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A STUDY FOR THE DEVELOPMENT OF INSTRUCTION IN
VISUAL ENVIRONMENTAL ESTHETICS

by
Myra Ann Gulick

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ABSTRACT

A STUDY FOR THE DEVELOPMENT OF INSTRUCTION IN VISUAL ENVIRONMENTAL ESTHETICS

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The purpose of this study is an exploration for the development of instruction in visual environmental esthetics by means of participation in certain visual environmental activities.

Sixty students, including sophomores, juniors, and seniors at The University of Michigan, participated in the study. An experimental group of twenty-four students participated in certain visual environmental activities. These students were non-art students preparing to teach all subjects in the elementary school. One control group of twenty-four students, likewise preparing to teach all subjects in the elementary school, did not participate in the visual environmental activities. Another control group of twelve students were art majors preparing to teach art at any level in the public schools. These students did not participate in the visual environmental activities.

The visual environmental activities were conducted during an eight-week period within the regular framework of the course, Art in the Elementary School. The usual design of this course does not include the visual environmental activities. The visual environmental activities were designed and presented by the participating students.

The evaluation instrument for this study utilized a judicative statement written by all the students. The instrument listed ten structures in the students' immediate environment and ten slides of various well known structures. The students wrote an esthetic judgment of all the structures and also listed factual information about the structures.

The esthetic section of the judicative statement was scored by assigning a one-point evaluation to each of the following components: description; analysis; translation; interpretation; evaluation; synthesis. The factual descriptive section of the judicative statement was scored one point for each correct answer.

The results of the study revealed that the experimental group scored higher on the judicative statements than any of the control groups including the group of art students. Further results indicated that there were no

differences in the ratings on the judicative statements between non-art students, who did not participate in the visual environmental activities and art students who were non-participants in the visual environmental activities. The study also showed that there were no significant differences between the control group which had completed the regular course, Art in the Elementary School, and the control group which was just beginning the course. The two experimental groups revealed no significant difference on the ratings of the judicative statements between the group using slides and films and the group taught by group and discussion methods.

The major conclusion is that instruction in visual environmental activities results in significant learning concerning visual environmental activities when compared to comparable students who have not had the learning experience.

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These individuals have provided encouragement, guidance and assistance to complete this research; however, acknowledgements for the inception of this study should also be made.

Therefore, to my parents, who taught me the joy of forming and evaluating ideas; to my teachers and colleagues at The University of Michigan, who have continued to nurture that joy, and to my students, who have allowed me to share with them this joy, I humbly say thank you.

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CHAPTER I

INTRODUCTION TO THE RESEARCH

The quality of man's environment is rapidly becoming a key issue in America. Years of neglect combined with decades of abuse have culminated in environmental problems of enormous proportion. The imbalance in the natural environment has concerned ecologists for many years. Decay in the man-made environment, particularly in the cities, has long been the exclusive problem of urban planners.¹

During the past three decades advanced technology has provided many Americans with abundant material goods while simultaneously adding to the existing problems of a deteriorating environment. Those leaders who have long been concerned are now beginning to persuade many other Americans to share their concern for the environment. The fact that most environmental problems are man-made indicates that--conversely, man-made solutions are possible. Increasing citizen awareness of the total environment demonstrates an initial step toward effecting improvement and perhaps eventual solutions.

¹Arthur B. Gallion and Simon Eisner, The Urban Pattern (Princeton, New Jersey: D. Van Nostrand & Co., 1963).

One of the more obvious, and for this reason, most readily overlooked problems is the quality of the visual environment. Balancing nature's forces to insure clean air and water and making the cities habitable will not necessarily guarantee beauty or provide safeguards against ugliness.

A walk or drive down any street or highway, through any village, town, or city in America, should convince even the least sensitive of this nation's neglect of the esthetics of the environment. However, the visual problems of the environment are as urgent as any because they are fundamentally related to all other environmental problems.¹

Significance of the Study

The significance of environmental problems in American society is evident by the attention they have received in the past five years from the federal government, educational institutions, industrial corporations, professional organizations and the news media.²

In 1965, Congress approved a program aimed at beautifying America with focus specifically on America's highways. Presently that program has failed to achieve its stated objectives. Regardless of this apparent failure the congressional

¹Laurence B. Holland, Who Designs America? (Garden City, N.Y.: Doubleday & Co., 1966).

²"The Ravaged Environment," Newsweek LXXV (1970), 30-47.

law symbolized the efforts of Mrs. Lyndon Johnson to improve the quality of America's environment. Other projects for improvement during the past five years have been erratic and usually developed by small interest groups at the local level of government. Of the states only Maine and Vermont have enacted strong measures to beautify their highways.

Interest in environmental problems is now emerging as a strong national issue. On January 1, 1970, President Richard Nixon signed into law a bill which established a three-member Council on Environmental Quality. The power to establish the Council resulted from the National Environmental Policy Act of 1969, passed by both Houses of Congress in the closing days of the 1969 session. The bill was written and sponsored by Democratic Congressmen.

Senator Gaylord Nelson, Wisconsin Democrat, and California Republican Representative Paul N. McCloskey started coordinating plans for a national environmental teach-in to be held April 22, 1970, at major universities throughout America. Student efforts thus far have been directed toward solving the problems of conservation and pollution within the environment.

Many weekly periodicals now include a section of news on environmental issues.¹

¹"Environment," Time XLV (1970), 55.

In March, 1969, the National Art Education Association and the Central Midwestern Regional Educational Laboratory, Incorporated (CEMREL) jointly sponsored a symposium in New York City. The invited participants, artists, philosophers, scholars and corporation executives, discussed and formulated ideas as they relate to esthetic issues of the visual environment.

A consortium, sponsored by the American Institute of Architects, was held in Washington, D.C. in December, 1969. Delegates attending this conference included engineers, planners, educators, conservationists, professional and landscape architects. Plans were made to implement a nationwide program of environmental education in the United States.

By reiteration, many environmental problems have been for years obvious to the professionally concerned, but most Americans have failed to see them. The failure to see may reflect a failure in public education--a failure to foster awareness of the esthetic quality of the visual environment.

The problem is difficult and will require a long time to solve and demand the attention of many minds; this study represents a modest beginning in the quest for educational means which might lead toward an improvement in the visual environment. Sufficient evidence may result from this study to eliminate some of the inadequacies in the educational process as

it relates to esthetics in the environment. Continued exploration in this area of study could provide the impetus for basic changes in the educational curriculum of the visual arts.

Definition of Visual Environmental Esthetics

The idea of visual environmental esthetics is central to this investigation. The meaning can be made clearer by examining the specific meanings of the terms visual, environment and esthetics as they relate to this study.

Webster defines visual as:

"The sense of sight; act of seeing;
that which is seen."¹

The definition "act of seeing" is the description of the physical act which most clearly illustrates the use of the term in this study.

Environment is defined in broad and generalized terms with the phrase "life space" providing a fairly accurate description that includes most environmental activities. Since this study is primarily concerned with the visual environment a more complete definition is required. Webster defines environment as:

"surroundings, especially conditions and influences under which one lives."²

The one in relationship to this study means man.

¹Webster's New American Dictionary (New York: Books, Inc., 1969), p. 1114.

²Webster, op. cit., p. 324.

The basic conditions and influences under which man lives for purposes of this investigation are defined as: (1) home life, (2) schools, (3) work, (4) re-creation (spirit), (5) commuting, (6) shopping, (7) experiences in nature, (8) leisure and recreation, (9) healing.

Esthetic theories have been debated by scholars for centuries; however, it is not within the scope of this study to discuss the myriad esthetic theories that are in existence. For this investigation, then, the experiential act of perceiving by expending energy, which allows the percipient to render a judgment, is the definition of esthetics most closely related to this study.

Despite the length, the following quotation from the writings of John Dewey must be used in its entirety to clarify a definition of esthetic in relationship to this study: ...

The esthetic or undergoing phase of experience is receptive. It involves surrender. But adequate yielding of the self is possible only through a controlled activity that may well be intense. In much of our intercourse with our surroundings we withdraw; sometimes from fears; if only of expending unduly our store of energy; sometimes from preoccupation with other matters, as in the case of recognition. Perception is an act of the going-out of energy in order to receive, not a withholding of energy. To steep ourselves in a subject matter we have first to plunge into it. When we are only passive to a scene it overwhelms us and, for lack of answering activity, we do not perceive that which bears us down. We must summon energy and pitch it at a responsive key in order to take in.

Everyone knows that it requires apprenticeship to see through a microscope or telescope, and to see a landscape as the geologist sees it. The idea that esthetic perception is an affair for odd moments is one reason for the backwardness of the arts among us. The eye and visual apparatus may be intact; the object may be physically there, the Cathedral of Notre Dame, or Rembrandt's portrait of Hendrik Stoeffel. In some bald sense the latter may be "seen." They may be looked at, possibly recognized, and have their correct names attached. But for lack of continuous interaction between the total organism and the objects; they are not perceived, certainly not esthetically.¹

Background of the Study

Three broad yet basic generalizations have given impetus to the formulation of this study.

1. Students at the elementary level (five years of age to twelve years of age) are generally very sensitive to the esthetic character of the visual environment. Continued growth in their awareness to visual environmental esthetics occurs through various experiences.
2. Most adults, including educators teaching in the elementary school, are generally less sensitive to the visual environment.
3. Awareness to the visual environment can be developed in college level students by using experiences similar to those used to nurture visual environmental esthetics with elementary age students.

¹John Dewey, Art As Experience (New York: Capricorn Books, 1958), p. 53-54.

Generalizations one and three were formulated by the researcher during a fifteen-year period including teaching and supervision in the public schools. Generalization two was based on ten years' experience as an art supervisor.

No attempt was made to collect data for measurement on these generalizations. During the fifteen-year period, however, the following basic activities were formulated and used with students (age range: five years to twelve years) and teachers to develop generalizations one and three.

1. Extensive use of photographic slides of the community, supplemented with printed factual information about the community.
2. Many field trips throughout the metropolitan area encompassing all environmental activities.
3. Extensive use of films depicting environments beyond the students' immediate environment.
4. Use of comprehensive library facilities.
5. Development of the total school visual environment by designing lobby and hall exhibitions.
6. Development of the classroom visual environment including the implementation of an art collection.¹

The judgments resulting from the development and use of these activities as related to the generalizations were

¹Myra Gulick and Charles Malone, "Art Appreciation in the Elementary School," Art Education Journal, XVIII (1964), 12-13.

so positively reinforced to the researcher that the present study has been undertaken in an effort to obtain objective evidence concerning the effects of these activities in relation to the generalization.

Purpose of the Study

The purpose of this study is to determine if use of selected activities with college students can increase their esthetic awareness of the visual environment. The activities used in this study involve students with the total environment utilizing the cognitive and affective domains of behavior.

Specifically this study will attempt to test five (5) hypotheses. The study is exploratory, therefore the hypotheses are stated in the form of null hypotheses.

1. There are no significant differences in rating of visual environmental esthetic judgments between students participating in the environmental activities and non-participant students with two (2) art credits.
2. There are no significant differences in ratings of visual environmental esthetic judgments between non-art students participating in the environmental activities and art students not participating in the environmental activities.

3. There are no significant differences in ratings of visual environmental esthetic judgments between students with two art credits who were non-participants in the environmental activities and art students not participating in the environmental activities.
4. There are no significant differences in ratings of visual environmental esthetic judgments between students with two art credits who were non-participants in the environmental activities and students without art credit who were non-participants in the environmental activities.
5. There are no significant differences in ratings of visual environmental esthetic judgments between students participating in the environmental activities supplemented by photographic slides and films and students participating in the environmental activities without the use of photographic slides and films.

Procedure

The participants in this investigation were selected sophomore, junior and senior students enrolled at The University of Michigan during the academic year 1969-70. Four groups of the students were preparing to become elementary school teachers with responsibilities for all subjects. One group of students was preparing to teach art at any level of instruction in the public schools.

The study was conducted in the method class, "Art in the Elementary School." This is a required course for elementary teacher certification and certification to teach art.

The measurement instrument used to evaluate the student's awareness to the visual environment was designed by the researcher. The instrument listed twenty structures in the environment.¹ Space was allocated following the structure name for the students to write a judicative statement which included descriptive information and an esthetic judgment of the structure. At the conclusion of the judicative statement the students were asked to list certain factual information about each structure.

Ten of the structures listed were part of the students' immediate environment. These were structures that the students either physically occupied or passed by on a regular

¹See Appendix A.

basis several times each week.

Ten of the structures were presented by slides. These structures were previewed for thirty minutes prior to writing the judicative statements.

Five groups of students participated in this study. Two groups were considered experimental groups and engaged in the basic experimental activities of the study. They wrote the judicative statements twice: initially before participating in the visual environmental activities, and again following the conclusion of the experiment. Two control groups wrote the judicative statement one time at the conclusion of the term in the art methods course. Another control group wrote the judicative statement one time at the beginning of the term in the course in art methods. The three control groups writing the judicative statement one time did not participate in the visual environmental activities.

The judicative statements, numbered for anonymity, were initially evaluated by this researcher. Scoring was based on a one point evaluation for these six activities: description; analysis; translation; interpretation; evaluation; synthesis. Two judges, selected for their competency in the research area, independently evaluated a sample of the judicative statements.

The data collected were analyzed statistically on the following variables:

differences between non-art students with two art credits and non-art students void of art credit

differences between non-art students and art students

differences between groups participating in the visual environment activities.

Limitations of the Study

The findings of this study are relevant only to comparable students matriculated at the University of Michigan.

The ratings of the judicative statements are primarily subjective and therefore must be interpreted with a certain degree of flexibility.

Organization of the Study

The organizational design of this study is as follows: Chapter I has described the significance and background of the study and the research procedures.

Chapter II reviews the significant literature related to the study.

Chapter III discusses the design and method used in the study. This includes descriptions of the population, the visual environmental activities, the measurement instrument and the procedure used for the evaluation of the measurement device.

Chapter IV discusses the analysis and interpretation of collected data.

Chapter V presents the summary, conclusions, and implications of the study.

CHAPTER II

SELECTED REVIEW OF THE LITERATURE

The concern for quality in man's environment is growing in importance daily and is receiving attention at many levels of activity, particularly in federal and state governments. The State of the Union address by President Nixon on January 22, 1970, stressed the importance of quality in the nation's environment.¹

Governor Milliken's first special message to the Michigan Legislature in 1970, followed the Nixon address by one day and emphasized the concern at the state level. In this message Governor Milliken stated several approaches to help solve environmental problems including study of the environment in the school curriculum.²

The basic problems and plans for solutions in the environment, mentioned in Chapter 1, have either totally neglected or paid minimal attention to the esthetics of the visual environment.

The Nixon address did not include this aspect of environmental problems. However, the proposals outlined by Governor Milliken to the Michigan legislators included stronger measures to curb "litter"; preservation of areas of natural

¹"Nixon Asks Major Fight Against Pollution and Crime," Ann Arbor News, January 22, 1970, p. 1.

²"Milliken Asks Legislature for Action To Halt Pollution," Ann Arbor News, January 23, 1970, p. 1.

beauty and legislation to restrict highway billboards.¹

Three reasons become apparent to this researcher for the nation's failure to attend to the problem of esthetics in the visual environment.

First, volumes have been written on ideas, which have been translated into theories about man's relationship to his visual environment. However, these studies, based largely on observation, have not been converted into scientific knowledge.²

The second reason that the current interest directed to environmental problems generally excludes attention to the visual is lack of awareness. Simply stated, as a nation America has never made learning in the visual arts an important part of public education.³ As a consequence citizens generally are not conscious of their visual environment.

The third reason for neglecting visual problems in the environment is closely related to the kind of art programs which have been developed in the public schools. Most programs adopted the philosophy that art is something to be

¹Ibid.

²William R. Ewald, Jr., gen. ed., Environment for Man, Man Adapting: His Limitations and Potentials by Rene Dubos; (Bloomington: Indiana University Press, 1967), p. 20.

³"Music and Art in the Public Schools: (Research Monograph 1963-M3. Washington: National Education Association, 1963) Reid Hastie and David Templeton, "Profile of Art in the Secondary Schools," Art Education XVII (May 1964), 5-9.

practiced as a special activity or that art is a product to be consumed by others.¹

This chapter will review literature relative to these three observations in the stated sequence. The nature of this study requires that the literature reviewed include the disciplines of education, business and government.

THEORIES OF MAN'S RELATIONSHIP TO THE ESTHETICS OF THE VISUAL ENVIRONMENT

In 1954, Justice William Douglas of the United States Supreme Court handed down a decision that stated: If those who govern the District of Columbia decide that the Nation's Capital should be beautiful as well as sanitary, there is nothing in the Fifth Amendment to stand in the way.² This case dealing primarily with esthetic concepts is very significant in relationship to this study.

Perhaps no other area of the curriculum should be appraised more carefully in a democratic society than the area of teaching of values. The relevant aspects of the case Berman vs. Parker are discussed here as illustrative

¹William R. Ewald, Jr., gen. ed., Environment and Change The Arts in Modern Society by Harold Taylor; (Bloomington: Indiana University Press, 1968).

²Berman et al., Executors, vs. Parker et al., 348 U.S. 22. U.S. Supreme Court, (1954).

of man's inherent need for esthetic quantity in his environment, and the importance of this idea in a democratic form of government.

The appellants in this case objected to the appropriation of their property for a project, which was to develop a better balanced, more attractive community. The final ruling in this case emphasized that disreputable housing may suffocate the spirit by reducing the people who live there to the status of cattle. It may also be an ugly sore, a blight on the community which robs it of charm, and makes it a place from which men turn. The court further ruled that public welfare is broad and inclusive and represents values which are spiritual as well as physical, esthetic as well as monetary. The legislature has the power to determine that a community should be beautiful as well as healthy, spacious as well as clean.

The highest court in America handed down this decision in 1954--sixteen years ago--yet decay of the environment has steadily increased, with little attention to the esthetic problems of the visual environment.

The Research and Policy committee of the Committee for Economic Development published a report in 1968, which included recommendations for educational innovation in public education

including attention to artistic sensitivity.¹

This committee on Research and Policy of the Committee for Economic Development is composed of fifty Trustees from among the 200 businessmen and educators who comprise the Committee for Economic Development.²

The statement by the Research Committee emphasized that we have measurement techniques for testing an individual's ability to read and write. But it is quite another matter to raise questions about his power of imagination, his artistic sensitivities or his capacity to make intelligent decisions.³

The committee continues its recommendation by stating that in educational planning we must appraise the use of technology in these terms: does it cultivate sensitive insight, originality, analytical facility and creative intellectual skills? Can it be employed to include and deepen artistic and moral sensitivity and appreciation?⁴

The Supreme Court decision and the policy report by the Committee on Economic Development have purposely been reviewed at the beginning of this chapter to illustrate the broad scope of this study--as it relates to the democratic society. The system of free enterprise in America and the judicial branch

¹Committee on Economic Development. Innovation in Education, New Directions for the American School. (New York: Committee on Economic Development; 1968), p. 30.

²Ibid., p. 4.

³Ibid., p. 30.

⁴Ibid., p. 45.

of government acknowledge that the esthetics of man's environment should be considered in the framework of our society, an idea not generally acknowledged.

The remainder of the supportive literature to be reviewed in this chapter will draw from the works of artists, architects, educators, philosophers and scientists--individuals, who by the very nature of their profession, logically offer support to the values of esthetics in the visual environment.

The necessity for cooperation among organisms when they create their environment was outlined by Whitehead in 1925.¹

He states that the plasticity of the environment is in proportion to the cooperation and effort put forth by the organism. The plasticity of mankind's environment results from the cooperation put forth and technological advances. These are interpreted by thought habits justified by theories of a fixed environment.

The problem of interpretation was not this simple for permanence can be endlessly repeated for its own sake or the transition to other things can evolve. These other things may be of higher or lower worth.²

Read considers visual order as the characteristic of a civilization. He illustrates this definition by reference to

¹Alfred North Whitehead, Science and the Modern World, (New York: Macmillan, 1959), p. 105.

²Ibid., p. 105.

the great civilizations of Egypt, Assyria, Greece and Rome. In Read's terms, the most significant definition of a civilization is the achievement of visual order.¹

The classic remark of Winston Churchill:

"We shape our buildings, and afterwards our buildings shape us."²

serves to illustrate the point advanced by Whitehead--in that we can endlessly repeat to retain permanence. Winston Churchill believed that the debates in parliament had been conditioned by the physical characteristics of the House of Commons. Therefore, when the opportunity to rebuild a more efficient structure, following the bombing attacks of 1943, presented itself, Mr. Churchill made a dramatic plea to rebuild the same kind of structure.

The work of Dubos is closely related to the philosophy of Whitehead, in that he believes man has been successful as a biological species because he is adaptable and therefore capable of transition to other things. Dubos carries his studies a step further by emphasizing that cultural homogenization and social regimentation--the results of monotony and over organization--will make it difficult to exploit the biological richness of

¹Herbert Read, The Redemption of the Robot (New York; Trident Press, 1966), p. 248-49.

²Winston Churchill, Onwards to Victory: War Speeches by the Right Honorable Winston Churchill, Charles Eade (ed.) Boston: Little Brown, 1944), p. 316-318.

the species and handicap civilization's further development.¹

He believes that the inability of civilizations to change after they have set out on a certain course has ultimately led to their decline. The orthodox classicism which evolves from this stagnation soon degenerates to triviality. Therefore, if the environment does indeed profoundly influence man, as we believe, and if we fail to effect change by continuing on the present course of accepting the ugliness and decay in the environment, quantity instead of quality in both the production of goods and education will continue and we will have failed to respond to this threatening situation.²

Neutra states in his design of ideals for survival that a belief commonly held by man indicates that things will right themselves after a while and there is no use worrying.³ A belief that he personally negates by acknowledging that design must not only encompass technological and commercial fields but also know man as the consumer.⁴

He continues to explore this idea by stating that the enormous energies and speeds invested in by human beings today

¹Rene Dubos, So Human an Animal. (New York: Charles Scribner's Sons, 1968), p. 175.

²Ibid., p. 180

³Richard Neutra, Survival Through Design. (New York, Oxford University Press, 1954), p. 19.

⁴Ibid., p. 20.

have created a totally new biological situation. Treatment through tradition and lawless laissez faire are no longer feasible solutions to man's environmental problems.¹

Neutra discusses the fact that we study and understand many organisms with greater research efforts than we do man.² He emphasizes this point with a quotation by Professor Emeritus Lee R. Dice, of The University of Michigan, "No investigation has secured a complete picture of man the animal as he exists in this constantly changing world."³

The theory held by Otto explains that the self-concept we hold of ourselves and our fellow-man is determined to a degree by the inputs from the physical and interpersonal environment to which we are exposed. The physical environment is filled with pollution plus ugliness. When man exists in a setting with consistent inputs of irritants, ugliness and violence, man is in danger of becoming increasing ugly and violent.⁴

Blake in his treatise on the ugliness of the visual environment in America believes that no citizen has a chance to see anything but hideousness and that if we are going to correct this situation we need leaders who can create a new kind

¹Ibid., p. 1.

²Ibid., p. 315.

³Ibid., p. 315.

⁴Herbert A. Otto, "New Light on the Human Potential," Saturday Review, L11 (1969), p. 16.

of city and a new kind of country.¹

The problems of the visual environment have long been present in America. After the Civil War, complaints about the modern American city ranged all the way from over commercial; too mobile, both physically and socially to the fact that there was little worth looking at, little that was sensuously pleasing or artistic.²

Wright reflected the imperceptiveness of people when he described his arrival in Chicago from a Wisconsin farm.

"Chicago Wells Street Station: Six o'clock in late spring, 1887. Drizzling. Sputtering white arc lights in the station and streets, dazzling and ugly. I had never seen electric lights before. Crowds; impersonal. Intent on seeing nothing. Somehow I didn't like to ask anyone anything. Followed the crowd--wondered where to go for the night. But again if I thought to ask anyone, there was only the brutal hurrying crowd trying hard not to see."³

Blake presents the idea that the "intellectual elite" are pursuing novelty and are busily engaged in outdoing one another in performance rather than accepting the responsibility of presenting quality rather than novelty.⁴

¹Peter Blake, God's Own Junkyard. (New York: Holt, Rinehart and Winston, 1964), p. 142.

²Morton White and Lucia White, The Intellectual Versus the City. (New York: Mentor Book, 1964), p. 218.

³Frank Lloyd Wright, An Autobiography. (New York: Longmans Green & Co., 1932), p. 63.

⁴Peter Blake, God's Own Junkyard. (New York: Holt, Rinehart and Winston, 1964), p. 192.

Churchill states that beauty and the city are always in process, therefore creative leaders can provide a setting which will benefit many individuals.¹

Read makes note of the fact that great men have come out of evil environments giving evidence that perhaps their struggles greatly contributed to their ultimate greatness. He believes that education has a responsibility in a democratic society to the average individual, a responsibility to provide the right environment which draws children "imperceptibly ... into sympathy and harmony with the beauty of reason, whose impress they take."²

The theory of Gallion and Eisner states that we are not providing the individual with the right environment. We are in fact moving in a cultural vacuum into which we have been drawn and have misinterpreted technological progress as culture. They believe that we are unaware of the creative potentials which are present but remain undeveloped. The resistance to a new esthetic is more indifference than denial. Economic losses in land and social maladjustments are more easily discerned than the degeneration of esthetics.³

¹Henry S. Churchill, The City is The People (New York: W.W. Norton Co., Inc., 1945), p. 202.

²Herbert Read, Education Through Art (New York: Pantheon Books, 1945), p. 301.

³Arthur Gallion and Simon Eisner, The Urban Pattern (New York: D. Van Nostrand Co., 1950), p. 398.

This review of ideas has examined theories of man's relationship to his environment; theories which generally lack scientific proof and rely on observations for evidences. Next we will examine some of the theories which explain America's indifference to the new esthetic referred to by Gallion and Eisner.¹

Failure to Educate in the Esthetics
of the Visual Environment

Webster defines indifference as...lack of concern or interest.²

In appraising America's indifference to the esthetic it is necessary to examine the reasons for this lack of concern as a nation for, as the review of literature will indicate, there have been individuals throughout America's history who have attempted to create an interest in visual environmental esthetics through education. These efforts have generally failed to make any significant impact on American education.

In 1931, the National Education Association asserted that schools could help solve complex economic problems, by creating a higher standard of living and cultural wants by producing a mass of high grade consumers.³

¹Ibid., p. 398.

²Webster's New American Dictionary, (New York: Books, Inc., 1966), p. 485.

³Merle Curti, The Social Ideas of American Educators, (Totowa, New Jersey: Littlefield, Adams & Co., 1959), p. 577.

These ideas have often been attacked from the viewpoint that the esthetic taste of the new society was reflected by the production of the "cheap and nasty."¹

Cremin states that in a democracy the justification for education is realized by enhancing the quality of the individual's life which includes esthetic growth.²

He further states that good taste can be nurtured by making it so widely available that the cheap no longer satisfies.³

Gardner gives a similar view when he states that the leveling influences in a democracy are inevitable, therefore quality and distinction must be present. Without it the general deterioration of the society including poor taste, poor education and vulgar art become apparent.⁴

These references state the importance of education in the visual arts by individuals not directly involved as professional artists.

Historically art education has made an attempt to fulfill its societal role. However, these efforts have been meager

¹Crane Brinton, The Shaping of Modern Thought, (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1963), p. 190.

²Lawrence A. Cremin, The Genius of American Education, (New York: Random House, 1965), p. 32.

³Ibid., p. 83.

⁴John Gardner, Excellence: Can We Be Equal and Excellent Too? (New York: Harper & Row), 1961, p. 73.

and usually not too successful primarily because society has never acknowledged the importance of esthetics in the visual environment.

In this researcher's opinion two individuals of the 19th century and two projects developed in the early thirties of this century attempted to develop an awareness to the esthetics of the visual environment in art education.

Following the Civil War, James Jackson Jarves wanted to bring esthetics to America by raiding the art collections of Europe. His personal fortune allowed him to do this though not without suffering financial losses. What he did accomplish though was to put 'art in the museums' in America. This well-meaning man of the nineteenth century in retrospect did us a great injustice on two counts. First, he divorced art from life in a new nation at a time in America's history when an alternate approach could have changed our understanding of the relationship between art and life. Secondly he assigned no recognition to American art. He defended his judgment on the basis that art was not to foster a national conceit.¹

However, Jarves was very much concerned with the quality of cities. He maintained that the topography was the foundation of civic beauty.²

¹Fredrick M. Logan, Growth of Art in American Schools, (New York: Harper and Brothers, 1955), p. 50-51.

²James Jackson Jarves, The Art Idea, (New York: Hurd Houghton, 1864), p. 334.

Therefore, we can only postulate that had Jarves directed his money and energy to the development of quality in the cities-- art education might have followed a course far different than its present one.

In 1892, Myra Martin addressed the American Social Science Association. Miss Martin stated a strong case for art education by saying that when the art spirit becomes a reality, harmony in man's relations to his neighbors will be apparent.¹

In 1933, an intensive art project involving a total community began in Owatonna, Minnesota. This project was based on the esthetic interests of the entire city. The idea behind the project was to make art a way of life, which included planning, landscaping, displays in business, factories and parks. Undoubtedly the single most valuable result of the project was the extension of art into the total community environment.²

The Eight-year Study, began in 1930, with a mandate to study areas of inadequacy which could be improved in the American high school curriculum. As a result of this study the role of art education in the public schools was improved. This improvement in status was the result of an increased awareness by faculty

¹Myra B. Martin, "Art Education in American Life" American Social Science Association, (1892), p. 35.

²Logan, op. cit., pp. 186-87.

groups who thought that the arts were not accorded the importance they merited.¹

The failure to develop and carry forth the ideas of art education reviewed in these four examples becomes apparent by examining other artists' ideas.

Burchard states that we are apathetic toward the arts and when not apathetic the level of taste is very bad. We as a nation place little value on art.²

This judgment is not surprising when we reflect on the ideas expressed by Henry Tuckerman in 1870, that if the adverse influences of our civilization do not eliminate the joy of art they do at least limit its development.³

Pushkarev offers an opposite reason for our neglect to esthetics. He believes that the advances in hygiene deprive us of the body sensations making us insensitive to beauty. In other words, we must pay the price of ugliness in order to improve other areas of our lives.⁴

¹Logan, op. cit., p. 191.

²Gyorgy Kepes, gen. ed. The Visual Arts Today. Alienated Affections in the Arts by John E. Burchard (Middletown, Conn: Wesleyan University Press, 1960), p. 58.

³John A. Kouwenhoven, The Arts in Modern American Civilization, (New York: Norton Library, 1967), p. 87.

⁴Lawrence B. Holland, gen. ed. Who Designs America Scale and Design in a New Environment by Boris Pushkarev, (Garden City, New York: Doubleday & Co., 1966), p. 87.

A view similar to Pusharev's is expressed by Sittler when he states that in order to have convenience to consumers we have besmirched the beautiful.¹

Logue believes that most Americans have the ability to move about in the environment without seeing it. If this were not true why do we put up with the ugliness that lines the main streets and highways? The importance of visual education, therefore, must reach the general citizenry. In undergraduate studies, however, rarely do we develop an awareness in students to the visual world.²

Lynch states that there must be active relation between men and the landscape, a meaningfulness to what they see.³

A similar idea is expressed by Mumford when he outlines the planning process for the environment. He believes that the philosophers, the educator, the artist and the common man must

¹William R. Ewald, Jr; gen. ed., Environment and Change. The Role of the Spirit in Creating the Future Environment by Joseph Sittler, (Bloomington: Indiana University Press, 1968), p. 67.

²Lawrence B. Holland, gen. ed., Who Designs America The Impact of Political and Social Forces on Design in America by Edward J. Logue, (Garden City, New York: Doubleday & Co., 1966), p. 239.

³Kevin Lynch, Cities The City as Environment, (New York: Alfred A. Knopf, 1969, p. 200.

all be actively brought into the planning process.¹

Larrabee outlines the responsibility of the artist in the university in terms of combining research with the production of art. The ultimate goal of this dual responsibility would be to put forth studies related to increasing esthetic awareness. By utilizing the university as society in microcosm this could result in a social climate more favorable to the Arts.²

Limitations and Potentials of Art Education

This section of the review will examine some aspects of art education in American schools.

Gombrich believes that teaching art to children contributed significantly to the revolution of modern education. When teachers abandoned drill methods at the beginning of this century they allowed children the opportunity to express themselves. He believes that the general public has been conditioned by this education.³

¹Lewis Mumford, The Culture of Cities, (New York: Harcourt, Brace & Co., 1938), p. 377.

²Eric Larrabee, "The Artist and The University," Harpers 238, (1969), p. 28.

³E.H. Gombrich, The Story of Art. (London: Phaidon Press, 1966), p. 466.

However, Read believes that society expects more than self-expression from its artists and demands instead life expression. In his opinion, the artist should make the group aware of its unity, its community.¹ Read further states that the esthetic sense of man allows him to alter the quality of his environment² and that this faculty (esthetic sense) must be educated.³

An examination of programs and research illustrates that art education is primarily concerned with self-expression and developing the individual's creative potential. Over 30 per cent of the research studies published in Studies in Art Education have been on the subject of creativity. Studies in art education have been essentially descriptive research rather than experimental research.⁴

Munro discusses various media used by art teachers. He presents a case for an expanded approach to art education encompassing the total environment.⁵

¹Herbert Read, To Hell with Culture, (New York: Schocken Books, 1963), p. 4.

²Ibid.

³Ibid., p.175.

⁴Reid Hastie, gen. ed., Art Education - National Society for the Study of Education American Education and the Future of Art Education by Elliot W. Eisner, (Chicago: University of Chicago Press, 1965), p. 317.

⁵Ralph Smith, gen. ed., Aesthetic Education, "Beautification Reconsidered," by Thomas Munro, (Champaign: University of Illinois Press, 1966), p. 98.

He believes that we have placed too much importance on small works of art and neglected the larger aspects. Studio work in drawing, painting and the crafts should be balanced to allow time for attention to environmental planning.¹

A review of articles published in the Art Education Journal during the past three years indicates that while many professionals are expressing their concerned views, the actual development of programs in environmental studies in public education is relatively uncommon.²

Virtually no research studies have been published by art educators on visual environmental studies encompassing the community, with the exception of the Owatonna project.³

A number of professionals involved in the arts have expressed ideas for the alteration of art education to include developing the individual's esthetic awareness to his visual environment.

Colbert believes that the public interest should be directed to a greater concern for the improvement of physical environment and visual associations.⁴

¹Ibid., p. 98.

²"Developing Environmental Awareness in the Schools," by JoAnn Tanspr, Ilse Ruocco, Lloyd Ruocco--Art Education XIX (1966), p. 28.

³Edwin Ziegfeld, "The Owatonna Art Education Project" Western Arts Association Bulletin, XX (1936).

⁴Lawrence B. Holland, gen. ed., Who Designs America, Naked Utility and Visual Chorea by Charles Colbert, (Garden City: Anchor Books, 1966), p. 233.

A similar view is expressed by Lynch when he postulates that schools should take individuals into the street to look at the city and observe its forms and how they fit together.¹

Dubos supports the idea that the influences of surroundings and conditions of life during childhood persist throughout adulthood.² Therefore, it seems important to begin sensitizing the individual to his visual environment very early in the educational process.

Saarinen in his objectives for art education believes that the development of genuine art is fundamental. He further defines genuine art as satisfactory only if it constitutes good form--relations in homes, neighborhoods and communities throughout the nation.³

Taylor reflects almost the same idea when he emphasizes the importance of art education in society. He believes that one of the functions of art and education is to teach children what constitutes a beautiful and democratic community, and how to form one out of whatever environment they are in.⁴

¹Kevin Lynch, The Image of The City, (Cambridge: M.I.T. Press, 1960), p. 117.

²William R. Ewald, Jr., gen. ed., Environment For Man: His Limitations and Potentialities, by Rene Dubos, (Bloomington: Indiana University Press, 1967), p. 18.

³Eliel Saarinen, Search For Form, (New York: Reinhold Publishing Corp., 1958), p. 343.

⁴William R. Ewald, Jr., gen. ed., Environment and Change, The Arts in Modern Society by Harold Taylor, (Bloomington: Indiana University Press, 1968), p. 47.

This recommendation has particular relevance in regard to the Kerner Report which states that year-round education for disadvantaged students should not be the same routine but rather be innovative to the total educational needs covering many educational activities including the Arts.¹

Summary

The theories and definitions of esthetics in the visual environment that have been presented in the literature represent a multitude of ideas.

The findings of the literature reviewed in this chapter are summarized in the following statements:

1. Man is affected by the visual environment and generally responds in several ways--by perpetuating a sameness, through failure to discriminate, which results in a lack of quality in the visual environment.
2. These responses by man are generally the result of lack of education in developing awareness to the visual environment; and foregoing attention to the esthetics of the visual environment in order to increase physical convenience for the individual.

¹Report of The National Advisory Commission on Civil Disorders, (New York: Bantam Books, 1968), p. 445.

3. Education in the visual arts can play a significant role in developing man's awareness to the esthetics of the visual environment.
4. Most programs in art education develop the creativity of the individual and do not include activities to develop awareness to the esthetics of the total visual environment.
5. Solutions to improving man's visual environment can be found in the educational process of the visual arts, beginning in the early years of learning.

The review of the literature reported in this chapter has relevancy to the present study. The relationship is within the broad and general aspects of man's awareness to the esthetics of the visual environment.

In reference to the primary purpose of this study, that of assessing esthetic judgments of the visual environment between individuals who have participated in activities to develop awareness to the esthetics of the visual environment and non-participants, the literature did not provide any previous investigations of this nature.

CHAPTER III

DESIGN AND METHODOLOGY OF THE STUDY

This chapter is devoted to the definition and explanation of the research design: the research site and population, the instrument used to assess awareness to the esthetics of the visual environment, the testing procedures, the criteria for evaluating the judicative statements, the procedure used to evaluate the judicative statements, the selection of the judges, the procedures used by the judges, the independent variables and the visual environmental activities.

Research Site and Population

The experiments and testing for this research were conducted within the framework of the course, Arts in the Elementary School, at the College of Architecture and Design of The University of Michigan. The function of this course is to educate prospective teachers in the use of art tools, art materials and art experiences best suited to provide the opportunity for creative growth in children at the elementary school level.

The studio where the classes met is located on the first floor of the College of Architecture and Design. One other

studio (sculpture) is located on this ground level, the remaining area is occupied by offices. The lobby and adjacent hall are used as a general exhibition space for displays including all media. Four groups of the students in the population of this study used only the first floor of the College of Architecture and Design as they were non-art students and this was their only class in the building. One group of the population, who were art majors, had classes scheduled in the painting and drawing studios located on the third and fourth floors of the building.

The population of this study included students, who were sophomores, juniors and seniors, all preparing to be certificated to teach. Four groups of the students were preparing to become elementary school teachers with responsibilities for all subjects. One group of students was preparing to teach art at any level of instruction in the public schools. Matriculation by these students at The University of Michigan indicated that the majority of them would rank at the higher-ability and higher socio-economic level.

Visual Environment Judicative Instrument

The design of the instrument which was used to assess the individual's awareness to the esthetics of the visual

environment listed twenty man-made structures.¹ Ten of the structures named were present in the student's immediate environment. The students either physically occupied the structures or passed by them several times during the period of a week. Ten of the structures, outside of the students' immediate environment, were presented by photographic slides.

The twenty structures were listed on five sheets of 8½ x 11 paper with a space allocation following the name in which to write the judicative statement. Three additional pages requested the student to complete six blanks on each of the same twenty structures, which listed factual descriptive information.²

The instrument was developed by the researcher for this study. Certain assumptions were made as guiding criteria for the development of an effective and usable instrument. These assumptions were:

1. The instrument should produce statements that could be evaluated by the six identified criteria.
2. The instrument should be flexible enough to use with all the groups in the research study.

¹See Appendix A.

²See Appendix B.

3. The instrument should be devised to include structures with which the population were familiar.

To determine the appropriate structures to use in the students' immediate environment the selection was based on the student's major field of study. This was either education or art. In either case the students' classes and pedestrian routes covered the area in which these structures are located. Two exceptions to this plan were the Administration Building and the School of Music. These two structures were included in this study because they are new and have been more widely discussed by students generally.

The ten structures presented by slides were random selections from students' suggestions of ten man-made structures in America which they considered interesting. The students were asked to list these structures at the beginning of the course, Arts in the Elementary School. No discussion of the visual environment preceded this listing, therefore the students were unaware that some of their choices would be included in this study. The slides of the selected structures which were used were from the slide collection of the College of Architecture and Design, The University of Michigan.

In order to provide for an objective rating on the judicative statement, factual information on the twenty structures

was requested. This information included: (a) material of structure, (b) general shape of structure, (c) number of stories, (d) color of structure (exterior), (e) style of architecture (or approximate year built), (f) evidence of landscaping.

Testing Procedure

The students participating in this study were enrolled in the course, Arts in the Elementary School. The students were separated into five groups, signified by a different stage of participation in the art course. For convenience the Groups were labeled: Group A, Group B, Group C, Group D and Group E.

The tests were administered in the following manner:

1. Groups A and B wrote the judicative statement twice; once at the beginning of the research experiment in Arts in the Elementary School and again at the conclusion of the course.
2. Groups C and D wrote the judicative statement once at the conclusion of the regular course, Arts in the Elementary School.
3. Group E wrote the judicative statement once at the beginning of the regular course, Arts in the Elementary School.

4. The slides were previewed during a thirty-minute presentation prior to writing the statements. The students were allowed to take notes on the slides, however, no verbal comment was made by the researcher except to identify the structure by name.
5. The students, seated at desks, were then asked to write their judicative statements about the structures in their immediate environment and the slides.
6. Each of the judicative statements was identified by code numbers.
7. The instructions were the same for all Groups. The students were fully appraised of the fact that this was a research experiment and the ratings on the judicative statement had absolutely no relationship to the letter grade they would receive for the course.

The tests to all of the Groups were administered by this researcher. During the actual time (one and one-half hours) that the students were writing the statements no comments were allowed.

Criteria for Evaluating the Judicative Statements

The criteria for evaluating the judicative statements were derived from a method used by this researcher. There is no claim for originality on the researcher's part for this method, rather it represents an almost universally accepted procedure for looking at and examining both ideas and concrete objects. The researcher has used the procedure in such a way that by following a stated sequence the percipient will have a basic knowledge upon which to render a judgment. The following six criteria were used in evaluating the visual environment judicative statements. A one point evaluation was established for each of the criteria.

Criterion 1: Description - this refers to the naming, and identifying of the structures. It also includes information about the materials and the function of the structure.

Criterion 2: Analysis - this indicates a studied examination of the component parts of the structure and the relationship of these parts to each other.

Criterion 3: Translation - assesses the total structure and how it fits together. The following generalization should be considered: (a) basic perceptions (the building is square), (b) esthetic terminology

(the building is ugly), (c) metaphorical terminology (the building became a glass filing cabinet).

Criterion 4: Interpretation - means to look carefully at the structure as it relates to other structures within the same space.

Criterion 5: Evaluation - means a judgment of the structure by the percipient. The judgment would indicate that the structure is either good or bad based on the four preceding criteria. Two additional factors should also be considered: (a) is the structure original, (b) does it develop other esthetic functions.

Criterion 6: Synthesis - this stage indicates putting together parts to constitute a new structure. This involves a recombination of parts from existing structures with new parts to construct a new integrated whole. This means the ability to conceptualize new structures based upon the knowledge of the preceding five criteria.

The criteria for evaluating the objective factual information on the twenty structures were assigned a one point evaluation for each correct answer.¹

¹See Appendix A.

Evaluation Procedure

The visual environment judicative statements were initially evaluated by this researcher. Two judges evaluated an eighteen per cent sampling of the judicative statements following the same evaluation procedure as that used by this researcher.

The sampling procedure was used by the judges in respect to their time involvement. This researcher determined that to evaluate the judicative statements required a minimum of twenty minutes for each student's completed statement. This experiment involved sixty students, twenty-four of whom wrote the judicative statements twice. Therefore, a total of eighty-four statements were evaluated.

In order to evaluate the statements, the six criteria with a one point evaluation for each criterion were used. The sum of the totals from the criteria scores, reflecting the students' judgment of the structure constituted the subjective score on the judicative statement.

The objective score on the judicative statement refers to the factual information about each structure. A one point evaluation was given for each correct answer. The composite score is the combined subjective and objective scores.

In an effort to minimize any bias by the researcher regarding the evaluations, the following procedures were used.

1. Each of the judicative statements was coded for anonymity.
2. The judicative statements of the different groups were not distinguished from each other.
3. The judicative statements were evaluated independently by the two judges and this researcher.
4. The evaluation by this researcher of the total eighty-four judicative statements was completed over a one-month period. This was done in order to eliminate fatigue, which would have tended to decrease competency.

Selection of the Judges

In order to validate the results of this research two highly competent judges were selected to evaluate an eighteen per cent sampling of the judicative statements. The following criteria were applied for the selection of these judges:

1. That they be persons who are recognized as competent in their field both by nature of their position and their accomplishments.

2. That they be persons who have a high degree of competency in their value judgments in the esthetics of the visual environment.
3. That they be persons who have a high degree of understanding of the teaching-learning process.
4. That they be persons who would be accessible to the researcher in terms of communication.

The two judges selected were a Professor of Art and a Professor of Architecture from The University of Michigan. Both individuals are thoroughly familiar with the procedures of research studies. Each has served on numerous research committees at major institutions of higher learning both in America and in Europe.

Independent Variables

Art Experience

The participation of the student in the course, Arts in the Elementary School, was used as a measure of the student's art experience. This included the following categories:

Groups A and B: Students who had completed the visual environmental activities in Arts in the Elementary School.

Groups C and D: students who had completed the regular course work in Arts in the Elementary School.

Group E: students who were just beginning the regular course work in Arts in the Elementary School.

Field of Specialization

The students' elected major field of study at The University of Michigan provided the index for these categories:

Groups A, B, C, E: students who were majoring in elementary education.

Group D: students who were majoring in art.

Visual Environmental Activities

The participation by students in two of the groups in certain visual environmental activities over an eight-week period was part of this research experiment. These activities were developed within the framework of the course, Arts in the Elementary School.

The two categories of this grouping were:

Group A: students who participated in the visual environmental activities and supplemented the activities by using slides and films.

Group B: students who participated in the visual environmental activities but deleted the use of slides and films.

The number of students in each of the five groups evaluated on the visual environment judicative statement remained constant at twelve throughout the research experiment.

Visual Environmental Activities

Broad and generalized descriptions of the visual environmental activities are listed here. These activities developed over an eight-week period, were very specific and closely related to the students' environment. For a complete and detailed account of these activities see Appendix B:

1. Increase the students' exposure to a variety of environmental settings.
2. Assign the students to make a detailed exploration of their own immediate environment.
3. Increase the perceptual accessibility of environmental form by making forms.
4. Study the unique qualities of the student's immediate environment.
5. Study the elements of the visual environment considered the most significant by the individual.

6. Study the most predominant forms in the visual environment and what is happening in them and to them.

CHAPTER IV

ANALYSIS OF THE DATA

The data collected for this study will be analyzed in the following manner: The Pearson product-moment correlation coefficient will be used to analyze the data concerning the inter-rater reliability of scores given by the three judges on the subjective scores, and the objective scores on an eighteen per cent sampling of the judicative statements.

An analysis of variance will be used to test for significant differences among the mean scores for three groups which were non-art students. This included the two experimental groups (Group A and Group B) and one group (Group C) who completed the same course without participating in the visual environmental experiments.

An analysis of variance will be used to test for significant differences among the mean scores for all five groups on the following variables: subjective scores, objective scores and composite scores.

An analysis of variance between the two experimental groups will be used to test for significant differences among the mean scores for these groups on the following variables: subjective scores, objective scores and composite scores.

This study is designed primarily to compare the judicative statements about the visual environment by various groups. The most important analysis of this study compares the data of the two groups which participated in certain learning activities related to the visual environment, with the groups which did not participate in these learning activities. The analysis also compares the scores on the judicative statements between students who had completed a two-hour art course and students who had not completed the same course, and between students majoring in art and students majoring in elementary education.

This chapter is divided into three parts. Part One reports the inter-rater reliabilities of the scores of the three judges on the sampling of the judicative statements. Part Two reports on comparisons among the five groups on the judicative statements including the subjective scores, objective scores and the composite scores. Part Three reports on the comparisons of the judicative statement scores (subjective, objective, composite) of the two experimental groups, prior to participation in certain learning activities related to the visual environment and at the conclusion of the learning activities.

Part One

Inter-rater Reliability of Scores Given by Judges

Two judges rated a sampling of the judicative statements from all the groups on the criteria outlined in Chapter Three. The product-moment correlations between the judges and this researcher for the subjective scores and the objective scores are shown in Table 1 and 2. This researcher is designated as Judge 1; the Professor of Art as Judge 2; and the Professor of Architecture as Judge 3.

TABLE 1

CORRELATION COEFFICIENT BETWEEN JUDGE ONE
AND JUDGE TWO ON A SAMPLINE OF THE
JUDICATIVE STATEMENTS INCLUDING
THE SUBJECTIVE SCORES AND THE
OBJECTIVE SCORES

Sampling of All Groups	Judges 1-2	
	Subjective Scores	Objective Scores
One	.72	.93
Two	.71	.96
Three	.84	.94
Four	.84	.95
Five	.88	.93
Six	.85	.99
Seven	.86	.91

TABLE 2

CORRELATION COEFFICIENT BETWEEN JUDGE ONE
AND JUDGE THREE ON A SAMPLING OF THE
JUDICATIVE STATEMENTS INCLUDING
THE SUBJECTIVE SCORES AND THE
OBJECTIVE SCORES

Sampling of All Groups	Judges 1-3	
	Subjective Scores	Objective Scores
One	.84	.95
Two	.53	.99
Three	.55	.95
Four	.62	.97
Five	.73	.92
Six	.70	.98
Seven	.72	.96

The tables indicate that there is a relatively high degree of agreement among the judges in scoring the judicative statements. The objective scores achieved the highest degree of agreement. The subjective scores received a lower correlation coefficient. However, the high degree of agreement among the judges indicate that the measurement instrument for this research study was reliable, and also that the method of scoring results on all of the judicative statements was adequate for the purposes of this investigation.

Part Two

Comparison Among Students Participating In Environmental Activities and Non-Participants

Part Two includes the comparisons between all the groups used in this research study. The comparison of three groups of non-art students, who completed the same course and included the two experimental groups who participated in certain environmental activities (Group A and B) and one control group (Group C) who did not participate in the environmental activities is central to this investigation. Therefore, a separate analysis of variance of these three groups will be discussed before reviewing the results of the analysis of variance including all five groups.

Comparison Among Three Groups (Non-art Students) on Judicative Statements

Table 3 shows the results of an analysis of variance of the scores for the two groups (Group A, Group B) who participated in the environmental activities with one group (Group C) who completed the same art course without participating in the environmental activities.

TABLE 3
ANALYSIS OF VARIANCE OF SUBJECTIVE SCORES
FOR GROUPS A, B, AND C

Source of Variations	df	SS	MS	F	p
Between Groups	2	3408.22	1704.11	8.25	< .001
Within Groups	33	68.18.67	206.63		
Total	35	10226.89			

For an F distribution with 2 and 33 degrees of freedom, a value of 5.34 is significant at the .001 level. Table 3 shows that the observed F ratio of 8.25 is significant at less than the .001 level.

A similar comparison is made for the objective scores. This analysis of variance is shown in Table 4.

TABLE 4
ANALYSIS OF VARIANCE OF OBJECTIVE SCORES
FOR GROUPS A, B, AND C

Source of Variations	df	SS	MS	F	p
Between Groups	2	5817.39	2908.69	34.63	< .001
Within Groups	33	2771.50	83.98		
Total	35	8588.89			

For an F distribution with 2 and 33 degrees of freedom, a value of 5.34 is significant at the .001 level. Table 4 shows that the observed F ratio of 34.63 is statistically significant at less than the .001 level.

The comparison of the composite scores in an analysis of variance is shown in Table 5.

TABLE 5
ANALYSIS OF VARIANCE OF COMPOSITE SCORES
FOR GROUPS A, B, AND C

Source of Variations	df	SS	MS	F	p
Between Groups	2	16809.72	8404.86	21.37 < .001	
Within Groups	33	12979.83	393.33		
Total	35	29789.56			

For an F distribution with 2 and 33 degrees of freedom, a value of 5.34 is significant at the .001 level. Table 5 shows that the observed F ratio of 21.37 is significant at less than the .001 level.

The results of the analysis of variance among the three groups of Non-art students, gives evidence that participation in visual environmental activities does increase the ratings

on the judicative statements significantly over the ratings of the statements by non-participants in visual environmental activities.

Therefore, null hypothesis one--that there are no significant differences in ratings of visual environmental esthetic judgments between students participating in the environmental activities and non-participant students with two art credits--is rejected.

In order to give visual meaning to the scores used in the preceding analysis the means of the subjective, objective and composite scores for the three groups are listed in Table 6.

TABLE 6
MEAN SCORES OF GROUPS A, B, C, ON THE JUDICATIVE STATEMENT

<u>Subjective Scores</u>			<u>Objective Scores</u>		<u>Composite Scores</u>	
Group	n	Mean	n	Mean	n	Mean
A	12	38.50	12	97.92	12	136.42
B	12	50.50	12	97.17	12	149.67
C	12	26.67	12	70.58	12	97.25

An interesting outcome is the variability of the subjective scores which produced a wider range than the objective scores. To illustrate this finding the individual scores for Group A and Group B are charted in Figures 1, 2, 3, 4, and 5.

FIGURE 1

INDIVIDUAL SUBJECTIVE SCORES OF GROUP A
PRE-PARTICIPATION--POST-PARTICIPATION
IN VISUAL ENVIRONMENTAL ACTIVITIES

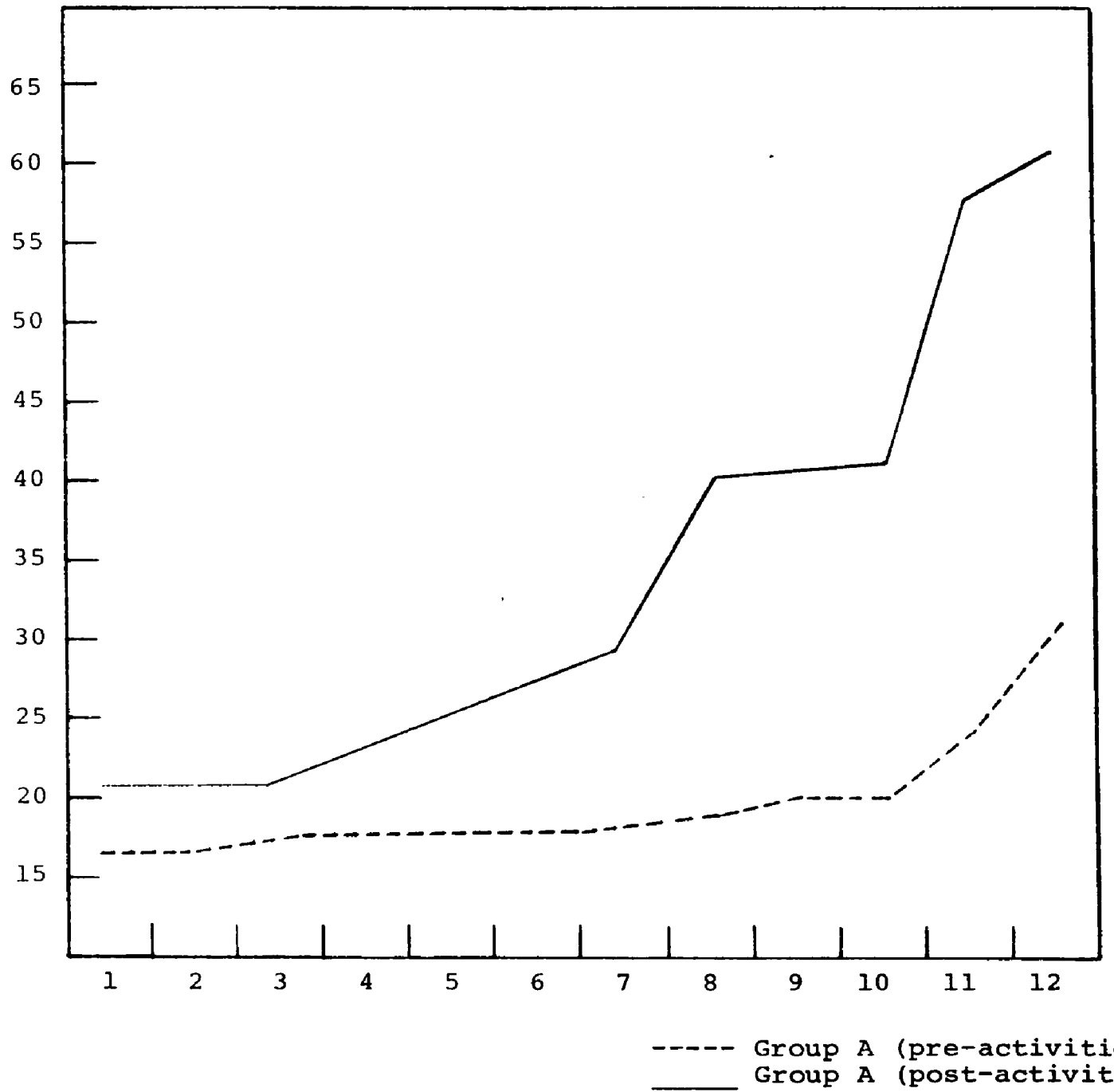


FIGURE 2

INDIVIDUAL OBJECTIVE SCORES OF GROUP A
PRE-PARTICIPATION--POST-PARTICIPATION
IN VISUAL ENVIRONMENTAL ACTIVITIES

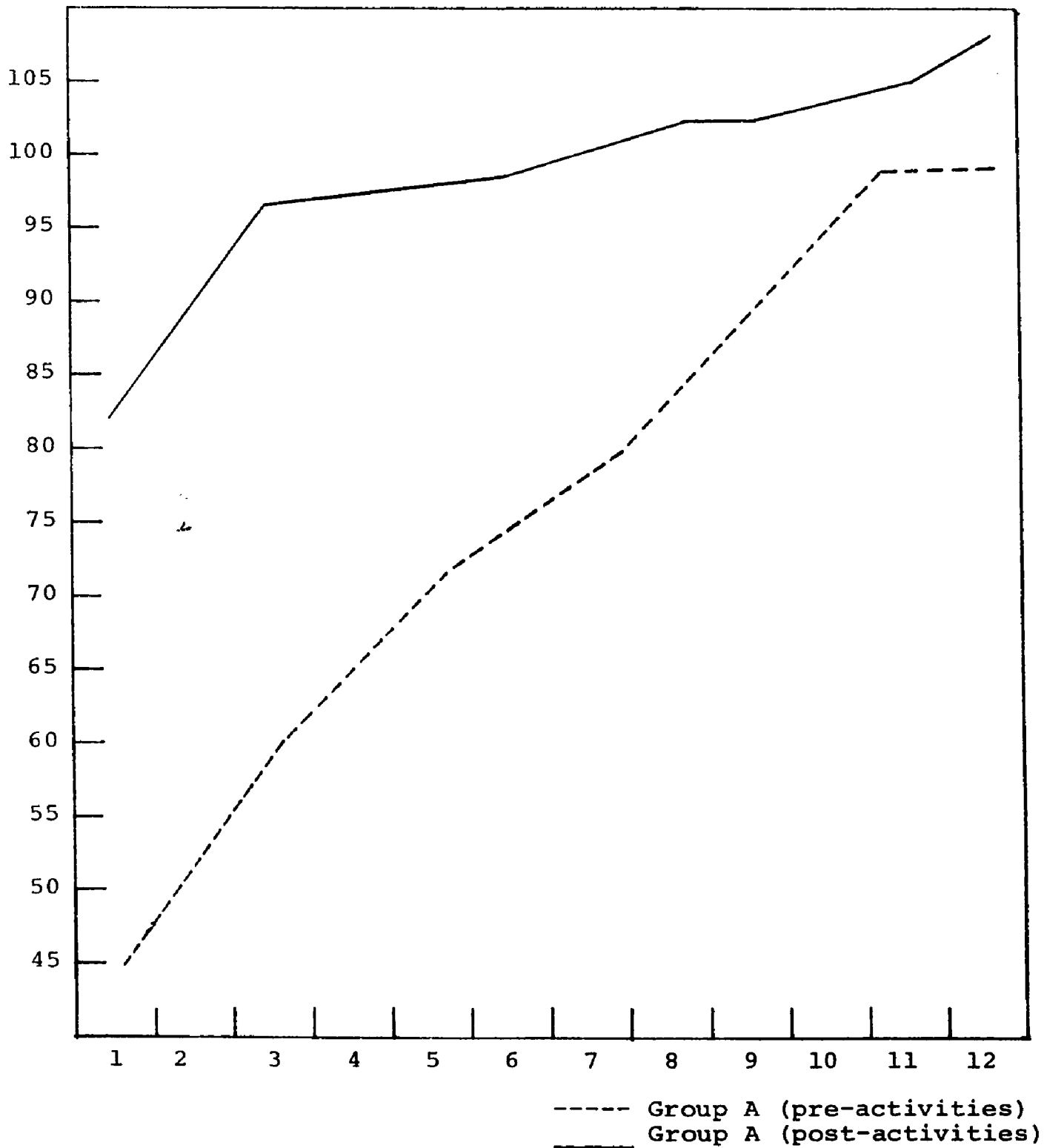


FIGURE 3

INDIVIDUAL SUBJECTIVE SCORES OF GROUP B
PRE-PARTICIPATION--POST PARTICIPATION
IN VISUAL ENVIRONMENTAL ACTIVITIES

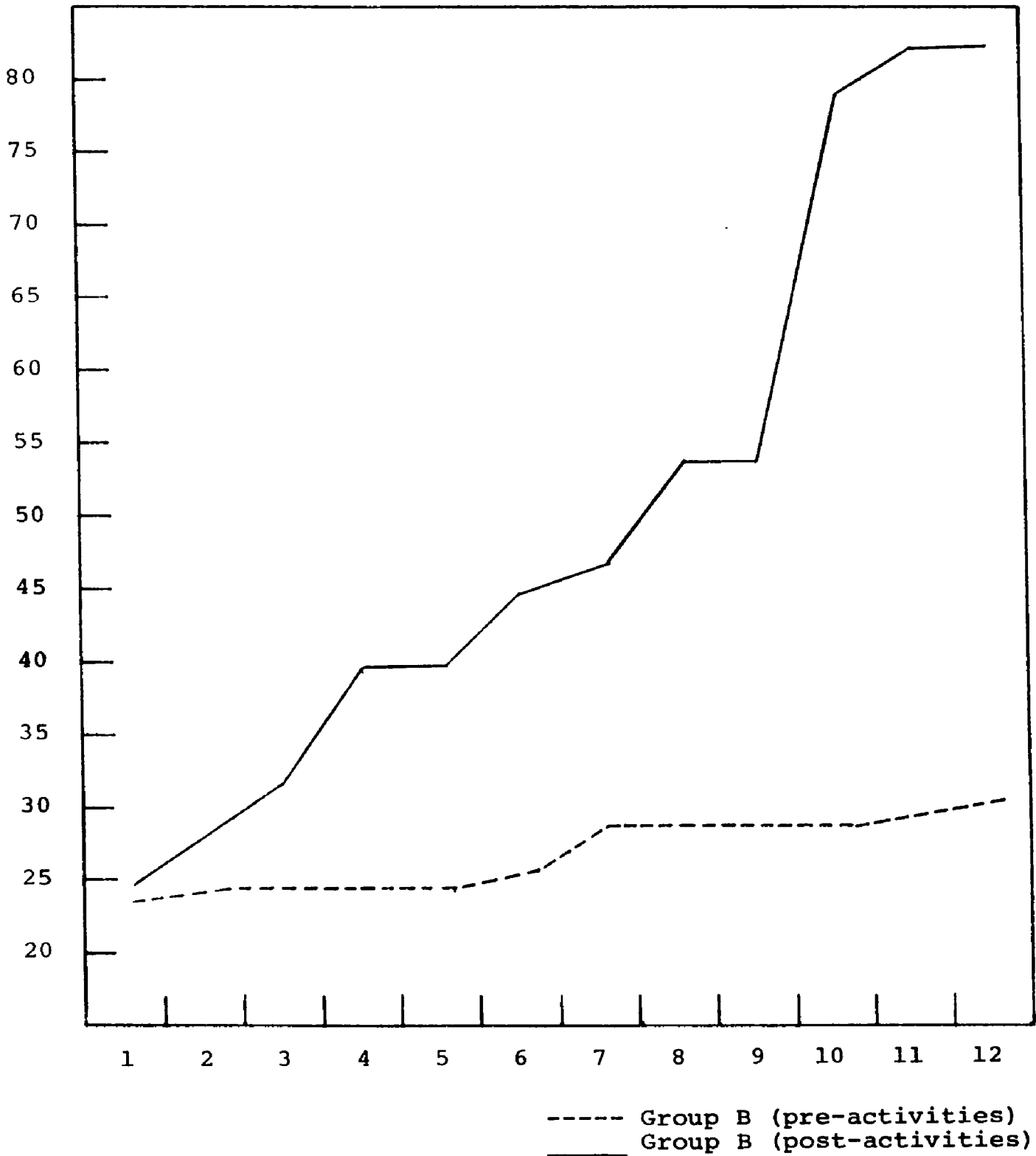


FIGURE 4

INDIVIDUAL OBJECTIVE SCORES OF GROUP B
PRE-PARTICIPATION--POST PARTICIPATION
IN VISUAL ENVIRONMENTAL ACTIVITIES

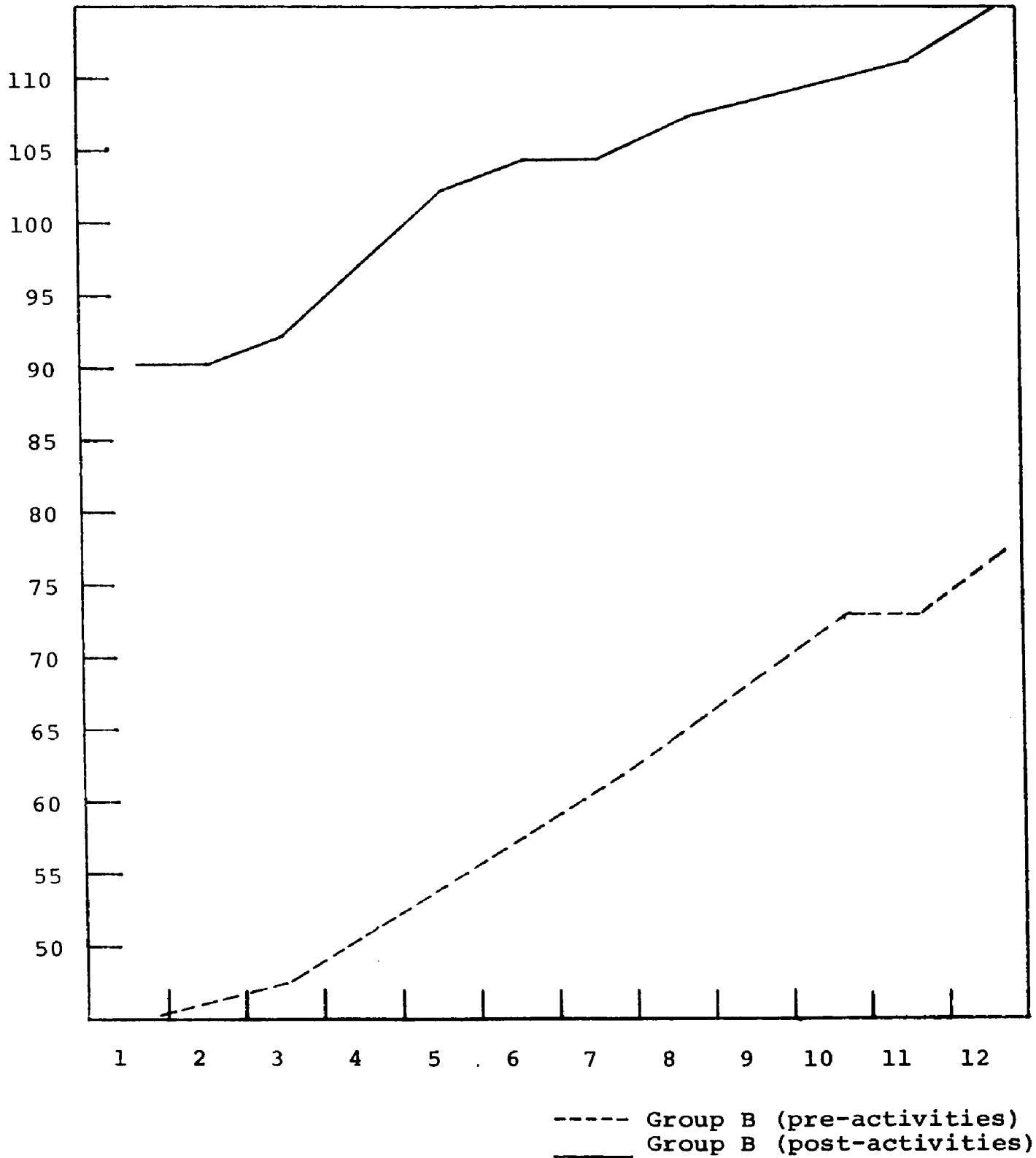
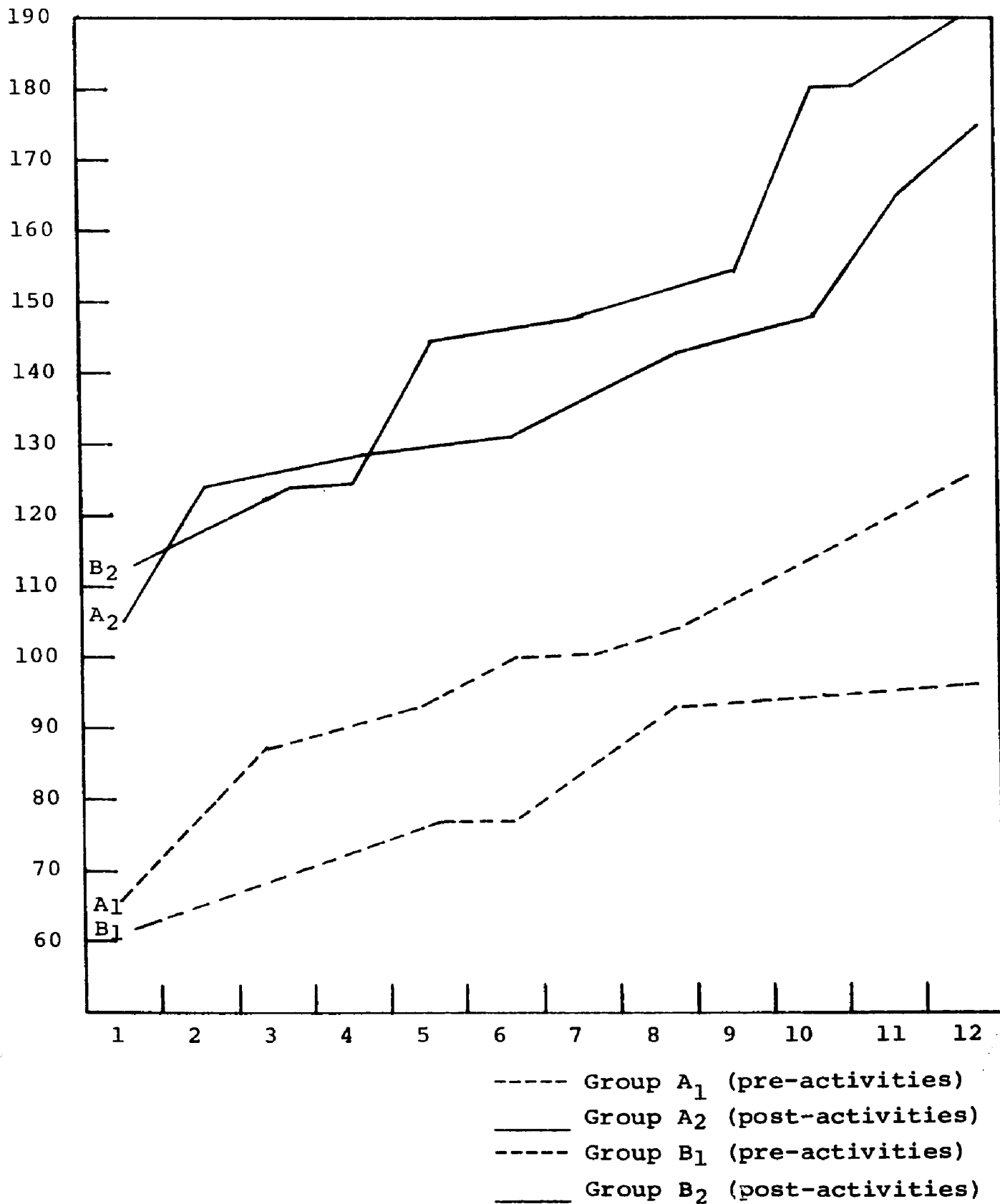


FIGURE 5

INDIVIDUAL COMPOSITE SCORES OF GROUP A--GROUP B
PRE-PARTICIPATION--POST PARTICIPATION
IN VISUAL ENVIRONMENTAL ACTIVITIES



Comparison Among All Groups on the Judicative Statements

The mean scores and standard deviations used in the comparisons for all the groups including the subjective scores, objective scores and the composite scores are listed in Tables 7, 8 and 9. The groups include Group A and Group B (Non-art students, who participated in the visual environmental activities), Group C (Non-art students with two art credits who did not participate in the visual environmental activities), Group D (Art students who did not participate in the visual environmental activities), and Group E (Non-art students with no art credit).

TABLE 7
COMPARISON OF SUBJECTIVE SCORES FOR ALL GROUPS
ON THE JUDICATIVE STATEMENT

Group	Score	N	Mean	S.D.
A	Subjective	12	38.50	14.32
B	Subjective	12	50.50	20.04
C	Subjective	12	26.67	3.63
D	Subjective	12	29.17	4.13
E	Subjective	12	27.58	2.75

TABLE 8

COMPARISON OF OBJECTIVE SCORES FOR ALL GROUPS
ON THE JUDICATIVE STATEMENT

Group	Score	N	Mean	S.D.
A	Objective	12	97.92	6.35
B	Objective	12	97.17	8.41
C	Objective	12	70.58	11.87
D	Objective	12	73.67	22.26
E	Objective	12	46.92	34.93

TABLE 9

COMPARISON OF COMPOSITE SCORES FOR ALL GROUPS
ON THE JUDICATIVE STATEMENT

Group	Score	N	Mean	S.D.
A	Composite	12	136.42	18.64
B	Composite	12	147.67	26.24
C	Composite	12	97.25	11.99
D	Composite	12	102.83	22.79
E	Composite	12	74.50	34.67

In order to test null hypothesis two the t ratio is used to compare the scores of Groups A, B, and D. These comparisons are listed in Tables 10 and 11.

TABLE 10
COMPARISON OF SUBJECTIVE, OBJECTIVE, AND
COMPOSITE SCORES FOR GROUPS A AND D

Group	Score	N	Mean	S.D.	<u>t</u>	P
A	Subjective	12	38.50	14.32	2.17	N.S.
D	Subjective	12	29.17	4.13		
A	Objective	12	97.92	6.35	3.63	< .02
D	Objective	12	73.67	22.26		
A	Composite	12	136.42	18.64	3.95	< .02
D	Composite	12	102.83	22.79		

TABLE 11
COMPARISON OF SUBJECTIVE, OBJECTIVE, AND
COMPOSITE SCORES FOR GROUPS B AND D

Group	Score	N	Mean	S.D.	<u>t</u>	P
B	Subjective	12	50.50	20.04	3.61	< .02
D	Subjective	12	29.17	4.13		
B	Objective	12	97.17	8.41	3.42	< .02
D	Objective	12	73.67	22.26		
B	Composite	12	147.67	26.24	4.47	< .02
D	Composite	12	102.83	22.79		

The results indicate that on the subjective, objective and composite scores the t ratios are statistically significant at less than the .02 level for Group B as compared to Group D. The comparison of Group A to Group D indicates the objective and composite scores are statistically significant.

Therefore, null hypothesis two--that there are no significant differences in ratings of visual environmental esthetic judgments between non-art students participating in the environmental activities and art students not participating in the environmental activities is rejected.

In order to find if there were any differences on the evaluations of the judicative statements between non-art students with two art credits, who did not participate in the visual environmental activities, and art students (non-participants) a comparison using the t ratio was used. These results are presented in Table 12.

TABLE 12
COMPARISON OF SUBJECTIVE, OBJECTIVE, AND
COMPOSITE SCORES FOR GROUPS C AND D

Group	Score	N	Mean	S.D.	t	P
C	Subjective	12	26.67	3.63	1.58	N.S.
D	Subjective	12	29.17	4.13		
C	Objective	12	70.58	11.87	0.42	N.S.
D	Objective	12	73.67	22.26		
C	Composite	12	97.25	11.99	0.75	N.S.
D	Composite	12	102.83	22.79		

When examining each of the scores (subjective, objective and composite) the results indicate that the t ratio comparisons are not statistically significant at less than the .02 level. Thus the scores do not demonstrate any significant differences between the two groups on the evaluations of the judicative statements.

Therefore, null hypothesis three--that there are no significant differences in ratings of visual environmental esthetic judgments between non-art students with two art credits who were non-participants in the environmental activities and art students not participating in the environmental activities is not rejected.

The comparison between the two groups of non-art students who did not participate in the visual environmental activities is presented in Table 13. The students in Group C were credited with two hours of art while group E students had no art credit.

TABLE 13
COMPARISON OF SUBJECTIVE, OBJECTIVE, AND
COMPOSITE SCORES FOR GROUPS C AND E

Group	Score	N	Mean	S.D.	t	P
C	Subjective	12	26.67	3.63	0.70	N.S.
E	Subjective	12	27.58	2.75		
C	Objective	12	70.58	11.87	2.22	N.S.
E	Objective	12	46.92	34.93		
C	Composite	12	97.25	11.99	2.15	N.S.
E	Composite	12	74.50	34.67		

On the subjective, objective and composite scores the results indicate that the t ratio comparison is not statistically significant at less than the .02 level. Therefore null hypothesis four--that there are no significant differences in ratings of visual environmental esthetic judgments between students with two art credits who were non-participants in the environmental activities and students without art credit who were non-participants in the environmental activities is not rejected.

Analysis of Variance For All Groups

Table 14 shows the results of an analysis of variance of the subjective scores for all the groups (A, B, C, D, E).

TABLE 14
ANALYSIS OF VARIANCE OF SUBJECTIVE SCORES
FOR ALL GROUPS

Source of Variation	df	SS	MS	$\underline{F}$	p
Between Groups	4	4915.73	1228.93	9.53 <	.001
Within Groups	55	7089.25	128.90		
Total	59	12004.98			

For an $\underline{F}$ distribution with 4 and 55 degrees of freedom, a value of 3.68 is significant at the .001 level. Table 14 shows that the observed $\underline{F}$ ratio of 9.53 is statistically significant at less than the .001 level.

Table 15 shows the results of an analysis of variance of the objective scores for all the groups.

TABLE 15
ANALYSIS OF VARIANCE OF OBJECTIVE SCORES
FOR ALL GROUPS

Source of Variation	df	SS	MS	$\underline{F}$	p
Between Groups	4	21614.17	5403.54	13.73	< .001
Within Groups	55	21643.08	393.51		
Total	59	43257.25			

With 4 and 55 degrees of freedom, the $\underline{F}$ distribution table lists a value of 3.68 as significant for the .001 level. The observed $\underline{F}$ ratio is 13.73, obtaining a statistical significance less than the .001 level.

In Table 16 a similar comparison is made for the analysis of variance of the composite scores for all groups.

TABLE 16
ANALYSIS OF VARIANCE OF COMPOSITE SCORES
FOR ALL GROUPS

Source of Variation	df	SS	MS	<u>F</u>	p
Between Groups	4	42909.23	10727.31	18.49	< .001
Within Groups	55	31910.50			
Total	59	74819.73			

With 4 and 55 degrees of freedom, the F distribution table lists a value of 3.68 as significant for the .001 level. The observed F ratio is 18.49, obtaining a statistical significance less than the .001 level.

The comparisons between the students, who participated in the visual environmental activities, with students who did not participate in the visual environmental activities showed that participating students achieved statistically significant higher mean scores. This occurrence conveys that the significant F ratio observed for all the groups is the result of a cumulative effect of a consistent trend.

Part Three

Comparison Between the Two Experimental Groups (A and B) Participating in Visual Environmental Activities

The differences between the two groups participating in certain visual environmental activities were assessed at the

conclusion of these activities to determine the value of supplementing the activities with audio-visual devices (slides and films). Group A supplemented their participation in the visual environmental activities by using slides and films. Group B deleted the use of slides and films from their visual environmental activities. The mean scores for these two groups are listed in Tables 7, 8, and 9 therefore, only the analysis of variance is presented here.

Table 17 shows the results of an analysis of variance of the subjective scores for the two groups participating in the visual environmental activities.

TABLE 17
ANALYSIS OF VARIANCE OF SUBJECTIVE SCORES
FOR TWO EXPERIMENTAL GROUPS

Source of Variation	df	SS	MS	<u>F</u>	p
Between Groups	1	864.00	864.00	2.85	N.S.
Within Groups	22	6674.00	303.36		
Total	23	7538.00			

With 1 and 22 degrees of freedom, the F distribution table lists a value of 7.94 as significant for the .001 level. The observed F ratio is 2.85, and is not significant at less than the .001 level.

The similar comparison is made for the analysis of variance of the objective scores for the two experimental groups in Table 18.

TABLE 18
ANALYSIS OF VARIANCE OF OBJECTIVE SCORES
FOR THE TWO EXPERIMENTAL GROUPS

Source of Variation	df	SS	MS	<u>F</u>	p
Between Groups	1	3.37	3.37	0.06	N.S.
Within Groups	22	1220.58	55.48		
Total	23	1223.96			

The F distribution table lists a value of 7.94 as significant for the .001 level for 1 and 22 degrees of freedom. The observed F ratio is 0.06 and is not statistically significant at less than the .001 level.

The analysis of variance of the composite scores for the two experimental groups is compare in Table 19.

TABLE 19
ANALYSIS OF VARIANCE OF COMPOSITE SCORES
FOR TWO EXPERIMENTAL GROUPS

Source of Variation	df	SS	MS	<u>F</u>	p
Between Groups	1	759.38	759.38	1.47	N.S.
Within Groups	22	11397.58	518.07		
Total	23	12156.96			

With 1 and 22 degrees of freedom, the F distribution table lists a value of 7.94 as significant for the .001 level. The observed F ratio is 1.47 and is not statistically significant at less than the .001 level.

On the subjective, objective and composite scores the results indicate that the F ratio comparison is not statistically significant at less than the .001 level. Therefore, null hypothesis five--that there are no significant differences in ratings of visual environmental esthetic judgments between students participating in the environmental activities supplemented by photographic slides and films and students participating in the environmental activities without the use of photographic slides and films is not rejected.

CHAPTER V

SUMMARY, DISCUSSION, AND CONCLUSIONS

The public interest in the quality of man's environment has gained considerable momentum since the data collection for this research study began in 1969.

However, the central focus of this national movement is mainly directed to eliminating the pollution of air and water, and an increasing effort to control the earth's population. Most assuredly these vital issues must command our attention but should we, as a nation continue to neglect the esthetics of the visual environment? Certainly to the esthetically sensitive individual the visual pollution is equally as serious as the contaminated air and water. Yet this current nationally strong environmental movement seldom acknowledges any attention to the visual environment, except as a secondary feature of a balanced ecology.

To illustrate the point, during the Environmental Teach-In (the first in the nation) held at The University of Michigan in March, 1970 only minimal attention was given to the quality of man's visual environment. This consisted of an excellent address given by Mr. William Ewald on the subject "Man's Environment--The Next Fifty Years." Unfortunately only a small

percentage of students and faculty at the University heard this speech. The small percentage was composed of art and architecture students and faculty. A proper analogy could be made here to the time-worn story of the minister and his errant flock.

The current trend of major periodicals to devote entire sections to discuss man's environment rarely include suggestions to improve the visual environment esthetically.

These facts are mentioned to emphasize that the high level of public interest in the environment still does not focus on the importance of esthetics in man's world. Yet, that is the certain element which has the sole function of giving quality to life.

There is a great difference between visual blindness and visual fatigue.

Visual blindness means that there simply is no energy expended to look. Visual fatigue is just the opposite, meaning that the viewer is saturated from looking.

The motivation for this research study initially began sixteen years ago, with the strong intuition that as a result of certain omissions in the educational process in the public schools we were in fact perpetuating this visual blindness to the environment on the part of the individual.

The present study recognized this fact. It was designed primarily to compare the differences between the responses of college students, who had been directly involved for a short period of time in various visual environmental activities, and students, who had not engaged in these activities.

The population was selected from students enrolled in the School of Education and the College of Architecture and Design at The University of Michigan.

The design of the instrument used for measuring the differences in responses had been used with elementary age children several times.

Because of the design of the instrument, which uses the individual's immediate environment, it is applicable only to that area in which it is used.

Reliability of Criteria

As a means of evaluating the subjective part of the judicative statements, the criteria used to develop an awareness to the visual environment were assigned a one point evaluation. These were: Description, Analysis, Translation, Interpretation, Evaluation, Synthesis.

The objective part of the judicative statements were evaluated on one point assigned for each correct answer.

An eighteen per cent sampling of the judicative statements for all groups used in this research study were evaluated by two judges. These judges were selected for their competency in this area.

To determine the inter-rater reliability of these scores as evaluated by the judges compared to the same sampling evaluated by this researcher the Pearson product-moment correlation coefficient was used. The results of this correlation coefficient were used. The objective scores attained the highest degree of agreement; however, the subjective scores were also high in agreement.

The high degree of agreement between this researcher's evaluation and the two judges evaluations gives evidence of the reliability of the procedures used in scoring the judicative statements.

Hypothesis One

Hypothesis one stated that there are no significant differences in rating of visual environmental esthetic judgments between students participating in the environmental activities and non-participant students with two art credits.

Two experimental groups participated in the visual environmental activities over an eight week period during the regular class, Art in the Elementary School. A third group, control group did not participate in the visual environmental

activities but they had completed the regular studio work, using art materials in the course, Art in the Elementary School. All three groups are majoring in elementary school education.

The F ratio on the analysis of variance for the subjective, objective and composite scores on the judicative statement indicates that there is a significant difference in the response of these students in favor of the experimental group. Therefore, hypothesis one was rejected on the basis that participation in the learning activities did increase the students' esthetic awareness to the visual environment.

The importance of this finding is a singularly valuable one for this entire research study. Not only on the basis that it offers statistical evidence to a theory long hypothesized by this researcher but more importantly it reveals that awareness to the visual environment can be re-awakened in college students. And further that this awareness can be developed within the framework of existing courses in the curriculum. No expensive materials or equipment or additional time were required to effect the increase in awareness within the two experimental groups. Therefore, education in esthetics to the visual environment can be developed in a regularly scheduled art class, using the resources ordinarily provided for art activities.

The fact that the literature review revealed no research similar to the design of this study has been undertaken makes it impossible to compare the results of this study to other work.

However, the results of this study indicate that even with minimal time expenditure in developing certain visual environmental activities a significant change in responses to awareness of the visual environment can be effected.

Hypothesis Two

Hypothesis Two stated that there are no significant differences in ratings of visual environmental esthetic judgments between non-art students participating in the environmental activities and art students not participating in the environmental activities.

The analysis of variance between the non-art students who participated in the visual environmental activities and art students who did not participate also indicates a significant difference.

However, in this researcher's opinion, this important finding should be tempered based on these facts.

First, the art students who participated in writing the judicative statement for this research study wrote it during

a night class. They attend this class after they have spent a full day working in studio courses, including painting, sculpting and ceramics. These classes are physically tiring on the students and they appeared very tired the night they wrote these statements. On that basis the difference in the time of day when the other groups had written the statements could account for the lower scores on the judicative statements by the art students.

Secondly, while the role of the artist in improving the esthetics of the visual environment is, indeed, important and is becoming increasingly more important, he does still remain most concerned with his role as a producing artist individually. The quality of his work must be high if he is to succeed in improving the esthetics of the visual environment but that quality can only become high if he disciplines himself to work within the media he uses to express his ideas.

The general public, however, are not producers, but rather consumers. They are ultimately concerned with every aspect of our visual environment from decision making on the city council about housing projects which rarely evince much esthetically, to planting a shrub on their own property, to voting against a sign ordinance at the state level.

Therefore, the significant difference shown between the non-art student participating in certain visual environmental

activities and art students not participating in the activities should be evaluated on the basis that the general public can learn about the esthetics of the visual environment in the context that most clearly affects his existence in the visual environment.

Perhaps, the most important evaluation from this finding could be stated on the basis of the value of every individual learning through participation in visual environmental activities. Again this finding clearly points to our failure to develop awareness to the total visual environment, for while the art students are highly talented in the production of singular works of art, they have not developed their sensitivity to include the whole--but have instead concentrated on the parts.

This finding reflects the need for including in the early years of education the fact that to make an exciting sculptural form is not sufficient. For indeed the form will be lost if the space it occupies does not enhance it esthetically.

Hypothesis Three

Hypothesis three states that there are no significant differences in ratings of visual environmental esthetic judgments between students with two art credits who were non-participants in the environmental activities and art students not participating in the environmental activities.

The results in the comparison between these two groups presented in Table 12 give evidence that hypothesis three is not rejected. In this researcher's opinion the evaluation of these results should also be tempered for the reasons outlined in regard to hypothesis two.

Hypothesis Four

There was no significant difference between the two groups of non-art students. Therefore, null hypothesis four--that there are no significant differences in ratings of visual environmental esthetic judgments between students with two art credits who were non-participants in the environmental activities and students without art credit who were non-participants in the environmental activities--should not be rejected. This conclusion is based on the fact that there was no significant difference on the subjective, objective and composite scores of the two groups.

Hypothesis Five

Hypothesis Five states that there are no significant differences in ratings of visual environmental esthetic judgments between students participating in the environmental activities supplemented by photographic slides and films and

and students participating in the environmental activities without the use of photographic slides and films.

The fact that no significant difference was evident between the responses of the two participating groups by deleting the use of slides and films from one group should also be evaluated carefully.

While one group did use slides and films during the eight week experimental period and one group did not--the use was extremely limited and not too successful for two reasons.

The studio where the class met had no black-out shades, therefore the image on the screen was not sharp. In addition, the space arrangement of the studio made it difficult for all students to view the screen with equal ease. These two factors could not be controlled in view of the limited space facilities in the College of Architecture and Design.

Summary of Conclusions

The results of this study have been broadly discussed and summarized in the previous section. The following statements are brief summaries of the conclusions:

1. A high level of agreement was reached among the judges on the judicative statements. This includes both the subjective, and objective scores, with the objective scores attaining a higher level of agreement.

2. The response to the esthetics of the visual environment by students who had participated in certain visual environmental activities was significantly greater than similar responses by students who had not participated in the visual environmental activities.
3. There was no significant difference in the responses of non-art students and art students to the esthetics of the visual environment if they had not participated in certain visual environmental activities.
4. There was no significant difference in the response of non-art students to the esthetics of the visual environment by omitting the use of slides and films from certain visual environmental activities as compared to supplementing the activities by using slides and films.

Implications and Recommendations

This study, as with other educational research studies, has a dual purpose. One, to provide recommendations for implementation into present practices and to recommend further research that can set forth an extension of these findings. This

section will explore these two important areas as they relate to the present study.

Mentioned earlier in this chapter was the significance of the analysis of variance among the three groups taking the same course as they responded to the visual environment. In discussing the importance of this finding this researcher pointed out the importance of implementing the visual environmental activities within the existing framework of the curriculum. This recommendation is made for both elementary and secondary schools.

While this research project had its inception in developing the ideas and projects with elementary age school children, the present study has utilized an adult population. Therefore, the applicability of the activities to increase awareness to the visual environment can be used with any age group.

The part that art plays in the total curriculum of both elementary and secondary schools is frequently critized as well as eliminated from the curriculum. Probably the strongest indictment is that it has no importance in the total educational process. In many schools throughout this nation, "art activities" may be justifiably cut from the program. But this applies to "art activities", not art programs. And it is to this point that this research study is most clearly directed.

The development of personal creativity has become the paradigm of art education in the public schools. These art education programs range from the very excellent to the very poor. It is not within the scope of this investigation to outline the controversy that exists among the advocates of the depth versus breadth philosophy on personal creativity. Yet the failure of art educators to resolve at least some of this conflict has, in this researcher's opinion, placed art in the public schools in the critical position it now occupies.

Certainly at this point in history when the teaching-learning process is being so closely examined, art education in the public schools must likewise re-evaluate its role. Only a faint beginning is emerging from the general public in demanding this change but nonetheless the faint beginning does exist.¹

The results of this research could provide a beginning to effect change within the art curriculum. At no point in this study has this researcher advocated a complete change of present art programs as they exist in the public schools. Certainly we need to develop the creativity of every individual and research has shown that the art experiences do nurture these capabilities. However, this study demonstrates that certain visual environmental activities can be introduced within the

¹See Appendix C.

the framework of a regular art class. By using these visual environmental activities in a balanced relationship to activities devoted to developing individual creativity an improved awareness to the esthetics of the visual environment can be effected. The statistical findings of this study give support to this conclusion.

It then becomes evident that this procedure of developing an awareness to the esthetics of the visual environment can be implemented into public education, without additional cost in terms of time, equipment or personnel. It is apparent to this researcher, as a result of this study, that the logical and valid place for developing awareness to the esthetics of the visual environment is in the art class. This is the subject area most concerned with the visual and with esthetics. To attempt to incorporate the study of the visual environment into a subject area not related to the study of design does not seem valid, on the basis that it would become learning of facts with little regard to esthetics.

In conclusion, this researcher can only emphasize that the results of this study represent a modest but basic beginning in developing an awareness to the esthetics of the visual environment. If the quality of the visual environment is to be improved there must be continued research in this field as

it relates to the teaching-learning process of developing awareness to the visual environment.

As a nation we have the affluence to achieve esthetic quality in our visual environment--that we have the wisdom and charity to accomplish this remains uncertain.

APPENDIX A

VISUAL ENVIRONMENT JUDICATIVE EXPERIMENT

Visual Environment Judicative Experiment

The exact copy of the measurement instrument used in this research study is presented here. This includes ten structures the participants had walked by or physically occupied for two or three years, and ten slides of structures not existing in the participants' immediate environment.

The students viewed the slides prior to writing the judicative statement. They were permitted to take notes and refer to them while writing the judicative statement.

At the conclusion of the slide presentation the participants began writing the judicative statements. They were asked to write their judgment of the structures listed, including both the subjective and objective information. No questions were answered during this time and the participants were requested not to discuss the judicative statements with the other participants during the writing period.

VISUAL ENVIRONMENT JUDICATIVE EXPERIMENT

1. Angell Hall
2. School of Education
3. Undergraduate Library
4. College of Architecture and Design

5. School of Music

6. Dominick's

7. Grey House (Monroe & Teppan)

8. Law Quad

9. School of Business Administration
10. Administration Building (new)
11. St. Louis Botanical Garden (slide)
12. Playhouse Expo Seattle - planter (slide)

13. Washington Square, New York (slide)
14. Jefferson National Expansion Memorial (slide)
15. Seagram Building, New York (slide)
16. United Nations Building, New York (slide)

17. Capitol Building (gen. view east front) (slide)

18. Metropolitan Museum, New York (slide)

19. St. Andrews Church, Ann Arbor (slide)

20. Lambert Field, St. Louis (fountain) (slide)

Descriptive Factual Information

On this section of the judicative statement the participants were asked to list the factual information (a, b, c, d, e, f) on the same twenty structures. They were reminded to omit the blanks not applicable to a particular structure (i.e. C - numbers of stories for slide number 12 - planter).

Please write the following descriptive information on each structure and slide.

- a. material of structure
- b. general shape of structure
- c. number of stories
- d. color of structure (exterior)
- e. style of architecture (or approximate year built)
- f. is landscaping evident (yes or no)

1.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
2.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
3.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
4.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
5.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
6.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
7.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____
8.	(a) _____	(b) _____	(c) _____
	(d) _____	(e) _____	(f) _____

9. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
10. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
11. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
12. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
13. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
14. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
15. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
16. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
17. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
18. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____

19. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____
20. (a) _____ (b) _____ (c) _____
(d) _____ (e) _____ (f) _____

Judicative Statement
Written by a Student

A copy of a judicative statement written by a student is presented here. The first digit indicates the point evaluation on each statement assigned to it by Judge One and Judge Two.

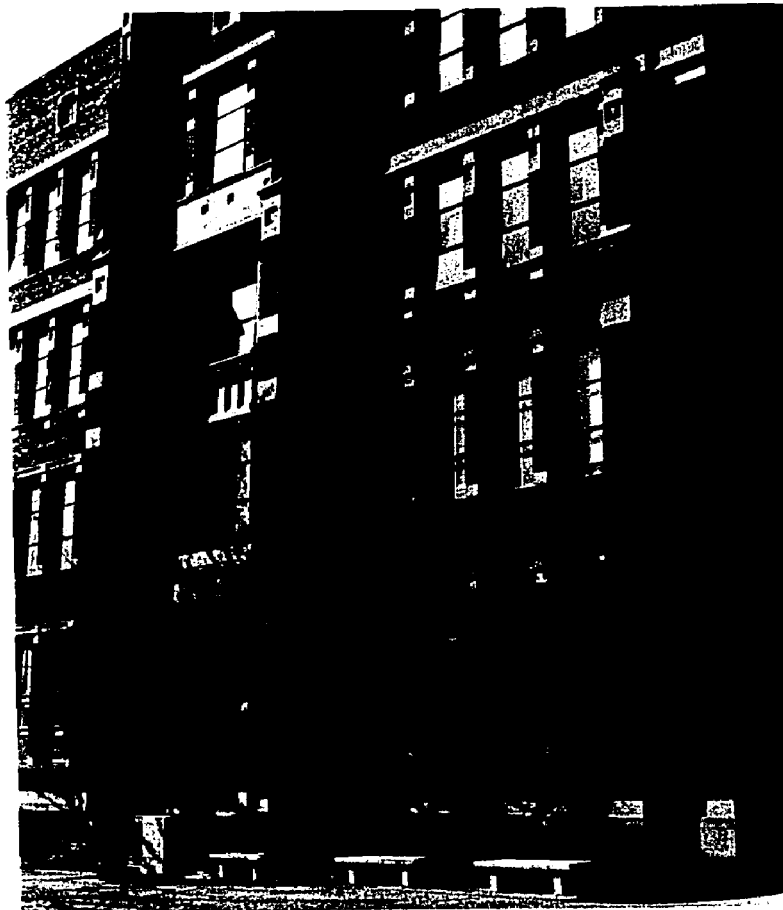
5- 1. Angell Hall

Angell Hall is an off-white, stone building, built in an imitative classical style. The building seems to be divided into 3 sections: a central section with pillars and steps, and two side wings. These sections are well-connected into a whole. This large building is fairly independent of other structures, for it is landscaped in front and on the sides. Angell Hall is very impressive because of size, placement, and style. Improvements could be made in the use of classrooms.



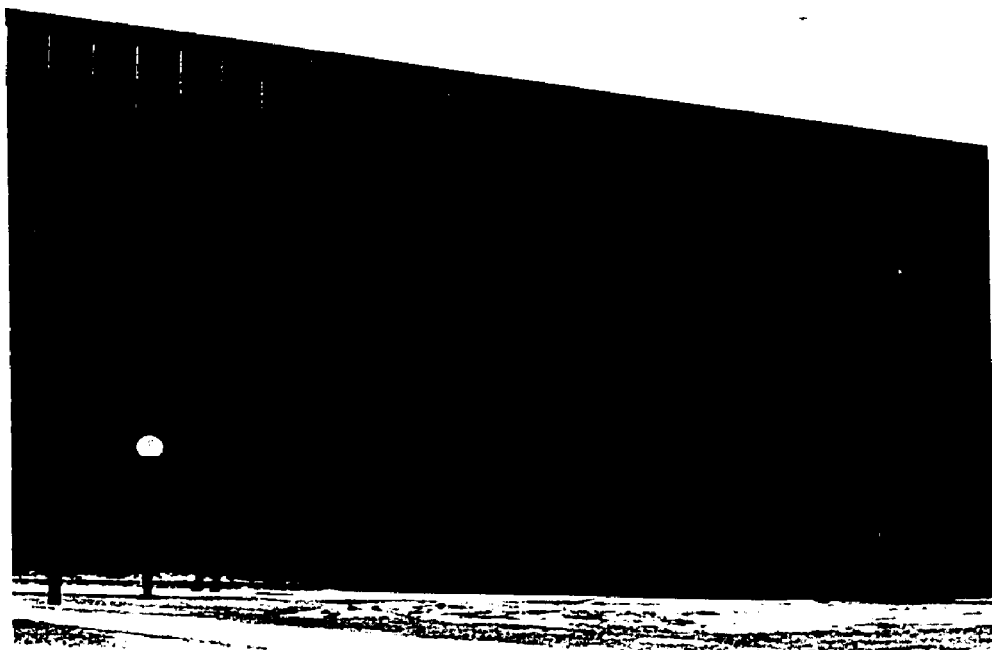
5- 2. School of Education

The School of Education is a brown brick, 4 story building. There is nothing striking about the building. Its one focal point--the entrance--is no longer in use. Its windows are not emphatic and the whole building gives the impression of being dingy. The lack of space around it eliminates much landscaping. The entire building does not seem to relax in a harmonious way to its environment or other buildings. The color, lack of effective entrances or windows and lack of landscaping, give the whole building a somewhat dull appearance.



5- 3. Undergraduate Library

The Undergraduate Library is a concrete, brick and glass building, constructed in a nearly box-like shape. The library is very uniform on all floors, with only a few small windows. The windows on the front and a rather obvious entrance are the only striking things about it. These two factors, however, do not eliminate the box-like appearance. It is not related to any other building in a noticable way. There is very little space around it. This building is not very exciting visually and certainly should not distract students using it. I think it could be less-functional and more attractive.



4- 4. College of Architecture and Design

The College of A & D is brown brick and glass. It is L-shaped. The building is very difficult to observe, for it is crammed between Martha Cook and the School of Education. The glass-windowed side facing Martha Cook is barely noticable. Because of restricted space, its relationships to other buildings and landscape are not very effective. As a whole, the building seems quite appealing, but it should be in a larger space in order to be appreciated.



4- 5. School of Music

The School of Music is a brownish brick building which varies in shape and height because of its intimate relation to its setting. There are many wings to the building, but they all mash together and with the setting. Since this building is set apart from other structures there is no problem with relationships between buildings. I have no suggestion on how this building could be improved.



5- 6. Dominick's

Dominicks is an adaptation of an old, wooden house into a restaurant. It has a balcony and a sidewalk patio. In no way could this be called an attractive, well planned structure, for it is a combination of disjointed parts in a tight setting. It is not related harmoniously to any other structures. Dominicks is very intriguing simply because it is too ugly--it has "atmosphere"!



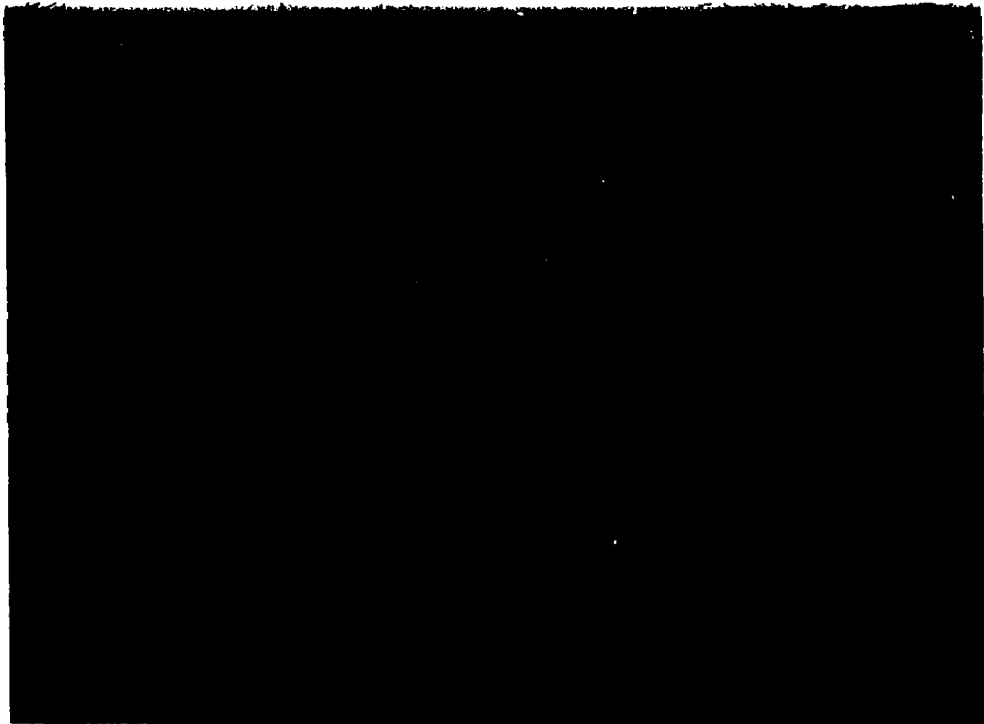
5- 7. Grey House (Monroe & Tappan)

This wooden, grey building is also an adaptation of an old house. Its tall windows and vertical lines give it the impression of being tall. Its roof sits on top like a Chinese hat. The whole building does not seem to hold together, probably because it is being remodeled into something that was not intended. It does not blend well with surrounding structures, which are mainly old houses.



5- 8. Law Quad

The Law Quad is a stone, Gothic structure that is shaped into a square with a center court. Its many parts are intimately connected in the square and providing a harmonious whole. The courtyard in the center and the lack of other structures on the block add to this impression, although the structure would be more effective in a larger space. It is not related to any nearby structures. The Law Quad is beautiful, although it does seem excessively imitative and a bit out of context.



5- 9. School of Business Administration

The School of Business Administration is a tannish, brick structure. It is composed of two parts--one vertical and the other horizontal. Those do not seem well-connected into a whole. It is not related to any other buildings or to its landscape setting. This building impresses me as being disjointed and colorless.



5- 10. Administration Building (new)

The Administration Building is brown brick, about 5 stories tall, and sits on a smaller, arched base. The windows are small and placed in an irregular position. The upper stories and base do not seem well integrated and the windows don't seem functional. The building was not designed with nearby structures in mind, although it is fairly well integrated with the front plaza. The building does not really seem effective. It should have been designed to fit its setting.



5- 11. St. Louis Botanical Garden (slide)

The St. Louis Botanical Garden is made of glass and metal and looks like a shiny turtle shell. It is primarily composed of a dome, which is well set within a garden. The building in combination with its setting provide a beautiful whole which emphasizes botany.



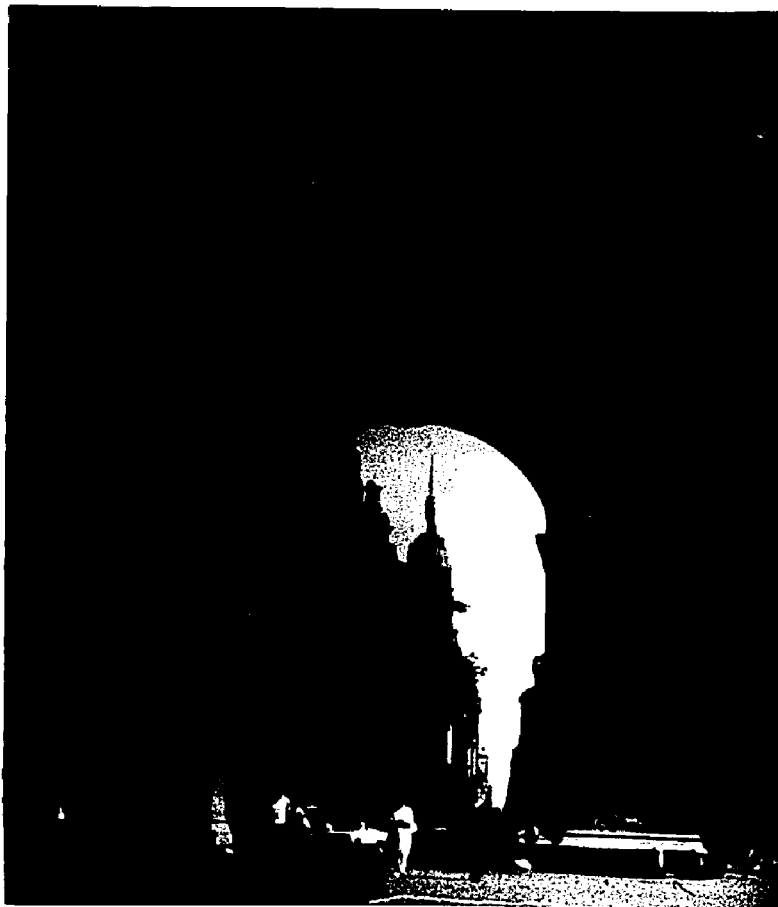
5- 12. Playhouse Expo Seattle (slide) - Planter

This concrete planter is hexagonal in shape. It was designed to be part of a "landscaped" plaza. It almost seems to grow from the concrete sidewalk, and therefore, is well integrated with its setting. The planter and setting as a whole, however, seem very unimaginative and overly simplified. The side seems sterile.



4- 13. Washington Square, New York (slide)

This concrete arch is designed according to the Roman monumental arch type. It is set on a plaza surrounded by large buildings, which, unfortunately, dwarf it. The arch itself is lovely, but would be more effective in a different setting.



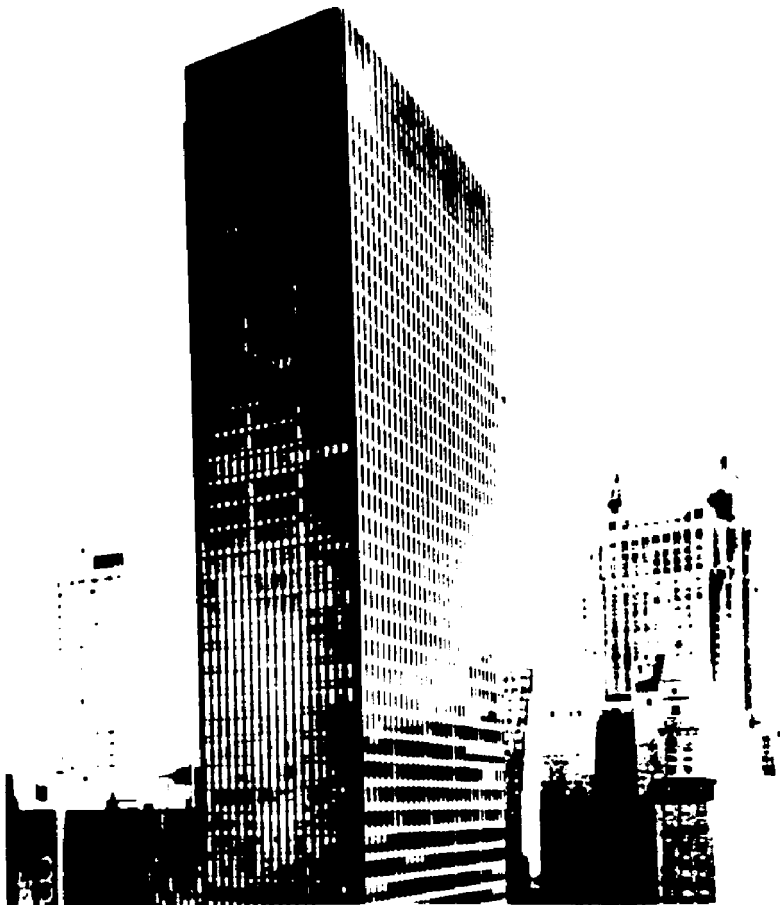
4- 14. Jefferson National Expansion Memorial (slide)

This metallic arch is extremely simple in design. Its setting is absolutely flat, and the two hardly seem well integrated. The arch would be more effective in a different setting, but even in a different setting it would be somewhat unimaginative except in size.



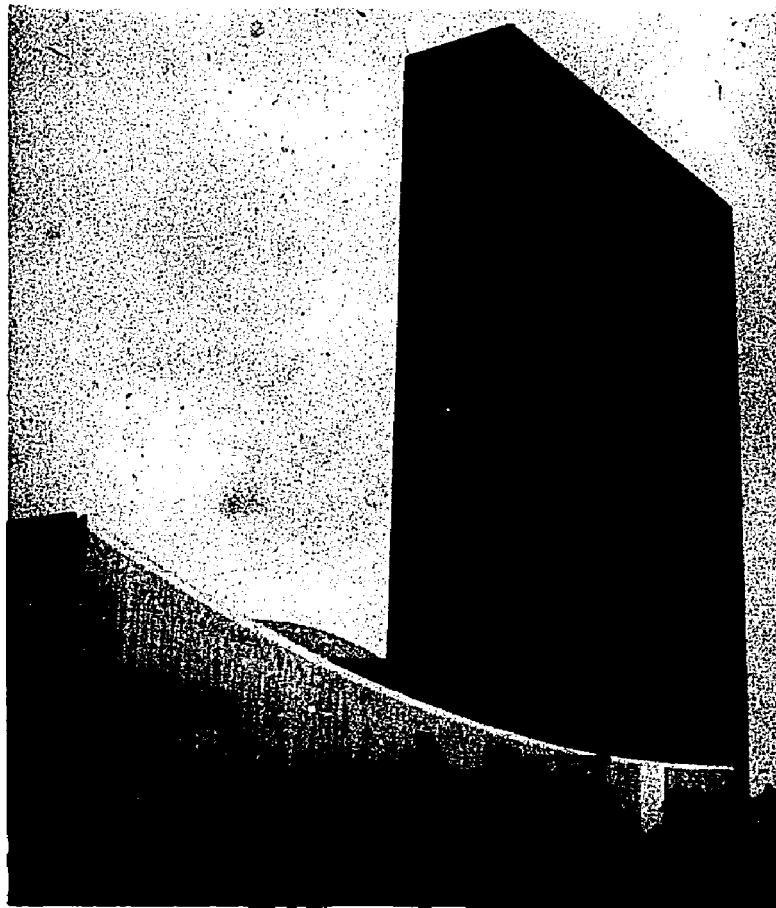
5- 15. Seagram Building, New York (slide)

This skyscraper is constructed of glass, concrete and metal. It is tall, thin, and greyish colored. It's huge storied, super structure does not connect well with the little feet at the base which could not possibly support the building. The building also is not unified with nearby structures and is rather difficult to view as a whole. It would be improved with a different setting, but nevertheless seems rather ordinary.



5- 16. United Nations Building, New York (slide)

The U.N. is a tall, thin, glass and metal building. It has two parts--one tall and another horizontal--which, although they are obviously different, connect well. It seems to be relatively easy to view, in comparison with other skyscrapers. There are no other buildings nearby with which it must relate. The whole building is streamlined and beautiful.



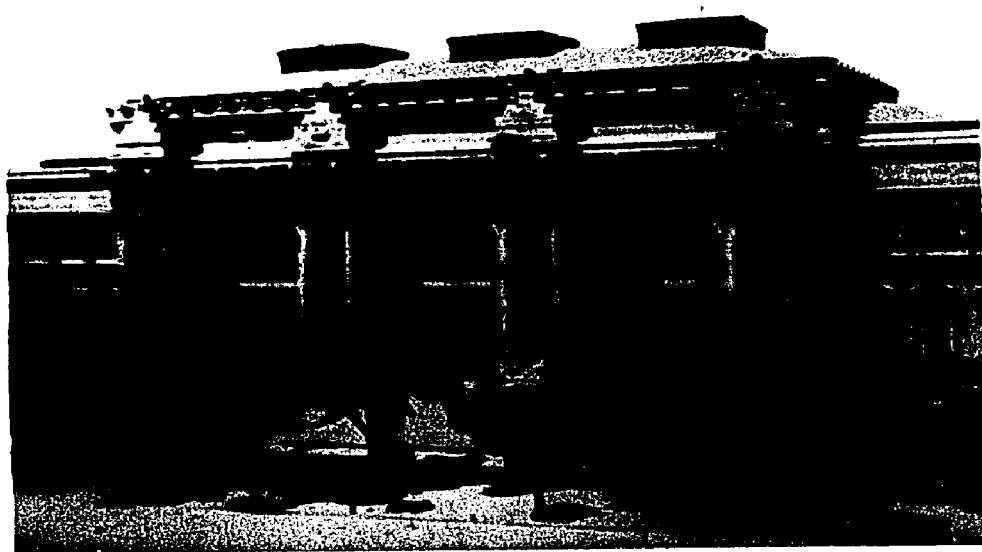
4- 17. Capitol Building (general view east front) (slide)

The Capitol Building is constructed from off-white stone in a style imitative of Greece. Its parts--a dome and rectangles--are well connected into a whole. Because of landscaping, this building related well to its setting. As a whole, this structure is very harmoniously and beautifully constructed.



5- 18. Metropolitan Museum, New York (slide)

This off-white, stone museum is constructed in a rather peculiar style, which superimposes plasters and decorations on a rectangle. Although the building fits well in its landscaped setting, as a whole it does not hold together and looks like an iced cake.



4- 19. St. Andrews Church, Ann Arbor (slide)

This church is made of tannish stone and brick, and is composed of 2 parts: a tower and the church proper. These two parts are not well integrated. The church could be much better appreciated in a more open setting.



4- 20. Lambert Field, St. Louis (fountain) (slide)

The fountain in front of Lambert Field is square and is made of off-white concrete. Although it seems to have been intended as part of a plaza and blends well with the concrete base, the plaza as a whole is very unimaginative and sterile.



Please write the following descriptive information on each structure and slide.

- a. material of structure
- b. general shape of structure
- c. number of stories
- d. color of structure (exterior)
- e. style of architecture (or approximate year built)
- f. is landscaping evident (yes or no)

- 6- 1. (a) limestone (b) rectangles (c) 5
 (d) off-white (e) classical (f) yes
 (e) (Greek)
- 6- 2. (a) brick (b) rectangle (c) 4
 (d) brownish-black (e) 1930's (f) slight
- 6- 3. (a) brick, glass,
concrete (b) rectangle (c) 4
 (d) brown & white (e) 1950's (f) slight
- 6- 4. (a) brick (b) L-shaped (c) 4
 (d) brownish-black (e) 1930's (f) slight
- 6- 5. (a) brick (b) very irregular
rectangles (c) 2-3
 (d) brown (e) 1960's (f) yes
- 5- 6. (a) wood (b) rectangle (c) 2
 (d) browns (e) 1940 (old house) (f) no
- 6- 7. (a) wood (b) tall rectangle (c) 2
 (d) grey (e) remodeled late
1950's or 60's (f) slight
- 5- 8. (a) stone (b) square with
tans, yellows, (c) 2
 (d) oranges (e) Gothic (f) yes

- 5- 9. (a) brick (b) 2 rectangles (c) 2/10
 (d) tan (e) 1950's (f) no
- 6- 10. (a) brick (b) tall rectangle (c) 5
 (d) brownish (e) 1960's (f) yes
- 5- 11. (a) concrete, glass, metal (b) dome (c) _____
 (d) shiny green (e) modern 1960's (f) yes
- 5- 12. (a) concrete (b) 6-sided planter (c) not relevant
 (d) off-white (e) 1950's - 60's (f) yes
- 5- 13. (a) concrete (b) arch (c) not really relevant
 (d) grey (e) antique-Roman arch (f) yes
- 5- 14. (a) metal (b) arch (c) not relevant
 (d) greyish (e) 60's (f) no
- 6- 15. (a) glass, metal, concrete (b) rectangle (c) 40
 (d) grey (e) 1950's or 60's (f) no
- 4- 16. (a) glass, concrete, metal (b) rectangle (c) 40
 (d) grey (metallic) (e) 1950's or 60's (f) no (slight)
- 5- 17. (a) stone (b) domed & rectangles (c) 4
 (d) white (e) classical (f) yes
- 6- 18. (a) stone (b) rectangle (c) 4
 (d) white (e) 1940's (some classical influence) (f) yes

- 6- 19. (a) stone & brick (b) rectangle (c) 2
(d) grey & tan (e) 1940's (f) slight
- 5- 20. (a) concrete (b) square fountain (c) not applicable
(d) off-white (e) 1950's-60's (f) yes

APPENDIX B

VISUAL ENVIRONMENTAL ACTIVITIES

INVOLVING

GROUP A AND GROUP B

The students in Group A and Group B participated in various visual environmental activities during an eight-week period.

The groups were composed of fifteen students. This group size facilitated the participation of all members in the discussions.¹ The data analysis, however, uses only twelve members as three members had absences during the eight week period and did not participate in all of the visual environmental activities and ensuing discussions.

A different student designed the groups' visual environmental activities each week. The student then discussed the problem with the group for possible alterations and the procedure for development of the problem.

The following class session was used to discuss their observations and solutions to the assigned problem. Some students developed forms using art materials to present their ideas. Most, however, presented their ideas verbally or in writing.

The discussion sessions were very lively and frequently a student's ideas were questioned and challenged by his colleagues.

¹C. Theodore Larson, gen. ed., School Environmental Research Vol. 11: The Interactions of Man and His Environment by Daniel H. Carson, p. 21, (Ann Arbor: The University of Michigan, Architectural Research Laboratory, 1965).

The verbal discussions of the research study cannot be documented as no recordings were made. Included here, however, are samples of written statements used as the basis for their discussions. Some are very general in outline while others are written in greater detail.

The following problems were developed during the eight week period.

A. Problem

Evaluate an area (space) which you pass by in your regular pedestrian path on The University of Michigan campus.

A. Response

Although the area around the Kelsey Museum may be well used functionally - filled as completely as possible with architecture - it does not provide for an esthetic appreciation of the building. It is surrounded on 2 sides by the L.S. and A. Building and Helen Newberry Hall, and dominated in front by Angell Hall. The minute front yard of Kelsey Museum is filled with trees, which also succeed in blocking the building from view. Unfortunately, it is easily possible to walk by it without even noticing that it is there. The setting also

interferes with use of the building, for the lack of open space and a visible entrance remove any welcoming effect. I doubt that any passer by would feel an urge to enter.

B. Problem

Observe and describe linear patterns in the visual environment.

B. Response

1. Since I walk most of the time and don't have a car, it gives me lots of time to look at things. Since I've only been here about two weeks. I'm still very impressed by the lines of the buildings. Last night I stood at the top of the steps of the graduate library and just noticed the rails and the steps. I noticed the moire pattern on a ribbon. I look at so many things that way now I can hardly remember them all. I noticed a tower like part of a house with linear divisions on it, but in drawing it came out more of an image picture than a linear composition. I look at cracks in things like pots and sidewalks and buildings because they change the uniformity of the structures they occupy.

2. I observed the line pattern of the cement surrounding the rock walls of the church on the corner of Hill and Tappan. There seemed to be two basic types of line: a smooth, dominant, organizing line, and shorter, freer lines. The organizing line would be one around the arch doorway, or the window. The rocks of the walls began from this point in a very random fashion, and, therefore, the cement between them provided a pattern of short, random lines.

3. Description of trees in a forest on the way to North Campus.

The thicker lines run in a vertical pattern, appearing as fairly straight lines, but deviating from straight lines by small sudden curves. To the top of these vertical lines are smaller lines (both in length and thickness) arranged at various angles to the thicker vertical lines. And, from the above mentioned smaller angular lines come still smaller and thinner lines arranged at various angles.

C. Problem

Study the changes that distance (close-ups; far away causes in form as we view it.

C. Response

In approaching our visual problem for this week, I found it to be harder than I expected. We know that things appear differently up close than they do from afar. In a way this hinders us for we don't stop to think of the things around us change with distance because we are so familiar with them. The problem had to be taken from the point of view of someone who can suddenly see for the first time and now notices these changes. If this is done, there are many examples to be found.

1. Lighted signs or billboards - Letters and pictures from far away appear as one unit yet up close one finds that each letter or picture is composed of many small light bulbs that from afar appear to blend together as a unit.
2. Roofs of Houses - The textures and shingles of roofs from far away appear to be a flat smooth surface. Up close one sees that the roof is composed of individual shingles or blocks and even

these have a rough texture that cannot be seen until they are seen from very close up.

3. Grass - Driving down the street, the yards look like very smooth surfaces from far away. Then as you approach you see all the individual blades of grass and find out the yard is anything but smooth.
4. Carpets - The same idea as the grass also applies to carpets. From afar they appear to be very smooth and even, yet when you examine a carpet (on your hands and knees) you can see all the individual pieces of wool, etc.
5. Highways - As you're driving, the road up ahead appears to be smooth as glass, yet just by looking out the window at the pavement you're on at that second, you know that it is not smooth by any means but bumpy, due to the many small problems and pieces of rock that make up the concrete.

D. Problem

Evaluate two man-made structures on The University of Michigan Central Campus. One that evokes a positive response and one that evokes a negative response.

D. Response

Two Man-Made Structures

1. Positive - Burton Memorial Tower is very impressive as it stands above most of the other buildings on campus. It gives a stately appearance - tall, thin, very strong, few windows, and narrower at the top. The lines that run from the base to the top add to the effect and the intricate work around the clock makes this strong and powerful building also seem delicate. Amid all the classroom buildings it definitely is a pleasant relief to see.
2. Negative - Mason Hall reminds me of a series of boxes. It really is nothing more than a rectangular brick structure with groups of windows placed in it in definite rows. It gives the impression that inside each group of windows is a different group of students, all caged into these little cells. I suppose it is typical of what a classroom building should look like, but it doesn't give the greatest impression - I don't like thinking of myself as one of the students in one of the cells.

E. Problem

Discover something unique in your visual environment, which you have just recently experienced.

E. Response

A Unique Quality of the Visual Environment

Ceiling of Angell Hall

After being at The University of Michigan for three years and walking through the front doors of Angell Hall, thousands of times, I just noticed something this week that I never saw before. If you enter Angell Hall from the State Street entrance, as soon as you walk in, there is a corridor of white cement walls and steps. However, the ceiling is done in a light red, blue and white symmetrical order of squares with a flower shape in the middle. It seems to be a Baroque style, and it is carved or raised up, rather than a painted ceiling.

The white solid color walls, contrasts the colorful ceiling. The huge space of the room is quite different from the cluttered design on the ceiling. However, usually if there is a great contrast, it would be

quickly recognized and visible. Yet I never saw it before this week.

Most people who run back and forth through this part of the building are usually in a hurry and there is a crowd of pedestrian traffic. Therefore, no one has the time to look up. Also, due to the mass of people, it would be a safety hazard to walk with your head looking at the ceiling, especially with a staircase located in the middle. If you looked up, you would inevitably trip on the stairs, or bump into someone. This beautiful work of art on the ceiling gets overlooked, because of the mass of people hurrying in and out, with their thoughts on things other than the architectural structure of Angell Hall.

This ceiling is not functional in a building that serves for classrooms, and business administrative offices, containing many people running in and out. This ceiling should be allowed to be looked at and observed, which is impossible in the middle of all that chaos.

The ceiling should be in a place where observation is possible, and where it could be appreciated.

F. Problem

Study and describe your living quarters.

F. Response

The atmosphere of my immediate environment is warm, due mainly to the use of warm browns, yellows and oranges in the living room, bathroom, and kitchen. The first impression is one of aireness and spaciousness (for want of a better term). The entry hallway extends the length of the house. The house is anything but symmetrical - with the living room being the dominant feature - almost an accent to the house. The kitchen complements - but does not balance the living room in effect. The overall effect is of opening outward to the outside with many windows. One especially pleasant effect more is the yellow coloring of the maple tree outside the living room which blends with the hues within the living-room.

The hallway in particular is a composite of textures

- the plaster of the ceilings (dull rough)
- the burlap on the top part of the walls
- linoleum of the floor
- the smooth plaster on the bottom half of wall,

high ceilinged and narrow-cut height with fish-netting drapped from side to side.

The living-room and kitchen are rectangular while the bedrooms are interlocking "L"s.

G. Problem

Describe a form (you use frequently) which is functional.

G. Response

Form fits function that's easy to see,
Just look around and take note with me.

That spoon with which you drink your soup,
Wouldn't be worth much without its scoop.

High walls have the desks in the Ugli we see,
Without this everyone would peer around including me.

Our football stadium is shaped like a bowl,
So more people can see from high or low.

The handle on one's coffee mug,
Makes it easier to grab if hot and not spill on the rug.

Lettering on a sign is bold and bright,
To attract customers day or night.

Booths in a restaurant go the table round,
It's easier to communicate with even a faint sound.

So, form fits function - that's easy to see,
If you'll just take notice and look you see.

H. Problem

Observe commercial signs in the visual environment.
 Write an evaluation of one sign which you consider esthetically pleasing. Write an evaluation of one sign you consider lacking in esthetic value.

H. Response

Right next door to Sarah Magnuson's is Tice's drugstore. This is an unfortunate store, indeed. On State Street among other places of business, some of which are quite attractive, Tice's lies.

It's very hard to see its windows and doors because they are covered with signs. It looks very much like a collage. The only sign that I could find that says that this is Tice's, is above the window and camouflaged by two other signs - for Coca-Cola.

The whole effect is like looking at a disaster area after a hurricane. My first impulse is to clean the whole place up - strip it completely and begin from scratch.

The sign which is most important, the name of the establishment, is good solid black letters on a white

background. It's the plastic type of sign which is lighted at night. It's very common, and typically drug-store. However, it can barely be seen.

To improve the whole mess, the additional signs could be removed - to add a bit of breathing room. The coke/beer signs could be removed from the flanks of "Tice's" sign.

An attractive, small sign could be placed above the store. Tice's - it wouldn't have to light up or do anything at all if it could be seen. There's no reason why a store that sells everything under the sun has to have a front advertising all those things, and there's no reason for a drugstore to have a homely sign to tell the public where they are.

If they would get rid of all the signs in the window blocking the view of what's in the store, people would know anyway and their name sign would be more visible, could be attractive, and would have a reason for being there.

The exterior of the Sarah Magnuson store on State Street, is glass, trimmed in black, white and gold. The windows are large, giving any passer-by full view of their display and the interior of the shop. The door is also glass. The windows and door are trimmed with a touch of gold. The corner piece (?) is a black column with dull gold in the fluted areas. The color scheme of black and gold is repeated in the sign above the store. It is a black frame the width of the store, within which there is a white, slightly indented rectangle. The black, block letters, SARAH MAGNUSON are very striking against this white background. They are not directly centered above the shop, but slightly to the left. Then, in script there is a gold monogram. This gold monogram is repeated on a smaller scale at eye level on the window just to the left of the door.

I think the whole effect is good. The colors are striking and simple: even the awnings they put out on a rainy day are plain black and attractive, whereas 'Stangers' awnings detract from the pleasant quality of the store, these don't.

I checked to see if there was a sign of sorts that would be visible to a passer-by and found the monogram on the window by the door. I thought this was good for these reasons. A shopper, seeing the store would be attracted by the things in the window (they are very conscientious about the quality of their displays) and the light feeling inside. They would know right away that it is a clothing store which also sells jewelry, scarves, umbrellas and purses. There is no need for a huge sign plastered all over the window.

There are a collection of credit cards placed subtly in the corner of the window, which is another attraction.

The monogram on the window is a little reminder of where they are, if they want to remember the name. Also, once inside they can always ask the name if they care to. A good way to get people inside.

To a person driving by, or someone approaching the store from the diag, the sign above the window is very eye-catching and easy to read. Again, it would never have to say "Sarah Magnuson Shop" or "Clothes" or what have you, because what Sarah Magnuson sells is obvious from the window.

It is situated on a corner and is really the gem of two streets. Most of Thomson Street (of White's Market fame) looks like a slum of the 1st degree, so this store stands out in its elegance. On State Street, I'm sorry Tice's Drugs is right next door, but again, it makes Magnuson's look even better.

I. Problem

Describe something unique about the visual environment, which you experienced as a child.

I. Response

The unique historical part of my Burlington, Vermont environment is the part it played in the American Revolution and all the references we have in the city to the Green Mountain Boys. There are several historical markers. And in the north part of the city there is Ethan Allen Park complete with lookout tower. To get to the lookout tower you walk up a long winding path. You come to a small round stone enclosure which has openings on all sides. From here you can see the city and the residential sections of new "development" houses, some of the old mansions which were built earlier, and then you can get a view of the lake and

any approaching enemy and it completely carries you away to when men might have stood guard over the few log houses and watched to see if any British approached by the lake. Then turning again you can see the mountains perhaps 40 miles away through which men and supplies were moving. And then you come down again and get back into your car and pass the houses and the lake - a rather unique combination of past and present.

J. Problem

Describe something unique about a visual environment outside Ann Arbor.

J. Response

Gilmore's Ice Cream Parlor, in the summer has an outdoor "sidewalk cafe." It is on the Mall in Kalamazoo, and fits in well with its surroundings. The cafe itself, although it is right out on the mall among all the shoppers and rush of busy people, is set apart from it all, both physically and in mood.

Physically, it is set up in front of the store itself and is surrounded, though not completely, by small bushes in box-like planters. (sounds terrible - but isn't)! The bushes are low enough to be seen

over when sitting down, so that customers can enjoy watching people rushing by without feeling rushed themselves.

It's a nice retreat from shopping or business - a bit slower, quieter, more relaxing mood - without being completely shut out from whatever is going on. It's like having a front and center seat at a play - not too close, yet you can see easily, and not be bothered by getting up to let people in your row.

It can be entered easily from the outside as well as from the "Parlor" itself, and is strategically placed so that when coming from shopping in Gilmore's main store, people will be drawn to it.

I have only two criticisms: one is that the service is poor - irrelevant to art, but when you're hungry...! And, that they have the little area so crowded with tables that there is really no space for movement (or large packages) once you've entered. If I were to change it, I would take out about 5 tables.

Perhaps I would be losing business, but I think the people that were there would find it less hectic and crowded, and more pleasant. Then the waitresses might be able to move faster too; even so, perhaps if they didn't feel so crowded in, people wouldn't mind waiting as much.

K. Problem

Observe and describe a man-made structure that does not relate to its setting (site).

K. Response

On Oakland Street in Ann Arbor, an attractive, "modern," brown and white apartment building has been constructed. The building consists mainly of wood, metal, concrete, and glass. It is 3 stories and all, plus a carport underneath, and its shape is based on simple straight lines and rectangles. One entire side of the apartment building is completely covered by balconies; there is one long balcony extending from one end of each floor to the other. As a whole, the building is longer than it is wide.

As stated above, wood, metal, concrete, and glass are the main components of the building. Dark-brown stained wood in long, vertically placed boards cover most of the front. Between two large areas of wood there is an area consisting mainly of alternating window and wide metal areas. All these areas have smooth, straight lines, and their shapes are based on rectangles. The right side of the building consists of similar shapes. The balcony-covered left side is different from the front and the right, but retains the long, smooth, straight lines in the balconies, and rectangular shapes in the windows. The actual "first" story of the building is a car port, with its entrance from the side and a stone wall facing the front. Although the stones are irregular in shape, they are contained in simple rectangular areas. There is a rather empty yard in front of this building, a lot of dirt, very little grass, and a few low shrubs. The entrance is a small door, rather well hidden among the balconies on the left.

All of the component parts of the apartment structure analyzed above are based on simple lines and rectangular shapes. All of these shapes combine to give the

impression of a very unified whole. Not even an elaborate entryway interferes with the simplicity of the building. Most of the windows are of the same shape. There is no landscaping to interrupt ones view of the simple lines, though this lack is a dubious virtue.

This smoothly-shaped apartment building is set between two houses which are obviously of a different decade. The house on the right is red brick, with a large porch, a balcony, a pointed gable, and many curiously shaped windows. There are vine's and shrubs covering the front and trees in the yard. The house on the left is white frame, with a porch and pillars, and many varied windows, including window seats on the 3rd floor. This house also has trees in the yard and a few shrubs in front of the house. The contrast between these old homes and the modern apartment building is obvious to even a casual passer-by.

It seems that the modern apartment building is not well-studied between the two older homes, especially since most of the buildings on the block are also old. None of these buildings compliment each other. A very attractive apartment building seems a bit brash

set next to an old house. In another setting it could be more appreciated.

The apartment building should have been constructed in an area where it could interact with complimentary forms.

L. Problem

Observe and describe a man-made structure that relates very well to its setting (site).

L. Response

The Huron High School is very beautiful as an architectural achievement and as an integral part of the surrounding area.

The parking lot is broken up into curving layers which is repeated in the varied leveled building. The building itself is broken up by a drive which again makes it not just a building but part of the surrounding area. The staircases all have skylights which from the inside give the feeling of bringing the outside in. The entire building has a great deal of windows which again make the building more

than a building. There is a focal point that being the circular central area. The view towards the Huron increases the feeling of nature and ease. The building has contrast of window and brick in itself, but the landscape is an integral part of the overall design.

M. Problem

Study the most predominate form in your visual environment at a particular time. (This problem was designed the week of the 1969 Ohio State-Michigan football game.)

M. Response

Michigan Stadium; packed to overflowing; green turf - blue sky; brisk wind; advertising planes; noise; spectators - segregated Ohio and Michigan. Colors - red, yellow stand out; U. S. flag blowing in breeze; air of excitement, apprehension; Michigan victory!; pressbox behind Michigan fans - casting shadow.

Players and officials on the field, teams on side lines, Ohio and Michigan bands in edge of crowd; packed stadium.

Everyone watching playing field; Ohio cheering at opposite times as Michigan fans - sides rise at opposite times; compare packed stadium with playing field with only players and officials; compare 'heavy' color in bleachers with light green of turf, with bright uniforms of players, bold uniforms of officials.

Contrast between packed stadium and vast empty sky; outside stadium - all roads lead to the stadium (pregame - migration pedestrians to stadium (like lemmings!)), post-game - exodus, jubilant Michigan fans, disappointed and surprised Ohio fans); hundreds of parked cars.

The pleasant, exciting feeling accompanying the spectator is due to:

1. presence of so many people in such small area
2. game: two teams facing each other, rivalry, Rose Bowl
3. great weather (possibly a secondary factor!)
4. post game jubilation! Michigan's surprise upset of Ohio; positive invite to Rose Bowl; did something they said couldn't be done.

Place the spectator in the stadium alone or in front of a TV and the same feeling is not evoked. Everything was perfect for the game and the Michigan fans.

N. Problem

Students were asked to write down the name of a city; socio-economic bracket; school administration policy and a grade level, without knowing why. They were then asked to discuss the activities they would develop to increase visual environmental awareness with the group they had described.

N. Response

Boston, Middle-Traditional, 4th Grade

Boston is primarily an urban area, and is also very much involved with the early history of the United States. One possible way of making children more aware of their visual environment is to make them conscious of the various types of buildings in their own urban community. Many of these buildings would be "old fashioned" and many would be modern. Children could stroll along the sidewalks on a field trip, observing and sketching buildings that caught their eye. It would be a good idea to prepare children for observation prior to the field trip by showing them pictures of buildings;

discussing the time when they were built, what function they serve, and how well they serve it; and observing general characteristics such as height, material, color, etc. After the children have made drawings, or even photographs, of buildings, these can be compared by means of flannel board. (The buildings themselves would be compared, not the quality of the sketch.) Certain buildings could be placed side by side, and the children could discuss whether they fit together harmoniously. For example, should Paul Bunyan's house and the Prudential Building be placed side by side? A hypothetical city block could also be created on the flannel board, and the children could design a building that would fit harmoniously within it.

*O. Problem

Students viewed a color-sound environmental movie produced by Professor Les Fader of the Architectural Department. They were then asked to evaluate the film in terms of developing visual awareness in children of elementary school age.

*0. Response

1. The box of colors and lines would be very good for teaching visual awareness. The ability to change colors and thus change the perception of the forms seen creates the opportunity for seeing the differences as slight as they might be by little changes. The formula can be applied to each change - making it easier to comprehend how a slight change in form can change the analyses and translation in the formula. Children can learn to use this formula quickly - practicing with the box and better understand the parts of the formula.

The box itself forms a structure - with lines, music and color making it up. The colors were lights blending and causing different forms to be perceived.

The dark room made you concentrate on the color and changes, with the music accompaniment adding another sense in the perception. It was pleasant, different, exciting and a learning experience.

* This problem involved only Group A.

The box idea would be quite useful in the classroom.

2. The movie that was presented in living da-glo paint-like colors were very stark - they were linear and angular in form and very boxy. The electric background music served to accent and emphasize the stark nature of the movie and the hit-you-in-the-face type of presentation.

The colors and shapes - both very blatant in their presentation - work well together to keep one idea, or whole picture in mind. They fit together like crossward puzzle pieces, jagged ends meeting and forming a whole smooth puzzle.

The auditorium that held the movie and projected the music was hollow like and stark (bare floors, hard wooden chairs, blank walls to absorb and not detract from the movie).

But the auditorium, however, is markedly old and architecturally rather archaic. And since the movie rang of modern times and ultra-modern bright electric colors and musical background, the auditorium hardly fits the movie presentation as far as time scheme.

*P. Problem

Students viewed a slide presentation by Professor Milton Cohen of the Art Department. The slides with narration by Professor Cohen told the story of an Italian man who transformed his environment through the sculptural forms he created.

*P. Response

The slides of the works of Roberto were taken in the hills of Italy by a man who seemed very sincere in his desire to keep the artist protected. The sculptures were simple, often of people that were rounded and smooth looking, set in the simple home of the artist and the beautiful rolling hills of Italy. One could get a picture of the little artist, his simplicity and awareness were present in his works, and were shown even more deeply in the way the slides were made. One scene was shown while another was imposed on top of it and the first one then gradually faded away. It was done in such a beautiful way, original and simple like the artist's works. The auditorium seemed appropriate for the slides for it seemed basically nature colors of greens, browns, and brighter colors,

* This problem involved only Group A.

mixed in, where the auditorium is dark and the professor's voice and the way he presented it was very well matched with the slides.

APPENDIX C

The following newspaper accounts are included here to indicate the present trend towards a change which stems not from art educators but rather laymen. Two accounts are from the New York Times. One article is from the Denver Post. Geographically separated but the idea begins to sound the same. (The italics are mine to indicate support for teaching esthetics of the visual environment.)

Ecological Ethic Urged On Nation
Rockefeller Group's Head Would Re-Order Values
by Paul Montgomery

The president of the Rockefeller Foundation proposed yesterday that America formulate a new environmental ethic that would de-emphasize such cherished industrial principles as economic growth based on constantly increasing production and consumption of goods.

"Morally, no society has the right to overutilize the world's resources for its own contemporary and selfish interests," said Dr. J. George Harrar at a Congressional hearing on ecology here.

"Man must understand biological systems and conduct his affairs in such ways as to improve the quality of life rather than degrade it through wanton experience."

Dr. Harrar, a biologist, spoke at a public hearing at the Federal Building on Foley Square before the House Select Sub-committee on Education. Three Representatives--John Brademas, Democrat of Indiana; James H. Scheur, Democrat of the Bronx and Ogden R. Reid, Republican of Westchester--are holding hearings on their bill to give Federal incentive to environmental education in the public schools.

"At this critical juncture," Dr. Harrar said, "it would be well for man to question the validity of his attitudes toward nature and to consider seriously the desirability and wisdom of formulating a new ethic for dealing with his natural environment which would transcend most of the values we have traditionally held concerning the world."

The biologist said population limitation and consideration of the "equilibrium of the natural environment" would be essential elements in the new ethic. Another would be a re-definition of economic growth.

"We, in the more advanced nations at least, should put considerably less emphasis on that form of economic growth that simply multiplies production and consumption of material goods," he said. "Our resources are not limitless, and when those that are non-renewable are consumed or transformed, they can never be replenished."

Quality, Not Quantity

"More attention could and should be devoted to services and to those areas of life that enrich the quality of human existence: cultural activities, the arts, literature, intellectual and scientific pursuits, esthetic improvements, and human relationships."

A subject that comes up frequently at the hearing was the problem of paying for collection of the growing number of disposable items.

Mr. Scheuer spoke of a bill to place special levies on makers of no-deposit, no-return bottles and of a proposal to charge manufacturers a cent a pound for all items they produce that are designed to be discarded within ten years.

John J. DeLury, the salty president of the Uniformed Sanitationment's Association, brought up in his testimony the question of disposal of newspapers. He said that, according to his rough calculations, the Sunday editions of The New York Times and The Daily News alone cost the city \$13,260,000 a year to dispose of. This, he said, is 7.8 per cent of the total sanitation budget.

"I am suggesting that those who contribute to the burdens should pay the costs, at least in part," Mr. DeLury said. The Times and The Daily News had no comment on his suggestion.

The New York Times
Sunday, April 12, 1970.

Cost of Vandalism in Schools
Goes Up 20% to \$3.2-Million

by Peter Kihss

Vandalism cost the city's public schools \$3,266,025 last year in broken glass, unlawful entries and fires--and perhaps triple that amount if there were figures available on stolen equipment and defaced and broken furniture and walls.

Hugh McLaren, executive director of the Office of School Buildings, said yesterday that the costs in lost education ran still higher.

When a room full of typewriters is looted, he said, "kids taking typing get no instruction for two months" while the school awaits bids on and delivery of replacements. It may be months before a vandalized language laboratory can be restored, he said.

Mr. McLaren's annual report showed last year's losses from glass breakage, unlawful entries and fires were up \$549,268, or 20 per cent, from the 1968 loss of \$2,716,757. This in turn had increased from \$1,955,265 in 1967 and \$1,518,534 in 1966.

The school system began introducing tempered glass for new buildings and as replacement glass in others some years ago. It has now been driven to replacing broken glass on the first floors with polycarbonate windows, a more expensive plastic type that may be scratched or discolored but will not break.

About 250 schools out of 900 have some special windows of one or both types, Mr. McLaren said. As one result, according to the official, \$827,800 was spent for replacement glass in six months ended last December 31, compared with \$890,000 for the 12 months ended June 30.

About 300 schools now have burglar alarms, and last year about 50 suspects were seized for unlawful entries.

Teachers are being instructed to introduce a sense of property value and civic responsibility into class discussions, with suggestions for puppetry and poster techniques in lower grades and research projects for older students.

The detailed report on vandalism showed 932 buildings, including annexes as well as main school buildings, and suffered 274,506 broken panes of glass last year at a cost of \$1,372,530. The worst toll was a Lower East Side junior high school with 2,446.

There were 3001 unlawful entries, involving losses totaling \$1,437,630, in 725 buildings. Three schools in Manhattan and two in the Bronx were broken into more than 20 times, while the highest loss involved \$30,140 in three break-ins in a Brooklyn high school.

There were 330 fires in 143 buildings, with losses set at \$455,865, compared with 196 fires in 1969. A single junior high school in the Bedford-Stuyvesant section of Brooklyn had 73 fires for total damages of \$35,180--as many as 10 or 12 fires in one day of demonstrations.

Most fires in the schools are attributed to arson, Mr. McLaren said. However, no arson was indicated in the worst disaster--a \$200,000 fire at Public School 170, 87-41 Parsons Boulevard, Jamaica, Queens. The school has since been demolished.

Mr. McLaren said that the school system still had about 60 nonfireproof buildings and it lacked funds to replace them.

The New York Times
April 19, 1970.

Take a Look at the Signs

by Joanne Ditmer

How do you walk down the street? Looking at your shoe-tops? That's the way a lot of people seem to walk. They miss seeing the people passing by, and they don't see the buildings and other structures they pass.

However, when you really look at what you're passing, it becomes evident why some people prefer their shoetops. I took a "lift up your eyes" stroll down 15th Street the other day, with the object SIGNS, and the observations were fascinating--spell it appalling.

It was a cluster of blinking, hanging, garish signs, with no rhyme or reason. It was also an excellent example of why the Denver Planning Board has worked long and hard to formulate a new uniform and strict sign code.

The necessity for such a code was vividly shown when an out-of-state corporation built a motel across from Civic Center a year ago, then wanted to put up a large projecting sign that would have violated in many ways the protective sign ordinance for that area. It took considerable fussing by a lot of interested citizens and organizations before the city council, seemingly reluctant, refused the request.

How will the new code, if passed help to make Denver a more attractive city? To begin with, it regulates types and sizes of outdoor advertising signs in groupings of related zone districts. For example, the business-related zone districts will have one set of regulations, high density residential a different set, and low density residential another.

No Flashing, No Blinking

An important part is that competitive businesses along a street would have one uniform size sign permitted, rather than the hodge-podge of sign sizes evident now in different types of business districts within one or two blocks.

The most obvious changes that you and I would notice are: prohibiting any kind of flashing, blinking, moving or fluctuating signs, and eliminating the projecting signs that stand out from the building, or hang over the sidewalk. Take a look at any business area and those two rules alone would make a tremendous improvement.

Another important restriction would allow a maximum height of 25 feet for all free-standing ground signs. Some existing ones are 65 feet tall. This means that residential areas next to the "strip" arterials, such as Colorado Blvd. and Colfax Avenue would be protected from a tall sign looming over them, such as the "totem poles" of a service station. On the other hand, on those major arterial streets a larger sign would be allowed, according to zone grouping.

Roof signs would no longer be allowed in the downtown area. Small time-and-temperature signs without advertising will still be permitted, as a public service.

In case you think these seem like only sensible limitations to make Denver more attractive, do realize that many existing signs won't fit the criteria. A sign industry spokesman has estimated that more than 70 per cent of downtown signs would have to be eliminated to fit the new guidelines.

The new sign ordinance takes that into account with a gradual phasing out of the existing signs, with time limits pegged to the cost of the sign. For example, the schedule ranges from 30 days for signs costing up to \$100, to 10 years for signs costing \$50,000 or more.

Elimination of Billboards

Since the code has been introduced, it's been decided to add on the elimination of billboards within the city. Just to keep the record straight, billboards within this definition are the advertising of a third part--not the business on the property nor the owner of it. Which means even if this is successful, some of the on-premise signs that would be legal might be similar enough to billboard that you and I wouldn't see the difference.

Lynn Vandergrift of the planning office did most of the research work and writing up the 40-page code, and now is the lucky person to present it to interested groups. Since many of those interested persons are members of the sign industry, and businessmen who are violently opposed, that doesn't make it one of the most peaceful spots in the planning office.

However, Vandergrift strongly feels that a stricter, uniform code would be of immense value to the improvement and attractiveness of Denver, and is bulwarked some by this missionary zeal.

If you agree, some verbal backing on the subject would be a real blessing. To whom do you talk? To the city council, which will ultimately pass, amend or deny the new code.

But you also ought to lift up your eyes and take note of the sign situation, and inform the advertisers exactly what you think too. When you go in a store you might inform the owner or manager if you like or disapprove of their signs--they are the people who must abide by the rules.

While many businessmen might automatically shriek that any restrictions are Bad!, the Downtown Denver Improvement Association has shown intelligent and reasonable leadership on the matter. The DDIA appointed a committee of seven who not only consulted with the planning board and the sign industry, but also with the American Institute of Architect and the American Institute of Interior Designers to develop recommendations that would indeed lead to the esthetic improvement of downtown Denver.

Stricter Guidelines OK'd

Generally speaking the DDIA board recommended approval of stricter sign guidelines.

Among the recommendations were: elimination of all second party signs (such as cola signs painted on the side of a restaraunt), that any side sign be included within the total sign allowance; that the maximum sign be two per cent of the total building face; and that exceptions be allowed for Christmas and other special occasion lighting, as well as for the block of changing light on top of Public Service.

Right now, questions regarding signs go to a variety of people, from manager of public works, the parks department and even the police. The DDIA would like to see all sign code administration under one agency, if that's possible.

In line with the increasing interest of the improvement of our environment, this new and stricter sign code is a definite step forward. You can add to its effectiveness--and to the hope that it will be accepted--in several ways.

First, take time this week to really look at signs, and apply the guidelines listed here to them. See how the neighborhoods would be more attractive under the new code. (This doesn't even take into account how much safer it would be for the driver, with fewer things competing for his attention.) And after you've done your survey, start passing the word to your neighbors, business community, and city fathers.

Let's work together so that this step for a more attractive Denver is not negated by selfish interests. We'd all all benefit from the change.

Denver Post

April 12, 1970

BIBLIOGRAPHY

- Blake, Peter. God's Own Junkyard. New York: Holt, Rinehart and Winston, 1964.
- Bloom, Benjamin, gen. ed. Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain. New York: David McKay Co., Inc., 1956.
- Brinton, Crane. The Shaping of Modern Thought. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963.
- Committee on Economic Development. Innovation in Education. New Directions for the American School. New York: Committee on Economic Development, 1968.
- Churchill, Henry S. The City Is the People. New York: W.W. Norton Co., Inc., 1945.
- Curti, Merle. The Social Ideas of American Educators. New Jersey: Littlefield, Adams & Co., 1959.
- Dewey, John. Art As Experience. New York: Capricorn Books, 1958.
- Dubos, Rene. So Human an Animal. New York: Charles Scribners' Sons, 1968.
- Eade, Charles, ed. War Speeches by the Right Honorable Winston Churchill. Boston: Little Brown, 1944.
- Ewald, William R., gen. ed. Environment and Change. Bloomington: Indiana University Press, 1968.
- Ewald, William R., gen. ed. Environment for Man. Bloomington, Indiana University Press, 1967.
- Ewald, William R., gen. ed. Environment and Policy. Bloomington: Indiana University Press, 1968.
- Gallion, Arthur B. and Eisner, Simon. The Urban Pattern. Princeton, New Jersey: D. Van Nostrand & Co., 1963.

- Gombrich, E.H. The Story of Art. London: Phaidon Press, 1966.
- Hastie, Reid, gen. ed. Art Education-National Society for the Study of Education. Chicago: University of Chicago Press, 1965.
- Holland, Lawrence B. Who Designs America? Garden City, New York: Doubleday & Co., 1966.
- Jarves, James Jackson. The Art Idea. New York: Hurd Houghton, 1864.
- Kepes, Gyorgy, gen. ed. The Visual Arts Today. Alienations in the Arts by John E. Burchard. Middletown, Conn.: Wesleyan University Press, 1960.
- Kouwenhoven, John A. The Arts In Modern American Civilization. New York: Norton Library, 1967.
- Larson, C. Theodore, gen.ed. School Environmental Research, Vol. II, Ann Arbor, The University of Michigan Architectural Research Laboratory, 1965.
- Logan, Fredrick, M. Growth of Art in American Schools. New York: Harper and Brothers, 1955.
- Lynch, Kevin. Cities: The City as Environment. New York: Alfred A. Knopf, 1969.
- Lynch, Kevin. The Image of The City. Cambridge: M.I.T. Press, 1960.
- Mumford, Lewis. The Culture of Cities. New York: Harcourt, Brace & Co., 1938.
- The National Advisory Commission on Civil Disorders, Report. New York: Bantam Books, 1968.
- Neutra, Richard. Survival Through Design. New York: Oxford University Press, 1954.
- Read, Herbert. Education Through Art. New York: Pantheon Books, 1945.
- Read, Herbert. To Hell With Culture. New York: Schocken Books, 1963.

Read, Herbert. The Redemption of the Robot. New York: Trident Press, 1966.

Saarinen, Eliel. Search For Form. New York: Reinhold Publishing Corp., 1958.

Smith, Ralph, gen. ed. Aesthetic Education, Champaign: University of Illinois Press, 1966.

Webster's New American Dictionary. New York: Books Inc., 1969.

White, Morton and White, Lucia. The Intellectual Versus the City. New York: Mentor Books, 1964.

Whitehead, Alfred North. Science and the Modern World. New York: Macmillan, 1959.

Wright, Frank Lloyd. An Autobiography. New York: Longmans Green & Co., 1932.

Articles and Periodicals

 "Nixon Asks Major Fight Against Pollution and Crime," Ann Arbor News, (January 22, 1970) p.1.

 "Milliken Asks Legislature for Action To Halt Pollution," Ann Arbor News, (January 23, 1970) p.1.

Ditner, Joanne, "Take a Look at The Signs," Denver Post (April 12, 1970).

Gulick, Myra and Malone, Charles, "Art Appreciation in the Elementary School," Art Education Journal, XVIII (1964), 12-13.

Hastie, Reid and Templeton, David, "Profile of Art in the Secondary Schools," Art Education XVII (1964) 5-9.

Kihss, Peter, "Cost of Vandalism in Schools Goes Up 20% to 3-2 Million," New York Times, (April 19, 1970.)

Larrabee, Eric, "The Artist and The University". Harpers, 238, (1969), 28.

Martin, Myra B., "Art Education in American Life," American Social Science Association (1892), 35.

Montgomery, Paul, "Ecological Ethic Urged on Nation Rockefeller's Groups Head Would Re-order Values," New York Times (April 12, 1970).

 "Music and Art in the Public Schools", Research Monograph National Education Association (1963).

 "The Ravaged Environment," Newsweek LXXV (1970), 30-47.

Otto, Herbert A., "New Light on the Human Potential," Saturday Review, LII (1969), 16.

Tanspr, JoAnn, Ruocco, Illse, Ruocco, Lloyd, "Developing Environmental Awareness in the Schools". Art Education XIX (1966) 28.

 "Environment," Time XLV (1970), 55.

Ziegfeld, Edwin, "The Owatonna Art Education Project," Western Arts Association Bulletin, XX 1936.