Method for Determining Content

There are essentially two ways of determining content for curriculum: deductive and inductive. Using the first, one takes a particular theory or group of related theories and logically deduces a structure for an art education curriculum. Such an approach possesses the advantage of insuring a curriculum which is logical, comprehensive, and coherent. A potential defect of this approach is the possibility that the theory, or theories, may be (1) limited, (2) in error, or (3) incompatible, therefore jeopardizing the entire curriculum design.

The second way of determining content for curriculum is to examine aspects of experience one has with the phenomena encompassed by a subject-matter area, and, from such an examination to arrive at a description of the essential features of the experience. The features described should allow for transformation into a description of content. While not theory-free, such an approach to determining curriculum content has the apparent advantage of being "true to life," representative of the phenomena as it is in fact experienced. There is, however, a major drawback to such a method—the dependence upon subjective reports for objective data.
In an endeavor to circumvent this difficulty and insure a degree of objectivity in reporting subjective experiences, a German philosopher, Edmund Husserl, developed the descriptive method known as Phenomenology. The term "phenomenology" means the descriptive analysis of experience. Experience in this context includes both mental acts: ideas, illusions, dreams, and images, and physical acts: doing, making, reading, walking, etc. The aim of phenomenological description is to bring to consciousness the meaning or "essence" of that which is experienced. Because of this, the phenomenological method is basically reflective. One reflects upon one's experience and in the process described that which is being experienced. Phenomenological descriptions may refer to any experience that man can undergo. As a consequence, its educational implications loom large.

In order to examine experience in a comprehensive and systematic manner certain methods and constraints are necessary. It is only natural to want to explain an experience in terms of what is already known, according to some prior experience, given hypothesis, or theory. For the phenomenologist, such explanations are blocks to an understanding of the experience and to the discovery of essences. It is necessary to hold such ideas in abeyance, to suspend, or, to use the phenomenological term, "bracket" the presumption. The suspension of beliefs is not to deny them but simply to rid one's self of prior commitments.24 Although the phenomenologist may attempt to

begin with no presuppositions this does not imply that he begins in complete ignorance. It means, rather, that considerations judged irrelevant or inappropriate are not allowed to confuse the description of experience. They are set aside, "held for naught," in order to allow the experience itself to dictate its meaning.

The determination of the meaning of an experience using the phenomenological method requires four steps. These are: (1) reflection, (2) description, (3) analysis, and (4) re-experiencing (synthesis). An experience is examined by reflecting upon it. What is discovered as a consequence of this reflection is described in either oral or written form. The descriptions obtained are subjected to analysis. The analysis, which serves as an explanation of the experience, may require the importation of data from outside the experience. If so, it is necessary to open the brackets to allow the inclusion of such material. Once an analysis has been made it is compared to a re-experiencing of the original object of attention as a final check upon the validity of the analysis. If, by chance, it does not agree with the apparent "facts" of the case then both the facts and the analysis have to be re-examined and reworked to provide a more satisfactory explanation of the experience.25

It would appear that the phenomenological method is the *sine qua non* of all descriptive methods, but this is not the case. While

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25It should be pointed out that the aim of phenomenological description is to give all the relevant facts since all the facts of an experience, being infinite, cannot be given.
the phenomenological method is ideally suited to the examination of art, aesthetics, and education which are typified by their subjective or experiential quality, it is less well suited to the objective study of science and technology.

Once experience is gained in the practice of the phenomenological method, the curriculum designer (or anyone else for that matter) will find he has a useful tool for probing into the qualitative aspects of human experience. Throughout this book the phenomenological method will be employed as a means of determining the curricular content in the three dimensions of experience.
The aesthetic dimension of the visual arts is probably the least understood and most neglected aspect of art education. Within the art classroom, students may learn many important concepts and facts about art. In the studio, students may learn many ways of manipulating artistic materials. But in neither instance are learning experiences likely to be centered around the aesthetic qualities of works of art. That this should be the case may be traced to several major conditions within and without the field of art education.

The first of these conditions is what might be called the "artistic mystique," an attitude promoted by some artists about aesthetic experience. For these artists such experience is a mysterious occurrence brought about as a consequence of encounters with works of art—it just happens. Neither rules, explanations, nor ideas are useful in understanding aesthetic experience, one either has it or misses it. Since most public school art teachers learn their studio skills from artists, this "artistic mystique" may also be learned and subsequently promoted in their own classrooms.

The second condition giving rise to the lack of attention to
the aesthetic dimension in art education is the historical fact that art teachers have, over the past twenty years or so, concentrated the bulk of class time on studio experiences, that is, in the production of art. Generally, in such cases, little attention is given to critical activities. The closest such education comes to aesthetic concerns is in solving qualitative problems. But even here the aesthetic aspects are often in the background, qualitative problems being resolved through the application of formal concepts. In those few courses entitled "art appreciation" or "a survey of art," attention is normally given to historical and biographical data. In such instances appropriate means for handling aesthetic problems are seldom provided.

A third condition leading to the neglect of aesthetic concerns may be laid to the fact that theories of aesthetics have long been the special province of philosophers. These theories (which can provide clues for the development of aesthetic education) have suffered by being clothed in highly technical language. As a consequence, many non-philosophers, including art teachers, find such theories difficult to comprehend. Also, these theories have generally been broad in scope, encompassing all of the arts with examples often being given, for practical reasons, in terms of literature and poetry making it difficult for art teachers to utilize the theories in classroom practice. Growing out of this is a related condition: the lack of attention by most philosophers and aestheticians to the problem of translating theories of aesthetics into practical methods of criticism—the transformation of theory into
ways of analyzing, criticizing, interpreting, and evaluating works of art.

If the aesthetic dimension of experience is to become a dominant part of a student's education in art, these conditions, or the effects of these conditions, must be changed. Art teachers need to be provided with the tools and technology necessary for developing curricula which emphasize aesthetic experience and for educating the student as a connoisseur-gourmet-collector of visual aesthetic experience. One of the first requirements for such an education is an adequate theory of aesthetics. One such theory is examined in the section which follows.

Phenomenological Aesthetics

What is a work of art? This is the primary question to which any theory of aesthetics must attend. The answer to the question establishes the boundaries of the theory of aesthetics, the limits within which critical inquiry may proceed. Eugene F. Kaelin has developed a phenomenological theory of aesthetics in which the expressive nature of art occupies a prominent place. Just as a smile may express a person's kindly feelings, a stomping of the foot, anger, a work of art may be an expression of the artist. Indeed it is quite

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1 It is unfortunate that Kaelin's theory is not to be found in any one published source but must be pieced together from several articles, his book, and especially a series of lectures given at the Institute for Advanced Studies in Art Appreciation, The Ohio State University, July-August 1966. Any errors in the explanation of this theory are those of the author.
commonplace to say of a child painting or singing: "He is expressing himself." So, too, with the artist. Therefore a first statement toward a description of the work of art is:

The work of art is expressive.

Having said this it becomes necessary to ask: "What is it that art expresses?" There are several possible ways of answering this question, the first being:

The work of art expresses the intention of the artist.

Used as a critical maxim, this is called the "intentional fallacy" for there is no practical way of ascertaining what it was an artist really intended to express. Any statement by the artist about a specific work of art may or may not be verifiable in an experience of the work, and, in the case of artists who are no longer alive such statements are rarely to be found. A second answer to the question of expression could be:

The work of art expresses whatever the viewer wishes to find.

This is known as the "affective fallacy." In this instance the viewer assumes complete license and may, for example, find a non-objective work of art to be a representation of the "communist conspiracy"—a contradiction of terms. It is not uncommon to discover the use of the affective fallacy in journalistic criticism.
and in the classroom practices of some art teachers. In such cases the persons rarely realize that they are in fact being fallacious. Rather, they lack effective means of dealing with the expressive nature of art.

Closely linked to the affective fallacy is the concept that:

*The work of art is expressive of everything.*

This is the case when the viewer’s reactions are uncontrolled, when he allows any and every possible meaning to be accepted in a kind of eclectic criticism. The opposite of this is, of course that:

*The work of art is expressive of nothing.*

This happens when the intention of the artist is unsuccessfully achieved or when the viewer is unable to establish any relationship with the work of art. An example of this latter possibility might occur if a person who thought that Pop Art was meaningless were confronted with Andy Warhol’s *Mott Apple Juice Box.* In such a case the person probably would not be able to make sense of the work. In fact, he would probably dismiss it as non-art.

Kaelin offers a viable alternative to the foregoing attempts at specifying what art expresses. He contends that:

*The work of art is expressive of itself.*

What a work of art expresses is, literally, what it is. The work of art contains everything that is necessary for expression. This is at once both an obvious and a powerful concept: obvious, because it
would seem apparent that if a work of art did not contain everything necessary for expression it would be incomplete; powerful, in that it implies that in order to understand a work of art one has but to look at and attend to the work's expressive qualities.

Being able to state that a work of art is expressive of itself does not explain, however, how it is that it expresses. Experiences with a work of art disclose that certain kinds of feelings are evoked. We see colors, shapes, and images and respond emotionally to works of art. It is obvious that something about the work of art causes or allows such feelings to occur. This "something" is art's expressive quality. Since experience is had through the senses—a result of perceptions—it follows that an experience with a work of art is the result of certain sensuous conditions. Therefore it may be said that:

The work of art expresses through its sensuous surface.

This is not too difficult to support since a painting does present us with color, line, form, and texture; a piece of sculpture with mass and space. The sensuous surface of the work of art is nothing more than the organized sensory stimuli with which the work of art is structured.

This sensuous surface may produce within the viewer certain affective tones or moods (the painting is quiet, violent, moving), certain space tensions (a blue square is seen to be receding, a yellow one advancing), sensations, and illusions, all of which produce
certain vague or ambiguous feelings. In non-objective art the experience should come to a close at this point (the sensuous surface). Because there is nothing beyond these tensions, these moods, these feelings, to look for anything else would be fallacious.

It will be noted, however, that some paintings are landscapes, some are still lifes, some are portraits; in sculpture there are such works as *The Thinker*, *The Discus Thrower*, *The Kiss*. Thus, the previous statement needs to be modified to allow for the inclusion of the representational element:

The work of art expresses through its sensuous surface and represented depth.

Depth, in this context, is not spatial depth but depth of experience; it is depth of the sort which differentiates shallowness from sincerity, acceptance from commitment. "Any meaning represented constitutes the depth of the work; and theoretically at least, there are no limits to the levels of meanings one can find as valid constituents of the aesthetic object."²

The represented depth expresses through the representations of real and unreal objects and events--trees, people, unicorns, weddings, wars--and may produce definite feelings comprehended by association. The representation of a man nailed to a wooden cross causes most of us in the western world to make the immediate association of

"Christ crucified." Represented depth also expresses through conceptual space which is understood through a tactile or kinesthetic response, e.g., an apple in a trompe l'oeil painting.

As a consequence of relationships established between various representations in a work of art, certain ideas may be evoked. These ideas may be quite abstract: the sense of "overcoming" in Liberty Leading the People; or, more specifically, "prim and proper" as in the Daughters of the American Revolution. Ideas provide a second level of significance since they are one step beyond the mere recognition of the objects contained within the work of art. A third, and final level of significance is that of images. Images are any objects which may be associated with the work of art and are relevant insofar as this association may be verified by an examination of the work in question. Images may be likened to metaphors wherein a given object, idea, or statement stands in place of another object, idea, or statement.

To summarize the surface-depth dimension of expressiveness in art, it can be noted that the organized sensuous surface gives rise to vague feelings of space and time (tensions) and, with the addition of represented objects and represented space, ideas, and images the experience with the work of art becomes "thickened," more complex. So it is that one must look within the work of art if one is to experience its significance, and this significance can only be discovered through a careful analysis of both the surface and depth elements in the work of art. The interrelationships between these elements establishes the "context" of the work of
art. "The aesthetic expressiveness of a work of art is the experience of the relatedness of the surface counters [stimuli] and their representations [depth] out of which the total context is constructed." 3

From this surface-depth-context relationship, Kaelin develops four postulates:

1. Total expressiveness is the significance of the aesthetic context.

This is to say that it is the context of a work of art that controls its meaning.

2. Nothing has meaning which is out of context.

The color red is not significant by itself. It only becomes significant within a context: a red flag—Communism; a red cape—bullfighting; a red face—over-indulgence. So with objects, too. Isolate a tree from a landscape painting and it loses its meaning. It may still be seen as a tree just as red may be seen as a color, but, without the context we are unable to relate the tree to the experience of the work of art.

3. The context of an aesthetic expression, and hence of its significance, is constructed uniquely and exhaustively by the network of relations set up by the "counters"—either of surface counters alone, or of surface counters in relation to depth counters.

"Counters" are those expressive forms which become organized into

3Ibid., p. 292.
the sensuous stimuli of the work of art. Counters are isolatable and describable elements. Literally, they are things which "count" in the expressiveness of the work of art. If the counters are physically part of the work of art they have to be visible, that is, publicly verifiable as "being there." Such counters are the color of a dab of paint, the texture of the canvas, the marks of the brush or spatula, the cow in the foreground—anything which can be seen and described. Some counters may not be physically present but nonetheless identifiable. These include sensations and vague feelings as well as ideas and images. The sensation of interstitial space as experienced in Albers' *Homage to the Square: Salute* (Figure 4) serves as a counter, as would a sensation of motion or time established through conflicting space fields. The idea of democracy, human freedom, and human worth could also be counters in certain contexts.

It needs to be made clear, however, that within an aesthetic context no counter has absolute independence or significance. Indeed, the significance of any isolatable counter is determined by its relatedness to other counters, and it is through experiencing this relatedness, or "funding" of counters, that the work of art gains its significance. As a consequence of this relatedness within a given context it follows that:

4. The significance of the context, whether it is constructed of surface counters alone, or of surface and depth counters, is the immediate psychological response to the relationships between these counters.
Fig. 4 Josef Albers, *Homage to the Square: Salute*, 1965
Whatever is of value, and whatever good there is in the experience, must be found in the response to that experience, the controlling factors in this response being the surface and depth qualities of the work of art. The value, and hence the goodness, of the aesthetic experience is to be found in that experience—good, in this sense, being the intensification of human experience.

A summary of Kaelin's theory of aesthetics leads to a definition of a work of art. First, it was noted that art is expressive and that it is expressive of itself. This expression is made through the organized sensuous surface and may take the form of surface counters or surface counters in relation to depth counters. The experience of the relatedness of these counters is indicative of the significance of the work of art. Hence:

*A work of art is a concrete significant form.*

It is concrete in the sense that it exists, significant in that it has meaning, and has form in that meanings are experienced as a consequence of organized counters in the work of art.

The aesthetic categories identified thus far—surface and depth—serve to describe and classify a wide range of aesthetic objects. All visual objects present a sensuous surface, therefore this category is equally applicable to such diverse forms as rocks and driftwood, paintings and sculpture, automobiles and buildings. Also, as noted earlier, the significance of non-objective art (and many non-art objects) will be found in the experience of this surface.
The second category—depth—isolates the representational aspects of some works of art, for example, landscapes and portraits. The significance of such works include both the experience of the work's sensuous surface and its represented depth.

A third aesthetic category—function—needs to be added. All works of art serve a function but this category is most clearly demonstrated by useful works of art, that is, works created primarily for utilitarian purposes. A useful work of art, as with all art, presents a sensuous surface and, as such, could be described as a non-objective work of art. To do so, however, would require losing sight of the two major sources of counters: (1) the functions of the useful object, and (2) the social usages to which such objects are put. Functional objects have a purpose to serve—a chair is to sit in, a ring to wear. They also serve certain social needs—the chair as an indication of social status, the ring as a proclamation of a state of marriage. Social usage is dependent upon the setting in which the useful object is found. In this sense the social usage of any object may vary as its setting changes. Thus every useful work of art may be said to include both functional elements as well as elements of social usage.

In addition to an extension of the aesthetic categories, it is also necessary to take into consideration another relevant factor, namely, the concept of dominance. Dominance is concerned with the primary emphasis of a work of art. For example, Albers' *Homage to the Square: Salute* (Figure 4), is completely non-objective;
de Kooning's *Woman I* (Figure 5), is primarily representational; Braque's *Still-life* (Figure 6), employs representational objects and would also appear to be representational. Analysis would reveal, however, that the represented objects are used primarily for non-objective purposes, the exploitation of the sensuous surface, and not for the ideas or images that might be associated with such objects. Therefore, the painting, while composed of representational elements may be said to be surface dominated. It would be possible to establish a continuum from completely non-objective to highly representational works of art and discover that particular works of art would fall at different points on the continuum according to the surface of depth dominance of the work. The same kinds of continuums could be developed with useful works of art. A cameo ring is obviously representational, yet function dominated. Some jewelry, however, may move away from the functional element toward a surface dominance becoming, in effect, small pieces of sculpture. The netsukes of Japan are good examples here. So it is that each work of art will display some particular dominance. The recognition of such dominance leads to a better employment of the theory of aesthetics.

Effective description and analysis of works of art require that appropriate counters be employed as the form of the aesthetic object changes. The counters thus far described do not account for the fact that all sculpture has mass and occupies space, that some sculpture occupies enclosed space (Brancusi’s *Fish*, Figure 7), and that other sculpture controls space beyond its physical limits—
Fig. 5 Willem de Kooning, Woman I, 1950-52
Fig. 6 Georges Braque, *Still-life*, 1911
Fig. 7 Constantine Brancusi, *Fish*, 1930
extended space (Roszak's Spectre of Kittyhawk, Figure 8). Some sculpture moves (mobiles), and some two-dimensional forms have movement and sound (motion pictures and television). Certain works of art may exude odors or incorporate the sense of taste (happenings). As a consequence of these wide differences, the counters necessary for describing the experience need to be expanded. The following is a partial list of such counters.

<table>
<thead>
<tr>
<th>Surface (Perceptual)</th>
<th>Depth (Conceptual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>color</td>
<td>sound</td>
</tr>
<tr>
<td>mass</td>
<td>space</td>
</tr>
<tr>
<td>motion</td>
<td>taste</td>
</tr>
<tr>
<td>objects</td>
<td>texture</td>
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<td>odors</td>
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<tr>
<td></td>
<td>space</td>
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<td>time</td>
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</tbody>
</table>

The foregoing presents an abbreviated form of Kaelin's theory of aesthetics. The theory is phenomenologically derived in that all references are made in relation to describable experiences one has with works of art. The translation from theory to practice, from experience to description, follows.

A Descriptive Method

The purpose of a descriptive method is to provide an effective tool by which a student can describe, analyze, and evaluate experiences with works of art and aesthetic objects. The tool-ness of the method should be kept in mind, for too rigid an adherence may lead the student to substitute the method for the experience. The descriptive method is intended to engender the habit of examining
Fig. 8, Theodore Roszak, *Spectre of Kittyhawk*, 1946-47
aesthetic objects in a prescribed manner. Once this habit has been established and skill achieved in describing, analyzing, and evaluating, the student need no longer be bound by the method. He will apply it as a natural response to aesthetic experience.

Phenomenological aesthetics is essentially a descriptive method whereby the experiencer reports on the content of his experience. This report may be either verbal or written and may be undertaken by an individual or by a group. However an experience must be had before it can be analyzed. One way of assuring that the student will experience the aesthetic qualities of aesthetic objects is that he approach the experience with some understanding of what "counts," that is, open for whatever possibilities suggest themselves. Openness is the beginning of an experience. This is guaranteed by the descriptive method's requirement that the experiencer free himself of preconceived notions of the meaning of the experience or of the object of experience.

Openness on the part of the viewer acts as an effective limit for experience. To the degree that the individual is unable to maintain an open stance, to that degree are his possibilities for aesthetic experience limited. Because of this, the individual must learn to hold in abeyance his presumptions about what is possible or about what the experience might mean. To come to a work of art having prejudged or "knowing" what it "means" will prevent the experiencer from having any other experience than that already pre-determined by his "knowingness."

When the student attends to what is happening in his immediate
experience he may notice that the content of experience includes such things as fantasies, sensations, images, fugitive thoughts, self, and others. It is obvious that some control must be exerted over the experience to keep it from being muddled and confused—a jumble of impressions and expectations. Toward this end, bracketing, or the setting aside of presuppositions, is employed. The experiencer isolates the various elements of his experience and sets aside those which are not germane to the experience at hand.

It can be seen that the experiencer must not only control his experience with the work of art but he must allow his experience, in turn, to be controlled by the work of art. In fact, the experience of the viewer is controlled, through the art object, by what the artist has done, which is to say, by the organized surface. For this reason it may be maintained that the work of art controls the significance of the experience. It is also for this reason that the experiencer needs to reject (bracket out) that content of his experience which is not controlled by the work of art. Any feelings evoked by the work of art must be relevant to something one can perceive in, or associate with, the work of art. Thus, in describing a painting by Van Gogh, reference to the biographical fact of his having cut off his ear will be found to be irrelevant unless there is something in the specific work of art which verifies the relevancy of such a reference (as in a Self Portrait). In addition, such extra-aesthetic categories (presuppositions) as utility, morality, religiosity, politics, and preference should not be confused with the aesthetic experience.
Probably the greatest difficulty in analyzing works of art is encountered because such irrelevancies are allowed to enter into the analysis. And it is precisely for the purpose of avoiding such difficulties that the process of bracketing is employed. Out of this discussion two major constraints on description may be identified:

In the descriptive method all statements must be relevant to the object of experience.

In the descriptive method all irrelevant data must be bracketed out.

The actual process of description is deceptively simple, consisting of eight steps:

1. Describe the surface counters of the work of art.
2. Describe the relationships among the surface counters.
3. Describe the depth counters, when present, of the work of art.

Any statement about the depth of a work of art will also be a statement about the surface, so when there is depth, do not ignore the surface.

4. Describe the relationships among the depth counters.
5. Describe the relationships among the surface and depth counters.
6. Fund the counters (determine the significance of the work of art) in the form of a
paraphrase, then expand that paraphrase into depth.

The paraphrase may be in the form of a metaphor, analogue, or a description of the meaning of the work of art. This step is the first point in the process where it may be necessary to open the brackets, to allow information from outside the work of art to inform the movement from represented object to idea or image. However, do not force the move to the second and third level if the work acquires significance without such a move, or if it would require too great an inclusion of material from outside the work of art. When in doubt about the meaning of the work of art, make a hypothesis. The source for this hypothesis may be anything—history, science, the life and times of the artist. The hypothesis may give added significance to the work of art or may make certain counters tenable.

7. Compare the meanings discovered in the funding of the counters with a re-experiencing of the work of art.

When searching for the meaning of the work and there is a conflict between two or more possible meanings, ask the question, "What difference does it make?" This will usually resolve the conflict since a given reading may lead to a more significant experience than another.

8. Make a judgment as to the significance of the work of art.
Such a judgment refers to the value of the experience to the experi­
encer, that work of art being good which resists analysis, i.e., the
sensed quality of the experience is not destroyed through the pro­
cess of analysis. To arrive at a judgment of a work of art is to
be able to identify what the artist has achieved and to rate the
value or "goodness" of that achievement in relation to one's experi­
ences. Just as openness was the beginning of the experience, so
judgment brings the experience to a close.

Three Typical Descriptions

The descriptive method presented will be demonstrated by em­
ploying it to analyze three works of art. The works have been chosen
for their usefulness in showing the versatility of the descriptive
method and are examples of the three aesthetic categories as well as
the three classes of art forms: surface (non-objective), depth
(representational), and function (useful). The works chosen for
description are (1) Josef Albers' Homage to the Square: Salute, 1965,
(2) Willem de Kooning's Woman I, 1950-1952, and (3) Mies van der
Rohe's Barcelona Chair, 1929.

Josef Albers' Homage to the Square: Salute (Figure 4), con­
sists of four smooth textured painted rectangles decreasing in size
and placed one within another. The rectangles are centered on the
vertical axis of the painting but are oriented gradually toward the
bottom edge of the painting. The first, and largest, square is a
medium brown. The outer boundaries of this square form the borders
of the painting. Located within this square is a second square, about one-eighth smaller in all dimensions than the first. This square is tan. Within the boundaries of the second square lies a third, one-fourth smaller in size than the first, painted orange. The fourth, and final square is bright red-orange and appears to be about one-half the size of the largest square.

The even progression of squares from large to small with their orientation toward the bottom of the picture plane gives a sensation of a tunnel or hallway—as if the four graduated squares were moving away from the picture plane and the viewer, becoming smaller at the same time. A second look can reverse this illusion and the squares appear to protrude out of the picture plane toward the viewer. Neither orientation seems to dominate.

The colors of the square appear to affect this spatial orientation. The first square, which is a medium brown, appears to be in front of the second, tan, square. This gives the sensation of the first square being a frame through which the second square is seen. There seems to be an unmeasurable, but apparent, space-distance between the two, that is, interstitial space. This quality of space gives the larger square a kind of dominance so that it establishes itself as the picture plane, the second square being behind the picture plane.

When one examines the space relationships between the second, tan square and the third, orange square, the orange square appears closer to the viewer as if it were superimposed upon the second. The sensation of space between the two squares is apparent but to a
lesser degree than that between the first and second square. Thus the orange square, while in advance of the tan, is still seen to lie behind the picture plane, or behind the first square.

The fourth square, a red-orange, seems to float on the surface of the orange square. At times it appears to be in front, yet at other times, it seems to recede into the ground formed by the orange square.

When the red-orange and the orange squares are considered as a unit in relation to the tan and brown squares, a forward movement is noticed. The two inner squares seem to press out toward the viewer and, simultaneously, appear to grow in size. The movement stops, and then without seeming to shrink, the squares pulse forward again. This same phenomena can be observed when the two orange squares and the tan square are taken as a unit in relation to the large brown square. But in this instance the pulsing sensation is accompanied by both an apparent growth and shrinking of the unit. The relationship between the tan and the brown square, when taken as a unit, appears quite stable. There is no apparent sensation of motion.

All four squares taken as a unit present the viewer with a sense of unstable and ambiguous space relationships. Indeed, at times the smallest square vanishes into the ground and then, suddenly, re-appears. The whole painting develops into one moving-growing-shrinking-pulsing-receding-advancing sensation. What at first glance seems to be a simple stable painting of four different colored squares upon analysis turns out to be capable of providing a dynamic and involved space-time-motion experience.
Albers' painting is an example of non-objective art. It is a painting in which the sensuous surface has been exploited in order to produce certain tensions and vague feelings in the viewer. Since this is a non-objective painting the experience should come to a close, there being no other kinds of meanings or significance to be found. To seek further would be fallacious.

Willem de Kooning's *Woman I* (Figure 5), provides an example of representational art since a woman appears as an observable figure. The surface of the painting presents a mixture of incisive slashes and liquid drippings of paint. On the right hand side of the painting is a white rectangle, very narrow and almost as long as the side of the painting. It ends in some runny dark blue colors upon a lighter blue ground. The white rectangle's inner edge is broken by streaks of blacks and blues, and the white surface itself is mottled with reds, grays, yellows, and blues. Across the top of the painting runs an undulating band of yellowish-green which loses its band-like quality as it reaches the woman's right hand side. The bottom of the painting appears as a wet bluish area which recedes into the picture plane. The quality of the surface of the painting is one of confusion and multi-directed movements. Some areas protrude out of the picture plane, especially the woman's breasts, other areas are seen to be behind the picture plane, as for example, the areas around the woman's head and legs. A light whitish-pink area which seems to be the woman's right arm, as well as its equivalent shape representing her left arm, appears to be in front of the picture plane. The whole surface presents a bulbous
and angular structure as the various forms within the painting become represented objects.

The woman in the painting has a skull-shaped head with very pronounced cheekbones and jaw. Her eyes appear to be looking in two different directions. The one on her right toward her right, the one on the left toward her left, but at the same time, toward the viewer. Her mouth appears to be both smiling and grimacing. In fact, if you examine the right half of the woman's face, blocking out the left, the woman has a very pleasant smile. Reversing this procedure, blocking out the right half of her face, the left half seems to be leering, angry.

The woman has very broad shoulders and pendulous breasts. She appears to be wearing a sheer blouse for you can see the straps of her undergarments crossing her chest. She is also wearing a bright red skirt and high-heeled evening shoes with straps across the ankles. Her general appearance is one of slovenliness and "cheapness."

Closer examination reveals that immediately to the right of the woman's head is the head of a blonde-haired girl perhaps in her late teens. The girl's head is in profile and she is looking directly at the woman. Her hair is long and flows over her shoulders, which is also the shoulder of the older woman. In fact, the older woman's right arm forms the upper body of the younger woman. This explains, in part, why the face of the older woman is white and pasty while the arm is warm-colored and soft textured. Further study reveals that the younger woman seems to be sitting on the older woman's lap,
the yellow form above the right hand hem of the older woman's skirt being the younger woman's lower body and thighs.

By directing attention to the woman's left arm one can discover a third figure, this time that of a very young girl about eight years old. This girl is dressed in white and is not as well defined as the older girl. She is sitting on the woman's lap and is looking expressionlessly toward the woman's right. The child's hand appears to be lying in the older woman's hand.

A fourth figure can be discerned in the painting. It is the figure of a man. He is standing to the left of the woman, his body parallel to the white rectangle which now takes on the appearance of a door. The man is looking directly at the woman; their eyes are at the same level. He has a large beak-like nose. The rest of his facial features are obscured. The man is pointing at the woman with his left arm (the arm toward the picture plane). This arm is parallel to and just above the woman's left shoulder. A white cuff with cufflinks can be seen protruding from the man's suitcoat sleeve. He is wearing a blue suit and one has the impression that it is a dress suit, perhaps even a tuxedo. The man, by his stiff stance, pointing arm, and attitude seems to be angry and to be accusing the woman of something.

Behind the woman can be seen suggestions of a mirror (the reddish rectangle on the right of the woman's head) and other pieces of furniture. Other objects may be seen in the painting but those just identified should serve for a "first" reading of the work.
It can be hypothesized that the woman is a woman of doubtful standards, a slut, perhaps even a prostitute. She is getting old, fat, and ugly. The girl on her left represents her as a young, innocent, girl. The one on the woman's right represents her as she blossomed into womanhood. Youth, maturity, and decline. The man could be either the cause of her falling into disrepute or her latest and disenchanted lover showing disdain and anger because she has become old and ugly. At this point in time the woman remembers and looks to the past with pleasure and accepts with a stoic quality her present status—a woman who has lost everything but her memories. This presents a plausible funding of the counters. Other readings or variations upon this reading might become apparent through further description and analysis.

Certain difficulties may be encountered in analyzing useful works of art. First, those which are three-dimensional and are represented in two-dimensions as is necessitated by photographs in books, allows for a reading of only those counters which may be seen from the point of view presented. Other points could be taken—front, back, top, bottom, etc.—and it would be desirable to do so. Secondly, as a functional object it would be useful to test how well the object fulfills its function, another difficulty with photographic presentations. Thus any description or analysis of three-dimensional objects, and this applies equally to sculpture, architecture, furniture, etc., is seriously handicapped when only two-dimensional representations are used. With these considerations in mind a partial analysis of Mies van der Rohe's Barcelona Chair
The primary structural element of the chair is two thin metal bars one of which is shaped like the arc of a circle, the other like a flattened "S." The two bars are joined in the form of an "X." The metal area is thickened at the joint so that the four legs of the "X" appear to flow together. Two of these "X" structures provide the four legs of the chair as well as the supports for the back and seat. The thinness coupled with the curved shapes of these structural elements suggest that not only do they support but they also give the chair some measure of elasticity. The metal surfaces are highly polished. This provides a sharp contrast to the thick leather cushions which form the seat and back pads of the chair. The upper surfaces of these cushions are divided into twenty small rectangles each separated by a welt of leather with a leather covered button in the intersection. The seat and back cushions appear to be about three inches thick. Along the front edge of the seat a series of straps can be seen looped over the main crossbar and appear to provide the support for the seat cushion.

Further descriptive analysis of the chair could be given from this particular photographic point of view. It will be recalled, however, that in the discussion of phenomenology in Chapter I it was noted that the descriptive method is not concerned with all the facts but, rather, all the relevant or significant facts. For the particular representation of the chair, these have been given. The chair has, literally, been described as a two-dimensional object for that is the way it is presented—a photograph of a chair. If the
Fig. 9 Mies van der Rohe, *Barcelona Chair*, 1929
chair were present in its three-dimensional form further descriptions could be given including those from different points of view. Additionally, one would be able to describe the experience of touching the chair, sitting in the chair, perhaps even moving the chair to different places to observe how changing its location might affect its aesthetic qualities. The point of this discussion is that phenomenological aesthetics as a descriptive method can only describe what is experienced. It follows that effective descriptive analyses of three-dimensional objects, that is sculpture, architecture, jewelry, etc., must occur in the physical presence of such objects. This places a severe limitation on classroom practices in regard to such objects, for, either they must be present and experienced in order for an effective analysis of their aesthetic qualities to be made, or, failing this, are best treated as two-dimensional objects in the form of slides, photographs, etc.

In the three descriptions given it can be noted that it was seldom necessary to bring historical information to bear upon the descriptions of analyses. Such would not be the case if one were describing Bosch's *Garden of Delights*, Leonardo's *Last Supper*, or Goya's *The Third of May, 1808*. In such instances it would be necessary to open the brackets and admit information from outside the work of art for purposes of illuminating its meaning. It is in this sense that the cognitive dimension, the knowledge factor, is of vital importance to the aesthetic.

The descriptions of the three works of art have been given for illustrative purposes. They are examples of typical descriptions
which might be expected from a student who has attained some skill in
the descriptive method, some understanding of Kaelin's theory of
aesthetics, and some experience of the human condition. 4

Four Units of Instruction

Four units of instruction for the aesthetic dimension will be
developed. They are designed to introduce the student to descriptive
aesthetics and to the aesthetic categories of surface, depth, and
function. The units of instruction are presented as a series of
descriptions of student activities, or content units. It is assumed,
of course, that the teacher will be familiar with both the aesthetic
theory and the phenomenological method and can do an effective analysis
of a work of art. It is further assumed that any work of art selected
for use within the unit of instruction will be appropriate for the
student or group of students involved. The units of instruction have
been so designed as to be generalizable to any age level—terminology,
depth, and degree of sophistication being the primary differentia.

The first unit of instruction has been developed to acquaint
the student with the basic concepts necessary for an effective em­
ployment of the descriptive method. The seven content units in this
unit of instruction are presented in the form of description of stu­

4The role that experience of the human condition plays
in descriptive analysis is particularly apparent in
the description of de Kooning's Woman I. Without
experience of the potential "fallenness" of man the
hypothesis presented could not have been developed.
dent activities. These content units have been developed to allow the student to demonstrate to himself that he can attend to and report on his experiences in a descriptive manner. Their intention is also to point out that uncontrolled experience is random, that the content of experience is ever-changing, fleeting, vulnerable to suggestion, and relatively not useful for aesthetic purposes. The objective of this unit of instruction is:

The student should be able to demonstrate an understanding of the phenomenological method of description.

The content units are:

1. The student directs his attention to what is happening in his immediate experience.

2. The student notices that the content of his immediate experience includes such things as fantasies, anticipations, sensations, images, fugitive thoughts, self and others.

3. The student directs his attention to his experiences with the work of art.

4. The student notices that the content of his experience with the work of art contain not only those things indicated in the second step but also such things as space, time, illusions, vague feelings, objects, ideas, and images.

5. The student brackets out his presuppositions about the meaning of the work of art.

6. The student allows the work of art to control his experiences with that work.

7. The student brackets out that content of
his experience which is not controlled by the work of art.

This concludes the first unit of instruction. It should be pointed out that at the fourth content unit the teacher can identify some of the student's reports on his experiences with the appropriate terminology of the descriptive method, thus building a working vocabulary for the student. Also, at this stage the student may want to report on the meaning of the work of art. The possible fallacies this might entail (affective and intentional), as well as the concepts of presuppositions and bracketing, could well be discussed by the teacher here. It is useful to remember that these activities are designed to establish a way of attending to experience and may be repeated whenever necessary.

The second unit of instruction deals with surface dominated, non-objective works of art. It has as its objective:

The student should be able to determine the significance of non-objective works of art.

There are six content units.

1. The student describes the surface counters of the work of art.
2. The student describes the relationships among the surface counters.
3. The student funds (finds meaning in) the counters and the relationships among the counters in the form of paraphrases and metaphors.
4. The student forms a hypothesis when he is
in doubt about the meaning of the work of art.

5. The student compares the meaning discovered in the funding of the counters with a re-experiencing of the work of art.

6. The student makes a judgment as to the significance of the work of art.

In this unit of instruction some attention, by the teacher, will need to be given to clarify the phenomenological concept of "surface" and such counters as presented space, interstitial space, advancing and receding colors, the illusion of motion, etc. These counters guide perception and provide the language necessary for describing non-objective art. At the fifth content unit Kaelin's four postulates should be introduced. They are:

Total expressiveness is found only in the context of the work of art.

Nothing has meaning which is outside the aesthetic context of the work of art.

The context of an aesthetic expression is constructed by the networks of relations set up by the counters.

The significance of the context is the immediate psychological response to the relationships between the counters.

The judgmental stage, content unit 6, is controlled by the notion that whatever is of value, and whatever good there is in the experience, must be found in the response to that experience.

The third unit of instruction is designed to handle the description of depth counters in representational works of art. The
objective of this unit is:

The student should be able to determine the significance of representational art.

This unit of instruction has nine content units and begins with the same content units as the first.

1. The student describes the surface counters of the work of art.
2. The student describes the relationships among the surface counters.
3. The student describes the depth counters of the work of art.
4. The student describes the relationships among the depth counters.
5. The student describes the relationships between the surface and depth counters.
6. The student funds the counters and the relationships among the counters in the form of paraphrases and metaphors.
7. The student forms a hypothesis when he is in doubt about the meaning of the work of art.
8. The student compares the meaning discovered in the funding of the counters with a re-experiencing of the work of art.
9. The student makes a judgment as to the significance of the work of art.

When depth counters are present in a work of art it is easy to concentrate on these counters to the exclusion of the surface. Thus, when there is depth, do not ignore the surface. Since the description of representational works of art may be quite literal and
matter-of-fact, the student should be encouraged not to stop at the first level of significance (represented objects), but to move to the second (ideas) and third (images) levels.

The fourth unit of instruction is developed for use with the aesthetic category of function. It may be applied to any useful art object from architecture to zithers. The educational objective of this instructional unit is:

The student should be able to determine the significance of useful works of art.

There are nine content units in this unit of instruction:

1. The student describes the surface counters of the useful work of art.
2. The student describes the relationships among the surface counters.
3. The student describes the functional counters of the useful work of art.
4. The student describes the relationships between the functional counters.
5. The student describes the relationships between the surface and functional counters of the useful work of art.
6. The student funds the counters and the relationships among the counters in the form of paraphrases and metaphors.
7. The student forms a hypothesis when he is in doubt about the meaning of the useful work of art.
8. The student compares the meaning discovered in the funding of the counters with a re-experiencing of the useful work of art.
9. The student makes a judgment as to the significance of the useful work of art.

A Model Unit of Instruction

A composite model containing all the steps and content units described in the foregoing three units of instruction (surface, depth, and function) will serve as a model for the descriptive method. The educational objective of this model is:

The student should be able to determine the significance of works of art and other aesthetic forms.

1. The student describes the surface (sensuous elements, affective tones) counters of the work of art.

2. The student describes the relationships among the surface counters.

3. The student describes the depth (represented objects, ideas, images) counters of the work of art.

4. The student describes the relationships among the depth counters.

5. The student describes the relationships between the surface and depth counters of the work of art.

6. The student describes the functional (functional elements, social usages) counters of the work of art.

7. The student describes the relationships among the functional counters.

8. The student describes the relationships between the surface and functional counters of the work of art.

9. The student describes the relationships
between the depth counters (when present) and the functional counters of the work of art.

10. The student describes the relationships between the surface, depth, and functional counters of the work of art.

11. The student funds the counters and the relationships among the counters in the form of paraphrases and metaphors.

12. The student forms a hypothesis when he is in doubt about the meaning of the work of art.

13. The student compares the meaning discovered in the funding of the counters with a re-experiencing of the work of art.

14. The student makes a judgment as to the significance of the work of art.

This concludes the description of the units of instruction. It should be pointed out that, while it is necessary to present written material in some sequential order, such sequencing is not mandated by the theory. The instructional units may be entered at almost any point. It is important to remember, however, that the concepts which underlie this theory of aesthetics must be thoroughly understood at whatever level of complexity they are presented, for it is this foundation of concepts that makes the units of instruction pedagogically sound. Additionally, it should be noted that there is no apparent advantage in beginning with the description and analysis of non-objective art and moving from there to descriptions of representational and functional art. Instead, sequence of instruction in descriptive aesthetics is controlled by the educational objectives.
of the curriculum insofar as these educational objectives identify broad areas of concern: the local environment (home, neighborhood, school, etc.), the visual arts (painting, drawing, printmaking, etc.), the fine arts (dance, music, literature, theatre, visual arts, etc.), the popular arts (film, television, radio, etc.), non-arts (natural objects and events, man-made industrial objects, etc.), or any combination of these areas. In addition, such concepts as the "connoisseur-gourmet-collector" and "an increased capacity for visual aesthetic experience," will determine the kinds of experiences provided and, hence, the sequencing of instruction.

The perceptual and conceptual development of the student will also influence the sequence of instruction in descriptive aesthetics. Just as it would be unreasonable to expect a first-grader to read and comprehend Tolstoi's *War and Peace* so it might be equally unreasonable to expect the same child to describe and comprehend Picasso's *Guernica*. This is a factor little noticed in most literature concerned with education in the visual arts. Works of art need to be selected which are appropriate to the present capabilities and experiences of the student to whom they are shown. At the same time, capabilities and experiences need to be "built-in" to the educational situation to allow for the continuous growth of the student.

Finally, sequence of instruction is controlled by the complexity of the work of art or aesthetic object selected for description. Complexity in this sense is a function of the number and kinds of counters and their interrelationships. For example, a child's first
painting of himself is usually quite simple and easily described, containing a rather limited number of significant counters and a limited set of relationships among and between the counters. More complex relationships are discernible in paintings like de Kooning's *Woman I* described earlier. Still more complex are such works as Picasso's *Guernica* and much more complex are such paintings as Bosch's *Garden of Delights* and Michelangelo's ceiling fresco in the Sistine Chapel.

Some further attention needs to be given to the relationships of the cognitive and expressive dimensions to the aesthetic. It will be recalled that the Venn diagram (Figure 2) in Chapter I illustrated in a rather general way the relationships between the three. A new representation of that diagram, Figure 10, provides a description relevant to the aesthetic dimension.

The solid circle represents the aesthetic dimension. The two solid segments within that circle represent (1) the cognitive dimension and (2) the work of art. The broken-line segment represents the expressive dimension. Both the cognitive and expressive dimensions continue outside the aesthetic dimension as broken-line circles.

The intention of the diagram is to reaffirm the absolute dependence of the aesthetic dimension on knowledge and works of art and to suggest that, while the expressive dimension may be of considerable value, it is not essential to aesthetic experience. This means, of course, that curricula in art education may be developed which attend only to the aesthetic and cognitive dimension. It also means that
curricula in art education may be developed utilizing all three dimensions. The choice between the two kinds of curricula must develop out of the particular educational situation for which the curriculum is intended. Therefore, while the aesthetic dimension provides the keystone for educational experiences in the visual arts, one must not lose sight of the role of knowledge and expressive experiences in expanding the qualities of aesthetic experiences. The two chapters which follow consider these dimensions.
CHAPTER III

THE COGNITIVE DIMENSION

Knowledge plays an important role in any aspect of human behavior and within the field of art education it is second in importance only to the aesthetic dimension. It is second only in the sense that knowledge is not attained as an end in itself but as a means for expanding the student's capacity for visual aesthetic experience.

It will be recalled that in the previous chapter the need for knowledge in aesthetic description and analysis was apparent even though the works of art selected for description were relatively uncomplicated. Works of art from other cultures or eras may require a greater wealth of knowledge. Marc Chagall's *I and My Village* is a case in point. In order to arrive at a comprehensive understanding of the meaning of such a work it is necessary to know something about Jewish religion and traditions, Russian culture, and the history of the Russian Jew. Similarly, the understanding of a Japanese scroll painting depends upon the viewer's ability to account for all the relevant visual materials presented and, if this material includes Japanese writing, to the degree that the viewer is unable to read Japanese, to that degree is his comprehension of the scroll painting
limited. Aesthetic understanding is directly related to the ability of the viewer to bring relevant knowledge to bear upon the experiencing of the aesthetic object or event.

Similarly, within the expressive dimension it is possible to develop a certain degree of skill in expression with a minimum amount of knowledge. Desmond Morris' apes were able to acquire a surprising degree of facility without the benefit of formal training.\(^1\) There comes a point, however, where further progress in expression becomes directly related to the acquisition of technical knowledge. Since one cannot very well re-discover the entire technical history of man and the arts, it becomes necessary to provide some formal means for this knowledge acquisition. This is the function of the cognitive dimension.

A Definition of Knowledge

To define knowledge for the purposes of this study it is not necessary to become involved in epistemological quarrels or debates. Knowledge can be phenomenologically defined in commonsensical and workable terms in much the same way it is conceived of in ordinary discourse. Such a definition holds knowledge to be those facts, data, information, and concepts (hereafter referred to as concepts and facts) available about any given object or event. The following sentences demonstrate one way certain kinds of knowledge may be stated.

\(^1\)Desmond Morris, *The Biology of Art*, passim.
Cubism is generally recognized as an art movement originated jointly by Braque and Picasso.

The Armory Show was held in New York City in 1913.

Yellow has been used to symbolize cowardice.

Contextualism is a theory of aesthetics developed by John Dewey in his *Art as Experience*.

Red is one of the three primary colors in certain color systems.

These sentences can be identified as facts, their content generally not subject to debate. There are many sources of facts in the visual arts but the most useful sources are books, magazines, and articles which deal with the history of art, the technics of art, and the general areas of archaeology, anthropology, sociology, biography, science, and history. The technics of art refer not only to the various expressive modes of painting, sculpture, etc., but also to the responsive mode encompassing the psychology of vision. In addition, the work of art is itself a source of facts.

The following sentences are of a different order than those in the previous paragraph.

Non-objective art is the exploitation of the sensuous surface.

The rise of Christianity marked the decline of Roman art.

Van Gogh's mental instability was responsible for his violent use of paint.
Creativity is best fostered in an informal atmosphere.

These sentences may be identified as concepts or ideas which are often held as truisms but subject, nevertheless, to debate. The sources of concepts in the visual art are manifold but two of the richest are various theories of art typified by Gombrich's *Art and Illusion*, Panofsky's *Studies in Iconology*, and Wolfflin's *Principles of Art History*, and various theories of aesthetics exemplified by Dewey's *Art as Experience*, Aldrich's *Philosophy of Art*, and Kaelin's *An Existentialist Aesthetic*.

Concepts and facts have one factor in common. They constitute explicit knowledge. As such, they are specifiably known and capable of being expressed in either oral or written form. Concepts and facts comprise the content of the cognitive dimension, the material from which a structure of knowledge may be developed. While not denying that other forms of knowledge (perceptual, kinesthetic, aesthetic, tacit) exist, concepts and facts are seen to provide the knowledge base of the cognitive dimension.

Though knowledge as its own reward is certainly a laudable objective and may serve to guide curriculum development in the larger context of general education, knowledge in this work serves the specific function of enlarging the student's capacity for visual aesthetic experience. It is all well and good to know that the Armory Show took place in New York City in 1913, but, unless the relevance of such information to the aesthetic or expressive di-
mension can be demonstrated, its inclusion within the cognitive
dimension cannot be justified.

With this principle of relevancy in mind, it would be expedient
to examine experiences with aesthetic objects or works of art for
guidance in developing a means of identifying and classifying know­
ledge in the cognitive dimension. Since the concern in this chapter
is with concepts and facts, the examination might take place under
the guidance of the question, "What is it that we can know about a
work of art?"

Categories of the Cognitive Dimension

At the experiential level it may be said that the work of art
exists. To use Kaelin's terms "it is a concrete significant form."
Being concrete means that the work of art is an object, some "thing,"
and this "thingness" may be referred to as an art form. Different
art forms are distinguishable primarily by the materials used and
the ways the materials have been manipulated. An oil painting can
be distinguished from a water color painting by the fact that the
oil painting employs pigments ground in linseed oil and applied to
a surface, usually canvas or wood, whereas the pigments used in
water colors are ground in a combination of water and gums and are
usually applied to paper. The major distinction between these two
art forms is the materials used.

Not only do materials differ from art form to art form but so
do the processes employed in their production. An engraving is pro-
duced by cutting the surface of a metal plate with special tools called gravers. A drypoint is made by cutting the surface of a metal plate with a tool called a scriber. The major distinguishing factor between these two art forms would be the technic employed—the forming process. Materials and forming processes constitute the medium of a work of art.

Medium may be defined as: the vehicle of the work of art; that through or by means of which the artist conveys his intentions; the instrumentality by which the content becomes structured. Medium encompasses (1) the materials employed (paint in a painting), and (2) the forming processes or technics by which these materials are manipulated (impasto, scumble, or washes in paintings). These processes may be governed by certain principles or may necessitate certain specified procedures. In natural non-art forms the medium may consist only of the material as it has been formed through some natural process, e.g., an agate through sedimentation, an acorn through growth. In the case of man-made non-art objects and events the medium would be similar to that defined for art objects. Medium is the first category of the cognitive dimension.

While the category "medium" has two major subdivisions, even further subdivisions may be desirable. Materials can be subdivided into those which are actually contained within the work—primary materials—and those which are necessary to the forming of the materials but which are not present in the finished art object—secondary materials. In etching, for example, the primary materials
are paper and ink. These materials can be identified merely by observing an etching. The metal plate, the ground, and the etching acids are secondary, non-observable materials of the work of art which are nevertheless essential to its production. On the other hand, some art forms, such as stone sculpture, make very little use of secondary materials.

Forming processes may also be divided into two parts: technics and tools. Technics are the processes employed in the shaping of the work of art—throwing, drying, glazing, and firing a ceramic pot. The tools used in such a process would include a potter's wheel, sponges, scrapers, brushes, and a kiln. Some art activities require quite complex technics (creating jewelry by the lost wax process) and highly sophisticated tools and equipment (a centrifugal casting machine).

It may be noted that the same materials and forming processes can be employed in producing two quite different works of art. Albers' *Homage to the Square: Salute* and de Kooning's *Woman I* provide good examples since they are both executed in oil paint and applied to canvas with a brush. The Albers' is non-objective and the de Kooning representational. The differences between the two works may be attributed, in part, to the different shapes, colors, lines, objects, lack of objects (the counters) used and the ways these shapes, colors, lines, etc., are arranged.

The counters and their arrangement serve to define the structure of a work of art. The structure is describable in terms of the re-
relationships established between and among the various counters. Certain conventions, such as the "principles of design," may be useful in the descriptive process. The structure of non-art forms is describable in much the same terms as those employed for art objects although, at times, the structural relationships may be more easily described by the use of concepts pertaining to nature or science. Structure, then, provides the second category of the cognitive dimension.

Besides the medium and structure of works of art, some provision must be made within the cognitive dimension for those extra-aesthetic factors which may prove of some worth in determining the significance of a specific work of art. It will be recalled that in the last chapter it was suggested that when there is doubt about the meaning of a particular work of art, then the formulation of a hypothesis might be of value. The source of such hypotheses may be anything—history, the artist, science, etc. This suggests another category for the cognitive dimension, the context of the work of art.

The context consists of those factors outside the work of art which may have influenced the production of the work. These factors would be such things as the life and personality of the artist, the general state of the arts, the culture's attitude about art, the technological and scientific developments which may have influenced the work of art. The context provides tangential information about works of art and may be subdivided into the relationships of works
of art to the world, and the relationships of the world to works of art. Under the first subdivision would be identified such concerns as the biography of the artist, the location of the work of art, the history of the work of art, psychological, sociological, and anthropological concepts and facts which might shed light upon the work of art. Under the second subdivision, the relationship of the world to works of art, would fall those elements of science, technology, history, economics, etc., which, in one fashion or another, can be seen to have influenced the development of particular art styles, forms, and movements.

Medium, structure, and context together with their appropriate subdivisions provide the basic categories of the cognitive dimension. Such categories provide a pedagogical structure for organizing instructional units in the cognitive dimension.

In developing these units the point of entry must always be a problem in the aesthetic dimension: "What is the significance of the Venus of Willendorf?" or a problem in the expressive dimension: "How can the sensation of motion be achieved in a two-dimensional work of art?" Such problems should be genuine problems, i.e., developed from the inability of the student to account for some visual aesthetic phenomenon or the student's personal curiosity about a particular work of art or mode of expression. This constraint is imposed to insure that the unit of instruction is not arbitrarily developed although it is obvious that the teacher may structure the educational situation so that a particular problem is likely to emerge. Indeed,
it may be desirable to do so in order to insure comprehensive coverage of those aspects of visual aesthetic experience which are of significance in the over-all educational program.

Once the problem has been identified it serves as the objective for that particular unit of instruction, that is, the focal point for the learning of a concept or fact or of a group of related concepts and/or facts. The learning of a concept or fact consists of the attainment of specific knowledge in relation to a specific problem. The task for the curriculum designer or art teacher is to (1) determine what concepts or facts are needed and when, (2) restructure complex conceptual groupings into a series of simpler concepts, (3) analyze each concept into its component parts, and (4) arrange a learning sequence for each of the components as well as sequences between the components.

Three Units of Instruction

Three units of instruction will be developed around the three aesthetic categories of surface, depth, and function. The first two units will be concerned with determining the significance of two different works of art, one representational and the other functional. The third unit will be directed toward developing some concepts about non-objective art to be applied to a particular expression. The problems which serve as objectives for the three units have been selected to demonstrate three different approaches to the structuring of units of instruction in the cognitive dimension.
The problem for the first unit of instruction is "What is the meaning of the Venus of Willendorf?" This problem may be re-stated to form the objective for the instructional unit. Thus:

The student should determine the probable significance of the Venus of Willendorf.

It is assumed that this objective has been developed from a problematic situation. The nature of that situation will become clear in the instructional unit which is stated, as were similar units in the aesthetic dimension, in terms of content units of student activities.

1. The student describes and analyzes the surface and depth counters observed in a slide of the Venus of Willendorf.

2. The student notes that the statue seems to be that of a woman with highly stylized hair, bulbous breasts, a huge belly, dwindling legs, almost no arms at all, and very indistinct facial features.

3. The student is unable to offer a plausible hypothesis for the visual experience beyond the notion that the woman may be pregnant.

4. The student compiles a bibliography of references to the Venus of Willendorf.

5. The student reads and makes notes on relevant data uncovered in researching the available literature.

6. The student develops a hypothesis as to the probable significance of the Venus of Willendorf.

7. The student documents his hypothesis with notes taken from his research of
the literature.

8. The student compares his hypothesis with a re-experiencing of the slide of the *Venus of Willendorf* (if the hypothesis fails at this point the student would need to begin anew and try to produce a second hypothesis).

9. The student determines the probable significance of the *Venus of Willendorf* (makes the funding of the counters plausible).

This unit of instruction may be described as being research centered and student dominated. It is research centered in the sense that the student makes a systematic study of the literature and bases his hypothesis upon this study; it is student dominated in the sense that the bulk of the learning is the student's responsibility and that the teacher only guides the student in learning.

The second unit of instruction also stems from the problem area of the aesthetic dimension, but is teacher dominated. In this unit the aesthetic category is that of function. The problem and, hence, the objective of the unit is:

The student should determine the probable function of *Stonehenge*.

The preliminary activities are similar to those of the first unit of instruction.

1. The student describes and analyzes the surface counters of *Stonehenge* as identified in photographs illustrating several different aspects of this structure.
2. The student notes that the structure seems to have been constructed of a series of columns supporting lintels which form a large circle. Several other obvious features are a series of stone-filled depressions surrounding the colonnade as well as some large monoliths inside the main circle.

3. The student hypothesizes that it is a piece of architecture related to some religious or magical rite.

4. The student watches a film about Stonehenge which shows its probable astronomical functions.

5. The student listens to the teacher as she discusses and shows slides of other early astronomical observatories in South America, India, and Turkey.

6. The student watches the teacher demonstrate, with a sundial, how a primitive astronomical observatory might be built.

7. The student listens to a taped lecture by an anthropologist in which astronomy, astrology, and religious rites as practices in non-technological societies are discussed.

8. The student reports to the class some common superstitions which are linked to weather, the sun, moon, and stars.

9. The student hypothesizes that the probable function of Stonehenge was one of astronomical observations for religious purposes.

10. The student re-experiences the photographs of Stonehenge but is unable to verify or reject the hypothesis for lack of evidence.

In this particular unit of instruction it was not possible to come to closure on the probable function of Stonehenge. This does
not mean that the aesthetic experience is not capable of closure but that empirical evidence for a final judgment as to the function of the structure is not available. As was noted earlier, this unit was teacher dominated even though the student was able to contribute to the discussion of superstitions.

The third unit of instruction is developed around the expressive dimension although this area will not be discussed at length until the next chapter. The cognitive component will demonstrate a balance between teacher and student involvement in the unit of instruction. The objective for this unit of instruction grows out of the aesthetic analysis of non-objective paintings by such artists as Mondrian and Malevich. The objective has been stipulated by the teacher:

The student should develop a painting that, while apparently stable, gives the illusion of motion.

The concepts in need of development are those which refer to the various ways two-dimensional objects can give rise to the sensation of motion.

1. The student listens and watches a lecture demonstration by the teacher on sources of the illusion of motion in two-dimensional works of art.

2. The student experiences the motion quality in several non-objective paintings.

3. The student reads the chapter on movement in Arnheim's Art and Visual Perception.
4. The student experiments with different dot patterns (the stroboscopic effect) using black dots on a white ground.

5. The student discovers that certain dot patterns produce greater sensations of motion and apparent direction of movement than do others.

6. The student experiments with different dot patterns using different colors of dots and grounds.

7. The student discovers that certain color-dot pattern combinations produce greater sensations of motion and apparent direction of movement than do others.

8. The student selects that color-dot pattern which he feels to be appropriate for resolving the assigned problem.

9. The student develops a painting that while apparently stable, gives the illusion of motion.

These three units of instruction have demonstrated that there are many different ways through which students acquire concepts and facts. The student may acquire concepts and facts by reading an article, essay, news report, etc.; by watching a movie, video film, slides, film strips, demonstrations, etc., and by combinations of listening, watching, and reading. The student may also acquire concepts by discovering them in the process of experimentation or an exercise, or by trying to hypothesize or theorize.

The ways of acquiring concepts and facts may be grossly categorized into two general patterns: active and passive. Active knowledge is that knowledge acquired as a direct outcome of a particular experience and is verifiable within that experience. For
example, a student places a clay pot in a kiln, the kiln is fired, and the student discovers that the clay pot is substantially harder than it was prior to the firing. The student may conclude, quite accurately, that firing clay hardens it. In this manner a concept of vitrification is formed.

On the other hand, a concept of vitrification may also be acquired in a fashion devoid of active experience. The student may read, watch a film, or hear the teacher tell about the hardening of clay through the firing process. The concept thus formed, the result of a less active involvement, may be termed passive knowledge. Passive knowledge may be acquired from numerous sources: books, magazines, articles, slides, film strips, teachers, friends, parents, etc. There appear to be fewer sources of active knowledge since it results from direct experience. Sources here are experiments, problem solving situations, discoveries, play activities, skill acquisition, observations, etc.

It is possible, of course, to employ both active and passive experiences in the building of a particular concept, indeed it might even be desirable since one could serve to reinforce or check the other. Active experience may lead to misconceptions which would then require correction through a passive learning experience. A common example of this would be that of a student mixing and casting plaster. It is not unusual in such a situation for the student to ask, "How long does it take plaster to dry?" or to note, "My plaster is dry now." Obviously such statements imply that the student is re-
lating the plaster experience to other experiences, perhaps to clay, where liquid materials were seen to become hard as they dried. The actual reason for the hardening of the plaster is not its drying but the result of a chemical reaction known as hydrolysis which starts when water and dry plaster are mixed. It is difficult to conceive of how the student might come by the concept of hydrolysis through an active experience. Hence, he will need to have the information provided through a passive experience.

On the other hand, passive experience may not provide the necessary reality check upon the student's learning. A student may be able to verbalize about a given concept or fact, say interstitial space, may even be able to point to it in a work of art, but when he can actually produce the illusion on a two-dimensional surface, the teacher may be relatively certain the student has learned the concept.

Additionally, some concept or facts may be more easily acquired in one learning mode than in the other. For instance, it is rather difficult to provide active experiences which would allow a student to acquire concepts and facts about the inhumaneness of war, starvation, and death—all recurrent themes in works of art. Without such concepts, however, Picasso's Guernica loses a great deal of its meaning. Therefore the task of the teacher is to select the most appropriate mode for the acquisition of specific facts or concepts.

It has become apparent that a unit of instruction in the cog-
nitive dimension could consist simply of a series of lectures. In such a case, the student activity could only be specified as "The student is listening to a lecture." On the other hand, a unit of instruction might consist of a series of readings, experiments, reports, and discussions. Since there is no empirical data which would enable the curriculum writer or art teacher to establish the desirability of one mode of knowledge acquisition over the other, this determination must be made in view of the particular educational situation, the nature of the concepts and facts to be learned, and the personal learning and teaching styles present.

The role of the cognitive dimension in an education for expanding visual aesthetic experiences, while second in importance to the aesthetic dimension, plays a vital role in informing that dimension. It is also of considerable value to the expressive dimension. The relationships of the cognitive to the other two dimensions can be illustrated through a modification of the Venn diagram (Figure 2 and 10) presented in Chapter I and II.

In Figure 11, the solid circle represents the cognitive dimension. The three solid segments within the circle are (1) the aesthetic dimension, (2) the expressive dimension, and (3) the work of art. The aesthetic and expressive dimensions continue outside the cognitive dimension as broken-line circles.

The intention of this diagram is to demonstrate that the student may learn concepts and facts from aesthetic encounters with works of art—the aesthetic dimension. It also shows that the stu-
Fig. 11 The cognitive dimension as dominant

dent can learn concepts and facts while producing works of art—the expressive dimension. Finally, the student can learn concepts and facts about works of art from sources outside either the aesthetic and expressive dimensions or the work of art—the cognitive dimension.

It can be seen through a comparison of the two chapters on
the cognitive and aesthetic dimensions that each dimension serves unique functions in art education. For this reason, it is important in curriculum development to keep the distinctive qualities of each dimension clearly in mind and to exploit each dimension for those qualities of experience that it serves best.

The expressive dimension which is developed in the next chapter will complete the examination of the three dimensions of experience and provide yet another way of conceiving of the relationships between the three.
CHAPTER IV

THE EXPRESSIVE DIMENSION

Some of the activities indicated in the sample instructional units given at the end of the last chapter might, at first glance, appear to fall into the category of the expressive dimension. That such is not the case is one of the primary distinctions to be made in this chapter. It is quite natural to lump together all activities in which artists' materials are being manipulated under the rubrics of creativity, artistic activity, or studio production. There is, however, a sharp distinction between the act of painting a color-wheel with its primary, secondary, and tertiary colors and that of painting a work which has aesthetic significance for both the producer and the viewer. The objectives of the two acts differ. The first, the color-wheel, has as its objective the learning of some specific knowledge about the relationships of colors within a given color theory and, as such, belongs in the cognitive dimension. The second with its concern for aesthetic significance, clearly belongs in the expressive dimension. It is not so much the nature of the activity as the purpose that determines to which dimension it belongs.

Since the area of concern in this chapter is the expressive
dimension it would be useful to ask what constitutes the expressive
dimension? An answer to this question has already been suggested.
The expressive dimension is concerned with the production of aesthetically
significant objects, that is, works of art which express aesthetic meanings. The value of such expressions to the development
of an increased capacity for visual aesthetic experience lies not
with the education of an artist, which is more appropriate to a
professional program, but with the utilization of the expressive
dimension for the purposes of clarifying and intensifying the student's
experiencing of aesthetic qualities. This does not deny that activities
developed within the expressive dimension are not identical to the
activities in which artists might engage. Rather, it emphasizes the
secondary role of this dimension within the context of art education
in general education.

In this chapter the expressive dimension is defined as a pro-
cess of artistic problem solving. Such problem solving activity is
seen to depend upon certain activities which comprise the three
categories of the expressive dimension. A case is made for the con-
cept that the major and unique concern of the expressive dimension
is skill acquisition. Three units of instruction based upon this
thesis conclude the chapter.

Artistic Problem Solving

Expression in the visual arts requires three skills: (1) the
ability to identify an artistic problem suitable for expression in
visual materials; (2) the ability to select specific aesthetic qualities which might be useful in resolving the artistic problem identified; and (3) the ability to organize these aesthetic qualities into an aesthetic solution to the artistic problem.

To identify an artistic problem is to reverse the process of discovering significance in a work of art. If, in a metaphorical way, it can be said that de Kooning's *Woman I* represents the past, present, and future of a "fallen" woman, then the artistic problem would be one of expressing this past, present, and future "fallenness" of woman. The power and clarity of any given solution to the artistic problem is a measure of its aesthetic significance.

Just as the number of solutions to an artistic problem is infinite, so too is the number of artistic problems. Any object, idea, or image, any concept or fact, any human experience may provide the content or theme of an artistic problem. Some themes have greater power to achieve significance than do others. Tragedy, love, and motherhood are among those themes which have a high potential for meaning. Nevertheless, it is possible to take any idea and transform it into a significant artistic problem. The Impressionists with their color and light concepts, the Cubists with their still-lifes, the Suprematists with their squares and rectangles, all started with relatively simple ideas and created quite powerful solutions to artistic problems.

To recognize an artistic problem is to have developed a capacity for aesthetic judgment, an ability to assess the relative sig-
nificance of any visual object, for, unless one can identify and judge the significance of an aesthetic experience, he cannot be expected to identify and judge the potential significance of an artistic problem. And, since the ability to make aesthetic judgments depends in part upon the knowledge the viewer brings to the experience, the value of knowledge, (the cognitive dimension) to the identification of artistic problems is apparent. Thus the first category of the expressive dimension, that of identification, can be said to be comprised of two sub-categories: aesthetic judgment and relevant knowledge.

The selection of appropriate aesthetic qualities for the solution of an artistic problem also requires knowledge and aesthetic judgment. There are many potential qualities available for use in resolving an artistic problem. Some of these qualities can only be discovered by experimenting with materials and with deciding upon the appropriateness of the results of such manipulations to the artistic problem at hand. Thus the second category, selection, is composed of the same two sub-categories as the first: aesthetic judgment and relevant knowledge.

The final resolution of an artistic problem involves the production of an aesthetic object—a work of art. In the process of producing the work the student will be faced with a continuous series of choices most of which will be concerned with the arrangement of the aesthetic qualities he has selected. Some of the choices, however, will be concerned with technics and materials being used.
Therefore, certain kinds of knowledge and judgmental processes will have to be brought to bear. In addition, the production of a work of art requires the use of skills, or in other words, the ability to manipulate the materials and tools in a manner adequate to the problems at hand. As a consequence, the third category of the expressive dimension, organization, is composed not only of the sub-categories of aesthetic judgment and relevant knowledge, but also technical skill.

The three categories identification, selection, and organization are convenient pedagogic devices for organizing instructional units in the expressive dimension, but they remain just that—devices. For a fuller understanding of the process of expression, an adequate explanation of artistic problem solving must be developed. Solving artistic problems is not unlike creatively solving any problem. It could be held, in fact, that any solution to any problem is a creative solution. To account for the structure of problem solving activity, numerous theories have been advanced. One of these, "Qualitative Problem Solving," is proposed by David Ecker.¹

"Intelligence, ... is the procedure of ordering means to ends; it involves purpose and control."² This definition of reflective


thinking is the philosophic base upon which Ecker develops his concept of qualitative problem solving. For Ecker, the primary distinguishing quality of the artistic process is "qualities." Seeking to determine whether the "controls over artistic means-ends ordering can be located,"\(^3\) he settles upon the concept of qualities as means, criteria, and ends. All are qualities and the determinant factor of any work of art is its "pervasive quality." This pervasive quality may be found by the artist in the historical operation of symbols as in Cubism, Expressionism, or Impressionism; it may be discovered in the functional referents of the task at hand—religious, industrial, or private architecture; it may appear in the relationships established by the materials themselves—oil paints, bronze, wood. The pervasive quality is thought of as the dominating quality and "acts as a qualitative criterion by which the artist selects, rejects and relates qualitative means, from available qualities to achieve his qualitative end in view."\(^4\)

Seen in this way, qualities emerge as the instrumental factor in the production of works of art. They form the catalyst for action, for control and for resolution. In every phase of artistic activities it is the composite of qualities, qualitative intelligence, and pervasive quality that prevails. This is not to gainsay the existence of cognitive factors. Rather it is to place the emphasis

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\(^3\)Ibid.

\(^4\)Ibid.
in the expressive dimension upon the qualitative as means-ends. If Kaelin's term "counters" is substituted for Ecker's "qualities," a parallelism in the two theories becomes apparent. Kaelin, in fact, concedes as much when he notes "in reducing the expressiveness of painting to the controlled structures of some sensuous surface, I am being consistent, I believe, with the work of those neo-pragmatists, like Professor David Ecker, whose methodology of art education is conceived on the model of controls introduced into qualitative thought."^5

Ecker characterizes the process of qualitative problem solving in six stages which, for him, demonstrates the manner in which an artist achieves his total quality, the finished work of art. These stages are not intended to be taken in the sequential order presented but must be taken in some order, random or otherwise, in moving through the artistic process from inception to completion.

1. A presented relationship. The awareness of a need for artistic action as presented through possible qualitative candidates for ordering.

2. Substantive mediation. The instituting of new qualitative relations between the above mentioned candidates.

3. Determination of pervasive control. At this point a possible set of relationships, mediated in the foregoing step,

assume the position of the control element.

4. Qualitative prescription. Here the pervasive quality serves as a guide for future action; it allows the artist to sense, to infer, or to anticipate relationships.

5. Experimental explorations. This is the period in which the pervasive quality is tested for its appropriateness as a solution to the aesthetic problem. And the pervasive quality, at this stage, may remain, be altered, or be exchanged for a new pervasive quality discovered within the experimental frame.

6. Conclusion: the total quality. Here the problem has reached a tentative solution, the work is judged complete.

Therefore, from a sensed problem the artist through mediation and experimentation arrives at a controlling (pervasive) quality which serves as the basic structure, theme, or idea around which the work of art is constructed.

Professor Kaelin argues that not only the third but the sixth stage of Ecker's scheme require the application of aesthetic judgment.

Furthermore, we judge [in stage three] that a quality is implicit in a situation only by grasping an imaginary modification of the given situation; and all explicit qualities are immediately visible to our perceptive faculties. The trick, of course, is to be able to grasp imaginatively those modifications of a given situation which will enable a painter to perceive ultimately that a

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total satisfying situation has been achieved.  

The artist solves his artistic problems by manipulating counters, either in the imagination (Ecker's third stage) or in execution (Ecker's sixth stage).

The artist discovers his ideas as he works, and this is what is meant by saying that an artist thinks, if think he must, with the end of his brush. Far from being the initial act of creative expression, conception is rather the final. The artist may stop working when he discovers what he has said; this discovery and aesthetic judgment are one and the same process.

A synthesis of Ecker's and Kaelin's observations about artistic problem solving allows for the construction, for pedagogical purposes, of a four stage representation of the describable elements of artistic problem solving. The first three steps: identification, selection, and organization (the original categories of the expressive dimension) are seen to constitute a unit, being a series of interwoven activities. The fourth step, experimentation, will be seen to impinge upon the process at several different points. These steps and their descriptions follow.

1. Identification. The beginning search for an artistic problem. The source of the problem may be anything and the problem

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8Kaelin, An Existentialist Aesthetic, p. 301.
may be as vague as the desire to do a painting, or as precise as wanting to express the "past, present, and future of a 'fallen' woman." The artistic problem may be identified by the student or imposed by the teacher. In either case it serves as a focus for the expressive act.

2. **Selection.** The process of choosing which qualities, perceptual elements, counters, etc. will be included or excluded from the work of art.

3. **Organization.** The process of determining the various relationships that need to be established among and between the several counters, etc. The production of a work of art.

4. **Experimentation.** The searching for and testing out of potential aesthetic qualities as possible candidates for expression. Experimentation may be with materials, technics, or structures. Experimentation may also take the form of research into ideas and concepts and the interrelationships possible with particular media and specific structures that may be discovered in the process.

Experimentation may precede or be integral with the first step, identification, in which instance it serves in helping to identify the artistic problem. For example, through the manipulation of materials the student may discover certain aesthetic qualities that would serve as a focus for artistic expression. Similarly, the development of a new skill, silver soldering, may provide the impetus needed to identify an artistic problem.

Experimentation also may precede or be integral with the second step, the selection of aesthetic qualities, in which case it provides
the student with a means of exploring tentative solutions to the artistic problem, or, perhaps, even a rejection of the problem in favor of a new one discovered in the process. Experimentation may also precede or be integral with the final step, organization, and its function at this stage is normally one of working out technical problems which stand between the concept and the solution of the artistic problem. As with the prior stage, it is possible for such experimentation to lead to a revision or rejection of the original artistic problem and the development of a new one. The relationships between the four stages of artistic problem solving are illustrated in Figure 12.

Fig. 12 Four stages of artistic problem solving

It may also happen that no experimentation is required in solving an artistic problem. If the problem is sufficiently well defined, if the selection of the aesthetic qualities is precise enough, and if the materials and technics chosen are adequate to the task,
then the expressive act may be an integrated process of identifying
the artistic problem, selecting aesthetic qualities needed to solve
the artistic problem, and organizing these aesthetic qualities into
a work of art.

Skill Acquisition

Developing instructional units for the expressive dimension
needs to take into consideration the conception of artistic problem
solving just established, to examine each component of the artistic
problem, and to determine what kinds of knowledge and capabilities
are required in order that the student may adequately solve artistic
problems.

The identification of an artistic problem falls clearly into
the aesthetic dimension with the capacity for making aesthetic
judgments being a prerequisite for selecting significant artistic
problems. Instruction in the identification of such problems grows
out of instruction in the aesthetic dimension.

The selection stage is less easily specified. The structure of
creativity, at the heart of this stage, has never been satisfac-
torily explained. Nevertheless, some attention should be given to
the problem. Michael Polanyi points out one way of conceiving the
creative act.

The mind is attracted by beautiful problems,
promising beautiful solutions; it is fasci-
nated by the clues to a beautiful discovery and pursues untiringly the prospects of a beautiful invention. . . . . . .

. . . . . . . .

Even physics, though based on observation, relies heavily on a sense of intellectual beauty. No one who is unresponsive to such beauty can hope to make an important discovery in mathematical physics, or even to gain a proper understanding of its existing theories. . . . And from here it is but a short step to the abstract arts to music. Music is a complex pattern of sounds constructed for the joy of understanding it. . . . It develops the joy of its understanding into an extensive gamut of feelings, known only to those specially gifted and educated to understand its structure intimately.

The creative act, from Polanyi's point of view, is a conjoining of aesthetic understanding and explicit knowledge (intellectual beauty), and the act of someone who "understands" the structures of the arts. It would follow then, that an instructional unit for the selection of aesthetic qualities for artistic problem solving would be composed of combinations of units of instruction from both the aesthetic and cognitive dimensions.

So far, artistic problem solving and the expressive dimension appear to be translatable into either the aesthetic or cognitive dimension. It is only within the aspect of organization that distinct differences begin to appear. The solution of an artistic problem depends upon the ability to transform an interior, mental con-

ceptualization of an aesthetic solution into an external reality or work of art. While the conceptualization of the solution to the artistic problem, that is, the transformation of an aesthetically significant idea into a physical form, is a consequence of aesthetic and cognitive acts, the physical form itself is an outcome of a combination of the concept with the skill to manipulate materials to achieve the desired effect.

Skill becomes the primary differentiating factor of the expressive dimension. The ability to use tools, employ technics, and manipulate materials is a central distinction between the novice and the master. Since both the aesthetic and cognitive aspects of artistic problem solving are dealt with elsewhere, it follows that education in the expressive dimension should be primarily concerned with the development of skills.

The learning of a skill is probably one of the easier tasks of education, consisting, as it does, of the attainment of specific capabilities in relation to specific processes. The problem for the educator is to determine what skills are needed and when, and then break down complex skill patterns into simpler patterns, a form of task analysis. Each of these simple patterns may be learned as separate but related steps, the sum total of which constitute the skill being learned. To do this it is necessary to analyze each skill into its component parts and arrange a learning sequence for each of the components as well as a sequence between the components. Gagne describes the process thus:

Gagne describes the process thus:
Units of the curriculum subordinate to each major objective [in this case skill mastery] may be derived by subjecting this objective to analysis. The procedure is one which takes into account both (1) the components of a given objective and (2) the unity of the capabilities so defined, from the standpoint of learning conditions required to establish them. By progressively applying this analysis procedure beginning with the terminal objective and working backwards, one can spell out an entire structure of knowledge which has its beginnings in relatively simple capabilities that can be assumed to be known by the student.10

Such an analysis applied to a particular skill would result in an instructional unit composed of a sequence of content units each of which constitutes "a capability to be acquired under a single set of learning conditions, among these conditions being certain specified prerequisite capabilities."11

Three Units of Instruction

A unit of instruction for skill acquisition would consist of (1) an identification and description of the skill to be acquired (the skill should be specified at the level of a simple task, e.g., silver soldering rather than a complex task like constructing a piece of jewelry), (2) the specification of prerequisite capabilities, and (3) the development of a series of content units in terms of student


11Ibid., p. 22.
activities which would lead to the attainment of the desired skill.

The simple unit of instruction which follows will treat silver soldering as a skill to be learned.

Educational Objective:

The student should be able to make a strong silver solder joint.

Prerequisites:

1. The ability to make precise fitted joints in metal
2. The ability to properly clean metal of oxidation and other foreign materials
3. The ability to light, adjust, and safely operate an acetylene or other appropriate torch

Content Units:

1. The student files all joints for a proper fit (used for rings, bracelets, boxes, etc.).
2. The student scrubs all contact points to insure cleanliness of the surface (used where no fitting of joints is involved, such as wire soldered to backgrounds, plate on plate, etc.).
3. The student, when necessary, binds the parts to be joined with iron binding wire.
4. The student, when necessary, pins the various parts to a charcoal block with right angle pins made from iron binding wire.
5. The student places the piece to be soldered on a charcoal block.
6. The student, using a small brush, fluxes the joint.

7. The student cuts the silver solder into small pellets allowing them to drop on a piece of paper (to keep them clean and prevent scattering).

8. The student, using a wet flux brush, picks up the silver solder pellets one at a time and applies them to the joint to be soldered.

9. The student spaces the silver solder pellets approximately three-eighths of an inch apart.

10. The student lights and adjusts the torch.

11. The student gently heats the piece to be soldered in order to dry the flux.

12. The student applies greater heat to bring the pieces of metal to the melting point of the solder.

13. The student removes the heat source after all pieces of silver solder have melted and flowed into the joint.

14. The student removes the binding wire after the soldered piece has been allowed to cool.

15. The student places the soldered piece in pickle to remove fire scale and flux.

The unit of instruction just described could be varied to account for special silver soldering tasks and could also be modified to recycle the student in the event that certain difficulties are encountered, as, for example, the solder balling up or failing to flow into the joint.

Evaluation of the skill acquired as a result of such an instructional unit can be achieved by simply noting whether in fact the
student progressed through the sequence of activities described and, naturally, whether he succeeded in making a strong silver soldered joint. Failure to achieve a skill at any point in the sequence can usually be traced to the lack of prerequisite capabilities or the lack of clarity in the particular or preceding content unit. It is assumed, of course, that the student has had the benefit of instruction, either in the form of a teacher lecture-demonstration or other means--such as an educational training film.

By incorporating the instructional unit of skill acquisition into an extended unit of instruction, that is, a unit of instruction designed to provide opportunities for aesthetic expression as well as the development of technical skills in a particular medium, it will be possible to demonstrate how the two dimensions, aesthetic and cognitive, may be combined with skill acquisition to form the expressive dimension. Such an extended unit of instruction becomes a highly complex structure and is no longer conceivable in simple linear fashion.

In the following example, textiles provide the focus of the extended unit of instruction. There are many options for expression within such a broad field: weaving, fabric printing, embroidery, stitchery, hooking, knotting, etc. From among these options the student may select or be assigned a specific activity. The educational objective for this activity, the prerequisite capabilities, and the content units which comprise the extended unit of instruction can be identified and stated.
It will be noted that several content units have been italicized. These are key content units. These key content units serve to identify and describe the nature of the group of content units which follow. For example, "the student warps the loom" is a key content unit which encompasses such diverse activities as putting the warp on the warp beam, threading the heddles, and adjusting the warp for proper tension. When abstracted from the extended unit of instruction, the key units form an abbreviated unit of instruction in weaving. After the detailed sequence of content units which follows, the reader will find the key content units abstracted to form the abbreviated unit of instruction.

Educational Objective:

The student should be able to produce a piece of patterned fabric on a two-harness loom.

Prerequisites:

1. The ability to warp and weave a simple tabby weave on a box-frame loom.

2. Knowledge of the following general weaving terms:
   - beater
   - blocks
   - breast beam
   - dents
   - fly-rod
   - heddles
   - lease rods
   - loom
   - pattern draft
   - raddle
   - reed
   - selvage
   - warp
   - warp beam
   - weft
   - etc.

3. The ability to identify warp and weft
yarns by:
   a. the direction of the twist
   b. the tightness of the twist
   c. the type of yarn structure
   d. the size of the yarn
   e. the fiber content

4. The ability to tie the following knots:
   bow
   granny
   half-hitch
   slip
   snitch
   square
   weaver's

5. The ability to solve for the square root of a number

Content Units:

1. The student selects a fabric design suitable for weaving on a two-harness loom.

2. The student copies a pattern directly from a piece of material he has selected.
   or

2A. The student selects a pattern from a weaving manual.\textsuperscript{12}
   or

2B. The student experiments with possible textile patterns on a simple box-frame loom.

3. The student uses different kinds of yarn for warping and weaving on the box-frame loom (slubbed, pulled, crinkled, novelty, etc.).

4. The student uses different colors of yarn for warping and weaving on the box-frame loom.

\textsuperscript{12}Content units 2, 2A, and 2B represent three options available to the student which afford an opportunity for the exercise of aesthetic judgment.
5. The student uses different weaving patterns on the box-frame loom (twill, inlay, pile, satin, open-lace, etc.).

6. The student uses various combinations of yarns, colors, and weaves in his experiments on the box-frame loom.

7. The student selects those qualities of color yarn, and weaving pattern which best solve the artistic problem.  

8. **The student plots a draft of his selected pattern.**

9. The student finds the number of block changes in the selected pattern, i.e., he counts the number of unique blocks in one complete repeat of the pattern.

10. The student finds one complete repeat of the pattern; this may be composed of several unit patterns or blocks.

11. The student counts the number of block changes in all the different unit patterns.

12. The student compares the number of block changes in the different unit patterns to determine whether the pattern is within the capacity of the loom or whether there are sufficient heddles and harnesses to accommodate the necessary warp.

13. The student plots a heddle-threading draft on graph paper.

14. The student draws a true diagonal through the pattern from the upper right corner to 

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13 *It is within this section of the unit of instruction (content units 1 through 7) that the student is able to exercise selective control over the solution to the artistic problem. The only other section allowing any latitude of experimentation will be during the actual weaving process (content units 58A through 66).*
the lower left.

15. The student plots the squares of the heddle-threading draft about an inch above the squares of the pattern draft.

16. The student blacks in the squares on the graph paper which represents the sequencing of the first harness.

17. The student blacks in the squares on the graph paper which represents the sequencing of the second harness.

18. The student calculates his yarn needs.

19. The student determines the coverage of his selected yarn.

20. The student counts the number of yarns to the inch.

21. The student multiplies the yarn size number by the standard yardage for the yarn selected.

22. The student works out an equation in which the number of yarns to the inch is equal to the square root of the yards per pound, minus ten-percent for loss by friction.

23. The student selects his warp yarn in light of the previous calculations.

24. The student refers to his pattern draft to determine the ratio of each color of yarn needed to the total yarn needs.

25. The student selects a sufficient quantity of each color of yarn needed to warp the loom.

26. The student prepares the warp for the loom.

27. The student wraps the warp on the warping board.

28. The student ties a colored yarn loosely around every twenty warps as an aid in
counting the warp ends.

29. The student wraps all the necessary number of warps for a single color before wrapping the next color on the warping board.

30. The student ties the ends of the yarn and the crosses.

31. The student removes the warp from the warping board.

32. The student makes a chain with the warp and wraps it in paper to prevent tangling.

33. The student warps the loom (with the aid of a second student).

34. The second student holds the lease rods and chained warp about four feet back of the loom.

35. The student carries the loops of the warp through the dents of the raddle.

36. The student spaces the warp evenly on each side of the center of the raddle.

37. The student slips the fly-rod from the warp beam through the warp loops.

38. The student puts the cap on the raddle.

39. The student ties the fly-rod to the warp beam.

40. The student slowly winds the warp onto the warp beam.

41. The student places strips of paper on the warp beam during the winding to prevent tangling and matting of the warp.

42. The student uses a comb to straighten the warp.

43. The student removes the raddle and attaches the lease rods to the back crossbar of the loom.
44. The student leaves about three feet of the warp hanging from the warp beam to be used in threading.

45. The student pushes all the heddles to the left of the heddle harnesses.

46. The student selects the heddles from their respective harness according to the heddle-threading draft.

47. The student moves the heddles from the left side, threads them, and pushes them to the right side of the loom.

48. The student ties the warp together, section by section, in a loose knot in front of the heddles to prevent the warp from sliding out or tangling.

49. The student ties the reed to the loom frame in order to keep it stationary.

50. The student threads the reed one dent at a time.

51. The student ties the warp, section by section, in front of the reed to prevent the warp from sliding out or tangling.

52. The student draws one section of the warp at a time to an even tension and attaches it to the fly-rod by means of a bow knot.

53. The student weaves.

54. The student checks the loom to see that all is in proper order.

55. The student lifts the harnesses to see that the warp forms uniform sheds.

56. The student starts the weaving about eight inches above the fly-rod.

57. The student puts in a few rows of plain weave using coarse yarn.
58. The student weaves following the original pattern draft (content unit 8).
   or

58A. The student experiments with different weaving patterns, treadling patterns, pick-up weaving, etc.\(^{14}\)

59. The student experiments with different kinds and colors of weft yarns.

60. The student selects those combinations of weaving patterns, treadling patterns, kinds and colors of yarns which produce the aesthetic qualities he desires.

61. The student keeps the selvage edges even.

62. The student maintains the same angle on every throw of weft as an aid to keeping the selvages uniform.

63. The student maintains an even rhythm in his weaving.

64. The student maintains an even force in his beating.

65. The student follows the weaving sequence: picks up the shuttle, throws, beats, puts the shuttle down, changes sheds, repeats.

66. The student weaves a sample piece of patterned fabric on a two-harness loom.

As noted earlier, the key content units, shown in italics, may be abstracted from the extended unit of instruction and formed into an abbreviated unit of instruction for weaving. The value of such an

\(^{14}\)Content units #58A and 59 provide another opportunity, as with content units 2, 2A, and 2B, for the student to exercise aesthetic judgment.
The abbreviated unit is two-fold. First, it provides the curriculum designer with a "short-hand" means of referring to a complex set of activities. That is, to state "The student weaves" implies a series of interrelated acts which are meaningful to the weaver and to the education of the weaver but are not necessary for generating broadly defined curriculum plans. The content units which follow each of the key content units are only necessary when developing programmed instruction or detailed lecture-demonstrations of the weaving process. If needed for such purposes, the content units which intervene any two key units can be supplied either by the curriculum designer or classroom art teacher.

Second, the identification of key content units provides major checkpoints at which effective evaluation should be undertaken. While it is clear that a student could, in fact, be evaluated upon completion of each content unit in the extended unit of instruction, the wisdom of such an extensive evaluation is questionable on the grounds that (1) it would require the student to limit further activity until a present activity could be evaluated, and (2) the teacher would be so busy evaluating that little time would remain for teaching. By limiting the number of points at which students should be evaluated, the teacher is freed to concentrate on instructional and remedial activities and the student is provided opportunities for extended and more comprehensive learning activities.

The abbreviated unit of instruction would, therefore, be stated as follows:
1. The student selects a fabric design suitable for weaving on a two-harness loom.

2. (formerly content unit #8) The student plots a draft of his selected pattern.

3. (formerly content unit #18) The student calculates his yarn needs.

4. (formerly content unit #23) The student selects his warp yarn in light of the previous calculations.

5. (formerly content unit #26) The student prepares the warp for the loom.

6. (formerly content unit #33) The student warps the loom.

7. (formerly content unit #53) The student weaves.

In the foregoing statements of extended and abbreviated units of instruction in weaving, the opportunities for experimentation are restricted in that they are limited not only to the original draft pattern which determines the warping of the loom but also to the variations in the use of the weft in the weaving process. A complete revision of the original design would require removing the warp from the loom and beginning anew. Instructional units such as this one serve effectively to point out, as a result of the particular processes or materials employed, the limitations of certain media for creative invention.

Other expressive activities, such as painting with tempera or oil colors, allow for an almost continuous revision of the original conception of the solution to the artistic problem as well as a revision of the problem itself as the process of painting proceeds
(see Figure 12, p. 112). The design of units of instruction for the expressive dimension will, as a consequence, vary greatly in complexity and specification as the nature of the particular art form or artistic problem varies. Indeed, a complete unit of instruction can be specified with but a single content unit:

The student paints.

This is only possible when it is understood that the student is identifying an artistic problem, selecting aesthetic qualities for its solution, and organizing these aesthetic qualities in one continuous expressive act. This unit of instruction assumes considerable experience in solving artistic problems through painting. Under certain conditions such broad specification may be more desirable than more particularized specification especially when the skill component of the expressive dimension is fairly well established.

The success of the resolution of any artistic problem should be judged either by the artist (student) or the viewer (teacher and other students) on the same phenomenological grounds advanced in the second chapter. The meaning or significance of the work of art is found in the experience with that work of art and not in such extra-aesthetic categories as the popularity of the student, the difficulty of the problem, the length of time consumed, or the technical skills learned in the process. These items may be of importance in other educational contexts, but, when the primary objective is an increased
capacity for visual aesthetic experience, the aesthetic must be paramount.

Although it has not been stressed in any of the units of instruction developed thus far in this chapter, it is important to note that the aesthetic and cognitive dimensions are essential to the success of any expressive act. The Venn diagram, Figure 13, illustrates this interdependence.

The solid circle represents the expressive dimension. The three solid segments inside the circle represent (1) the cognitive dimension, (2) the aesthetic dimension, and (3) the work of art. The aesthetic and cognitive dimensions continue outside the expressive dimension as broken-line circles.

With the aid of this diagram, it can be seen that it is incumbent on the curriculum designer to identify, to the degree possible, the specific aesthetic competencies and concepts and facts necessary for the successful solution to a given artistic problem. This means that instructional units in which the objective is one of expression need to include student activities in all three dimensions.

It is possible to make this requirement clearer through the development of a comprehensive model unit of instruction for the expressive dimension. This model utilizes, as its organizing principle, the four stages of artistic problem solving presented schematically in Figure 12 (p. 112).
A Model Unit of Instruction

The model unit of instruction which follows is composed of seven content units and their necessary explanations.

1. The student identifies an artistic problem.

The general limits of the artistic problem may be stipulated in ad-
vance by the teacher for certain pedagogical purposes, but it is the task of the student to make the final choice as to the specific nature of the artistic problem. This identification may be accomplished by the student examining works of art, the world around him, and himself, and selecting those aspects of experience which seem to possess the most capacity for significant expression.

2. The student experiments with possible variations on the artistic problem.

In this step, knowledge of other works of art, technical processes, and information about the world at large will be found useful in conceiving alternative but related artistic problems which have potential for expression.

3. The student selects a specific artistic problem for further development.

This selection must be based both on the student's ability to judge the aesthetic significance which the problem may have and on the student's knowledge of limitations which he may have in devising significant solutions to the problem.

4. The student experiments with possible aesthetic qualities of materials, techniques, and structures which may be used to solve the artistic problem.

This step falls quite clearly in the cognitive dimension, just as the next step is in the aesthetic.
5. The student selects those aesthetic qualities he judges to be most powerful for solving the artistic problem.

6. The student experiments with variations in the organization of the selected artistic qualities.

This experimental step will require the application of both knowledge of processes and technical skills as well as judgment in assessing the aesthetic significance of the different experimentally organized structures.

7. The student organizes the selected aesthetic qualities into a finished work of art.

Once again judgment is necessary in order to determine when the total quality of the work of art has been achieved or, in other words, when, in fact, the artistic problem has been solved.

With the preceding examination of the three dimensions of experience it is now possible to move to the task of developing a curriculum model for art education. This is the objective of the next chapter.
CHAPTER V

CURRICULUM MODELS FOR ART EDUCATION

One major question posed by this study remains to be answered: "How can the aesthetic, cognitive, and expressive dimensions of experience be organized to provide an educational program aimed at an increased capacity for visual aesthetic experience?" The answer will be sought in the development of comprehensive and integrated curriculum models for art education.

The preceding four chapters offer the materials necessary for developing these curriculum models. These materials include (1) the general theoretical position of the book, that is, the student as connoisseur-gourmet-collector of visual aesthetic experience; (2) the three dimensions of experience—aesthetic, cognitive, and expressive—and their pedagogical categories; (3) a definition of curriculum and curriculum models; and (4) a description of curriculum objectives. It will be useful to review each of the foregoing sets of considerations as it pertains to the task of developing curriculum models for art education.

In Chapter I, a case was made to educate the student toward an increased capacity for visual aesthetic experience. This case was based on the premise that on completion of formal general education,
the student's role would be as a consumer rather than a producer of aesthetic experiences. Hence, the model of the student as a connoisseur-gourmet-collector of visual aesthetic experience appears more appropriate than, for example, that of artist, critic, and historian, or, for that matter, of connoisseur in the more restricted rather than professional sense of the word.

Central to the task of educating the student to function as a connoisseur-gourmet-collector is the need to provide him with some means for dealing with and evaluating aesthetic experiences. Toward this end, the aesthetic dimension and a phenomenological theory of aesthetics was discussed in Chapter II. The cognitive dimension, with its concern for concepts and facts, was presented in Chapter III to support the aesthetic dimension because it provides the knowledge needed to inform aesthetic experience. The third dimension, the expressive, was developed in Chapter IV as an auxiliary mode of engaging in aesthetic experience—supplementary rather than necessary to the aesthetic dimension.

Certain categories were identified in each of the three dimensions for pedagogical purposes. These pedagogical categories, and the relationships among them and the three dimensions, are summarized in Figure 14.

As was noted in Chapter I (pp. 25-34), a curriculum is a plan or scheme by which student activities are directed toward some specified educational outcome within a particular educational situation. A curriculum may be described as being made up of three different kinds of units: curriculum units, units of instruction, and content
Fig. 14 The three dimensions and their subdivisions
units. Each of these three different units form a subdivision of the next larger unit. Thus a unit of instruction is composed of a series of related content units, a curriculum unit is composed of a series of related units of instruction, and a curriculum is composed of a series of related curriculum units.

A curriculum model, in contrast to a curriculum, is intended to serve as a guide for the development of more particularized curriculum plans. As such, a curriculum model does not need the degree of specificity one would expect of a curriculum for a particular situation. This lack of specificity is an advantage. It allows the model to be applied with equal effectiveness to urban, suburban, or rural schools, and to differing socio-economic situations.

A curriculum model may be described in several ways. First, the model may be described in the form of statements of concepts to be learned, e.g., "certain color combinations produce the sensation of motion," or, "the functions of works of art change as their context changes." A curriculum described in the form of concepts to be learned has the advantage of identifying the body of knowledge that constitutes the substance of the discipline. In the visual arts this body of knowledge is extensive. To make selections from among the many available concepts and to structure these concepts into a curriculum requires guidance from outside the discipline since the visual arts, per se, are not concerned with art education. Thus a possible disadvantage of the concept-oriented curriculum lies in the necessity of developing a superstructure—a set of criteria or
objectives derived from outside the discipline of the visual arts—to control the selection and organization of the concepts.

Second, a curriculum model can be described in the form of student activities, e.g., "oil painting," "ceramic sculpture," or, "historical study." A curriculum described in the form of activities has the advantage of providing a catalogue of possible student activities particular to the visual arts. This mode of specifying curriculum however, as with concept-oriented curriculum, possesses the potential disadvantage of lacking an inherent selection process. Guides, criteria, or objectives to aid in this selection must be imported from outside the realm of art activities.

Finally, a curriculum model can be described in the form of statements of objectives, e.g., "the student should be able to employ phenomenological aesthetics in the analysis of works of art," or, "the student should be able to identify works of art according to their stylistic characteristics." A curriculum model described as statements of objectives provides the guidance and criteria necessary for making informed selections of concepts and activities for curriculum development. Once determination is made of the kinds of behaviors that are to be nurtured by a particular concept of art education, subsequent choices from available concepts and activities that may lead to the attainment of such behaviors then can be made. The use of objectives to describe a curriculum model also may have its disadvantages. There is the danger that objectives so stated will be seen as ends in themselves—straight-jackets for student conformity—
than general guides to the kinds of experience education in art should seek to provide. Despite this potential danger, a curriculum described in the form of statements of objectives to guide the selection of content is warranted. Such a curriculum model offers the greatest flexibility in curriculum planning. Statements of objectives allow concepts and activities (the content and practices necessary for attaining objectives) to be specified in terms of the particular student or educational situation.

In Chapters II, III, and IV, units of instruction were developed in the form of series of related content units and each content unit was necessary to achieve the educational objective of the unit of instruction. Indeed, each unit of instruction was prefaced by an educational objective. At this point it is important to note that most, if not all, educational objectives may be achieved through a variety of activities. The educational objective "The student should have the ability to weave on a two-harness loom" can be accomplished either through a highly structured and programmed series of content units, or some programmed content units and some student experimentation, or non-structured experimental student activities. In this sense an educational objective allows a great degree of flexibility in curriculum planning.

At the risk of redundancy, it should be noted that curriculum objectives may be specified with no reference to art forms, processes, bodies of knowledge, activities, modes of engagement, etc. Choices
from among these are open to the curriculum designer as he deals with the particular student and/or educational situation.

In order to reflect the primary goals of this study and to develop a comprehensive and coherent curriculum model in art education, some means for systematic identification of objectives for the curriculum model must be provided. The curriculum models which follow are constructed from relationships established among the pedagogical categories developed for each of the three dimensions and the educational objectives which have been proposed.

Referring once more to Figure 14 (p. 136), in the schematic diagram presenting the three dimensions, the aesthetic dimension can be seen to occupy the central position with the cognitive and expressive dimensions occupying subordinate yet supportive positions. The lines relating the elements of the diagram suggest various ways in which the three dimensions may be combined to develop educational objectives and to design curriculum. A systematic development of the relationships revealed in the diagram provide the basis for objectives related to each of the three dimensions and objectives related to combinations of the three dimensions. At the simplest level, there are objectives for the aesthetic dimension, in the cognitive dimension, the expressive dimension, and combinations of these: the aesthetic and cognitive; the aesthetic and expressive; the cognitive and expressive; and the aesthetic, cognitive and expressive.

For example, one could select "represented objects," a subdivision of "depth" in the aesthetic dimension and "elements of perception,"
subdivision of "structure" in the cognitive dimension, and develop educational objectives in which the relationships between these two categories are explored. Some examples of the kinds of objectives that could be developed in this fashion are:

The student should have the ability to identify and describe relationships between represented objects and elements of perception in works of art.

or

The student should have the ability to identify and describe relationships between ideas and elements of perception in works of art.

or

The student should have the ability to identify and describe relationships between images and elements of perception in works of art.

One could, of course, "discuss" relationships, "define" relationships, or "express" relationships. In fact, the choice of what it is that the student should be able to do, i.e., identify, describe, discuss, etc., may be open to debate. What is not open to debate, however, is that the student needs in some way to communicate his understanding of the relationships that exist between, in this instance, represented objects and elements of perception. Therefore, regardless of the form taken by each of the curriculum objectives, the desired outcome is that the student should understand or come to know something about the relationships described and be able to communicate his understanding to others.

Curriculum objectives may function in several different capac-
ities: as guides for the development of the general structure and direction of the total curriculum plan; as guides for the selection and organization of curriculum units, each of which could serve as the first major subdivision of a curriculum plan. The curriculum objectives should also function as guides for the selection and organization of units of instruction, a subdivision of curriculum units.

Figure 15 serves to summarize these various relationships. The diagram shows how the general theoretical position of this book and the three dimensions of experience may lead to the establishment of general curriculum objectives and curriculum objectives for curriculum units and units of instruction. The diagram also demonstrates how curriculum units, units of instruction, and content units are related to one another and to the curriculum as a whole.

A Curriculum Model

The curriculum model which follows represents extensions and permutations of the diagram given in Figure 14 (p. 136). It is presented in the form of a series of educational objectives that are developed at several levels of specificity and which form a hierarchy. This hierarchy indicates that each objective has been derived from the next higher order objective. The first and second order objectives are quite general in nature. In terms of the theoretical position of this book, they provide a basis for developing the rationale for the curriculum model. Greater specificity in stating
Fig. 15 Relationships between curriculum objectives (top half) and the curriculum plan (bottom half).
objectives can be noted at the third and fourth level where the objectives are further categorized into four sections: aesthetic, cognitive, expressive, and combinations of the three dimensions.

Certain third and fourth order objectives are italicized. These are "key" objectives. Each key objective is a "summarizing" objective. It combines into one complex objective all the objectives between it and the preceding key objective. For example, the seventh objective under the Third Order Objectives—Aesthetic (p. 145) provides a summation of each of the preceding six objectives in that section. The key objectives will be presented later to form an abbreviated curriculum model.

First Order Objectives:

1. The student should be a connoisseur-gourmet-collector of visual aesthetic experience.

2. The student should have an increased capacity for visual aesthetic experience.

Second Order Objectives:

1. The student should have the ability to describe and judge the aesthetic qualities of works of art.

2. The student should have the ability to bring relevant concepts and facts to bear upon aesthetic experiences and expressive acts.

3. The student should have the ability to express aesthetic meanings.
Third Order Objectives--Aesthetic:

1. The student should have the ability to identify and describe the significant surface counters of works of art.

2. The student should have the ability to identify and describe relationships between surface counters of works of art.

3. The student should have the ability to identify and describe significant depth counters, when present, of works of art.

4. The student should have the ability to identify and describe relationships between depth counters of works of art.

5. The student should have the ability to identify and describe significant functional counters, when present, of works of art.

6. The student should have the ability to identify and describe relationships between functional counters of works of art.

7. The student should have the ability to identify and describe relationships between surface and depth (or functional) counters of works of art.

Third Order Objectives--Cognitive:

1. The student should have the ability to define and discuss concepts and facts about medium as they pertain to the aesthetic qualities of works of art.

2. The student should have the ability to define and discuss concepts and facts about structure as they pertain to the aesthetic qualities of works of art.

3. The student should have the ability to define and discuss concepts and facts about context as they pertain to the
aesthetic qualities of works of art.

4. The student should have the ability to define and discuss relationships between medium and structure as they pertain to the aesthetic qualities of works of art.

5. The student should have the ability to define and discuss relationships between medium and context as they pertain to the aesthetic qualities of works of art.

6. The student should have the ability to define and discuss relationships between structure and context as they pertain to the aesthetic qualities of works of art.

7. The student should have the ability to define and discuss relationships between medium, structure, and context as they pertain to the aesthetic qualities of works of art.

Third Order Objectives—Expressive:

1. The student should have the ability to identify artistic problems for expressive purposes.

2. The student should have the ability to select potential aesthetic qualities for use in resolving artistic problems.

3. The student should have the ability to organize selected aesthetic qualities in the resolution of artistic problems.

Third Order Objectives—Combinations:

1. The student should have the ability to identify, describe, and discuss relationships between surface and medium of works of art.

2. The student should have the ability to identify, describe, and discuss relation-
ships between surface and structure in works of art.

3. The student should have the ability to identify, describe, and discuss relationships between surface and context of works of art.

4. The student should have the ability to identify, describe, and discuss relationships between depth and medium of works of art.

5. The student should have the ability to identify, describe, and discuss relationships between depth and structure of works of art.

6. The student should have the ability to identify, describe, and discuss relationships between depth and context of works of art.

7. The student should have the ability to identify, describe, and discuss relationships between function and medium of works of art.

8. The student should have the ability to identify, describe, and discuss relationships between function and structure of works of art.

9. The student should have the ability to identify, describe, and discuss relationships between function and context of works of art.

10. The student should have the ability to identify, describe, and discuss relationships between surface, depth, and function, and medium, structure, and context of works of art.

Fourth Order Objectives—Aesthetic:

1. The student should have the ability to identify and describe the sensuous ele-
1. The student should have the ability to identify and describe relationships between sensuous elements of works of art.

2. The student should have the ability to identify and describe relationships between sensuous elements of works of art.

3. The student should have the ability to identify and describe affective tones of works of art.

4. The student should have the ability to identify and describe relationships between affective tones of works of art.

5. The student should have the ability to identify and describe relationships between sensuous elements and affective tones of works of art.

6. The student should have the ability to identify and describe represented objects, when present, of works of art.

7. The student should have the ability to identify and describe relationships between represented objects of works of art.

8. The student should have the ability to identify and describe ideas suggested by represented objects of works of art.

9. The student should have the ability to identify and describe relationships between ideas suggested by represented objects of works of art.

10. The student should have the ability to identify and describe images associated with represented objects of works of art.

11. The student should have the ability to identify and describe relationships between images associated with works of art.

12. The student should have the ability to identify and describe functional elements of works of art.
13. The student should have the ability to identify and describe relationships between functional elements of works of art.

14. The student should have the ability to identify and describe social usages of works of art.

15. The student should have the ability to identify and describe relationships between social usages of works of art.

16. The student should have the ability to identify and describe relationships between sensuous elements and represented objects, ideas, and images of works of art.

17. The student should have the ability to identify and describe relationships between affective tones and represented objects, ideas, and images of works of art.

18. The student should have the ability to identify and describe relationships between sensuous elements and affective tones, and represented objects, ideas, and images of works of art.

19. The student should have the ability to identify and describe relationships between sensuous elements and functional elements of works of art.

20. The student should have the ability to identify and describe relationships between sensuous elements and social usages of works of art.

21. The student should have the ability to identify and describe relationships between affective tones and functional elements of works of art.

22. The student should have the ability to identify and describe relationships between affective tones and social usages of works of art.

23. The student should have the ability to
identify and describe relationships between sensuous elements and affective tones and functional elements and social usages of works of art.

**Fourth Order Objectives—Cognitive:**

1. The student should have the ability to identify, describe, and discuss concepts and facts about materials used in works of art.

2. The student should have the ability to identify, describe, and discuss concepts and facts about forming processes used in works of art.

3. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and forming processes used in works of art.

4. The student should have the ability to identify, describe, and discuss concepts and facts about elements of perception used in works of art.

5. The student should have the ability to identify, describe, and discuss concepts and facts about arrangement of elements of perception in works of art.

6. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between elements of perception and their arrangement in works of art.

7. The student should have the ability to identify, describe, and discuss concepts and facts about relationships of works of art to the world.

8. The student should have the ability to identify, describe, and discuss concepts and facts about relationships of the world to works of art.
9. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between works of art and the world and those of the world to works of art.

10. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between material and element of perception in works of art.

11. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and arrangement of elements of perception in works of art.

12. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and those of works of art to the world.

13. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and those of the world to the work of art.

14. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between forming process and elements of perception in works of art.

15. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between forming processes and arrangement of elements of perception in works of art.

16. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between forming processes and those of works of art to the world.

17. The student should have the ability to
identify, describe, and discuss concepts and facts about relationships between forming processes and those of the world to works of art.

18. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between elements of perception and those of works of art to the world.

19. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between elements of perception and those of the world to works of art.

20. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between arrangement of elements of perception and those of works of art to the world.

21. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between arrangement of elements of perception and those of the world to works of art.

22. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and forming processes and elements of art and their arrangement in works of art.

23. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and forming processes and those of works of art to the world and the world to works of art.

24. The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and forming processes, elements
of perception and their arrangement, and those of works of art to the world and the world to works of art.

Fourth Order Objectives--Expressive:

1. The student should have the ability to make aesthetic judgments in the identification of artistic problems.

2. The student should have the ability to use relevant knowledge in the identification of artistic problems.

3. The student should have the ability to combine aesthetic judgment and relevant knowledge in the identification of artistic problems.

4. The student should have the ability to make aesthetic judgments in selecting aesthetic qualities for use in resolving artistic problems.

5. The student should have the ability to use relevant knowledge in selecting aesthetic qualities for use in resolving artistic problems.

6. The student should have the ability to combine aesthetic judgment with relevant knowledge in selecting aesthetic qualities for use in resolving artistic problems.

7. The student should have the ability to make aesthetic judgments in organizing aesthetic qualities in the resolution of artistic problems.

8. The student should have the ability to use relevant knowledge in organizing aesthetic qualities in the resolution of artistic problems.

9. The student should have the ability to use technical skills in organizing aesthetic qualities in the resolution of artistic problems.
10. The student should have the ability to combine aesthetic judgment, relevant knowledge, and technical skills in organizing aesthetic qualities in the resolution of artistic problems.

Fourth Order Objectives--Combination:

1. The student should have the ability to identify and describe relationships between sensuous elements and materials of works of art.

2. The student should have the ability to identify and describe relationships between sensuous elements and forming processes used in works of art.

3. The student should have the ability to identify and describe relationships between affective tones and materials of works of art.

4. The student should have the ability to identify and describe relationships between affective tones and forming processes used in works of art.

5. The student should have the ability to identify and describe relationships between sensuous elements and affective tones and materials and forming processes used in works of art.

6. The student should have the ability to identify and describe relationships between sensuous elements and elements of perception in works of art.

7. The student should have the ability to identify and describe relationships between sensuous elements and arrangement of elements of perception in works of art.

8. The student should have the ability to identify and describe relationships between affective tones and elements of perception in works of art.
9. The student should have the ability to identify and describe relationships between affective tones and arrangement of elements of perception in works of art.

10. The student should have the ability to identify and describe relationships between sensuous elements and affective tones and elements of perception and their arrangement in works of art.

11. The student should have the ability to identify and describe relationships between sensuous elements and those of works of art to the world.

12. The student should have the ability to identify and describe relationships between sensuous elements and those of the world to works of art.

13. The student should have the ability to identify and describe relationships between affective tones and those of works of art to the world.

14. The student should have the ability to identify and describe relationships between affective tones and those of the world to works of art.

15. The student should have the ability to identify and describe relationships between sensuous elements and affective tones and those of works of art to the world and the world to works of art.

16. The student should have the ability to identify and describe relationships between represented objects and materials of works of art.

17. The student should have the ability to identify and describe relationships between represented objects and forming processes of works of art.

18. The student should have the ability to
identify and describe relationships between ideas and materials of works of art.

19. The student should have the ability to identify and describe relationships between ideas and forming processes of works of art.

20. The student should have the ability to identify and describe relationships between represented objects and ideas and materials and forming processes of works of art.

21. The student should have the ability to identify and describe relationships between represented objects and elements of perception in works of art.

22. The student should have the ability to identify and describe relationships between represented objects and arrangement of elements of perception in works of art.

23. The student should have the ability to identify and describe relationships between ideas and elements of perception in works of art.

24. The student should have the ability to identify and describe relationships between ideas and arrangement of elements of perception in works of art.

25. The student should have the ability to identify and describe relationships between represented objects and ideas and elements of perception and their arrangement in works of art.

26. The student should have the ability to identify and describe relationships between represented objects and those of works of art to the world.

27. The student should have the ability to identify and describe relationships between represented objects and those of
the world to works of art.

28. The student should have the ability to identify and describe relationships between ideas and those of works of art to the world.

29. The student should have the ability to identify and describe relationships between ideas and those of the world to works of art.

30. The student should have the ability to identify and describe relationships between represented objects and ideas and those of works of art to the world and the world to works of art.

31. The student should have the ability to identify and describe relationships between functional elements and materials of works of art.

32. The student should have the ability to identify and describe relationships between functional elements and forming processes of works of art.

33. The student should have the ability to identify and describe relationships between social usages and materials of works of art.

34. The student should have the ability to identify and describe relationships between social usages and forming processes of works of art.

35. The student should have the ability to identify and describe relationships between functional elements and social usages and materials and forming processes of works of art.

36. The student should have the ability to identify and describe relationships between functional elements and elements of perception in works of art.
37. The student should have the ability to identify and describe relationships between functional elements and arrangement of elements of perception in works of art.

38. The student should have the ability to identify and describe relationships between social usages and elements of perception in works of art.

39. The student should have the ability to identify and describe relationships between social usages and arrangement of elements of perception in works of art.

40. The student should have the ability to identify and describe relationships between functional elements and social usages and elements of perception and their arrangement in works of art.

41. The student should have the ability to identify and describe relationships between functional elements and those of works of art to the world.

42. The student should have the ability to identify and describe relationships between functional elements and those of the world to works of art.

43. The student should have the ability to identify and describe relationships between social usages and those of works of art to the world.

44. The student should have the ability to identify and describe relationships between social usages and those of the world to works of art.

45. The student should have the ability to identify and describe relationships between functional elements and social usages and those of works of art to the world and the world to works of art.

46. The student should have the ability to identify and demonstrate relationships
between technical skills and sensuous elements of works of art.

47. The student should have the ability to identify and demonstrate relationships between technical skills and affective tones of works of art.

48. The student should have the ability to identify and demonstrate relationships between technical skills and sensuous elements and affective tones of works of art.

49. The student should have the ability to identify and demonstrate relationships between technical skills and represented objects of works of art.

50. The student should have the ability to identify and demonstrate relationships between technical skills and ideas of works of art.

51. The student should have the ability to identify and demonstrate relationships between technical skills and represented objects and ideas of works of art.

52. The student should have the ability to identify and demonstrate relationships between technical skills and functional elements of works of art.

53. The student should have the ability to identify and demonstrate relationships between technical skills and social usages of works of art.

54. The student should have the ability to identify and demonstrate relationships between technical skills and functional elements and social usages of works of art.

55. The student should have the ability to identify and demonstrate relationships between technical skills and materials used in works of art.
56. The student should have the ability to identify and demonstrate relationships between technical skills and forming processes used in works of art.

57. The student should have the ability to identify and demonstrate relationships between technical skills and materials and forming processes used in works of art.

58. The student should have the ability to identify and demonstrate relationships between technical skills and elements of perception and their arrangement in works of art.

59. The student should have the ability to identify and demonstrate relationships between technical skills and those of works of art to the world.

60. The student should have the ability to identify and demonstrate relationships between technical skills and those of the world to works of art.

61. The student should have the ability to identify and demonstrate relationships between technical skills and those of works of art to the world and the world to works of art.

The foregoing objectives constitute a general format for a curriculum model in art education. It should be noted that among the fourth order objectives certain combinations in the expressive dimension were not made. In fact, only those combinations that could be linked to "technical skills" were stated. To have identified the objectives possible at this level for "aesthetic judgment" and "relevant knowledge" would have been to repeat objectives already developed in the aesthetic and cognitive dimensions. Also, within the technical skill category,
certain combinations were not made because they would not have been productive, as, for example:

The student should have the ability to identify and demonstrate relationships between technical skills and elements of perception in art.

Such an objective is incapable of being achieved because the "relationship" would not be between technical skills and elements of perception but, rather, between technical skills and the "arrangement of elements of perception."

An Abbreviated Curriculum Model

Certain statements in the third and fourth order objectives in the preceding curriculum model were italicized. As was noted at the time, these are key objectives within the particular groups. Such key objectives can be used to represent an abbreviated form of the curriculum model. The advantage of an abbreviated curriculum model is primarily one of efficiency. By stating only key objectives, the objectives subsumed under each key objective become implied. Therefore, curriculum plans can be formulated which employ only key objectives, while curriculum activities in the form of content units can be organized to attend to all the objectives subsumed under each key objective.

Since the first and second order objectives in the preceding curriculum model are objectives which in effect summarize the
third and fourth order objectives in a very general way, they are repeated verbatim in the abbreviated curriculum model.

**First Order Objectives:**

1. The student should be a connoisseur-gourmet-collector of visual aesthetic experience.

2. The student should have an increased capacity for visual aesthetic experience.

**Second Order Objectives:**

1. The student should have the ability to describe and judge the aesthetic qualities of works of art.

2. The student should have the ability to bring relevant concepts and facts to bear upon aesthetic experience and expressive acts.

3. The student should have the ability to express aesthetic meanings.

**Third Order Objectives:**

1. (formerly objective #7, p. 145) The student should have the ability to identify and describe relationships between surface and depth (or functional) counters of works of art.

2. (formerly objective #7, p. 146) The student should have the ability to define and discuss relationships between medium, structure, and context as they pertain to aesthetic qualities of works of art.

3. (formerly objective #3, p. 146) The student should have the ability to organize selected aesthetic qualities in the resolution of artistic problems.
4. (formerly objective #10, p. 147) The student should have the ability to identify, describe, and discuss relationships between surface, depth, and function, and medium, structure, and context of works of art.

Fourth Order Objectives:

1. (formerly objective #18, p. 149) The student should have the ability to identify and describe relationships between sensuous elements and affective tones, and represented objects, ideas, and images of works of art.

2. (formerly objective #23, p. 149) The student should have the ability to identify and describe relationships between sensuous elements and affective tones and functional elements and social usages of works of art.

3. (formerly objective #24, p. 152) The student should have the ability to identify, describe, and discuss concepts and facts about relationships between materials and forming processes, elements of perception and their arrangement, and those of works of art to the world and the world to works of art.

4. (formerly objective #10, p. 154) The student should have the ability to combine aesthetic judgment, relevant knowledge, and technical skills in organizing aesthetic qualities used in resolving artistic problems.

5. (formerly objective #5, p. 154) The student should have the ability to identify and describe relationships between sensuous elements and affective tones and materials and forming processes of works of art.

6. (formerly objective #10, p. 155) The student should have the ability to identify and describe relationships between sensuous
elements and affective tones and elements of perception and their arrangement in works of art.

7. (formerly objective #15, p. 155) The student should have the ability to identify and describe relationships between sensuous elements and affective tones and those of works of art to the world and the world to works of art.

8. (formerly objective #20, p. 156) The student should have the ability to identify and describe relationships between represented objects and ideas and materials and forming processes of works of art.

9. (formerly objective #25, p. 156) The student should have the ability to identify and describe relationships between represented objects and ideas and elements of perception and their arrangement in works of art.

10. (formerly objective #30, p. 157) The student should have the ability to identify and describe relationships between represented objects and ideas and those of works of art to the world and the world to works of art.

11. (formerly objective #35, p. 157) The student should have the ability to identify and describe relationships between functional elements and social usages and materials and forming processes used in works of art.

12. (formerly objective #40, p. 158) The student should have the ability to identify and describe relationships between functional elements and social usages and elements of perception and their arrangement in works of art.

13. (formerly objective #45, p. 158) The student should have the ability to identify and describe relationships between functional elements and social usages and those of works of art to the world and the world to works of art.
14. (formerly objective #48, p. 159) The student should have the ability to identify and demonstrate relationships between technical skills and sensuous elements and affective tones in works of art.

15. (formerly objective #51, p. 159) The student should have the ability to identify and demonstrate relationships between technical skills and represented objects and ideas in works of art.

16. (formerly objective #54, p. 159) The student should have the ability to identify and demonstrate relationships between technical skills and functional elements and social usages of works of art.

17. (formerly objective #57, p. 160) The student should have the ability to identify and demonstrate relationships between technical skills and materials and forming processes used in works of art.

18. (formerly objective #58, p. 160) The student should have the ability to identify and demonstrate relationships between technical skills and elements of perception and their arrangement in works of art.

19. (formerly objective #61, p. 160) The student should have the ability to identify and demonstrate relationships between technical skills and those of works of art to the world and the world to works of art.

Each curriculum model—the extended and the abbreviated—can in fact be transformed into an additional model thereby producing a total of four models. Both the extended and abbreviated models, as presented, attend to all three dimensions of experience. By eliminating from the above two models those objectives containing the terms identification, selection, organization, aesthetic judgment, relevant
knowledge, and technical skills as well as the term expression, one achieves two additional models which become appropriate for non-studio situations. Such a modification now provides four different curriculum models: an extended curriculum model, an extended curriculum model minus the expressive dimension, an abbreviated curriculum model, and an abbreviated curriculum model minus the expressive dimension. Having developed these curriculum models in the form of statements of educational objectives, it is now necessary to demonstrate how one of the models may be translated into a working curriculum.

Developing a Working Curriculum

With the intended audience of this book in mind, some systematic means is needed to convert the selected curriculum model from among the four proposed into a "working curriculum"—a curriculum designed for a particular educational situation. While there are probably many ways of achieving this conversion, ranging from random, hit or miss approaches to highly structured ones, the method prescribed here provides some of the guidance that a beginning curriculum designer would need without pre-empting his opportunity for creative curriculum innovation.

An examination of any one of the proposed curriculum models, reveals the fact that for any given educational objective a large number of possible activities or content units could be developed. The strategy to be employed in developing the working curriculum
consists of continuously narrowing the number of options available to the curriculum designer to reduce the task to manageable proportions.

Narrowing the number of options pertaining to choices among activities and content units may be guided by utilizing certain criteria. Three criteria are presented here, to deal with the matter of educational emphases, the concern for simple to complex sequences of content units and units of instruction, and the concern for depth and breadth of instruction. The first criterion is:

Objectives, concepts, art forms, and content units and their organization should be selected to reflect an education in art with an emphasis on the aesthetic dimension of experience.

This criterion serves to reinforce the general position taken by this book—the development of a student with an increased capacity for visual aesthetic experience. The development of this capacity may occur in two different kinds of educational situations: (1) studio activities where the expressive dimension serves as the ground for aesthetic encounters, and (2) critical activities where the aesthetic dimension serves as the ground for aesthetic encounters. These two kinds of activities are polar in a sense, since studio activities are concerned with the production of works of art or aesthetic objects, whereas critical activities are concerned with the consumption, appreciation, or experience of completed works of art or aesthetic objects.

These two kinds of activities provide for four different
kinds of educational emphases in curriculum design. Here are examples of the four kinds of educational emphases. The first would be a curriculum in which studio activities were emphasized in the elementary grades with a minimum amount of time spent on critical activities, while at the secondary level the emphasis shifts to critical activities with a minimum of studio work. The logic in such curriculum emphasis is based on studies and conceptions of the cognitive, perceptual, and motor development of the younger child where he is seen to operate most effectively in manipulative activities. In contrast, the secondary school student appears to operate more effectively in cognitively oriented activities.

The second example of curriculum emphasis would be based upon a reversal of the emphasis in the first one. In the elementary grades primary attention would be given to critical activities while at the secondary school level studio activities would be emphasized. The logic of the emphases in this curriculum is that a student needs to know how to encounter and effectively evaluate aesthetic objects and works of art before he can be expected to produce significant works of art. Though such a pattern of emphasis would exhibit a radical shift from present day art education practices it is suggestive of an approach that may warrant serious consideration and experimentation.

The third example places equal emphasis on studio and critical activities at all levels of education. In this instance studio activities cannot be carried out without also attending to the
critical aspects of art production; studio activity is made into an avenue as potent as critical activity in developing the capacity for visual aesthetic experience.

The fourth example of emphasis in curriculum design would be to restrict all educational experiences in art to critical activities. Studio activities would not be taken as essential to the development of visual aesthetic capacities.

While it is clear that a curriculum can be designed according to any one of the four examples as well as others that can be conceived, only by keeping the primary objective clearly in mind— the student as connoisseur-gourmet-collector, can the curriculum designer make the necessary choices in relation to the educational emphasis in any curriculum plan.

The second criterion for selecting options in curriculum design is:

Objectives, concepts, art forms, and content units and their organization should be selected to reflect an orderly sequence of student activities from simple to complex.

This criterion is demonstrated easily. Color theory affords an excellent example. A student can learn to identify specific hues— red, yellow, and blue; he can learn that these are the primary hues (a concept). The student may also learn to identify other hues— orange, green, and violet; he can learn that these are secondary hues produced by mixing any two primary hues (another concept); he may
also learn about tertiary, analogous, and complementary hues (also concepts). The second concept is more complex than the first since it requires the recognition of relationships, and the other concepts are still more complex than the first or second.

An example of this notion of simple to complex can also be demonstrated in the area of painting. A five year old child's first painting might be quite simple and easily described; it contains a rather limited number of significant counters and a limited set of relationships among and between the counters. More complex would be de Kooning's painting of Woman I described in Chapter II; still more complex would be a work such as Picasso's Guernica; extremely complex would be a work such as Bosch's Garden of Delights and Michelangelo's ceiling fresco in the Sistine Chapel.

The third criterion for the guidance of selections among options in curriculum design is:

Objectives, concepts, art forms, and content units and their organization should be selected to reflect both the depth and breadth aspects of instruction in art.

Breadth and depth of instruction may be characterized in several ways. First, a category such as "surface" in the aesthetic dimension may be studied in its many manifestations: drawing, film, painting, etc. (breadth). Second, the same category could be studied within a single art form: painting (depth). Third, a specific art form, etching, may be studied in relation to each of the three
aesthetic categories: surface, depth, and function (breadth). Fourth, a single art form, etching, may be studied within any one category: surface (depth).

With these three criteria—emphasis, sequence, depth and breadth—in mind, the process of curriculum development requires the identification, selection, and organization of educational objectives, the concepts that inform these objectives, art forms that exemplify the concepts, and content units that are designed to achieve these objectives with the aid of the selected concepts and art forms. The process entails four prescribed steps. These steps and explanations of them follow.

Step 1. The selection and organization of objectives.

These objectives, chosen from the curriculum model, define the limits of the curriculum being developed. The number of objectives selected may vary considerably according to the particular educational situation for which the curriculum is being designed. Once such groups of objectives have been selected, they may be arranged into objectives for the curriculum, curriculum units, and units of instruction. The selection and organization of curriculum objectives are facilitated by applying the general theoretical position of this book—the student as connoisseur-gourmet-collector of visual aesthetic experience—and the three criteria—criteria related to emphasis, sequence, and depth and breadth of instruction—as controls on the selection and organization process. Step 1 is
the application of these controls; it is represented graphically in Figure 16.

Following the organization of curriculum objectives, it becomes necessary for the curriculum designer to select one objective for further development (the function of the next three steps). Upon developing this objective into a unit of instruction, the curriculum designer should repeat the process with the remaining objectives.

![Diagram of Curriculum Model]

Fig. 16 Step 1, The selection and organization of objectives.

The second step in developing a working curriculum follows.

Step 2. The identification and selection of concepts.

The objective selected in Step 1 now requires the identification
of relevant and appropriate concepts. The concepts should serve to illuminate and inform the objective. The sources of such concepts are varied, ranging from conventional wisdom of the field to specific references from selected texts. The identification of concepts is materially assisted by using the same four controls exercised in Step 1. To these four may be added a fifth—the control exerted by the selected objective. Step 2 is illustrated in Figure 17.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
<th>Selected Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>&quot;Emphasis&quot;</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>&quot;Sequence&quot;</td>
<td></td>
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<tr>
<td>#3</td>
<td>&quot;Depth and Breadth&quot;</td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>&quot;Theoretical Position&quot;</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>Selected Objective</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 17 Step 2, The identification and selection of concepts.

Once a specific concept has been identified from among the selected concepts, it is then possible to move to the third step.

Step 3. The identification and selection of art forms.
The selected objective and concept require the identification of an art form relevant to them and appropriate to the educational situation. Certain concepts may allow almost any art form to be selected whereas others, because of their content, may restrict the curriculum designer to a single art form. The concept that "the work of art expresses through its sensuous surface" is applicable to all works of art since the sensuous surface is a concrete reality of any physical object or event. The concept "the work of art expresses through its sensuous surface and represented depth" restricts curriculum activities to only those art forms that are representational. The identification and selection of art forms has six controls operating. These include the same five as in the preceding step with the addition of the selected concept resulting from Step 2. Thus, as the process of curriculum development proceeds, the number of options available become increasingly limited by choices previously made.

Step 4. The identification, selection, and organization of content units.

Content units serve as the core of student activities to enable the objective of the unit to be achieved. These content units would resemble those already written in the units of instruction developed in Chapters II, III, and IV. The content units selected in Step 4 usually will take the form of quite specific activities. In many
instances this form will be apparent to the curriculum designer when he is guided by the nature of the concepts and art forms selected. In those cases where the curriculum designer is unable to determine the appropriate content units from among several options, appeal must be made to the general theoretical position, the three criteria pertaining to emphasis, sequence, and depth and breadth of instruction, and to the curriculum designer's common sense and good judgment. The means for the solution to Step 4 are diagrammed in Figure 18.

In some instances the content units may be presented in random fashion, but in most cases some order will need to be imposed because of the character of the activity. For example, the instructional unit in silver soldering presented in Chapter IV required quite specific sequencing of content units in order to attain the objective. A less demanding and possible less rigid sequence of content units was exhibited by the units of instruction in Chapter II, *The Aesthetic Dimension*.

Having organized the content units, the specific unit of instruction for the selected objective is complete. The development of further units of instruction in completing the curriculum design, is accomplished by returning to Step 1, selecting a second objective, repeating the second, third, and fourth steps with this second objective, and continuing in this fashion until all of the objectives identified in Step 1 have been developed into units of instruction.

The application of the four steps just described to the actual
Fig. 18 Step 4, The identification, selection, and organization of content units.

development of a paradigm unit of instruction will be demonstrated in the next section of this chapter.

A Paradigm Unit of Instruction

In order to develop a paradigm unit of instruction it is necessary to make certain assumptions about the nature of a specific educational
situation and the students for whom the unit is intended. Therefore, this unit will be designed for high school students who have had previous educational experiences with art and who need some concentrated attention in the area of useful works of art, their functions, and structures.

Among the statements within each of the first three steps that follow, one item within each step (an objective, concept, and art form) will be italicized. This will be done to indicate that the particular item has been selected on the basis of criteria and controls already discussed (pp. 167-171) for guiding the development of content units in Step 4. The first step is to select and organize objectives from the curriculum model that deal with "function" and "structure."¹

Step 1. The selection and organization of objectives.

1. (formerly objective #2, p. 144) The student should have the ability to bring relevant concepts and facts to bear upon aesthetic experiences and expressive acts.

2. (formerly objective #5, p. 145) The student should have the ability to identify and describe significant functional counters of works of art.

3. (formerly objective #6, p. 145) The student should have the ability to

¹In order to be both clear and brief in the development of this paradigm unit of instruction, only representative examples are provided in each step.
identify and describe relationships between functional counters of works of art.

4. (formerly objective #7, p. 147) The student should have the ability to identify, describe, and discuss relationships between function and medium of works of art.

5. (formerly objective #8, p. 147) The student should have the ability to identify, describe, and discuss relationships between function and structure of works of art.

6. (formerly objective #9, p. 147) The student should have the ability to identify, describe, and discuss relationships between function and context of works of art.

7. (formerly objective #12, p. 148) The student should have the ability to identify and describe functional elements of works of art.

8. etc.

In the second step, various concepts which deal in one way or another with the key terms "function" and "structure" have been taken from the literature in the field of art. Each of the selected concepts have potential for development into an instructional unit that would serve to further the selected educational objective.

Step 2. The identification and selection of concepts.

1. FORM FOLLOWS FUNCTION. "FORM refers more to intrinsic character, essential nature than to shape or external appearance. FOLLOW means comes after, results from, or even better, is interdependent with rather than suggesting obedience or
acceptance of authority. FUNCTION means natural, appropriate, and complete action or purpose on all the levels important to man; not merely utilitarian but also esthetic function."

2. When "the machine fulfills everything required of it, a unique visual form is created which takes its place with other forms born of necessity. Its esthetic lies in the ingenious correlation of parts, its economy of means, and its usefulness to man [italics mine]."

3. "The liberation of architecture from a welter or ornament, the emphasis on its structural function, and the concentration on concise and economical solutions, represent the purely material side of that formalizing process on which practical value of the New Architecture depends."

4. "When examining these selected forms [natural organisms], one finds a tendency toward certain identical aspects, corresponding to constant function, functions which are of maximum efficiency, maximum strength, maximum capacity, etc., that is maximum economy."

From this group of concepts, the second, which deals with the functions of machines, has been selected for further development. The next step,

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the identification and selection of art forms, is therefore limited to machine forms. Further selection of the forms, listed below, is made on the assumption that students are familiar with them.

Step 3. The identification and selection of art forms.

Machines
- airplane
- automobile
- bicycle
- blender
- can opener
- drill
- egg beater
- food chopper
- lathe
- lawn mower
- locomotive
- record player
- rocket
- sewing machine
- submarine
- etc.

Finally, the selection of the art form, automobile, serves as the focus for the instructional unit. This selection is based upon the interest generally exhibited by high school students toward automobiles.

To facilitate the development of content units in the next step, it will be found useful (1) to restate the selected objective and concept to include the art form and (2) to identify the key terms contained in both.

Step 4. The identification and selection of content units.

Objective: The student should have the ability to identify, describe, and discuss relationships between the function and structure of an automobile.

Concept: When "the machine [automobile] fulfills everything required of it, a unique visual form is created which takes its place with other forms born of necessity. Its esthetic lies in the
ingenious correlation of parts, its economy of means, and its usefulness to man.\textsuperscript{6}

Key Terms:
- automobile
- correlation of parts
- function
- economy of means
- structure
- usefulness to man

By making logical combinations between the objective, the concept, and the key terms, it is possible to develop the following content units.

1. The student identifies the various functions of an automobile.

2. The student identifies the various structures (parts) of an automobile which serve these functions.

3. The student describes the relationships which exist between the various functions of an automobile.

4. The student describes the relationships between the various structures (correlation of parts) of an automobile which serve these functions.

5. The student discusses the aesthetic qualities of an automobile in relation to the correlation of its parts (structure), its economy of means, and its usefulness to man (function).

The content units, in this instance, are organized by the structure of the objective and concept. Were the content units to be concerned with manipulatory or expressive activities, the number of units would undoubtedly increase and their ordering would become more com-

\textsuperscript{6}Anderson, loc. cit.
plex. Once the curriculum has been developed to the level of student activity statements or content units, it is ready for evaluation and classroom implementation.

Curriculum Evaluation

There are two kinds of curriculum evaluation. The first is an evaluation of the curriculum plan or anticipated design; the second is an evaluation of the curriculum's effectiveness in achieving its stated objectives within the classroom. The evaluation of the curriculum plan can be carried out in relation to four additional types of criteria. Whereas the criteria of emphasis, sequence, and depth and breadth of instruction presented earlier served to guide the selection and organization of the curriculum design, the four additional types of criteria which follow serve as guides in the evaluation of the curriculum plan in relation to its implementation in the classroom. Three of these additional four types of criteria pertain to the evaluation of specific curriculum plans for their appropriateness to specific situations. The fourth type pertains to the evaluation of the curriculum's effectiveness in achieving its objectives. 7

1. **Criteria Relating to Ability** (Does the curriculum start where the student is?):

   a. Does the curriculum sequence move from less

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7I am indebted to David W. Ecker for these criteria derived from his work on the Aesthetic Education Curriculum Program, Central Midwestern Regional Educational Laboratory, Inc., 1968.
to more difficult activities/concepts?

b. Does the curriculum allow for different stages of development, e.g., perceptual, cognitive, motor, etc.?

c. Does the curriculum allow for different attitudes of the student, e.g., aural, visual, kinesthetic, cognitive, etc.?

2. **Criteria Relating to Motivation** (Does the curriculum consider the student's feelings?):

a. Are activities included which cause the student to reflect upon his values and beliefs about art?

b. Are activities designed to reveal the student's attitudes about art?

c. Are activities included which motivate the student to work toward specific objectives?

3. **Criteria Relating to Administration** (Is it possible to implement the curriculum?):

a. Do the activities/concepts contribute toward the goals of general education?

b. Are the objectives compatible with the policy and general educational objectives of the school?

c. Are the necessary physical facilities available to accomplish the objectives?

d. Is the teacher competent to carry out the proposed curriculum?

e. Is the teacher provided with the necessary instructional materials to carry out the proposed curriculum?

The fourth type of criteria needs to be applied either by the teacher or someone else to events in the classroom.
riculum plan is implemented within a particular educational situation it becomes possible to compare the educational objectives in the plan to the educational outcomes in terms of activities in the classroom. The degree to which the two coincide is a measure of the effectiveness of the curriculum design (and, it should be noted, the effectiveness of instruction). Discrepancies between educational objectives and educational outcomes should be subjected to examination in order to determine the kinds of curriculum modification necessary to close the gap between the two. The following criteria of this fourth type will be useful in this task.

**Criteria for Evaluating the Effectiveness of Curriculum Plans:**

4. *Criteria Relating to Objectives* (What will the student achieve?):

   a. How is the student's depth of understanding of "X" concept to be estimated?

   b. What diagnostic procedures are employed to identify the atypical student?

   c. What remedial activities are provided for the atypical student?

   d. What remedial activities are provided for the student lacking requisite skills for "X" activity?

   e. What remedial activities are provided for the student who consistently displays a lack of motivation for art activities?

   f. How is the student's achievement of stated curriculum objectives determined?

   g. How is the student's degree of mastery of
Unless the two kinds of curriculum evaluation—evaluation of curriculum plans and evaluation of classroom activities—are carried out in systematic ways, it is not possible to diagnose the source or causes of any weaknesses discovered.

The ultimate judgment about the effectiveness of any curriculum is, of course, how it influences the student. In regard to the curriculum model presented, the ultimate judgment pertains to the student's increased capacity for visual aesthetic experience—a connoisseur-gourmet-collector of visual aesthetic experience.

Conclusion

While there is much discussion about "poverty pockets" and "inner-city ghettos," one seldom hears much concern voiced for the cultural ghettos that dominate the American scene. From inner-city to suburbs to country-side one is continually exposed to a visually impoverished environment. That such an environment exists is not because America lacks the necessary resources for change but, rather, that it lacks sufficient interest necessary to implement such change. Blind men cannot see ugliness in the world, neither can the aesthetically illiterate.

This study has been directed toward the development of a curriculum model for art education which could result in the education of aesthetically literate students—persons capable of viewing their
world as an aesthetic object. If they have been educated to being true connoisseur-gourmet-collectors of visual aesthetic experience, then there is reason to hope that some of the vestiges of America's cultural ghettos will diminish.


