Concern for the deteriorating visual environment of our cities has prompted the American Institute of Architects (AIA) to make a concerted effort in educating the public to understand the nature of environmental design. Professional environmental designers and educators alike must promote environmental education as one way of achieving a satisfactory visual environment. This resource guide and bibliography attempts to provide a spectrum of viewpoints and makes no attempt to be all inclusive. It is designed primarily for teachers to assist them in educating students about environmental problems and to develop environmental awareness. Part One is an annotated bibliography of AIA projects and programs together with state and community projects. In addition to a short resume, the organization's name and address are noted as well as the appropriate grade level in which it may be used. An annotated bibliography of materials constitutes Part Two. Items include informational sources, instructional materials, kits of classroom materials, student resource books, activity resource books, teacher resource books, periodicals, films, and filmstrips. A project index and instructional materials index conclude the work. (BL)
FOREWORD

The environment is now on the public mind. Channels to information on environmental education are needed. This collection of sources will only function if we continue to have input for better resources. Both additional materials and criticisms of the ones included here are solicited. This guide to environmental education is considered as a working tool to be refined as more becomes known about this infant subject. The guide attempts to provide a spectrum of viewpoints to suit various tastes. It makes no attempt to be inclusive, being only a body of information contributed by various knowledgeable individuals and groups.

It is organized in two parts— one for the interested design professional and the other for his use with educators. While there are a variety of vehicles for public education, this one stresses education through primary and secondary levels.

James Pratt, Chairman

Committee on Public Education

March 1970
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* Included in Excerpt
Opinions of cynics notwithstanding, in a democracy the people dictate. They elect office holders, influence public officials and affect governmental activity. It follows that an educated public is a necessary ingredient of democracy. When people are ill-informed their actions could be injurious to the public welfare. A democracy has more to fear than the tyranny of power in the hands of those who govern. It has also to fear the tyranny of ignorance in the hands of the people.

The American Institute of Architects is concerned about the deteriorating visual environment of our cities. But its efforts have only scratched the surface, because there is a deep-seated lack of understanding of the nature of environmental design. Even people who are otherwise well-educated are the victims of this ignorance. From a practical standpoint this subject is difficult to teach to adults. It can be taught to children together with the other fundamentals of education and treated as a preparation for citizenship.

The professional environmental designer is far from the only determinant of the character of the visual environment. Public officials, public boards, corporation boards, managers, entrepreneurs and ordinary voters of budgets and bond issues and all men who build are decision-makers in the quality of architecture and the city - and they are rarely prepared to perform this function. Obviously, a critical amount of the force which shapes the environment is in the hands of the untrained - and sometimes the unsympathetic. Poorly designed buildings incompatibly related, heedless highway design and location, incongruous utility lines, chaotic sign design and placement, improper and uninformed zoning and short-sighted planning are all contributing elements to our man-made visual environment. Our salvation is the enlightenment which comes with education: No single master can organize successfully all of these elements. It can be done only with the intelligent cooperation of all of the participants.

Satisfactory visual environment is not only a matter of esthetics. The design of an architectural space, a neighborhood, a highway or a city creates an atmosphere which has a critical influence upon the activity which takes place within it and upon the people who dwell there. One of the products of good visual environment is human dignity and pride. The chaos of ugliness can breed only resentment and despair.

A committee of the AIA has been working since 1966 to achieve environmental education in the public schools. This document is the second edition of a guide in response to many requests for help. It will be supplemented from time to time with additional material.

Arthur Rigolo, FAIA
1967-9 Chairman, Task Force on Elementary and Secondary Schools
Credits

For documentation of work being done by local professional groups over the United States, Elisabeth K. Thompson, Senior Editor, Architectural Record; for contributions to the text, Arthur Rigolo, Alan Levy, Richard Stein, and Derald West; for loan of her accumulated instructional materials and knowledge of ongoing projects, Ellen P. Berkeley, Senior Editor, Architectural Forum. For compilation of many instructional materials, Elisabeth K. Thompson and Joanne H. Pratt, Sources consulted for bibliographic inclusions include: Doreen Graham Librarian, University of Michigan; Myra Gulick, University of Michigan; Joseph T. A. Lee and William Morgan; Group for Environmental Education, Philadelphia; Elisabeth K. Thompson; Franziska P. Hosken's published bibliography; the MATCH book list for "The City"; Sarah B. Moore, educational consultant to Dallas Chapter, AIA; Masha Porte, Audio-Visual Librarian, Dallas Public Library. For material consolidation, Joanne H. Pratt; for coordination and typing Sara H. Neal and Sandra Hunnewell. David Connally contributed the graphics. For final editing and coordination, James Pratt; Gordon Phillips handled many details.
Elementary

Has been exploring potentials in a program it was asked to assist with - a project called "Safety Village" which the Little Rock Safety Commission will use in teaching traffic signs and signals. The scale of "Safety Village" is such that classes brought to the village can actively participate in it as drivers and pedestrians. The chapter wants to make of it a microcosm of good urban design - or perhaps of good and bad design, to point out the contrast. One possibility is to tie in "Safety Village" to a statewide program of design education as an integral part of the educational system. Information:

Edwin B. Cromwell, FAIA
416 Center Street
Little Rock, Arkansas 72201

Teachers

Initiated by the art supervisor of the Baltimore city schools, consists of a series of 16 "environmental workshops" for all interested teachers in the school system. Aims to "create a greater awareness of the visual aspects of the environment on the part of teachers so that they can incorporate projects into the art program which will focus the student's attention on his environment." Four members of the Baltimore chapter, A.I.A., and two members of the city's Department of Education staff comprise the workshop committee.

A program in environmental awareness, prepared and taught by chapter members as a separate subject, using slides. Currently, a spot presentation program available throughout the year. Information:

Bucks County Chapter, A.I.A.
P. O. Box 223
Bristol, Pennsylvania 19007

The chapter, with the Connecticut State Arts Commission, has applied for a Title III grant of funds for developing a curriculum in environmental awareness. Includes a pilot program in two urban school districts (Middletown and Norwich) and two rural schools (Haddam and Preston) as a means of studying the different attitudes toward the environment. Proposes to combine "psychology of art" with "methodologies of planning and design" as its premise for developing awareness of the environment and a sense of participation in the environment. Envisions two phases: 1) in-school testing of specific curricular materials, modular kits, audio-visual aids, exhibitions for use in art, industrial arts and social

---
studies curricula, and 2) out of school programs of field trips to building sites, redevelopment areas, architects' and planners' offices, and actual building of structures by pupils.

Elementary

At the end of the first year the four-year development program is intended to have produced a curriculum plan for environmental studies at elementary and secondary levels, a teacher's guide to the construction of classroom models and other three dimensional demonstration arts (with a testing of resources for building materials); an annotated list of useful films, film strips, video tapes, etc.; a set of 300 mounted captioned photographs (8-1/2 x 11) showing key architectural and environmental examples in the state. A list of architects and planners "capable of working effectively in Connecticut schools and available on a regular basis" is also to be provided. Information:

Landis Gores, AIA
Gross Ridge Road
New Canaan, Conn. 06840

Anthony Keller
Conn. Com. on the Arts
340 Capitol Avenue
Hartford, Conn. 06106

Secondary

An hour-long program including a question-and-answer period, which has been taught by chapter members with some teacher participation in public schools. Materials include slides and a prepared text assembled with cooperation of the school district and the Mayor's Committee of Civic Leaders. The program is available throughout the school year and is used occasionally. Cost of the program's preparation was less than $200, principally for reproduction of materials. Information:

John M. Olson, AIA
3216 Reid Drive
Corpus Christi, Texas 78404

Initiated ad hoc in 1968, this project - an experiment in stimulating teacher interest in adding the environmental viewpoint to their course materials was officially adopted by the chapter in 1969.

K to Graduate Students

A former teacher is engaged to assist chapter members in "data input activities" and is working with the architects, a psychiatrist, landscape architect, a physical chemist and other environmental professionals. Is being developed in a Dallas private college preparatory school. Material is focused
Chapter has provided copies of the Philadelphia chapter's workbook, Our Man-Made Environment, in four junior high schools in the city. It hopes this is the "seed planting" for a much more extensive program in Houston. Information:

Hugh E. Cagg
2727 Kirby Drive
Houston, Texas 77006

An elementary school teacher training program is in process of development. Its form will be determined through contact with faculty of the School of Education, Rutgers University with chapter members as advisers. The intention is to begin with a 2-3 week summer course for teachers. It is hoped this will result in inclusion of subject material in the regular curriculum in several primary schools on a pilot basis.

Tentative budget - $3500/year. Information:

Arthur Rigolo, FAIA
Grove Street at U. S. Route 46
Clifton, New Jersey. 07013

A two-week course on architectural appreciation given at the local junior college. On a budget of less than $25, was prepared and taught by chapter members, using slides and a field trip to acquaint students with actual examples of architecture. Information:

Beryl Durham, AIA
514 N. Canal
Carlsbad, N. M. 88220

Samuel W. Pool, AIA
P. O. Box 1574
Roswell, N. M. 88201

In 1970 will begin work on behalf of the Institute to develop and test a teacher training curricula for workshops through a grant to the COPE. Is involved in an experimental workshop with graduate university students to provide experience for teacher workshop curricula. Project experiences are written up and available. Information:

Dallas Chapter, AIA
241 The Quadrangle
2800 Routh Street
Dallas, Texas 75201
Lesson plans in environmental awareness, to be used as enrichment of existing (and projected) social studies curricula, have been devised, and their development is now in the final stage, by members of the chapter and the Supervisor of Art Education of a nearby school district. These plans, directed toward the teacher, are inclusive in teaching content, and activities, and are presented for teacher use in an unusual format to encourage and facilitate their use by the teacher.

The method was devised to permit children to make judgments based on experiences and information during use of the materials. The project was initiated by the chapter, and is supported by some funds from the chapter and by a grant of $8000 from the Institute to provide for educational consultation.

Information:
Mrs. Marie Farrell, Exec. Sec'y
Northern California Chapter, AIA
254 Sutter Street
San Francisco, California 94108

A pilot project for two elementary schools in the South Pasadena School District, will begin in Spring 1970 with an architectural focus in environmental awareness. The program has three phases, but centers on a tour of buildings in the area. Classroom presentations (approximately 20 minutes) of slides, movies, and discussion of tour subject with an AIA member precede each tour, and a post-tour classroom discussion with an AIA member is held to recall and recapitulate the tour and its meaning to the students. A prize is given for the best "recall" of the tour. Information:
Ivor Ash, AIA, Chairman
Environmental Awareness Action
Pasadena Chapter, AIA
The Gamble House
4 Westmoreland Place
Pasadena, California 91103

The outgrowth of cooperation between architects and teachers, AIA members regularly scheduled presentations at city schools and this led to an invitation in 1966 to assist in preparation of a syllabus for secondary art teachers aimed particularly at including material on environmental design, Architect members of the ad hoc committee offered, instead, to develop a separate, unified program on the man-made environment, and to share in the cost of

Information:
See GEE under Instructional Materials

"1.3.1.4"
development. The chapter provided $7500, the city art division a like amount; $2000 came from the Heinz Foundation and a Brunner award of $6000 brought the funds for the project to $23,000. At a later stage the Institute contributed $25,000 to develop the now complete Book Seve...
A chapter committee, working with two teachers and local television station KCTS-TV, aided in development of environmental material for a series of telecasts on "Man and His Environment," geared to the capabilities and interests of children in grades 4, 5, and 6, and intended to give young viewers a "broad understanding of both natural and man-made environment as well as some study of problems such as urban blight, population, water and air pollution." The series tries to provide a "fundamental grasp of environmental problems, show how these problems can be solved, and indicate the motivation to work toward their solution." The method attempts to develop the student's capacities for critical thinking and problem solving rather than to indoctrinate him, raising questions, not providing answers. The program is telecast statewide. An AIA monitor reports early programs were very good, and teachers have indicated strong interest.

The chapter, with its Women's Architectural League, sponsors a Student Awards Program in connection with the television series (for the appropriate grades) but includes also other elementary grades, junior high and high school students. Awards are offered for the best written entries on "The Physical Environment Around Us." Information:

Miss Pat Hunt
KCTS-TV
Seattle, Washington
Seattle, Wash., 98104

"Architectural Conversations," each 40 minutes in length, were devised several years ago by the chapter (under direction of Gordon Johnston, AIA, now mayor of Tacoma) for presentation in the Tacoma schools. Chapter members conducted the "conversations" as part of the regular social studies curriculum. A television film was made of the "conversation" and is shown on occasion on local television stations and over closed circuit to all third grade classes. During the conversation, the architect draws up a list, with the class, of all the buildings they use in the course of a week. Then discusses the characteristics of these buildings, principles which control shapes and characteristics of buildings and explains that beauty, order and function are the result of thoughtful study and planning. Models and graphics are used. Students participate in the question period. Sparked by the chapter which approached the superintendent of schools with the assurance that the chapter was not asking
for a new subject in the curriculum, but offering a special aid in the existing program. Information:

James Widrig, AIA
1041 Dock Street
Tacoma, Washington

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<tr>
<th>High School / Jr. College</th>
<th>WESTCHESTER CHAPTER</th>
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<td>A semi-annual seminar in sensitivity to arts and the environment is presented at high schools and junior colleges in the chapter area. Prepared by a chapter committee, with instructors at the colleges, the program includes slides, music, dance, and seminar groups, and is combined with existing curricula. Cost has been less than $1000. Info:</td>
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<td>Robert W. Crozier, AIA</td>
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<td>Robert W. Crozier &amp; Associates</td>
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<td>41 Elm Place</td>
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<td>Rye, New York 10580</td>
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<th>Education Committee activities include:</th>
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<td>(1) Milwaukee School of Engineering - Evaluation and expansion of present architectural curriculum.</td>
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<tr>
<td>(2) Milwaukee Public Elementary Schools - The committee is meeting with educators to introduce a simple program at primary level.</td>
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<tr>
<td>(3) Metropolitan Milwaukee High Schools - Introduction of curriculums similar to that of the Milwaukee Public Schools into all the area high schools.</td>
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| Information: |
| Leonard A. Widen, AIA |
| Grassold, Johnson, Wagner and Isley |
| 525 East Wells Street |
| Milwaukee, Wisconsin 53202 |

1.3.1.7
PROJECTS BY INDIVIDUAL AIA MEMBERS

Donald Gibbs, AIA, proposed to the District Curriculum Supervisor in Long Beach, California, a review of existing textbooks used by the District to determine what, if any, material they contain on architecture and the visual environment. A cursory survey revealed little. The District appointed, at Mr. Gibbs' suggestion, a committee to conduct a thorough review. Other professionals (landscape architects, planners) have been added to the committee, also at Mr. Gibbs' suggestion. Information:

Donald Gibbs, AIA
3575 Long Beach Blvd.
Long Beach, Calif. 90807

Marjorie Wintermute, AIA, of Portland, Oregon, initiated a program in environmental awareness, wrote its program, and promoted and instructed in its use throughout the city. The program has been in use during 1969-70. Information:

For full details, see
Portland Chapter

High School Concept: Supplementary program to introduce the design process to industrial arts students. The architect served as resource person and visiting lecturer. Part of his success he attributed to the break in school routine.

Materials: Mimeographed design problems, for example, "Re-design of Commercial Center of Lake Geneva, Wisconsin," and "Undersea Research Center."

Use: Has been used for eight years in class of 20 students at the Badger High School.

Information:

D. M. West, AIA
West and Seron
Lake Geneva, Wisc. 53147

REVIEW OF TEXTBOOKS

CAMP FIRE GIRLS PROGRAM

VISITING LECTURER,
LAKE GENEVA, WISCONSIN

1.3.1.8
The Council's Special Committee on Problems of the Environment (SCOPE), using Council funds allocated for the purpose, commissioned a professional photographer to make color photographs of man-made ugliness and natural beauty, then put the slides together as a show, complete with script, called "Three Faces of California." The third face is the challenge to the viewer: what will he make of his state? The 15-minute show effectively points out the citizen's responsibility for the good—or bad—quality of his future environment. An architect reads the script (written by a committee member) as the slides are shown.

Although these slides were made professionally, and involved travel statewide, and the project was therefore not inexpensive, a similar show, prepared with the perceptive eyes and photographic capabilities of chapter members, and directed at local sights, scenes and conditions, could be prepared at less expense and to effective purpose.

Information:
California Council, AIA
1736 Stockton Street
San Francisco, California 94133

All chapters in Washington State are participating in the preparation of film strips on a variety of architectural subjects, reviewing hundreds of slides to select those most appropriate. Among subjects in the series of strips: sculptures, fountains, bridges and highways, public buildings, street furniture, signs, city textures, "things in motion." The film strips are being prepared with and for the State Department of Education.

Council committees are also preparing a "Guide to Teachers" series of brochures, scheduled for publication in the Spring of 1970, to be used to inform teachers on various types of buildings and on more important environmental issues (circulation and transportation, communications, industrial parks, water resources—rivers and banks, parks and recreation, relation between leisure and art) prior to their taking students on field trips.

Information:
Washington State Council of Architects
10 Harrison Street
Seattle, Washington 98109
Many chapters show films such as "No Time for Ugliness" at schools but have no regularly scheduled presentations. Arrangements are usually worked out by a chapter committee with school officials, but in some instances, teachers or principals of individual schools, or district officials, request presentations on architecture. Although most such requests are for "career day" speakers, cooperation on such requests can be turned to invitations to speak on architecture as an element in man's environment, and on the factors that make up the environment.

A special slide show, "Valley Beautiful or Valley Ugly," prepared by the chapter, has been shown by chapter members to most schools in the Phoenix area. Although not a formal, continuing program, the slide show, and "No Time for Ugliness," have been well received. Planning another slide show, but will discuss design content directly with educators this time. Cost of film and equipment for showing slides was approximately $1000. Info: Phil Stitt 2720 North 16th Street Phoenix, Arizona 85006

Some chapters (Toledo, Orange County, Northern California) sponsor architectural competitions in high schools, primarily as a means of encouraging students to consider a career in architecture. A secondary benefit, however, is a more general interest in architecture by other students.

Has provided the school system with a kit of slides of historic buildings in the city. The text supplied with the slides is so structured that it can be adapted by teachers for use at any age level. Information: Mrs. Jean Schneeburger Executive Secretary, AIA 107 N, Seventh Street St. Louis, Missouri 63101
STATE AND COMMUNITY PROJECTS

All Grades

Education Programming of Cultural Heritage is a unique program (and installation) in Berkeley, California, available to students of schools in the area and to other groups interested in the program. A visual presentation of man's historical and cultural development, dramatizing each stage and phase, by simultaneous projection in a circular room of 12 contiguous images, each 20 square feet in size. Installation permits presentation of architectural subjects so that the viewer finds himself inside a building (usually one of historic as well as architectural significance). Also permits simultaneous presentation of all steps in development of an architect's drawings for a building. Any combination of ancient and modern building pictures can also be made with some modification of installation. The EPOCH program has been incorporated in a number of schools in Alameda County, California. Info: Dorothy A. Bennett 1033 Heinz Avenue Berkeley, California 94710

EPOCH BERKELEY, CALIFORNIA

4-6

The city - ancient and contemporary - is studied by a class in urban design at this city-operated center in Barnsdall Park (where Frank Lloyd Wright's house for Aline Barnsdall, and the museum he designed in 1956, are located). In the eight-week course - entitled "Fantastic City" - students - aged 9 to 11 years - study "the development and history of cities and the direction in which cities seem to be going." A broad range of environments - from primitive huts to medieval cities to outer space - is presented. After studying each type, students make models of cities (to scale or close to it) of that type. Information: Seymour Rosen Junior Art Center Barnsdall Park Los Angeles, California

JUNIOR ART CENTER LOS ANGELES

All Grades

The Northwest Art Project exposes school children to original works of art. The League has assembled an impressive collection of contemporary Pacific Northwest art - 21 works, selected by a jury and paid for by the League, which trains its members to lead class discussions. The project is ten years old, and includes lectures, films, discussion groups and studio sessions. Artists included in the project are Mark Tobey, George Tsutakawa, Glen Alps, Manus Graves, and Ken Callahan. Their work sparks reactions in the children from "what is it" to

NORTHWEST ART PROJECT SEATTLE JR. LEAGUE Art Sensitivity Project
analyses of what the artist is trying to say.

Information:
Junior League of Seattle, Inc.
1616 41st Avenue East
Seattle, Washington

A demonstration program in the fifth grades of the Little Rock school system which was "designed to awaken an understanding of the nature of art." The Arkansas Chapter, A.I.A., lent its support to the program and has offered to assist the League in expanding the program into other grades and other areas of esthetic understanding. Information:
Little Rock Junior League
Little Rock, Arkansas

Chapters should inquire if Junior Leagues in other cities may be willing to undertake programs of comparable scope and aim.

Teacher Training
Pilot project was established by a federal grant under Title III to service the North Central Ozark Mountain Range area (Harrison School District No. 1). Emphasizes "visual thinking, visual perception, sensitivity, and receptiveness to quality." Consists of teacher training through workshops and seminars for credit; the areas of music and art are also included. Information:
Dr. Clarence Williams
Harrison Art Center
Harrison, Arkansas

K-6
A program for pre-school and elementary school children intended to "develop the artistic sensibilities of the child . . . and to build a vocabulary with which he can communicate with the artist/designer/architect/craftsman; this is basically a program of teaching children how to see - not only in art, but in the world around them."

Premise for the course is that "the same pleasure-giving elements which we appreciate in a work of art are available to a person in the world around him simply by looking out of a window - if he can see." The program includes projects for "sensitizing the child" - that is getting him to use, and so to develop, his senses.

The projects (sometimes as games) involve texture, form, color, using examples from the immediate vicinity. Also part of this gallery's activities is the training of "Picture Ladies" who

ART AWARENESS, JR., LEAGUE OF LITTLE ROCK, ARKANSAS

Art Sensitivity Project

REGIONAL ARTS AND CRAFTS CENTER, HARRISON, ARKANSAS

Art Sensitivity Project

CREATIVE ARTS CENTER WM, HEMP HILL GALLERY OF ART, KANSAS CITY, MO.

Art Sensitivity Project
visit schools in Kansas City and discuss works of
art not as art history but as "looking at art."

The coordinator of Extension Classes, Mrs. Dean
W. Graves, is the wife of a Kansas City architect,
whose firm, Urban Architects, is underwriting the
cost of materials for an experimental program now
under way which involves architecture directly.
Information:
Mrs. Dean W. Graves
William Hemphill Nelson Gallery of Art
Kansas City, Missouri 64111

This public education program, being developed
under a grant from HUD, is designed to impress
on the public an awareness of the relationship of
urban environment with open space, urban beauti-
fication, and preservation of historically signifi-
cant buildings and places.

HUD support is matched by a consortium of five
national foundations: Ford, Alfred P. Sloan,
Old Dominion, American Conservation, 21-Inch
Classroom.

WGBH is to develop an instructional TV curricu-
lum with TV films for use in classrooms - a
couple in time for the '70-'71 year. Information
and curriculum aids for teachers will be included.
Information:
Robert Larsen, Director
Education Division WGBH-TV
125 Western Avenue
Boston, Massachusetts 02135

A series of ten films on the environment, made in
collaboration with the Philadelphia Chapter, A.I.A.,
funded by the Department of Education of the Com-
monwealth of Pennsylvania, will be presented to
create an understanding of the effects of the man-
made environment on everyday life. The films are
directed to high school and general television audi-
ences, and they deal with a general statement of
problems of the city; choices and changes in envi-
ronment; slums; three principles for a good build-
ing (strength, function and beauty); transportation;
the architect in the role of community designer. Info:
Ed Fryers
Channel 12, Station WHYY-TV
4548 Market Street
Philadelphia, Pennsylvania 19139
(For a description of this project series, see Seattle Chapter.)

Concept and Emphasis: "to foster sensitivity to the child in his response to the everyday environment". A demonstration urban play group. The major aim would be to "decrease the alienation between the child (and future adult) and his environment both in the sensory enjoyment of his city and the ability to use it in his personal plans."
MEMORANDUM FOR TEACHERS

Concerning a Program of Environmental Awareness

Decisions made in the 70's will determine whether we will destroy or save our natural environment for ourselves and future generations. We are involved in a similar life/death struggle to maintain quality in our man-made environment. In both cases we are reaping a harvest of devastation that will not support life. The pollution of water supplies and the general destruction of ecological balance matches the deterioration of urban areas with resulting social ills.

The American Institute of Architect would like to join teachers in their effort to educate for future eradication of these problems; create a continuing dialogue between the teaching and design professions (architects, landscape architects, civil engineers, urban designers, urban and regional planners and urban ecologists) so that each can benefit from the perspective, knowledge and training of the other; to suggest a set of specific goals in teaching environmental awareness; to help implement activities in such form as will be most effective in accomplishing these goals.

This working tool is far from inclusive. It is only a channel to some known information. Additions, criticisms and suggestions are solicited for its improvement. Further work for an expanded bibliography may subject-relate the entries. To date there has been hesitation to direct entries too specifically to particular academic subjects, on the theory that creative teachers would have better insights into materials use than any others.
INFORMATIONAL SOURCES

For information on research in specific fields of education, offers a decentralized network of information on research documentation centers, coordinated in the Office of Education. This network acquires, abstracts, indexes, stores and disseminates nationally significant research documents. It is aimed at serving a wide and varied audience. Information:

ERIC Document Reproduction Service
Bell & Howell Company
1700 Shaw Avenue
Cleveland, Ohio 44112

ERIC:
EDUCATIONAL RESEARCH INFORMATION CENTER

Is a national organization of the various disciplines in science, concerned with environmental problems. Local groups (usually in university areas) study from the scientific aspect: population, pollution, solid waste management, land use and education. Information:

Walter Bogan, Executive Director
Scientists Institute for Public Education
30 East 68th Street
New York, New York 10021

SIPI:
SCIENTISTS INSTITUTE FOR PUBLIC INFORMATION

The objects of the Institute are "to advance the science and art of planning and building by advancing the standards of architectural education, training, and practice; to coordinate the building industry and the profession of architecture to insure the advancement of the living standards of our people through their improved environment; and to make the profession of ever-increasing service to society." Information:

Committee on Public Education, COPE
The American Institute of Architects
The Octagon
1735 New York Avenue, N. W.
Washington, D. C. 20006

AIA:
AMERICAN INSTITUTE OF ARCHITECTS

Plans to develop a "computerized indexing and retrieval system for the knowledge, findings and tests that relate to the arts. This system will provide a tool for curriculum development and research..." Information:

Public Information Officer
CEMREL
10646 St. Charles Rk. Rd.
St. Ann, Mo. 62074

CEMREL:
CENTRAL MIDWESTERN REGIONAL EDUCATIONAL LABORATORY
BIBLIOGRAPHY OF INSTRUCTIONAL MATERIALS

The materials listed range from fragmentary accounts of intentionally unstructured "non-classes" to published course unit manuals and supply kits available. The current status of many of these projects changes as a course moves from the conceptual, to the trial, to the published stage. The address listed below is in each case the source from which we obtained sample materials. Hopefully, it will lead you to the current source and availability of the reference in which you are interested. Materials are listed in sequence of earliest grade level recommended for use.

An article in the Architectural Forum, June 1969, by Ellen Perry Berkely reviews in fuller detail many of the items summarised herein.
CONCEPT AND EMPHASIS
Directed toward a basic understanding of the man-made environment as a response to the needs of man. Building upon awareness, it investigates the purpose, form and dimension of our built surroundings, encourages confidence in making judgements and determining needs and wants, and introduces the complexities of choice-making in an atmosphere of expanded alternatives.

Is being developed for the full K-12 school experience but first efforts have concentrated in the middle years. There has been no conscious effort to limit the grade level or choose which subject it relates to. Test programs vary in every direction, in age level, basic subject and in scheduling. The goal of the program is to enhance this flexibility while providing greater support for the teacher in choosing his or her own direction.

The key lies in a creative classroom experience and this is emphasized through teacher training workshops and literature. Classroom materials are viewed as supportive, introductory and motivational. They are not self-sufficient texts.

MATERIALS
Materials completed for the 1969-70 school year include a student's workbook entitled "Our Man Made Environment: Book Seven", a teacher's guide, a bibliography, a collection of teacher experiences in the area of environmental education and suggested classroom activities.

Scheduled for completion for the 1970-71 school year is a workbook in determining needs, working with limitations and resources and making choices, a series of work pamphlets in graphic communications skills; more teacher supportive materials in curriculum suggestions and classroom kits for use in planning problems.

All of the material described above is directed at the middle four years, primarily 5, 6, 7 and 8. Material for earlier grades and high school programs is now in the planning stage.
USE

Materials were first tested in 1968 in the Philadelphia schools. Revised materials and program concepts are being used in a more extensive test in a number of schools in the 1969-70 school year. Philadelphia, Columbus, Ohio; Newark, Delaware; seven districts in New Jersey, Houston, and some smaller public and private schools are working with completed materials. The grade levels vary between 4th and 9th. The number of students now exceeds 12,000.

The teachers using the materials are primarily social studies or art teachers although English teachers, math teachers and science teachers are involved in a number of districts. Other materials are now being tested in a limited way in Philadelphia classrooms. Program ideas are being tried in high school classes in urban studies and in some elementary school classes.

ORIGIN

The program began through the joint efforts of the Philadelphia Chapter of the A.I.A. and the Philadelphia school district. It received additional funding through the Brunner Scholarship and the Heinz Foundation.

To further these original efforts a non-profit group—the Group for Environmental Education—was established. The National A.I.A. and the Fels Foundation have financially supported these continuing efforts.

Distribution of ideas and materials have benefited from the individual efforts of some local A.I.A. chapters as well as state departments of education, and local school districts eager to become involved. Limited copies of published materials are available on a complimentary basis to educational institutions or similarly interested groups. Information:

The Group for Environmental Education
1214 Arch Street
Philadelphia, Pa. 19107
CONCEPT AND EMPHASIS

"To make the arts an integral part of the general education of all children in the school system". The Aesthetic Education Program was founded upon the premise that "the sensibilities and capacities for judgments and effective action can be trained within the school". The materials being prepared as part of this ambitious program should be extremely valuable to anyone working in the field of environmental education.

MATERIALS

Guidelines for Curriculum Development for Aesthetic Education which includes a handbook, a Thesaurus (of possible activities that might be included for aesthetic education), a curriculum developer's workbook, a set of concept cards, a set of activity cards, and models of learning packages. Arts packages written by the combined efforts of teachers and staff in summer workshop sessions.

A "portable sensory environment", the Space Place, a tent-like structure containing a number of nested square modules with interchangeable panels of various textures, which travels between schools as part of the "package" "Awareness of the Visual and Tactile World".

A media lab at the district's senior high school designed to be used by teachers and students to develop their own visual presentations. Incorporates a complete photographic section, audio laboratory, slide and filmstrip library.

CEMREL Newsletter

Computerized information storage and retrieval system (See INFORMATION SOURCES)

USE

Field testing of experimental materials is under way in the University City (Mo.) schools.
ORIGIN
Developed from a conference held at the Whitney Museum, New York City in January 1967 held under the auspices of the U.S. Office of Education. Subsequently funded by CEMREL, Ohio State University the U.S.O.E., and the J.D. Rockefeller 3rd Fund. Information:

Public Information Officer
CEMREL
10646 St. Charles Rk. Rd.
St. Ann, Mo. 63074
CONCEPT AND EMPHASIS
Outstanding social studies course which aims to help the student discover the relationship between experience or events and ideas so that the discovery becomes a part of a continuing life experience. Series draws on the disciplines of economics, political science, anthropology, geography, architecture, city planning, and some history.

MATERIALS
Families at Work aims at bridging the child’s experience and his ideas; emphasis is on the concept of self and his role in relation to the members of his family and of others in the world.

Neighbors at Work introduces the varieties of neighborhoods and leads the student to an understanding of the individual as an agent of change.

Cities at Work involves the children in cities growth, development and problems. It leads them to feel that they are participating in discovering the causes of the cities’ problems. Resource material includes perceptive essays on Frank Lloyd Wright, Neutra, Le Corbusier, Mies van der Rohe, Gropius and Niemeyer:

Each grade level includes a student text, workbook, records and filmstrips. The teacher’s resource book is particularly good.

USE
Published in 1966, the series has been used extensively. The Dallas Chapter, AIA, has found that the series, already partially emphasizing environmental awareness, lends itself very readily to slide shows, field trips and other supplementary activities.

ORIGIN
Authored by Lawrence Senesh, Professor of Economic Education, Purdue University, Lafayette, Indiana.
Information and publisher:
Science Research Associates, Inc.
259 East Erie Street
Chicago, Illinois 60611
CONCEPT AND EMPHASIS
A strategy for making art and environmental education encompass the same concepts that a child gets in a subject such as history. A very comprehensive approach gathering material which will be published in a doctoral thesis in the New York University School of Education. Information:
Amalia Pearlman
43 Maple Avenue, Ext.
Bethel, Connecticut

CONCEPT AND EMPHASIS
"curriculum activities and instructional materials to facilitate the artistic learning of children in the primary grades". The curriculum involves recognition of such elements as light, color, and texture through study of art masterpieces.

MATERIALS
Resource box containing large and small reproductions of art works, tapes, slides, overlays.

USE
Used experimentally, with success, in several classes of various socio-economic groups.

ORIGIN
Financed by a $70,000 grant from the Charles F. Kettering Foundation to Professor Elliott Eisner. Information:
Professor Elliott Eisner
Department of Art
Stanford University
Stanford, California
CONCEPT AND EMPHASIS

Materials developed specifically for use in Madison and the state of Wisconsin are geared toward informing students of the background, development and programs which give their community its particular character and cultural aspect. Environmental science, history, cultural arts, vocational counseling, geography and government are emphasized.

MATERIALS

Filmstrips and guides pertinent to the region such as:

Indian Legends of Lake Mendota $19.75
Use of Our Land and Water 11.95
Ho-Nee-Um Trail in the Fall 6.95

USE

In Madison public and parochial schools and, in part, throughout the state.

ORIGIN

Development financed through Title III federal and local funds. Information:

Visual Education Consultants
P. O. Box 52
Madison, Wisconsin 53701
CONCEPT AND EMPHASIS

Designed as curriculum enrichment with the purpose of training and developing visual perception. Phenomena of color, light, shape, space, movement, distortion and abstraction and concepts such as order and disorder and composition.

The unit on MOVEMENT, for example, involves the student in looking at painting and sculpture. Varied follow-up activities include building a mobile, multiple printing and drawing multiple images of objects to indicate motion.

MATERIALS
16 mm films now available: The Art of Seeing (introductory) Figures
Discovery in a Landscape (about color)
Journey into a Painting (about color)
Movement
Shape
Light
Abstraction
Films are 10-22 minutes in length and cost about $10/minute.

"pedagogical first-aid kit" to encourage student use of information presented in the films--lesson plans with model exercises, projects, games, puzzles and reproductions.

ORIGIN
Ford Foundation grant of $511,500 to the American Federation of Arts. Information:
The American Federation of Arts
41 East 65th Street
New York, New York 10021
Films distributed for preview through
ACI Productions, Inc.
16 West 46th St.
New York, N.Y. 10036
CONCEPT AND EMPHASIS

To nurture the discipline and productiveness of in-depth research applied to world-wide city problems of the future.

DESIGNS FOR THE FUTURE BERKELEY CALIFORNIA

three different classes -- university, junior high and elementary, worked in coordination on the same problem - the City of the Future.

Classes were non-structured and oriented to problem-solving on a global basis. These courses were inspired by R. Buckminster Fuller.

MATERIALS

The authors' work sheets and course diary.

USE

Taught during spring 1969 at Columbus Elementary School (for high potential students), Willard Junior High School, and the University of California at Berkeley. Not presently being taught.

ORIGIN

Developed and taught by Jon Dieges and Edwin Schlossberg. Information:

Design of Alternate Futures
C/o University of California
2700 Bancroft Way
Berkeley, California 94704
Mr. Jon Dieges
336 So. Pueblo
Ojai, California 93023

CONCEPT AND EMPHASIS

To see whether children can be taught to think visually. Verbal games, sensory-motor games and other exercises are all directed at increasing the child's facility to visualize.

MATERIALS

Unpublished outline of exercises.

USE

At the experimental school of the University of Illinois Curriculum Lab. Information:

Charles W. Rusch
Department of Architecture
University of California at Los Angeles
Los Angeles, California
CONCEPT AND EMPHASIS
"To foster an appreciative and critical awareness of the environment, particularly an awareness of the intersections of natural and social processes as illustrated in Natural Park Service areas, and to increase in children the will and capacity to improve the environment."

Graphically integrated, stimulating materials drawing from communications, social studies, the arts, mathematics and science. Emphasizes poetry and prose more than most units do. One week of program is designed to be spent in a National Park or other natural setting.

MATERIALS
Program not yet published. Test materials have included a teacher's guide, student looseleaf or spiral classroom materials and a student "Environmental School Log Book".

USE
3-4 Appreciation of the environment. Pilot testing underway in twelve schools.
5-6 Aesthetic and physical relationships apparent in the environment. 11,000 students have participated in testing over a two year period. For example, Southwest Regional teacher training and student sessions currently being held in Platt National Park. Ready for publication.
7-8 Conservation and the effect man has had on land, air, and water. Under pilot testing in twelve schools.
11-12 The necessity and effects of environmental management.

ORIGIN
The program is being developed under Dr. Mario Menesini, Director of the Educational Consulting Service at the U. of C. Park Service's interpretive program. The National Education Association is reviewing and evaluating the NEED materials.

NEED (NATIONAL ENVIRONMENTAL EDUCATION DEVELOPMENT)

SEED
National Park Service
U. S. Department of the Interior
Washington, D. C. 20240
CONCEPT AND EMPHASIS
Detailed social studies curriculum written with the assumption that people can learn to understand their environment and to change it.

Uses history, government, politics, planning, and draws on art, literature, poetry and music in interesting and imaginative ways.

MATERIALS
Kit of multi-media materials (including nine filmstrips in color; six records, some with narration for filmstrips, some with folk music; 31 sets of Planning Information cards describing various cities and their development; a Teachers' Manual, a Course Planning Guide to help teachers coordinate the urban action program with their total curriculum; and thirty folksong sheets). Also included is a Community Planning Handbook, student workbook with maps, diagrams, games, exercises and interview forms.

USE
Used in two seventh grade classes in Harlem, in nine New York City eighth grade classrooms. Now adapted for fourth and fifth grades.

ORIGIN
Developed and field tested by architect C. Richard Hatch as an outgrowth of ARCH (Architects Renewal Committee in Harlem). Information:
C. Richard Hatch Associates
989 Eighth Avenue
New York, New York 10019

Publisher
Ginn & Company
Boston, Mass. 02117
CONCEPT AND EMPHASIS

"Where I Live is Important to Me -- the visual aspects of building better communities" is the title of this primer in environmental awareness which helps "provide children with an awareness of the opportunities, choices and consequences in building better communities and in building communities better".

Using familiar examples--localized in the Champaign-Urbana vicinity; the book emphasizes the need for planning and design, for both profession and citizen participation in the process of building better communities, and introduces the idea that different kinds of land use can "fit together well and make a total community that can give satisfaction to the people who live in it."

Although used as a conservation course, the book goes further than that in stimulating awareness of the visual environment.

MATERIALS

88 page book containing 19 children's drawings and 131 photographs. Covers land uses common to all communities: houses and neighborhoods, entry-ways, landmarks, parks and playgrounds, open space, water, places to go by yourself, to gather together in and to shop. Currently, in manuscript form.

USE

Fifth grade in Champaign, Illinois.

ORIGIN

The book grew out of an Environment Contest held in 1968 by the Champaign County Development Council Foundation in upper elementary grades of the county's schools. The contest was intended to stimulate the children to an awareness of their surroundings. It required a drawing or verbal description of each participating child's favorite place which he thought added beauty to the community, accompanied by his reasons for the choice. The children's responses were so sensitive and their observation so keen that two writers--with assistance from the Center for Upgrading Educational Services (CUES), the Curriculum Laboratory of the University of Illinois College of Education, and a professor of Urban Planning--were stimulated to write the primer and to incorporate
in it some of the children's drawings. The principal consultant was Charles W. Rusch, the professor of architecture, University of Illinois.

Information from the authors:
Susan C. Stone and Frances D. Quinn
811 W. Daniel Street
Champaign, Illinois 61820

CONCEPT AND EMPHASIS
Nine week course in which children experience the city visually and functionally; inventory neighborhoods and finally, build model neighborhoods.

MATERIALS
Mimeographed course outline and neighborhood questionnaire.

USE
In the Mantua-Powelton Mini-School, a brand new school for 120, housed in a warehouse. Information:
Mantua-Powelton Mini-School
3302 Arch Street
Philadelphia, Pennsylvania
CONCEPT AND EMPHASIS

"to teach students the basic elements of problem-solving in the context of their own environment". Multi-media materials are available for the student-led problem of building a functionally and visually valid model city.

The basic goals of the project are "not only to teach children about cities, but also to teach them how to learn--how to solve problems by gathering information, sorting through it, and applying the information to a specific problem, and evaluating the solution in terms of the specifics of the problem".

Developed as part of the social studies curriculum for junior high school, but not limited to that area.

MATERIALS

A 57 page looseleaf book describes the concepts of, and briefly, the techniques and methods used in Philadelphia. Sound films, filmstrips and maps listed relate, in part, to other cities.

USE

Used in eight Philadelphia public schools (1969-70)

ORIGIN

Developed during 1967-68 at Sayre Junior High School by Mr. Kenneth Lieberman of the Sayre faculty. Information:

K. Lieberman
The Model City Project
The School District of Philadelphia
Philadelphia, Pennsylvania
High School

CONCEPT AND EMPHASIS
Integrates cultural studies (architecture, art, literature, music) with other subjects in the regular ninth grade curriculum requiring no actual changes in curriculum and no additions of personnel.

MATERIALS
Teacher guides for enriching the study program in English, science, industrial arts and home economics. Guides present lesson plans on topics in the regular curriculum, with the addition of references to materials for demonstration and discussion of relevant cultural developments. Includes films, filmstrips, prints, books, field trips.

USE
Used by 13 schools (of varied types, with students from all socio-economic-intellectual levels) for 1-1/2 years with considerable success. Now revised with some added subject matter.

ORIGIN
Developed as a pilot project in New York State with funds from the U. S. Office of Education. Information:
Grace N. Lacy, Director of CUE
The University of the State of New York
The State Department of Education
Albany, New York
High School

CONCEPT AND EMPHASIS
Concerned primarily with the boundaries of experience. The course was the author's very personal way of "confronting a wide range of problems." His class record and project cards are meant not as lesson plans, but to be "permissive, provocative, and stimulating."

MATERIALS
A 130 page looseleaf record of a year-long experimental course, VIZ ED. 120 project cards detailing specific exercises probing the "inner landscape" (self), "mapping, representing" (space, time), "sensory awareness", and "building and making" (structures, light, film).

ORIGIN
Developed and used in the new experimental school Murray Rd., a Newton Public High School. Funded by the Newton Public Schools and the Educational Development Corporation. Information:

David Lowry Burgess
Murray Road School
Newton, Massachusetts

MURRAY ROAD SCHOOL
Newton, Massachusetts
CONCEPT AND EMPHASIS

Development of a one-year high school geography course. Organized on a settlement theme, the course focuses on the "varied institutions and technologies of societies around the earth". Many of the six units may also be used separately in history, economics and government courses.

Geography of Cities - six to eight weeks. Study of factors influencing the location, structure, and growth of cities followed by construction of a model city.

Manufacturing and Agriculture - six to eight weeks. Role-playing activities involving site location of a factory, and operation of a farm.

Cultural Geography - three to four weeks. Students explore different attitudes toward cattle around the world. Slides, maps and filmstrips are used to show cultural relativity.

Political Geography - four to five weeks. Role-playing activities involve solving an international boundary dispute, redistricting of a state, and the solving of other political problems.

Habitat and Resources - six weeks Emphasis on the interaction of man and his natural environment, for example, the use of resources.

Japan - three weeks Comparison of Japan and North America, modernization of Japan, and the relevance of the Japanese experience for underdeveloped areas.

MATERIALS
Each of six units, available separately, contains a complete package of tapes, slides, a variety of readings, maps, games and other materials.

Supplementary reference volumes, one on local geography, and another on maps and air photos.
Teacher education materials designed for 10-15 hours instruction currently being tried out (spring 1970) throughout the U.S.

Newsletter, for the High School Geography Project available from the project office listed below.

USE
Extensive classroom tryouts and revision of provisional units, 1965-1968. Teachers, both with and without geographic background, and students from inner-city, suburban, and rural areas were involved.

ORIGIN
Begun in 1961. Funded by the Ford Foundation and the National Science Foundation, and sponsored by the Association of American Geographers, each unit was devised by a team of professional geographers in consultation with high school teachers and educational psychologists. Information:
High School Geography Project
P. O. Box 1095
Boulder, Colorado 80302

Each of the six units is being published separately by
The Macmillan Company
School Department
866 Third Avenue
New York, New York 10022

CONCEPT AND EMPHASIS
To get the students to involve themselves in a problem in which the teacher has no more experience than do they themselves. In the beginning the teacher set up a problem, such as housing for strange creatures from a distant constellation. Now students working in teams, choose and work on their own problems.
The course held four hours per week for two months requires executing a project using the schools' woodworking, sculpture and/or sheet metal studios.
Information:
Robert A Lloyd
Phillips Academy
Andover, Massachusetts
In "Visual Education for Non-Professionals," non-professional students are introduced to aspects of visual disciplines in order to develop their capacities for evaluating visual problems. Offered in Carpenter Center for Visual Arts during 1969-1970, the course complements the Center's similar function. Information:

Graduate School of Design
Harvard University
Cambridge, Massachusetts

"Multi-sensory Media for Learning", a lecture series held in spring 1969, included a talk and "happening" by Dr. Karl Linn of M. I. T. on "Education of, by, and for the Environment", during which the environment of Memorial Hall was transformed with simple materials to make its space more inviting. Information:

Dr. Karl Linn
Massachusetts Institute of Technology
Cambridge, Massachusetts

"Can Man Survive?", 1970's most popular course at the University of Oregon, attracted an enrollment of 2400 students. The course is interdisciplinary, and was initiated by three faculty members, one of whom is Robert Harris, head of the Architecture and Allied Arts Department. It deals with ecological and environmental problems. Information:

Robert Harris, Dean
College of Architecture and Allied Arts
University of Oregon
Eugene, Oregon

Two courses are currently offered at the University of Colorado, one in the graduate school, one for junior year students, both based on the interdisciplinary approach to teaching and content. The graduate level course, "Environment and Public Policy," is open to qualified students in some 15 disciplines. The junior course, "Survey of Environmental Problems," is open to all students in the university. Faculty members listed for this course represent 20 different disciplines. Information:

Professor Richard Whitaker.
School of Architecture
University of Colorado
Boulder, Colorado
Developed by graduate student David Clarke, this unit, given in 1969, emphasized concepts and attitudes, not skills, and was directed at sensitizing the group (14 teachers) to the environment. The unit was offered through the University's Department of Architecture but was directed specifically at teachers, using a multi-media approach; literature, painting, sculpture, landscape (through slides of paintings and of nature). The program was based on Sommer's statement that architecture affects people just out of the focus of awareness, and was intended to bring this into focus and provide the tools for its continuous operation. Students built for themselves a small personal space with a requirement of a relationship to the group, decor and compared each others; to aid in realizing the importance of space psychologically. Information:

David Clarke
Apartment 1-A, 300 8th Avenue
Brooklyn, New York 11215

"Environmental Education Today for the Future" is a course for teachers (with credit) designed to 1) present the problems and issues stemming from man's interaction with his natural environment; and 2) suggest content, teaching methods and student activities at the elementary school level that will aid in developing appreciation of the interrelationships of man and his environment. Taught by an elementary school teacher education supervisor and a mathematics and science consultant, the seminars also included group leadership by members of the Northern California chapter's Committee on Public Education. The course given in the spring of 1970. Information:

Arnold R. Pagano,
Supervisor of Teacher Education (Elementary)
University of California
Berkeley, California

(See description under chapter projects)
CONCEPT AND EMPHASIS
A deliberately loosely structured, exploratory perceptual awareness project being designed as a classroom "tool" for alteration or amplification by the teacher. Conceived as material for severely limited budgets, space, and "teacher" time. To grow more sophisticated for older child, to include evaluation and judgment.

MATERIALS
Pilot program not published. Test materials include lesson plans with slides and photographs for comparison, field trips; class projects suggestions, an "interiors colors package" for older children.

USE
Oriented to situations at this first stage of development "offering widest possible variety in family income, ethnic background, and educational structure." Work with public schools reserved for later stage. "Four specific age levels, beginning with youngsters of 5 and continuing up through adolescence and perhaps beyond."

Seven test groups have used the program in Los Angeles for approximately 15 weeks. Wide range of groups of 1 to 30 pupils, 4-13 years old, all ethnic groups and incomes.

Test criticisms suggest informal groups as well as formal school groups can benefit from this approach. Materials, now catalytic in nature, rather than informational per se, indicate much more experimentation to perfect. Additional funding is being sought.

ORIGIN
Being developed by the foundation under the direction of Claudia Moholy-Nagy, Director. Information:
Victor Gruen Foundation
For Environmental Planning
311 North Beverly Glen Blvd.
Los Angeles, California 90024

VICTOR GRUEN FOUNDATION FOR ENVIRONMENTAL PLANNING

2.3.2.22
KITS OF CLASSROOM MATERIALS

EDUCATIONAL GAMES

POLLUTION


4-6

A game to "teach students the social, political and economic problems involved in attempts to control pollution.

NEIGHBORHOOD


4-6

A game in which development of an urban area is simulated through plays on a gameboard.

MATCH, "Materials and Activities for Teachers and Children," American Science and Engineering, 20 Overland Street, Boston, Mass., 02215

Developed under a grant from the U. S. Office of Education by the Children's Museum, Boston. Units for primary through grade 6. Each kit contains materials to involve 30 children for 2-4 weeks and is designed for circulation within a school system.

WATERPLAY KIT

See MATCH

K-3

A water table with unbreakable things to manipulate; also, recordings, films, and stories.

THE CITY KIT

See MATCH

3-5

Using films, photos, model buildings, and an aerial photo, children create and plan cities, route a new highway, make maps and are stimulated through role playing to understand that life and the form of the city are related.

HOUSES KIT

See MATCH

1-3

"An Eskimo igloo is compared with a Nigerian mud-and-thatch house, to show how physical settings call for different ways of life." Children build a mud-and-bamboo wall, assemble an igloo, scrape deerskin.
NETSILIK ESKIMOS KIT
See MATCH
3-4
"A seal hunt and other activities of Netsilik life are recreated through the use of authentic Eskimo tools, clothing, other artifacts, films and records."

THE ALGONQUINS KIT
See MATCH
3-4
"Children savor the daily life of the Northeast Woodland Indians, scraping deerskin, hafting an arrowhead, preparing food, assembling a trap, acting out stories of spirit help."

PADDLE-TO-THE-SEA KIT
See MATCH
4-6
"A classic story of the Great Lakes is made real through related objects and activities - the children cooperate in creating a large mural-collage, rigging a breeches buoy, bartering trinkets for furs, launching a class 'Paddle'."

IMAGINATION UNLIMITED KIT
See MATCH
4-6
"The child's awareness of his unique perceptions and his ability to express them are developed through the use of illustrated word cards, unusual objects, and movies."

JAPANESE FAMILY KIT
See MATCH
5-6
Clothing, dishes, decorative and religious objects, calligraphy materials and films aid in role-playing a contemporary, middleclass Japanese family.

A HOUSE OF ANCIENT GREECE KIT
See MATCH
5-6
A class divided into archeological teams "discovers" artifacts that lead to deductions about what it was like to live in a Greek villa.
MATCH PRESS KIT
See MATCH
5-6
"A 'publishing company' is set up with a portable press, type fonts, paper, ink, and instruction cards. Each class prints and binds its own book."

MEDIEVAL PEOPLE KIT
See MATCH
5-6
"Using character books, costumes and props (falconry gear, psaltery, wool carders, etc.) children enact episodes in the life of a medieval manor."

BASIC CAMERA KIT
All Ages
Camera and materials for 10 children.

EXPANDED CAMERA KIT
All Ages
As in BASIC CAMERA KIT, for 30 children.

BASIC CARDBOARD CARPENTRY TOOL KIT
5 Up and Teachers
Tools for use in making items out of cardboard.

COMPLETE CARDBOARD CARPENTRY TOOL KIT
The Workshop for Learning Things, 55 Chapel Street, Newton, Mass. 02160
5 Up and Teachers
Tools for use in making items out of cardboard.
BOOKS: STUDENT RESOURCES

MONT SAINT-MICHEL AND CHARTRES
11-12
The classic and passionate study of medieval culture as expressed through the bones of its great buildings. Would that we cared as much.

THE MAGIC STONES
4-6
Clearly explains the discovery and principles of the arch and how it was used in the construction of the Cathedral of Notre Dame. Also discusses the principles and practices of design in a number of art forms - textiles, ceramics, and painting. Unusual.

DESIGN OF CITIES
Bacon, Edmund; Viking, 1967, 296 pp., $15.00.
(To be revised and expanded in 1970)
11-12
The Philadelphia city planner states his thesis that great urban design form ideas, once established, have a force of their own that carries them from one generation to the next. Brief text accompanies rich illustrations of worldwide great urban form achievements of the past and present. Plan diagrams beautifully illustrate growth and design form ideas. Content is limited principally to form in urban cores. May be read non-sequentially.

THE ENVIRONMENTAL HANDBOOK
Bell, Garrett de, Editor; Balentine, 1970, 365 pp. paperback, 95¢.
10-12
Background on ecology prepared for the first environmental teach-in. A collection of articles.
GOD'S OWN JUNKYARD. The Planned Deterioration of America's Landscape.
Blake, Peter; Holt, 1964, 143 pp., illus.
10-12
How the natural beauty of this country is being destroyed in many ways, including public indifference, is graphically shown through photographs.

THE MASTER BUILDERS
Blake, Peter; Knopf, 1960, 399 pp., illus.
10-12
By describing the lives of Le Corbusier, Mies van der Rohe, and Frank Lloyd Wright, the author presents a view of modern architecture, how these three men have been influential in the development of architecture today and how they have changed the look of the urban areas in which we live.

COSMIC VIEW
Boeke, Kees; John Day Co., $3.75.
All Ages
Written for children; helpful in understanding distance, space and scale. Shows the scope of the universe in 40 pictorial jumps. The first picture is of a girl sitting in a chair, in front of school with a cat in her lap. Each following picture is drawn from an imaginary spot ten times "further up" than the previous one, the last one being near the edge of infinity.

TEXTURES
Brodatz, Phil; Dover, $2.50.
3-12
Offers visual stimulation through 112 plates of photographed textures.

MAIN STREETS OF SOUTHEAST ASIA
Buell, Hal; Dodd, Mead, 1962, 128 pp., illus.
3-9
Brief vignettes from Hong Kong and Manila, to Singapore and Burma of people and the way they live (mostly in cities). Written for children in simple text. Visual aid supplements for cities of this area of the world would add a great deal.
KATY AND THE BIG SNOW

Katy, the red crawler tractor, makes the service systems of the town work again by digging it out of a snow storm. Basic services are enumerated. Katy never does anything bad in this story.

THE LITTLE HOUSE
Burton, Virginia Lee; Houghton, 1942. 40 pp., illus.

The concept of city growth is presented at picture book level in this story. It shows how neighborhoods change and what happens as cities grow and devour more and more open space.

KEYS TO ART
Canaday, John; Tudor, 1963. 182 pp., illus.

Sources for works of art, themes used by artists, and great buildings are some of the things discussed which explore the different areas of art, including painting, sculpture, and architecture.

LOOKING AT ART
Chase, Alice E.; Crowell, 1966. 119 pp., illus.

Uses examples of similar subjects as painted by various artists to help the reader become aware of the development of art and provide "an appreciation of the many ways of seeing." Handsome and useful in a number of ways.

NIGHT PEOPLE
Colby, C. B.; Coward-McCann, 1961. 48 pp., illus.

People in the city who make technology run through the night. An interesting introduction for the young child to aspects of the city which many of us never see.

TEAR DOWN TO BUILD UP, The Story of Building Wrecking

Tools and machinery for wrecking, kinds of workmen and crews, how a building is wrecked, reasons for wrecking. Only the constructive reasons for and results of wrecking are discussed. Good as far as it goes, but now that we have this devastating ability, needs supplementing with insights into the morality of its use.
PETER'S BROWNSTONE HOUSE
Coleman, Hila; Morrow, 1963, unp., illus.
K-2
A picture book which shows how New York has grown and changed. Present day life is contrasted with that of "olden times," pointing out the importance of preserving some older buildings of the city.

CONCERNING TOWN PLANNING
Corbusier, Le (Charles Edouard Jeanneret); Yale Univ., 1948, 127 pp., sketch illus.
11-12
Written just after World War II. The architect poses and answers 18 questions on the issues of 25 years ago; some translated to America still are relevant for holding up what we want the city to be. His sketches should not put off the uninitiated from dipping into questions that interest them.

TOWARDS A NEW ARCHITECTURE
Corbusier, Le (Charles Edouard Jeanneret); The Architectural Press
10-12
A simple statement of environmental philosophy by one of the 20th century's finest architects. It first introduced the writings of Le Corbusier in English and was an exposition of the modern movement in architecture. Enjoyable, easy reading, it is a short but important work that has had great influence on architectural thought.

ARCHITECTURE: CITY SENSE
Crosby, Theo; Reinhold, 1965 illus., paperback, $2.95.
11-12
The author considers the city man's greatest invention; he attempts to develop a coherent approach to city living through an understanding of its elements and functions.

TOWNSCAPE
Cullen, Gordon; Reinhold, 1961, $12.00.
8-12
An analysis of the elements that make up the visual city. Brief texts and numerous pictures explain components and architectural terms. Cullen writes of our emotions as affected by the juxtaposition of buildings as we move through a city; its fabric (color, texture, scale, style, character) and our physical relationship to the environment. Can serve as an illustrated dictionary; an excellent reference book.
TO GRANDFATHER'S HOUSE WE GO
3-5
Presents the styles which are representative of
American domestic architecture from Colonial
times to the late 1800's. Well illustrated.

DISCOVERING DESIGN
Downer, Marion; Lothrop, 1947, 104 pp., illus.
9-12 and All Ages
Can bring pleasure by just leafing through it.
By use of unusually good photographs, serves
to bring an awareness of the beauty of design
which surrounds us; in order to appreciate we
need only to use our eyes. For introducing
anyone of any age to awareness of design in
the environment, but particularly to
young persons. "Design is everywhere in the
universe, but it is hidden from us until we be-
come aware of it," says the first brief text.
Uses nature, man-made objects, and formed
art, to introduce beauty of line, pattern, rhythm,
and abstraction. Provocative and exceptional.

ROOFS OVER AMERICA
Downer, Marion; Lothrop, 1967, 75 pp., illus.
5-9
Handsome and valuable book from an outstand-
ing author in which a child's eyes might be
opened to one aspect of the world around him.

THE STORY OF DESIGN
Downer, Marion; Lothrop, 1963, 216 pp., illus.
5-12 and adults
How man from primitive times to the present has
expressed his love of beauty through design in
everyday useful objects as well as in works of
art. A brief text accompanies excellent large
photographs. This prize-winning book in itself
is an example of good design.

VERONICA
Duvoisin, Roger; Knopf, 1961, unp. illus. by the
author.
2-3
A hippopotamus visits the city. Fun.
LANDSCAPE FOR LIVING
Eckbo, Garrett; F. W. Dodge, 1950, 268 pp. plans.
Text on landscape architecture, history, theory, specific conditions, planning. Classic for modern landscape architecture.

URBAN LANDSCAPE DESIGN
Case studies, abundant illustrations; the book defines landscape quality, the processes which produce it and those which can be used to improve it. A view of landscape as the result of interaction between man and "non-human" nature.

THE WING ON A FLEA
Emberley, Ed.; Little, Brown, 1961, 48 pp., illus.
Describes things to be enjoyed if we open our eyes and look. In a delightful way geometric shapes are used to introduce basic concepts of design to the younger child, based on the recurrence in various forms and various objects of the three basic geometric forms: triangle, rectangle and circle. A book children will enjoy as will the adult who shares it with him. The illustrations are happy and bright, without being great.

THE DYNAMICS OF CHANGE
Fabun, Don; Prentice-Hall, $8.95.
The excellent pictures and text cover a wide range of subjects. Starting with world wide change beginning shortly after World War II, it takes the reader through the changes brought about by telemobility and automation and confronts him with foreseeing the unforeseeable; suggesting what the world will be like when some of the things that could happen do happen.
PLANNING AND COMMUNITY APPEARANCE
Fagin, Henry, and Robert G. Weinberg, Editors;
Report of the joint committee on design control
of the New York Chapters of the AIA and AIP;
Regional Plan Association. New York, 1958,
160 pp., illus, bibliography, paperback.
10-12
An introduction to the problems of public
aesthetic controls. Action-through public
boards, the process of creating a municipal
design plan, legislation here and abroad, new
legal concepts, and excerpts and abstracts from
existing legislation and court decisions are
discussed in this very helpful work. Visual
graphics are well done but incidental to this
mature, possible text.

THE CREATIVE EYE
Fearing, Kelley, and Beard and Martin; W. S.
8-12
Over 80 compelling color photographs, addi-
tional black and white ones, and brief, simple
text on "seeing." Painting, sculpture, archi-
tecture and applied crafts of many media are
related. Illustrations chosen by the gifted eye
of the artist from major works. Unusual and
provocative, to be considered for every school
library and evaluated for fields other than art.

Vol. II., 128 pp., $5.60.
8-12
A great variety of handsome color photographs
related to brief text. Organized around five
ideas: aesthetic response to moods of nature;
personal views of nature with meaning; fantasy,
mystery, dreams, symbols, and fun; architecture
and other media; and art as environment.

VILLAGE PLANNING IN THE PRIMITIVE SOCIETY
Fraser, Douglas; George Braziller, $5.95.
9-12
Contains almost eighty pictures and eight de-
tailed accounts of village systems that have
worked for Cheyenne Indians, Trobriand Is-
landers, Mbuti pygmies and others. The
systems are diverse and eye opening for
approaching the restructuring of any community.
THE ROOTS OF JAPANESE ARCHITECTURE
Futagawa, Yukio; photographer, with text and commentaries by Teiji Itoh, and a forward by Isamu Noguchi; Harper and Row, 1962, 208 pp., $25.00.

"The audacity of this book is not its novelty so much as the surprising degree to which it succeeds: its panoramic view has a shape and method which somehow goes beyond popularization to catch the spirit underlying ancient Japanese architecture and space." For leafing or pondering, comes closer to the reality of experience than books have a right to do. Beautiful, giant format encompassing history, cultural geography, ethnology, and a marvelous strong contrast to contemporary America.

UNDE$$EADING THE ARTS
Gardner, Helen; Harcourt, 1932, 336 pp., illus.

Contains a good discussion of the various forms of art and architecture and how to look at them. Of particular interest is the first chapter entitled, "Eyes to See."

WHERE THE PEOPLE ARE, CITIES AND THEIR FUTURE
Gay, Kathlyn; Delacorte, 1969, $3.50.

The magnetism of the city and its future; the individual's importance in the city.

THE MEANING AND WONDER OF ART
Gettings, Fred; Golden Press, 1953, 91 pp., illus.

An introduction to the world of art; basic aesthetic concepts and how they are used in creating a work of art. Interesting comparisons between a painting and the interior of a building, or between a painting and an art object (or an artifact) to point up the different effects of using vertical lines in two dimensions and in three dimensions. It also suggests the elements of expression in art—rest, rhythm, movement, pattern, curves, spirals, and others. Its span of illustration, in black and white and in color, runs from the Lascaux caves to Jackson Pollock, from Ionic caps and a Gothic cathedral to Mondrian, Cezanne, and Le Corbusier.
SPACE TIME AND ARCHITECTURE
Giedion, Sigfried; Harvard University, 1962, 778 pp., illus., $17.50.
10-12
The classic study of the roots, development and trends of modern architecture and planning as contrasted with its historical background. The standard college text on the modern movement. Chapters may be entered non-sequentially.

HOW THE WORLD'S CITIES BEGAN
Gregor, Arthur S.; E. P. Dutton, 1967, 64 pp., illus.
4-6
The gradual development of the first cities. Well-organized text and simply written. The final chapter deals with the problems of today's fast-growing cities and the challenge they present to modern man.

A BIG CITY
K-1
For the younger child, an ABC book using objects found in a large city to illustrate the letters of the alphabet.

THE HIDDEN DIMENSION
Hall, Edward T.; Doubleday, 201 pp., $5.50 hardback, $1.45 paperback.
9-12
An anthropologist examines man's use of space in public and private places. He discusses the relationships between crowding and social behavior, and our sensual (visual, auditory, and olfactory) perceptions of space. Each man's invisible bubble of space that constitutes his "Territory" is contrasted for different cultures and different social situations. Important.

CITIES
Halprin, Lawrence; Reinhold, 1963, 224 pp., $15.00.
All Ages
Satisfaction for the personal, physical and psychological needs of man in the city. Handsome examples of the intimate detail of city surfaces and forms all explicitly laid out for review. Richly illustrated, a picture book for younger people, and full of hope for the adult. What cities ought to be like.
FREeways
Halprin, Lawrence; Reinhold, 1966, 160 pp., $15.00.
8-12
What freeway has done to us, and what to do about it. Brief text accompanies the problem stated visually in pictures and solutions stated graphically. Excellent, imaginative.

NEW YORK, NEW YORK
Halprin, Lawrence; 1968, Chapman Press, 119 pp., illus., $5.00.
10-12
A report prepared for the City of New York and HUD. A study of the quality, character, and meaning of open space in urban design. While New York's problems are not today every city's, its human problems may become every city's. Suggests ways of tackling order and human needs at the neighborhood, dense city scale.

THE YOUNG DESIGNER
Hart, Tony; Warne, 1968, $3.95.
5-12
Toward an understanding of good design, and its applications.

PIONEER TEXAS BUILDINGS: A GEOMETRY LESSON
Heimsath, Clovis; Univ. of Texas, 1968, 159 pp., $12.50.
3-8
Anonymous small buildings of simple volume are related to geometry solids and voids by means of large photographs, clear sketches and captions. No text and large format make this an easy tool to introduce abstractions to children.

FROM TEPEES TO TOWERS
Hiller, Carl E.; Little, Brown, 1967, 106 pp., illus.
5-9
A brief survey of American architecture presented by means of striking and well-chosen photographs and a limited text. Attractive; for many different ages.
WHERE IN THE WORLD DO YOU LIVE?
Hine, Al; Harcourt, 1962, unp., illus. by John Alcorn.
K-3
A basic approach to geography for the young child. Valuable for making a child aware of the physical world around him and his place in it. An interesting book with attractive illustrations.

AMERICAN HOUSES: COLONIAL, CLASSIC, AND CONTEMPORARY
Hoag, Edwin; Lippincott, 1964, 160 pp., illus.
7-9
This history of domestic architecture explains some of the influences upon man: how he lives, where he lives, and how they have affected what he builds, and are reflected in various architectural styles and periods.

THE LANGUAGE OF CITIES
6-12
Excellent to introduce the reader to the vocabulary of function and design within the man-made environment. It is very helpful in understanding the basic elements of and a means of communicating about city structure. Well illustrated.

Sets of color slides, with texts and teaching guides, coordinated with the chapters of this book are available. For information write to:
Architectural Color Slides
187 Grant Street
Lexington, Mass. 02173

TRANSPORT DESIGN
Hughes-Stanton, Corin; Reinhold, $2.45.
10-12
An analysis of the problems in designing transport vehicles as related to their function, form and environment.

ENTRANCES AND STAIRCASES
Iliffe Books, Ltd., $11.50.
5-12
Pictorial essay of entrances and staircases showing variety in design, function and construction.
WROUGHT IRON RAILINGS, DOORS AND GATES
Iliffe Books, Ltd., $11.50.
5-12
Pictorial essay of wrought and forged iron work in and on a variety of structures. Useful in stimulating awareness of variety.

A BUILDING GOES UP
Kahn, Ely Jacques; Simon & Schuster, $3.95.
6-12
A short illustrated book describing the steps in constructing a building from preliminary plans to the "installation of the last water cooler."

DESIGN OF THE HOUSING SITE
Katz, Robert D.; University of Illinois, $7.95.
8-12
A richly illustrated presentation on alternative ways of grouping houses and apartments on various sites. Includes information about zoning, building codes, regulations and controls.

EXPLORING ART
9-12
A well-written textbook suitable for secondary school art appreciation classes. Can help the student to look at things more keenly and to interpret what he sees and develop some standards of judgment. In addition to fine arts; industrial design, advertising, architecture, and community planning are discussed.

THE WILD GARDENER IN THE WILD LANDSCAPE
10-12
A guide for the development of open spaces, both on private places and on large scale projects where cooperation with nature is more important than costly maintenance procedures. Art and science of naturalistic landscape with minimum effort. No lawn mowing, no cultivation, no fertilizing, no insect and disease control.
THE HOUSE
Kennedy, Robert Woods; Reinhold, $6.95.
10-12
An architect speaks to the layman on the "art of home design." The design of a house in terms of its functions and structure; interpreted through the architect-client relationship.

EDUCATION OF VISION
Kepes, Gyorgy (ed.); Braziller, 1966 233 pp., illus. (Vision and Value series)
10-12
Concerned with helping in the development of "visual literacy." Good resource material for teachers involved in teaching various aspects of this topic. There are 6 volumes in the series.

THE WORM, THE BIRD, AND YOU
Kessler, Leonard; Dodd, 1962, unp., illus.
K-2
The fundamentals of perspective are presented in a charming way in this fascinating picture book.

WHAT'S IN A LINE?
Kessler, Leonard; Wm. R. Scott, 1951, unp., illus.
K-2
A first book of graphic expression. Shows what a line is, where it can go, how it can grow and what can be done with it.

HISTORY OF WESTERN ARCHITECTURE
King, Mary Louise; Henry Walack, 1967, 224 pp., illus., $7.50
6-12
From man's first crude attempts at building shelter to the modern complexities of today's glass and steel structures. The author explains the influences on much of the architecture in the United States through its historic connections.

THE JAPANESE HOUSE
Kiyoko and Tatsuo Ishimoto; Bonanza, $2.98.
3-12
An extensive collection of illustrations and photographs of Japanese houses. The contrast between American and Japanese design is easily recognizable. The basic elements and many variations of the Japanese house are shown as they can be adapted for American use.
ART HAS MANY FACES
Kuh, Katharine; Harper, 1951, 185 pp., illus.
10-12
The nature of art presented visually. Pictures are used as a means of explaining the basic aspects of art. The text is purposely limited; similarities and differences can be better compared in the visual examples. Interesting.

ART AND LIFE IN AMERICA
Larkin, Oliver W.; Rinehart, 1949, 547 pp., illus.
11-12
The development of architecture, sculpture, and painting in America are surveyed. Useful in helping a student understand how art and architecture have been influenced by the way in which this country, its people, its cities have evolved and expanded.

OF CITY STREETS
Larrick, Nancy; J. B. Lippincott, $4.95.
All Ages
An anthology of poetry about the city and its people.

HIGH-RISE SECRET
Lenski, Lois; Lippincott, 1966, 152 pp., illus.
3-5
A fictional account of life in a high-rise housing project for low-income families in a large city.

THE SKYSCRAPER
Liang, Yen; Lippincott, 1958, 48 pp., illus.
2-3
The concept of city planning is graphically presented for the younger child. A striking and unique book.

THE BIGGEST HOUSE IN THE WORLD
Lionni, Leo; Pantheon, $3.95.
1-4
The building of a house from a snail's point of view. It is interesting to see how an animal attempts to change his environment.
DESIGN IS A DANDELION
Loyoos, Janice; Golden Gate Junior Books, 1966, 62 pp., illus.
3-6
To introduce children to the wonders of design all around them, "nature is the great designer," uses examples found in nature to explain such things as form, texture, balance, rhythm, and contrast.

CITIES IN A RACE WITH TIME
11-12
The urgent problems of large urban areas in America today: Beginning with a critical history and then using a series of case histories, the author shows the measures that have been undertaken by some of our large cities to alleviate the growing troubles that they must face. Well written.

THE VISUAL EXPERIENCE, AN INTRODUCTION TO ART
Lowry, Bates; Abrams, 1961, 272 pp., illus.
10-12
A survey of the many elements of art in which the reader is shown three ways of looking at art; through the eyes of the observer, the artist, and the critic. The well integrated text is illustrated with specific examples which relate to a point as it is being discussed. Interesting.

GOING FOR A WALK WITH A LINE
MacAgy, Douglas; Doubleday, 1959, unp., illus.
3-6
Modern art is introduced in this colorful book for young children. Imaginative and well illustrated. A minimum of text.

A BOOK ABOUT CITIES
McFee, June; unpublished, 34 pp., illus.
3-4
This book is in testing.
DESIGN WITH NATURE

-10-12
Man's relation to his environment as a whole. This handsome book exudes values for saving the land and the city. Process and form in nature and in the man-made environment are related, for example, through a clear discussion of Enfant's original planning of Washington, D. C. A chapter on health and pathology engendered by the environment has vivid illustrations. To be considered for every school library for many uses.

ARCHITECT, CREATING MAN'S ENVIRONMENT
McLaughlin, Robert W.; MacMillan, 1962, 201 pp., illus.

10-12
How an architect prepares for his career, what he does professionally, the importance of architecture today, and the increasing need for more attractive and useful buildings and therefore, the need for more architects.

BEDROOMS
Meade, Dorothy; MacDonald & Co., Ltd., $2.00

All Ages
The mystique, functions and furniture of the bedroom are discussed and illustrated. Illustrates variety of choice.

THE PUSHCART WAR
Merrill, Jean; W. R. Scott, 1964.

6-9
This fictional book is a satire of New York in the 1970's. It describes one of the problems of life in the city - traffic and what happens when the push cart peddlers take a stand against the truck drivers of New York.

THE MANY WAYS OF SEEING
Moore, Janet Gaylord; World, 1967, 144 pp., illus.

7-12
An introduction to aesthetics. Using everyday things as well as works of art, to make the reader aware of the beauty which is all around. The text discusses line, form, composition and textures.
I THOUGHT I HEARD THE CITY
Moore, Lillian; Atheneum, 1969, illus., $3.75.
4-8
Poetry evoking the city in its many faces.

OF WONDER AND A WORLD
Morman, Jean Mary; Art Education, Inc.
3-8
Art appreciation developed through questions and projects to stimulate an awareness and development of critical powers.

THE CIRCUS IN THE MIST
Munari, Bruno; World, $4.95.
5-12
The book is a work of art that shows the changes of the city's moods and colors and pace through the author's creative use of paper color and poetic text. Good for getting a fresh, light look at the city.

PLANNING OUR TOWN
Munzer, Martha E.; Knopf, 1964, 179 pp., illus.
10-12
One of the few books specifically for young people concerned with city planning. Included are chapters on rebuilding older parts of cities, starting from the beginning and planning a brand new city, problems of water and air pollution, and the race for open space and how to best utilize it. A very good book.

OUR NOISY WORLD
Navarra, John Gabriel; Doubleday, $4.50.
6-12
Noise pollution is a growing problem in our industrialized societies. Explains both the impact of noise on our well-being and the mechanisms of sound transmittance.

ENCYCLOPEDIA OF MODERN ARCHITECTURE
Pehnt, Wolfgang; Harry N. Abrams, Inc., $15.00.
5-12
Reference book with 400 illustrations and brief texts concerning architects, buildings and related subjects. Very useful for finding specific information concerning architecture.
THE NATURE OF DESIGN
Pye, David; Reinhold, $1.95.
10-12 Design as the common ground between science and art is analyzed in this short but informative book. Areas of design such as the role of economics, the meaning of function, the limitations of techniques are examined.

ARCHITECTURALLY SPEAKING
Raskin, Eugene; Delta, $1.95
10-12 A light witty book about architects and their vocabulary. The abstraction is removed from words such as style, proportion, rhythm, and scale; these are discussed in terms of the emotions they evoke as experienced through architecture. A short book that can be enjoyed in an evening.

EXPERIENCING ARCHITECTURE
Rasmussen, Steen Eiler; M. I. T., 1959, $2.95.
10-12 The book attempts to transmit the intellectual excitement of fine design. It identifies and discusses in a clear lucid style the elements that an architect works with every day. It arouses an interest in and an understanding of what the architect does. It is a good introductory book to architecture. Its beautiful pen and ink sketches offer insight into communication other than verbal.

TOWNS AND BUILDINGS
11-12 Gentle Danish humor makes this book a delightful way to discover visual principles of city organization. The examples are all other than American, but the elegant ink sketches amplify the appealing cultural history superbly. A chapter on land speculation is worth noting. To be cherished and returned to again and again.
NEW MOVEMENT IN CITIES
Richards, Brian; Reinhold, $2.75.
Discussion of the movement and transport of people within the short distances of the city.

A MAP IS A PICTURE
1-4
A handsome introduction to all kinds of maps and symbols for map making, for the younger child. Well done.

YOUR ART HERITAGE
Riley, Olive; Harper, 1952, 320 pp., illus.
10-12
Art appreciation textbook written in an attractive style and well illustrated.

CAVES TO SKYSCRAPERS
Robbin, Irving; Grosset & Dunlap, $1.00.
4-12
An elementary exposition of how people throughout history have adapted shelter to their basic life needs.

ARCHITECTURE WITHOUT ARCHITECTS
All Ages
"An introduction to non-pedigreed architecture."
Rich photographs, uncluttered by extensive explanations, of strong, sometimes elegant, always unassuming, beautiful buildings. Examples of mankind's wonderful and powerful imagination.

STREETS ARE FOR PEOPLE
Rudofsky, Bernard; Doubleday, illus., $14.95.
8-12
Discusses the street as the lifeline of urban civilization. It explains the history of streets by tracing their development within a dozen different countries. It offers general background information about the role of the street within a community but it does not go into the problems confronting the big city streets in the United States today. Beautifully illustrated, enjoyable.
SQUARES ARE NOT BAD
Salazar, Violet; Golden Press. $2.50.
3-9
A children’s book concerning geometric shapes and their interrelationships.

THIS IS NEW YORK
Sasek, Miroslav; MacMillan, 1960, 60 pp., illus.
3-6
The excitement and feeling of all aspects of life in our largest city from its tallest buildings to its smallest fire hydrants have been captured and put into this delightful and attractive picture book. It is factual as well as fun. A book to be enjoyed by many ages. Others in this series: This Is San Francisco and six others on various European cities.

OLD CITIES AND TOWNS
Schwartz, Alvin; Dutton, $5.95.
10-12
Using Philadelphia as a case history, the author presents the problems of city planning as they affect and relate to the individual. An excellent introduction to the dominant problems facing cities today.

THE CITY AND ITS PEOPLE
Schwartz, Alvin; Dutton, 1967, 64 pp., illus.
4-6
Primarily concerns city government, explaining complex functions of various city agencies. The text is brief and illustrated with good photographs which give a clear picture of today’s typical city. The need and demand for federal funds is explained in a section on urban renewal.

CITIES
10-12
A collection of papers heralding the opening of a new phase in human evolution. Calcutta, Stockholm, Ciudad Guayana, and New York show the diversity of the new form of human settlement, and illustrate in different ways how far men have failed to make their cities fit for habitation. The paradoxes of scarcity and plenty are discussed, with a final chapter on humanizing the city.
ROUND AND ROUND AND SQUARE
Shapur, Fredun; Abelard-Schuman, 1965, illus.

By using the geometric shapes the author shows many ways of putting them together and in doing so, introduces basics of design and proportion.

LANDSCAPE ARCHITECTURE
Simonds, John Ormsbee; F. W. Dodge, 1961, 244 pp., illus., photos, plans.
An outline of landscape planning process. An introduction to the forms, forces, and features of the natural and man-made landscape. Covers personal to regional landscape planning.

THE CITIZEN'S GUIDES TO ZONING, PLANNING AND URBAN RENEWAL
Smith, Herbert H.; Chandler-Davis, 1969.
Brings before the lay public an explanation of the intricacies of planning, zoning, and urban renewal. Appropriate for professional and educational circles.

CULTURAL GEOGRAPHY
Written as a text. Using an evolutionary rather than topical or regional approach, has the objective to outline how the surface of the planet Earth has been changing during the time span of human occupation, and how, in using that surface, human technology has grown. A basis for study of man and society with realization that man's accomplishments are based on the limits of the earth's physical and biological condition. Chapter Four on differentiation of cultures in growth includes architecture and settlement patterns. Chapter Eleven on space intensification techniques, includes urbanization and vertical use of space. Well illustrated; bibliography.
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Publisher</th>
<th>Pages/Price</th>
<th>Grade Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW PEOPLE LIVE IN THE BIG CITY</td>
<td>Stanek, Muriel</td>
<td>Benefic, 1964</td>
<td></td>
<td>1-3</td>
<td>City life in its many forms is described in this elementary textbook. Schools, recreation, housing and public services are some of the things discussed. Adequately illustrated by photographs and drawings; a simple vocabulary has been used.</td>
</tr>
<tr>
<td>SIGNS IN ACTION</td>
<td>Sutton, James</td>
<td>Reinhold, $2.25</td>
<td></td>
<td>All Ages</td>
<td>Pictures of signs, mostly in use today, and a discussion of their functions as a medium.</td>
</tr>
<tr>
<td>LEARNING TO LOOK: A Handbook for the Visual Arts</td>
<td>Taylor, Joshua C.</td>
<td>Phoenix Books, University of Chicago, 1963, 152 pp., illus.</td>
<td></td>
<td>11-12</td>
<td>Initially designed as a guide book for the art portion of a humanities course at the University of Chicago, this book was planned to give the student an over-all picture of the visual arts. Included are discussions of color, perspective, graphic arts, sculpture, architecture and how to analyze a work of art.</td>
</tr>
<tr>
<td>WAKE UP, CITY</td>
<td>Tresselt, Alvin</td>
<td>Lothrop, 1957, unp., illus.</td>
<td></td>
<td>K-1</td>
<td>The sights and sounds and lively tempo of life in the city are depicted in the book for the younger child.</td>
</tr>
</tbody>
</table>
AMERICAN SKYLINE
Tunnard, Christopher, and H. H. Reed; Houghton Mifflin, 1955, 307 pp., $5.00.
Links the development of our cities with the broad cultural manifestations of our history. A social and visual history of urban America, showing how we, by using the weapons of art and our traditions, can plan the future urban place. Illustrated sparsely with our accomplishments to date.

THE CITY OF MAN
Tunnard, Christopher; Scribner's, 1953, 424 pp.
A synthesis of city building, art, and architecture in cultural history relating America to its Western European antecedents; the traditions which have formed our cities, and the human qualities which next need to be brought forth in three-dimensional civic design. A possible text with the aid of supplementary visual material.

THE OTHER CITY
Vogel, Ray; David White, 1969. $4.75.
All Ages Four teenage boys explore their part of the city with their own photographs and words.

PERSPECTIVE
Vries, De, Jan Vredeman; Dover, $2.25.
8-12 73 plates with limited text depicting through perspective drawings of buildings, the most famous art of eyesight.

IT LOOKS LIKE THIS
Webber, Irma E.; Hale, 1958, unp., illus.
K-1 Shows how an object can have as many appearances as there are ways of looking at it. An unusual book which is valuable in explaining a concept which is sometimes difficult for a young child to grasp.
WHAT IT FEELS LIKE TO BE A BUILDING
Wilson, Forrest; Doubleday, 1969, illus. $3.50.
2-6
A visual book, humorous, with brief text explaining the components of architecture.

SATURDAY WALK
Wright, Ethel; Scott, 1954, unp., illus.
K-1
What a little boy sees as he walks with his father through the city.

VARIOUS DWELLINGS DESCRIBED IN A COMPARATIVE MANNER
Wurman, Richard Saul; Joshua Press, $6.95.
1-5
A delightful collection of comparative descriptive drawings of dwellings from around the world through history. Book is also helpful in understanding perspective and architectural drawings.

ARCHITECTURE AS SPACE, How to Look at Architecture
Zevi, Bruno; Horizon, 1957, illus., $10.00.
10-12
The author suggests that the reality of a building is not its roof or its walls, but rather, the space they enclose.

LATER ADDITIONS:

CITY IN ALL DIRECTIONS
10-12
The sights and sounds experienced by those who live in the city are the subjects for the poetry in this anthology.

MEN OF MODERN ARCHITECTURE
Forsee, Aylesa; McCrea-Smith, 1965.
7-9
The life and works of architects who are involved in the shaping of our environment. Well-written. Illustrated.

ART IN EVERYDAY LIFE
10-12
Basically a textbook for home economics classes, the authors have tried to create a concern for style and beauty, an appreciation for these qualities and how to apply them in our surroundings both in our own homes and our cities.
BUILDING A SKYSCRAPER
Iger, Martin; Young Scott Books, 1967.
7-9 The building of 90 Park Avenue, N. Y. Follows
the stages of construction from beginning to end.
Glossary.

FATHERS OF SKYSCRAPERS
Kaufman, Mervyn; Little, 1969.
7-9 A biography of Louis Sullivan, turn-of-the-
century Chicago School architect.

GOGGLES
K-3 Colorful collage illustrations depict young boys
at play in the inner-city.

DOWNTOWN: OUR CHALLENGING URBAN PROBLEMS
7-9 Discusses with great perception the broad spectrum
of problems which face urban areas. Well or-
organized and written in a lively style.

THE DESTRUCTION OF LOWER MANHATTAN
Lyon, Danny; Macmillan, 1969.
7-12 A stunning book of photographs which dramatically
shows the piece by piece demolition of a historic
neighborhood in Manhattan. A graphic protest
against what is going on today in many cities across
the country. An outstanding book that could be used
in many ways by a number of ages.

SO YOU WANT TO BE AN ARCHITECT
10-12 Architecture as a profession. The requirements
and training of the architect. "the challenge of
architecture," "what is architecture" suggests
that the architect must today "be in the center of
things, both socially and politically." Bibliography,
index and list of accredited schools of architecture.

THE INNER CITY MOTHER GOOSE
Merriam, Eve; Simon and Schuster, 1969.
7-12 By rewording Mother Goose and using striking
photographs, this book gives a lucid picture of the
grim existence of the children in the ghetto of a
large city. A very dramatic way of "telling it
like it is." This book should be seen by everyone
concerned with urban problems.
SO WHAT ABOUT HISTORY?
4-6
We can learn a lot about the past by examining the "junk" people leave behind. What we have kept and why we have discarded certain other things. Shows how people change their ideas, their way of life and influences which help to bring about change. Illustrated with good photographs of art objects, cities and architecture old and new.

THE AMERICAN LANDSCAPE: A CRITICAL VIEW
Nairn, Ian; Random, 1965.
10-12
Basically a picture book in which an Englishman shows what is wrong and in some cases, right in the American landscape. He travelled across the country taking pictures, so using actual examples, he points out the need for careful urban planning and the preservation of the natural environment.

THE AMERICAN AESTHETIC
10-12
Distinguishes what we have to build on through a panorama of stunning photographs. Contends Americans in the past have done badly in controlling the environment but if drastic action is demanded, we can be optimistic about the future.

THE ONLY EARTH WE HAVE
Pringle, Laurence; Macmillan, 1969.
4-9
A timely book which focuses on problems of water and air pollution and other problems brought about by twentieth-century technology. Illustrated with photographs, contains glossary and index.

COLORS
Reiss, John J.; Bradbury, 1969.
K-3
Beautifully provides color theory on an elementary level and, at the same time, supplies visual enjoyment.

CITY IN THE SUMMER
Schick, Eleanor; Macmillan, 1969.
K-3
Detailed pictures lucidly reflect life in the city environment during the hottest days of the summer.
HOW PEOPLE LIVE IN THE BIG CITY
Stanek, Muriel; Benefic, 1964.

City life in its many forms is described in this textbook. Schools, recreation, housing and public services are some of the topics discussed. Adequately illustrated with photographs and drawings. Simple vocabulary.
BOOKS: ACTIVITY RESOURCES

DIVERSIONS AND PASTIMES
Abraham, R. M.; Dover, $1.00
A "things to do book" helpful in developing class projects.

THE HOW AND WHY WONDER BOOK OF BUILDING
Barr, Robert; Grosset & Dunlap.
Paperback that "children in Structures classes have enjoyed."

BUILDING AN IGLOO
Education Development Center, Cambridge, Mass.
16 illustrations depicting how to build an igloo.

CARDBOARD CARPENTRY
Education Development Center, Inc., 55 Chapel
Street, Newton, Mass. 02160., 39 pp., illus.
Pamphlet with photos of cardboard toys, furniture, etc., being constructed by teachers and upper elementary children. Some techniques are shown. Obtain book and further information from publisher.

IT'S SO SIMPLE - CLICK + PRINT
Education Development Center, Inc., 55 Chapel
Pamphlet written and illustrated by 6th grade children on how to take and develop photographs.

STRUCTURES
A pamphlet giving inspiration, materials technique, and examples of constructions out of clay, straws and pins, paper tubes. It includes projects such as bridges, test stands and community constructions (model cities).
THE CITY BOOK  
Freedman, Dorothy and Geraldine Richelson; Harlin Quist, Inc., $1.95.  
All Ages  
A collection of puzzles and games and stories and riddles, designed to make children aware of their city.

MAPPING  
Greenhood, David; University of Chicago, $2.95.  
4-12  
No other medium carries as much information accessible at a single glance as do maps. This book serves as an introduction to map use, construction and meanings.

THE MYSTERIOUS FLEXAGONS  
Jones, Madeline; Crown, $1.95.  
3-12  
A "How to" book about the making of paper flexagons and some information about their geometry. Fascinating.

HOW TO BUILD AN IGLOO  
All Ages  
Brief discussion of the Eskimos' social structure and architecture.

TANGENTS IX  
Koppers Co., Inc., Koppers Building, Pittsburgh, Penn. 15219.  
All Ages  
How to design a home when the most important thing you will ever own is an egg.

PAPER ART and CONSTRUCTIONS  
Whitman Publishing Co.  
Both "offer a wide range of building ideas that children will find easy to understand."

ARCHITECTURE: A BOOK OF PROJECTS  
Wilson, Forrest; Reinhold, $6.95.  
A book of projects helpful in understanding structural principles, classic symmetry, scale and space. Extremely helpful for classroom building and construction projects.
CARDBOARD CARPENTRY, DRAWINGS AND SKETCHES
The Workshop for Learning Things, 55 Chapel St.,
A booklet with suggestive ideas.

CARDBOARD CARPENTRY WORKSHOP
"Tells of many of the experiences adults have had as they discovered the many uses for this cardboard in a teacher-training workshop."

CATALOG
Includes kits to do cardboard carpentry, mechanical building, soapstone carving, photography and list of publications on the same subjects.

LATER ADDITIONS:

FUN WITH SHAPES IS SPACE
Hughes, Toni; Dutton, 1960.
Instructions for making three-dimensional constructions including string constructions. Directions are easy to follow and utilize materials that are readily available; string, wire, cardboard, sticks.

CREATING WITH PAPER
Using paper as a creative art medium, methods of bending, folding, scoring are explained before getting into instructions for making models, geometrics, solids and moving forms. Profusely illustrated with photographs and drawings clearly showing how to construct examples shown in the book.

THE ART OF THREE DIMENSIONAL DESIGN
A how-to-do-it book that shows how to create three dimensional design using basic geometric shapes.
BOOKS: RESOURCES FOR TEACHERS

THE CULTURAL RESOURCES OF BOSTON
The American Federation of Arts, N. Y.; The Institute of Contemporary Art, Boston, 1965; distributed by October House, Inc. Map. Biblio., 5-1/4 x 8-1/2", 136 pp., 72 illus., $2.00 paperback, $5.00 hardback.
Articles covering drama, music, libraries and fine printing, the visual arts, architecture and the sciences. Institutional and gallery listings.

COMMUNITY AND PRIVACY
Chermayeff and Alexander; Doubleday Anchor, 1963, $5.95 hardback, $1.75 paperback.
Carefully researched and detailed analysis in which the authors propose a new type of urban order. In that order clearly defined domains are structured so that specific needs can be fulfilled without interfering with other activities in both public and private environments responsive to the humaness of man.

THE CITY IS THE PEOPLE
A planner looks at current urban problems against the background of world antecedents, and American precedents. Thoughtful reading.

CHILDREN OF CARDOZO -- TELL IT LIKE IT IS
Compiled from the "questions, writings, and drawings of Model School Division Children, grades 1 - 8, District of Columbia Public Schools." Excellent example for teachers, of creative writing and art which express deep feelings of the participating students.
TAMING MEGALOPOLIS

Eldridge, H. Wentworth; Doubleday Anchor, $2.45.

Two volume collection of more than 60 experts in their respective fields. Volume One is concerned with what the megalopolis is today and what it could be in the future. Volume Two discusses how to manage in an urbanized world. An excellent collection of essays that brings together a diversity of ideas about the complex process of change as the world modernizes and urbanizes.

ENVIRONMENT AND CHANGE: THE NEXT FIFTY YEARS

Ewald, William R., Jr., Editor; Indiana University, 1968, 397 pp., $4.95 paperback.

Great issues of the day discussed by important thinkers. Seeks to define the human scope of the term "environment," the forces of change, the competence we have so far developed to cope with change, the roles of the individual society, youth, and technology in the future. Essentially philosophical, a collection of papers sponsored by the American Institute of Planners.

ENVIRONMENT AND POLICY: THE NEXT FIFTY YEARS

Ewald, William R., Jr., Editor; Indiana Univ., 1968, 459 pp., $4.95 paperback.

The great issues of the day discussed by noted thinkers. A collection of papers sponsored by The American Institute of Planners deals with the coordination of the forces that shape the modern city. Two comments follow each paper. Examples are Lynch's "The Possible City," dealing with physical and esthetic form as they serve human urban life; and Abram's "Housing in the Year 2000" which is challenged by Eberhard.
ENVIRONMENT FOR MAN: THE NEXT FIFTY YEARS  
Ewald, William R., Jr., Editor; Indiana Univ.,  
$2.95.  
A collection of papers written during the first half of a two-year research project conducted by the American Institute of Planners during which they hoped to define and begin working toward "Optimum Environment with Man as the Measure." Concern for integrating science with society during the next fifty years is expressed through these writing of microbiologists, architects, psychologists and others.

OPERATING MANUAL FOR SPACESHIP EARTH  
Fuller, R. Buckminster; S. Illinois Univ., 1968, $4.25  
Although a succinct summary of what has been on this futurist/architect's mind for years, both his illusory language and complex message make demands on intellect. It is a short work in which he considers the planet Earth as a traveling spaceship. He has an overview well into the 21st century.

BEYOND THE MELTING POT  
Housing and neighborhoods are part of this sociological study of the influences of the values of five ethnic groups on the city (here New York.) The Negroes, Puerto Ricans, Jews, Italians and Irish are considered.

COMMUNITAS  
Goodman, Paul and Percival; Vintage, $1.45.  
The authors, one a novelist, critic and playwright, the other an architect and professor, analyze city plans of the past and consider alternatives of the future. They offer a guide to the thoughtful planning of cities that provides a means of livelihood and a way of life. The book is witty, penetrating and quite easily read.
SYNECTICS
Gordon, William J. Collier Books, $1.25.
The result of 15 years experimentation in the
training of creative capacities. The synectics
theory holds that people can be more creative
in developing solutions to problems of science,
education, and the arts, if they understand the
psychological process by which they work.
While studying our man-made environment we
can employ the synectic process of making the
strange familiar and making the familiar strange
as a fresh approach to seeing what we look at
every day.

MEGALOPOLIS
Gottmann, Jean; M.I.T., $3.95, illus.
As a study of the Northeastern Seaboard of
the United States today and how it grew into
a continuous stretch of urbanization, this book
offers insight into this unique region. It is a
statistical work, crammed with facts and is
not easy reading.

GARDEN CITIES OF TOMORROW
Howard, Ebenezer; M.I.T., $1.95.
A classic, originally published in 1898. Howard
considered the development of a balanced com-

munity one in which the urban and rural patterns
and functions are interrelated. His utopian urban
concept is still respected by city planners as they
re-evaluate the city's structure through its needs.

THE DEATH AND LIFE OF GREAT AMERICAN CITIES
Jacobs, Jane; Random House, $5.95.
A remarkable work that suggests what gives
life and spirit to a city and what makes a city
work. The author concludes that the very ele-
ments that make a city function from a humanist's
point of view are the ones that city planners fre-
quently eliminate when rebuilding our cities. She
considers some of the dangers of change as per-
ceived through conventional redevelopment prac-
tices. An excellent readable book of general
observations on the city.
THE YEAR 2000
Kahn, Herman and Anthony J. Wiener; MacMillan, $9.94
A framework for speculation on the next thirty-five years, this book contains most of the basic methodology of future study through statements of multifaceted trends, projections, scenarios. The accuracy of the author's projections can not be known at this time but their current statistics and fantasies are possibly the most thorough we have at this time.

CHILDREN AND ARCHITECTURE
Kutsenkow, F. Corrine; Master of Architecture Thesis, University of California, Berkeley.
Written with the aim of advancing "visual literacy in our society," chapters on the "Potential of Children" and suggestions for the "Structuring of an Architectural Program" would be thought-provoking for anyone developing environmental awareness programs.

THE IMAGE OF THE CITY
Lynch, Kevin; M.I.T., $2.95.
The author delves into the value of "Imageability" as a potential guide for the building and rebuilding of cities. He identifies the elements of the environment and then discusses how we are affected by our visual perceptions of them. A short, very interesting book.

TWO BLOCKS APART
Mayerson, Charlotte Leon; Avon, $ .60.
The lives of two boys, from New York City, Juan Gonzales and Peter Quinn, are contrasted in this short book that was edited from a series of tapes made during interviews. Although they live only two blocks apart, they don't know each other and are separated culturally by worlds. How they respond to their home, school and neighborhood is very enlightening as we learn how the environment affects them.

THE URBAN PROSPECT
Mumford, Lewis; Harcourt, Brace & World, $2.45.
This book offers one well-respected authority's concept of the modern metropolis and the problems it faces today and tomorrow as well as his proposal for a new urban form that provides for social complexity without destroying the land and its inhabitants.
THE WHOLE EARTH CATALOGUE
Pa. Portola Institute, Inc., $4.00.
The Whole Earth Catalogue functions as an evaluation and access device and lists in its continuously updated issues, books or items that are useful as tools relevant to independent education. Its table of contents is divided into the categories of Understanding Whole System, Shelter and Land Use, Industry and Craft, Communications, Community, Nomadics, Learning. It is indispensible as a tool for procuring current information.

MEDIEVAL CITIES
Saalman, Howard; George Braziller, $2.95.
A critical look at the medieval city and the economic, social and political forces that shaped it.

STRUCTURE IN ARCHITECTURE
Salvadori, Mario and Robert Heller; Prentice-Hall, 1963, illus.
An exposition of ways to span space.

MAN IN METROPOLIS
Schlivek, Louis B.; Doubleday, $7.50.
A non-fiction book about fifteen individuals and how they interact with their environment. Each person relates to the city from a different social and economic position.

THE FITNESS OF MAN'S ENVIRONMENT
Smithsonian Institution Press, $5.95.
A collection of papers that were delivered at the 1967 Smithsonian Institution's Annual Symposium. The authors, biologists, architects, anthropologists, and others, all feel that man can no longer afford to alter his environment in fragmented unrelated actions without developing new guidelines for these changes.
RESEARCH AND DEVELOPMENT: ADVANCES IN EDUCATION

U. S. Dept., of Health, Education, and Welfare;
Sup't., of Documents, Wash., 20402, 107 pp., illus., $1.50.

Vignettes showing how some of the innovative educational programs supported by the Office of Education's Bureau of Research are "making a significant contribution to the improvement of learning." Some related to environment.

PLANNING FOR A NATION OF CITIES

Warner, Sam Bass, Jr., M.I.T., $2.95.

A collection of short essays concerning the challenges confronting our cities. The authors go beyond the immediate problems of urban renewal and the antipoverty program. They consider a possible trillion dollar transformation of our cities into interacting environments rather than physically and financially independent centers of activity. They approach the problems of mobility, management and politics creatively.

LATER ADDITIONS:

THE LANDSCAPE WE SEE

Eckbo, Garrett; McGraw, 1969.

A detailed look at "the processes which shape the landscape, both in quantity and quality." An excellent bibliography.

PRIMER OF PERCEPTION

Gordon, Stephen and Jenifer Wyman; Reinhold, 1967.

Uses photographs to teach visual awareness. Included are four units pertaining to one area of "perceptual experience." Very little text.

ADVENTURE INTO ARCHITECTURE

Grad, Bernard J.; Arco, 1968.

A look at the world of the architect, his education, what he does and how he works. For career orientation and for layman's knowledge of those shaping our environment.
THE HEART OF OUR CITIES
The planner architect discusses what makes a city, what are its problems and what can perhaps be done about them.

ARCHITECTURAL ENVIRONMENT AND OUR MENTAL HEALTH
How the well-being of man is affected by architectural environment and the use of space. The author hopes to "offer a philosophical approach to architecture, a redefinition that can provide significant help towards planning our urban environment."

SURVIVAL THROUGH DESIGN
Contends that man must sensibly design his cities, homes and everyday objects to make his environment habitable.

AMERICAN ARCHITECTURE AND URBANISM
Scully, Vincent; Praeger, 1969.
A history of architecture and city planning in America written by a distinguished architectural historian. Interesting reading and a useful reference book.

MAN-MADE AMERICA: CHAOS OR CONTROL?
Tunnard, Christopher and Boris Pushkarev; Yale University Press, 1963.
A careful look at the urban-rural fringe areas that fill the space between cities. With a "minimum of forethought and a modicum of taste and a reasonable outlay of public and private funds these vast vistas can be transformed into something a little less hideous to look at." Intended for professionals but useful for laymen.
PERIODICALS

"MAN'S RESPONSE TO THE PHYSICAL ENVIRONMENT"
G. W. Winkel

"COMPREHENSION OF THE EVERYDAY PHYSICAL ENVIRONMENT"
K. H. Craik

"ENVIRONMENTAL EDUCATION FROM KINDERGARTEN ON UP"
E. P. Berkeley

"EXPRESSIVE ENVIRONMENT"
S. Brower

"REFLECTIONS ON ENVIRONMENT"
B. Thompson

"VISUAL SQUALOR, SOCIAL DISORDER OR A NEW VISION OF THE 'CITY OF MAN'"
B. Thompson

"THE WORLD AROUND US: TOWARD AN ARCHITECTURE OF JOY AND HUMAN SENSIBILITY"
B. Thompson

"CREATING AN ENVIRONMENT"
P. B. Johnson
Art Education 21:16-18, December 1968.
"DESIGN AND ALIENATED YOUTH"
H. L. Cohen
Teacher
Resource
Art Education 21:24-5, June 1968.

"DEVELOPING ENVIRONMENTAL AWARENESS IN THE SCHOOLS"
J. Tanzer and others.

"PRAGMATIC APPROACH TO THE TEACHING OF ENVIRONMENTAL DESIGN"
R. B. Kann
Art Education 20:11+, December 1967.

"WE LOOK; WE DO NOT SEE"
F. V. Mills
Arts and Activities 64:14-18, September 1968.

PARENT/TEACHER GUIDE TO SESAME STREET
Many of the books and activities listed are excellent environmental awareness materials.

"ENVIRONMENTAL DESIGN: AN INTRODUCTION"
M. Jay

"ENVIRONMENTAL PERCEPTION: CAN SCIENCE REALLY HELP"
P. Jay

"ECOLOGY: MAN SHAPES HIS ENVIRONMENT"

"MAN AND THE SPACE AROUND HIM"
C. A. Doxiadis
"AESTHETIC DIMENSION OF ENVIRONMENTAL RESPONSIBILITY; A PROPOSAL FOR CURRICULUM INNOVATION IN AESTHETIC EDUCATION"
R. A. Smith
(Grades 7-12)

"DESIGN: A WAY OF SEEING"
School Arts 67:21-8, January 1968.

"DRAWING FOR ENVIRONMENTAL AWARENESS"
A. P. Taylor

"THE RENEWAL OF CITIES"
Glazer
Scientific American, September 1965, pp. 195-204.
Extremely worthwhile reading on the subject of urban renewal.

"CAN MAN SURVIVE LIFE IN BIG CITIES?"
An interview with Rene Dubos.
FILMS AND FILMSTRIPS
Of General Interest

THE AQUARIUM
National Fisheries Center and Aquarium,
Dept. of Interior, Rm. 2013, 18th &
C Sts. N. W., Wash., D. C. 20240, 1967,
15 min. color.
A sensitive, beautifully conceived and photo-
graphed film which delineates the archi-
tects' (Roche and Dinkeloo) philosophy and
preliminary studies for the new national
aquarium.

ALEXANDER CALDER: SCULPTURE AND CON-
STRUCTIONS
Museum of Modern Art, 1944, 11 min.
How Calder interprets, with wire and metal
mobiles and motorized constructions, his
concept of time, space and movements; and
how his work is related to other contem-
porary art.

ANTONIO GAUDI
Sale: Center for Mass Communication, Col-
umbia Univ. Rent: Yeshiva Univ. Film
Library, 27 min., color.
The Spanish architect's highly fanciful play
park, and building environments. Insights
into a very creative man.

ART AND MOTION
Encyclopedia Britannica Educational Corp.;
1952, 14 min., color.
Imaginative explanation of the principles of
motion as expressed in modern art.

ART HERITAGE
Standard Oil Co.; 28 min., color.

ART IN OUR WORLD
Film Associates; 11 min., color.
What to look for in art and how to interpret
it.
THE ART OF SEEING
Warren Schloat; 6 filmstrips, color, sound.
Includes: "How to Use Your Eyes," Parts I & II, "Lines, Colors, Shapes, Space."
These filmstrips explore the mysteries of the artist's language and the vocabulary of the visual.

ART - WHAT IS IT?, WHY IS IT?
Encyclopedia Britannica Educational Corp., 30 min., color.

BELO HORIZANTE
U. S. Office of Inter-American Affairs, 1944, 18 min.
Story of Brazilian city which was planned before a single house or street was built.

BIG CITY - U.S.A.
Eye Gate House, Inc., 1968, filmstrip.
Eight filmstrips which depict life in a big city. Others are:
"Housing in Big City" "Police Protection"
"Food for Big City" "Fire Protection"
"Big City Workers" "Public Utilities"
"Fun and Recreation"

BUILDING LINES
International Film Bureau; 1963, 4 min., b/w.

CALIFORNIA

CALIFORNIA: THREE IMAGES - 1966
California Council, A.I.A.; 25 min., color.

CAMPING - A KEY TO CONSERVATION
A discouraging view of the widespread misuse of public recreation facilities by careless citizens is followed by good camping practices as learned by a thirteen year old boy on his first overnight camping trip.
THE CHANGING CITY
Churchill Films; 1963, 16 min., color.
Describes the economic, social, and cultural advantages of the city that have caused its enormous growth; contrasts the advantages of new suburban homes with some of the serious problems raised by their proliferation; discusses the problems created by the automobile and the rehabilitation of the decaying core of the city, and considers the need for coordinated planning among conflicting districts and jurisdictions.

CITIES IN CRISIS: WHAT'S HAPPENING?
Universal Education and Visual Arts; 1966
21 min., color.
An impression, without words, of a large American city allows the viewer to identify urban problems and prompts him to consider solutions. Without listing the problems, the camera tour focuses on housing, highways, shopping, entertainment, air pollution, architecture, air traffic, people—the gamut.

CITY BY DESIGN
John C. McComb; 27 min., color.
An Alcoa Project.

THE CITY COMMUNITY
Encyclopedia Britannica Films, Inc.; 1950
Set of films which show aspects of life in the city. Included are:
"The Future of Our Town" "How Our Town Grew"
"Living in the City" "Working in the City"
"Business in the City" "Problems of the City"
"Here is the City" "Keeping the City Alive"

CITY IN TROUBLE
Stuart Finley, Inc., 1960, 20 min., color.
Washington, D.C. problems and attempts at planning.
A CITY IS MANY THINGS
Churchill Films; 5 filmstrips, color, silent.
This filmstrip portrays an urban child's introduction to his environment.

A CITY REBORN
Sterling Movies, Inc.; 1966, 21 min., color.
A chronological view of the problem of the mall in Fresno, Calif., past, present and future.

CONSERVATION AND OUR FORESTS
Film Associates; 15 min., color or b/w.

CONSERVING OUR NATURAL RESOURCES
Film Associates; 17 min., color or b/w.

CONSIDER THE CHALLENGE
Association Films, Inc.; 14 min., color.

EERO SAARINEN ARCHITECT
Center for Mass Communication, Columbia Univ., 29 min.; color.

ELEMENTS OF ART
Curriculum Films, Inc.; 1952.
A series of filmstrips which explain the basic concepts of art. Included are:
"Lines" "Proportion"
"Shapes" "Color"
"More Shapes" "Using Color"
"Solid Shapes"

EXHIBITION IN MOSCOW
Herman Miller, Zeeland, Mich., 49464; '59, 55 min., color, available at no charge.
Despite this film being 11 years old, it is an excellent, interesting, detailed, and beautifully photographed portrait of Moscow - its parks, streets, boulevards, and people.
THE ENCHANTING BUSCH GARDENS OF LOS ANGELES

EXPRESSIONISM
Film Associates; 7 min., color.

FAST IS NOT A LADYBUG
Film Associates; 1958, 11 min., color.
An explanation for young children of the meaning of fast and slow, based on the book of the same title by Miriam Schlein. Illustrations by Leonard Kessler show that "slow is like a ladybug crawling on a leaf," and "fast is like a ball when you throw it." Also develops a subjective way of thinking about relative speeds: the fun of going fast and the nice feeling of being lazy sometimes.

FIDDLE DEDEE
Film Associates; 4 min., color.

GRAND CANYON
Dudley Pictures; 1947, 9 min., color.
A survey of the geological and scenic highlights of the Grand Canyon and a glimpse of the Havasupai Indians.

HENRY MOORE: A MAN OF FORM
Film Library; 28 min., b/w.

HERITAGE OF SPLendor
Alfred Higgins; 1963, 18 min., color.
A beautifully photographed argument for the need to conserve our parks and recreation areas, and to keep them free from litter. Shows the importance of these natural resources for man's refreshment today and for generations to come.
HOUlNG AND NATURE
Tribute Films; 1966, 24 min., color.
Produced by the Embassy of Finland; a
handsome, sensitive survey of the urban
problems in Helsinki which are not as
perplexing as those in this country.
Beautiful photography and graphics en-
hanced by the unfamiliar locale. An
engaging treatment of a subject which
is frequently recorded with a heavy
hand.

HOW TO LOOK AT A CITY
George C. Stoney Assoc.; 1964, 29 min.
Against the kaleidoscopic background of
New York City's tenements, bustling.

HOW TO MAKE A MASK
Film Associates; 11 min., color.

THE LANGUAGE OF CITIES: VISUAL AID
SUPPLEMENT
See: Bibliography Books: Students Resources,
Hosken, Franziska.

LINES
Caswell C. Elkins Co.; filmstrip; 27 frames,
color.

LINES HORIZONTAL
National Film Board of Canada; 1961, 6 min.,
color.
Animation of lines by Norman McLaren and
Evelyn Lambert.

MAKING A MURAL
Encyclopedia Britannica Educational Corp.;
11 min., color.
The complete process of making a Kansas
City department store mural by Thomas
Hart Benton.
MAKING A MURAL

MAKING MARIONETTES AND PUPPETS
Encyclopedia Britannica Educational Corp.; filmstrip.

MAKES A DESERT
Film Associates; 10-1/2 min., color or b/w.

MAYA OF ANCIENT AND MODERN YUCATAN
Film Associates; 2nd edition, 20 min., color.

MEGALOPOLIS - CRADLE OF THE FUTURE
Encyclopedia Britannica Films; 1962, 20 min.
Produced by the Twentieth Century Fund, a factual statement of the problems of the city dweller and the necessity for planning.

MONUMENT TO THE DREAM
Excellent record of the conception, planning, and construction of Saarinen's Gateway Arch in St. Louis.

NATURE'S PLAN
Encyclopedia Britannica Films; 1953, 15 min., color.
Shows principles of natural water cycle from sea to air to earth and back.

NEW EARTH
Joris, Ivens; 1944, 22 min.
Ten-year reclamation project in which sections of the Zuider Zee in Holland were filled in to create 500,000 acres of new land.
NON-OBJECTIVE ART
Film Associates; 8 min., color.

NO TIME FOR UGLINESS
American Institute of Architects; 1965, 24 min.,
color.
Explores the way in which the population
explosion and the indiscriminate construction
of living and working spaces have defaced the
landscape in both urban and suburban areas.
Using various types of communities throughout
the United States, examples of ugly cities and
misuse of land are contrasted with places
where interested residents have transformed the
environment, or where it was originally planned
with foresight and imagination. An effective
sequence contrasts the polluted Potomac
River with the rehabilitated Arneson River
running through San Antonio, Texas. A
forceful plea for citizens to see clearly how
their environment can be improved, and to
encourage changes.

OPEN SPACE—GOING...GOING...
Modern Talking Picture Service; 1969, 28 min.,
color, available free loan.
Produced by HUD, illustrates urgent need for
acquiring open spaces in rapidly growing
areas, new ones in inner cities and suburbs.

ORANGE AND BLUE
McGraw-Hill Book Company; 1961, 15 min.,
color.
Two balls bounce around a junkyard expressing
curiosity, joy and other children's emotions.

THE PLANNED TOWN
Contemporary Films, Inc.; 1950, 15 min., b/w.
Impressive film based on Ebenezer Howard’s
Garden Cities.
POLLUTION
Tom Lehrer sings satirical calypso-type lyrics describing the extent and the threat of air and water pollution in the United States, while the camera scans nauseating scenes of filth, garbage, smoke, dirty water, and industrial waste. A memorably effective message.

QUETICO
Christopher Chapman; 1959, 22 min., color.
Solitary canoe trip across the lakes of Quetico.

RIGHT OF WAY
Sterling Movies; 1968, 13-1/2 min., color.
Shows how highways can ruin cities and how through good design and relation to other elements in the urban fabric, highways can be employed to improve urban areas.

SCHOOLS ARE BUILT FOR LEARNING
Modern Talking Picture Service, #2827; 20 min., color.

SKYSCRAPER
Brandon Films, Inc.; 23 min., b/w.

S.O.S. GALAPAGOS
UNESCO, Contemporary Films; 1965, 17 min., color.
The ancient animals of the Galapagos Islands, holding part of the story of evolution, are threatened with extinction because of human intrusion. A project to preserve them is shown being undertaken jointly by UNESCO, the Government of Ecuador and the Charles Darwin Foundation. As the scientists conduct their research and experiments, there are views of exotic creatures such as the huge turtles, amphibious iguana, giant pink crabs, sea lions, albatross, frigate birds and other varieties of sea birds.
A STUDY IN FORM
Association Films, Inc.; 7 min., color.

SUBURBAN LIVING
National Film Board of Canada; 1960, 58 min.,
Comparison of experimental, non-luxury
housing developments in foreign cities.

TOWNSCAPE REDISCOVERED
Community Improvement Program, Centennial
Commission, 524 Gloucester St., Ottawa 4,
Ontario, Canada; 1966.
The urban renewal accomplishments in a
city of 60,000, Victoria, B. C.

TRANSPORTATION - JAPANESE LIFE SERIES
Film Associates; super 8mm, color.

24TH AND TOMORROW
Frederick Martin, ACI; 22 min.
Story of a one-man crusade against the decay
of his New York neighborhood is given dra-
matic documentation through modest under-
statement. Beginning by picking up litter
on his own block of 24th St., the man is
then joined by others and eventually they
form a Neighborhood Improvement Assn.
They turn their attention to refuse disposal,
housing maintenance, citizen enlightenment
and even tree-planting. The area not only
becomes cleaner and more attractive, but
a friendlier place as all the residents work
together in the grass-roots project.

VAN GOGH - DARKNESS INTO LIGHT
McGraw-Hill; 8 min., color.

WATER
Center for Mass Communication; 1961, 15 min.,
color.
Animated drawings and live action used to
describe and suggest solutions for a world
water crisis.
THE WING ON A FLEA
Weston Woods.

WHY MAN CREATES
Modern Talking Picture Service; 1968, 25 min., color.
A beautifully-photographed, imaginatively produced, and intriguing film. Depicts the work, obstacles, frustration, and accomplishments of the creative man in a wide spectrum.

WINGS ON THE WIND
Roy Wilcox Productions, Inc.; 1961, 14 min., color.
The unique habits of a variety of birds shown in slow-motion.

WORLD IN A MARSH
National Film Board of Canada; 1958, 22 min., color.
Activities of the marshland inhabitants.

YUCATAN: LAND OF THE MAYA
Film Associates; 1962, 17 min., color.
Mayan ruins and Mayan influences today.

LATER ADDITIONS:

A DIFFERENT KIND OF NEIGHBORHOOD
Universal Education; color, 21 min.
Problems of urban renewal, importance of city planning and how they affect the population.

URBANISSIMO
Contemporary/McGraw; 8 min., color.
A humorous commentary on the modern urban civilization. The city personified as a boulevardier, proceeds to destroy the environment while watched by an old farmer.
FILMS / FILMSTRIPS
By Grade Level

AIR: A FIRST FILM
Film Associates; 1968, 9-1/2 min., color.
Primary/Elementary
Importance of air to life on earth.

BIRDS OF THE SANDY BEACH: AN INTRODUCTION TO ECOLOGY
Film Associates; 1965, 10 min., color.
Varied characteristics of birds that permit them to live together on an ocean beach.

BUTTERFLY
Film Associates; 1968, 9 min., color.
Life cycle of a butterfly. No narration.

CLOUDS: A FIRST FILM
Film Associates; 1966, 9-1/2 min., color.
Observations about clouds.

FINDING YOUR WAY TO SCHOOL SAFELY: A FIRST FILM
Film Associates; 1966, 9-1/2 min., color.

LOOK AT THAT!
Film Associates; 1969, 10-1/2 min., color.
The basic art elements of line, form, pattern, texture and color are pictured and defined. Emphasis on discovery in child's everyday environment.

THE OCEAN: A FIRST FILM
Film Associates; 1968, 11 min., color.
Influence of the ocean on all living things.

THE PROCESS OF SCIENCE: CLASSIFYING SERIES
Film Associates; captioned filmstrips.
THIS IS COLOR SERIES
Film Associates; film loops.

Primary/Elementary
Six 8 mm loops, each introduces a different color (orange, yellow, green, blue, purple) with a brilliantly photographed montage of familiar objects seen from unusual angles. Each loop approximately 3-1/2 minutes with study guide.

WATER: A FIRST FILM
Film Associates; 1968, 9-1/2 min., color.
Importance of water in our lives.

WIND: A FIRST FILM
Film Associates; 1966, 9 min., color.

NO TIME FOR UGLINESS
Sterling Movies; (Produced by A.I.A.)
4 and Up
Award-winning film sets forth problems which beset nearly all of the big and some not-so-big communities.

'A' IS FOR ARCHITECTURE
Contemporary Films; 30 min., color.
Elementary/Jr. High
Review of history of architecture with good photography.

CHANGING ART IN A CHANGING WORLD
Film Associates; 1967, 21 min., color.
5-12
How an artist selects images from a changing world.

DESIGN IS A DANDELION SERIES
Film Associates; sound filmstrips.
Five filmstrips: Design in "Nature", "Form", "Texture", "Balance", "Rhythm".
DISCOVERING ART SERIES
Film Associates.
Discovering:
"Composition in Art" 16 min., color, 1964.
"Junkyard," 10 min., color, 1969, No narration.

CITY SCENE
National Film Board of Canada; 30 min., b/w.
Elementary
Thru Adult

ELEMENTS OF ART: COLOR SERIES
Film Associates.
"Color and Space"
"Value and Intensity"

ELEMENTS OF ART: LINE SERIES
Film Associates.
"Line Techniques"
"Implied Line and Movement"
"Line and Space"
"Line as Structure, Texture, and Pattern"
"Characteristics of Curved, Vertical, Diagonal, and Horizontal Lines"

JEFFERSON, THE ARCHITECT
International Film Bureau; 1950, 10 min., b/w.
Brief look at Monticello and the University of Virginia.

RHYTHM AND MOVEMENT IN ART
Film Associates; 1969, 18-1/2 min., color.
Rhythm and movement are vital to life and to art. The artist observes and studies life movement of all kinds.
PEACE AND VOICES IN THE WILDERNESS
Film Associates; 1969, 9-1/2 min., color.
Jr. High Thru Adult
Continuing problem of man's attempt to reconcile the difference between what life is like and what it ought to be.

MAN-MADE WORLD
International Film Bureau; color, with booklets, filmstrip.
High School
Includes "Environment," "Man and Machine," "Who Cares," and "Change Is Normal." Artistic photographs of landscapes, historic buildings and physical surroundings are employed in this attempt to encourage a critical attitude toward architecture.

WHY MAN CREATES
Kaiser Corporation, Saul Bass.

THE CITY: CARS OR PEOPLE
Distributed by Sterling Educational Films; 1963.
High School and College
Study of transportation in New York, Paris and Rotterdam.

THE CITY: HEAVEN AND HELL
Distributed by Sterling Educational Films; 1963.
International views and reviews of the city.

THE HEART OF A CITY
Sterling Educational Films; 1963, 30 min., b/w.
Historical and philosophical evaluation of the city.

HOW TO LOOK AT A CITY
N. E. T. Film Service; 1964, 30 min., b/w.
An outspoken architectural evaluation of the city.
One of the eight-part "Metropolis, Creator, or Destroyer?" series.
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ACI Productions  
16 West 46th Street  
New York, N. Y. 10036

Alfred Higgins Productions  
9100 Sunset Blvd.  
Los Angeles, Calif. 90069

American Institute of Architects  
1735 New York Ave., N. W.  
Washington, D. C. 20006

Association Films, Inc.  
600 Madison Avenue  
New York, N. Y. 10022

Brandon Films Inc.  
200 West 57th Street  
New York, N. Y. 10019

California Council, A.I.A.  
1736 Stockton Street  
San Francisco, Calif. 94133  
(Attn: Melton Ferris, Exec.Sec'y)

Caswell C. Elkins Co.  
P. O. Box 329  
St. Helena, California

Center For Mass Communication  
Columbia University  
1125 Amsterdam Avenue  
New York, N. Y. 10025

Churchill Films  
662 North Robertson Blvd.  
Los Angeles, California 90069

Contemporary Films  
267 West 25th Street  
New York, N. Y. 10001

Dudley Pictures Corp.  
803 N. Rodeo Drive  
Beverly Hills, Calif 90210

Ekbo, Dean, Austin Williams  
145 Mission  
San Francisco, California

Encyclopedia Britannica Films  
38 West 32nd Street  
New York, N. Y. 10001

Encyclopedia Britannica Educational  
2494 Teagarden Street  
San Leandro, California 94577

Film Associates  
(Bailey-Film Associates)  
11559 Santa Monica Boulevard  
Los Angeles, California 90025

Film Library  
Division of Continuing Education  
131 Coliseum, University Campus  
Corvallis, California

George C. Stoney Associates, Inc.  
Brook Studios  
Brookhaven, N. Y. 11719

International Film Bureau  
332 South Michigan Avenue  
Chicago, Illinois 60604

John C. McComb  
Century City  
Los Angeles, California

Kaiser Corporation  
Kaiser Center  
Oakland, California

McGraw-Hill Book Co  
330 West 42nd Street  
New York, N. Y. 10036

Modern Talking Picture Service  
16 Spear Street  
San Francisco, California 94105
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Gruen Foundation